

# South Africa

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## Economic Update

### Focus on Savings, Investment, and Inclusive Growth

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# South Africa

## Economic Update

**Focus on Savings, Investment, and Inclusive Growth**



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# Foreword

The World Bank Office in South Africa is pleased to launch a new, biannual series of economic reports—the South Africa Economic Update. This first issue is anchored in the national aspirations of faster and more inclusive growth, with special emphasis on the issues of savings and investment.

By way of background, this genre of economic reports constitutes an important aspect of the World Bank’s analytical program in a number of middle income client countries, including Brazil, Russia, India, and China—the alliance that South Africa has recently joined, collectively now referred to as BRICS. In keeping with the established tradition, the South Africa Economic Update comprises two sections. The first section summarizes the recent economic developments, juxtaposing both global and country-level trends. The second section takes a deeper analytical look at a topic of special interest and high relevance to the country.

In the aftermath of the worst financial crisis since the Great Depression that left no country untouched, economic recovery in South

African is gathering strength, with economic growth expected to pick up to 3.5 percent in 2011. The policy emphasis now shifts back to the longer term structural issues. For South Africa, this entails raising the level of growth and making it more inclusive. The modest performance on savings and investment certainly is not consistent with the government’s objective of attaining 6–7 percent GDP growth. This is clearly brought out by the experience of successful countries that have maintained high rates of growth over sustained periods and backed by influential studies in the economics literature. The crucial challenges associated with lifting the savings and investment rates are covered with analytical depth in this inaugural issue.

We offer this report for critical review with the sincere hope that it will contribute to the national debate on an important topic and help shape informed policy decisions for sustainable economic recovery in South Africa.

Ruth Kagia  
Country Director for South Africa  
The World Bank



With considerable strengthening of the economic recovery, the focus shifts back to the challenge of raising GDP growth and making it much more inclusive

# Executive summary

The firming of the economic recovery is putting the policy spotlight back on the longer term challenge of faster, more inclusive GDP growth. Modest investment rates despite attractive returns and low savings rates despite favorable demographics are important impediments. A virtuous cycle of faster capital accumulation, job creation (especially for the youth), and technological advancement needs to be stimulated. There are no quick fixes that can produce the desired stimulus. The quest for inclusive growth calls for a different, bolder approach. Integration of the advanced and less-developed economies and more effective integration with the global economy, using Factory Southern Africa as a platform, hold considerable potential.

## Broad-based economic recovery in South Africa

South Africa's medium-term growth prospects point to a strengthening recovery. GDP growth is projected to be 3.5 percent in 2011, 4.1 percent in 2012 and 4.4 percent in 2013. The long-term potential growth rate under the current policy environment is estimated at 3.5 percent.

The ongoing global recovery should continue to support exports, but strengthening domestic demand will increase imports and moderate net contribution of trade to growth. Consumer spending is expected to remain strong, and gross fixed capital formation is forecast to grow after declining for two consecutive years. As businesses demand more labor, employment should rise and further

strengthen consumer spending. Strong government spending, as part of the countercyclical fiscal policy, will boost growth in 2011 and 2012, but is likely to wane thereafter.

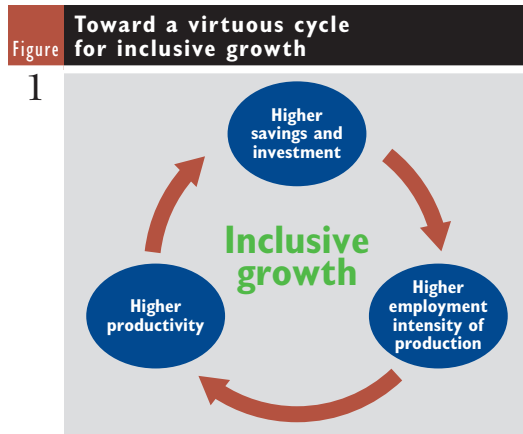
In light of South Africa's low national savings, the reemergence of high current account deficits, financed mostly through volatile portfolio flows, will reemerge as the biggest cause for macroeconomic concern over the medium term.

With considerable strengthening of the economic recovery and GDP projected to reach its potential by 2014, the focus shifts back to the longer term challenge of raising GDP growth to 6–7 percent—and making it much more inclusive to tackle the extremely high unemployment.

## Faster inclusive growth: Focus on savings and investment

Confronted with widespread and persistent exclusion and unemployment, policy makers in South Africa have rightly set their eyes on a trajectory of faster, more inclusive GDP growth. This will require lifting the current low rates of investment and savings, more intensive use of labor, and heavy doses of productivity enhancements.

A suboptimal equilibrium of low rates of savings and investment—low employment intensity of production—slow productivity growth has emerged in South Africa (figure 1), undermining the quest for inclusive growth. A stimulus to any one of the three elements can generate a virtuous cycle of faster capital



accumulation–job creation–technological advancement.

Employment-intensive growth would enhance productivity by skilling and tooling the unemployed labor force. Tackling youth unemployment will enhance the benefit from the favorable demographics and raise savings. Productivity enhancements, in turn, will raise GDP growth and attract private investment, while lessening the burden on investment and saving to support higher growth. Just as higher savings rates will need to underpin higher growth over the long run, higher incomes, especially among the lower end of the income spectrum, will raise the level of savings.

#### What explains the low investment rates?

The low private investment rates could mean one of two things: either the real returns to capital are low, or private investors are not responding to changes in real returns because of risk perceptions or structural barriers to investment. Our research shows that returns are high across most major sectors and have been increasing since the mid-1990s: South Africa ought to be an attractive place for investment. This suggests that the real problem might be insufficient savings, rising risk perceptions or deeper structural impediments.

Four issues stand out in this regard:

- *Industrial competition* is much weaker in South Africa than its international peers. This points to entry barriers that discourage new investment despite high returns.
- *Skills development* remains an important deterrent for firms, new and old, looking to expand their business. The problem

starts with basic education, where access has improved, but quality has not. Test scores show South Africa faring miserably relative to global comparators. With intakes largely ill-equipped with cognitive skills, the problem only gets compounded at the higher and technical education levels.

- *Labor relations* are much more contentious in South Africa than other emerging market economies. This is an implicit tax on investment, partly explaining why global investors, armed with options, have eschewed long-horizon opportunities in South Africa. In addition, wage levels relative to worker productivity are significantly higher than among South Africa's peers, also discouraging new investment.
- *Savings rates* are low, as discussed below.

#### What explains the low savings rates?

South Africa's savings rates have been significantly below the potential suggested by its economic and structural characteristics. Our analysis suggests that visible improvements in the national savings rate will depend most of all on:

- *Resolving the high youth unemployment.* The young-age population ratio in South Africa fell from 58 percent in 1996 to 47 percent in 2009. This demographic group is still under 30 years of age and, according to employment statistics, facing acute unemployment. Resolving the unemployment problem for this group holds tremendous potential for increasing the savings rate.
- *Ensuring a productivity-led spurt in GDP growth.* Substantial increases in economic growth are typically accompanied by increased savings, as consumption patterns tend to change more slowly, in line with the habit formation hypothesis. The increase in savings, in turn, lays the foundation for sustained high growth over the long run.
- *Fiscal consolidation* as envisaged by National Treasury should have a desirable effect on national savings. Global experience shows that permanent increases in public savings tend to increase national savings. Furthermore, reductions in recurrent public spending tend to be more effective than increases in tax collection.

## **The way forward**

How to jumpstart the virtuous cycle of faster capital accumulation, job creation, and technological advancement? No quick fixes or small perturbations will produce dramatic results. The quest for inclusive growth will require, above all, a significantly different mindset. Two major pushes, both in the spirit of creative and bold thinking, seem to hold the most potential—one requiring a more intensive inward look, and the other an outward look.

### **More effective internal integration**

A big push is needed to better integrate the advanced economy and the less-developed economy, marked by the spatially separated townships and informal settlements where the bulk of the unemployed live. Faster growth will have to come from the less-developed economy, which has the potential to take off in the same way that other successful emerging market economies have. Ways will have to be found to exploit the “arbitrage” between the two economies to ensure that capital flows

into, not out of, the less-developed economy, and that labor is more mobile toward the advanced economy while entrepreneurs have greater access to its markets. Integrating the two economies will require a big push on public transport infrastructure while implementing programs to enhance financial inclusion and improving the cognitive and technical skills of youth.

### **Smarter regional integration**

More effective integration with the global economy is needed based on South Africa’s latent comparative advantages, particularly its two surplus endowments in natural resources and unemployed labor. South Africa should be an attractive destination for long-term global investment but it is not. A clear, consistent, and predictable strategy for attracting foreign direct investment will be important in this regard. Factory Southern Africa can underpin South Africa’s competitiveness in global markets, based on nimble “win-win” regional production supply chains.

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**A big push is needed  
to better integrate the  
advanced economy and  
the less-developed  
economy**





## SECTION I

# Recent economic developments and prospects

**Economic recovery in South Africa has continued to gather strength**

### **Global trends: Developing countries lead global recovery**

The global economy recovered to an impressive 3.8 percent growth in 2010 after having contracted 2.2 percent in 2009 (World Bank 2011d). Developing countries, with their GDP growth accelerating by 5.4 percentage points in 2010, contributed almost half the year's global growth. This was aided by their vibrant domestic demand, resurgence in international trade, increased financial flows, and, for commodity exporters, higher commodity prices. High income countries also rebounded strongly from recession in 2009—to 2.7 percent growth in 2010—as countercyclical macroeconomic policies showed effect, business investment and manufacturing activity strengthened, and consumer spending consistently gained.

Global growth is projected to remain strong until 2013 (table 1.1), shaking off the mild slowdown in trade and industrial production in the first half of 2011 caused by the events in the Middle East and North Africa and the earthquake and tsunami in Japan. Developing countries would see growth easing to a still strong 6.3 percent from 2011 onward, in line with their long-term potential growth. Policy tightening and events in Japan, among other facts, would reduce growth in high income countries to 2.2 percent in 2011 before a broader recovery begins in 2012. Downside risks remain in high food prices, possible oil price spikes, and lingering post-crisis difficulties in high income countries, including high unemployment rates, fiscal

overhang, and the sovereign debt crisis in parts of Europe.

### **Recent trends in South Africa: Broad-based economic recovery**

Economic recovery in South Africa has continued to gather strength, benefiting from the positive (albeit risk-laden) global trends, GDP growth picked up from -1.7 percent in 2009 to 2.8 percent in 2010, and the momentum carried into 2011 Q1 with 4.8 percent growth (q/q, seasonally adjusted and annualized; table 1.2). Of the 10 major sectors, 8 posted positive growth in 2011 Q1, with only agriculture and construction bucking the trend. We project GDP growth to increase to 3.5 percent in 2011 and 4.1 percent in 2012, in line with National Treasury projections. Unlike the majority of other developing countries, South Africa is still not operating close to full capacity, so inflation pressures are less severe.

The recovery in the real economy has been broad-based but uneven. Output in the secondary sector remains below precrisis levels, while both the primary and tertiary sectors are 5 percent above their precrisis levels (figure 1.1). Of the major sectors, only manufacturing and agriculture are yet to recover to their precrisis levels, despite manufacturing's growing by a robust 14.5 percent in the 2011 Q1. General government services and construction have been the strongest performers since 2008 Q3, and the only sectors not to have experienced negative growth in any of the interim quarters. Mining, having benefited from higher metal

Table The global outlook, 2009–13

1.1

Indicator	Percent change from previous year, unless otherwise indicated				
	2009	2010 <sup>a</sup>	2011 <sup>b</sup>	2012 <sup>b</sup>	2013 <sup>b</sup>
World trade volume (goods and nonfactor services)	-11.0	11.5	8.0	7.7	7.7
Commodity prices					
Nonoil commodities	-24.1	27.6	20.7	-12.0	9.4
Oil price (percent change)	-36.3	28.0	35.6	-4.8	-3.3
Oil price (\$ per barrel)	61.8	79.0	107.2	102.1	98.7
Real GDP growth					
World	-2.2	3.8	3.2	3.6	3.6
High income	-3.4	2.7	2.2	2.7	2.6
Euro area	-4.1	1.7	1.7	1.8	1.9
Japan	-6.3	4.0	0.1	2.6	2.0
United States	-2.6	2.8	2.6	2.9	2.7
Developing countries	1.9	7.3	6.3	6.2	6.3
East Asia and Pacific	7.4	9.6	8.5	8.1	8.2
China	9.1	10.3	9.3	8.7	8.8
Europe and Central Asia	-6.4	5.2	4.7	4.4	4.6
Russian Federation	-7.8	4.0	4.4	4.0	4.1
Latin America and the Caribbean	-2.1	6.0	4.5	4.1	4.0
Brazil	-0.7	7.5	4.2	4.1	3.8
Middle East and North Africa	2.8	3.1	1.9	3.5	4.0
Egypt	4.7	5.2	1.0	3.5	5.0
South Asia	6.2	9.3	7.5	7.7	7.9
India	9.1	8.8	8.0	8.4	8.5
Sub-Saharan Africa	2.0	4.8	5.1	5.7	5.7
South Africa	-1.8	2.8	3.5	4.1	4.4
Developing countries excluding China and India	-1.8	5.5	4.5	4.5	4.6

a. Estimated.

b. Forecast.

Source: World Bank 2011d.

Table GDP growth by main sectors (value added), 2007–11 Q1

1.2

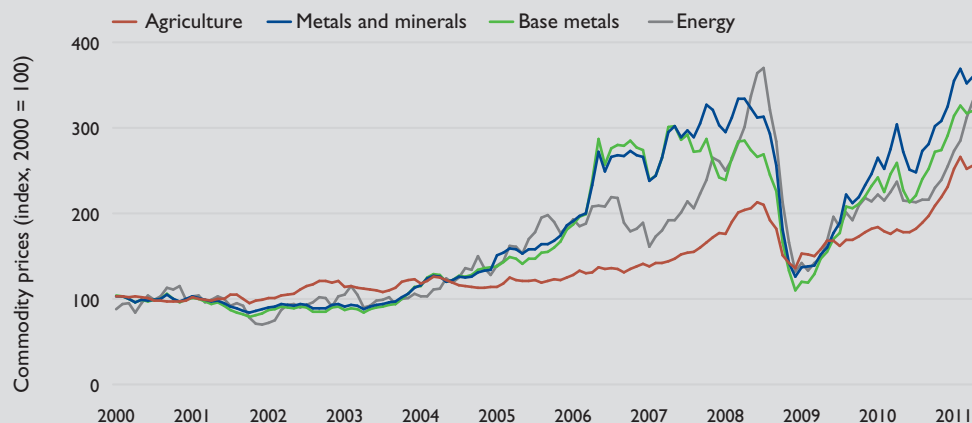
Sector	2007	2008	2009	2010	2010 Q1	2010 Q2	2010 Q3	2010 Q4	2011 Q1
Primary	0.6	-0.1	-3.9	4.3	14.7	-15.0	28.3	15.8	0.5
Agriculture	2.7	16.1	-3.0	0.9	4.9	13.6	16.3	12.5	-2.6
Mining	0.0	-5.6	-4.2	5.8	18.7	-24.5	33.7	17.1	1.8
Secondary	6.2	3.0	-7.1	4.1	6.9	4.3	-3.8	3.6	11.1
Manufacturing	5.2	2.6	-10.4	5.0	8.3	5.7	-4.9	4.1	14.5
Electricity	3.4	-3.1	-1.6	2.0	4.9	-1.7	-2.2	5.6	3.3
Construction	15.0	9.5	7.4	1.5	1.3	1.0	0.8	0.2	0.0
Tertiary	6.1	4.5	0.7	2.2	2.6	4.6	2.0	3.5	3.7
Wholesale and retail	5.3	0.8	-2.5	2.2	3.1	6.0	3.3	3.5	4.4
Transport	6.6	3.4	0.6	2.9	2.4	4.5	3.0	4.2	3.6
Finance	7.9	7.3	0.9	1.9	3.2	4.0	1.4	1.7	4.8
Government services	4.0	4.5	4.1	3.0	1.2	4.6	0.5	5.7	1.8
Personal services	5.6	3.9	-0.3	0.6	3.5	3.6	3.1	3.3	2.7
GDP growth	5.6	3.6	-1.7	2.8	4.8	2.8	2.7	4.5	4.8

Source: South African Reserve Bank.

1.1

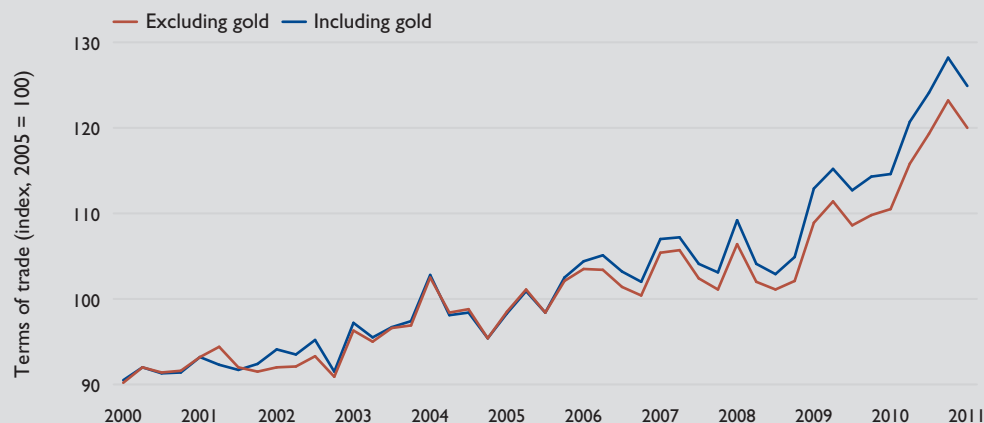
Commodity prices, up significantly since early 2009, are expected to remain high in 2011 before weakening moderately over the rest of the forecast horizon (2011–13). Robust demand from China and its above average metal intensity in production (its GDP is 13 percent of the world's total and it consumes 40 percent of global metal supplies), recovery in industrial production in high income countries, and some supply constraints have contributed to the strong recovery in metal and mineral prices. Most metal prices have at least doubled since their recession lows. In the case of platinum and gold, of which South Africa is a major producer, the price of platinum has doubled and that of gold increased more than 70 percent since early 2009, picking up South Africa's terms of trade. Metal prices are expected to rise 17 percent in 2011 before beginning to decline in 2012 as more production comes on stream.

**Box figure 1 Commodity price movements, 2000–11**



Source: World Bank Development Economics Prospect Group and South African Reserve Bank.

**Box figure 2 South Africa's terms-of-trade, 2000–11**

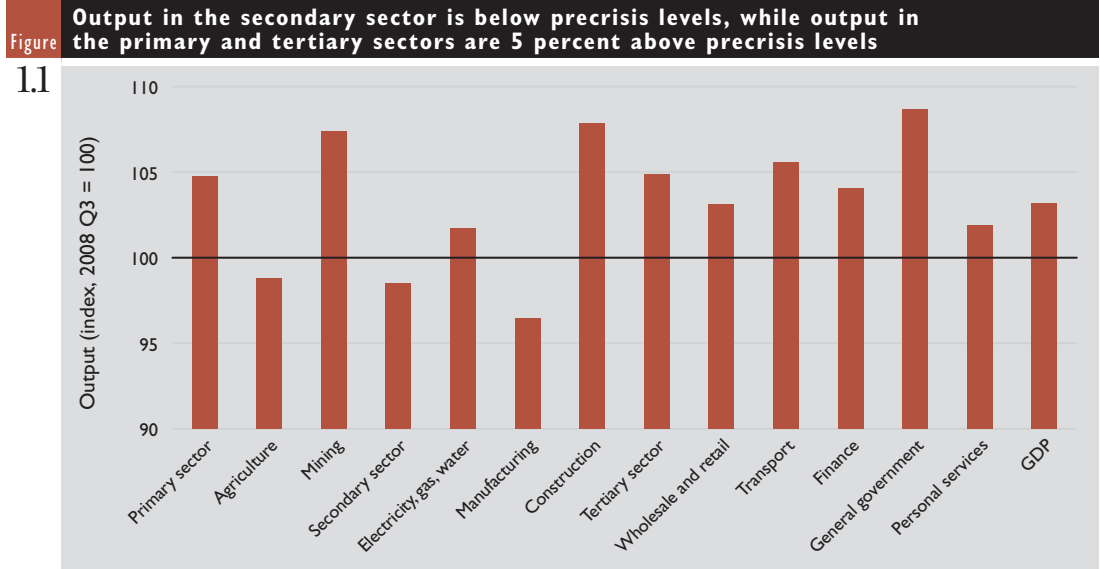


Source: World Bank Development Economics Prospect Group and South African Reserve Bank.

Despite ample supplies and spare capacity, crude oil prices began rising in 2010 Q4 given strong demand and expectations of future supply tightness. They rose even more toward the end of the year and into 2011 as political turmoil in the Middle East and North Africa disrupted oil deliveries (notably light sweet crude from Libya) and fears of further possible disruptions in the region took hold. Estimates suggest that the turmoil in North Africa has added about \$15 to the price of oil. Assuming no further supply disruptions and a gradual reduction in uncertainty about the political situation in the Middle East and North Africa, oil prices are expected to ease in the second half of 2011, averaging \$107/bbl for the year, before declining further in 2012 and 2013 toward \$80/bbl (in 2011 dollars), consistent with long-term demand and supply.

By early 2011 the food price index had reached its 2008 peak. Maize and wheat prices exceeded their 2008 highs by 2 and 4 percent, respectively, given a fall in wheat production from Central Europe due to the heat wave and a disappointing U.S. maize crop. But supplies for rice were abundant, contributing to a subdued price increase. Low stocks, delayed plantings, and higher oil prices are expected to sustain wheat and maize prices above their 2010 levels this year, with projected increases of 12–13 percent. Rice prices are forecast to remain unchanged.

The recovery in the real economy has been broad-based but uneven



Source: South African Reserve Bank and World Bank staff calculations.

prices and improved terms-of-trade (box 1.1), lost momentum in 2011 Q1 on account of wet weather and technical problems affecting gold production.<sup>1</sup> Crop production was also adversely affected by heavy rainfall and sporadic flooding, leading to a small decline after three quarters of double-digit growth.

Gross domestic expenditure continued its strong run with 8.3 percent growth in 2011 Q1 (table 1.3). Looser monetary conditions, robust wage increases, and rising financial asset and real estate valuations helped strengthen consumer confidence and provide momentum to household consumption, which has grown seven quarters in a row. Government consumption has continued to hold firm, recording

an impressive 9.5 percent growth in 2011 Q1, added in large part by purchases of military aircraft (South African Reserve Bank 2011).

Gross fixed capital formation gained further traction in 2011 Q1, with an annualized increase of 3.1 percent. Improved business confidence lifted private fixed capital formation a notch, as it, too, recorded positive but modest growth for the fourth consecutive quarter. Recovery in this component is still partial, however, with its level in 2011 Q1 remaining 13 percent below the precrisis 2008 Q3 level. Fixed investment by general government, by contrast, has fallen nine quarters in a row; in 2011 Q1 it stood 17 percent below precrisis levels. Robust investment by state-owned enterprises, with

**Table 1.3** Gross domestic expenditure growth by component, 2007–11 Q1

Component	2007	2008	2009	2010	2010 Q1	2010 Q2	2010 Q3	2010 Q4	2011 Q1
<b>Total final consumption</b>									
Household	5.5	2.2	-2.0	4.4	5.5	4.4	5.7	4.8	5.2
Durables	1.9	-9.4	-9.6	24.0	39.2	45.4	13.4	5.0	21.5
Semidurables	11.3	4.2	-1.8	6.5	30.2	9.8	-4.8	4.6	8.6
Nondurables	5.0	0.8	-2.7	2.1	12.1	-2.3	2.9	0.2	3.4
Government	4.1	4.7	4.8	4.6	7.1	7.1	-0.8	3.9	9.5
<b>Gross fixed capital formation</b>									
Private	14.0	14.1	-2.2	-3.7	-2.8	1.2	1.0	1.5	3.1
Government	8.9	9.2	-8.9	-4.4	-2.9	2.2	2.0	1.6	2.7
Public corporations	22.2	16.1	-4.0	-10.9	-10.3	-5.3	-3.0	-1.9	-0.5
Change in inventories (billions of rands)	34.8	36.2	26.1	3.5	2.6	2.9	0.7	3.3	6.6
Change in inventories (billions of rands)	19.8	-12.4	-34.5	-3.8	-7.9	-7.6	-0.9	1.1	9.3
Gross domestic expenditure	6.3	3.4	-1.7	4.2	10.9	3.2	6.6	2.4	8.3

Source: South African Reserve Bank.

emphasis on infrastructure in the utilities and transport sectors, has helped buffer the weaker performances of the private and government sectors, with its 2011 Q1 level 25 percent above the precrisis level.

Despite the improved pace, fixed investment has continued to lag the recovery in total output. As a result, the ratio of fixed investment to GDP slipped to 19.6 percent in 2010 and further to 19.0 percent in 2011 Q1, down from 23.6 percent in 2008. As discussed in section 2, to position South Africa for a higher GDP growth trajectory it will be important to ensure significantly faster increases in fixed investment.

Export volumes have supported the recovery but remain below precrisis levels. A beneficial factor has been the growing trade with China, which tripled as a share of South Africa's total trade, from less than 5 percent in 2000 to roughly 15 percent in 2010. South Africa's recent entry in the BRICS (Brazil, Russian Federation, India, China, and South Africa) bloc offers an opportunity to further develop its economic relationship with major emerging markets (box 1.2).

**Labor market trends:**

**Unemployment remains stubbornly high**

Unemployment has been worryingly unresponsive to the economic recovery (figure 1.2). Seven quarters after the end of recession that cost 869,000 jobs,<sup>2</sup> the unemployment rate stood at 25.0 percent (33.4 percent including discouraged workers) in 2011 Q1, only fractionally short of its postcrisis peak of 25.3 percent in 2010 Q3. This lack of response reflects the

structural issues that keep unemployment high in South Africa<sup>3</sup> as well as the lagged response of jobs creation to economic recovery in general.<sup>4</sup> Young people and new entrants (with a big overlap between the two groups) are the most vulnerable on the job market (figure 1.3).

Although unemployment increased across the world after the global crisis struck, the magnitude of the increase has been far higher in South Africa than most other countries (table 1.4).<sup>5</sup> Indeed, the unemployment rate fell in each of the other BRICS in 2010, after having risen in 2009, while it continued to increase in South Africa.

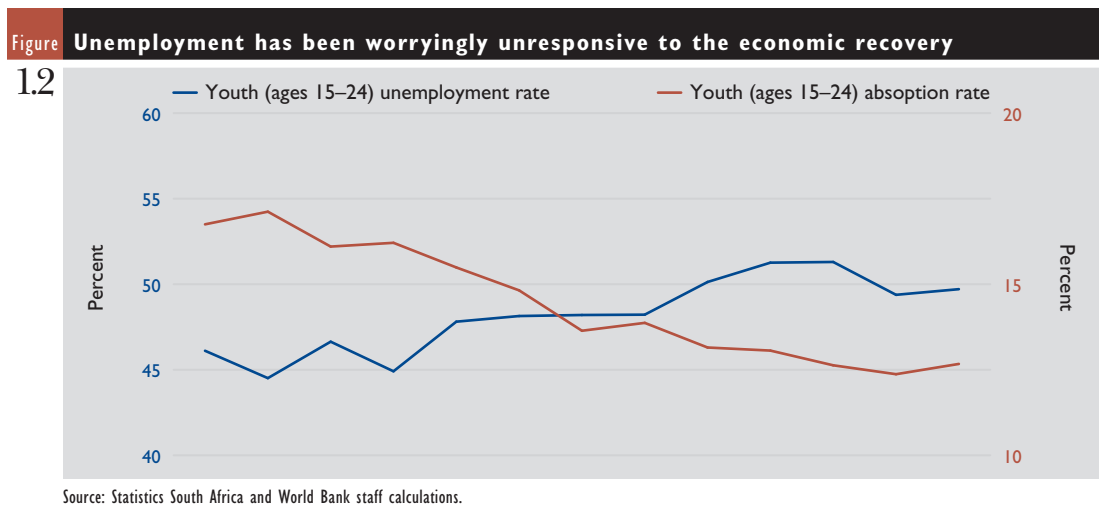
Despite the slack in labor markets, nominal wages in nonagricultural formal sector have risen well above inflation and productivity in recent years. Real wage growth far outstripped total factor productivity growth between 2005 and 2010 in the manufacturing sector, which would have adversely affected employment in the sector (figure 1.4). Between 2004 and 2010 productivity rose 18 percent while the real production wage rose 55 percent.

**Fiscal developments:**

**Unemployment an overriding concern**

The 2011 budget is anchored in a stronger economic base, with revenue projections much firmer than a year ago. The nation's overriding concern with the high unemployment and widespread exclusion understandingly guides expenditure priorities. In addition to the youth wage subsidy, a jobs fund and extension of tax credits for job-creating new investments figure prominently among the proposals to stimulate

**Despite the improved pace, fixed investment has continued to lag the recovery in output**



**Box** South Africa joins the BRICS (Brazil, Russian Federation, India, China, and South Africa)

1.2

South Africa's entry (formally on April 13, 2011) into the high-profile BRICS (with Brazil, Russia, India, and China) heralds its economic prowess and perhaps even more its recognized strategic importance as the gateway to the African continent. The acronym was coined in 2001 by the Goldman Sachs Chairman Jim O'Neill to describe the block of non-Organisation for Economic Co-operation and Development emerging countries (thus excluding Mexico and the Republic of Korea) that would dominate the global economic landscape by 2050.

The BRICS cover more than 25 percent of the world's land area and have more than 40 percent of its population. In addition to being large, they are defined by their dynamism and fast-paced growth and transformations. Over 2000–09 China, India, and Russia had annual GDP growth above 5 percent, while South Africa averaged 3.6 percent and Brazil 3.3 percent. While originally clubbed together on the basis of their economic clout and large size, the group is morphing into a geopolitical force.

**What does South Africa bring to the table?**

It is the largest economy on the African continent, which has a total population of 1 billion. It is also the continent's most sophisticated economy, with highly advanced financial markets well integrated with the rest of the world. It has a stable political environment and a proven track record in macroeconomic management. Ernst & Young, the consultancy, showed in its 2011 Africa Attractiveness Survey that investors perceive South Africa as the most attractive African country to do business. The 2010 United Nations Conference on Trade and Development World Investment Report ranked South Africa in the top 20 priority economies for foreign direct investment inflows in the world.

**What can South Africa gain?**

The BRICS association should strengthen South Africa's economic and political clout in the global arena. The BRICS as a bloc are demanding a more meaningful voice at multilateral institutions such as the United Nations, the World Bank, and the International Monetary Fund, where they are seeking major reforms; an agenda dear to South Africa. There are significant economic ties among the group, with the potential for much more. China is South Africa's largest trading partner country, having overtaken the United States in 2010, and South Africa's trade with Asia is higher than with Europe. South Africa, like Brazil and Russia, has a comparative advantage in natural resources, while China and India have huge unmet needs: the two sides are natural trading partners in that respect. The association also has the potential to make South Africa more attractive for foreign investors, especially in green-field investments, something lacking to date. On the policy front, the country has the opportunity to tap into BRICS' experience in tackling social challenges, which, in many respects, are broadly similar.

**Key indicators for the BRICS (Brazil, Russian Federation, India, China, and South Africa), 2009**

Indicator	Brazil	Russian Federation	India	China	South Africa
Population (million)	194	142	1,155	1,331	49
Gross domestic product (GDP) in purchasing power parity (PPP) terms	2,017	2,690	3,778	9,091	507
GDP per capita, PPP (current international \$)	10,412	18,963	3,270	6,828	10,278
Land area (million km <sup>2</sup> )	8.5	16.4	3	9.3	1.2
Urban population (percent of total)	86	73	30	44	61
Under-five mortality rate (per 1,000)	21	12	66	19	62
Gross savings rate (percent of GDP)	14.6	22.7	33.6	53.6	15.4
Ores and metal ores exports (percent of GDP)	1.7	5.7	6.2	1.2	29.3
Ores and metal ores imports (percent of GDP)	2.9	1.6	5.6	13.5	1.3
Portfolio inflows, net (\$ billions)	37.1	3.4	21.1	28.2	9.4
Agriculture (percent of GDP)	6.1	4.7	17.1	10.3	3
Manufacturing (percent of GDP)	14.8	15	15.9	33.9	15.1
Carbon dioxide emissions (kg per PPP \$ of GDP) <sup>a</sup>	0.2	0.6	0.5	0.9	0.9
Energy use (kg of oil equivalent per capita)	1,239	4,730	529	1,484	2,784
GDP per unit of energy use (PPP \$ per kg of oil equivalent) <sup>a</sup>	7.9	3.6	5.4	3.7	3.6

a. Data are for 2007.

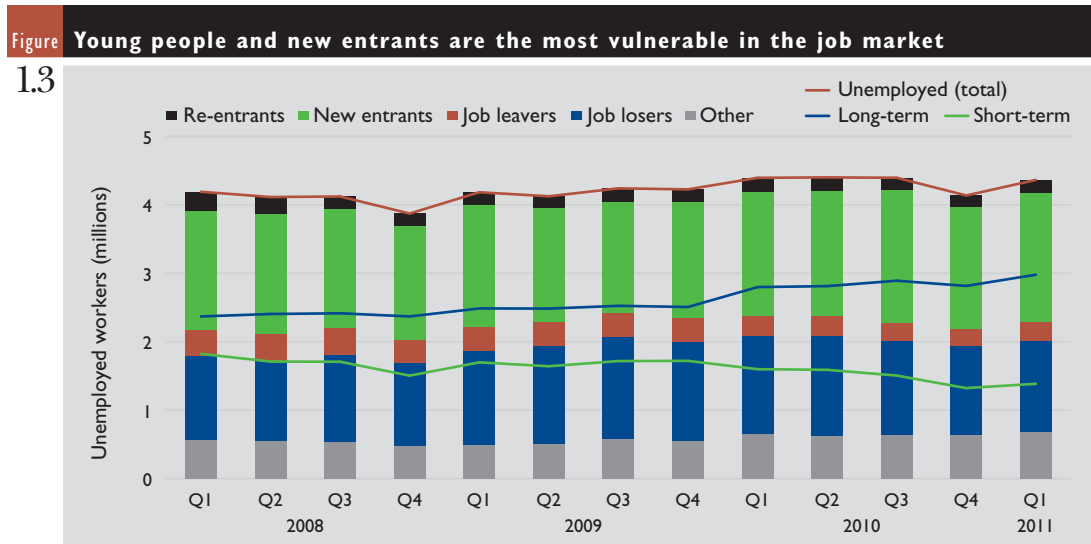
Source: World Bank.

demand for labor. There is renewed emphasis on further education and skills development to boost employment generation from the labor supply side. Social grants continue to figure prominently in the budget, understandably given the massive exclusion levels in the economy. The public sector (including public enterprises) will remain heavily engaged in removing infrastructural bottlenecks to growth. Renewable energy, environmental protection, and “green” economy initiatives also find emphasis in the budget, with South Africa hosting the COP17 event toward the end of the year.

Despite increased public sector borrowing, the fiscal framework remains well within the bounds of sustainability (figure 1.5). National

Treasury appropriately has kept a watchful eye on longer term sustainability even as it carries out the announced short-term stimulus. This is important given the reliance on domestic markets for deficit financing, for which retaining the investment-grade ratings is critical. The sound fiscal position has been enabled by several years of budgetary discipline leading up to the global crisis that yielded low levels of public debt. The country’s deep and liquid domestic capital markets and ready access to international borrowing have provided added comfort. With the rising fiscal deficits and public sector borrowing requirement (table 1.5), projected to moderate over the Medium Term Expenditure Framework period, the net

**Despite increased public sector borrowing, the fiscal framework remains well within the bounds of sustainability**



Source: Statistics South Africa and World Bank staff calculations.



Source: Quantec database and World Bank staff calculations.

**Table** Growth and unemployment in the BRICS (Brazil, Russian Federation, India, China, and South Africa) and selected OECD economies, 2008–10 (percent)

1.4

Economy	2008		2009		2010 <sup>a</sup>	
	GDP growth	Unemployment	GDP growth	Unemployment	GDP growth	Unemployment
Brazil	5.2	7.9	-0.7	8.1	7.5	6.7
Russian Federation	5.2	6.4	-7.8	8.4	4.0	7.5
India	5.1	10.4	9.1	10.7	9.1	10.8
China	9.6	5.9	9.2	6.3	10.3	6.1
South Africa	3.6	22.9	-1.7	24.0	2.8	24.9
Australia	2.6	4.3	1.3	5.6	2.7	5.2
Chile	3.7	7.8	-1.7	9.6	5.2	7.1
Germany	0.7	7.3	-4.7	7.5	3.5	6.9
Japan	-1.2	4.0	-6.3	5.1	4.0	4.0
United States	0.0	5.8	-2.6	9.3	2.9	9.6
Total OECD	0.2	6.1	-3.6	8.2	2.8	8.4

a. Preliminary.  
Source: Economist Intelligence Unit.

**Table** Consolidated government fiscal framework, 2007–13 (percent of GDP unless otherwise indicated)

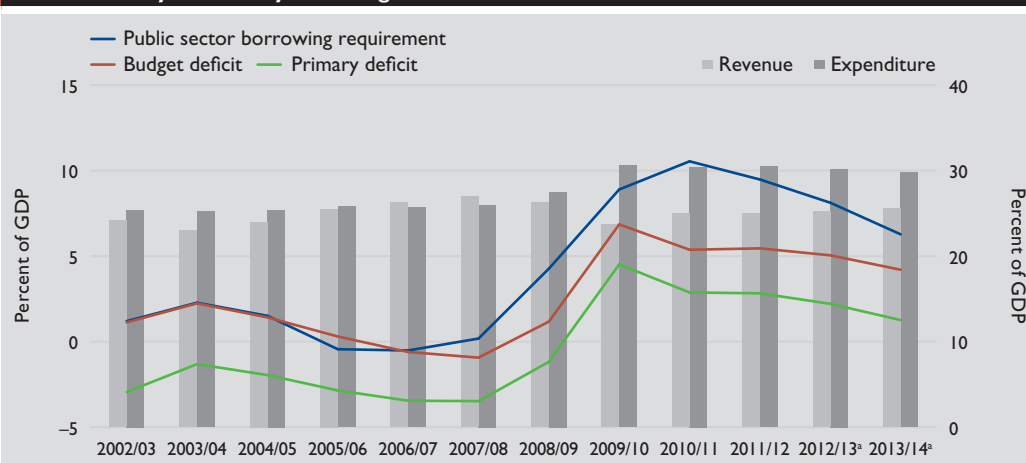
1.5

	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
	Outcome			Revised estimate	Forecast		
Revenue	30.1	29.5	27.2	28.3	28.3	28.4	28.8
Expenditure	28.5	30.7	33.8	33.6	33.6	33.2	32.6
Budget balance	1.7	-1.2	-6.6	-5.3	-5.3	-4.8	-3.8
Total net government debt	23.2	22.7	27.6	30.8	34.3	37.5	39.3
Net domestic government debt	18.6	18.5	24.5	29.4	33.3	35.9	37.1
Net foreign government debt	4.6	4.2	3.0	0.14	1.0	1.6	2.1
Interest cost	2.5	2.4	2.3	2.5	2.6	2.8	2.9
Public sector borrowing requirement	0.2	4.3	8.9	10.5	9.5	8.1	6.3
Southern African Customs Union transfers (millions of rands)	24,713	28,921	27,915	14,991	21,763	32,432	35,997

Source: National Treasury of the Republic of South Africa 2011.

**Figure** Despite increased public sector borrowing, fiscal sustainability has not yet emerged as a concern

1.5



a. Forecast.  
Note: A negative deficit indicates a surplus.  
Source: National Treasury of the Republic of South Africa 2011b and World Bank staff calculations.

government debt stock to GDP ratio would increase to 39 percent by the end of the period and stabilize at roughly 40 percent of GDP in FY2015/16 (50 percent including contingent liabilities), well below the current global norms. Moreover, the debt-servicing cost to the budget would remain under 3 percent in the medium term, quite manageable.

**Banking sector developments: SME financing suffers under the crisis**

The South African banking sector has held up well, having entered from a position of strength with little foreign currency exposure and relatively low nonperforming loans. A recent World Bank study nevertheless finds that the recession impaired the access of small and medium enterprises (SMEs) to finance, of particular concern given the many contributions SMEs (an estimated 6 million in South Africa) can make to employment and economic growth.<sup>6</sup>

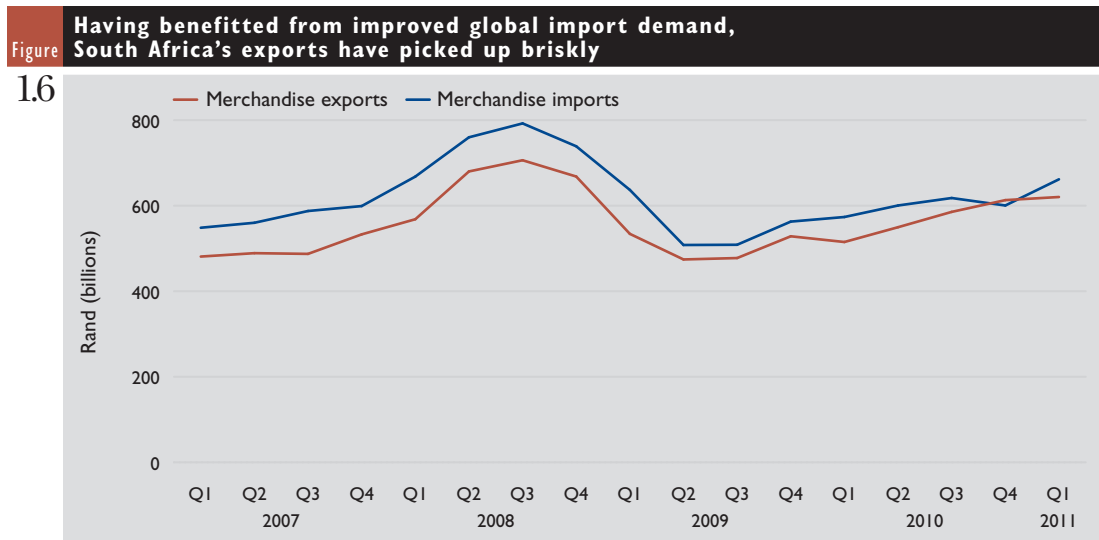
Credit conditions tightened considerably for SMEs during the economic downturn as the banks became more risk conscious. From the banks’ point of view, SME lending is an attractive proposition, because they see SME banking not just as a feeder for future business but also as an attractive and profitable business in its own right. But macroeconomic factors related to the economic downturn seem to have become more constraining. This also implies that as the economy continues to recover and the macroeconomic factors improve, lending to SMEs can be expected to pick up again.

**External sector: Foreign trade recovers, as portfolio inflows slow down**

Benefiting from the growing global demands for imports, South Africa’s exports have picked up briskly. Merchandise exports in 2011 Q1 were 20 percent higher (seasonally adjusted) than in 2010 Q1 and 31 percent higher than the low point in 2009 Q2 (figure 1.6). Net exports of gold showed similar increases over the same periods. Imports have also recovered, driven by the strong recovery in household consumption of durables and the pickup in fixed investment and, more recently, inventory accumulation. Dividend and interest payments to nonresident investors have risen, with recovering profits in domestic firms and increased holdings of South African debt by foreigners. The current account deficit rebounded from an exceptionally low 1 percent of GDP in 2010 Q4 to 3.1 percent in 2011 Q1, the average since 2009 Q2 (figure 1.7).

Capital flows to developing countries slowed considerably in 2011 Q1, in response to the mounting uncertainty surrounding the global economic recovery, sovereign debt crisis in Europe, high commodity prices, and concerns about overheating in some large emerging markets. Equity placements dried up, while bond issues by emerging market economies started the year strong thanks to attractive yields but then slowed considerably as uncertainty prevailed.<sup>7</sup> With similar concerns, global portfolio investors also offloaded their positions in emerging market stock and bond markets.

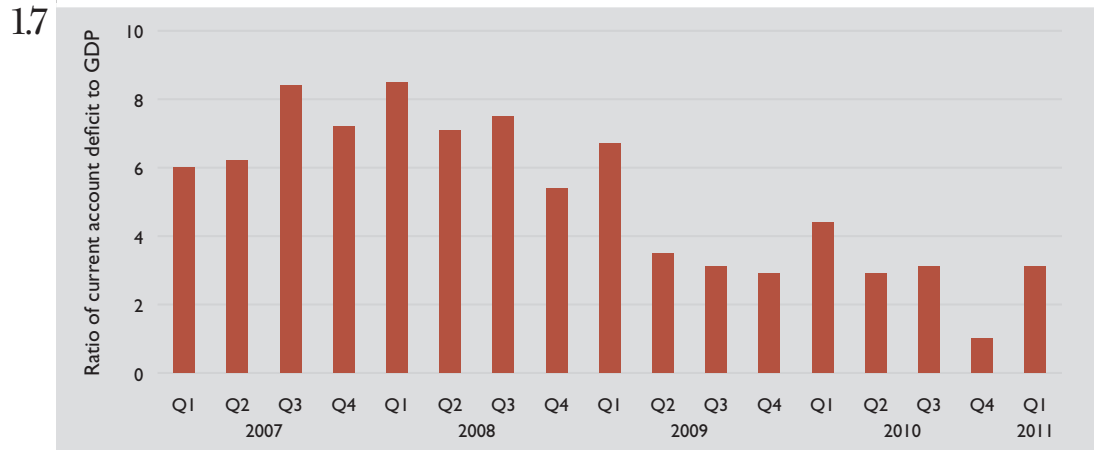
**Benefiting from the growing global demands for imports, South Africa’s exports have picked up briskly**



Source: South African Reserve Bank and World Bank staff calculations.

South Africa's medium-term growth prospects point to a strengthening recovery, with GDP growth projected at 3.5 percent in 2011

**Figure 1.7** The current account deficit rebounded from an exceptionally low 1 percent of GDP in 2010 Q4 to 3.1 percent in 2011 Q1



Source: South African Reserve Bank and staff calculations.

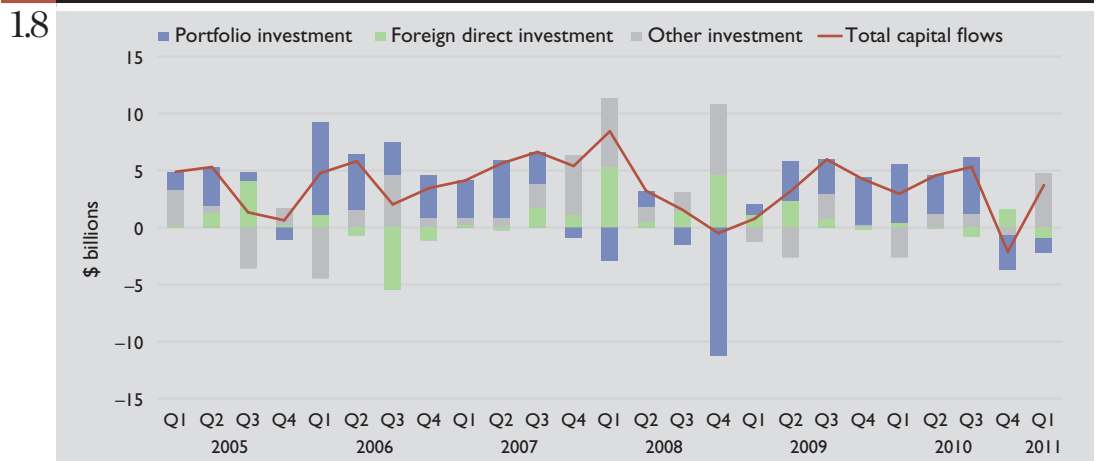
Foreign portfolio investments in South Africa followed a similar pattern. Net portfolio flows turned sharply negative in 2010 Q4 as foreigners reduced their positions in South Africa while South Africans increased their portfolio positions abroad (figure 1.8). In 2011 Q1 large issues of foreign currency-denominated bonds by the government and parastatals offset net sales of bonds and stocks on the locals markets by foreigners (figure 1.9). Net portfolio investment was still negative as outward portfolio investment by South Africans increased significantly. At the same time, South African banks repatriated significant amounts of foreign currency deposits, reflected in the positive “other investment” in 2011 Q1 (South African Reserve Bank 2011) (figure 1.8). Net inflows of foreign

direct investment remain negligible, a problem that precedes the global crisis (box 1.3) and persists somewhat paradoxically in light of the solid real returns on long-term investment in South Africa (section 2).

**Economic outlook for South Africa**

South Africa's medium-term growth prospects point to a strengthening recovery. We project GDP growth to be 3.5 percent in 2011, slightly above the 3.4 percent projected in the 2011/12 Budget released in February. Our baseline projections of 4.1 percent for 2012 and 4.4 percent for 2013 are the same as those of National Treasury, and consistent with the precrisis average growth rates (4.2 percent between 2000 and 2008). The long-run potential growth rate

**Figure 1.8** Net portfolio flows turned sharply negative in the last quarter of 2010 as foreigners reduced their positions in South Africa while South Africans increased their portfolio positions abroad



Source: South African Reserve Bank and staff calculations.

**Figure 1.9** Foreigners reduced their net positions in domestic stock and bond markets in the first quarter of 2011



Source: South African Reserve Bank and staff calculations.

under the current policy environment is estimated at 3.5 percent.

Consumer spending, which has been the main driver of growth in the postcrisis period will continue to benefit from wage increases negotiated in 2010 and expansion in domestic credit. With global recovery taking hold, the uncertainty that affected private investment spending is expected to abate, allowing business spending to increase, and resume its positive contribution to growth. The increase in spending on consumer durables should also support investment demand. As a result, gross fixed capital formation is forecast to grow after declining for two consecutive years. As businesses demand more labor, employment should rise and further strengthen consumer spending. Strong government spending, as part of the countercyclical fiscal policy, will boost growth in 2011 and 2012 but is likely to wane thereafter, as projected under the latest Budget document.

The South African economy is well integrated in the global economy, and the ongoing global recovery should continue to support exports. But strengthening domestic demand will increase imports and moderate the trade's net contribution to growth.

The current account deficit is expected to widen, from 2.8 percent of GDP in 2010 to 3.2 percent in 2011 and further to 4.5 percent in 2013, as domestic demand picks up and dividend payments on external borrowing (on the rise in 2010) grow. In light of South Africa's low national savings, the reemergence of

high current account deficits, financed mostly through volatile portfolio flows, will once again become the biggest cause for macroeconomic concern over the medium term.

Unlike other middle income countries facing capacity constraints, South Africa's output remains below potential, taking pressure off inflation. Even so, headline Consumer Price Index inflation is forecast to accelerate in the following years close to the upper bound of the 3–6 percent inflation targeting band, as the economy recovers and pressures emerge from the cost-push factors, including food and oil.

With considerable strengthening of the economic recovery and GDP projected to reach its potential by 2014,<sup>8</sup> the focus shifts back to the longer term challenge of raising potential GDP growth to 6–7 percent—and making it much more inclusive to tackle the extremely high unemployment. The current low savings and investment would certainly need to be addressed along with emphasis on faster productivity growth and more employment-intensive production. The issues of savings and investment are the focus of the analysis and discussion in section 2.

## Risks to the outlook

### Global risks

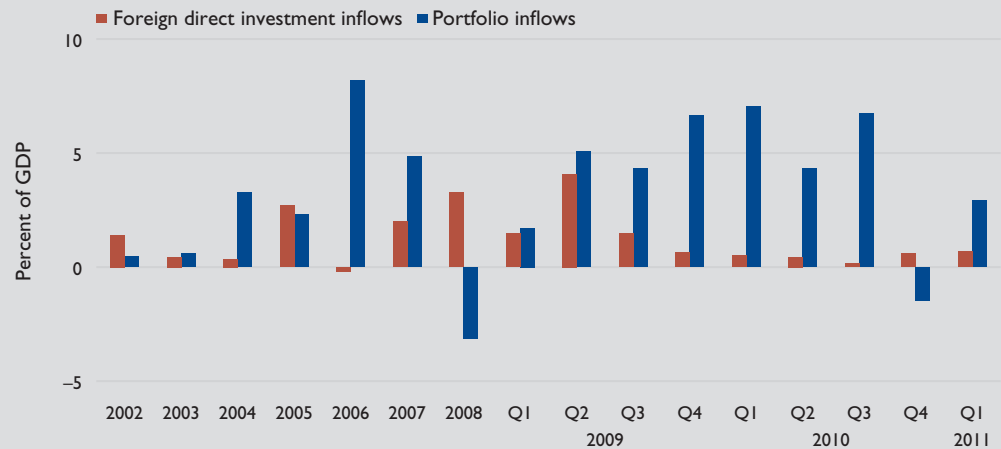
First is the possibility of a much more pronounced global slowdown, problematic for South Africa given its links with the global economy. An escalation of the Euro zone

With considerable strengthening of the economic recovery, the focus shifts back to the challenge of raising potential GDP growth and making it much more inclusive

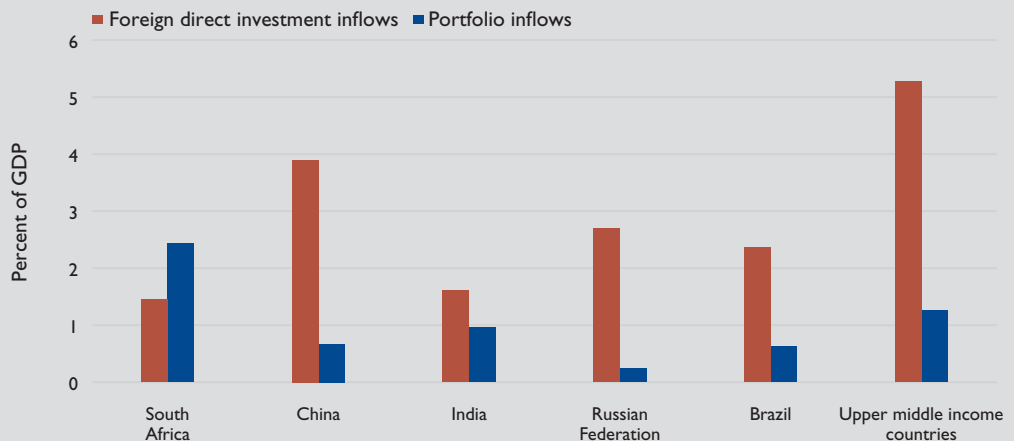
**Box** Low foreign direct investment inflows to South Africa

1.3

With a shortfall in national savings to cover its domestic investment, South Africa has had to rely on fairly large current account deficits. Financing them requires foreign investment, which, by and large, has been adequate though heavily biased toward portfolio flows rather than the more reliable foreign direct investment (FDI). Between 2002 and 2008 portfolio investment by foreigners averaged 2.4 percent of GDP, compared with FDI of only 1.5 percent (box figures 1 and 2). This contrasts with the other upper middle income countries, where FDI inflows over 2002–08 were more than 5 percent of GDP, almost four times the portfolio inflows.

**Box figure 1** Compositions of net capital flows to South Africa, 2002–11

Source: South African Reserve Bank, World Bank World Development Indicators database, and World Bank staff calculations.

**Box figure 2** Capital flow composition comparisons, 2002–08 (average)

Source: South African Reserve Bank, World Bank World Development Indicators database, and World Bank staff calculations.

The composition of FDI and portfolio flows matters for the recipient country, especially one as savings-starved as South Africa. FDI is far more reliable as a source of external financing. As seen in the global crisis, in times of financial distress, sharp swings in market sentiment can suddenly reverse portfolio flows, with potentially damaging consequences for income growth (Levchenko and Mauro 2007; Tong and Wei 2011). Even more beneficial with FDI are the accompanying spillovers—such as new technology, advanced managerial skills, and links with global markets and production networks—that, under appropriate conditions, can enhance productivity and lead to higher growth (Borenstein and others 1998). The benefit depends on the recipient country's absorptive capacities, which can include a minimum threshold stock of human capital (Borenstein and others 1998; Xu 2000), financial market development (Alfaro and others 2004, 2006), infrastructure, and market institutions.

What explains the composition of capital flows to South Africa? The macro/financial risks adversely affect both FDI and portfolio flows, while secure property rights exert a positive effect as well as biasing the composition of capital inflows toward FDI (Gwenhamo and Fedderke 2010). Overall, policies to ensure that macro/financial risks remain low and make property rights more secure would aid in South Africa's quest to get higher and more broad-based FDI inflows, targeting not just its natural-resource and capital-intensive sectors but also greenfield labor-intensive ones.

sovereign debt crisis would severely affect the ongoing recovery in Europe, South Africa's largest trading partner and the main destination for its manufacturing exports. Even a limited default by some European countries could increase risk aversion on the global markets, raising the cost of capital and possibly reversing capital flows to developing countries. The impact of the earthquake and tsunami in Japan adds an additional short-term risk.

Binding capacity constraints and growing concerns about inflation-wage spirals because of rising fuel and food prices could lead to further monetary tightening and a growth slowdown in some emerging markets. The effects of this playing out in Asia, particularly in China, would pose downside risks for South Africa as its trade continues to shift toward that continent. With China's strong demand for commodities, a cooling of the Chinese economy beyond baseline projections, would dampen commodity prices and reduce exports from South Africa and investments in its mineral sector.

Another global risk for South Africa is higher oil prices. The dramatic political changes that have swept parts of the Middle East and North Africa will likely have limited direct effects on global growth, given the small size of the economies. But any contagion to a major oil producer could further escalate the fuel price hikes—with damaging effect. Such a scenario could shave up to half a percentage point from global growth (assuming prices increase by an additional \$50/bbl from their March 2011 levels) in 2011 and 1 point in 2012.<sup>9</sup>

Last, South Africa, like other large emerging market economies, attracted large “hot money” capital flows in 2010. The lurking risk is a sudden stop in the inherently volatile portfolio flows. Since much of these flows went to South African bonds, that would raise the borrowing cost for both the corporate and the public sectors. And the rand, which has held strong and contained the cost of imported inflation (particularly internationally priced food and fuel), could weaken and add to inflationary pressure, triggering higher interest rates and dampening domestic consumption.

#### Domestic risks

Business confidence remains low, so investment decisions by the private sector have been muted despite low interest rates and a strong rand favoring the purchase of imported capital goods. The labor market situation is discouraging, with hiring decisions still lagging the economic recovery. A fresh round of wage demands by the trade unions, thus far ranging from 9 percent for public sector employees to up to 20 percent for other sectors, add complexity to the situation.

High household indebtedness also presents a downside risk to the recovery, particularly by subduing household consumption, a major current driver of domestic absorption. Although household debt as a share of disposable income fell in 2011 Q1 to 76.8 percent from an average of 80.9 percent in 2009, it remains high relative to the average indebtedness levels for 2000–04 (54.7 percent of disposable income).

**The possibility of a much more pronounced global slowdown is problematic for South Africa given its links with the global economy**

Table 1.6 Macroeconomic outlook, 2007–13 (percent change unless otherwise indicated)

Indicator	Actual		Estimate		Forecast		
	2007	2008	2009	2010	2011	2012	2013
Final household consumption	5.5	2.2	-2.0	4.6	4.2	4.5	4.5
Final government consumption	4.1	4.7	4.8	4.6	4.3	3.7	3.7
Gross fixed capital formation	14.0	14.1	-2.2	-3.6	4.8	4.0	5.2
Gross domestic expenditure	6.3	3.4	-1.7	4.1	4.2	4.4	4.6
Exports	6.6	1.8	-19.5	5.3	5.0	6.0	6.0
Imports	9.0	1.5	-17.4	10.4	9.0	7.0	7.0
Real GDP	5.6	3.6	-1.7	2.8	3.5	4.1	4.4
Headline consumer price index	6.1	9.9	7.1	4.3	4.9	5.2	5.5
Current account balance (% of GDP)	-7.0	-7.1	-4.1	-2.8	-3.2	-3.8	-4.5

Source: National Treasury of the Republic of South Africa 2011 and World Bank staff calculations.





## SECTION 2

# Toward more inclusive growth: Focus on savings and investment

The South African economy has done well since turning the corner after the fall of apartheid in 1994, but this record has not been enough to absorb the massive wave of new entrants into the labor market

The South African economy has done well since turning the corner after the fall of apartheid in 1994. Macroeconomic management has been exemplary, with inflation nestled in the target 3–6 percent range and world-class budgetary and debt outcomes. GDP growth—albeit modest by global comparisons—has averaged a credible 3.3 percent a year since 1994. And the external trade and capital accounts have moved far deeper into the folds of global integration.

But this record has not been enough to absorb the massive wave of new entrants into the labor market since the mid-1990s, yielding unemployment rates persistently above 20 percent and widespread exclusion. The Gini coefficient, the most commonly used measure of inequality, stood at 0.67 in 2008, the highest in the world. Weak integration between the formal and, in many parts, ultramodern economy and the “second” economy in the peri-urban and rural areas undermines economic efficiency and job creation. It also makes it more difficult for the rising tide of economic growth to lift the unemployed and marginalized masses.

The government has appropriately set its sights on much faster and much more inclusive economic growth—in the range of 7 percent to match the employment challenge.<sup>10</sup> The New Growth Path envisions 5 million new jobs over the next decade to lower the unemployment rate to 15 percent.<sup>11</sup> This part of the report, anchored in these vital national objectives, focuses on savings and investment and their special role.

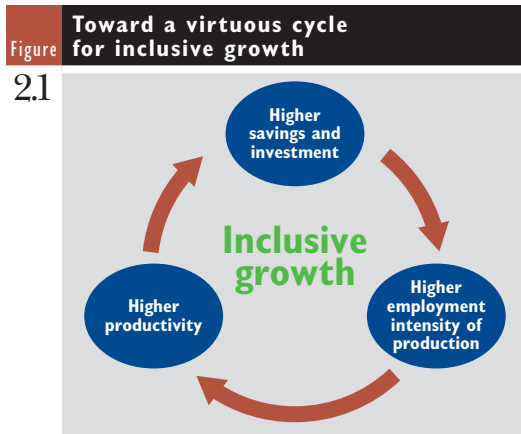
The exact transition of countries to faster growth paths involves an element of mystery, but one empirical regularity is clear: fast-growing emerging market economies by and large exhibit high investment and savings rates.<sup>12</sup> At around 16 percent, South Africa’s gross national savings as a share of gross national income is relatively low, no doubt restraining the investment rate, at a modest 19 percent. How much higher the saving and investment rates will have to be to underpin 6–7 percent growth will be estimated below.

Higher savings and investment alone will not suffice, however. Success in achieving the desired growth will depend on two additional factors: the extent to which firms use more employment-intensive (rather than capital-intensive) production methods, and the pace of technological innovation, or total factor productivity in technical jargon. Without concomitant improvements in these two factors, the required rates of saving and investment will be impossibly high.

There is a virtuous reinforcing circularity among employment-intensive production, higher savings/investment, and higher productivity, with inclusive growth at the center of this interaction. But what emerges today is a suboptimal equilibrium that can be broken only by a massive productivity push (figure 2.1).

### Savings, investment, and long-term growth

Real GDP per capita has grown at an unremarkable pace over the last three decades,



**South Africa's modest record on savings and investment needs to improve by a big margin to support the desired GDP growth**

the better performance in the 2000s notwithstanding. GDP declined 15 percent between 1980 and 1994 and then increased 30 percent through 2008. Per capita growth picked up from –1 percent during 1980–94 to a modest 1 percent in 1995–2003, and then rose to a more impactful 3.7 percent during 2004–08 (figure 2.2).<sup>13</sup> Given the sharp decline in per capita GDP between 1980 and 1994, it is striking that South Africa did not grow faster after 1994 if only to make up lost ground. Overall, the average South African saw her income rise by less than 10 percent in real terms between 1980 and 2008, when the average Chinese became 11 times richer, the average Indian 3 times, and the average Chilean 2.5 times (figure 2.3).

Set against these trends, the growth target of 6–7 percent (5–6 percent per capita) appears ambitious but by no means impossible. It is also ambitious when viewed against other countries. Over 1980–2008, only three economies achieved average GDP growth of 7 percent or more; China, Singapore, and neighboring Botswana, which relied heavily on its diamond industry.<sup>14</sup> Even dropping to 6 percent growth nets only nine economies.

By and large the nine high-growth countries (with 6 percent or higher growth) enjoyed savings and investment rates above 25 percent (table 2.1).<sup>15</sup> The Commission on Growth and Development (2008) concluded that an investment rate of 25 percent is the minimum to ensure sustained long-term growth. Influential studies have confirmed that investment determines how fast countries grow (figure 2.4). They also caution that investment alone is not enough over long periods. Without concomitant increases in human capital (the quantity

and quality of the workforce) and technological improvements, investment inevitably faces diminishing returns, and the payoff in faster growth tapers off.<sup>16</sup>

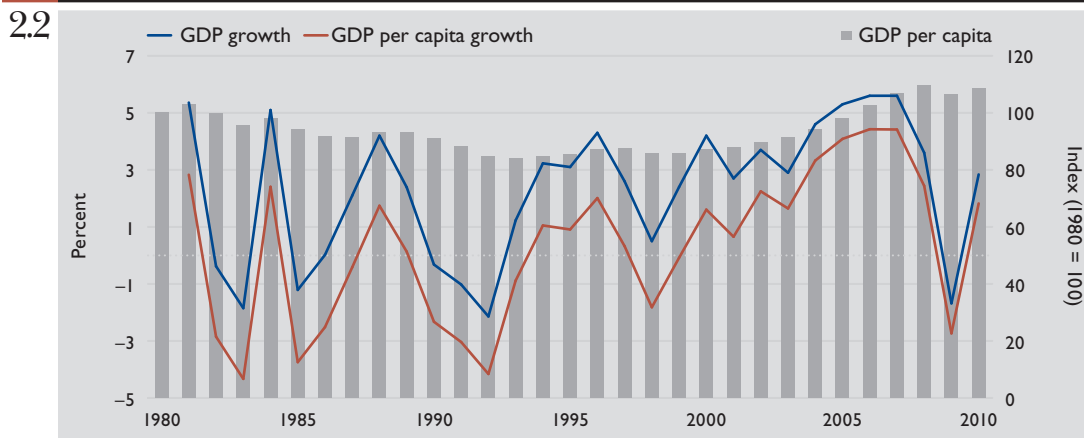
High rates of investment, in turn, require commensurate domestic savings. Although it is not necessary that investment be financed through domestic savings if the country has ready access to external financing, running large external imbalances has proven unsustainable for countries over long periods. The positive long-run savings–investment and savings–growth relationships across countries have been established by a number of studies (figures 2.5 and 2.6).<sup>17</sup> Consistent with this, South Africa's own savings and investment rates have been highly correlated: the coefficient of correlation between the two series over 1960–2010 is 0.72.

South Africa's modest record on savings and investment no doubt needs to improve by a big margin to support the desired GDP growth. The national savings rate has remained caught in the 15–17 percent range since the early 1990s, averaging just under 16 percent over 2006–10. Gross investment, by contrast, has seen a marked increase since the early 2000s, reaching an average of 20.5 percent over 2006–10. The divergence is reflected in a large current account deficit, covered largely by international portfolio flows, which cannot be relied on over an extended period.

**Long-term savings trends**

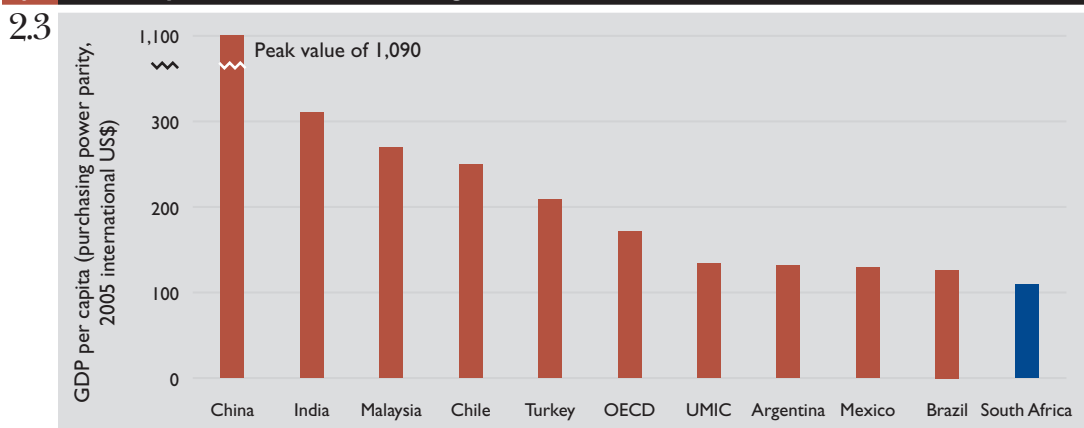
The national savings rate has been on the decline since peaking at 35 percent in 1980 on the back of high gold prices that boosted corporate profits (figure 2.7). The savings rate fell to a trough of about 15 percent during 2005–07, before recovering a bit as corporates began saving due to the uncertainty in the global crisis and as banks became more conservative in lending. Underlying this is a steady decline in nongovernment (households plus public and private corporations) savings,<sup>18</sup> which fell from an all-time high of 29 percent in 1980 to just 11 percent in 2007 (box 2.1). General government savings declined sharply in the period leading up to 1994, stayed negative until 2000, and then recovered on the back of fiscal consolidation until 2008. They then fell back into

**Figure 2.2** Real GDP per capita in South Africa has grown at an unremarkable pace over the last three decades



Source: Statistics South Africa, World Bank World Development Indicators data, and World Bank staff calculations.

**Figure 2.3** Over 1980–2008, the average South African’s real income increased less than 10 percent, while the average Chinese became 11 times richer



Source: Statistics South Africa, World Bank World Development Indicators data, and World Bank staff calculations.

**Table 2.1** Statistics for countries with average annual GDP growth of at least 6 percent a year, 1980–2008

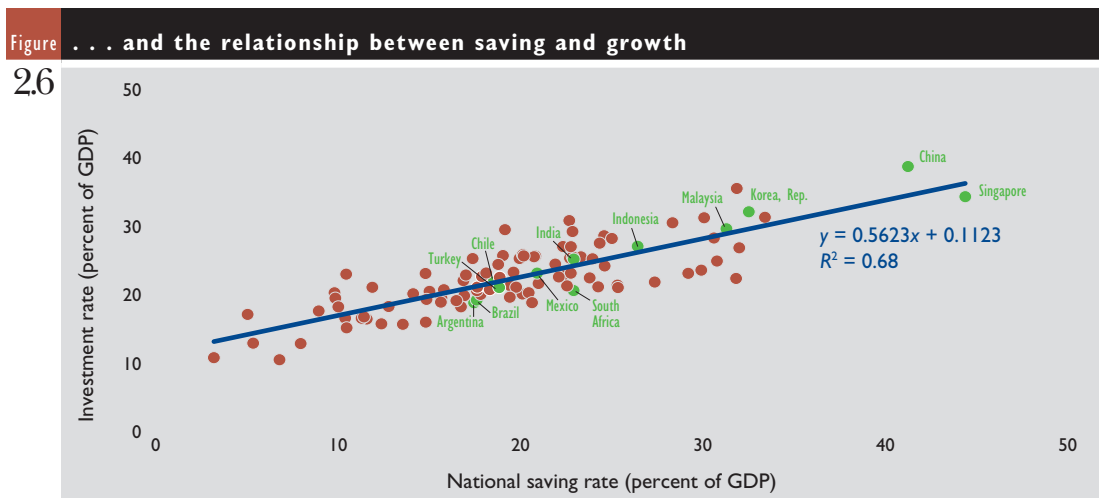
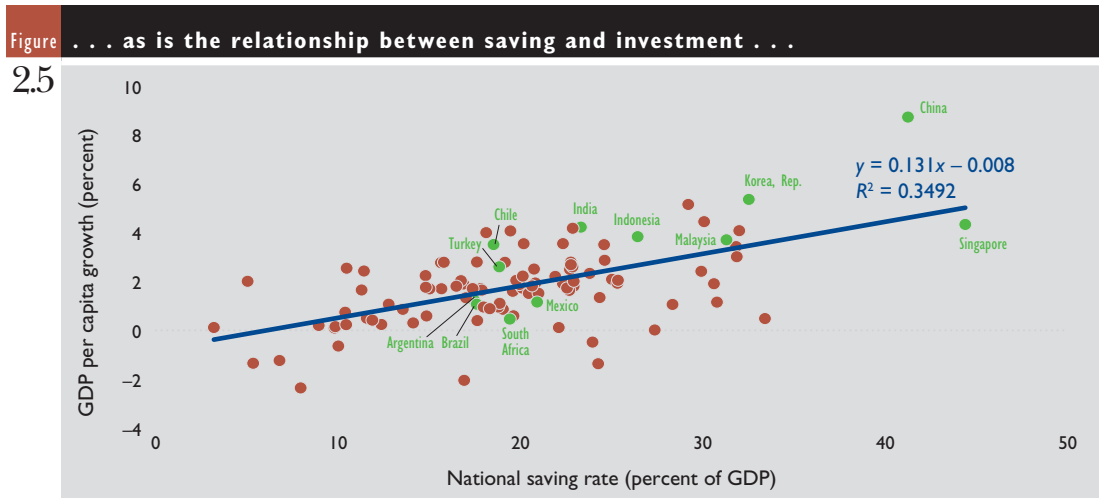
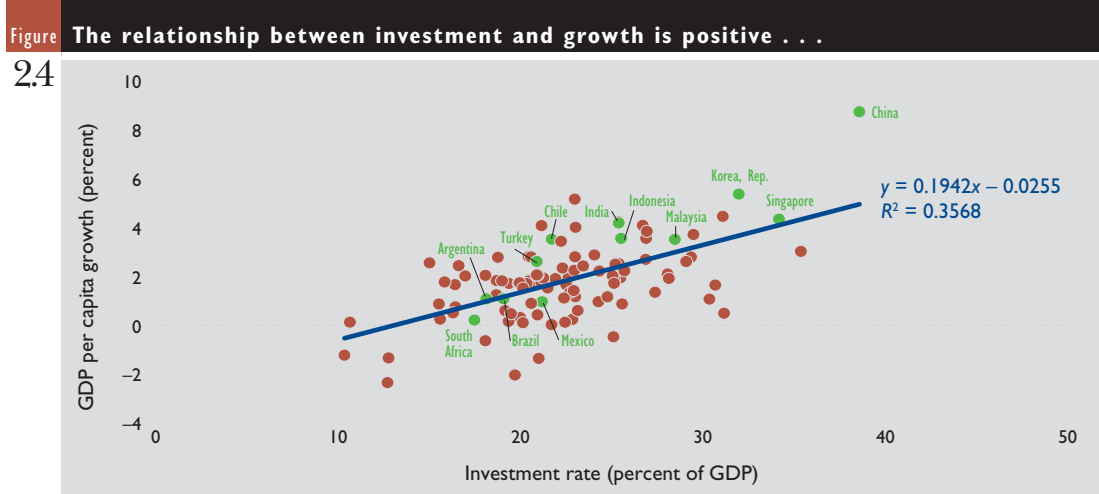
	Botswana	China	India	Korea, Rep.	Lao PDR	Malaysia	Singapore	Taiwan, China	Vietnam	Median
GDP growth (percent)	7.4	10.1	6.0	6.6	6.0	6.2	7.1	6.2	6.8	6.6
GDP per capita growth (percent)	4.9	9.1	4.2	5.8	3.5	3.6	4.4	5.1	5.0	4.9
Gross domestic savings (percent of GDP)	37.7	40.4	23.4	33.0	12.9	37.7	45.2	28.7	21.0	33.0
Gross domestic investment (percent of GDP)	29.1	38.3	25.2	32.0	23.3	29.1	34.0	22.9	26.8	29.1

Note: Countries that attained average GDP growth of at least 6 percent over 1980–2008. Excludes oil-rich Oman and countries with population below 1 million. Source: Statistics South Africa and World Bank World Development Indicators data.

negative territory in 2009 and 2010 as the government embarked on countercyclical policies.

South Africa’s savings rates are lower than those in other emerging economies. In the

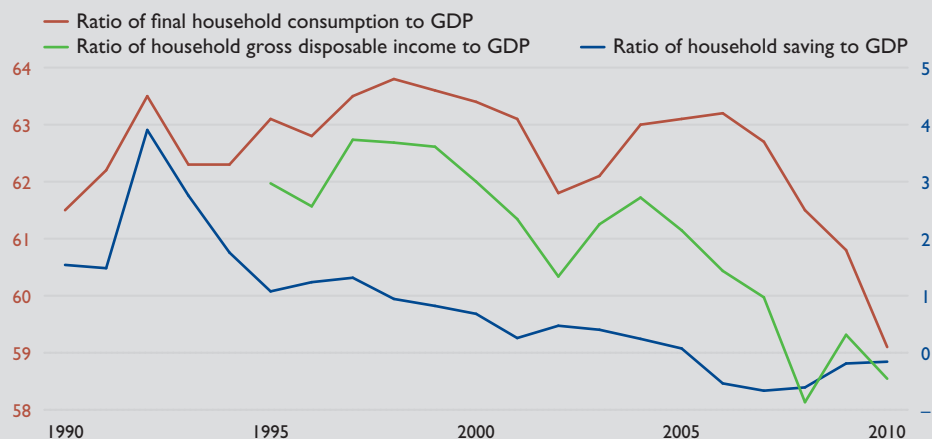
1980s South Africa’s average national savings rate was third after China’s and Malaysia’s (figure 2.8), but it fell sharply in the 1990s when many comparators saw theirs increase, dipping



2.1

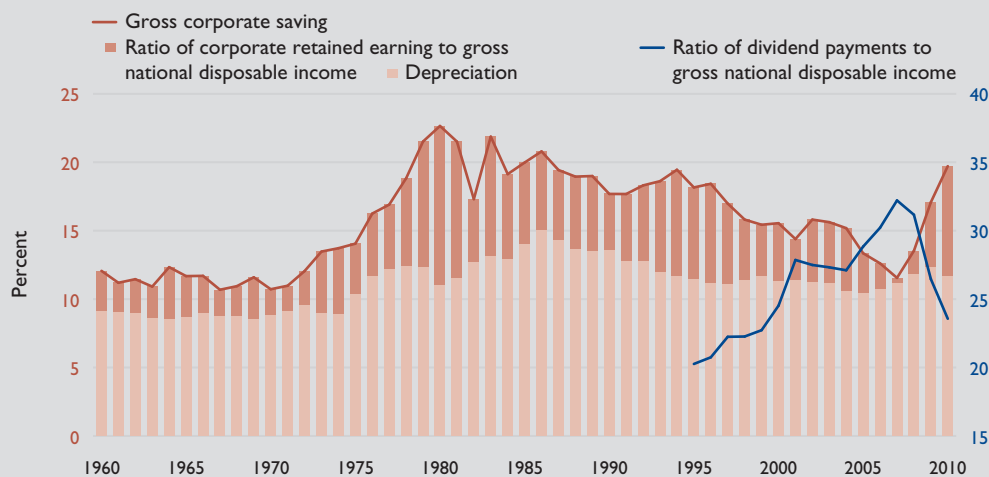
The weak link on the savings side appears to be households. Household consumption as a share of disposable income has been high and household indebtedness has risen sharply in the 2000s, which contributes to the low savings levels. But is a rising propensity to consume enabled by easier access to consumer and mortgage credit to blame for the decline in household savings, as is widely believed? The evidence suggests otherwise. It appears to be adverse declining trend in the household disposable income to GDP ratio that was the driving force behind the household saving patterns; household consumption, by contrast, stayed within a narrow range between 1990 and 2008, before falling sharply from 2008 onward (box figure 1). At the heart of it is the issue of the country's exceptionally high unemployment rates that prevent more robust increases in household incomes, thus keeping household savings low in general, while also preventing almost any saving among the multitudes without a job. Macroeconomic stability, growing urbanization, and rising government savings have also likely played a role, as discussed later under empirical results.

**Box figure 1 Household incomes, consumption, and savings, 1990–2010**



Source: South African Reserve Bank data and World Bank staff calculations.

**Box figure 2 Corporate saving statistics in South Africa, 1960–2010**

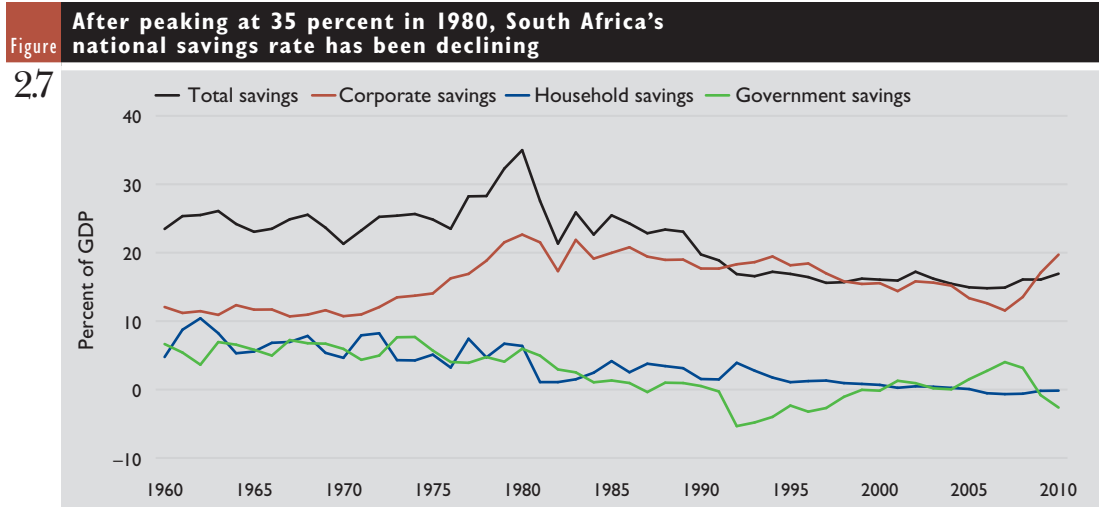


Note: Dividend payments are proxied as gross operating surplus minus depreciation minus net saving of the corporate sector.

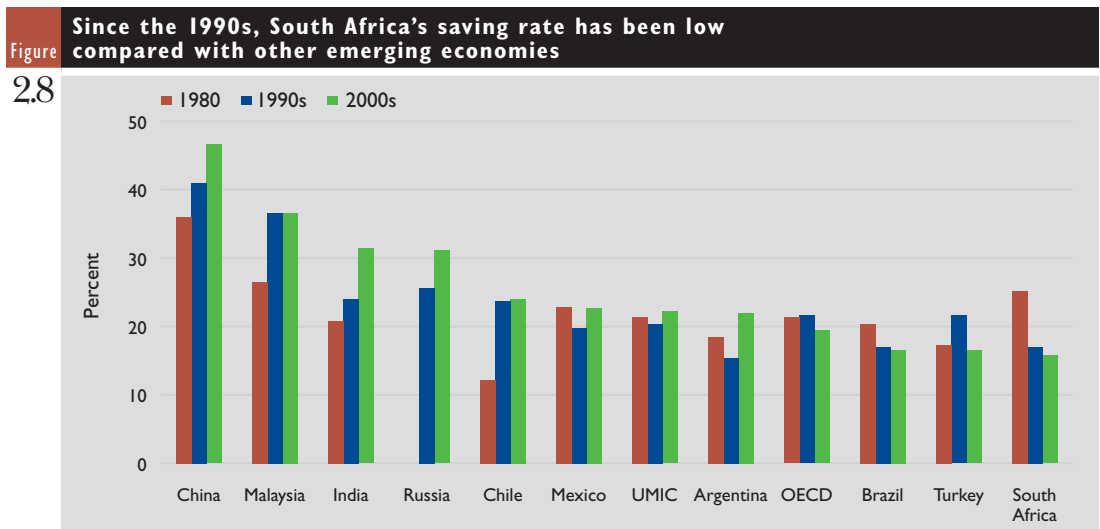
Source: South African Reserve Bank data and World Bank staff calculations.

Gross corporate saving has also been on a downward trend after peaking at 20 percent of GDP in the 1980s (box figure 2). It has two components: retained earnings and depreciation costs. The decline in retained earnings between 1995 and 2007 can be explained by the commensurate increase in dividend payouts. It is possible that improving macroeconomic stability made the corporates less risk-averse, lowering their precautionary saving motive. Easier access to global credit after the end of the apartheid sanctions and the liberalization of exchange controls would also have made it cheaper for firms to borrow relative to self-financing. Despite the decline, corporate savings remain by far the single largest component of the aggregate gross saving, accounting for more than 90 percent in the 2000s.

Public and private investment have tended to reinforce each other, though the public has been more influential



Source: South African Reserve Bank and World Bank staff calculations.



Source: South African Reserve Bank, World Bank World Development Indicators data, and World Bank staff calculations.

its ranking to share last with Brazil in the 1990s and be last in the 2000s.

### Long-term investment trends

Influenced by the savings rates, the investment rate shows three distinct phases since 1960 (figure 2.9).

- The first phase spans 1960–81, with the investment rate increasing from 22 percent in 1960 to an all-time high of 33 percent in 1981.
- The second phase saw the investment rate fall by more than half to 14 percent by 1993 and then stagnate until 2001.
- The third phase saw the investment rate increase from 15 percent in 2001 to 22.5 percent in 2008 before being affected by the global financial crisis.

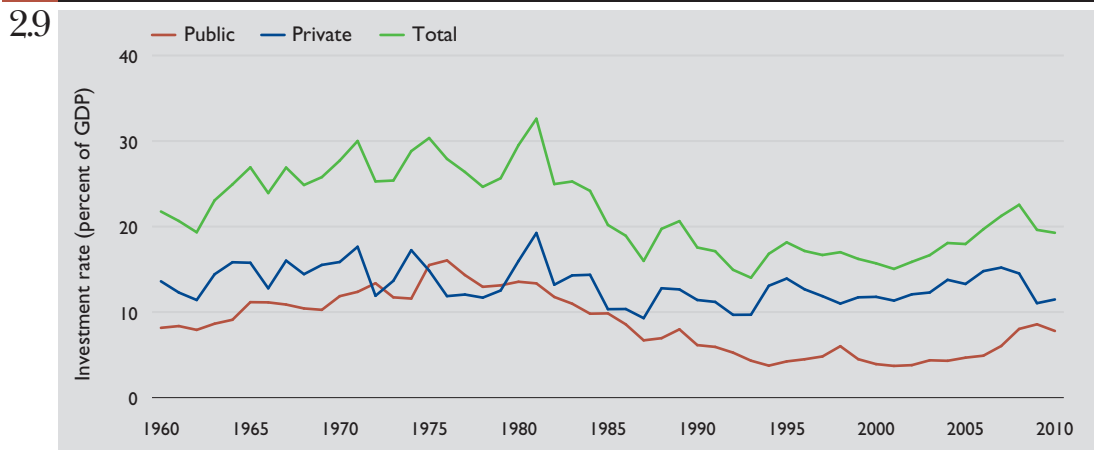
Public investment (general government plus public enterprises) and private investment have tended to reinforce each other, though the public has been more influential in shaping aggregate investment. The coefficient of correlation between the public investment rate and the total investment rate was 0.91 over 1960–2010, and 0.74 between the private and total investment rates.

From being in the middle of the pack in the 1980s South Africa slipped to being last in the 1990s and second from last in the 2000s, slightly ahead of Brazil (figure 2.10).

### Investment rates in South Africa: Role of the real returns to capital

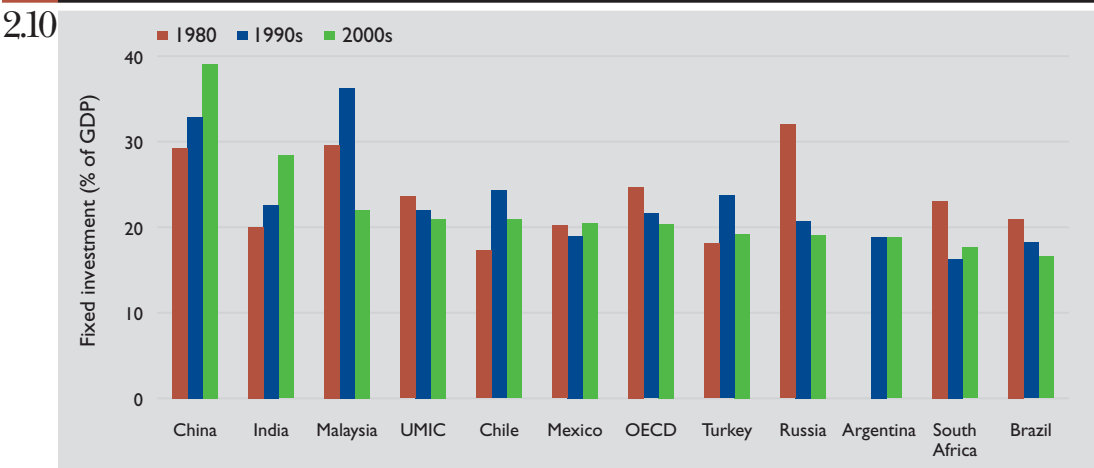
Is there enough incentive for the private sector to invest, create jobs, and contribute to faster

**Figure 2.9 South Africa's investment rate shows three trends since 1960**



Source: South African Reserve Bank and World Bank staff calculations.

**Figure 2.10 South Africa's domestic fixed investment rate has slipped compared with other emerging economies**



Source: South African Reserve Bank, World Bank World Development Indicators data, and World Bank staff calculations.

South Africa is clearly an attractive place for investment

growth? The low private investment rates could mean one of two things: either the real returns to capital are low, or private investors are not responding to changes in real returns because of risk perceptions or structural barriers to investment. Returns are high and have been increasing since the mid-1990s, suggesting that the real problem might be insufficient savings or deeper structural impediments.

By analogy with a bond, the nominal return to capital is simply the nominal profit rate (net of depreciation) per unit of physical capital (“coupon”) plus the change in the price of capital (“capital gain/loss”) divided by the price of capital. To measure in real terms the rate of inflation is subtracted from the nominal return measure (annex 1). This can be

compared with the interest cost, proxied by the prime lending rate. If the returns are substantially in excess of the interest cost, something other than returns to investment is impeding private investment.

South Africa is clearly an attractive place for investment. The real returns to capital have risen sharply since the early 1990s, to an average rate of 15 percent between 1994 and 2008, or 23 percent in nominal terms (figure 2.11). They averaged close to 22 percent in 2005–08, in the same range as that for China, albeit for a much longer period (Bai and others 2006). Such high returns are especially striking given South Africa’s modest GDP growth. They have also risen comfortably in excess of the borrowing cost, measured by the prime rate, which

The real returns to capital are high across the major sectors, if with variation

has declined sharply since the late 1990s (figure 2.11).

The real returns to capital increase with the real profit (or rental) rate per unit of physical capital (or nominal profit rate divided by the GDP deflator) and fall when the price of capital rises relative to the GDP deflator. For example, when the price of buying a piece of machinery falls, the returns from that investment automatically increase. The real profit rate has been rising since 1993, while the price of capital has been falling relative to the GDP deflator (figure 2.12). Thus, both forces have reinforced each other in increasing the real rates of returns to capital.

The slowdown in the price of capital was likely triggered by the end of South Africa's

apartheid isolation from global markets, which made capital equipment available at more competitive rates. Also important was the global moderation of the prices of information and communication technology-related equipment, which catered such growing sectors as finance and telecommunications. The rising profit rate likely reflects the shift to more capital-intensive technologies and across-the-board skills upgrading that enhanced the output generated by each additional unit of capital.

The real returns to capital are high across the major sectors, if with variation (figure 2.13).<sup>19</sup> Real returns in the construction and domestic retail and wholesale trade sectors have been extraordinarily high—85 percent in the 2000s for the former and almost 60 percent

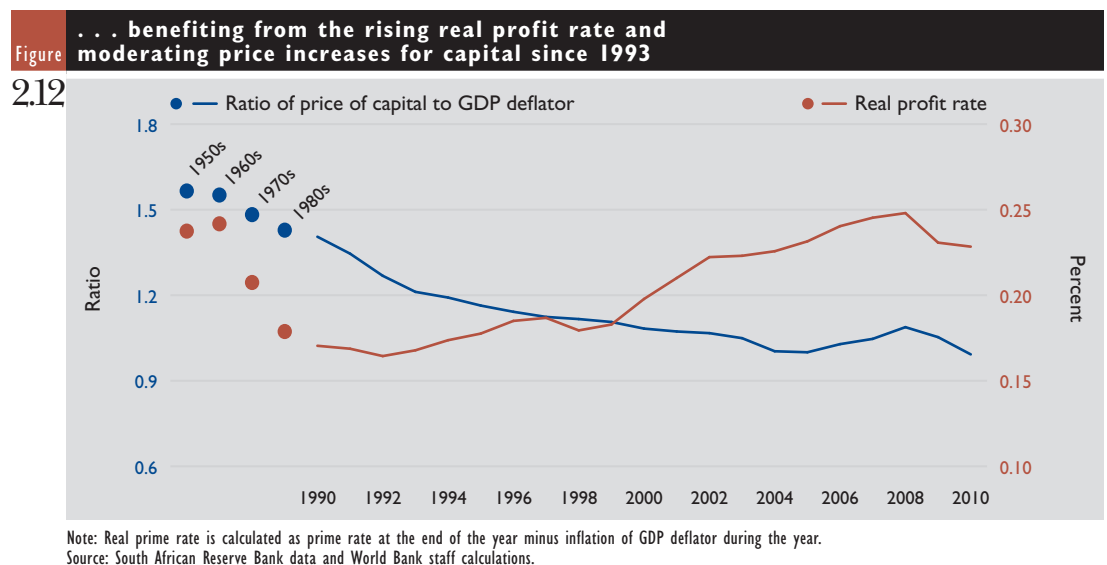
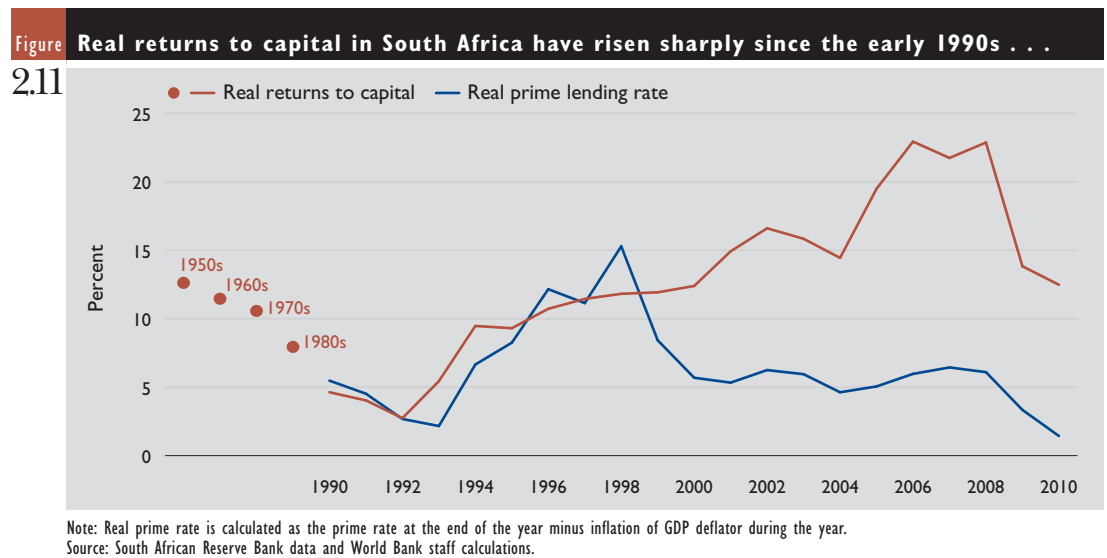
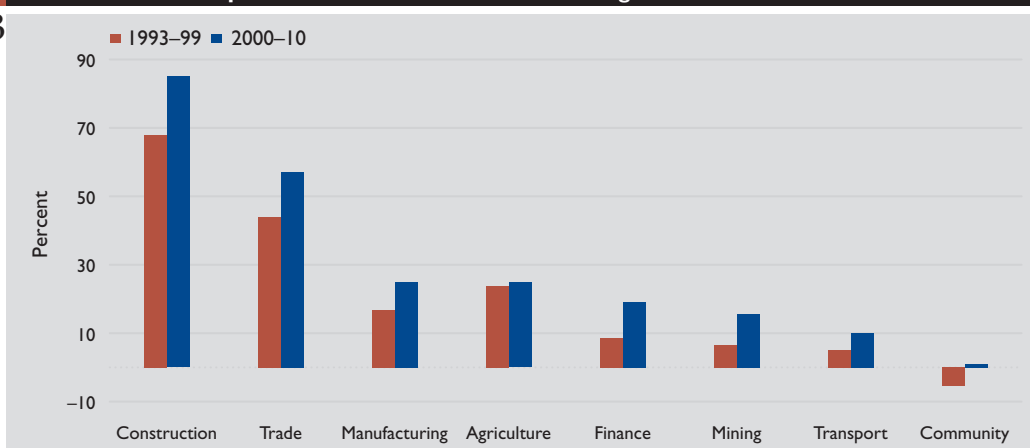


Figure Real returns to capital in South Africa have been highest in construction and trade

2.13



Source: South African Reserve Bank data and World Bank staff calculations.

for the latter. In finance real returns rose from an average of 8 percent in the 1990s to almost 20 percent in the 2000s, and in manufacturing from 17 percent to 25 percent. Real returns have been highly volatile in mining and agriculture due to the nature of the sectors, but still averaged 25 percent in the 2000s in agriculture and 16 percent in mining (up from just 6 percent in the 1990s). Private interest in these two sectors seems not to have lived up to full potential, even after accounting for the high volatility in returns. Real returns in the transport sector doubled from 5 percent in the 1990s to 10 percent in the 2000s. These revealing results would benefit from further research to learn more about the underlying causes.

Private investment has become less responsive to the returns on investment since 1994. That is, the increase in private fixed investment in response to each percentage point increase in real returns has become more subdued (annex 2). This highlights a missed opportunity, given the steep increase in returns. It is also somewhat puzzling. If anything the response by private investors should have become more favorable as the shackles of the apartheid system came off and the economy became better integrated with the world. Somehow, worsening risk perceptions and structural barriers have become an impediment.

#### Policy issues to consider

It is somewhat paradoxical that, despite high and increasing real returns, private investment has not responded with more vigor or FDI has

not been higher, particularly in greenfield areas. South Africa also fares well on the major global competitiveness indices. The World Bank's *Doing Business Survey* ranked South Africa a creditable 34th of 183 countries in 2011, ahead of each of the other BRICS and most upper middle income countries. The Global Competitiveness Report of the World Economic Forum placed South Africa 54th of 139 countries in 2010 (down 9 ranks from 2009) on its *Global Competitiveness Index*, the highest rank in Sub-Saharan Africa. South Africa's strengths lie in its financial and fiscal institutions, investor and property protection, tax system, legal and judicial system, and auditing and reporting standards.

Clearly, this favorable aggregate picture masks aspects of the investment climate that disproportionately affect private investors. Four key issues stand out: high industrial concentration; significant skills gaps; contentious labor relations and work stoppages; and low savings rates.

1. *Industrial competition* is much weaker in South Africa than its international peers (Aghion and others 2008). This points to entry barriers that discourage new investment despite high returns. The severity of the problem is recognized at the highest levels in South Africa, and the New Growth Path framework targets competition policy as one of its core reform areas.
2. *Skills development*, thwarted for the blacks during apartheid, remains an important deterrent for firms, new and old, looking to

It is somewhat paradoxical that, despite high and increasing real returns, private investment has not responded with more vigor or FDI has not been higher

South Africa will find it hard to increase savings to the levels needed for target growth rates without making production more employment-intensive and enhancing productivity growth

expand their business. The problem starts with basic education: access has improved, but quality has not.<sup>20,21</sup> Test scores show South Africa faring miserably relative to global comparators. Accordingly, the Global Competitiveness Report ranks the country 125th on the Quality of Basic Education, 130th on the Quality of the Educational System, and 137th (third from last) on the Quality of Math and Science Education. With intakes largely ill-equipped with cognitive (literary and quantitative) skills, the problem only gets compounded at the higher and technical education levels. Skills are among the top reform areas picked up by the New Growth Path, though there are no easy near-term solutions.

3. *Labor relations* are much more contentious than other emerging market economies, partly because they are seen more through political and equity lenses rather than a pure economic lens. Protracted wage disputes and work stoppages, on full display in 2010, contribute to South Africa's rank of 132nd of 139 on the labor relations index of the Global Competitiveness Report. This is an implicit tax on investment, partly explaining why global investors, armed with options, have eschewed long-horizon opportunities (as opposed to short-term securities) in South Africa. In addition, wage levels relative to worker productivity are significantly higher than among its peers,<sup>22,23</sup> also discouraging new investment.
4. *Low savings rates* are discussed in depth in the next section.

Among other key issues, crime emerges as the constraint most frequently cited by the firms covered by the 2010 *Investment Climate Assessment* of the World Bank. Reinforcing this, the latest Global Competitiveness Report ranked South Africa 137th (third from last) on Business Costs of Crime and Violence. Access to reliable electricity, corruption, access to finance by small and medium enterprises, and anticompetitive practices rounded off the top five constraints faced by South African firms. Also influencing investment decisions is policy uncertainty, which the government is addressing in mining, and a volatile and overvalued exchange rate.

## South Africa's savings: Required levels and determinants

What level of savings is needed to support South Africa's growth objectives? This section tackles that question under varying conditions of the employment intensity of production—the number of additional workers deployed for each additional unit of output—and productivity growth. The simulations are based on a simple growth accounting model (annex 4).

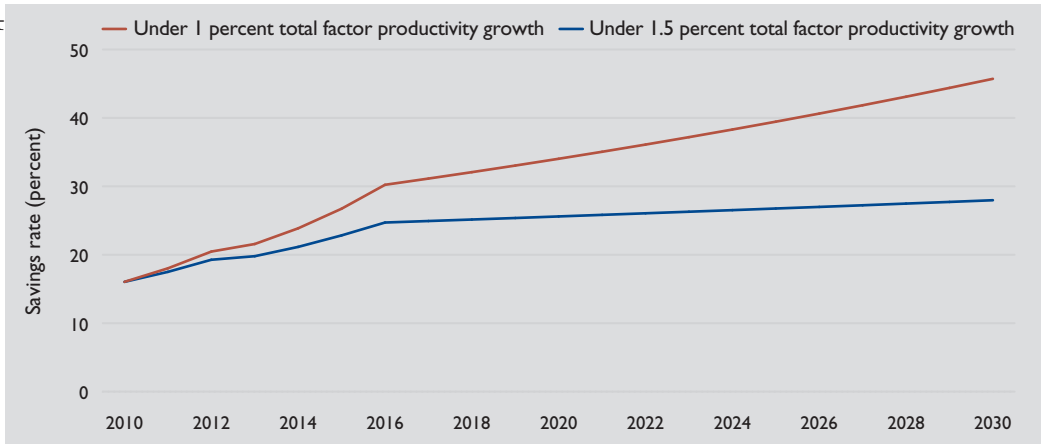
### Savings needed for sustained 6.5 percent GDP growth rate

The scenarios here target an increase in GDP growth from 2.8 percent in 2010 to 3.4, 4.1, and 4.4 percent in 2011, 2012, and 2013 (National Treasury projections) and settling at 6.5 percent from 2016 onward. The investment rate closely follows savings rates to ensure external sustainability. Two sets of assumptions are critical to the results:

- **Technological improvements, or total factor productivity (TFP) growth:** Two alternative assumptions are used. *Moderate TFP growth:* TFP growth of 1 percent per year, estimated to be the average for South Africa over 1996–2006 (Eyraud 2009). *Improved TFP growth:* TFP growth of 1.5 percent a year, reflecting economywide structural reforms geared for greater efficiency.
- **Labor intensity of production:** *Pessimistic scenario:* Growth in the number of employed workers increases to 1 percent, the average rate of increase between 2001 and 2010. *Business-as-usual scenario:* Growth in the number of employed workers picks up from 0.8 percent in 2010 to 1.3 percent in 2013, and to 1.9 percent from 2016 onward, but the employment intensity of growth remains the same.<sup>24</sup> *High employment-intensity scenario:* Employment growth picks up from 0.8 percent in 2010 to 3 percent from 2016 onward. This is predicated on a reversal of the rising capital-labor trends in key sectors such as manufacturing and mining, more flexible labor markets, a more dynamic informal sector, and lower spatial barriers that now raise transportation costs and labor search costs.

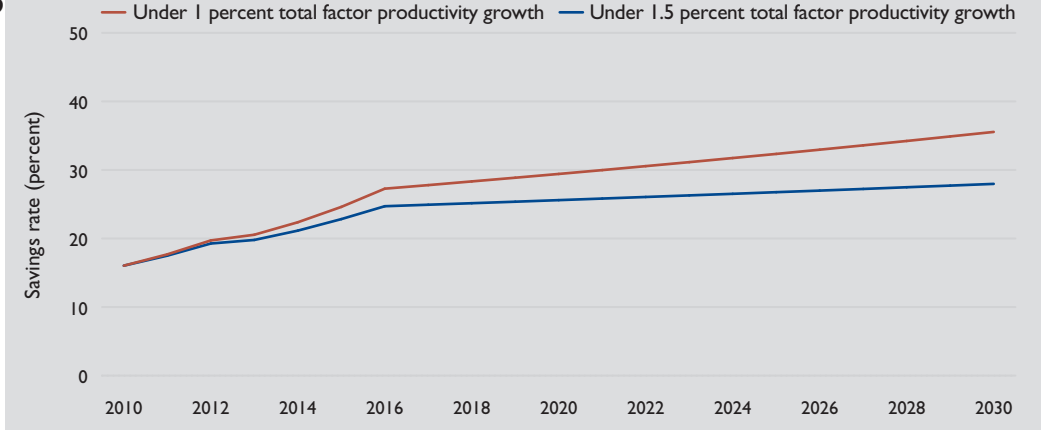
The main results are presented in figures 2.14–2.16.

**Figure 2.14** Projected savings rate for South Africa under pessimistic scenario



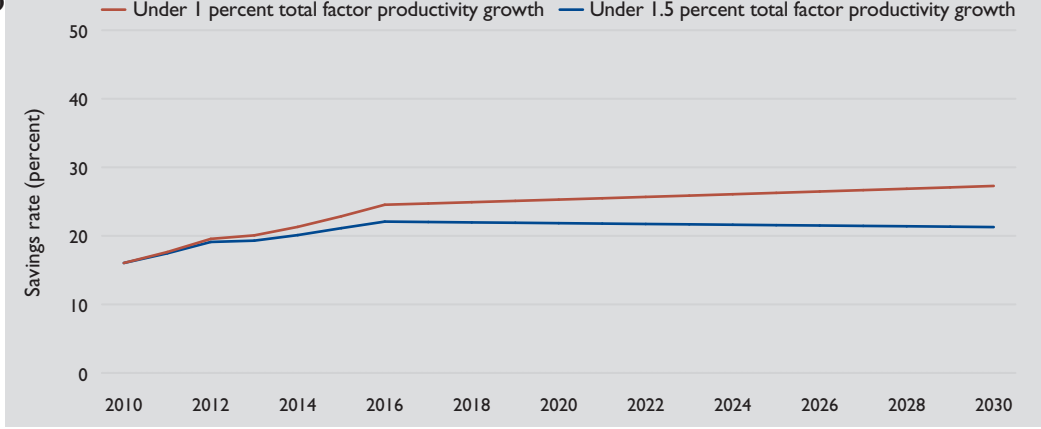
Source: South African Reserve Bank data and World Bank staff calculations.

**Figure 2.15** Projected savings rate for South Africa under business as usual scenario



Source: South African Reserve Bank data and World Bank staff calculations.

**Figure 2.16** Projected savings rate for South Africa under high employment growth path scenario



Source: South African Reserve Bank data and World Bank staff calculations.

**Two crucial factors appear to have kept the savings rate low: youth unemployment and slow income growth**

It is clear from the results that South Africa will find it hard, if not impossible, to increase savings to the levels needed for target growth rates without making production more employment-intensive and enhancing productivity growth. Without commensurate improvements in these two reinforcing areas, savings would need to rise by more than 10 percentage points within a short span of time (five years under current scenarios), something rarely seen anywhere, to support sustained 6.5 percent GDP growth. Or, more realistically, if the savings rate peaks at 25 percent, with the investment rate only slightly above that for sustainability reasons, GDP growth would have to settle down at less than 4.5 percent.

**What is the savings rate consistent with South Africa's economic and structural characteristics? An empirical investigation**

The previous discussion makes clear the need for higher public and especially private savings. The analysis here compares the *actual* change in savings for two nonoverlapping periods against the *predicted* change for the same period (annex 4).<sup>25</sup> For South Africa a natural break point to examine structural changes is 1994. Accordingly, the analysis here considers subperiods: 1968–94 and 1995–2008.

South Africa's savings rates have been significantly below the potential suggested by its economic and structural characteristics (table 2.2). The national savings rate should have declined 4.6 percentage points between the two periods, mainly on account of growing urbanization, financial liberalization, and enhanced macroeconomic stability (box 2.2). The *actual* performance was significantly worse. The national savings rate fell from an average of 24 percent in the first period to 16 percent in the second, a decline of 8 percentage points. In other words, South Africa's savings rate fell short by 3.4 percentage points relative to what it could have been, given its characteristics.

A similar exercise for nongovernment savings finds an even larger discrepancy. The average nongovernment savings rate for 1968–94 was 26.4 percent, which declined to 19.3 percent during 1995–2008. The model predicts an increase of 3.1 percentage points—for an underperformance of 10 percentage points.

Two crucial factors appear to have kept the savings rate low:

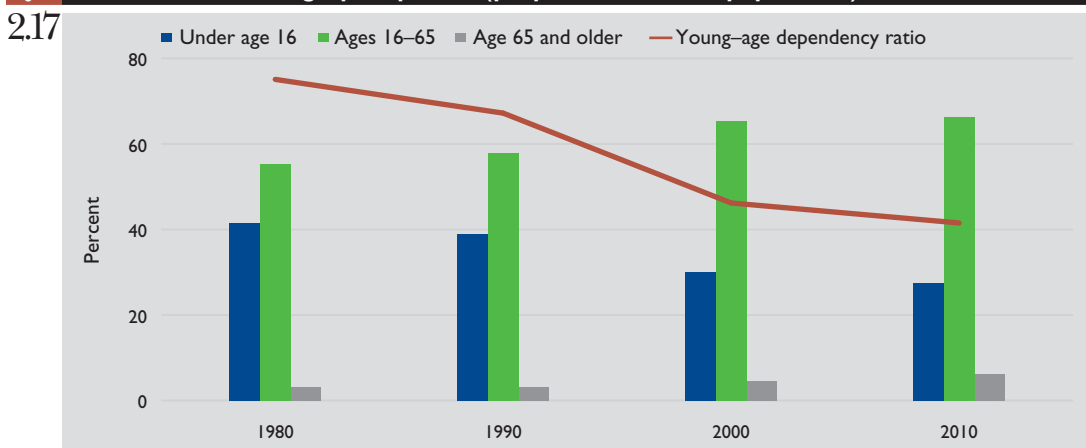
- *Youth unemployment.* With better results on youth employment,<sup>26</sup> the savings dividend from the sharp decline in the young-age dependency ratio (the ratio of those under 15 years of age to the working age

**Table 2.2 Predicted changes in saving rates in South Africa (percentage points)**

	Contribution to change in national saving rate	Contribution to change in nongovernment saving rate
<b>Positive contributors</b>		
Young-age dependency ratio	5.0	12.4
Real gross national disposable income (gross private domestic investment for private saving) per capita growth	1.2	0.9
Real gross national disposable income (gross private domestic investment for private saving) per capita (natural log)	0.1	0.0
Government saving to gross private domestic investment		1.4
<b>Negative contributors</b>		
Urbanization ratio	−6.5	−5.3
Domestic private credit flow to gross national disposable income (gross private domestic investment for private saving)	−1.4	−1.7
Real interest rate	−1.3	−2.8
GDP deflator inflation	−1.3	−1.5
Old-age dependency ratio	−0.3	−0.3
M2 to gross national disposable income	−0.02	−0.03
Terms of trade	−0.02	−0.02
<b>Predicted change in national saving rate</b>	<b>−4.6</b>	<b>3.1</b>
<b>Actual change in saving rate</b>	<b>−8.1</b>	<b>−7.0</b>

Source: World Bank staff calculations, based on Hevia, Ikeda, and Loayza (2010).

Figure 2.17 South Africa's demographic profile (proportion of total population)



Note: Young-age dependency ratio is the ratio of those under age 16 to the working age population.  
Source: UN-World Bank Population Database and World Bank staff calculations.

Box 2.2 Main determinants of savings

2.2

The model applied here picks up the following structural elements as being the most influential for saving:

**Level of income.** It is well established in the empirical literature that higher per capita incomes are associated with higher savings rates. The size of the impact depends on the development level of the country and whether the changes to income are permanent. For South Africa the difference in average per capita gross national disposable income (GNDI) between the two subperiods was negligible; it took until 2006 for per capita GNDI to catch up with 1981. This means the income channel did not play a major role, as it could have.

**Income growth.** A strong positive relationship has been found between income growth and savings by many studies. The causal direction is not yet clear, however. South Africa's real per capita GNDI growth was about 1.7 percentage points higher in the second period, which, according to the results, would have led to an increase in the savings rate of 1.2 percentage points.

**Demographics.** In South Africa the old-age dependency ratio (the ratio of people over 65 years old to the working age population) increased slightly in the second period causing a small drop (0.3 percentage points) in national savings. The decline in the young-age dependency ratio (ratio of people aged 15 years or less divided by working age population) was substantial, from 72.6 percent to 52.6 percent, which should have led to a sharp increase in the national savings rate of 5 percentage points.

**Economic uncertainty.** Risk-averse agents, faced with uncertain events and unable to perfectly insure risks because of incomplete financial markets, accumulate assets to avoid suffering large adjustment in consumption. A common proxy for economic uncertainty is the inflation rate, which fell in South Africa in the second period, lowering the need for precautionary savings. The model predicts that this effect would have caused national savings to be 1.3 percentage points lower over 1995–2008.

**Urbanization.** Uncertainty is also proxied in the literature by the degree of urbanization. Rural incomes, often linked to agriculture and thus exposed to unpredictable weather conditions, tend to be less secure, especially in developing countries. An increase in urbanization can thus be expected to lead to more predictable income streams and to lower aggregate savings. The model predicts that the increase in the urbanization ratio in South Africa would have resulted in a decline in the savings rate of 6.5 percentage points.

**Financial development.** Financial liberalization often involves lifting controls over interest rates, which then rise. The income effect from this tends to increase savings while the substitution effect tends to lower them; the net effect is uncertain. The modeling applied here finds that the negative substitution effect tends to dominate. Thus, the increase in real interest rates in South Africa would have caused savings to fall by 1.3 percentage points. Financial sector development also expands the credit to previously credit-constrained private agents, reducing their savings, something established with regularity in the empirical literature. In South Africa credit to the private sector contracted in the first period but grew in the second. The net effect of the change in private credit would have been a 1.4 percentage point decline in the savings rate. In addition, financial depth, measured by M2/GDP, remained virtually unchanged between the two periods, thus having only a marginal impact on the savings rate.

Improvements in the national savings rate will depend most of all on resolving the high unemployment rates and achieving a mutually reinforcing process of higher savings and faster GDP growth

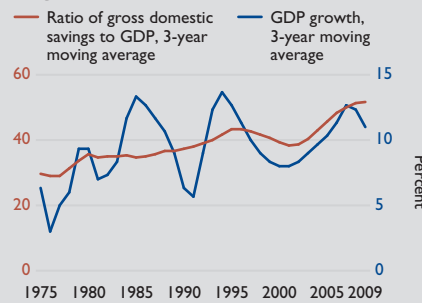
### Box Saving-growth for four successful emerging market economies

2.3

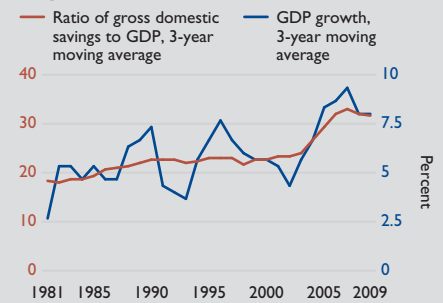
China saw its gross domestic savings rate increase from 40 percent to 52 percent between 2002 and 2009; it stood at 30 percent in 1975 (box figure 1). Chile's rate rose stupendously in the 1980s, from 9 percent in 1982 to 30 percent in 1989 (box figure 2). India's rate was on a gradually increasing trend from the early 1980s until the early 2000s, when it suddenly spurted from 25 percent in 2003 to 34 percent in 2007 (box figure 3). The jump in Indonesia's savings came much earlier—in the late 1960s and early 1970s (box figure 4).

In each case, large positive swings in the savings rates were accompanied by equally large increases in GDP growth rates. It is quite likely that savings and growth reinforced each other while third forces—such as favorable demographics and better policy management—simultaneously helped both processes. High savings were not a prerequisite for growth takeoffs in these cases, but without the savings response, high growth rates would have faltered in the longer term, which these countries largely avoided.

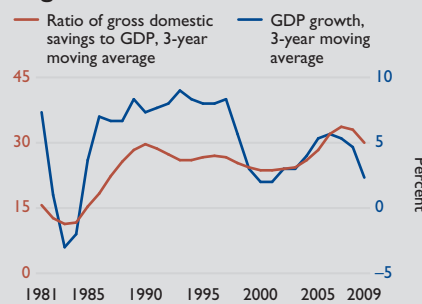
Box figure 1 China



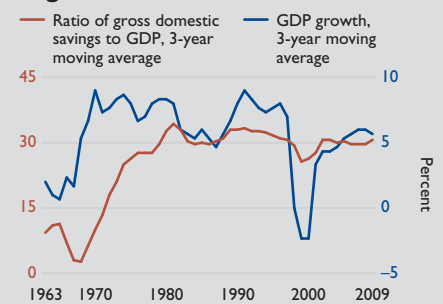
Box figure 3 India



Box figure 2 Chile



Box figure 4 Indonesia



Source: World Bank World Development Indicators data and World Bank staff calculations.

population) seen in figure 2.17 would have been much higher. Even as the young-age population bulge came of age and entered the labor market, the *effective* dependency on income earners did not decline much, due to pervasive youth unemployment, preventing the significant improvements in savings that should have resulted.

- *Slow income growth.* Gross national disposable income barely changed between the two periods, preventing an increase in the savings rate. If it had risen 40 percent rather than staying stationary, national savings would have been 5 percentage points higher in the second period.

#### Policy issues to consider

Looking ahead, visible improvements in the national savings rate will depend most of all

on resolving the high unemployment rates, especially among the youth, and ensuring a GDP growth spurt. According to the United Nations–World Bank population estimates, the young-age population ratio in South Africa fell from 58 percent in 1996 to 47 percent in 2009. This demographic group is still under 30 years of age and, according to employment statistics, facing acute unemployment. Resolving the unemployment problem for this group holds tremendous potential for increasing the savings rate.

A mutually reinforcing process of higher savings and faster GDP growth will also be important. When a big increase in the savings rate is required, it is unlikely to occur on its own. A more plausible view is that if growth and disposable income pick up substantially,

savings will tend to go up because consumption patterns will change more slowly, in line with the habit formation hypothesis.<sup>27</sup> This would lay the foundation for sustained high growth over the long run.

The importance of having savings and income growth reinforce each other is borne out by China, Chile, India, and Indonesia, which had sharp upticks in savings (box 2.3). This suggests the need for a productivity-led growth shock, which could be externally funded (preferably by FDI) in the short to medium term, accompanied by efforts to ensure that the savings response is robust enough to make growth sustainable. A concomitant decline in inequality would only multiply the benefits, since the opportunity to increase savings is greater when people break out of low-income traps. Savings follow only after families cover basic expenditures on food and shelter.

Global experience further shows that permanent increases in public savings tend to increase national savings; more so in the short run than in the long.<sup>28</sup> And reductions in recurrent public spending tend to be more effective in this. With the given stream of government expenditures, it is often irrelevant whether the government taxes today or later. This is known as the Ricardian equivalence proposition, which has strong empirical support. The evidence on the effectiveness of tax incentives to raise savings (including those targeting retirement saving instruments) is also not too promising. So, National Treasury's envisaged fiscal consolidation over the medium run should have a desirable effect on national savings.

The contractual savings system appears to be functioning well overall and does not show much scope for contributing to higher national savings. South Africa had converted its public pension system from pay-as-you-go to fully funded toward the end of the apartheid government the latter according to international experience tends to be associated with higher saving.<sup>29</sup> Moreover, with 9 million members and more than R2 trillion in assets, South Africa already has among the world's largest pension systems relative to the size of its economy.<sup>30</sup> The coverage rate for formal-sector employees is estimated at about 60 percent, relatively high. The ongoing policy debate

around the pricing, efficiency, and governance of the contractual savings institutions and low "preservation" of public pension funds is no doubt healthy. But it is unlikely to significantly increase national savings.

A final matter is the financial exclusion of small businesses and the poor, which has only gotten worse since the start of the global financial crisis.<sup>31</sup> Despite the presence of world-class financial and savings institutions, a large proportion of the population still relies on nontraditional mechanisms for saving and financial security. Participation of low-income groups in the formal system has been estimated at less than 15 percent, often through compulsory workplace schemes (Finmark Trust 2009). Stokvels and burial societies fill this gap for many black South Africans not in the urban mainstream (box 2.4). But such small institutions lack the organizational capacity for scalability and long-term viability, and without adequate regulatory supervision, they can even be susceptible to fraudulent schemes. So, the policy challenge is to find a way of channeling the sophistication of the high-end formal institutions with the innovative drive and reach of the traditional ones to enhance financial inclusion and bring the masses into the savings fold. A lack of microfinance institutions with economies of scale and scope could be the missing link.<sup>32</sup>

### The way forward

Confronted with widespread and persistent exclusion and unemployment, policy makers in South Africa have rightly set their eyes on a trajectory of faster and more inclusive GDP growth. This will require higher rates of investment and savings, more intensive use of labor, and heavy doses of productivity enhancements. Among these essential ingredients for inclusive growth for South Africa, a virtuous cycle is seen at play. Employment-intensive growth would enhance productivity by skilling and tooling the unemployed labor force. Tackling youth unemployment will enhance the benefit from the favorable demographics and raise savings. Productivity enhancements, in turn, will raise GDP growth and attract private investment, while lessening the burden on investment and saving to support higher growth.

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**A trajectory of faster and more inclusive GDP growth will require higher rates of investment and savings, more intensive use of labor, and heavy doses of productivity enhancements**

**Box Stokvels in South Africa**

2.4

Stokvels constitute an industry with which many are familiar but about which little is known. What follows are some of the key facts, figures, and anecdotes that emerge from the rather scattered and scarce information:

The word Stokvel originates from “stock fairs” from colonial times, when it was used to refer to rotation cattle auctions. It has evolved over time as an overarching term for informal community-based saving clubs, including (Wits 2009):

- *Contributions stokvel*—members contribute a fixed amount weekly, fortnightly, or monthly, with the pooled amount allocated on a rotational basis.
- *Basic stokvel*—expands the contributions stokvel to cover specific events such as funeral assistance and Christmas.
- *Purchasing stokvel*—members contribute over a fixed term, at the end of which they purchase big-ticket items such as *Marquee* (big tents for functions) or big gas stoves that can be used to generate income.
- *Grocery stokvel*—members contribute a fixed monthly amount for a specific period, such as one year. The pooled amount is then used to buy durable grocery items (sugar, soap, oil) in bulk, thus taking advantage of economies of scale otherwise not possible for individuals.
- *Investment group*—contributions are used for investment, and dividends are either shared or reinvested.
- *Family stokvel*—family members pool funds in a formal bank account to buy large items such as cars.
- *Burial societies or makgotlas*—used specifically for funerals, though these are not strictly stokvels. Some assist in acquiring and preparing food, and some cover the full cost of the funeral.

The composition of Stokvel memberships has evolved from predominantly rural black poor to urban black executives. The sophistication of a stokvel depends on the composition of its members. The Finmark Trust (2010) estimates that 18 percent of South Africans used informal mechanisms such as stokvels and burial societies in 2010 for savings. One in every two black adults is reported to be member of a stokvel. The 11,000 stokvels registered with the National Stokvel Association of South Africa had between 12 and 150 members each, for a total of around 150,000. Estimates of nonregistered stokvels run in the thousands, the majority of them women.

Efforts to formalize stokvels have met mixed results. The National Stokvels Association of South Africa was established in 1988 as a self-regulating body. The Banks Act (1990) was amended in 2006 to make provision for stokvels. By 2009 all major banks—including Absa, FNB, Standard Bank, Nedbank, and Postbank Ithala—had a savings product customized to stokvels. The “industry” (including “burial societies”) generated an estimated R12 billion in new funds in 2003 (University of Witwatersrand 2009), higher than the R10.7 billion in purchases of bonds during the same year.

Stokvels have been used in the retail sector to negotiate purchases of goods at a discount, from Makro, Unilever, or Shoprite. In investment forums, such as the Sasol Inzalo BEE Investment initiative, provision was made for stokvels to subscribe together with the National Empowerment Fund. Other BEE deals that favored stokvel investment include Telkom, Real Africa Investments, Stokvel Car Rental, Stokvel Times, and Techno Spaza.

Just as higher savings rates will need to underpin higher growth over the long run, higher incomes, especially among the lower end of the income spectrum, will raise the level of savings. This interplay between higher savings and investment, employment-intensive growth, and productivity seems to be operating today at a suboptimal equilibrium, undermining the quest for inclusive growth.

How to move to a more favorable equilibrium? No quick fixes or small perturbations will produce dramatic results. The quest for inclusive growth may require, above all, a significantly different mindset. Two major pushes, both in the spirit of creative and bold thinking, seem to hold the most potential—one requiring a more intensive inward look, and the other an outward look.

- *More effective internal integration holds tremendous potential.* This involves a big push

to better integrate the advanced economy part of South Africa and the less-developed economy part, marked by the spatially separated townships and informal settlements where the bulk of the unemployed live. The advanced economy borders on levels of development seen in industrialized countries, which also means that the scope for fast growth is limited. Faster growth will have to come from the less-developed economy, which has the potential to take off in the same way that other successful emerging market economies have. Ways will have to be found to exploit the “arbitrage” between the two economies, which remain largely unlinked, to ensure that capital flows into, not out of, the less-developed economy—and that labor is more mobile toward the advanced economy while entrepreneurs

2.5

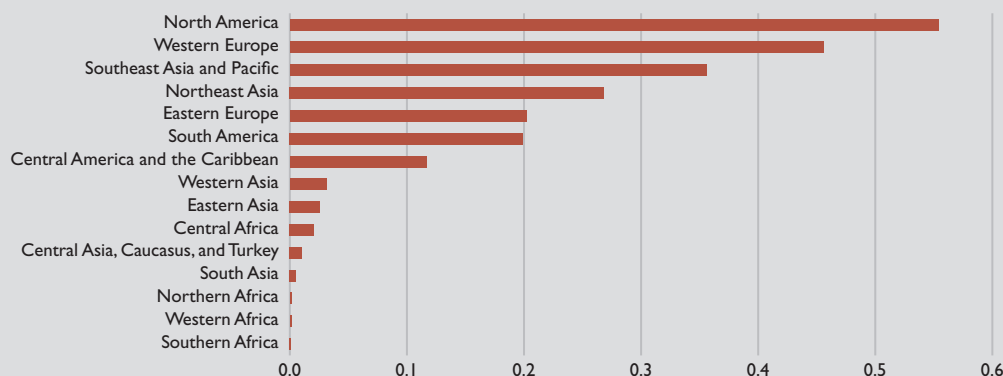
The story of developing East Asia’s dramatic rise from an underdeveloped, mainly agrarian region to becoming the world’s factory in a span of a few decades is regarded by many as an economic miracle. Job creation at an unprecedented scale is among the important outcomes of this experience. Things looked bleak at the start, with high levels of poverty and a low endowment base of natural resources. But this assessment overlooked the ample supplies of cost-effective labor, much like in Southern African countries today, many saddled with high unemployment rates.

Multinationals set up effective production value chains across East Asia, with each link in the value chain located according to the comparative advantages of the host countries. The labor-abundant countries got the labor-intensive parts of the value chain while the more specialized, skill-intensive and capital-intensive parts stayed in Japan, to begin with. But the supply chain system was nimble and adapted to the countries’ emerging strengths in worker skills, wage competitiveness, and capital intensities.

This production agility has served the region well. Among the nonwestern economic blocs, East Asia has the highest intraregional trade, comprising largely intermediate goods, underpinning the region’s global trade and competitiveness agenda, and attracting ample FDI. In other words, Factory Asia has worked well.

Factory Southern Africa has not. Southern Africa remains the least integrated region in the world (box figure 1), despite the presence of a customs union (such as the Southern African Customs Union) and a free trade area (such as the Southern African Development Community), and sufficient variations within the region—whether comparing South Africa’s population of 50 million and Seychelles’ population of 85,000, or Mauritius’s per capita GNI of \$7,250 in 2009 and Democratic Republic of Congo’s \$160—to offer substantial benefits from trade and production specialization. Unlike the nimble production systems in Asia, however, the norm in Southern Africa is for single location production centers with distribution networks in neighboring countries.

**Box figure 1 Intraindustry trade by region, 2008 (Grubel-Lloyd index)**



Source: World Bank 2011e.

Falling regional trade barriers and logistics costs as well as rising labor costs at core production locations spurred the decentralization of Asian regional production networks to more cost-effective locations in the region. Southern Africa, by contrast, has seen the persistence of regional trade barriers, including restrictive regulatory policies, that raise trade costs and create uncertainty (box table 1). While tariffs have been lowered within the Southern African Development Community, significant nontariff barriers remain covering one-fifth of regional trade. That undermines regional trade, lowers the region’s attractiveness to foreign investors, and eventually undercuts regional supply chains. The recent World Bank report referenced below catalogues the costs to specific Southern African industries arising from nontariff receipts. Moving aggressively and strategically on nontariff barriers would open new production and export opportunities for South Africa and scale up existing production, with commensurate benefits for job creation.

**Box table 1 Impacts of nontariff barriers on Southern African trade**

Barrier	Examples of products affected	Southern Africa regional trade potentially affected (% of total)
Import bans, quotas, and levies	Wheat, poultry, flour, meat, maize, UHT milk, sugar	6.1
Import permits and levies	UHT milk, bread, eggs, sugar, cooking oils, maize, oysters	5.4
Single marketing channels	Wheat, meat, dairy, maize, tea, tobacco	5.3
Rules of origin	Textiles and clothing, palm oil, soap, cake decorations, curry powder, wheat flour	3.0
Export taxes	Dried beans, sheep, wood	4.8

Source: World Bank 2011e.

have greater access to its markets. Integrating the two economies will require a big push on public transport infrastructure while implementing programs to enhance financial inclusion and improving the cognitive and technical skills of youth. The “2nd Economy” project of the Presidency is an encouraging start in promoting a better understanding of the issue.<sup>33</sup>

- *More effective integration with the global economy is needed* based on South Africa’s latent comparative advantages, particularly its two surplus endowments in natural resources and unemployed labor. South Africa should

be an attractive destination for long-term global investment based on the returns it offers, but it is not. A clear, consistent, and predictable strategy for attracting FDI will be important in this regard, which will also guide attention to skills development, competition policy, industrial relations, and wage moderation in line with productivity growth, in addition to access to finance for SMEs for stronger backward linkages. Factory Southern Africa can underpin South Africa’s competitiveness in global markets, based on nimble “win-win” regional production supply chains (box 2.5).

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**A clear, consistent, and predictable strategy for attracting FDI will be important to increase global investment and guide skills development, competition policy, industrial relations, and wage moderation in line with productivity growth**



## ANNEX I

# Computing the real return to capital

The focus section follows the work by Bai and others (2006). The return to capital is calculated using the Hall-Jorgenson rental price equation (1967). The firm's decision between selling the capital at a given point in time or continuing using it is based on three factors: the forgone interest it would receive if it sells the machinery and invests the proceeds of such transaction, the depreciation rate, and the changes in the price of capital. Efficient asset markets would equalize the rates of return for each type of capital.

The return to capital is computed under the assumption that firms take the output price as given. The nominal return then is determined by the following formula:

$$i(t) = \frac{P_Y(t)MPK_f(t)}{P_{K_f}(t)} - \delta_j + \hat{P}_{K_f}(t)$$

where  $i(t)$  is the nominal return to capital, and  $P_Y$  and  $P_K$  are the prices for output and capital,  $MPK$  is the marginal product of physical capital, and  $P_Y(t)MPK(t)$  is the marginal revenue product of capital. The hats over a variable indicate rate of change. Then the real return to capital is given by:

$$r(t) = i(t) - \hat{P}_Y(t).$$

One problem with the above expression is that the marginal product of physical capital is not directly observable. But it can be inferred using the capital's share of income in total output. After some algebraic manipulations, the following expression can be used to compute the real return:

$$r(t) = i(t) - \hat{P}_Y(t) = \frac{\alpha(t)}{\frac{P_K(t)K(t)}{PY(t)Y(t)}} + (\hat{P}_K(t) - \hat{P}_Y(t)) - \delta(t)$$

where  $\alpha(t)$  is the capital's share of income in total output. (See Bai and others 2006 for further details.) If we assume that the price of output and capital as well as their rates of change are the same, the equation translates into the familiar expression equating the real return to the marginal product of physical capital minus the depreciation rate.

Finally, this equation, using the definition of  $\alpha$  (ratio gross nominal operating surplus to nominal output) can be rewritten as follows:

$$i(t) = \frac{\text{Gross nom. oper. surplus}}{P_K(t)K(t)} - \delta(t) + \hat{P}_K(t)$$

$$= \frac{\text{Profit rate per unit of physical capital}}{P_K(t)} - \delta(t) + \hat{P}_K(t)$$

$$r(t) = \frac{\text{Profit rate per unit of physical capital}}{P_K(t)}$$

$$- \delta(t) + (\hat{P}_K(t) - \hat{P}_Y(t)).$$

Hence, the above equations indicate that we can compute the aggregate (sectoral) real return to capital using aggregate (sectoral) output, aggregate (sectoral) depreciation, and aggregate (sectoral) capital's share of income in total output. The South African Reserve Bank provides series with the aggregate (sectoral) real stock of capital, nominal and real aggregate (sectoral) output, nominal and real

aggregate (sectoral) gross fixed capital formation, and aggregate (sectoral) gross operating surplus and compensation to employees, as well as an aggregate depreciation series on nominal currency units. Sectoral depreciation series are not available and, for those instances,

we assume an annual depreciation rate of 6 percent. Finally, we also calculated the rate of return using capital stock series computed following the perpetual inventory method, with similar results.



## ANNEX 2

# Empirical relationship between real returns to capital and fixed investment

An empirical test of the relationship between private fixed investment and the real returns to capital is shown in table A2.1.

**Regression 1:** Here the growth rate in private fixed capital formation (PFCF) in period  $t$  is regressed on its lagged value (to capture persistence), a constant, the average real returns for periods  $t-6$  to  $t-1$ , the U.S. federal funds rate (FFR) to capture the global business cycle, and the standard deviation of the GDP deflator inflation for period  $t-6$  to capture macroeconomic uncertainty. The coefficient on the real returns is positive and statistically significant, highlighting that higher real returns lead to higher growth in private fixed investment. Essentially, a 1 percentage point increase in real returns is associated with a 0.13 percentage point increase in private fixed investment. There is a positive and significant coefficient on the lagged value of PFCF growth, showing substantial persistence. All else being equal, a 1 percentage point increase in private fixed investment in period  $t-1$  is followed by an increase of almost half a percentage points in the same variable in period  $t$ . The coefficient on FFR variable also has a positive and significant coefficient. This likely captures the fact that FFR is high during the positive phase of the business cycle when the private fixed

investment is also more robust. The coefficient on the standard deviation of inflation is also positive but statistically not significant.

**Regression 2:** In regression 2 we introduce a time dummy that takes a value of 1 for the post-apartheid years, 1994–2010, and 0 before that. The time dummy is interacted with the real returns variable and the standard deviation of inflation variable to test whether there is a noticeable break in private sector response from 1994 onward. The results are striking. Private fixed investment was highly responsive to real returns in the pre-1994 period: a 1 percentage point increase in real returns tended to increase the growth in private fixed investment rate by 0.31 percentage points. Just as important, this relationship got considerably weaker in the post-1993 period: that is, during this latter period a 1 percentage point increase in real returns led to only a 0.15 percentage point increase in private investment growth, half the magnitude of response in the earlier period before. Somewhat surprisingly, a positive and significant relationship is seen between private fixed investment and the standard deviation of inflation in 1994–2010. This may be on account of an omitted third variable jointly driving fixed investment and macro volatility in the same direction.

Table

**Regression results for the relationship between private fixed capital accumulation and real returns, 1955–2010**A  
2.1

Dependent variable = private fixed capital formation growth	Regression 1				Regression 2			
	Coefficient	Standard error	t-statistic	Probability	Coefficient	Standard error	t-statistic	Probability
<b>Independent variables</b>								
Constant	–0.50	0.75	–0.69	0.51	–1.98	0.92	–2.14	0.04
Real returns (moving average, $t-1$ to $t-6$ )	0.13	0.56	2.41	0.02	0.31	0.08	3.70	0.00
Federal funds rate	0.13	0.06	2.1	0.04	0.13	0.06	2.29	0.03
Standard deviation of GDP deflator inflation	0.04	0.13	0.27	0.79	0.04	0.13	0.28	0.77
Lagged value of producer fixed capital formation growth	0.47	0.11	4.12	0.00	0.38	0.12	3.15	0.00
Real returns (moving average, $t-1$ to $t-6$ ) dummy variable for post-1993 period					–0.16	0.06	–2.72	0.01
Standard deviation of GDP deflator inflation dummy variable for post-1993 period					0.71	0.31	2.29	0.03
	R-squared	0.46	F-statistic	10.77	R-squared	0.53	F-statistic	9.17
	Adjusted R-squared	0.42	Prob (F-statistic)	0.00	Adjusted R-squared	0.47	Prob (F-statistic)	0.00
	Durbin-Watson stat	1.97			Durbin-Watson stat	2.03		

Source: World Bank staff calculations.



### ANNEX 3

# Data and variable construction—Actual vs. predicted values

We follow the work by Hevia, Ikeda, and Loayza (2010) and Loayza and others (2000) to construct the variables used to calculate the predicted change in the national and private savings rate. Data have been obtained mainly from the World Development Indicators and the South African Reserve Bank. All the variables needed for this exercise are available for 1968–2008. We consider two subperiods, pre- and post-apartheid (that is, 1968–94 and 1995–2008). Below we present a brief description on how each variable has been constructed:

#### **Gross national disposable income (GNDI):**

This exercise requires a measure of real GNDI in constant U.S. dollars. Since the World Development Indicators does not report all of the series needed to construct this measure, we first calculate the real GNDI in local currency units (RGNDI in LCU) as:

$$RGNDI \text{ in LCU} = \text{Real GDP in LCU} + \text{Real net income from abroad in LCU} + \text{Real net current transfers from abroad in LCU}$$

We then proceed to compute the ratio of RGNDI in LCU and real GDP in LCU. We use this ratio to compute the RGNDI in USD as follows:

$$RGNDI \text{ in LCU} / \text{Real GDP in LCU} = RGNDI \text{ in USD} / \text{Real GDP in USD}$$

$$RGNDI \text{ in USD} = \text{Real GDP in USD} \times RGNDI \text{ in LCU} / \text{Real GDP in LCU}$$

Since the World Development Indicators series on real GDP in LCU and in USD grow at the same rate, this implies that the RGNDI in USD

and the RGNDI in LCU series will grow at the same rate.

Finally, we have that:

$$RGNDI \text{ per capita in USD} = RGNDI \text{ in USD} / \text{Population}$$

$$\text{Growth of RGNDI per capita} = \ln(RGNDI \text{ per capita in USD}_t) - \ln(RGNDI \text{ per capita in USD}_{t-1})$$

Variables were constructed using the following series from the World Development Indicators: NY.GDP.MKTP.KN, NY.GDP.MKTP.KD, NY.TRF.NCTR.KN, NY.GSR.NFCY.KN, and SP.POP.TOTL.

#### **Gross private disposable income (GPDI), Gross national savings (GNS), and gross public and private savings (GPrivSav and GPubSav):**

$$GNS \text{ to GNDI} = (\text{GNDI in current LCU} - \text{Final consumption expenditure, etc in current LCU}) / \text{GNDI in current LCU}$$

Note: The correlation between GNS to GNDI computed using World Development Indicators and Reserve Bank data is 0.99.

$$GPrivSav \text{ in current LCU} = \text{Depreciation Private Businesses} + \text{Savings Households} + \text{Savings Corporate} + \text{Depreciation Public Corporations}$$

$$GPubSav \text{ in current LCU} = \text{Depreciation Government} + \text{Savings Government}$$

$$GPrivDI \text{ in current LCU} = \text{Final consumption expenditures (private)} + \text{Residual} \times \text{Final consumption expenditures (private)} / (\text{Final consumption expenditures (private)} + \text{Final consumption expenditures (public)}) + GPrivSav$$

$$G\text{PubDI in current LCU} = \text{Final consumption expenditures (public)} + \text{Residual} \times \text{Final consumption expenditures (public)} / (\text{Final consumption expenditures (private)} + \text{Final consumption expenditures (public)}) + G\text{PubSav}$$

We compute the gross public saving to gross private disposable income as:

$$G\text{PubSav to GPrivDI} = G\text{PubSav in current LCU} / G\text{PrivDI in current LCU}$$

Finally, real gross private disposable income in USD is constructed as follows:

$$\text{Real Gross Private Disposable Income in USD} = \text{RGNDI in USD} \times \text{GPrivDI in current LCU} / \text{GNDI in current LCU}$$

The following series from the South African Reserve Bank have been used here KBP6007J, KBP6008J, KBP6011J, KBP6018J, KBP6184J, KBP6185J, KBP6186J, NRI6200J, NRI6201J, and NRI6202J.

**Urbanization, old dependency ratio, and young dependency ratios:** These series have been obtained from the World Development Indicators (series SP.URB.TOTL.IN.ZS, SP.POP.DPND.OL, and SP.POP.DPND.YG).

$$\text{Urbanization ratio} = \text{Urban population} / \text{Total population}$$

$$\text{Old dependency ratio} = \text{Old (above 65)} / \text{Working-age population}$$

$$\text{Young dependency ratio} = \text{Young (below 15)} / \text{Working-age population}$$

**Terms of trade:** This series has been constructed using the World Development Indicators (series NE.TRM.TRAD.XU).

$$\text{Terms of trade} = \ln (\text{terms of trade index}/100)$$

**Measures of financial depth and development:** The ratio of M2 to GNI and domestic and private credit flows to GNDI are used as measures of financial development (FM.LBL.MQMY.CN and NY.GNP.MKTP.CN from the World Development Indicators):

$$M2 \text{ to GNI} = \text{Money and quasi money (M2) in current LCU} / \text{GNI in current LCU}$$

To compute the domestic and private credit flow, we take the average of the current and previous year stock (brought to current prices) and then we divide it by the GNDI, also in current prices. The flows are given by the difference between two consecutive years (series KBP1347J, KBP1368J, KBP6018J from the South African Reserve Bank, and NY.GDP.DEFL.ZS from the World Development Indicators):

$$\text{Total domestic (private) credit to GNDI} = [(\text{total domestic (private) credit}_t + \text{total domestic (private) credit}_{t-1} \times (1 + \text{GDP deflator inflation})) / 2] / \text{GNDI}$$

$$\text{Total domestic (private) credit flow to GNDI}_t = \text{Total domestic (private) credit to GNDI}_t - \text{Total domestic (private) credit to GNDI}_{t-1}$$

**Real interest rate and inflation rate:** We compute the inflation rate using the GDP deflator from the World Development Indicators (NY.GDP.DEFL.ZS). Real interest rates are computed using the bank/discount rate from the IFS (60ZF end of period).

$$\ln (\text{GDP deflator inflation}) = \ln [1 + (\text{GDP deflator}_t - \text{GDP deflator}_{t-1}) / \text{GDP deflator}_{t-1}]$$

$$\ln (\text{real interest rate}) = \ln [(1 + \text{discount rate}) / (\text{GDP deflator}_t / \text{GDP deflator}_{t-1})]$$



## ANNEX 4

# Methodology at a glance

To illustrate the links between savings and growth, we follow the study done by Hevia and Loayza (2011) for Egypt. The setup they use is very simple and consists of a single sector open-economy model where output is produced by combining capital and effective units of labor inputs. Effective labor grows by increases in human capital (years

of schooling) and the growth rate of the workforce. The following equation that links growth rate of output per worker to the national savings ratio, the growth rate of productivity, the growth rate of the workforce, the increase in human capital, and the capital-output ratio is parameterized using South Africa's data:

$$(1 + \gamma_{yt}) = (1 + \gamma_{At}) \left( \frac{(1 - \delta) + \{\sigma_t + \beta((1 + \gamma_{yt})(1 + \gamma_{ARt})(1 + \gamma_{15-65,t}) - 1)\} \frac{y_t}{k_t}}{(1 + \gamma_{ARt})(1 + \gamma_{15-65,t})} \right)^\alpha e^{\phi(E_{t+1} - E_t)(1 - \alpha)}$$

where  $\gamma_{yt}$  is the growth rate of output,  $\gamma_{At}$  is the growth rate of productivity,  $\gamma_{ARt}$  is the growth rate of the absorption rate,  $\gamma_{15-65}$  is the growth rate of the working age population,  $E_t$  is years of schooling,  $e^{\phi E_t}$  is productivity per worker,  $y/k$  is the output-to capital ratio,  $\alpha$  is the share of payments to capital in total income,  $\delta$  is the depreciation rate,  $\sigma$  is the national savings to output ratio, and  $\beta$  is ratio of foreign debt to GDP. This equation indicates that output growth is positively correlated with productivity growth, working age population growth, human capital growth, and the national savings ratio.

Below we include a brief description of the sources and the calculations behind the parameters required to simulate the model for South Africa's economy:

- *Capital accumulation and depreciation rate.* The capital share in output is computed as one minus the compensation of employees

in income, which is roughly 0.5. We also let the depreciation rate be 0.06 (Bernanke and Gurkaynak 2001), which is consistent with depreciation series reported by the South African Reserve Bank. We use the perpetual inventory method to calculate the capital stock series, which gives us a capital-output ratio of 1.85 for 2010, not significantly different from the South African Reserve Bank's series.

- *Education and human capital.* We use Barro and Lee (2010) to compute the annual average increase in education for 1990–2010 (0.08807). We assume that the returns to education are approximately 7 percent.
- *Current account sustainability.* We require the economy to maintain at all times a given ratio of foreign debt to GDP constant to reduce external vulnerability (that is, safe level of foreign borrowing). The average level of net foreign liabilities to GDP

was calculated using data from the South African Reserve Bank (2011) for 2001–09 (0.12). The net income plus transfers from abroad to GDP was obtained using World Development Indicators data and is the average for 2001–09 (–0.033).

- *Labor market.* Labor market parameters are calculated using the March Quarterly Labor Force Survey for 2001–11 and population projections for South Africa from the World Bank. According to the survey, working-age population growth averaged about 1.7 percent over this period. By contrast, the World Bank projects that working-age population will grow at about 0.5 percent over the next 20 years. We use

both pieces of information and assume 1 percent growth for our simulations.

- *TFP, real GDP growth and savings rate.* We target a real growth rate of 6.5 percent, a figure that has been mentioned in budget speeches and in the discussion of the New Growth Path (6–7 percent growth). We take 16 percent for the savings rate, since South Africa’s gross national savings to GNDI is roughly 15–16 percent. Finally, we report simulation results for a 1 percent annual productivity growth (normal TFP growth), which is consistent with Eyraud (2009). We also report results under a relatively optimistic productivity growth scenario (1.5 percent TFP growth).

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# Notes

1. South African Reserve Bank 2011.
2. Difference between number of workers employed between 2008 Q4 and 2010 Q3 (Statistics South Africa 2011).
3. See, for example, “A fresh look at unemployment: A conversation among experts” by the Centre for Development and Enterprise (2011) for a brief description and discussion of some of the main structural issues behind the high unemployment in South Africa.
4. Analysis in Schwab (2010) indicates that it takes three quarters after recession is over for employment to show signs of recovery (and five quarters for unemployment rate to peak). The recovery process in the labor markets is generally longer if the recession is associated either with a financial crisis or a housing bust.
5. According to the International Labor Organization (2011), global unemployment increased from 5.7 percent in 2008 to 6.3 percent in 2009. Preliminary estimates show that it declined marginally to 6.2 percent in 2010.
6. World Bank 2011c.
7. World Bank 2011c.
8. Our estimates show the output gap to be around 2.3 percent of potential GDP in 2010 and 2011, which the projections show to close only by 2014.
9. World Bank 2011d.
10. For example, at a lecture at Beijing University on August 24, 2010, President Jacob Zuma said, “The plans we are now developing are in order for us to achieve a target growth rate of at least 7 percent per annum in the near future.” Similarly, Finance Minister Pravin Gordhan called for 7 percent growth over 20 years in a speech at the University of Johannesburg on March 10, 2011. These aspirations are consistent with National Treasury estimates that GDP growth of 7 percent would be needed for 10 years to create 5.5 million jobs, consistent with the employment target set forth by the New Growth Path.
11. National Treasury estimates that 9 million jobs need to be created in the next 10 years to reach the emerging-market absorption ratio of 56 percent.
12. This is one of the core conclusions of the Commission on Growth and Development (2008).
13. It then declined by 2.7 percent in 2009 on account of the impact of the global financial crisis before recovering to 1.8 percent growth in 2010.
14. The comparator group comprises countries with population of at least 1 million for which data were available for at least 20 years.
15. Lao PDR was able to get by with relative low levels of savings because of heavy donor financing.
16. See, for example, Levine and Renelt (1992).
17. Feldstein and Horioka 1980; Mankiw and others 1992; Attanasio and others 2000.

18. The breakdown between savings of public and private corporations is not available.
19. At the sectoral level the data needed for the calculations are not available before 1993.
20. National Planning Commission of the Republic of South Africa 2011.
21. World Bank 2011a.
22. World Bank 2010.
23. The Global Competitiveness Report ranks South Africa 112th on its index on Pay and Productivity.
24. GDP growth averaged 3.5 percent between 2001 and 2010 while employment growth averaged 1 percent. The baseline scenario assumes that the ratio of employment growth to GDP growth (or the employment intensity of growth) remains the same. Using the GDP projections from the 2011 Budget for 2010–13 and setting growth of 5 percent and 5.7 percent for 2014 and 2015 and 6.5 percent for the rest of the simulation horizon, gives the employment growth rates described in the text.
25. Hevia, Ikeda, and Loayza (2010) recently applied this framework to a country case study on Egypt.
26. According to the labor force data, the unemployment rate is 50 percent among those between the ages of 15 and 24, and 40 percent among those between the ages of 15 and 30.
27. Carroll and others 2000.
28. Schmidt-Hebbel and Serven 1999.
29. Schmidt-Hebbel and Serven 1999.
30. National Treasury of the Republic of South Africa 2011.
31. World Bank 2011c.
32. Since 2002, the world-famous Grameen Bank in Bangladesh has successfully issued market-based savings instruments—varying from individual passbook savings accounts to contractual products such as the hugely popular Grameen Pension Scheme recurring deposit product to good effect to millions of poor Bangladeshi's. A good account may be found in Wright (2011).
33. Trade and Industrial Policy Strategies 2009.



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