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OECD Economic Surveys: South Africa 2010



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This book has...



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BASIC STATISTICS OF SOUTH AFRICA

(2009, unless otherwise noted)

THE LAND						
Area (thousand sq. km)	1 221					
THE PEOPLE						
Population (millions, mid-year) Provinces (% of total population) Eastern Cape Free State Gauteng KwaZulu-Natal Limpopo Mpumalanga Northern Cape North West Western Cape Annual population growth (%, 2001-09) Inhabitants per sq. km.	49.3 13.5 5.9 21.4 21.2 10.6 7.2 2.3 7.0 10.9 1.2	Labour force (thousand, 15-64) Employment (% of total) Agriculture Industry and construction Services	17 383 5.1 25.0 69.8			
• •		STIC PRODUCT				
	S DOME	STIC PRODUCT				
Gross domestic product In rand billion Per capita (USD, PPP, 2008)	2 408 10 116	Gross value added (% of total) Agriculture Industry and construction Services	3.0 31.1 65.8			
PUBLIC FINANCES						
Consolidated government (2008/09, % of GDP) Revenue Expenditure	29.7 30.8	Central government gross debt (2008/09, % of GDP)	27.0			
FOREIGN TRADE						
Exports of goods and services (% of GDP) Main exports of goods (% of total) Machinery and transport equipment Non-ferrous metals Crude materials, inedible, except fuels Mineral fuels, lubricants and related materials	27.1 20.0 16.0 15.7 11.2	Imports of goods and services (% of GDP) Main imports of goods (% of total) Machinery and transport equipment Mineral fuels, lubricants and related materials Manufactured goods and articles Chemicals and related products	28.0 34.8 21.4 19.4 10.5			
	THE CU	JRRENCY				

Monetary unit: Rand

Rand per USD (period average):

8.44

Executive summary

A strong macroeconomic policy framework has helped to improve growth performance over the past two decades, but the 2008-09 downturn highlighted the limitations of the domestic-demand-led growth path which has characterised South Africa in recent years. Unemployment, which had remained very high, if declining, throughout the boom years, turned up again in the recession. There is now a need both to ensure a rapid recovery from the downturn and to boost trend growth and thereby create the millions of jobs required to make full use of South Africa's large supply of underutilised human resources.

The global downturn struck South Africa when it had already passed the boom, and the economy slowed sharply, experiencing its first recession in 17 years. The decline in output was moderated by a countercyclical policy response, made possible by past fiscal prudence, and by the resilience of the banking system, which did not experience a crisis. Growth has resumed and is projected to accelerate, but macroeconomic policy stimulus should be removed only gradually, as a self-sustaining recovery, led by the private sector, takes hold.

Evidence suggests several ways to improve South Africa's trend growth performance. Notably, all economies experiencing successful rapid economic development in recent decades have had much higher savings and investment rates and stronger export growth than South Africa, and policy action to increase saving and strengthen export performance are therefore warranted. South Africa should do more to resist waves of real appreciation of the rand associated with surges in private capital inflows, which are largely driven by investor sentiment towards emerging markets in general, and commodity plays in particular. Tighter and more countercyclical fiscal policy, verbal and foreign exchange intervention, and liberalisation of capital outflows all have a role to play. Another key to better trend growth is reform of the regulatory environment. South Africa has low levels of competition and relatively restrictive product market regulation, which hampers more broad based innovation. OECD research suggests that lowering barriers to entrepreneurship could substantially boost South Africa's long-term growth rate.

The macroeconomic framework is strong, but can be improved. South Africa has a good track record of fiscal prudence, but, as in other countries, fiscal discipline was eroded in the cyclical upswing. South Africa would therefore benefit from stronger fiscal institutions to prevent unwarranted fiscal expansion when the economy is strong. The monetary policy framework is sound, but could be refined to bolster the credibility of the inflation targets and to exploit scope for limiting exchange rate fluctuations, to the extent this is compatible with achieving the primary goal of keeping inflation within the target range.

Labour market reforms should complement improved macroeconomic policies to deliver higher employment. A greater level of co-ordination of wage bargaining focusing on wage and price moderation as the ultimate goal, with the government providing a voice for labour market outsiders, could deliver greater wage moderation and increase the credibility of the inflation target. Limiting the legal extension of sectoral bargains would also foster wage moderation and lead to stronger job creation, particularly among smaller and medium sized firms. Other important

measures to raise employment over the long term include improved basic education, reduced spatial mismatches between jobseekers and jobs, and better access to credit for small enterprises. Within an overall employment strategy, measures should be targeted at tackling youth unemployment. These could include job search assistance, training-based wage subsidies, age-differentiated minimum wages and extended probationary periods for young workers.

Assessment and recommendations

South Africa needs to boost growth through making better use of its resource endowments

Thanks in part to a better policy framework, growth performance in South Africa has improved over the past two decades. However, this was not sufficient either to offer enough employment opportunities for the young and growing population or to close the aggregate income gap with OECD countries. Despite a strong macroeconomic policy framework, job creation and productivity growth remain too low to underpin sustained rapid GDP per capita growth. Better performance on these fronts is needed to make sustainable the remarkable alleviation in poverty brought about by expanded social transfer programmes by gradually augmenting it by income from economic activity. The overarching challenge for South Africa is to boost its trend growth rate and thereby create jobs. Most successful historical examples of rapid development have been characterised by high savings and investment rates and strong foreign trade growth often kick-started by a period of undervaluation of the currency or at least a reduction in the degree of overvaluation. Despite a favourable endowment of both labour and natural resources, South Africa has in recent years experienced a rather different pattern of economic development, one characterised by strong domestic demand growth, low savings and investment rates, and weak export performance and an overvalued currency. This constellation was accompanied by high capital inflows from portfolio investors, while net foreign direct investment inflows were relatively modest. The financial crisis has highlighted the need for increasing potential growth through a combination of more counter-cyclical macroeconomic policy frameworks and structural reforms leading to higher employment, more competition on product markets and greater innovation.

Growth objectives should not be limited to a higher increase of GDP per capita. Several aspects of welfare are not captured by GDP, and not all are necessarily even correlated with it. In addition, even to the extent that GDP is an adequate proxy for wellbeing in a given period, focusing only on output would ultimately be self-defeating if sustainability were compromised. In particular, environmental conditions affect both current well-being and whether prevailing levels of well-being can be sustained. South Africa tends to score relatively poorly on broad indices of environmental conditions, especially in the area of greenhouse gas (GHG) emissions. Better incentives would make the economy more environmentally sustainable, including by reducing GHG emissions, and could also provide a boost for the development of industries which provide solutions in this respect.

The multi-faceted issues facing the South African economy pose policy challenges for the government on many fronts that need to be addressed simultaneously. The focus of this first OECD Economic Survey of South Africa is on increasing the trend growth rate and thereby

achieving higher employment, albeit through a broad range of policies. Measures which could help to achieve this goal include support through structural reforms of a shift of resources from either inactivity or serving domestic demand to the export sector, and refinements to South Africa's already strong macroeconomic framework to make policies more growth-friendly overall. To this end the following policy priorities should be considered:

- Increasing the employment rate by reforms to wage determination mechanisms, improved school-to-job transition, reducing general skill/location mismatches in the labour market, developing entrepreneurialism and addressing bottlenecks in the implementation of employment protection regulation.
- Reforming the regulatory environment by reducing entry barriers, increasing the scope for competition in network industries and reducing direct government influence on the economy, which should also widen the scope for productivity-increasing innovation.
- Refining the macroeconomic policy framework to build on the successes already
 achieved in delivering a greater degree of monetary stability coupled with fiscal
 sustainability while also reducing the real exchange rate relative to a no-policy-action
 scenario in order to facilitate an export-led growth acceleration.

One issue to bear in mind with respect to all policy actions is administrative capacity, which, as recognised in the AsgiSA economic strategy of 2006, is limited. There are other policy areas critical to long-term economic performance which are not addressed in detail in this *Survey* but which will be taken up in greater depth in future *Surveys*. Notable among these is education, where outcomes continue to be poor on average and extremely variable.

The global crisis accentuated a slowdown already underway...

South Africa was already moving into a cyclical downturn when the international crisis struck, with high interest rates having choked off a prolonged house price boom and halted growth in private consumption. What might have been a moderate growth slowdown in South Africa, as households worked down excessive debt loads via higher savings rates, became a recession as global financial conditions deteriorated and world trade collapsed. South Africa's decline was led by manufacturing and mining where the sudden drop in export demand was reflected in a sharp reduction in private investment and subsequently in falling employment. Consequently, South Africa experienced a sharp deceleration of growth from more than 5% in 2007 to a fall of almost 2% in 2009.

... but the economy was only about averagely affected, in part because there was no banking crisis

Nevertheless, South Africa's downturn was fairly shallow: the peak-to-trough fall in output was smaller than in most OECD countries and emerging market economies. On a sectoral basis, the most important offset to the negative dynamics that took hold in manufacturing and mining was construction, which held up well through the recession. This was primarily a function of public investment, in part linked to the preparations for the 2010 World Cup and associated transport projects. Also, notably, South Africa

experienced no bank failures, and a surge in non-performing loan (NPL) rates in 2009 was easily absorbed. There were several reasons for this, including: the banks' strong profitability; the low level of NPLs and comfortable capital cushions going into the downturn; banks' lack of direct exposure to problem assets from the US and Europe; bankruptcy laws that favour creditors in recovering collateral for bad loans; and conservative approaches on the part of both the regulator and the banks themselves.

The crisis response allowed automatic stabilisers to work but was relatively cautious with discretionary stimulus

Macroeconomic policies during the crisis were countercyclical, although to a lesser extent than in many other countries. The consolidated government budget balance worsened by about 6 percentage points of GDP in the 2009/10 fiscal year, due in roughly equal measure to lower revenues and higher expenditure. The latter was less a function of discretionary anti-crisis measures than the maintenance of pre-existing spending plans in the face of the economic slowdown as well as an unexpectedly large public sector wage increase. Ambitious capital expenditure plans in energy and transport by public enterprises that were similarly approved before the crisis and not revised downwards also supported output during the decline. Monetary policy was eased, but not particularly aggressively. In contrast to many OECD countries, where interest rates fell nearly to zero, the South African Reserve Bank's (SARB) repo rate bottomed out at 6.5%, reflecting initial inflation that was well above the SARB's target range and backward-looking inflation expectations. No emergency actions, such as capital support for banks or quantitative easing to support lower interest rates, were needed.

Growth has resumed, and is likely to strengthen this year and next

After three negative quarters, growth turned marginally positive in the third quarter of 2009 and quickened in the following two quarters, as private consumption resumed growing after five quarters of contraction and the rate of inventory drawdown slowed. Momentum appears to have continued to build in 2010, with house prices picking up and leading indicators signalling growing strength. In addition, external conditions have become more favourable, with a strong recovery of global trade volumes and surging prices for South Africa's main export commodities. The economy will also have been boosted by the staging of the World Cup. Output growth is therefore expected to be robust in 2010 and exceed potential in 2011.

The recovery should be fostered in the near term, although macroeconomic policy will need to tighten as the recovery firms

The output gap is unlikely to be eliminated before 2012, and the key short-term task is to consolidate the emergence from recession and facilitate a rapid catch-up to potential output. The decline in employment since the onset of the recession was much sharper than that of output, amounting to some 7½ per cent between the last quarter of 2008 and

the first quarter of 2010. A sluggish recovery would be likely to mean a continued upward creep of structural unemployment, eroding the human capital of displaced workers whose connection to the labour market is weakened. Slow growth would also delay the pickup in investment via accelerator effects, increasing the negative impact on potential output and hindering progress on the reduction of poverty and unemployment. The decline in inflation in recent months, combined with the strength of the rand, the negative output gap and the hesitant recovery to date, suggests that the latest downward move in the SARB's policy rate (in March 2010) was well judged. Indeed, scope may yet remain for some further reduction of interest rates, which would be supportive of output growth. As to fiscal policy, public debt levels remain moderate at 32.8% of GDP and the current (2009/10) deficit of 6.7%, although large historically, is not extreme by international standards, so that the modest withdrawal of fiscal stimulus foreseen in the 2010/11 budget achieves about the right balance between supporting demand and preserving fiscal sustainability as long as the economic recovery is in line with government projections. As the recovery proceeds, or if it is faster than expected this year, there should be further fiscal consolidation, both to safeguard the public balance sheet and to avoid aggravating macroeconomic imbalances. Monetary policy makers will also have to remain vigilant, given that inflation expectations have proved to be backwardlooking and downwardly sticky, which has been recently reflected in surprisingly strong wage settlements considering the extent of labour market slack.

Looking beyond the crisis, South Africa needs to improve its trend growth performance and pay more attention to the environment

Beyond bringing the economy back to potential, many challenges remain. These are broadly interlinked by the need to make better use of South Africa's abundant resources, both physical and human, to accelerate the increase in living standards. Growth performance has been mediocre, with per capita GDP increasing by some 1.6% a year from 1994-2009, and by 2.2% over the decade 2000-09, far behind the most dynamic emerging economies. Moreover, although trend growth does appear to have improved somewhat over the past 16 years, South Africa is unusual among emerging economies in having failed to achieve any convergence towards the OECD average of GDP per capita over that period. Faster growth is needed to achieve the government's social and economic targets and to meet the aspirations of the people.

South Africa tends to score relatively poorly on broad indices of environmental conditions, especially in the area of greenhouse gas emissions. This is due to its industrial structure and its heavy reliance on coal for electricity generation. The need for progress on tackling climate change has been recognised by the government, but little concrete action has yet been taken to put a price on carbon or stimulate renewables. Moreover, the existence of favourable energy prices for some large industrial users, electricity prices that did not cover capital costs for the development of new capacity, and low coal purchase prices for the dominant electricity generator have all tended both to hinder economic efficiency and aggravate carbon emissions. The urgency of the global problem, South Africa's status as a relatively large emitter, and the slow progress to date all suggest that efforts to mitigate emissions should be accelerated. One important element would be to move to electricity prices that fully cover long-run costs, with no subsidies for industrial customers. Other measures could

include a carbon tax, greater use of other green taxes, and faster development of renewable energy projects and carbon capture and storage.

... and raising savings rates is likely to help...

Although the relationship between domestic savings and economic growth is theoretically ambiguous, empirically they are strongly correlated. While this correlation does not demonstrate causality, the Commission on Growth and Development (the Spence Commission) noted that there was no case of a sustained high investment path not backed up by high domestic savings, and other recent empirical work finds that growth accelerations are typically preceded by increases in savings rates and an improvement in the current account. The picture for South Africa over the past decade is strikingly different: net private capital inflows were large, the current account deteriorated sharply, and savings and investment rates were low. It therefore appears that efforts to raise the savings rate are warranted. To that end, public saving over the cycle should be increased. There is little evidence on policy measures that reliably boost private saving, but one which would normally be expected to have such an effect is the implementation of a compulsory pension savings scheme, such as is currently under consideration in South Africa. Even automatic enrolment in a pension plan, with the possibility of opting out, would be likely to have a positive effect on household saving, especially if combined with a "save more tomorrow" mechanism of automatically increasing contribution rates.

... as are policies to remove obstacles to a better export performance

Export performance in non-industrial countries appears to be strongly related to economic growth. In particular, for such countries, overvaluation of the domestic currency is associated with slower growth, and growth accelerations are generally preceded by reductions in overvaluation or a period of undervaluation. By contrast, the prolonged surge in private capital inflows to South Africa beginning in the early 2000s was associated with a significant increase in the real exchange rate, a very large current account deficit and relatively weak export volume growth. The effect on South Africa was accentuated by the exchange rate policies of some other emerging markets, which meant that they experienced less appreciation and improved their competitive position. All measures to manage real appreciation pressures have risks and costs of their own and are of uncertain effectiveness, but South Africa's circumstances suggest that there could be net benefits from a range of actions designed to ease upward pressure on the real exchange rate:

- Making fiscal policy more rule-based and more countercyclical. This would, with respect to commodity price cycles, provide a greater degree of offset to private capital inflows, which often surge when commodity prices are rising.
- Using foreign exchange intervention more actively to resist overvaluation. The SARB has already
 tended to accumulate reserves when appreciation pressures have been strongest, while
 refraining from intervening to resist depreciation. Nonetheless, a somewhat more active
 intervention policy providing for a more rapid accumulation of reserves when net
 inflows are strong and allowing depreciation when they ebb, as long as this remains
 consistent with the primary goal of keeping inflation in the SARB's target range, could do

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more to avoid or mitigate overvaluation. In any case, South Africa's current level of reserves is low by emerging market standards, leaving some room for an increase on prudential grounds. Backing up foreign exchange intervention by increased communication efforts to give stronger signals to markets about where the authorities see the exchange rate in relation to its equilibrium level.

- Liberalising capital outflows. Removing the remaining controls on capital outflows and replacing them by prudential rules would provide a one-off easing of pressure for rand appreciation, while also enhancing economic efficiency and easing the administrative burden on residents.
- Raising savings rates. Given the negative relationship between savings and overvaluation, the
 options for raising saving also apply in this area.

The inflation-targeting framework has proven to be flexible, and should be kept, though some modifications could be made

The inflation-targeting regime put in place a decade ago has had notable success. The transparency and predictability of monetary policy have been improved, and inflation and interest rates have been lower on average than in previous years. Like most other inflationtargeting central banks, the SARB has implemented inflation targeting flexibly, taking into account output and employment in the short-run while attempting to ensure that the inflation target is achieved over time. Nonetheless, on the one hand it is criticised for having been too rigid, while on the other hand measures of inflation expectations show that the targets are not seen as fully credible by all economic agents. Additional communication efforts are warranted to bolster the credibility of the inflation target, especially to ensure that the social partners use it as guidance for wage and price setting. The recent outreach initiative of the SARB is a useful step in that direction. To further increase transparency and signal commitment to price stability over the longer term, the SARB should consider moving in the direction of announcing a policy rate path consistent with the inflation objective. At a first stage, this might involve merely signalling the foreseen direction of policy rates. Ultimately, in line with certain other inflation-targeting central banks, the SARB could begin to publish a projected policy rate path in its Monetary Policy Review. Credibility would only be weakened by a change in the target band, which anyway does not appear to be warranted. The existing band is among the highest internationally. To a large extent this is justified, since in emerging market economies like South Africa relatively rapid productivity growth in the tradables sector is generally transmitted through the economy via higher rates of inflation than in advanced countries. The current target range provides ample room for such effects.

Fiscal policy could be strengthened by mechanisms to prevent it becoming pro-cyclical when the economy is strong

The boom in government revenues in the years preceding the crisis eroded the prudent fiscal position and was pro-cyclical, as spending was ratcheted up just as the cycle was peaking. The estimated structural balance, which remained in deficit throughout the boom years, began to deteriorate in FY 2007/08 and worsened substantially in FY 2008/09. In this

respect, South Africa behaved similarly to many other countries which also raised spending as revenues grew rapidly. Although South Africa's public debt burden remains moderate, there has been a sharp shift in the trend, and a difficult medium-term fiscal consolidation lies ahead. While the National Treasury's commitment to prudence remains unquestioned, South Africa might benefit from additional mechanisms to prevent similar policy errors in future cyclical upswings. This could usefully include a target on the structural balance, buttressed by an expenditure rule. The technical aspects of administering such rules and public acceptance of the need for fiscal prudence – as has been consistently advocated by the National Treasury - could both be facilitated by using input from a group of independent experts, as is done in a number of OECD countries. International experience suggests that fiscal rules of this sort, if backed by political will, are useful. The Treasury should in any case continue to develop and draw attention to its work on cyclically adjusted fiscal balances, and existing multi-year expenditure projections could be given greater status, such as by making the expenditure envelope for the out-years legally binding. This would increase the degree of public and parliamentary scrutiny in the case of proposed deviations from those projections in subsequent budgetary cycles.

... and it may become worthwhile to separate commodity-related revenue to ensure that windfalls are saved

A number of other resource-rich countries have opted to create commodity funds to better insulate their budget and economies from swings in commodity prices. Linking net flows into these funds to commodity prices reduces pressure to spend windfalls when prices are high and provides an extra source of budgetary finance when prices are low. Also, investing in foreign assets can offset some of the pressure for real appreciation of the currency when prices of export commodities are high. South Africa's case is less straightforward than some others, since direct tax revenues from mining are unusually low relative to the size of the sector, and since the revenues come from a number of commodities. Nevertheless, perhaps in conjunction with a greater effort to identify and tax economic rents from natural resource extraction, a mechanism to ensure that commodity price windfalls are saved should be given further consideration.

Low employment remains the overriding policy challenge

South Africa has an extreme and persistent low employment problem, which interacts with other economic and social problems such as inadequate education, poor health outcomes and crime. While the unemployment rate fell steadily from 2002 through 2007, helped by the strong cyclical upswing, it never fell below 20% and by the first quarter of 2010 was back above 25%, near the levels of 2004. In addition to high open unemployment, South Africa's very low labour force participation rate in part reflects a large number of discouraged job-seekers, so that on a broader measure, including such individuals, the unemployment rate is above 30%. As in other countries, vulnerable groups are most affected by unemployment, and in South Africa the problem is most extreme for black youth, for whom the unemployment rate exceeds 50%.

Just as the causes are complex, the solution needs to be multi-dimensional

A range of supply- and demand-side factors contributed to the strong rise in unemployment in the decade from the early 1990s and its persistence since then. The end of apartheid was associated with a surge in labour force participation among generally younger, less-skilled and undereducated black Africans, just as the structural balance of the economy was shifting to more skill-intensive sectors. The HIV/AIDS epidemic damaged the employment prospects of millions via higher absenteeism and reduced productivity and capacity for job search. And the dysfunctional spatial allocation of the population inherited from the apartheid era has resulted in high reservation wages owing to long, expensive, and sometimes dangerous trips for job search and commuting. A further damaging apartheid legacy was the low level of entrepreneurialism among the black population. There are also signs of a growing dualism in labour markets, with large union wage premia and rising real wages in larger formal sector firms, but broadly stagnant economy-wide real wages. Possibly the single most important factor in the failure to generate faster employment growth, however, has been the mediocre trend growth performance of the economy, combined with the relatively low labour intensity of growth over the economic cycle. In light of the multiple factors underlying the low employment problem, a range of policy responses - on top of the above-mentioned policies to increase trend growth, which are key - will be required if South Africa is to achieve the rapid sustained growth in employment that it needs.

Structural reforms are needed to improve the functioning of labour markets

Thus, on top of an overvalued exchange rate, cost competitiveness has been jeopardized by insider-dominated wage bargaining. One promising direction to endow outsiders with more voice might be to increase the degree of co-ordination in wage bargaining. OECD experience suggests that high levels of co-ordination - either through greater centralisation or greater decentralisation - are associated with better employment outcomes by avoiding inflationary wage demands, reducing the real costs of disinflation and increasing the scope for interest rate reductions. Currently South Africa is characterised by an intermediate level of wage co-ordination, which is found elsewhere to be associated with poor employment outcomes. Increased coordination could be achieved by bringing social partners together at the beginning of each annual wage negotiation round and getting agreement on guidelines for increases in that year. Actual bargaining would continue to take place in the same way as it does at present, but against the background of such guidelines. Government involvement in the process could help to make the trade-offs between wages, employment and unemployment clearer to social partners. Weakening the legal extension of sectoral bargains would likely also help with wage moderation, since social partners would know that agreed wage levels could be undercut by other firms.

Within an overall employment strategy, measures should be targeted at tackling youth unemployment

In South Africa, as elsewhere, very high youth unemployment rates for the most part reflect high overall unemployment. Youth, being on the margins of the labour market, tend to be the worst affected. A necessary condition for lower youth unemployment rates is therefore likely to be an increase in overall employment. In such a rising tide, however, youth may be the last boats to be lifted, just as they are the first to be stranded in the ebb. Given that the negative externalities of long-term unemployment are likely to be particularly acute for the young, youth-specific measures should be an important part of an employment strategy. Survey evidence suggests that the existing programme of learnerships, subsidised training with preferences for employees hired out of unemployment, has suffered from an excessive administrative burden. A broadened wage subsidy programme, possibly building on improved learnerships, should bear in mind the priority of keeping administrative demands light. Expanded job search assistance would also be worthwhile, with an upgrading of the public Job Centres and better linkages to other job-seeker databases. Sectoral minimum wages should be differentiated by age to make it easier for the young to break into the job market. Special extended probation periods for employees below a given age could also be considered.

Less restrictive product market regulation is one clear priority to increase job creation and productivity growth

Liberalising product market regulation is another initiative that would be expected to lead to better labour market outcomes, by reducing the rents available to be shared with labour market insiders at the cost of employment. The responsiveness of employment to the overall economic climate would also be enhanced by improved access to credit for small enterprises and the development of entrepreneurship in the African population, and further public resources could be devoted to these ends. Initiatives should be rigorously evaluated to avoid waste and ensure focus is placed on successful instruments.

In the long run, converging on OECD income levels will require a large increase in average productivity, i.e. in the economic and technical efficiency of production. Empirically, a strong relationship has been found between robust competition in product markets and the performance of firms in the critical areas of innovation, capital-deepening and corporate management. Competition also removes the allocative distortions caused by monopolistic market structures. However, product market regulation in South Africa is not conducive to robust competition. The OECD's Product Market Regulation indicator puts South Africa among the countries with the most restrictive regulation, and South Africa is found generally to have low levels of product market competition. Econometric work on a range of OECD and emerging economies suggests that lowering excessive South African barriers to entrepreneurship to the OECD average could translate into approximately a ½ per cent higher average annual rate of GDP per capita growth over the subsequent decade. Product market regulation, especially as regards barriers to entrepreneurship, should be made less restrictive in order to spur dynamism.

Chapter 1

Moving beyond the crisis and finding a new sustainable growth path

The global crisis turned what might otherwise have been a mild slowdown in South Africa into a recession. However, thanks to moderately countercyclical macroeconomic policies, and in the absence of a banking crisis, South Africa was only about averagely affected by the global downturn. Given the losses in employment that ensued, pushing up the already very high unemployment rate, the short-term priority is to get the economy growing strongly on a sustainable basis. Once a private-sector-led recovery takes hold, fiscal policy should be tightened and monetary policy will have to protect the credibility of the inflation target in the face of stubbornly high inflation expectations. Beyond the crisis and its aftermath, South Africa needs to improve its trend growth performance to meet the material and social aspirations of its people. Among the areas to focus on to that end, this chapter picks out improving framework conditions for business, higher savings, increasing the contribution of exports to growth and strengthening efforts to tackle climate change.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

The 2008-09 economic crisis

Like many other countries, South Africa was hard-hit by the global economic crisis, mainly through trade and financial channels. Although output growth was slowing from mid-2007 (year-on-year growth peaked in the first quarter of 2007), quarterly real GDP growth was positive up to and including the third quarter of 2008, when the international financial crisis intensified with the collapse of Lehman Brothers and the near-failure of AIG (Figure 1.1). The shock to international confidence had an immediate sharp effect on capital flows to emerging markets, as investors reassessed risks, and global trade flows collapsed. Portfolio inflows, which had accounted for the bulk of the financing of South Africa's large current account deficits in the years leading up to the crisis, quickly turned to large net outflows, although overall net private flows remained positive as South African banks ran down foreign assets (Figure 1.2). Export and import volumes both plummeted, while the prices of most of South Africa's main export commodities weakened, although this was outweighed by the effect of lower oil prices, resulting in an improvement of the terms of trade (Figure 1.3). The stock market, weakened directly by net outflows on the part of nonresidents and indirectly by the large corrections in equity prices elsewhere, had begun falling in May 2008 but saw sharp declines between September and November 2008, in line with equities in other emerging markets (Figure 1.4).

As a result, South Africa suffered its first recession since the early 1990s. Real GDP began falling in the fourth quarter of 2008 and declined for three quarters. Output declined by 1.8% in 2009, marking the first negative annual growth rate in the post-apartheid era. Moreover, the change in the growth rate of real GDP between 2008 and 2009 represented the largest single-year slowdown on record for South Africa, and was larger than in most advanced and emerging economies, though far from being the worst (Figure 1.5A).

% 9 9 6 6 3 3 0 n -3 -3 -6 -6 -9 Ω1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Ω1 Q2 Q3 Q4 Q1 2007 2010 2005 2006 2008 2009

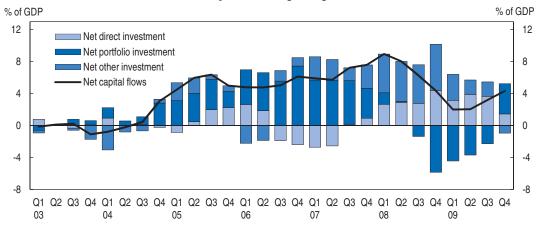
Figure 1.1. **GDP growth** Seasonally adjusted, annual rate

Source: Statistics South Africa.

StatLink http://dx.doi.org/10.1787/888932309085

Figure 1.2. Breakdown of capital flows

4-quarter moving average

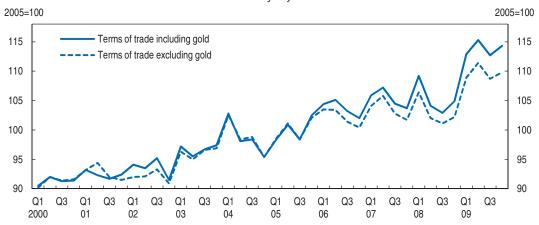


Source: OECD calculations based on SARB Database.

StatLink http://dx.doi.org/10.1787/888932309104

Figure 1.3. Terms of trade

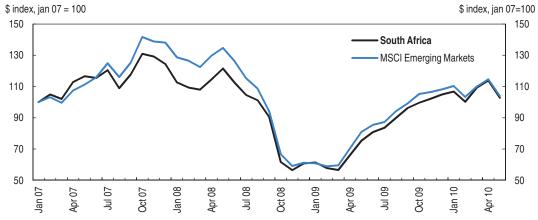
Seasonally adjusted



Source: SARB Database.

StatLink http://dx.doi.org/10.1787/888932309123

Figure 1.4. Share prices

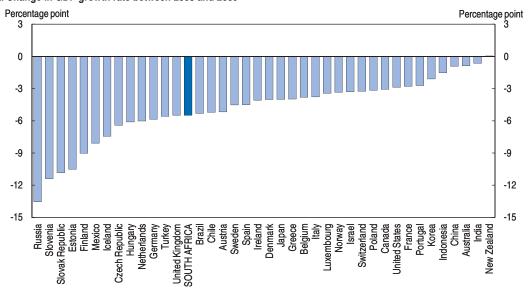


Source: Datastream and SARB Database.

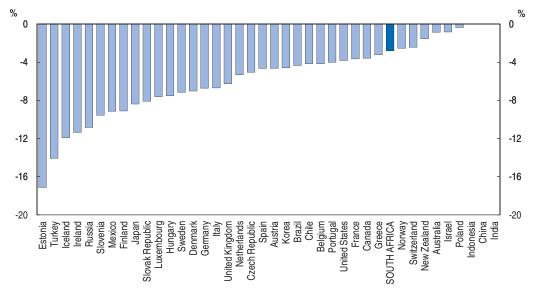
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Figure 1.5. Growth slowdown and output fall during the crisis

A. Change in GDP growth rate between 2008 and 2009



B. Peak-to-trough fall in output (maximum output decline during the period 2008q1-2009q4)



Source: OECD Economic Outlook 87 Database.

StatLink http://dx.doi.org/10.1787/888932309161

The output decline was led by manufacturing and mining where the sudden drop in export demand was reflected in a sharp reduction in private investment and subsequently in falling employment (Figure 1.6). The latter put a drag on consumption, which was also pulled down by negative wealth effects from declines in house prices and the equity market (Figure 1.7). Several service sectors, notably wholesale and retail trade, also experienced large output and employment declines.

The South African economy has proven to be relatively resilient, however. Although South Africa's slowdown was rather sharp, reflecting high growth rates prior to the recession, the downturn was fairly shallow: the peak-to-trough fall in output in South Africa was smaller than in most OECD and emerging market economies

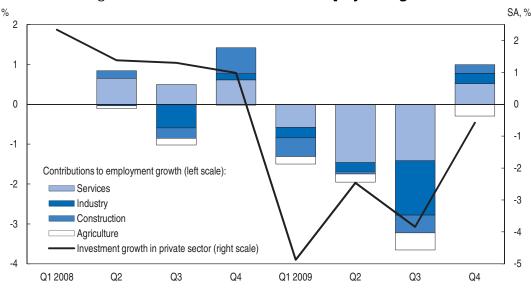


Figure 1.6. Private investment and employment growth

Source: SARB Database and Statistics South Africa, Quarterly Labour Force Survey.

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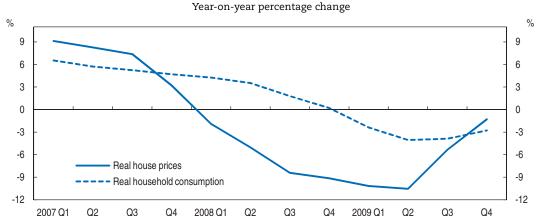


Figure 1.7. House prices and consumption

Source: OECD calculations based on ABSA Bank and Statistics South Africa.

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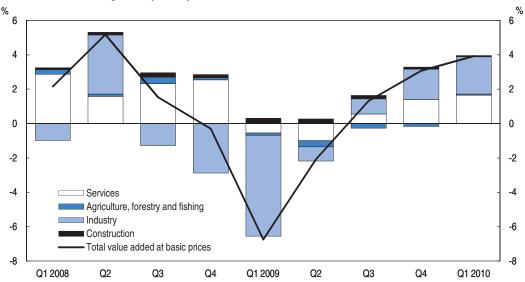
(Figure 1.5B). On a sectoral basis, the most important offset to the negative dynamics that took hold in manufacturing and mining was construction, which held up well through the recession (Figure 1.8A). This was primarily a function of public investment, in part linked to the 2010 World Cup and associated transport projects: despite sharp declines in private sector investment, gross fixed capital formation contributed positively to output throughout the recession. Inventories, net exports and consumption all made negative contributions (Figure 1.8B).

An important element of South Africa's resilience to the global economic crisis was that it did not experience a banking crisis. Despite the sharp swing from rapid economic growth into recession, and in particular the decline in house prices after a long mortgage lending boom, South Africa experienced no bank failures. Non-performing loan (NPL) rates did surge in 2009, but the surge in bad loans was not reflected in major losses for the

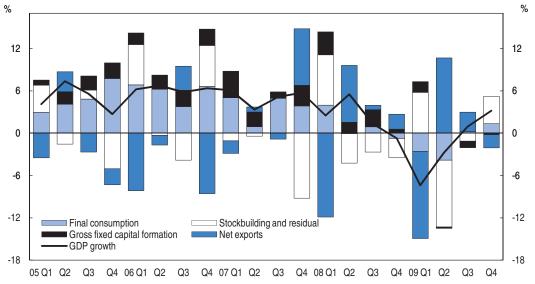
Figure 1.8. Contribution to GDP growth by activity and expenditure

Quarter-on-quarter, seasonally adjusted data, annual rate

A. Contributions to GDP growth by activity



B. Contributions to GDP growth by expenditure



Source: OECD calculations based on Statistics South Africa.

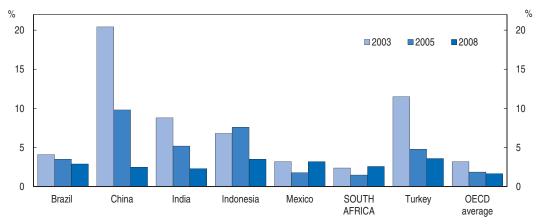
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banks. There were several reasons for this, including the banks' strong profitability, low level of NPLs and comfortable capital cushions going into the downturn (Figure 1.9); their lack of direct exposure to problem assets in the US and Europe; bankruptcy laws that favour creditors in recovering collateral for bad loans; and conservative approaches on the part of both the regulator and the banks themselves. In addition, the lending boom was already cooling before the intensification of the international crisis in September 2008, in part because of the coming into force of the National Credit Act, which tightened standards on lending to households (Box 1.1).²

A. Return on assets % % 4 4 2 2 0 0 -2 -2 -4 -4 2000 2005 2007 -6 -6 -8 -8 SOUTH Brazil China India Indonesia Mexico Turkey OECD **AFRICA** average

Figure 1.9. Pre-crisis financial position of banks

B. Non-performing loans/total loans



Note: Country groups show GDP-weighted averages of the respective variable.

Source: World Bank, Financial Development and Structure Database; IMF, Global Financial Stability Report; People's Bank of China; and OECD.

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In late 2008 the government began discussing an anti-crisis strategy with social partners, and in February 2009 the *Framework for South Africa's Response* to the *International Economic Crisis* was endorsed at a special Presidential Economic Joint Working Group meeting, which included civil society representatives. It comprised a package of actions covering macroeconomic policies, industrial policies, support for employment, and social policies, all aimed at cushioning the economy and especially the most vulnerable households and sectors from harm caused by the international crisis. Notable among the measures were a training layoffs initiative, in which firms could get financial support if they sent staff for training instead of making them redundant, and a strengthening of the Expanded Public Works Programme, to cover a total of 4.5 million individuals over a 5-year period. Although quite comprehensive, the *Framework* was not always specific, which was no bad thing: it largely avoided concrete commitments to industrial policy initiatives, for example. South Africa's anti-crisis strategy was also unusual in that there was no need for measures taken by a number of other countries, such as emergency support for banks or the introduction or expansion of deposit insurance coverage.

Box 1.1. The National Credit Act of 2005

In 2004 the Department of Trade and Industry's Consumer Credit Law Reform published a policy framework for the consumer credit market. This framework was intended to develop a regulated and unified credit market, which would ensure protection for low-income consumers. The report identified the following undesirable practices in the market: extreme interest rates, inflated credit prices, non-transparent credit life insurance, negative option selling, encouragement of reckless credit with payment preferences and debt collection, incomplete and incorrect consumer credit information, the lack of a rehabilitation mechanism for extreme cases of over-indebtedness, and inefficient and ineffective enforcement of consumer protection. According to the report, these practices adversely affected consumers, undermined their choices and did not encourage a competitive credit market.

The stated purposes of the National Credit Act (NCA) are to promote a fair, transparent, competitive, sustainable, responsible, efficient, effective and accessible credit market and industry, and to protect consumers. This is especially important because many people were being taken advantage of and being charged phenomenally high prices due to their inadequate education about credit and consumer rights and their lack of understanding of credit instruments.

The NCA also defines the rights of consumers with respect to credit markets: the right to apply for credit, protection against discrimination in respect of credit, the right to reasons for credit refusal, the right to information in an official language, the right to information in plain and understandable language, and the right to receive documents.

The NCA provided legislation for the establishment of the National Credit Regulator and the National Credit Tribunal. These institutions were deemed necessary for the implementation and enforcement of the regulations, as well as the resolution of conflicts to ensure the legislation is working.

The NCA is applicable to all credit providers and all credit transactions. The legislation directly affected credit-marketing practices. It set new regulations in place to minimise misleading, fraudulent and deceptive advertising. All costs involved with the product or service must be disclosed, so that an informed decision can be made by the consumer. Under the new legislation, negative option marketing is illegal too. A credit provider is neither able to harass a consumer to enter a credit agreement nor come to their place of residence or work to sell his product of service without a preliminary agreement. All financial charges must be quoted to consumers and these quotes are valid for five days.

An important element of the NCA is its explicit focus on preventing consumers' over-indebtedness and discouraging reckless credit extension by lenders, as well as establishing mechanisms for resolving over-indebtedness should it arise. Extensive affordability analysis has to be done by all credit providers in order to determine whether a consumer can service the debt. Debt counselling was established as a mechanism to determine if a consumer had been granted credit recklessly or if a consumer is over-indebted and needs their debts to be restructured in order to meet their obligations. If this is the case then the lender does not have the right to reclaim the outstanding balances owing to them.

The NCA, adopted in 2005, became partly effective in June and September of 2006, with the limits to the cost of credit becoming effective only as of June 2007.

Macroeconomic policies from the onset of the crisis were countercyclical, although to a lesser extent than in many other countries. The consolidated government budget balance worsened by about 6 percentage points of GDP in 2009/10, due in roughly equal measure to a decline in the revenue-to-GDP ratio and a rise in expenditures to GDP. Most of that deterioration was cyclical, reflecting the emergence of a negative output gap and the operation of automatic stabilisers on the revenue side, but about 1.4 percentage points of GDP corresponded to a structural increase in expenditure.³ This was less a function of discretionary anti-crisis measures than the maintenance of pre-existing ambitious public sector investment plans (both on the part of the government and key state-owned enterprises, which were the recipients of government loans to that end) in the face of the economic slowdown and the attendant fall in revenues. Public consumption also supported output during the decline, again in part by "accident", as unexpectedly large public sector wage increases were granted in 2009 after a wave of strikes.

Interest rates were reduced by 500 basis points during the recession, but the easing of monetary policy was not aggressive by international standards. The South African Reserve Bank (SARB) began to ease in December 2008 as the effect of the decline in international food and energy prices began to feed through to the CPI, and as the first indications of the economic downturn emerged. Soon after the international crisis struck the Monetary Policy Committee (MPC) moved to monthly meetings, from once every two months, in order to be able to react promptly to developments, and between December 2008 and August 2009 there were four cuts of 100 basis points and two of 50 basis points. A further cut of 50 basis points was made in March 2010. In contrast to many OECD countries, however, where interest rates fell nearly to zero, the SARB's repo rate bottomed out at 6.5%, and no emergency actions, such as capital support for banks or quantitative easing to support lower interest rates, were judged to be needed given the absence of severe difficulties in the banking sector. Real interest rates were negative in South Africa in the first half of 2009, but actually less so than just before the crisis, and with the continued fall in inflation, by the second half of the year had turned substantially positive again, unlike real rates in most OECD member countries (Figure 1.10).4 The growing sense of normalisation was reflected in the MPC's move back to bi-monthly meetings in November 2009.

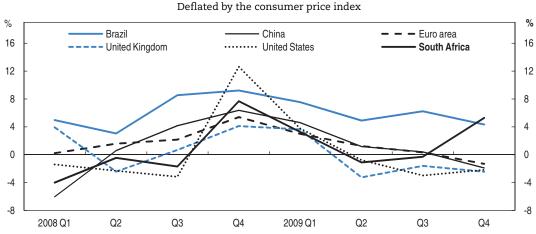


Figure 1.10. **Real short-term interest rates**

Source: OECD calculations based on OECD Economic Outlook 87 Database and OECD, Main Economic Indicators Database.

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The use of structural policies to respond to the crisis was also limited. The Framework for South Africa's Response to the International Economic Crisis emphasised the urgent need to use industrial and trade policy, preferential treatment of domestic firms in procurement, and rescue packages for crisis-affected sectors, but there has been little concrete action in these areas to date, which is welcome from the perspective of both economic efficiency and long-term growth. Some tariffs, mainly on clothing, were raised, and a small number of anti-dumping investigations were launched, but overall the trade policy stance did not become significantly less open. Corporate bail-outs were also not a major feature of the downturn. The state-owned Industrial Development Corporation (IDC) was empowered to lend ZAR 6 billion over two-years (equivalent to about 0.1% of GDP) to distressed enterprises in a number of sectors, but as of August 2009 only about 10% of that amount had been approved. The main action on the labour market side, a training layoffs scheme, suffered from low take-up, and thus did little to mitigate employment losses.

Although macroeconomic policies were supportive and the downturn was not particularly deep compared to the international average, it was nonetheless relatively prolonged, and a few countries (Australia, China, India, Indonesia, Israel, Poland) were much less affected, while a number of others (e.g. Korea, Brazil and Chile) suffered deeper downturns initially but then experienced faster rebounds, thus outperforming South Africa over the period since the beginning of the global economic crisis. The main reason for this is that South Africa was already moving into a cyclical downturn when the international crisis struck. What might have been a moderate growth slowdown in South Africa, as households worked down excessive debt loads via higher savings rates, was turned into a recession via the negative shock to external demand and financial conditions.

Growth has resumed, and has been strengthening. After three negative quarters, real GDP growth turned marginally positive (+0.2% quarter on quarter seasonally adjusted, not annualised) in the third quarter of 2009 and quickened to 0.8% in the fourth quarter, as private consumption growth turned positive after five quarters of contraction and the rate of inventory drawdown slowed. In the first quarter of 2010 growth picked up further to 1.1%. Government consumption contributed positively throughout 2009, while gross fixed capital formation declined in the fourth quarter for the third quarter in a row, though at a slower rate than in the previous two quarters. Export and import volumes both rebounded in the second half of the year, with exports beginning to recover earlier but import growth outpacing that of exports in the last quarter of the year. Although some sectors, such as manufacturing, have experienced a significant bounce back from the low point of the recession, others, including wholesale and retail trade, agriculture and fisheries, and finance and real estate, have lagged. Two important factors holding back the recovery appear to be credit growth and employment. With household debt levels remaining high and weakening labour market conditions, consumption has so far played less of a role in the recovery than in many other countries.

Most high frequency indicators suggest that momentum is building, although the evidence remains mixed. Notably, house prices have been rising since mid-2009, and the OECD Composite Leading Indicator has been signalling growing strength, although the Kagiso PMI has given back gains in recent months, suggesting that the recovery in manufacturing is stuttering (Figure 1.11). Many of the factors which have contributed to the turnaround so far are expected to remain favourable through the rest of 2010 and into 2011. For example, as regards external conditions, most economic forecasters, including the

LT average = 100 50 = neutral 102 Composite Leading Indicator, ratio to trend, amplitude adjusted 101 Kasigo PMI, sa (right scale) 60 100 55 99 98 50 97 45 96 95 40 94 93 35 Jan 09 Mar 09 May 09 Jul 09 Sep 09 Nov 09 Jan 10 Mar 10 May 10

Figure 1.11. Indicators of activity

Source: OECD Composite Leading Indicators Database and Bureau of Economic Research.

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OECD, have been revising upwards their projections of global economic growth in 2010, and the prices of South Africa's export commodities have continued to surge (Figure 1.12). A further export price windfall should arise from the recent decision of market participants to shift from annual to quarterly iron ore pricing contracts, as current spot prices are far above the previous annual contract prices. The further cut in interest rates in March 2010 is also helpful for near term growth. Output growth is therefore expected to quicken over 2010-11 (Table 1.1).

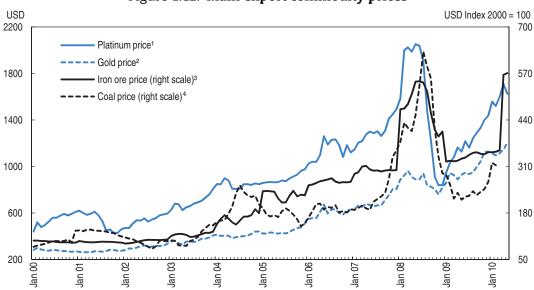


Figure 1.12. Main export commodity prices

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

Source: IMF, IFS Database, Datastream and HWWA.

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Table 1.1. Macroeconomic projections 2010-11

	2007	2008	2009	2010	2011	
	Percentage changes, volume					
Private consumption	5.5	2.4	-3.1	2.3	5.5	
Government consumption	4.7	4.9	4.7	3.6	3.4	
Gross fixed investment	14.2	11.7	2.3	3.0	8.9	
Final domestic demand	6.9	4.6	-0.6	2.7	5.8	
Stockbuilding ¹	-0.4	-1.3	-1.3	1.3	0.1	
Total domestic demand	6.4	3.3	-1.8	4.0	5.9	
Exports of goods and services	5.9	2.4	-19.5	8.9	6.1	
Imports of goods and services	9.0	1.4	-17.4	10.9	9.2	
Net exports ¹	-1.2	0.2	0.1	-0.9	-1.1	
GDP at market prices	5.5	3.7	-1.8	3.3	5.0	
Memorandum items						
Inflation	7.1	11.0	7.1	5.3	5.2	
Employment growth	0.4	1.8	-3.6	1.2	2.3	
Unemployment rate	22.3	22.9	24.0	24.5	24.0	
Current account balance (USD billion)	-20.5	-20.1	-11.2	-17.6	-22.0	
Current account balance ²	-7.2	-7.1	-4.0	-4.9	-5.5	
Consolidated government budget ³	1.7	-1.0	-6.7	-6.1	-4.7	
Household disposible income growth	5.5	2.4	-2.8	3.0	4.5	
Household net saving ratio	-0.8	-0.8	-0.4	0.0	-0.3	

^{1.} Contributions to changes in real GDP

Source: OECD Economic Outlook 87 Database, Statistics South Africa, SARB Database and OECD estimates.

Emerging from the crisis

The downturn has shed new light on the cyclical component of growth in recent years. It is now clearer than it was before the crisis that a good part of the rapid growth experienced by South Africa from 2004 through mid-2008 was cyclical in nature. Even before the crisis, there were numerous signs that an unsustainable boom was underway, including surging consumption, widening current account deficits, and an extended house price boom. There was considerable uncertainty, however, about how much of the improved growth performance since the early 2000s represented a change in the trend and how much reflected cyclical or other temporary factors. Standard statistical filtering methods used for estimating trend growth rates are notoriously oversensitive to endpoints, so that when growth is strong, estimates of potential growth rise quickly (Box 1.2). The downturn has helped to define the latest economic cycle and thereby to clarify the cyclical component of the boom. The OECD Secretariat has estimated potential output based on the assumption of a Cobb-Douglas production function with statistically smoothed TFP growth and labour inputs. These estimates suggest that potential growth peaked at 4½ per cent in 2007 before slipping back to about 4%, owing to a decline in labour force participation rate and a slight slowing in trend TFP.

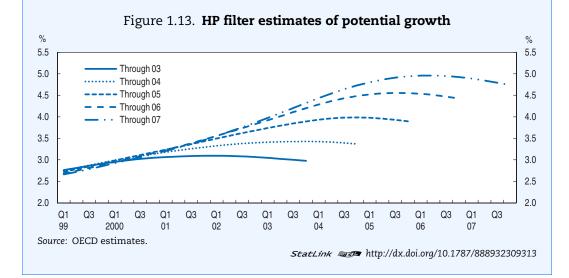
The crisis has probably resulted in a small permanent output loss, but the future potential growth rate should be little affected. In the wake of the 2008-09 crisis the authorities in many OECD countries revised down their estimates of near-term potential output (OECD, 2009). Furceri and Mourougane (2009) estimate that in OECD countries financial crises give rise to a permanent loss of output of 1½ to 2½ per cent on average, and as much as 4% in some cases. For low- and middle-income countries the permanence of

^{2.} As a percentage of GDP.

^{3.} As a percentage of GDP. Data refer to fiscal years starting in April.

Box 1.2. South Africa as an illustration of the end-point problem in filtering estimates of potential output

A familiar problem with statistical filtering approaches to estimating potential output is that the estimates are sensitive to the choice of end-point. During a cyclical upswing successive estimates of potential output tend to rise rapidly. The case of South Africa during the pre-crisis boom years of 2004-07 illustrates clearly that tendency. Using a Hodrick-Prescott (HP) filter on output for the years through 2003 gave an annual potential output growth rate estimate of about 3%. The same procedure applied on the years through 2004, 2005, 2006, and 2007 yields successively higher estimates, peaking at about 5% (Figure 1.13). The same sensititivity to end-points means that taking into account the recession of 2008-09 changes the picture sharply; applying the same HP filtering process to data through 2009 generates estimates of potential growth that are below 3%.



output losses in crises is more open to question. The main channels for permanent effects are a reduction in the capital stock and higher structural unemployment and/or lower labour force participation. In South Africa's case, overall fixed capital formation continued to increase in 2009, despite a sharp reduction in private investment. At worst, therefore, South Africa probably experienced a modest temporary slowdown in the growth of the capital stock, and the increase in public sector investment mostly corresponds to additions to energy and transport infrastructure which address important bottlenecks and which should have a positive real rate of return. The most significant source of permanent output losses is therefore via lower labour inputs relative to the previous trend. Labour force participation and employment both fell significantly during 2009 and into early 2010, and long-term unemployment rates turned sharply upwards (Figure 1.14). Spells of long-term unemployment tends to be associated with an erosion of skills and impaired employability, and higher unemployment rates also lead to larger numbers of discouraged jobseekers. Loss of human capital arising from extended inactivity is reflected in lower TFP. OECD estimates suggest that the permanent loss of output associated with the crisis was small, less than 1%. As regards future growth rates, Haugh et al. (2009) find no systematic effects of financial crises on the potential growth rate in OECD countries. One possible source of such effects is anti-competitive anti-crisis measures designed to support domestic

% % 70 70 Employment rate - Labour force participation rate 65 65 Long-term unemployment¹ (% of total unemployed) 60 60 55 55 50 50 45 45 40 40 Q1 2008 Ω2 03Ω4 Q1 2009 Ω2 03Q4 Q1 2010 1. One year and more.

Figure 1.14. Labour market dynamics during the crisis

Source: Statistics South Africa, Quarterly Labour Force Survey.

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industries, which can hurt innovation in the longer run. As noted above, such measures have so far been modest in South Africa, and no significant reduction in potential growth rates is foreseen. Indeed, they ought to rise somewhat in the medium term if structural and macroeconomic policies can be refined to better support growth.

The output gap, which exceeded 3% in the last quarter of 2009, is unlikely to be eliminated quickly. OECD projections suggest that the recovery in 2010 will not be sufficiently vigorous to narrow the output gap. Output growth during the first half of the year is seen as being somewhat above potential, boosted by the staging of the World Cup, before slowing somewhat in the second half.⁵ The output gap will only begin to shrink decisively when growth strengthens further, which is expected to happen in 2011, and output is unlikely to catch up with potential before 2012 (Figure 1.15). The key short-term task is therefore to consolidate the emergence from recession and put the economy on course for the fastest possible elimination of the output gap. A sluggish recovery is likely to mean a continued upward creep of structural unemployment as long-term unemployment increases, eroding the human capital of displaced workers whose connection to the labour

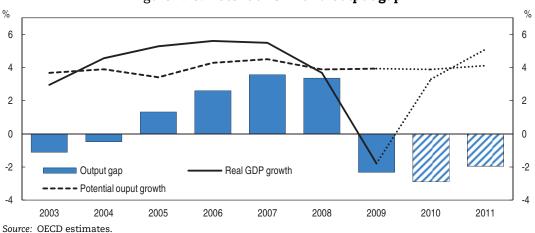


Figure 1.15. Potential GDP and output gap

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market is weakened. Slow growth would also delay the pickup in investment via accelerator effects. As a result of these effects on labour and capital inputs, a weak rebound from the 2008-09 recession would increase the negative impact on potential output and hinder progress on the reduction of poverty and unemployment.

The authorities should therefore beware of withdrawing policy support for domestic demand too early. The tame behaviour of core inflation, combined with the strength of the rand, the recession and hesitant recovery to date, suggests that the latest downward move in the SARB's policy rate (in March 2010) was well judged, and scope may yet remain for some further reduction of interest rates. Credit to the private sector and retail sales have been falling, even in nominal terms, while business confidence is still low (albeit rising) and there is as yet little sign of an improvement in the job market. Meanwhile, although global growth projections have been revised upwards in recent months, they continue to portray a tepid recovery. As to fiscal policy, public debt levels remain moderate at about 30% of GDP, and the current deficit (6.7% of GDP in fiscal year 2009/10) is not particularly high by international standards; withdrawal of fiscal stimulus should be modest at first.

In the short term a relapse into recession remains the greatest danger, even if the probability of such an event has fallen. As the recovery proceeds, however, other risks will take on greater prominence. In particular, fiscal policy will need to be tightened, both to safeguard the public balance sheet and to avoid aggravating macroeconomic imbalances. A progressive tightening is indeed implied by the 2010/11 Budget, which projects an improvement in the consolidated budget balance of 0.5 percentage points of GDP in the current year and a further 2.1 percentage points over the next two years. OECD estimates suggest that this will correspond to an adjustment of about 1% of GDP in cyclically adjusted terms this year and somewhat less than 1% in each of the following two years.

Although monetary policy does not look excessively loose, elevated inflation expectations require the central bank to keep policy rates higher than otherwise. Inflation expectations have so far been quite sticky downwards despite the large fall in inflation since mid-2008 and the emergence of a negative output gap. In the inflation expectations survey of the Bureau of Economic Research (BER) in the first quarter of 2010, business and labour respondents saw inflation as remaining around 7% from 2010 through 2012, with economic analysts having somewhat lower expectations. This follows an established pattern of expectations in general, and of business and labour respondents in particular, being apparently heavily backward-looking. In the BER quarterly surveys from 2000 through 2009, the average expected inflation rate for the year ahead was slightly negatively correlated (-0.06) with the actual outcome, while it was highly correlated (+0.80) with the trailing 4-quarter inflation rate. For the two-years-ahead period, the correlation was -0.63 with the actual outcome and +0.76 with the trailing inflation rate. This has been reflected in recent wage settlements that have been surprisingly strong considering the extent of labour market slack. According to the Andrew Levy survey, average settlements in 2009 were 9.3%, down only slightly from the level of 2008 (9.6%), even though actual inflation was lower and real GDP growth negative. Thus, although headline inflation appears tame given slack demand conditions and the easing of food price pressures, the downward rigidity of inflation expectations forces the SARB to be cautious as the economy picks up.

There is no convincing rationale for financial assistance or trade protection for particular industries on account of the economic downturn, and such measures as were introduced during the crisis should be unwound as soon as possible. As noted above, industrial and trade policy measures were central to the rhetoric of the crisis-response strategy, but fortunately little has been done to this end. The limited use of such levers is positive for long-term growth, and with the recession now receding, further use of such efficiency-reducing measures should be avoided.

The authorities should also seek to draw lessons from this crisis and reduce the probability of similar downturns in the future. The exit from recession is a good time to consider how to reduce the likelihood and extent of future downturns. One important avenue is to further improve macroeconomic management to make it more countercyclical possible ways of doing this are discussed in Chapter 2. Also, although South Africa did not have a banking crisis, that may have been partly fortuitous, reflecting the strong position of the financial sector after several years of strong profitability in the context of rapid economic growth. Prudential supervision in South Africa has broadly the same vulnerabilities as in advanced countries. It is therefore to the country's credit that it has been actively participating in international initiatives in banking regulation aimed at making lending less procyclical. Also, while the high level of concentration in the South African banking sector may have increased the stability of the system in this crisis, via the wide lending margins and high profits enjoyed by the big banks, there need not be a trade-off between competition and tight regulation, especially where supervisors are strong, as is the case in South Africa (see OECD, 2010, Chapter 6). In addition, apart from raising financing costs, South Africa's rather extreme levels of bank concentration may contribute to a too-big-to-fail problem which could ultimately be harmful to financial stability and fiscal sustainability.

Setting a course for rapid convergence on advanced country income levels

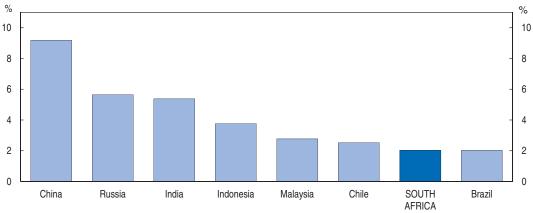
The need to improve long-term growth rates

Beyond ensuring recovery from the recession, South Africa faces many challenges. These are broadly interlinked by the need to make better use of South Africa's abundant resources, both physical and human, to accelerate the increase in living standards for the many.

South Africa's growth performance, though improving, has been mediocre. Per capita GDP grew by some 1.6% a year from 1994-2009, and by 2.2% over the decade 2000-09. This is respectable for an emerging economy, but far behind the growth leaders (Figure 1.16). Moreover, although trend growth does appear to have improved somewhat over the past 16 years, South Africa is unusual among emerging economies in having failed to achieve any convergence towards the OECD average of GDP per capita over that period (Figure 1.17).

Faster growth is needed to meet existing government growth targets. AsgiSA, the development strategy introduced in 2006, set out targets of 4½ per cent through 2009 and 6% over the period 2010-14. Although growth initially outperformed those parameters, it has been set back by the recession of 2008-09, and to catch up to the cumulative growth path underlying AsgiSA would now require average annual growth of about 7% (Figure 1.18). A strong cyclical recovery that eliminates the negative output gap would help, but if South Africa's potential growth rate is indeed only around 4% currently, then a

Figure 1.16. Real GDP per capita growth, average 2000-09

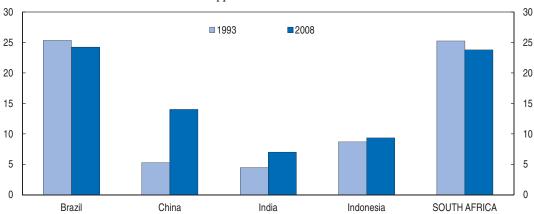


Source: OECD Economic Outlook 87 Database; World Bank, WDI Database.

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Figure 1.17. Convergence to OECD income levels in the BIICS countries

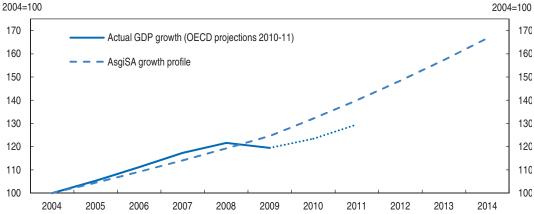
GDP per capita (constant 2005 PPPs)
Relative to upper half of OECD countries = 100



Source: OECD, Going for Growth 2010, Figure 7.1.

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Figure 1.18. Government's targeted growth profile



Source: Statistics South Africa, OECD Economic Outlook EO87 Database and Presidency of South Africa.

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substantial increase in that rate looks to be needed if the economy is to approach the prevailing official growth targets through 2014.

Faster growth is needed to meet social objectives. The AsgiSA growth targets were framed with a view to halving unemployment and poverty by 2014, which remain as official targets. The low rate of employment and the extreme level of inequality are considered by the government and most South Africans to be the most salient economic problems facing the country. As discussed further in Chapter 3, far too many young black South Africans cannot find work, and unemployment is the main factor in widespread poverty (Leibbrandt et al., 2010). Unemployment, poverty and inequality are also linked to other problems, such as crime, which have in turn hurt investment, and growth and thereby had negative feedback effects on employment. While progress toward the AsgiSA unemployment target was made during the cyclical upswing from 2004 through early 2008, that was undone by the crisis: the unemployment rate is now little changed from its 2004 levels. It is difficult to know how downturns affect unemployment rates in South Africa given the absence of recessions from 1993 to 2008 and the lack of consistent unemployment series. Other countries have, however, experienced increases in structural unemployment as a result of recessions (Blanchard and Summers, 1989; OECD, 2009). Moreover, even during the boom, when growth averaged more than 5% a year, the unemployment rate fell by only 4 percentage points over 4 years. This suggests that even faster growth will be needed to achieve a rapid reduction in unemployment.

Faster growth is needed to expand the freedoms enjoyed by South Africans. The unfreedoms (in the terminology of Amartya Sen) of joblessness, poverty, insecurity and poor education, linked in part to the failure to achieve faster economic growth, in too many cases negate the substantial civil and political liberties enjoyed in democratic South Africa. The expansion of social benefits, both via monetary grants and through initiatives such as free electrification of low-income communities, have had considerable positive effects, but there are limits to what can be done by redistribution. Already, South Africa has about three times as many recipients of social benefits as it has income tax-payers, an extremely high ratio by international standards.

Selected areas for action to achieve sustained rapid growth

The economic growth literature is vast and inconclusive. It is generally agreed that many things influence growth, but there is little consensus on what factors constitute necessary or sufficient conditions for sustained rapid growth. Recent empirical work on growth takeoffs and the study of the Commission on Growth and Development (henceforth Spence Commission) of successful growth experiences suggest that faster growth can sometimes be triggered by the relaxation of a small number of constraints. This was the rationale for the AsgiSA approach, and it remains valid, even if the specific AsgiSA targets for 2014 are now probably beyond reach.

The crisis and what it tells us about the pre-crisis boom point to some conclusions about South Africa's growth performance to date and how to improve it. It is clearer than before that between 2004 and 2008 South Africa experienced an unsustainable consumption boom driven in part by the interrelated phenomena of terms of trade gains and strong capital inflows (the product of excess international liquidity and euphoric sentiment towards emerging markets), while underlying improvements in total factor productivity growth were only moderate, reflecting in part policy weaknesses. Achieving sustained satisfactory growth rates will probably require more savings and investment, an

institutional framework that facilitates faster growth of total factor productivity, and reduced susceptibility to surges in capital flows, which are often linked to rises in commodity prices. The stubbornly high rate of unemployment even during the highgrowth pre-crisis period, and its rise since the onset of the recession, also suggest that growth should, at least for a time, be more labour-intensive. One aspect of this problem has been unrealistically low electricity prices, which by encouraging capital- and energy-intensive industries like metal processing have also aggravated South Africa's large carbon footprint. Sustainable growth is likely to mean, inter alia, less energy- and carbon-intensive output.

Correspondingly, this chapter focuses on a few factors related to weaknesses that have been revealed by the descent into recession and the downgraded assessment of potential growth. These include low savings rates, the domestic demand-led bias to growth, the indifferent record of innovation and multifactor productivity growth, and the excessive energy- and carbon-intensiveness of economic activity, which compromises environmental sustainability. Some major issues linked to growth and other important objectives, such as health and education, are mentioned only briefly on this occasion. Future Economic Surveys will come back to these issues in depth. Likewise, South Africa's extreme levels of inequality, among the highest in the world, are not discussed in detail in here, but have been the subject of other recent OECD work (Leibbrandt et al., 2010) and will be revisited in future Economic Surveys. Inequality is tightly linked to labour market outcomes, which are the topic of Chapter 3.

The identified problems are interrelated, as are the proposed recommendations. For example, higher savings rates would help ease pressures for real appreciation of the rand and help reverse the domestic demand-led bias to growth. Higher relative prices for energy would not only reduce the carbon-intensiveness of South African GDP, but also help unwind the excessive capital-intensiveness of growth in past years. Strengthening innovation and productivity growth would be help improve South African's export performance.

While there is no single country that should be seen as a role model for South Africa in all areas, Chile's policy record may be instructive in some respects. If there is one country which stands out as having faced a broadly similar set of challenges in the past 20 years or so, with a somewhat greater degree of success, it may be new OECD member Chile. Like South Africa, Chile is a middle-income country with a commodity-dependent economy, which has come through a tricky political transition to democracy, has faced large swings in the terms of trade and has experienced surges in capital inflows and occasional sudden outflows. It has adopted an outward-oriented, open policy approach, but has not been averse to taking action to limit capital inflows when they have threatened to harm the economy. Macroeconomic policies have been exceptionally prudent, buttressed by fiscal rules, a commodity stabilisation fund and an inflation-targeting regime (though the last has not implied indifference to the real exchange rate). Product market regulation has been less restrictive than most other emerging markets and even a number of OECD economies. A number of the recommendations in this Survey go broadly in the direction of these policy orientations.

Improving framework conditions for business

In the long run, converging on OECD income levels will require a large increase in average productivity, i.e. in the economic and technical efficiency of production. Public

policy can facilitate such an increase across a range of fronts. For example, the OECD's *Innovation Policy Review* of South Africa (OECD, 2007) made a number of suggestions for how to improve innovation performance, a critical contributor to long-run productivity growth, through improvements in such areas as tax incentives, public R&D expenditures, education, and immigration policy. Another crucial aspect of the issue is the competitive framework within which firms operate. Empirically, a strong relationship has been found between robust competition in product markets and the performance of firms in the critical areas of innovation, capital-deepening, and corporate management. Competition also removes the allocative distortions caused by monopolistic market structures. A lack of competitive pressure is often found to be reflected in weaker investment (Alesina *et al.*, 2005), weaker efficiency gains (Nickell *et al.*, 1997; Nicoletti and Scarpetta, 2003) and, at least over a range, weaker innovation (Aghion *et al.*, 2005; Griffith *et al.*, 2006). Strengthening competition is therefore a particularly promising means of achieving faster convergence in income levels.

Product market regulation in South Africa is not conducive to robust competition. In 2008 South Africa's scores on the OECD's Product Market Regulation (PMR) indicators were found on aggregate to be more restrictive than any OECD country except Poland. Compared to other non-OECD members, it was found to have more restrictive regulation than countries such as Chile or Brazil, but less than China, India or Russia. Among the five Enhanced Engagement countries, South Africa's overall PMR score was about average. The scores for the main sub-indicators – on state control, barriers to entrepreneurship, and barriers to trade and investment – were all well above the OECD average, while compared to other non-OECD countries, barriers to entrepreneurship stand out as the area in which South African regulation is relatively restrictive (Figure 1.19).

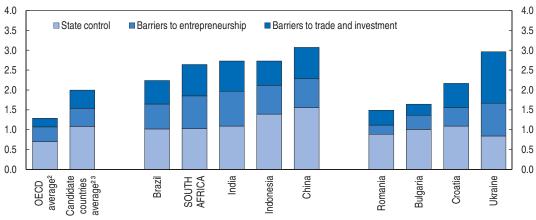


Figure 1.19. **Decomposition of PMR in Enhanced Engagement** and other non-member countries, 2008¹

- 1. Based on a "simplified" PMR indicator.
- 2. Simple average.
- 3. Chile, Estonia, Israel, Russia and Slovenia.

Source: OECD estimates.

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In that context, it is not surprising that South Africa is also found to have low levels of product market competition. For example, Fedderke and Naumann (2009) use Rosenbluth and C5 concentration ratios to show that South African manufacturing industries were

highly concentrated throughout the period 1976-2001. Some empirical work on the margin between price and costs also suggests that competition levels are low in South Africa (e.g. Fedderke and Hill, 2007; Aghion et al., 2008), although in this area the evidence is more mixed: Edwards and Van de Winkel (2005) fail to find evidence of high mark-ups in manufacturing.

As noted in OECD (2008b), surveys of firms in South Africa confirm the finding that barriers to entrepreneurship are a particular problem. Complaints are particularly directed at regulatory compliance complexity (Strategic Business Partners, 2005; Rankin, 2006). This is consistent with the high scores registered in the disaggregated PMR indicators for simplification of rules and procedures and communication (where complexity of procedures appears to be the problem; communication is relatively good) and streamlining of procedures for getting licenses and permits.

Less restrictive product market regulation, especially as regards barriers to entrepreneurship, could boost growth significantly. Econometric work on OECD countries suggests that lower aggregate PMR scores are associated with stronger growth (Nicoletti and Scarpetta, 2005; Conway et al., 2006; Wölfl et al., 2009). Wölfl et al. find that when growth regressions are run on an enlarged sample of OECD and non-member countries, the effect of aggregate PMR scores is not statistically significant. At a disaggregated level, however, significant growth effects are found, specifically for the "barriers to entrepreneurship" sub-indicator, which appears to be driving most of the association between overall product market regulation and growth. The estimated coefficients suggest that an improvement of half an index point in the barriers to entrepreneurship subindicator, a bit less than the difference between the South African score on this subindicator and that of the average OECD country, would translate into approximately a 0.4-0.6% higher average annual rate of GDP per capita growth over the subsequent decade. On average across Enhanced Engagement countries (among which South Africa is about average), the annual growth rate of GDP per capita could increase by as much as 1.4 percentage points if these countries were characterised by regulatory environments corresponding to the average score of barriers to entrepreneurship across the least restrictive OECD countries.

Other OECD work suggests that PMR affects growth via an interaction with productivity catch-up (Arnold *et al.*, 2009). Estimating the growth-enhancing effects of reducing PMR restrictiveness using this approach requires data on detailed sub-indicators that are not yet available for South Africa, but the results for OECD countries again suggest that the growth effects of less restrictive regulation could be substantial. For example, simulations indicate that middle-income countries like Poland and Hungary could achieve a cumulative increase in labour productivity of almost 20% over ten years if they were to move to the least restrictive levels of PMR prevailing in each area, and these countries have lower initial PMR scores than South Africa and are closer to the technological frontier, both of which suggest that the growth-enhancing effects should be greater for South Africa.

Greater product market competition would not only be expected to boost long-term growth rates, but would also be beneficial for employment outcomes and for the reduction of inequality. A number of theoretical and empirical studies have suggested that easing anti-competitive product market regulation may have a positive effect on employment (e.g. Blanchard and Giavazzi, 2003; Nicoletti and Scarpetta, 2005; Griffith et al., 2007). The existence of substantial product market rents gives firms an incentive to share these rents

with labour (to reduce the costs of strikes, turnover, and shirking). Real wages for employed workers are thus higher than otherwise, and total employment lower.

One aspect of product market regulation that is much debated in South Africa currently is the trade and foreign investment regime. Trade barriers were reduced substantially in the 1990s, and South Africa generally has low tariff and non-tariff barriers compared to other middle-income countries. Liberalisation of the trade regime has largely stalled in recent years, however, and proponents of a more active industrial policy would like to see South Africa selectively raise tariffs within WTO bound levels in order to increase protection for favoured industries. Indeed, some limited steps in that direction were taken during the crisis. Some OECD work suggests, however, that this would be misguided. Kowalski *et al.* (2009) find that trade liberalisation is favourable for total factor productivity growth in South Africa.

Raising the savings rate

The relationship of domestic savings and the current account balance to economic growth is theoretically ambiguous. If savings matter, the most obvious mechanism is that they finance investment, although the extent to which investment is a driver of growth is itself a matter of debate. In the closed-economy Solow model, technological change is the primary determinant of long-run steady-state growth, and investment affects growth only in the transition to the steady state. There is no reason to believe that middle-income countries like South Africa are in a steady state, however; their capital-labour ratio should be rising through time, with the implication that capital accumulation does matter for growth. Also, endogenous growth theories often incorporate a role for physical and human capital in determining steady-state growth. While there is an empirical as well as a theoretical debate about the relative role of capital accumulation and TFP growth in determining growth performance, most studies (e.g. Bosworth and Collins, 2003; Mankiw et al., 1992) attribute a significant share of growth to capital accumulation.

It is not straightforward, however, that investment is constrained by domestic savings, or that domestic savings should be preferable to foreign savings from a growth perspective. Indeed, foreign direct investment in particular may also boost TFP growth via the transfer of know-how from more advanced economies. One possible theoretical rationale for why domestic savings may have a positive effect on growth has been advanced by Aghion *et al.* (2009a), who argue that growth in countries that are far from the international technology frontier derives mainly from catch-up to that frontier. Such catch-up is facilitated by inward investment, but that often requires co-operation between a foreign investor familiar with the frontier technology and a local entrepreneur who knows the local conditions in which the technology would be applied.

Empirically, there is certainly a strong correlation between domestic savings rates and growth performance (Houthakker, 1961; Modigliani, 1970; Carroll and Weil, 1994; Schmidt-Hebbel and Serven, 1999). In addition, Aizenmann, Pinto and Radziwill (2004) found that countries with higher self-financing ratios grew faster than those with lower ratios. This ties into the well known literature showing that, in most countries and periods, domestic savings and investment are highly correlated (Feldstein and Horioka, 1980; Taylor, 1996). Looking at cases of sustained strong growth, the Spence Commission (Spence *et al.*, 2008) noted, "there is no case of a sustained high investment path not backed up by high domestic savings".

The savings-growth correlation does not prove that savings cause growth, and empirical evidence aimed at answering that question is inconclusive. Attempts to assess the direction of causality via Granger causality tests give no clear picture. For example, Schmidt-Hebbel *et al.* (1994) find that savings do not Granger-cause growth, and conclude that there is a complex rather than unidirectional relationship between the two variables. Carroll and Weil (1994) argue that growth actually Granger-causes savings, although Attanasio *et al.* (2000) take issue with this, finding that, depending on methodology, the relationship can be found to run either way. Aghion *et al.* (2009a) find evidence that for poor countries lagged savings is a significant explanatory variable for future growth, though not for rich countries. They argue that this is consistent with their hypothesis that domestic saving facilitates the transfer of frontier technology and thereby permits faster productivity catch-up.

Other recent work may offer an alternative explanation for how savings can have a positive effect on growth in developing countries. Prasad et al. (2007) find that for non-OECD countries current account deficits, instead of promoting growth by relaxing financing constraints, are associated with slower growth rates. Prasad et al. find further that this result, which emerges in cross-section, panel and time series regressions, appears to be driven by domestic savings rates: when the current account is replaced by savings, the former becomes insignificant and the coefficient on the latter is positive and significant. In addition, the authors report that countries which experience growth spurts generally experienced a positive shift in the current account balance prior to the growth spurt; both savings and investment rates rise, but savings rise by more. Higher domestic savings seem to reduce a reliance on foreign savings which can actually be harmful for growth performance in developing countries.

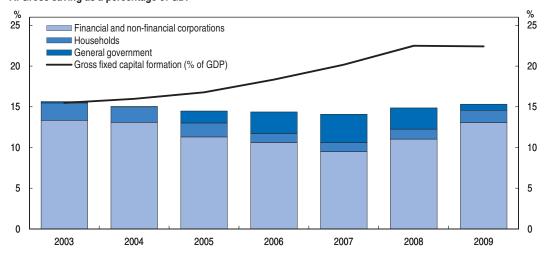
This result is consistent with other findings on the possible growth-reducing effects of surges of foreign capital (Reinhart and Reinhart, 2008; Rodrik, 2006; Hausmann et al., 2004). In a range of panel growth regressions conducted by Bosworth and Collins (1998), overall capital inflows were not found to be significantly related to growth, although FDI was. Reinhart and Reinhart (2008) note that one of the channels through which surges in capital inflows appear to cause harm is the induced procyclicality of fiscal policy during capital flow bonanzas. Governments, along with other economic agents, often fail to discern the temporary nature of the bonanza, and increase spending during the boom.

While, therefore, the exact relationship between domestic savings and growth remains a matter of debate, there are good reasons to believe that countries (especially developing countries) with strong growth performance have tended to have high savings rates, high (but lower) investment rates, and (therefore) current account surpluses and net capital outflows. The picture for South Africa is strikingly different. In the last decade South Africa has had large net private capital inflows, low savings and investment rates (Figure 1.20), and (despite a consumption boom from 2004-08) mediocre growth, particularly as regards the growth of export volumes (Figure 1.21). Eyraud (2009) finds that the low contribution of capital accumulation is the main difference between in South Africa's growth performance and that of faster-growing peers.

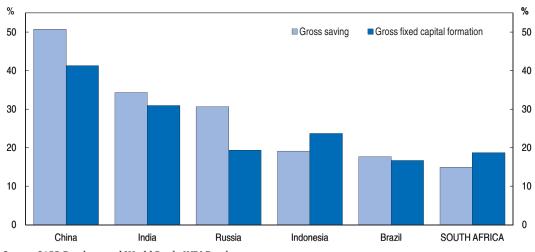
Moreover, apart from the link from savings to the current account and growth, there is also the question of external vulnerability. Dependence on flighty foreign capital increases the risk of instability.⁸ This risk was manifest in late 2008 when private capital inflows to emerging market economies largely dried up. In South Africa's case this was partly offset

Figure 1.20. Investment and saving

A. Gross saving as a percentage of GDP



B. International comparison, as a percentage of GDP, average 2003-08



Source: SARB Database and World Bank, WDI Database.

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by the running down of foreign assets by domestic banks, which cushioned the effect on net capital flows, but the rand nevertheless plunged and stock and bond prices fell sharply. In the event, inflows to emerging markets resumed quickly, in part because of a recovery in appetite for risk generally, but also because the perceptions of risk as between advanced countries and emerging markets shifted in the light of the much worsened fiscal situation in many OECD economies. The reliance on foreign saving remains South Africa's main macroeconomic vulnerability, however.

All in all, while the evidence does not suggest that raising domestic savings automatically delivers faster growth, the strong association between the two, combined with the evidence on the potential harm of excessive reliance on foreign savings, probably warrants efforts to raise savings rates in South Africa in the medium- to long term. The next question is how to achieve such an increase.

One lever on which the government has direct influence is public savings. Evidence across a wide range of countries suggests that higher public savings also raise national

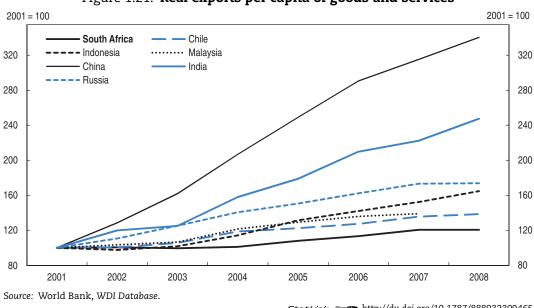


Figure 1.21. Real exports per capita of goods and services

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savings, although not one-for-one (e.g. Bernheim, 1987, for advanced countries; and Ul Haque and Montiel, 1987, for developing countries; a recent update of evidence for OECD countries is provided by Röhn, 2010). This result is confirmed for South Africa by Tsikata (1998), and Jonsson and Teferra (2001). A higher cyclically adjusted fiscal balance on average would therefore be expected to raise national savings rates. In addition, the possible need to offset the effects of strong private capital inflows (e.g. asset price bubbles and consumption booms) should be taken into account when setting fiscal policy. In part, this may be a matter of accurately gauging cyclical revenue effects (including those driven by capital flow bonanzas) and ensuring that fiscal policy is sufficiently countercyclical. Ways of doing that are discussed further in Chapter 2. It may also, however, warrant a structural tightening of policy when inflows are strong, in order to lean against the induced reduction of domestic savings.

The other most obvious mechanism is institutional changes to encourage private savings. Empirical evidence is much weaker as to what policy measures reliably influence private savings. Of these, the most salient would be the introduction of compulsory pension saving. While individual country cases provide mixed evidence on the overall savings effect of introducing compulsory pension saving, Lopez Murphy and Musalem (2004), using a panel of 43 countries, find evidence that mandatory pension saving increases national saving. South Africa already has plans to introduce such a scheme. Apart from its role in the advancement of social aims, this reform is likely to be a useful contributor to raising national savings and reducing the reliance on private capital inflows. Another approach that appears promising is automatic enrolment, with workers wishing not to participate in employer pension schemes having to opt out. Microeconomic studies from the US (e.g. Madrian and Shea, 2001, Choi et al., 2001) suggest that compulsory enrolment can raise participation in employer pension schemes, although the extent to which it raises overall household saving is uncertain. Another measure for which microeconomic evidence is promising is the "save more tomorrow" schemes proposed by

Thaler and Benartzi (2004), in which the default contribution rate is automatically raised over time.

Increasing the contribution of exports to growth

Like saving, export performance is a feature for which the theoretical link to growth is controversial but which is found to be strongly positively related to economic growth in developing countries. The Spence report, for example, found that all the cases of sustained rapid growth identified by the Commission were export-led. Multi-country empirical studies finding a link between manufacturing or exporting and growth performance include Jones and Olken (2005), Johnson et al. (2007), and Rodrik (2006). These findings do not necessarily mean, however, that such success was necessarily the result of policies targeted at the export sector, and there remain questions as to whether there is a role for policy action to bring about export-led growth, and if so which instruments work best.

There are two broad reasons why market failures might result in inefficiently low levels of export-oriented activity. First, as some have proposed, such activity may convey positive externalities to a greater extent than other activities. Second, surges in private capital inflows may create temporary (but sometimes quite long-lasting) misalignment of the exchange rate that damages profitability of the export sector.

There is little agreement about the extent to which the first factor is relevant, either in South Africa or more generally in middle- and low-income countries. Moreover, there are doubts about the net benefits of many policies that subsidise specific export industries in order to address this perceived market failure. Subsidies can be provided to the wrong sectors or kept in place for too long, can benefit some export industries at the expense of others, tend to suppress competition, and may distract from other needed changes, such as improved education or regulation. Overall, the case for activist industrial policy is not strong, especially where it involves picking individual industries for support.

Support for the relevance of the second factor has been increasing, however, both for emerging market economies in general and for South Africa in particular. Thus, the Spence report notes that one valid purpose of exchange rate management in developing countries "is to prevent a surge of capital inflows (which may be transitory) from disrupting the profitability and growth of the export sectors". In a working paper for the Spence Commission, Eichengreen (2008) concludes that "the real exchange rate matters. Keeping it at competitive levels and avoiding excessive volatility are important for growth". Ostry et al. (2010) acknowledge that when a country's currency is overvalued, or roughly in equilibrium, a proactive response to a surge in capital inflows is required, given the negative consequences of overvaluation, and they argue that the use of capital controls is justified as part of the toolkit for managing inflows. Prasad et al. (2007) present evidence that for nonindustrial countries overvaluation of the domestic currency is associated with slower growth, while Hausmann et al. (2004) show that growth accelerations are generally preceded by reductions in overvaluation or a period of undervaluation. Prasad et al. also find evidence of asymmetry: overvaluation is more damaging to growth than undervaluation is favourable to it (although the latter is found to be positive for growth). The case, in developing economies, for using economic policy instruments to avoid or at least resist overvaluation appears quite strong.

Plausibly, this is just what South Africa has failed to do, and this appears to be one reason, especially in recent years, for its failure to generate strong export volume growth.⁹

In real effective terms the rand exhibited a trend depreciation of about 5% a year from 1993 through 2002 (Figure 1.22). Over that period, the current account position was generally near balance, with small surpluses in some years and moderate deficits in others. From 2003 onward, however, the real effective exchange rate deviated sharply from that trend, rising to more than 30% above the previous trendline in early 2006 (Figure 1.23). This was associated with a consumption boom, (continued) poor export performance (Figure 1.21), a sharp rise in import growth and the emergence of a large current account deficit, which reached 7.1% of GDP in 2008 and which even in the recession year of 2009 averaged 4% of GDP. The 2009 IMF Article IV staff report (IMF, 2009) provides estimates of the degree of over- or undervaluation of the rand using three different approaches, finding anything up to 25% overvaluation when including the surge in public investment, and a maximum of 16% excluding that factor. The minimum estimate was 6-8%. The real effective exchange rate has moved up by about 10% since mid-2009, when those estimates were prepared. Using their Fundamental Equilibrium Exchange Rate approach, Cline and Williamson (2010) estimate that the rand was overvalued by about 15%

Index 2000=100 Index 2000=100 130 130 120 120 110 110 100 100 90 90 80 80 70 70 60 60 Jan 02 Jan 07 Jan 08 Jan 10 Jan 04 Jan 05 Jan 06 Jan 01 8 60 Jan Jan Jan Source: South Africa Reserve Bank.

Figure 1.22. Real effective exchange rate



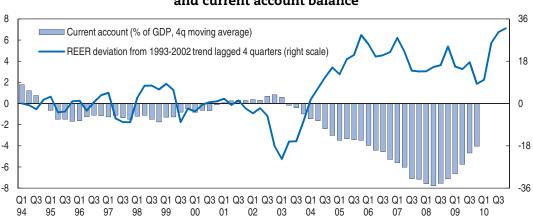


Figure 1.23. Real effective exchange rate deviation from trend and current account balance

Source: OECD calculations based on SARB Database and IMF, IFS Database.

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in real effective terms in March 2010, and there has been some further real appreciation of the rand occurred since March.

The emergence of overvaluation is linked to strong net private capital inflows in recent years. The break in the trend movement of the real effective exchange rate and the emergence of large current account deficits appear to have been driven by a surge of private capital inflows into South Africa and emerging markets more generally beginning in the early 2000s. With its liquid securities markets and good protection of property rights, South Africa is a popular proxy for emerging market economies generally, and especially the commodity-rich ones. The global financial crisis interjected a respite in the inflow of private capital, and during that interlude the rand weakened sharply, but the inflows quickly returned, and with them, the real appreciation. As of April 2010 the real effective exchange rate was at its highest level since the peak of early 2006.

As already noted, the issue of raising savings is closely related to that of reducing the net inflow of capital, i.e. lowering the current account deficit. Strong net capital inflows are associated with both consumption booms, which lower savings rates, and rapid real appreciation of the currency, which weakens export performance. Prasad et al. (2007) find that one of the factors associated with overvaluation in non-industrial countries is low savings.

South Africa's failure to avoid overvaluation and the empirical evidence on the importance of doing so suggest that a greater policy effort is warranted. No single policy is a panacea for managing private capital inflows and mitigating pressures for real appreciation, but a range of actions could play a useful role. To begin with, given the negative relationship between savings and overvaluation, as well as the apparently positive influence of savings on long-term growth discussed earlier, the options for raising saving also apply in this area. In particular, given that inflows often surge when commodity prices are high, it may be worthwhile to find ways of ensuring more adjustment of fiscal policy to commodity price cycles. Increasing the degree to which fiscal revenues respond to commodity price fluctuations, and ensuring that windfall revenues from higher prices are not spent, may be one promising avenue. This is discussed further in Chapter 2.

Foreign exchange intervention is a second area where macroeconomic policy could be more activist in resisting the tendency for the rand to become overvalued. The SARB has exhibited some tendency to buy foreign exchange when appreciation pressures are strong, but only to a weak degree. A stronger asymmetric intervention policy, accumulating reserves when net inflows are strong and allowing depreciation when they ebb, as long as this remains consistent with the primary goal of keeping inflation in the SARB's target range, could help avoid or mitigate overvaluation in the short- to medium term. One fear that is sometimes expressed in South Africa in relation to such a policy is the costs of sterilisation; the interest earned on international reserves will tend to be less than the interest paid on domestic securities issued to sterilise the monetary impact of foreign exchange intervention. Those costs are real (in the region of 0.02% of GDP a year for each USD 1 billion of intervention), but are likely to be exceeded by the economic costs of overvaluation. Moreover, South Africa's current level of reserves is relatively low by emerging market standards, leaving some room for growth on prudential grounds. Foreign exchange intervention could also be backed up by verbal intervention, giving stronger signals to markets about where the authorities see the exchange rate in relation to its equilibrium level.

Another policy instrument that could offset pressures for appreciation is the further liberalisation of capital outflows. Some exchange controls on residents remain, limiting their ability to invest abroad. Accelerated action to remove such controls, while keeping prudential regulations, would help offset net inflows, at least as a one-off measure. Finally, if other actions are insufficient to limit net inflows and keep the rand at a competitive level, consideration could be given to economic instruments to discourage such inflows, such as a tax or deposit requirement on short-term inflows.

South Africa's exchange rate is not only a function of domestic economic policies and fundamentals. In particular, it is likely that part of South Africa's relatively poor export performance in the past 15 years is attributable to the success of some other emerging market economies in pursuing export-led growth, in part via management of their exchange rates to keep their currencies undervalued. Notably, the rand has experienced a strong nominal and real appreciation vis-à-vis the renminbi (and more broadly the "renminbi bloc", which includes other emerging Asian nations that follow China's exchange rate policy closely) in the past 10 years, during which time South Africa's global export market share in volume terms fell sharply, while that of the renminbi bloc countries increased. To the extent that exchange rate policy adjustments on the part of these other countries are forthcoming, there would be correspondingly less need for South Africa to take action itself to resist overvaluation.

Preventing or leaning against nominal appreciation of the rand may be necessary for satisfactory growth and employment performance, but it is not sufficient. Without adequate wage restraint, for example, gains in competitiveness from a less appreciated currency would be quickly eroded by inflation differentials. Thus, an increased degree of management of the exchange rate to avoid overvaluation should be seen as part of a policy package that includes labour market reforms, which are discussed in Chapter 3.

Shifting to greener growth

Growth objectives should not be limited to a higher medium-term rate of increase of GDP per capita. Achieving faster output growth is essential to deliver badly needed increases in employment, reduce poverty, and expand the opportunities for South Africans to pursue the goals they value. It has always been recognised, however, that there are sources of welfare not included in the market value of output, and there has been a growing awareness of the need to move beyond GDP as a measure of wellbeing, as shown, for example, by the OECD's Global Project on the Measurement of Progress in Societies as well as the Report by the Commission on the Measurement of Economic Performance and Social Progress (Stiglitz-Sen-Fitoussi report; Stiglitz et al., 2009), which was supported by the OECD. Some of the aspects of welfare not captured by GDP, such as health, education, and personal security, tend to advance with per capita incomes, although that is not assured. With other aspects, including environmental conditions, the correlation with GDP is less obvious. In addition, even to the extent that GDP is an adequate proxy for wellbeing in a given period, focussing only on output would ultimately be self-defeating if sustainability is compromised. In particular, environmental conditions not only affect current well-being, but also whether prevailing levels of well-being can be sustained. Deterioration of the environment will entail a diversion of resources towards clean-up and adaptation, the implementation of cleaner technologies, etc., and could be destructive of physical and human capital. This sustainability point has assumed particular prominence with the emergence of the threat of climate change. In addition, it may be possible to seize

unexploited opportunities for growth by being in the forefront of the move towards improved energy efficiency and greater use of renewable energy sources.

Assessing overall sustainability is beset with difficulties. Environmental sustainability is a complex issue, with no consensus on what indicators should be used or even on the relevant concepts. There is no accepted methodology for aggregating measures of multidimensional environmental conditions into a composite indicator. Even for individual dimensions of environmental conditions, it may not be clear what the mapping from the current situation to welfare is. For example, there is uncertainty about exactly how additional CO_2 emissions translate into climate change, or how near we are to a tipping point where such change becomes self-reinforcing via natural feedback mechanisms. Likewise, we don't know what technologies might emerge in the future for reducing atmospheric GHGs and therefore mitigating the harmful effects of current emissions.

Despite the difficulties, some statistical measures of environmental conditions do exist, and continue to be refined. First, there are a number of indicators proposed as alternatives to GDP as measures of welfare, such as the Index of Sustainable Welfare (ISEW)/Genuine Progress Indicator (GPI) and the Happy Planet Index (HPI), which include an environmental component. A related concept is the World Bank's Adjusted Net Saving, or Genuine Saving, which seeks to show to what extent a country adds to its wealth, i.e. its capacity to generate income, in a given period. This approach involves adjusting nominal savings by additions to human capital and degradation of the stock of natural resources. Negative Adjusted Net Saving indicates a decline in the economy's capacity to generate income, implying an unsustainable path. There are also overall scorecards of environmental conditions which have been calculated for a large number of countries. For instance, the Environmental Performance Index (EPI) combines 10 measures of ecosystem vitality and environmental health effects into a single aggregate score for 163 countries.

South Africa tends to score poorly on such broad indices, especially compared to countries with similar income levels. On the EPI measures, for example, despite relatively good performance in some areas, such as forestry, fisheries, and the effect of air pollution on humans, South Africa has lower scores than its middle-income peers on a range of indicators of emissions linked to industry and energy production. And South Africa's Adjusted Net Saving declined from the mid-1990s onward, falling to a negative level, again lower than most other middle-income countries (Figure 1.24). South Africa also does much worse (118 of 143 countries) on the HPI 2.0 welfare measure, though mainly because of low life expectancy and life satisfaction measures, ranking somewhat higher (67th) on ecological footprint.¹⁰

Whatever the difficulties of constructing overall indicators of environmental sustainability, it is clear that South Africa is faced with a number of important environmental issues, including local air and water pollution, water management, and biodiversity. The issue of greenhouse gas (GHG) emissions is of particular urgency, and is singled out for further discussion here. This issue is certainly one where the usual problem of identifying the mapping of environmental degradation to welfare costs is acute, all the more so when considering action by a single country on what is a global problem. Nonetheless, the balance of available evidence (as summarised in IPCC, 2007; and Stern, 2006) suggests that there is a substantial risk of catastrophic climate change in the absence

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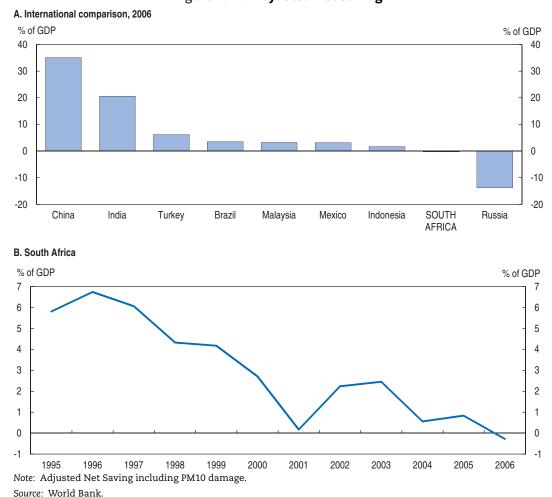


Figure 1.24. Adjusted net saving

of timely and vigorous action to reduce GHG emissions, and global initiatives to define a post-Kyoto strategy are under way, so the issue is a particularly pressing one.

South Africa's GHG emissions are relatively high in absolute terms. According to data of the International Energy Agency, in 2007 South Africa was the 18th largest national emitter of CO_2 from fuel combustion, just behind much larger economies like Brazil and France, and ahead of others like Spain and the Netherlands. In part this reflects the fact that South Africa is relatively populous, so that on a per capita basis its emissions are lower than most OECD countries (Figure 1.25A). Its industrial structure, however, gives it a level of CO_2 emissions per unit of GDP that is among the highest in the world (Figure 1.25B).

In addition to the energy intensiveness of economic activity, the level of emissions per unit of energy production is also high. Both of these factors are in large part attributable to the intensive use of coal – South Africa is the most coal dependent economy in the world, with coal-driven power stations accounting for about 90% of electricity generation. The abundance of cheap local coal has enabled South Africa to enjoy low electricity prices and to attract energy-intensive industries such as aluminium smelting.

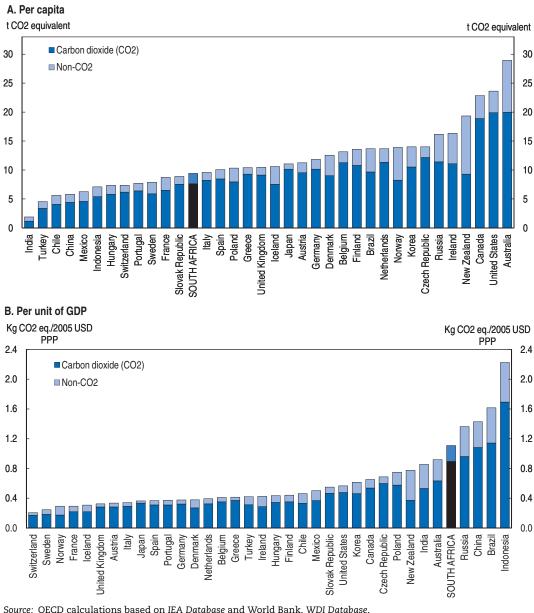


Figure 1.25. Greenhouse gas emissions, 2005

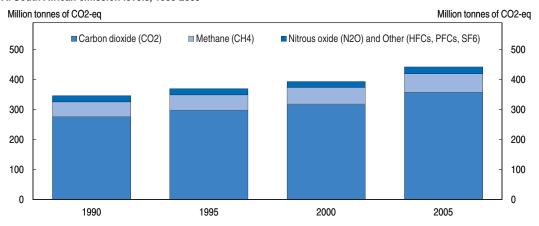
Source: OECD calculations based on IEA Database and World Bank, WDI Database. StatLink http://dx.doi.org/10.1787/888932309541

Emissions have risen since the early 1990s, though less rapidly than in most other emerging market economies (Figure 1.26). Like most countries, and especially the rapidly growing low- and middle-income economies, South Africa has experienced declining emissions intensity of GDP since 1990, but not an absolute decline in emissions.

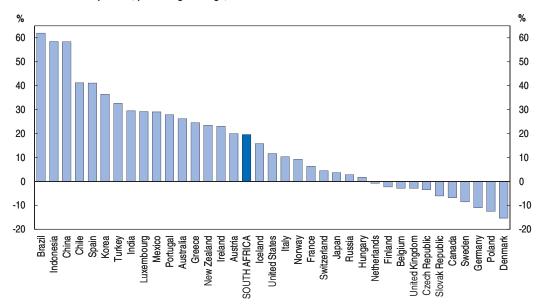
South Africa is a laggard in terms of energy production from renewable resources. As of 2007, South Africa accounted for just 0.07% of global renewable electricity installed capacity, about a tenth of its share of the world's population. While part of this low figure is due to a less favourable endowment of hydroelectric potential than in many other countries, South Africa has been slow to develop new renewable sources, such as wind, solar, and wave power, where it has considerable potential. The 2003 White Paper on

Figure 1.26. Greenhouse gas emissions trends

A. South African emission levels, 1990-2005



B. International comparison, percentage change, 1995-2005



Source: IEA Databases.

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Renewable Energy set a target of 1 667 MW for electricity production via renewables by 2013, but this has subsequently been revised down to 725 MW, and as of 2009 little progress had been made. While wind power generation has been growing globally by about 30% a year, South Africa still has only experimental wind farms accounting for a negligible share of total electricity generating capacity. Feasibility studies have been conducted as regards concentrated solar power electricity generation, but no capacity is yet in place. Small-scale solar water heating and photovoltaic electricity generation make very small contributions to meeting energy consumption needs. Preferential renewable energy feed-in tariffs came into effect only this year.

The government has recognised the need for action on reducing GHG emissions. Notably, in the run-up to the Copenhagen summit on climate change, South Africa made a (conditional) commitment to reducing GHG emissions by 34% by 2020 and 42% by 2025

relative to a business-as-usual path. In the absence of a global agreement and financial assistance from richer countries, that commitment remains potential. Other firm commitments do exist, however. The government is developing a strategy to identify "green jobs" opportunities in energy, manufacturing and services, and a green jobs component has been included in the revised Industrial Policy Action Plan. A White Paper on the production of electricity from renewable resources was published in 2003, establishing a target of 10 000 MWh of renewable production by 2013. The government is now launching a review of that White Paper to establish new targets and a strategy beyond 2013. The 2013 target was criticised by environmental groups as timid, and in any case progress has been slow to date. Despite the range of initiatives now underway (Box 1.3), overall it is fair to characterise South Africa as a late-starter as regards measures to increase energy efficiency and reduce GHG emissions. In particular, there has as yet been no concrete action towards pricing carbon emissions in the economy via a carbon tax or cap-and-trade system, and South Africa has made relatively little use of green taxes generally.

Box 1.3. Recent South African proposals and measures to reduce greenhouse gas emissions

- 2003 White Paper on the production of energy by renewables. Targets established for 2013
- 2006 Treasury draft policy paper: A Framework for Considering Market-based Instruments to Support Envionmental Fiscal Reform in South Africa.
- Introduction of electricity levy, 2008.
- Eskom demand-side management programme to reduce electricity demand (from 2008).
- Measures in 2010/11 Budget: Supplementary depreciation allowance for investments by companies in energy-efficient equipment; increased levy on plastic shopping bags (4 cents, increased from 3 cents in 2009); proposed increase in the international air passenger departure tax (which was last raised in 2005/06).
- Preferential tariffs for electricity produced with wind, solar, landfill gas, biomass, or hydro, beginning in March 2010.
- Planned second nuclear power station to come on line by 2020.
- Building regulations revised to require the installation of energy efficiency equipment like solar water heaters and efficiency lighting in new buildings.
- An energy efficiency measurement standard is being developed to support the tax rebate for energy efficiency recently incorporated into the Income Tax Act.
- New standard (SANS204) prescribing maximum energy consumption standards.
- Commitment by national government to support municipalities' efforts to upgrade the housing and building stock so as to prevent future negative impacts on climate change.
- Planned Department of Energy (with donor support) industrial energy efficiency programme focusing on system optimization.
- Copenhagen commitment to reduce 2020 GHG emissions by 34% relative to no-policychange scenario.
- Installation of 1 million solar water heaters (target), beginning in March 2010.
- New tax (to apply from September 2010) on vehicles varying by CO₂ emissions.

The urgency of the global problem, South Africa's status as a relatively large emitter, and the slow progress to date all suggest that efforts should be accelerated. Of course, South Africa's share of global GHG emissions is tiny, so that its own efforts to limit emissions will have only a very small impact on the global outcome. But as a country with an outsize footprint, a leadership role among developing countries, and (to a greater extent than most other emerging economies) a long record of high emissions, there is a strong case for South Africa to take vigorous action to reduce its GHG emissions. South Africa's status as host of the 2011 United Nations Framework Convention on Climate Change Conference of the Parties meeting on climate change (COP 12) provides an additional reason to show leadership on this issue.

Beyond the direct objective of ensuring the sustainability of growth, there are additional rationales for some GHG emission mitigation efforts. One of these is fiscal consolidation. In general, green taxes should not be thought of as revenue-raising measures, but they can be easier to implement when there is a budgetary need for revenue. Given South Africa's substantial cyclically adjusted budget deficit (see Chapter 2), revenue considerations reinforce the environmental case for taxing emissions. Another rationale for vigorous action to increase energy efficiency and reduce GHG emissions is the reemergence of electricity supply constraints on growth. Since the January 2008 power crisis capacity has increased only marginally, and the slack provided by the economic downturn will be quickly eroded as growth resumes. Stepped-up action to make growth less energyintensive would complement efforts to expand capacity and thus help restore an adequate capacity margin. Also, action to mitigate climate change can have co-benefits on local air pollution. In a simulation of the effects of reducing global GHG concentrations through 2050, the OECD (2009b) found that GDP would be somewhat reduced relative to a business-as-usual scenario, but air pollution and premature mortality would fall, inducing substantial gains in life expectancy, so that welfare would be increased in almost all regions of the world. Similarly, Bollen et al. (2009) conclude that climate change mitigation would have substantial co-benefits via improvements in health outcomes. Moreover, neither of these two studies considers effects on morbidity, and neither takes into account the positive effects of improved health and environmental conditions on GDP per capita. As argued by Aghion et al. (2009b), such effects could be substantial. Given South Africa's heavy reliance on coal, which is intensive in emissions of pollutants such as SO_x , NO_x and particulates as well as GHGs, the co-benefits of emissions reduction would be relatively large. Finally, progress in this area would not necessarily be a drag on output growth in the near term either - indeed, there may be scope for unexploited efficiencies, especially if action is taken sufficiently early to allow for the impact of policies to be felt gradually.

Also, if South Africa takes the lead on renewables in Africa it may be able to exploit export opportunities as demand grows in the rest of the continent, especially in Southern Africa. As the most advanced country in Southern Africa, there is scope for South Africa to establish itself as the regional leader in technologies like solar energy, which might be exported elsewhere in the region. Potential job creation in such sectors is non-negligible, and could even more than compensate for falling employment in the traditional energy sector.

A price should be put on carbon emissions. As the National Treasury pointed out in its 2006 draft policy paper on Market Based Instruments to Support Environmental Reform in South Africa, economic instruments, such as taxes on emissions, are generally preferable to "command and control" regulation on efficiency grounds. The former should

equalise marginal abatement costs across sectors (provided they apply to all relevant polluters) and thus ensure that any given targeted level of abatement is achieved most efficiently, as agents with the lowest abatement costs will contribute the most to the total reduction in emissions. ¹¹ In South Africa's case a carbon tax is likely the best way of putting a price on carbon emissions, as it is relatively simple and generates government revenue, contributing to fiscal consolidation.

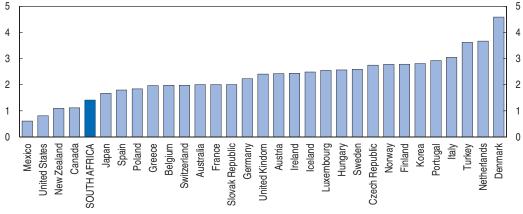
The use of green taxes more generally could be stepped up. Whether or not a carbon tax is introduced, the use of other green taxes remains relatively low, and should probably be increased (Figure 1.27). In particular, South Africa has some of the lowest international prices for petrol, with lighter taxation than almost all OECD countries and most others (Figure 1.28).

One new tax targeted at CO_2 emissions is being introduced this year. From September 2010 the vehicle tax will vary by emissions category, penalising cars with higher CO_2 emissions. This is a positive step, but fuel taxes would be preferable, as with the vehicle tax the cost per kilogram of emissions is quite different for two owners of a given type of vehicle who drive widely varying distances.

A. Percentage of total tax revenues 16 16 14 14 12 12 10 10 8 8 6 6 4 4 2 2 France United States New Zealand Belgium Australia Slovak Republic **Szech Republic** Ireland Portugal Denmark **Netherlands** Sweden Greece Germany Norway Finland Hungary Switzerland -uxembourg SOUTH AFRICA Jnited Kingdom

Figure 1.27. **Environmental taxes, 2007**¹





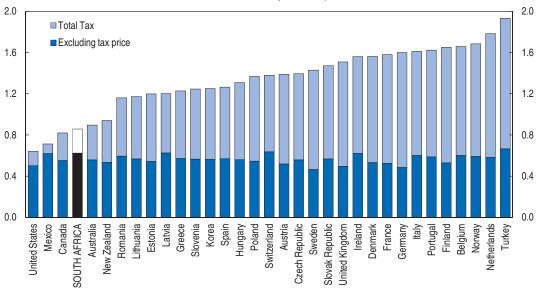
1. 2006 for Italy and Poland.

Source: EEA/OECD Database, SARB Database and IMF, GFS Database.

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Figure 1.28. Unleaded petrol prices and taxes

Premium unleaded 95 (USD/litre), Q4 2008



Source: IEA Database.

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Electricity prices (exclusive of any taxes) should be raised to fully cover long-run costs. For a long time, beginning in the 1970s, South Africa had excess electricity generation capacity. As a result, prices were set at low levels, providing for normal rates of return, but only in the absence of building costs to install new capacity. Actually, subsidisation has gone beyond the non-coverage of capital costs, as Eskom has itself benefitted from coal prices, also established in long-term contracts, that were a small fraction of the international price (Table 1.2). 12, 13 Also, preferential long-term contracts were agreed with some industrial customers, notably for aluminium smelters. The result of all these decisions was excessively low electricity prices, which encouraged overconsumption. Although electricity prices started rising in real terms in 2005, this relative price distortion only began to be significantly unwound in 2008, when in the wake of the power supply crisis in January of that year electricity tariffs were increased sharply. A further large step increase of 34% took place in 2009 and in early 2010 the regulator NERSA approved increases of 24.8%, 25.8% and 25.9% for 2010, 2011 and 2012 respectively. This would still leave South Africa with relatively inexpensive electricity (Figure 1.29), but would bring the

Table 1.2. Steam coal prices

USD/toe (net calorific value)

	· · · · · · · · · · · · · · · · · · ·	•	
	2004	2005	2006
For electricity generation:			
South Africa	17.7	21.5	n.a.
OECD	60.3	68.5	73.2
For industry:			
South Africa	33.1	36.3	n.a.
Russia	52.3	58.1	66.2
China	59.9	n.a.	n.a.
OECD	81.0	95.3	100.9

Source: IEA Database.

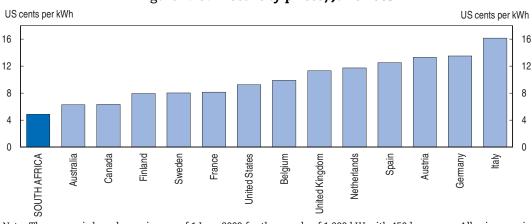


Figure 1.29. Electricity prices, June 2009

Note: The survey is based on prices as of 1 June 2009 for the supply of 1 000 kW with 450 hours use. All prices are in US cents per kilowatt hour and exclude VAT.

Source: NUS Consulting Group, 2008-2009 International Electricity and Natural Gas Report and Cost Survey, June 2009.

StatLink mg http://dx.doi.org/10.1787/888932309617

price much closer to the OECD average. Part of the need for higher prices reflects the fact that the costs of building new capacity have risen sharply in recent years.

Preferential industrial pricing contracts for electricity should be renegotiated. In the wake of the power supply crisis of early 2008 and the global crisis of 2008-09, the case for renegotiating the long-term contracts for aluminium smelters built in the 1990s has been recognised by the government. In particular, the "embedded derivatives" that shift the risk of fluctuations in exchange rates and aluminium prices onto Eskom have come to be seen as problematic. These contracts account for about 5% of Eskom's output and thus have a significant effect on the capacity margin, while the global downturn hit aluminium prices and triggered large losses on the embedded derivatives, at a time when the finances of both Eskom and the government were stretched. The cancellation of a planned aluminium smelter by Rio Tinto in October 2009 may indicate a new realism about the wisdom of offering long-term electricity contracts at artificially low prices.

Making progress on reducing emissions will probably involve a shift away from coal. 15 While the main policy instrument for facilitating such a shift is likely to be setting a sufficiently high price on carbon emissions, there may also be externalities associated with energy production from renewables that warrant complementing such price incentives with targets or other forms of support for such alternative sources of energy. Such externalities can arise from various forms of market failure: public goods, monitoring costs, asymmetric information, market incompleteness, and economies of scale, and these can in turn induce market failures in financial services and innovation. Since environmental externalities often take a long time to be felt, the environmental area tends to be particularly prone to such market failures. As a large country with a long coastline and tropical regions, South Africa has considerable scope for several "new" renewable energy sources: wind, wave, and solar. It is also already a (modest) producer of nuclear energy, and is planning a large new nuclear facility to enter into service in 2020. Of course, the likelihood of significant market failures has to be set against the danger of government failures, with a waste of public resources and/or a distortion of markets. It is therefore important to cost various initiatives carefully and achieve overall emissions reduction targets in the most cost effective manner, but in so doing, due account should be taken of falling costs from economies of scale and learning by doing and technological advances. Some industry sources suggest that wind alone could account for some 30% of South Africa's electricity needs with little additional increase in tariffs over and above what is planned to cover Eskom's new (coal-fired) capacity.

Another area which is even more uncertain but which may have potential for South Africa is carbon capture and storage. Although South Africa's coal dependence should diminish over time, it will remain considerable for decades to come, offering an opportunity to be a major participant in global efforts to make coal burning cleaner and to benefit from such efforts, including via the Clean Development Mechanism. The IEA (2004) projected that carbon capture and storage would be a major contributor to GHG emission abatement over the period to 2050, although some aspects of the technology in this area remain unproven, and estimated costs for now are substantially higher than other forms of emissions abatement. A number of other countries have experimental operations under way, while South Africa has so far done very little. The government has committed itself to having an experimental carbon capture and storage project in operation by 2020, but the urgency of reducing emissions before that horizon may warrant efforts to accelerate that schedule.

The government should avoid providing industrial policy subsidies to energy- and carbon-intensive industries. The industrial policy priorities established by the authorities (the National Industrial Policy Framework of 2007 and the Industrial Policy Action Plan released in January 2010) are oriented towards energy-intensive sectors. Clearly, shifting the emphasis of industrial policy support is not easy, since established industries that have benefited from past subsidies constitute powerful sectoral lobbies.

Box 1.4. Summary of recommendations for emerging from the crisis and finding a new sustainable growth path

Emerging from the crisis

- Fiscal stimulus should be withdrawn gradually at first and scope for easing monetary policy should be used within the constraints of the inflation targets, in order to help the cyclical recovery take hold.
- Further industrial and trade policy interventions based on the effects of the crisis on particular industries should be resisted, and the measures already taken unwound as quickly as possible.
- South Africa should participate in and fully implement emerging international initiatives to strengthen banking regulation. Particular attention should be paid to addressing the too-big-to-fail problem.

Improving framework conditions for business

- Product market regulation should be made less restrictive, particularly as regards barriers to entrepreneurship. Regulation should be simplified and compliance eased.
- The level and dispersion of import tariffs should be reduced further to encourage competition and long-term productivity growth.

Box 1.4. Summary of recommendations for emerging from the crisis and finding a new sustainable growth path (cont.)

Raising the savings rate

- A tighter fiscal policy over the cycle should be achieved to raise public savings and contribute to an overall increase in the domestic savings rate.
- Pension arrangements should be designed with a view to increasing private saving, in conjunction with other goals. Compulsory pension saving by employees is one promising way of doing this, while positive results might also be achieved via compulsory enrolment with an option to withdraw, particularly in combination with a "save more tomorrow" mechanism.

Increase the contribution of exports to growth

- Fiscal policy should be tightened over the cycle (in line with the recommendation to improve public savings) and made countercyclical with respect to commodity prices and net private capital inflows in order to offset the associated waves of upward pressure on the exchange rate during upswings.
- As long as the level of international reserves remains relatively low and most signs point
 to overvaluation of the currency, the SARB should allow for a faster accumulation of
 reserves when private capital inflows are strong and pressure for rand appreciation is
 high. Intervention in the foreign exchange market should be backed by verbal guidance
 to the market as to whether the real exchange rate appears to be misaligned.
- Remaining restrictions on capital outflows should be removed and replaced by prudential regulation.

Climate change mitigation

- A carbon tax should be introduced.
- Greater use should be made of other green taxes, such as fuel levies.
- Care should be taken to avoid subsidising energy- and carbon-intensive industries via industrial policy initiatives.
- Electricity prices should be allowed to rise further, in order to fully cover capital costs. Favourable pricing arrangements for large industrial users of electricity should be renegotiated.
- Ambitious targets for the development of renewable sources of energy should be established and implemented.

Notes

- 1. Between 2000 and 2008 South Africa saw an average annual increase in real house prices of more than 10%, greater than that of any OECD country over the same period.
- 2. Arguably the National Credit Act actually boosted the growth of lending to households between 2005, when it was adopted, and 2007, when it came into force, as there was an incentive for banks to increase lending before the tighter standards began to apply.
- 3. Chapter 2 discusses in more detail the OECD's estimates of the cyclically adjusted budget balance and explains the methodology underpinning those estimates.
- 4. This analysis is based on the standard OECD measure of the real short-term interest rate, defined as the average nominal rate (here the rate on 3-month Treasury bills) in a given quarter deflated by the annualised quarter-on-quarter rate of increase of the private consumption deflator.
- 5. Most estimates of past major sporting events suggest a modest boost to GDP in the quarters immediately preceding and during the event. South Africa is a somewhat smaller economy than

most past hosts of such events, so that the proportionate effect may be somewhat larger. The general pattern suggests a relapse immediately after the event, with somewhat weaker growth in subsequent quarters. The increase in activity should also bring a fiscal dividend, although this will be smaller than otherwise as a result of a number of tax and duty exemptions specific to the event (i.e. for FIFA and the national federations).

- 6. For a detailed assessment of South Africa's educational system, see OECD (2008a).
- 7. Chile is referred to as a non-OECD member in this context as the comparison is of PMR scores in 2008.
- 8. The risks to stability from running large current account deficits is analysed in Reinhart and Rogoff (2008).
- 9. Edwards and Golub (2004) find that South African exports are responsive to changes in the real exchange rate (as measured by relative unit labour costs).
- 10. Details of international HPI score rankings can be found at www.happyplanetindex.org/learn/download-report.html.
- 11. There can also be a role for command and control measures, for example when technical or measurement problems make it difficult to monitor the emissions attributable to individual agents.
- 12. The low input price advantage for Eskom has actually been considerably greater than shown in Table 1.2, as the figures there reflect spot market prices and not the low long-term contract prices enjoyed by Eskom.
- 13. There is a further partial subsidisation of electricity consumption via the subsidized electrification of low-income households. This is, however, marginal in the context of South Africa's overall electricity usage, and has a clear social policy rationale. While ideally it would be better to achieve the social policy goal via market prices for electricity and transfers to poor households, there may be reasons why this is impractical.
- 14. In September 2009 the Public Enterprises Minister told a parliamentary committee that the long-term contracts with embedded derivatives would have to be renegotiated.
- 15. Use of coal in electricity production is also water-intensive, and South Africa is a water-stressed country, providing an additional reason to seek to reduce coal-dependence.

Bibliography

- Aghion, P. et al. (2005), "Competition and Innovation: An Inverted-U Relationship", Quarterly Journal of Economics, Vol. 120:2, pp. 701-728, May.
- Aghion, P. et al. (2009a), "When Does Domestic Saving Matter for Economic Growth?", Harvard Business School Working Papers, 09-080.
- Aghion, P., P. Howitt and F. Murtin (2009b), "The Relationship Between Health and Growth: When Lucas Meets Nelson-Phelps", mimeo, *The Economics of Climate Change Mitigation*, OECD, Paris.
- Aghion, P., M. Braun and J. Fedderke (2008), "Competition and Productivity Growth in South Africa", Economics of Transition, 16(4), pp. 741-68.
- Aghion, P. et al. (2006), "Exchange Rate Volatility and Productivity Growth: The Role of Financial Development", CEPR Discussion Papers, 5629.
- Alesina, A. et al. (2005), "Regulation and Investment", Journal of the European Economic Association, Vol. 3, No. 4, pp. 791-825.
- Arnold, J. et al. (2009), "Structural Reforms and the Benefits of the Enlarged EU Internal Market: Much Achieved and Much to Do", OECD Economics Department Working Papers, No. 694, OECD, Paris.
- Attanasio, O., L. Picci, and A. Scorcu (2000), "Saving, Growth, and Investment: A Macroeconomic Analysis using a Panel of Countries", Review of Economics and Statistics, May, Vol. 82(2), pp. 182-211.
- Bernheim, D. (1987), "Ricardian Equivalence: An Evaluation of Theory and Evidence", NBER Macroeconomics Annual 1987, Vol. 2, edited by S. Fischer.
- Blanchard, O. and L. Summers (1989), "Fiscal Increasing Returns, Hysteresis, Real Wages and Unemployment", NBER Working Papers, No. 2034, http://ideas.repec.org/p/nbr/nberwo/2034.html.

- Blanchard, O. and F. Giavazzi (2003), "Macroeconomic Effects Of Regulation And Deregulation In Goods And Labor Markets", The Quarterly Journal of Economics, Vol. 118(3), pp. 879-907, August, http://ideas.repec.org/a/tpr/qjecon/v118y2003i3p879-907.html, http://ideas.repec.org/s/tpr/qjecon.html, MIT Press.
- Bollen, J. et al. (2009), "Co-Benefits of Climate Change Mitigation Policies: Literature Review and New Results", OECD Economics Department Working Papers, No. 693, OECD, Paris.
- Bosworth, B., and S. Collins (1999), "Capital Flows to Developing Economies: Implications for Saving and Investment", Brookings Papers on Economic Activity, No. 0(1), pp. 143-69.
- Bosworth, B. and S. Collins (2003), "The Empirics of Growth: An Update", Brookings Papers on Economic Activity, No. 2, pp. 113-206.
- Boulhol, H., A. de Serres, and M. Molnar (2008), "The Contribution of Economic Geography to GDP Per Capita", OECD Economics Department Working Papers, No. 602, OECD, Paris.
- Carroll, C. and D. Weil (1994), "Saving and Growth: A Reinterpretation", Carnegie-Rochester Conference Series on Public Policy, No. 40, pp. 133-92.
- Chandra, V. et al., eds. (2009), Innovation and Growth. Chasing a Moving Frontier, OECD and World Bank, Paris and Washington, DC.
- Choi, J., D. Laibson, B. Madrian and A. Metrick (2001), "For Better or for Worse: Default Effects and 401(k) Savings Behavior", University of Chicago Working Papers, Chicago.
- Cline, W. and J. Williamson, "Estimates of Fundamental Equilibrium Exchange Rates, May 2010", Peterson Institute for International Economics Policy Briefs, No. PB10-15.
- Conway, P. et al. (2006), "Regulation, Competition and Productivity Convergence", Economics Department Working Papers, No. 509, Economics Department, OECD, Paris, www.olis.oecd.org/olis/2006doc.nsf/linkto/ECO-WKP(2006)37.
- Edwards, L. and L. Golub (2004), "South Africa's International Cost Competitiveness and Productivity in Manufacturing", World Development, 32, 8: pp. 1323-1339.
- Edwards, L. and T. van de Winkel (2005), "The Market Disciplining Effects of Trade Liberalisation and Regional Import Penetration on Manufacturing in South Africa", Trade and Industrial Policy Strategies Working Papers, No. 1/2005.
- Eichengreen, B.(2008), "The Real Exchange Rate and Economic Growth", Commission on Growth and Development Working Papers, No. 4, World Bank, Washington, DC.
- Eyraud, L. (2009), "Why Isn't South Africa Growing Faster? A Comparative Approach", IMF Working Papers, No. 09/25, International Monetary Fund, Washington, DC, February.
- Fedderke, J. (2002), "The Structure of Growth in the South Africa Economy: Factor Accumulation and Total Factor Productivity Growth 1970-1997", South African Journal of Economics, 70(4).
- Fedderke, J. and A. Hill (2007), "Industry Structure and Labour Market Flexibility in the South African Manufacturing Sector: A Time Series and Panel Data Approach", Economic Research Southern Africa Working Papers, No. 43.
- Fedderke, J. and D. Naumann (2009), "An Analysis of Industry Concentration in South African Manufacturing, 1972-2001", Applied Economics, 1-21, iFirst.
- Feldstein, M., and C. Horioka (1980), "Domestic Saving and Interational Capital Flows", Economic Journal, No. 90, pp. 314-29.
- Frankel, J. (2007), "On the Rand: Determinants of the South African Exchange Rate", South African Journal of Economics, Vol. 75:3, September.
- Furceri, D. and A. Mourougane (2009), "The Effect of Financial Crises on Potential Output: New Empirical Evidence from OECD Countries", OECD Economics Department Working Papers, No. 699, Economics Department, OECD, Paris.
- Griffith, R., R. Harrison and H. Simpson (2006), "The Link Between Product Market Reform, Innovation and EU Macroeconomic Performance", European Economy Economic Papers, No. 243.
- Griffith, R., R. Harrison and G. Macartney (2007), "Product Market Reforms, Labour Market Institutions and Unemployment", Economic Journal, Vol. 117, Issue 519, pp. C142-C166, April, http://www3.interscience.wiley.com/journal/117984640/issue.

- Haugh, D., P. Ollivaud and D. Turner (2009), "The Macroeconomic Consequences of Banking Crises in OECD Countries", OECD Economics Department Working Papers, No. 683, Economics Department, OECD. Paris.
- Hausmann, R., L. Pritchett and D. Rodrik (2004), "Growth Accelerations", NBER Working Papers, No. 10566, NBER, Cambridge, MA, June.
- Hausmann, R. and B. Klinger (2006), "South Africa's Export Predicament", Center for International Development Working Papers, No. 129, Harvard University, Cambridge, MA.
- Houthakker, H. (1961), "An International Comparison of Personal Saving", Bulletin of the International Statistical Institute, 38 (1961), pp. 55-70.
- IEA (2004), Prospects for CO₂ Capture and Storage, OECD/IEA, Paris.
- IMF, (2006), "Exchange rate volatility in South Africa", in South Africa: Selected Issues, IMF Country Reports, No. 06/328, September, IMF, Washington, DC.
- IMF (2009), "South Africa: Article IV Consultation Staff Report", IMF Country Reports, No. 09/273, IMF, Washington, DC,September.
- IPCC (2007a), Summary for Policymakers, in Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, Solomon, S. et al. (eds.), Cambridge University Press, Cambridge, UK and New York, NJ.
- IPCC, (2007b), Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, M.L. Parry et al. (eds.), Cambridge University Press, Cambridge, UK.
- Johnson, S., J. Ostry and A. Subramanian (2007), "The Prospects for Sustained Growth in Africa: Benchmarking the Constraints", NBER Working Papers, No. 13120, http://ideas.repec.org/p/nbr/nberwo/13120.html, http://ideas.repec.org/s/nbr/nberwo.html, National Bureau of Economic Research, Inc, IMF, Washington, DC.
- Jones, B. and B. Olken (2005), "The Anatomy of Start-Stop Growth", NBER Working Papers, No. 11528, August, NBER, Cambridge, MA.
- Jonsson, G. and H. Teferra (2001), "Pattern and Determination of Private Saving in South Africa", unpublished, International Monetary Fund, Washington, DC.
- Kowalski, P., R. Lattimore, and N. Bottini (2009), "South Africa's Trade and Growth", OECD Trade Policy Working Papers, No. 91, OECD, Paris.
- Leibbrandt, M. et al. (2010), "Trends in South African Income Distribution and Poverty since the Fall of Apartheid", DELSA/ELSA/WD/SEM(2010)1, OECD, Paris, March.
- Madrian, B. and D. Shea (2001), The Power of Suggestion: Inertia in 401(k) Participation and Savings Behviour, Quarterly Journal of Economics, Vol. 116, pp. 1149-87.
- Mankiw, N.G., D. Romer and D.N. Weil (1992), "A Contribution to the Empirics of Economic Growth", Quarterly Journal of Economics, Vol. 107(2), pp. 407-37, MIT Press, May.
- Modigliani, F. (1970), "The Life Cycle Hypothesis of Saving and Inter-Country Differences in the Saving Ratio", in W.A. Eltis (ed.). *Induction, Growth, and Trade: Essays in Honor of Sir Roy Harrod*, Clarendon Press, London.
- Lopez Murphy, P. and A. Musalem (2004), "Pension Funds and National Saving", World Bank Policy Research Working Papers, No. 3410, World Bank, Washington DC.
- Nickell, S. et al. (1997), "What Makes Firms Perform Well?", European Economic Review, No. 41, pp. 783-796.
- Nicoletti, G. and S. Scarpetta (2005), "Regulation and Economic Performance: Product Market Reforms and Productivity in the OECD", OECD Economics Department Working Papers, No. 460, OECD, Paris.
- OECD (2007), OECD Reviews of Innovation Policy: South Africa, OECD, Paris.
- OECD (2008a), Review of National Policies for Education: South Africa, OECD, Paris.
- OECD (2008b), Economic Assessment of South Africa, OECD, Paris.
- OECD (2009a), OECD Economic Outlook, Chapter 4: "Beyond the Crisis: Medium-Term Prospects for Unemployment, Growth and Public Finances", OECD, Paris, June.
- OECD (2009b), The Economics of Climate Change Mitigation: Policies and Options for Global Action. Beyond 2012, OECD, Paris.

- OECD (2010), Going for Growth, OECD, Paris.
- Ostry, J. et al. (2010), "Capital Inflows: The Role of Controls", IMF Staff Position Notes, No. 10/04, IMF, Washington, DC, 19 February.
- Prasad, E., R. Rajan and A. Subramanian (2007), "Foreign Capital and Economic Growth", Brookings Papers on Economic Activity, 2007:1, pp. 153-209.
- Rankin, N. (2006), "The Regulatory Environment and SMMEs. Evidence from South African Firm Level Data", DPRU Working Papers, No. 06/113, Development Policy Research Unit, www.commerce.uct.ac.za/research_units/dpru/WorkingPapers/PDF_Files/WP_06-113.pdf.
- Reinhart, C. and V. Reinhart (2008), "Capital Flow Bonanzas: An Encompassing View of the Past and Present", NBER Working Papers, No. 14321, NBER, Cambridge, MA.
- Reinhart, C. and K. Rogoff (2008), "This Time is Different: A Panoramic View of Eight Centuries of Financial Crises", NBER Working Papers, No. 13882, NBER, Cambridge, MA.
- Rodrik, D. (2006), "Understanding South Africa's Economic Puzzles", Center for International Development Working Papers, No. 130, Harvard University, Cambridge, MA.
- Röhn, O. (2010), "New Evidence on the Private Saving Offset and Ricardian Equivalence", OECD Economics Department Working Papers, No. 762, OECD, Paris.
- Schmidt-Hebbel, K., L. Servén and A. Solimano (1994), "Saving, Investment, and Growth in Developing Countries: An Overview", Policy Research Working Paper Series, No. 1382, World Bank, Washington, DC.
- Schmidt-Hebbel, K. and L. Servén (eds.) (1999), The Economics of Savings and Growth. Theory, Evidence and Implications for Policy, Cambridge University Press, Cambridge, UK.
- Spence, M. et al. (2008), The Growth Report: Strategies for Sustained Growth and Inclusive Development, World Bank, Washington, DC.
- Stern, N. (2006), The Stern Review of the Economics of Climate Change, HM Treasury, London.
- Strategic Business Partners (2005), "Counting the Cost of Red Tape for Business in South Africa", SBP Reports, June.
- Taylor, A. (1996), "International Capital Mobility in History: The Saving-Investment Relationship", NBER Working Papers, No. 5743, NBER, Cambridge, MA.
- Thaler, R. and S. Benartzi (2004), "Save More Tomorrow: Using Behavioral Economics to Increase Employee Saving", Journal of Political Economy, Vol. 112, No. 1, Pt. 2, pp. 164-187.
- Tsikata, Y. (1998), "Saving in South Africa: An Empirical Investigation", unpublished, World Bank, Washington, DC.
- Ul Haque, N. and P. Montiel (1987), "Ricardian Equivalence, Liquidity Constraints, and the Yaari-Blanchard Effect: Tests For Developing Countries", IMF Working Papers, No. 87/85, IMF, Washington, DC.
- UNAIDS (2006), Report on the Global AIDS Epidemic, Joint United Nations Programme on HIV/AIDS, Geneva, May.
- Van der Berg, S. (2008), "How Effective are Poor Schools?", CEGE Discussion Papers, No. 69, January 2008.
- Wölfl, A. et al. (2010), "Product Market Regulation: Extending the Analysis to Candidate Countries for Accession, Enhanced Engagement Countries, and Other Non-OECD Countries", OECD Economics Department Working Papers, forthcoming, OECD, Paris.

Chapter 2

Strengthening the macroeconomic policy framework

South Africa's macroeconomic framework has served the economy well, but should be strengthened to make the economy more resilient to external shocks. Enhancing the credibility of the inflation target would provide the monetary authorities with more space for flexibility in the face of exogenous shocks. To ease the pressure on the exchange rate emanating from high commodity prices and sentiment-driven surges in capital inflows, the accumulation of foreign exchange reserves by the central bank should be more rapid, and the removal of remaining controls on capital outflows should be accelerated. Fiscal policy has been generally sound, but should be made tighter and more countercyclical during the economic upswings to prevent a structural deterioration of the fiscal balance and to create more room for manoeuvre during downturns. A fiscal rule that institutionally constrains discretionary fiscal policy may facilitate this task and ensure that the strong public commitment to address major social challenges, improve access to public services and promote long-term growth by investing in physical infrastructure and human capital can be sustained. In conjunction with a greater effort to identify and tax economic rents from natural resource extraction, consideration should be given to establishing a mechanism to manage commodity price windfalls.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

South Africa has earned a good reputation for macroeconomic management since the mid-1990s. Monetary policy has become more transparent and predictable since the introduction of inflation targeting in February 2000, and the monetary policy framework has been supported by sound fiscal policy, beginning with the introduction of the Growth Employment and Redistribution (GEAR) programme in 1996. The government implemented a number of important fiscal initiatives, including comprehensive tax reform, a multi-year expenditure planning horizon and reprioritisation of government expenditure towards social spending. Fiscal prudence has been a cornerstone of the policy approach, resulting in the remarkable turnaround in the fiscal position from the high deficits of the early 1990s to the surpluses in the 2005/06 to 2007/08 fiscal years and a rapid decline in the public debt ratio and interest rate burden. Reflecting policy reforms to encourage greater integration with the world economy via trade and investment flows, and the credibility of macroeconomic policies, private capital inflows increased substantially, in particular from 2003.

The macroeconomic framework, while broadly successful, has faced several challenges over the last two years. Rising global food and energy prices up to mid-2008 and increases in regulated electricity prices triggered a prolonged overshooting of the inflation target at the time when the economy started to slow down. While the regime has proven to be flexible, taking into account output and employment in the short run while attempting to ensure that the inflation target is achieved over time, its credibility suffered and inflation expectations ratcheted up. The role of the exchange rate within the framework is another policy area where consensus has not been reached. High volatility of the domestic currency in nominal and real terms has been previously identified as a constraint on growth in AsgiSA, the government development strategy launched in 2006. Increased volatility of the terms and trade and capital flows over the last two years triggered an even higher volatility of nominal and real exchange rates. A persistent real appreciation trend and its negative impact on the tradables sector has become another area of concern, as discussed in Chapter 1. The lengthy appreciation episode before the crisis was driven by the improving terms of trade, but also by increasingly large capital inflows. It appears that the surge in capital inflows since 2003 has in part reflected investors' confidence in credible economic policies and supported domestic investment and development of domestic financial markets. But it also contributed to the emergence of various imbalances, such as the latest asset boom-bust cycle. After the period of instability in the fourth quarter of 2008, strong private capital inflows have resumed, as abundant global liquidity and exceptionally low interest rates in advanced economies renewed investors' interest in emerging countries offering higher returns. This led to an appreciation of the rand of about 30% in nominal effective terms over the period between February 2009 and May 2010.

This chapter discusses the challenges presented by these developments, and suggests improvements that would address these issues and make the economy more resilient to external shocks. It reviews the monetary policy framework and looks into the ways to

enhance the credibility of the inflation target. It also explores the options available to the monetary authorities to counteract volatility and persistent appreciation trends of the exchange rate and, more generally, the boom-bust cycles induced by the commodity boom or/and large capital flows. It argues that while monetary policy instruments can help deal with these problems, fiscal policy is likely to play the key role in addressing this issue and preventing overheating. Recent developments suggest that fiscal policy was not sufficiently counter-cyclical during the boom years and the government may have expanded irreversible entitlements against a misjudged level of structural revenue. In this connection, the chapter discusses the merits of various fiscal rules for South Africa.

The monetary policy framework has served the economy well, but should be strengthened

The South African Reserve Bank (SARB) is one of the most advanced non-OECD central banks in the world, with a strong track record in conducting monetary policy and maintaining financial stability. Its independence, accountability and transparency are all commendable, although the issue of its private ownership has on occasion been an unwelcome distraction (Box 2.1). The main elements of South Africa's monetary and

Box 2.1. Ownership of the South African Reserve Bank

South Africa is unusual, though not unique, in having private ownership of the central bank. A number of other central banks, including the (regional banks of the) US Federal Reserve, the Bank of Japan and the National Bank of Belgium, have private shareholders, though most are nonetheless majority state-owned: a Bank for International Settlements (BIS) review found only 4% having majority private ownership (BIS, 2009). South Africa, having only ever had private shareholders since its creation in 1921, is highly unusual, therefore. Where private shareholding of central banks is seen it is generally because the bank's public policy role was taken on by an already-existing institution that was wholly or partly privately owned, though South Africa is again atypical in this respect as the SARB was created specifically to undertake central banking functions (in particular, becoming the sole issuer of banknotes).

In the large majority of cases, central banks are wholly publicly owned, which befits their public policy raison d'être. Unlike a private firm, a central bank is not and should not be concerned with maximising profits. As the SARB itself put it in a press release in March 2010:

"Since monetary policy issues and the economy affect the society as a whole, central banks worldwide are regarded as public entities that fulfil public interest roles. In practice, the pursuit of this role is not synonymous with the realisation of profits. The SARB is required to conduct its activities in the public interest only, without regard to profit maximisation."

Thus, in all cases where there remains a degree of private ownership of the central bank, including South Africa, the important policymaking powers are shielded from private shareholder influence. In the SARB's case, dividend payouts are fixed at a rate of 10% of profits, shareholders cannot remove directors or management, and any one shareholder is not permitted to own more than 0.5% of the shares outstanding. The President appoints the Governor and the Deputy Governors, and shareholders have no say in the day-to-day operations of the bank. The functions of the SARB are set out in legislation (the South African Reserve Bank Act of 1989) and its independence is entrenched in the Constitution.

Box 2.1. Ownership of the South African Reserve Bank (cont.)

Nonetheless, despite the safeguards, private ownership can create problems for the smooth functioning of the central bank. South Africa is not alone in having seen legal challenges from "rogue" shareholders, which can both divert the central bank's time and resources and raise uncertainty about its role and motivation. Efforts have apparently been made by some SARB shareholders to circumvent the limits on individual shareholdings, and they have launched challenges via the courts and calls for extraordinary general meetings of the shareholders. The government has responded by introducing legislation to reinforce the restrictions on shareholders. Under the South African Reserve Bank Amendment Bill, the concepts of associates and close relatives would be introduced to prevent shareholders from forming voting blocks. Also, shareholders, which currently appoint 7 of the 14-member Board, would be able only to nominate 4 directors, which would be subject to review by a selection panel. The Board would be increased to 15, with eight members appointed by the President, and the powers of the Governor and management would be clarified to limit the Board's role to corporate governance.

The Reserve Bank Amendment Bill is a sensible response to the problem of rogue shareholders seeking to undermine the independence of the SARB. Whether it will resolve all uncertainty created by the private ownership of the central bank is less clear. Public debate about monetary policy has sometimes become mixed up with the issue of the SARB's ownership, even though shareholders have in fact played no role in policy decisions. The main argument advanced for retaining private shareholders is that they provide community representation and participation in the oversight of the SARB, thereby enhancing its independence, transparency and accountability. It is unclear whether this is in fact the result, however: as in most advanced countries, these goals are primarily achieved by the central bank's legal mandate and the requirements placed on it to consult with government and report to parliament. The SARB also maintains a high degree of transparency through its website and publications, statements of the Governor and other senior officials, and via its outreach efforts. In this context, private shareholding of the SARB appears to be somewhat analogous to an appendix – a vestigial organ that usually does neither harm nor good but which can on occasion flare up and create problems.

exchange rate policy framework are inflation targeting (Box 2.2), a flexible exchange rate and partially liberalised capital flows, with substantially liberalised inflows but a relatively strict control over outflows.² Behind this asymmetry are the fully liberalised regime of local purchases of assets by non-residents, who can freely invest and repatriate funds related to such purchases,³ and restrictions on foreign exchange transactions related to both inflows and outflows for South African resident corporations and individuals.

The transparency and predictability of monetary policy appear to have improved under inflation targeting. According to Dincer and Eichengreen (2009) who compiled an index of central banks' transparency for 100 countries from 1998 to 2006, based on the methodology developed by Eijffinger and Geraats (2006), South Africa's central bank transparency improved from a score of 4.5 in 1999 to 9 in 2001 (out of the maximum of fifteen).⁴ As of 2006, the SARB was among the fifteen most transparent central banks in the world, on a par with Australia and Poland. The OECD Secretariat assessment based on the framework developed by Minegishi and Cournède (2009) that focuses on four elements of communication practices of central banks with respect to monetary policy decisions – transparency about policy objectives, policy decisions, economic analysis and decision-

Box 2.2. The inflation targeting framework in South Africa¹

The inflation targeting framework was introduced in February 2000. The legally independent South African Reserve Bank (SARB) adjusts the repurchase rate to achieve the inflation objective set by the government. The current target is for the headline CPI² to be within the target range of 3 to 6% on a continuous basis. The policy rate decision is made by the Monetary Policy Committee (MPC) and reflects a consensus, or a majority view without a formal vote. The MPC usually holds six meetings per year. During 2009, the MPC exceptionally moved to monthly meetings, but in November 2009 decided to revert to the regular schedule. After each meeting, the MPC statement is released, but the minutes from the meeting are not published. The Monetary Policy Review is issued twice per year, providing a comprehensive assessment of the recent inflation developments and the inflation outlook. The Review contains the inflation forecast, and since May 2010 also the forecast for real GDP growth. The inflation forecast is based on a constant policy rate assumption over the projection horizon.

The SARB's mandate explicitly allows inflation to deviate temporarily from the target due to an adverse supply shock, such as an oil price shock, a drought, a natural disaster, or financial contagion affecting the currency. This is known as the "explanation clause" which states that if such a shock hits the economy, the SARB should inform the public of the nature of the shock, the anticipated impact on inflation, the monetary policy response to ensure that inflation returns to the target, and the time frame over which this will occur. The explanation clause provides a certain degree of flexibility to the regime. In the aftermath of the recession, the central bank's mandate was further clarified in February 2010 in a letter from the Minister of Finance to the SARB's Governor. The letter confirmed that monetary policy should be conducted in a consistent and transparent manner within a flexible inflation-targeting framework, focusing on a medium-term horizon. The time frame for the adjustment to the shock over which monetary policy has no control should be chosen with the aim of avoiding unnecessary instability in output and interest rates, and should be clearly communicated to the public. The letter also stated that the policy response should take into account factors that may hinder the attainment of balanced and sustainable growth and give rise to an unsustainable balance of payments position or unsustainable public and private debt burdens. Such factors include the source of the inflation shock, the size of the gap between actual and potential growth, credit extension and asset bubbles, employment and other labour market developments and the stability and competitiveness of the exchange rate.

- 1. This box draws on various SARB publications (2007, 2008, 2010) and Mnyande (2008).
- 2. Until February 2009, the targeted inflation measure was the CPIX (headline CPI excluding mortgage interest cost). In January 2009, the headline CPI was redefined reflecting changes in the treatment of owner-occupied housing cost from mortgage interest cost to the rental equivalence approach. In addition, the geographical coverage of the CPI was extended. In February 2009 the revised CPI became the new measure for targeted inflation, replacing the CPIX.

making process⁵ – suggests that the SARB's communication strategies are in line with the practices of major OECD central banks along most of these dimensions. The overall transparency index of 0.71 (out of a maximum of 1) achieved by the SARB in 2010 is slightly below the average for eleven OECD central banks for which assessment was done in 2009, and above those of the Federal Reserve and the European Central Bank.⁶ Aron and Muellbauer (2009) also find that interest rates have become more predictable, indicating that the policy reaction function is well understood by the markets.

After an initial period of instability related to the emerging market crisis in 2001 and a sharp depreciation of the rand, inflation moderated and fell within the target zone for the CPIX⁷ (Figure 2.1A). Inflation expectations of various economic agents converged (Figure 2.1B), and between September 2003 and March 2007, the targeted measure of inflation remained within the zone. Average inflation and inflation variability, as well as interest rates variability in the period from 2000 up to the second quarter of 2008 declined compared to the pre-targeting period (Kahn, 2008). However, the regime came under stress when the adverse shock related to sharply increasing international prices for food and energy that began in 2006 and peaked in mid-2008 fed through to domestic prices.

The inflation targeting framework has proven to be flexible, but its credibility can be strengthened

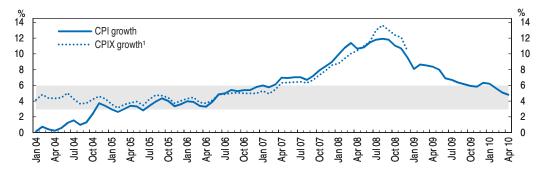
The optimal response of an inflation-targeting central bank to developments that are exogenous to the framework, such as international prices for food and energy, or administratively regulated prices, is a challenging policy dilemma. Stiglitz (2010) argued that the fundamental issue with an inflation-targeting framework is that it requires interest rates to be raised as a response to inflation exceeding the target level regardless of the source of price growth; for him, if inflation is imported, raising domestic interest rates is not the right response. In fact, inflation targeting can and should differentiate between the sources of price growth. One approach is to target core inflation; however, the choice of the operational target involves a trade-off between transparency and controllability. In particular in emerging markets, where food and energy constitute a large part of consumption basket, a divergence between headline and core inflation would result in a loss of transparency and credibility of the central bank. The second-round effects can also push up core inflation. Another way is a flexible targeting of headline inflation, allowing inflation to be outside the target band due to the first-round effects of a supply shock.

This sort of flexibility is explicitly provided for in the SARB's mandate (Box 2.2) and was reflected in its response to rising inflation in the 2007-08 period. The rise in policy rates in the period between May 2007 and April 2008, from 9 to 12% (Figure 2.1D), was less steep than warranted by inflation developments alone (Aron and Muellbauer, 2009). As a result, inflation remained outside the target band for 30 consecutive months. This was a challenging dilemma for the SARB. On the one hand, rising headline inflation affected inflation expectations that ratcheted upwards despite the tightening cycle (Figure 2.1B and C). This suggests that the credibility of the central bank suffered. At the same time, the SARB was criticised for an inappropriate tightening in response to inflationary developments that were outside of its control and, more generally, for not paying attention to growth and employment objectives.

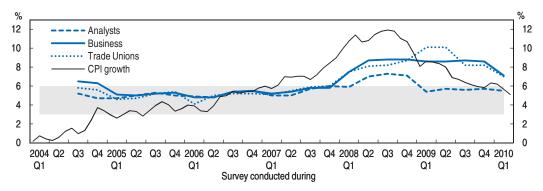
Enhancing the credibility of the inflation target is crucial for the success of the framework. Not only is the anchoring of expectations the main precondition for the stability of inflation outcomes, but greater credibility would also provide the SARB with more freedom to implement a flexible approach to inflation targeting in the future. A high degree of transparency and convincing monetary policy reports are considered to be indispensable for establishing and maintaining credibility (Svensson, 2010). Empirical evidence suggests that higher transparency is an integral part of monetary frameworks that are associated with better anchored inflation expectations and more stable inflation outcomes (Minegishi and Cournède, 2009). The SARB's communications strategies are in line with those adopted by the major OECD central banks along many dimensions, such as

Figure 2.1. Inflation, inflation expectations and interest rates

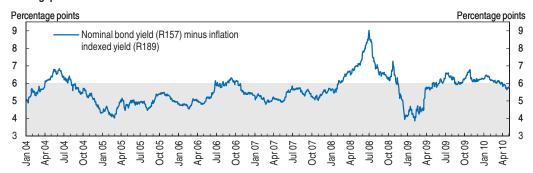
A. Inflation



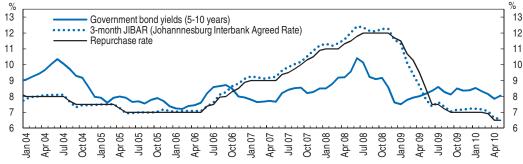
B. Inflation expectations for the coming year²



C. Yield gap between inflation-indexed and nominal bonds



D. Interest rates (average of daily rates)



- 1. The CPIX is equal to the CPI excluding mortgage interest cost.
- 2. CPIX up to the fourth quarter of 2008. Headline CPI (which replaced the CPIX as an inflation target from February 2009) onwards.

Source: Datastream, Bureau of Economic Research, National Treasury and Statistics South Africa.

StatLink http://dx.doi.org/10.1787/888932309636

announcement and explanation of the policy changes in the Monetary Policy Committee statements and publication of the central bank's forward-looking assessment of the economy, including inflation and output forecasts (Box 2.2). At the same time, the SARB provides less guidance regarding future policy inclinations, assuming a constant-rate interest rate path over the projection horizon in its inflation forecast. This assumption can be unrealistic and lead to biased forecasts (Svensson, 2010). Relaxing this assumption would allow the central bank to decide on and communicate to the public the optimal inflation path, instead of limiting this path with a single possible outlook for inflation, once a policy rate decision has been made. The practice of deciding on and publishing the optimal policy rate path was pioneered by the Reserve Bank of New Zealand and has been adopted by several other central banks, including those of Norway and Sweden. While there is a concern that a non-constant rate forecast published by a central bank may be misinterpreted by the private sector as a commitment, rather than a forecast subject to uncertainty, evidence suggests that in all three countries, the private sector has understood well the conditional nature of the forecast (Svensson, 2009). To further increase transparency and signal commitment to price stability over the longer term, the SARB should consider moving in the direction of announcing a policy rate path consistent with the inflation objective. At a first stage, this might involve merely signalling the foreseen direction of policy rates. Ultimately, the SARB could begin to publish a projected path in the Monetary Policy Review.

Additional efforts are warranted to ensure that the social partners use the inflation target as guidance for wage and price setting. Empirical results suggest that wage settlements are the major source of inflation inertia in South Africa (Aron and Muellbauer, 2009). A closer look at the composition of expectations reveals that financial analysts had a greater trust in the SARB's ability to combat inflation (Figure 2.1, Panel B). Break-even inflation rates on inflation-indexed bonds indicate that between February and November 2008, financial markets expected average inflation over the five-year horizon to be outside the target band, but with the onset of the recession, expectations fell within the target zone (Figure 2.1C).8 By contrast, the trade unions' expectations remained elevated and in fact backward-looking (see Chapter 1): even with the onset of the recession, trade unions did not expect inflation to subside. Communication is important as well, and the outreach initiative introduced by the SARB in December 2009 that aims at improving the central bank's interaction with various stakeholders is a useful step in that direction. At the same time, more needs to be done to influence expectations more directly. More centralised wage co-ordination, with the participation of the government, which would put more emphasis on future inflation developments, might be helpful in this regard. This is discussed further in Chapter 3.

Some experts have argued that the target band needs to be widened to accommodate the shocks from imported inflation, e.g. Garrow (2008). The majority of central banks in advanced economies formulate their inflation objective around 2%. Taking into account that emerging market central banks should aim for somewhat higher inflation rates than advanced countries due to Balassa-Samuelson effects, possibly 1-2% higher (Amato and Gerlach, 2002), an upper bound of 6% seems on the high end and in fact is one of the highest upper bound targets among all inflation-targeting countries, including emerging economies. The benefits of moving towards the higher upper bound are hard to justify for South Africa, while the loss of credibility is a real risk. The target band of 3-6% for consumer price inflation is appropriate and should be maintained.

Flexible exchange rate arrangements are appropriate for South Africa...

A flexible exchange rate is a prerequisite for successful inflation targeting as the central bank cannot credibly commit to a second objective under an inflation-targeting framework. A flexible exchange rate also works as a shock absorber, in particular for a country like South Africa which is frequently exposed to large terms-of-trade shocks. In addition, the negative impact of currency fluctuations on balance sheets, arguably one of the key reasons for currency management, is less pronounced in South Africa due to the relatively low levels of foreign-currency denominated debt and dollarisation of domestic contracts compared to other emerging markets. More than 40% of external debt is denominated in rand (Figure 2.2), and the level of dollarisation is extremely low at 2.6%.

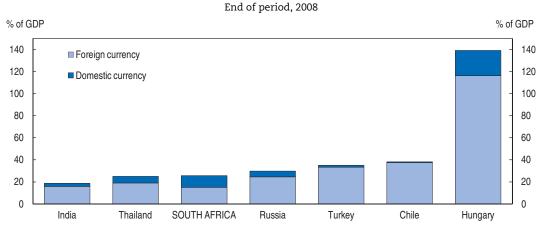


Figure 2.2. External debt by currency denomination

Source: World Bank, Quarterly External Debt Statistics Database, WDI Database and Central Bank of Russia.

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... but exchange rate developments should be taken into account while formulating policies

While the exchange rate cannot be the main policy objective under inflation targeting, paying attention to exchange rate developments is warranted, as it remains one of the key macroeconomic variables in South Africa. First and foremost, exchange rate movements have a direct effect on domestic prices (the so-called exchange rate pass-through). Empirical estimates suggest that the exchange rate is a significant determinant of inflation in South Africa. This implies that currency volatility is translated into volatility of domestic inflation. Mihaljek and Klau (2008) estimate the pass-through coefficient to domestic prices of final goods at around 8%, similar to the SARB's own estimates. Karoro et al. (2009) find that the pass-through of the exchange rate on import prices is relatively high. Examining the pass-through effects at a disaggregated level, Parsley (2010) estimates the pass-through coefficient to import prices at around 60%, but reports a relatively low passthrough to prices of final goods. There is also evidence that the pass-through is asymmetric, i.e. that currency depreciation has a larger effect on domestic prices than appreciation. 10 This implies that downward exchange rate movements can generate a series of price hikes that are not offset when the currency bounces back. This may be linked to competition-hampering business regulation. 11

Another channel through which the exchange rate affects economic developments is its impact on relative price competitiveness of domestic goods. A large real appreciation will have a detrimental effect on the tradables sector and export performance, which may endure even if the appreciating trend is reversed. In particular, episodes of prolonged misalignment of the exchange rate linked to large sentiment-driven capital inflows warrant a policy response. The pre-crisis episode of rapid appreciation reflected the rising terms of trade, but also to a significant extent large capital inflows, which were in turn linked to the commodity boom (Frankel et al., 2008). It is notoriously difficult to estimate long-term equilibrium commodity prices, but it is likely that the levels observed prior to the crisis represented deviations from equilibrium. 12 It is even more obvious that appreciation induced by capital inflows did not reflect fundamental changes in relative prices, and thus led to a misalignment relative to the fundamentals. While misalignment of the real exchange rate is usually associated with pegs, evidence shows that flexible exchange rates are also prone to overshooting, and a trend nominal appreciation can persist for lengthy periods (Ho and McCauley, 2003; Hannoun, 2007).¹³ Moreover, appreciation episodes are often associated with high-yielding currencies, such as the rand. 14 In the current environment of abundant liquidity internationally and exceptionally low interest rates in advanced economies, large interest rate differentials have resulted in a renewed wave of capital inflows to South Africa.

Currency volatility was identified by the South African authorities as one of the constraints on growth in AsgiSA in 2006. South Africa's nominal exchange rate volatility is among the highest of all commodity exporters and emerging markets (Figure 2.3). As noted before, to the extent that exchange rates reflect the changes in relative prices linked to fundamentals, their movement helps the economy adjust to the shocks. However, excessive volatility may diminish the role of the exchange rates as shock absorbers, and become a source of vulnerability itself. ¹⁵

There is scope within the inflation-targeting framework to counteract unsustainable real appreciating trends and reduce volatility of the exchange rate. Keeping inflation at low and stable levels in line with the central bank's mandate is a priority, as this would reduce

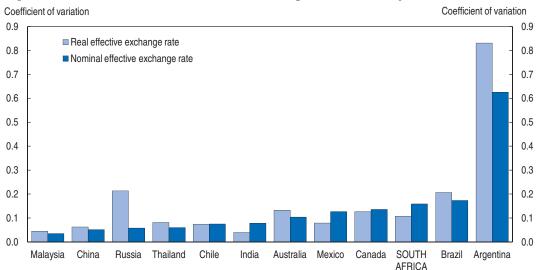


Figure 2.3. Nominal and real effective exchange rate variability, Jan. 1999-Jan. 2010

Source: OECD calculations based on IMF, IFS Database and OECD estimates.

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inflation differentials between the country and its trading partners, which is one of the factors behind real appreciation. Lower inflation rates would also translate into lower nominal interest rates, discouraging the carry trade. To respond to the pressures on the nominal exchange rate, once inflation is under control, one option would be to include the exchange rate in the policy response function. While this is conceptually legitimate (Edwards, 2007), it is usually difficult to judge the effects of monetary policy on the exchange rate. For example, traditionally, decreasing the policy rate is associated with depreciation, as interest rate differentials become smaller, discouraging capital inflows. However, as a large share of portfolio flows in South Africa goes to equities, to the extent that falling real interest rates are perceived as good for growth, this can boost capital inflows. While it is likely that with large interest rate differentials the traditional effect will dominate, the effect of changes in the policy rate is ambiguous.

Reserve accumulation and sterilised intervention, at least in the short term, can mitigate the pressures on the exchange rate, while domestic objectives can be controlled with the policy rate (Blanchard et al., 2010). The SARB has already tended to accumulate reserves when appreciation pressures have been strongest, while refraining from intervening to resist depreciation. Nonetheless, a somewhat more active intervention policy providing for a more rapid accumulation of reserves when net inflows are strong and allowing depreciation when they ebb, as long as this remains consistent with the primary goal of keeping inflation in the SARB's target range, could do more to avoid or mitigate overvaluation. The central bank's international reserves, while increasing gradually, have remained relatively low by international standards (IMF, 2009a), and there is scope for increasing reserve holdings on prudential grounds. The purchases will need to be sterilised, and there are costs associated with this sterilization, but they may be small compared to the economic costs of overvaluation. Foreign exchange intervention should be used more actively within the constraints of the inflation-targeting regime to mitigate or avoid rand overvaluation. In current circumstances, with a strong rand and still relatively low reserves, the accumulation of reserves should be more rapid when net inflows are strong, while depreciation should be allowed when they ebb.

The elimination of remaining controls on outward investment by South African residents would also bring benefits. The asymmetric liberalization of capital flows, with no restrictions on flows related to purchases of local assets by non-residents, but various controls over foreign exchange transactions of South African resident corporations and individuals, has created an environment in which foreign investors' sentiment plays a disproportionate role in foreign exchange developments. While exchange controls do not exclude residents from participation in the foreign exchange market, they create obstacles for efficient portfolio allocation, and discourage many potential participants. South Africa has taken steps to liberalise controls on capital outflows by residents, but they remain significant. 16 Removal of such controls would deepen foreign exchange markets and make them less dependent on the attitude of foreign investors towards South Africa, while eliminating the associated administrative costs. In particular, liberalising outward investment by residents would put downward pressure on the rand. To the extent that the resulting foreign exposure poses a risk, prudential regulations should be used. Removal of exchange controls on residents should be accelerated, with prudential norms replacing such controls to ensure adequate risk management.

When the limits of other measures, such as sterilized intervention, removal of exchange control on residents and fiscal tightening (discussed in the next section) are

reached, the option of temporary use of market-based measures to discourage capital inflows ("speed-bumps"), such as unremunerated deposit requirements or taxes on some capital inflows, may need to be considered. The empirical literature is inconclusive on the effectiveness of such measures, although there is some evidence that capital controls on inflows can make monetary policy more independent, alter the composition of capital flows, and reduce real exchange rate pressures, even though the evidence here is more controversial (Magud and Reinhart, 2006). There are non-negligible administrative costs, as well as costs in terms of distorted prices and damage to the country's reputation for openness (although the latter can be mitigated by other actions to liberalise trade and foreign direct investment, and the previously discussed lifting of exchange controls on residents' outward investment, which are worthwhile in their own right). Such costs should be weighed against the growth costs of overvaluation, exchange rate volatility and boom-bust cycles.

Enhancing the stabilising role of fiscal policy and safeguarding sustainability

The decade of fiscal reforms paid dividends

The fiscal situation improved markedly between the mid-1990s and early 2000s, with a decline in budget deficits from the high levels of the early 1990s (Figure 2.4) and a reduction in public debt and the interest rate burden (Figure 2.5). This notable progress was based on the successful implementation of several important fiscal initiatives. Revenue collection was strengthened through tax reforms that broadened the tax base and increased effective tax rates, while reducing marginal rates and improving tax administration and compliance. Nevertheless, the extreme inequality of income and wealth distribution means that only every third employee is registered as an income taxpayer. A reprioritisation of government expenditure towards social services went in parallel with radically improved fiscal discipline, with the share of expenditure in GDP decreasing slowly but steadily. The predictability and transparency of the budgetary process have increased with the adoption of the Medium-Term Expenditure Framework (MTEF), which outlines multi-year expenditure targets and spending priorities. ¹⁸

% % 8 36 6 32 4 28 2 24 0 -2 16 -4 12 Balance (left scale) -6 8 Revenue (right scale) 4 -8 Expenditure (right scale) -10 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 20091

Figure 2.4. **Government finances**As a percentage of GDP

Note: Consolidated budget, fiscal years (1 April-31 March).

1. Preliminary estimates.

Source: National Treasury, GFS Database.

StatLink http://dx.doi.org/10.1787/888932309693

As a percentage of GDP

Debt service cost (left scale)

Gross debt¹ (right scale)

40

30

20

2003

2004

2005

Figure 2.5. Public debt and debt service cost

Note: Fiscal years (1 April-31 March).

1996

0

1. Gross debt of the national government, end of period.

1998

2000

Source: National Treasury, GFS Database.

1997

StatLink http://dx.doi.org/10.1787/888932309712

2007

2008

2006

0

The boom years brought further improvements in the headline fiscal position...

The improvements in the headline fiscal position accelerated during the boom phase of the latest cyclical upturn (Figure 2.4). The consolidated government budget¹⁹ turned to a surplus in FY 2005/06 and continued to register growing surpluses over three consecutive fiscal years. This mainly reflected a surge in revenues that received a major boost from the acceleration of growth in 2004. Between FY 2004/05 and FY 2007/08, consolidated government revenues increased by 2.6 percentage points of GDP, more than during the previous decade (Figure 2.6). The downward trend in expenditure was reversed in FY 2003/2004, and consolidated government outlays stabilised in relation to GDP.

Tax buoyancy has proved to be transitory. Growth in government revenues decelerated sharply as the economy slowed down and turned negative with the onset of recession. As revenues were falling faster than the economy, the fiscal gains of the boom years were quickly lost and the share of revenue in GDP returned to the level of 2004 (Figure 2.4).

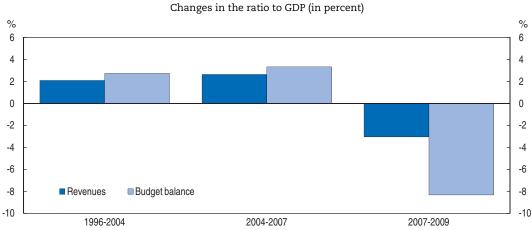


Figure 2.6. Budget balance and government revenues, 1996-2009

1. Consolidated budget, fiscal years (1 April-31 March).

Source: OECD calculations based on the data from National treasury and GFS Database.

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Government spending plans ratcheted upwards just as the cycle was peaking. The 2008 Budget proposals pushed up expenditure over the three-year horizon compared to the plans outlined in the MTEF by 116 billion rand (around 6% of 2007 GDP). Spending plans were again revised upwards later in 2008, when the economy began to slow down, with an increase of 1.1% GDP for 2008 and an additional allocation of about 170 billion rand over the 2009-11 fiscal years (7.4% of 2008 GDP) compared to the previously announced targets. As the crisis hit, the government decided to proceed with the spending plan for 2009, despite the deteriorating revenue environment, and slightly expand planned expenditure for FY 2010/11. In FY 2009/10, the share of consolidated government expenditure in GDP surged to a historical high over 34% GDP. Spending increased across the board, with the shares of current and capital expenditure and transfers to households all rising relative to GDP. The wage bill surged in FY 2008/09 and, somewhat surprisingly, in FY 2009/10, as employment and salaries in the public sector increased. Capital spending also increased strongly, reflecting investment in infrastructure, including social infrastructure like schools and hospitals. The overall picture is one of an upward drift in public spending at just the time when revenues were being hit by the downturn.

In parallel to increased general government investment in recent years, major capital expenditure programmes are being implemented on the part of some public enterprises, especially Eskom, the electricity supplier, and the transport conglomerate Transnet. Public-sector infrastructure expenditure increased from 4.6% in FY 2006/07 to 8.5% of GDP in FY 2008/09, with public enterprises accounting for the largest share of this growth (Figure 2.7). Eskom's and Transnet's five-year capital spending programmes over the FY 2009/10 to FY 2013/14 period, amounting respectively to 342 billion rand (15% of 2008 GDP) and 80 billion rand, were similarly approved before the onset of the crisis and have not been adjusted downwards despite the much more challenging financing environment. Moreover, Eskom's capital spending plans escalated and currently amount to 460.2 billion rand. For the public sector as a whole, current plans envisage annual infrastructure spending exceeding 9% of GDP (Figure 2.7), which is high relative to other countries. ²¹

The headline budget balance swung to a deficit in FY 2008/09 and deteriorated significantly in FY 2009/10. Overall, between the 2007/08 and 2009/10 fiscal years the budget

% % ■ National and provincial departments 12 12 ■ Municipalities and extra-budgetary institutions Public-private partnerships and non-financial public enterprises 10 10 8 8 6 6 4 4 2 2 0 2010/11 2012/13 2006/07 2007/08 2008/09 2011/12 Source: National Treasury.

Figure 2.7. **Public sector spending on infrastructure**As a percentage of GDP

StatLink http://dx.doi.org/10.1787/888932309750

balance worsened by about 8.5 percentage points of GDP, with the largest part coming from increased expenditure. The public sector borrowing requirement, which takes into account the financing needs of state-owned enterprises, amounted to about 11% of GDP in FY 2009/10.

... but the structural balance remained in deficit

The movements in the headline budget position over the latest boom-recession cycle have reflected the effects of automatic stabilisers as well as of discretionary policy measures. The decomposition of the budget balance into a cyclical component (i.e. related to the deviation of various factors from the level consistent with potential output) and a structural component helps assess the magnitude of automatic stabilisers and the degree of countercyclicality of discretionary fiscal policy actions, as well as sustainability of the fiscal position.

Fiscal developments during the latest boom-recession cycle indicate high sensitivity of the budget balance to the cycle. The standard OECD methodology estimates the cyclical component of the budget position with respect to the output gap (Girouard and André, 2008). Structural revenues and spending are defined as those that would have been collected and spent if output had been at its potential level that year, and the difference between actual and structural measures is called cyclical. Changes in the fiscal balance due to the cycle are referred to as automatic stabilisation. Estimates show that the cyclical component amounted to about 2-2.8% of GDP annually during 2006-08. In practice, the cyclical component of spending is minor, reflecting the small size of unemployment benefits. Thus, in South Africa, automatic stabilisation takes place almost exclusively on the revenue side.

Beyond the impact of the traditional business cycle, revenue performance may have been affected by other temporary factors, in particular, exceptionally high global commodity prices during the latest boom. One way to address this issue is to separate commodity revenues from the budget and adjust the "non-commodity balance" to the cycle, while adjusting commodity-related revenues for the effects of fluctuations in global commodity prices. Applying this approach to South Africa should not have a large effect on the results, however, as revenue streams corresponding to the extraction of commodities – limited to the corporate income tax levied on the companies operating in the mining and coal and petroleum sectors – have been relatively low over the last decade, even during the recent period of exceptionally high global commodity prices. In FY 2007/08 corporate income tax from these sectors accounted for 3.3% of total revenues, or 1% of GDP. This is significantly below the size of commodity-related revenues in other resource-rich countries (Table 2.1). While the share in GDP of the natural resource sector in these

Table 2.1. Commodity-related revenues in selected commodity-exporting countries, 2007

	% total revenues	% GDP
South Africa	3.3	1.0
Chile	31.3	8.6
Mexico	35.4	7.9
Norway	24.3	14.3
Russia	26.2	10.5

Note: Commodity-related revenues are taken to include, where applicable, corporate income tax from the natural resource sector, royalties, licenses, export taxes, and income from state-owned enterprises.

Source: OECD calculations based on national sources.

countries is about twice as large as in South Africa, the size of commodity-related revenues in relation to GDP is some 8-10 times larger. This suggests that there is significant potential for raising greater tax revenues in this area. Even though tax revenues from the natural resource sector were relatively low, the commodity boom had a significant effect on total budget revenues via effects on economic activity, boosting income and consumption, as well as profits of domestic companies that benefited from increasing domestic demand, in particular in the non-tradable sector.²³

Other factors that may have boosted revenue performance but are not captured by the output gap directly include the asset price boom. Asset price movements may have a significant impact on revenues, directly (e.g. through capital gains taxes) or indirectly via the impact of wealth on consumption. Another potential reason for increases in revenues may have been improved tax compliance and administration related to the cycle. While all these effects could have been important, accounting for them would not be straightforward.²⁴

OECD estimates show that the cyclically-adjusted, or structural balance²⁵ of the consolidated government remained in deficit throughout the boom years, even though the headline position was in surplus from FY 2005/06 through FY 2007/08 (Figure 2.8). The cyclically adjusted fiscal position began to deteriorate in FY 2007/08 and worsened considerably in FY 2008/09. While the estimates of the structural balances are subject to substantial uncertainties, the results point to an overspending during the boom of what turned out to be unsustainable revenues.

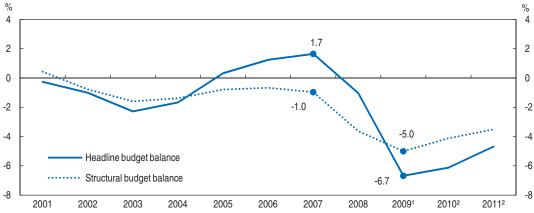


Figure 2.8. Headline and structural budget balances

Note: Consolidated budget, fiscal years (1 April-31 March). Headline balance: percentage of GDP; structural balance: percentage of potential GDP.

- 1. Preliminary estimates.
- 2. OECD projections.

Source: National Treasury, GFS; OECD estimates.

StatLink http://dx.doi.org/10.1787/888932309769

Headline budget balances have moved in a counter-cyclical way since 2003 (Figure 2.9). The decomposition of the movements in the headline fiscal position into the changes in cyclical and structural components suggests that the cyclical contribution from automatic stabilisers was reinforced by a discretionary counter-cyclical fiscal stance between 2003 and 2006. However, discretionary fiscal policy turned procyclical as spending rose in the second part of the latest cyclical upswing, partially offseting the effect of the automatic stabilisers (Figure 2.9). Discretionary policy became counter-cyclical again at the onset of

% % 2 2 0 0 -2 -2 -4 Automatic stabilisers Change in cyclically adjusted balance -6 - Change in budget balance -6 · Change in output gap -8 2001 2002 2003 2004 2005 2006 2007 2008 2009

Figure 2.9. Output gap and decomposition of budget balance into structural and cyclical component

Note: Headline budget balance: changes in the ratio to GDP; structural balance: changes in the ratio to potential GDP; automatic stabilisers: changes in the cyclical component. Output gap as a percentage of potential output.

Source: OECD calculations.

StatLink http://dx.doi.org/10.1787/888932309788

the crisis, as the government decided to maintain the pre-crisis expenditure level, amplifying the impact of the automatic stabilisers on the revenue side.

The conduct of fiscal policy during the boom and recession phases has been generally sound but can be strengthened along two important dimensions: improving fiscal management over the cycle and reinforcing the credibility of the commitment to mediumterm sustainability of public finances. These issues are interrelated. Preventing fiscal loosening during the periods of revenue buoyancy is essential to avoid additional overheating during the boom and a subsequent worsening in the headline fiscal position once the economy slows down. The authorities successfully pursued counter-cyclical fiscal policy for a number of years, but did not save enough of the revenue windfalls during the boom years and launched an ambitious spending programme just before the cycle turned. One reason for fiscal loosening may be overestimation of the level of structural revenue during the boom. This may in turn have happened because of overly optimistic estimates of potential output, or because the sensitivity of revenues to the cyclical factors was higher than the government assumed. In particular, the sensitivity of corporate income tax to cyclical developments may have been considerably underestimated. Taking into account all these effects, it is likely that some part of the temporary revenue gains was wrongly seen as permanent. In addition, pressures to increase spending intensified when the headline budget position turned into surplus, as the financing constraint was relaxed and fiscal unsustainability no longer appeared to be the major risk. These political economy forces explain why it became increasingly difficult to protect fiscal surpluses. The decision to maintain pre-crisis expenditure, together with a large increase in public sector wages, acted as a fiscal stimulus which supported domestic demand through the recession. However, this increase in spending, even if it happened to be timely and to a large extent targeted (see Chapter 1), was not designed to be temporary and a withdrawal has not been envisaged. While the government position at the onset of the crisis looked favourable compared to many OECD countries thanks to the previous efforts to reduce the debt burden (Figure 2.10), there has been a sharp reversal in the declining trend, and careful attention should be paid to debt dynamics to ensure that hard-won sustainability of fiscal policy is not undermined. The recent experience in the euro area periphery is a reminder that

Share of GDP, 2008 % % 180 180 150 150 120 120 90 60 60 30 30 Mexico Ireland Poland France Canada Inited Kingdor Noma 3erman∖

Figure 2.10. General government gross debt

Source: IMF, WEO Database, April 2010.

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markets can quickly penalise the economy if confidence in the sustainability of the public finances is shaken. Not only will the public sector face higher interest rates due to the increase in the risk premium, but so will private agents, as sovereign credit ratings serve as a benchmark for the private sector.

Making fiscal policy more rule-based

Strong budgetary rules that institutionally constrain discretionary fiscal policy may be useful in an environment of mounting pressure for fiscal expansion. These rules can also assist governments in the consolidation of their budget positions. For such rules to be effective, they have to be transparent and easy to monitor, sufficiently flexible to respond to various shocks, and backed by political will to maintain prudent public finances. Evidence suggests that fiscal rules are associated with improved fiscal performance (IMF, 2009b). The technical aspects of administering such rules, such as providing macroeconomic assumptions and estimating potential output and revenue elasticities, could be assisted by using input from a group of independent experts, as is done in a number of OECD countries, including Chile, Sweden and the United Kingdom. Such "fiscal councils" or other independent entities can also facilitate public acceptance of the need for fiscal prudence, as has been consistently advocated by the National Treasury.

Budget balance and debt rules that set a numerical limit on the respective fiscal indicators score well on simplicity and transparency, and have a close link to debt sustainability. As a member of the South African Development Community, South Africa agreed to macroeconomic convergence criteria for the budget deficit not to exceed 5% by 2008 and 3% by 2012, and a 60% limit on public debt (including provisions and contingent liabilities). The Treasury's non-binding objective for public debt is even below this limit at 50% GDP. However, as the previous discussion demonstrates, the budget deficit target did not prevent pro-cyclical spending at the end of the latest economic upswing. Moreover, adherence to this target would have induced pro-cyclical tightening in the

current downturn, as discretionary spending cuts would have been required to offset the working of automatic stabilisers. Likewise, the debt target did not sufficiently constrain fiscal policy during the boom, as public debt was well below this limit until the onset of the recession. However, as public debt approaches this threshold,²⁶ this objective could come into play as a factor encouraging fiscal consolidation.

From the macroeconomic stabilisation perspective, the structural budget balance is in principle a preferable target over the headline budget balance as it permits the full working of the automatic stabilisers, which should attenuate the cycle. However, in practice, the techniques related to the estimates and forecasting of the structural balance need to be sufficiently robust for such rules to become effective. Advancing the work on the estimates of the cyclical indicators in line with international best practice, while taking into account country-specific circumstances, would help in this regard. Such work is warranted, irrespective of the presence of a formal rule. Better understanding of the cyclical position of the economy, the sources of the revenue gains and the magnitude of automatic stabilisers, by policy-makers, and their proper communication to the public, would help raise public awareness about the likely temporary nature of the revenue boom and form a more realistic view of the amount of resources available to the government over the longer term, thereby reducing pressures for a fiscal expansion during the cyclical upswing.

The government has already taken some steps in this direction. The Treasury began publishing information on structural balances in 2007, and expanded this work in the subsequent budget documents, emphasising the role of cyclical factors in exceptionally strong revenue performance during the boom years. The efforts devoted to assessing the impact of cyclical factors on fiscal developments and informing the public about the current fiscal stance are welcome. The government should deepen its work on assessing the underlying fiscal position and publish more detailed information about the business cycle and the cyclical fiscal stance in official documents. Consideration should be given to setting a target for the structural balance, consistent with the Treasury's public debt objective.

Setting a target for the structural balance, while enhancing the conduct of fiscal policy, may not be sufficient to entirely prevent overspending during the boom (Joumard and André, 2005). An expenditure rule may be useful in restraining fiscal expansion in upturns, and has been adopted in some OECD countries, such as Finland, the Netherlands and Sweden. Expenditure rules are relatively transparent and easy to implement and monitor, and the use of fiscal rules which include expenditure targets has been associated with larger and longer fiscal adjustments (Guichard et al., 2007). Expenditure rules usually set multi-annual (at least three years) spending ceilings, and the government makes an explicit commitment not to exceed this level (Ljungman, 2008). A spending rule has countercyclical properties, as it will allow the full working of automatic stabilisers (Anderson and Minarik, 2006), at least in countries like South Africa where spending is not cyclically sensitive. Expenditure ceilings are not usually set as permanent, but are renewed through the political process or on a rolling basis (for the next three years, for example).

Implementing an expenditure rule is a promising avenue for strengthening fiscal discipline in South Africa. The country has already established a multi-annual framework, and the three-year fiscal plans are set out in the annual Budget and the Medium Term Budget Policy Statement. These plans are, however, non-binding and have been subject to major upward revisions in the past. The existing multi-year expenditure projections could be given greater status, such as by making the expenditure envelope for the out-years legally binding,

such that legal amendments would be required to revise them.²⁷ This would expose such amendments to greater public and parliamentary scrutiny.

Expenditure ceilings should not be viewed as externally imposed targets, as there is no "right" level of expenditure unambiguously associated with better economic outcomes. Ultimately, the decisions regarding the size of the government are based on social consensus and reflect the preferences of the society. While it might be expected that the relative size of the government will increase as income rises, a correlation between GDP per capita and the level of government expenditure is hard to detect beyond a certain threshold (Figure 2.11). That said, the overall level of government expenditure in South Africa is comparable to some high-income economies, and is higher than in some countries with comparable income per capita. This reflects the strong public commitment to address major social challenges, to improve access to public services and promote long-term growth by investing in physical infrastructure and human capital. These commendable objectives need to be supported by an adequate level of structural revenues, to ensure that they can be met on a sustainable basis.

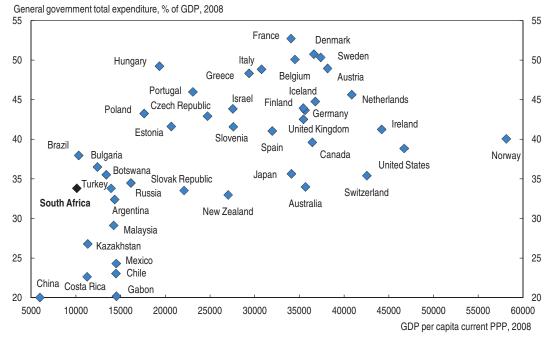


Figure 2.11. General government total expenditure and GDP per capita

Source: World Bank, WDI Database, IMF, WEO, April 2010, and SARB.

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Prioritising spending and increasing public sector efficiency would help ensure that these objectives remain supported during the necessary fiscal consolidation that lies ahead. Maintaining obligations on the current level, let alone making substantial new commitments, such as the proposed comprehensive healthcare reform, ²⁸ would require the revision of the existing tax arrangements. The pros and cons of raising the tax burden need to be weighed, but whether or not such a decision is taken, it is worth exploring the potential for improving the efficiency of government spending. The 2010 Budget Review reinforced the commitment to the main targeted outcomes, including improving the

quality of education, upgrading health care, promoting public safety, building sustainable human settlements and encouraging efficient local government. The government is reviewing the performance of individual departments to identify potential efficiency gains and reprioritise spending. The government's efforts to increase efficiency, improve performance and reprioritise spending are welcome and should be continued.

Implementing a more counter-cyclical fiscal policy would likely result in larger fiscal surpluses than previously seen during the cyclical upswings. An important issue is management of these surpluses. For this purpose, several resource-rich countries, including Chile, Mexico and Russia have established dedicated commodity funds that accumulate windfall revenues during commodity booms and run them down when commodity prices are low. Apart from this stabilisation role, commodity funds can have the longer-term objective of saving revenues gained from depletion of non-renewable resources for the benefit of future generations. This is the case in Norway, where government oil and gas revenues are accumulated in the Government Pension Fund Global. The medium-term fiscal guideline stipulates that, over time, the cyclically-adjusted nonpetroleum budget deficit should average 4% of the value of the Fund (representing the long-run real return on the assets), so that the real value of the fund is not reduced. These funds often invest the savings in foreign assets, which can help to mitigate the pressure on the real exchange rate emanating from the surge in currency inflows linked to the high commodity prices. Such funds are generally viewed as a successful mechanism to manage resource wealth. As the share of commodity-related budget revenues is relatively low in South Africa, and revenues come from a number of commodities, it is somewhat less obvious whether establishing a commodity fund is justified. If such a fund were to accumulate assets via the transfer of commodity-related revenues, it would grow rather slowly. As an example, even if all profits of the mining companies had been transferred to the fund over 2001-07, it would only have accumulated assets amounting to about 3.5% of 2007 GDP.²⁹ Alternatively, all budget surpluses generated by the structural balance rule could be transferred to the fund, as is done in Chile. Still, the link between the commodity prices and the budget balance is more straightforward in Chile. Nevertheless, perhaps in conjunction with a greater effort to identify and tax economic rents from natural resource extraction, a mechanism to ensure that commodity price windfalls are saved should be given further consideration. If budget revenue streams related to production and exports of commodities in South Africa become more sizeable, the country can consider establishing a commodity fund. In the meanwhile, the best strategy for South Africa would be to use windfall revenues from high commodity prices to make faster debt repayments, which would reduce the interest rate burden and provide more space for increasing non-interest expenditure.

$\mbox{\ 2.3.}$ Summary of recommendations for macroeconomic policies Strengthening monetary policy

• To further increase transparency and signal commitment to price stability over the longer term, the SARB should consider moving in the direction of announcing a future policy-rate path consistent with the inflation objective. At a first stage, this might involve merely signalling the expected direction of future movements in policy rates.

Box 2.3. Summary of recommendations for macroeconomic policies (cont.)

- Foreign exchange intervention should be used more actively within the constraints of the inflation-targeting regime to mitigate or avoid rand overvaluation. In current circumstances, with a strong rand and still relatively low reserves, the accumulation of reserves should be more rapid when net inflows are strong, while depreciation should be allowed when they ebb.
- The removal of remaining controls on capital outflows should be accelerated, with such controls being replaced by prudential norms to ensure adequate risk management.

Enhancing the stabilising role of fiscal policy and safeguarding fiscal sustainability

- South Africa might benefit from mechanisms to prevent a weakening of fiscal discipline in cyclical upswings. These could usefully include a target on the structural balance, buttressed by an expenditure rule.
- In any event, work on assessing the underlying fiscal position should be further developed, and more detailed information about the business cycle and the structural balance should be published.
- Even in the absence of a structural balance target, an expenditure rule element could be introduced by making the broad parameters for the out years set out in the annual Budget and the Medium Term Budget Policy Statement legally binding, such that legal amendments would be required to revise them.
- Consideration should be given to strengthening the link between commodity prices and
 the fiscal balance; if this link is strengthened, establishment of a commodity fund can
 be considered to ensure that windfall revenues are saved. In the meantime, such
 windfalls should be used to reduce debt.
- The government should continue to seek opportunities to increase the efficiency of public expenditure.

Notes

- 1. This issue was reviewed in the Economic Assessment of South Africa (OECD, 2008).
- 2. As of 2005, according to the dataset on financial integration (Schindler, 2009), on the scale from 0 to 1, where 0 represents unrestricted transactions, and 1 represents restricted transactions, South Africa's index of capital inflow liberalisation stood at 0.42, while the outflow index stood at 0.83. Restrictions on outflows faced by South Africa's residents have been gradually eased since 2005, but remain substantial, so that the asymmetry between controls on inflows and outflows persists.
- 3. Non-residents have some restrictions on access to local financing.
- 4. This methodology assesses transparency across five categories: political, economic, procedural, policy and operational.
- 5. See Minegishi and Cournède (2009) for a description of the methodology.
- 6. See Lysenko and Barnard (2010) for details of the compilation of the SARB's transparency index and comparison to eleven OECD central banks.
- 7. CPIX is equal to CPI excluding mortgage interest cost. In 2009, the newly defined CPI replaced CPIX as the basis for the inflation target (see also Box 2.1).
- 8. Movements in the break-even inflation rates sometimes reflect low liquidity of the market and some technical factors. For this and other reasons, the results should be interpreted cautiously as a measure of private sector inflation expectations. See Garcia and van Rixtel (2007).
- 9. Measured as the share of foreign currency denominated deposits to total deposits, as of end-2009.

- 10. See Karoro et al. (2009). Mihaljek and Klau (2008) find no evidence of the asymmetry, however, the SARB's own assessment reported in their paper suggests that the pass-through is asymmetric, with depreciation having a larger impact than appreciation.
- 11. As suggested by the OECD PMR indicators calculated for South Africa (OECD, 2008).
- 12. Collier (2007) argues that commodity prices tend to see long gradual declines punctuated by sudden spikes, of which the episode that began in 2004 was one.
- 13. In principle, if such nominal overshooting is compensated by a corresponding fall in domestic prices, or if domestic inflation is lower than that of trading partners by an amount sufficient to offset the nominal appreciation, the result can be either no change in the real exchange rate or even real depreciation. As South Africa's inflation rate has been higher than its trading partners', nominal appreciation of the rand has always resulted in real appreciation.
- 14. This demonstrates that uncovered interest rate parity (UIP) may not hold for lengthy periods of time. According to UIP, interest rate differentials should be fully compensated by exchange rate movements, i.e. low-yielding currencies should be expected to appreciate and high-yielding currencies to depreciate. However, in reality the opposite occurs for a prolonged period of time (Hannoun, 2007; White, 2009). Even if the episodes of prolonged misalignment eventually correct themselves, a correction of such a trend usually results in instability.
- 15. See, for example, Pétursson (2009), also for a selected review of the literature pursuing this argument. It should be noted that over long time intervals currency volatility is not necessarily lower under fixed exchange rates, as a prolonged misalignment with a subsequent adjustment episode may produce extreme fluctuations, raising overall volatility.
- 16. See du Plessis and du Rand (2010) and Leape and Thomas (2009) for reviews of the current system of exchange controls on South African residents.
- 17. Those not registered include informal sector employees and formal sector employees with annual income below ZAR 60 000. A reform is underway requiring every employee to become a registered taxpayer.
- 18. See Calitz and Siebrits (2003), du Plessis and Boshoff (2007) and Ajam and Aron (2009) for a more detailed discussion of the fiscal reforms in South Africa since 1994.
- 19. Includes national and provincial governments, social security funds and some public entities.
- 20. Other sizeable capital expenditure programmes are being implemented by the South African National Roads Agency, the Central Energy Fund, the Trans-Caledon Tunnel Authority and the Airports Company of South Africa.
- 21. Methodological differences make exact comparison difficult, as the data for infrastructure spending of state-owned enterprises, which account for a significant part of such spending in South Africa, are not always readily available for other countries.
- 22. This is done for example in Chile, where non-commodity revenues are adjusted to the cycle, while commodity-related revenues are adjusted with the gaps between actual and long-run prices of copper and molybdenum. See OECD (2010).
- 23. Total government revenues can be adjusted for terms-of-trade effects (Turner, 2006). Applying this approach requires estimating long-run equilibrium terms of trade, which is notoriously difficult. Also, the effect of the changes in export commodity prices on budget revenues is expected to be larger than the effect of the movements in prices of imported commodities, such as oil, whereas the terms of trade changes capture both effects. Given these and other methodological limitations, this adjustment has not been applied to the calculation of the structural balance.
- 24. The OECD is carrying out work on developing the methodology for accounting for the impact of asset price cycles on revenue performance in a systematic way (see Sutherland et al., 2010). Regarding compliance, there is some evidence it may itself be cyclical in South Africa, increasing during the good times but falling during the economic downturn.
- 25. Calculated as cyclically adjusted revenue minus expenditure. The value of expenditure is not adjusted for South Africa as expenditures are acyclical.
- 26. According to the Treasury's own baseline scenario, net public debt, including provisions and contingent liabilities, is expected to reach 53.6% of GDP by end-FY 2012/13 (National Treasury, 2010).
- 27. This is not equivalent to multi-year budgeting as the individual items are not supposed to become binding. The proposed multi-year allocations for individual items outlined in the Budget Review and the Medium Term Budget Policy Statement provide an important insight into the government

- spending priorities, but flexibility to reallocate spending within the budget should not be compromised.
- 28. See National Treasury (2010) for details.
- 29. Assuming a 4% return on investment of the fund, and not taking into account possible valuation effects.

Bibliography

- Ajam, T. and J. Aron (2009), "Transforming Fiscal Governance", in Aron, J. et al. (eds.), South African Economic Policy under Democracy, Chapter 4, Oxford University Press, Oxford.
- Amato, J. and S. Gerlach (2002), "Inflation Targeting in Emerging Market and Transition Economies: Lessons after a Decade", European Economic Review, No. 46, pp. 781-790.
- Anderson, B. and J. Minarik (2006), "Design Choices for Fiscal Policy Rules", OECD Journal on Budgeting, Vol. 5, No. 4, OECD, Paris.
- Aron, J. and J. Muellbauer (2009), "The Development of Transparent and Effective Monetary and Exchange Rate Policy", in Aron, J. et al. (eds.), South African Economic Policy under Democracy, Chapter 3, Oxford University Press, Oxford.
- Bank for International Settlements (2009), Issues in the Governance of Central Banks A Report from the Central Bank Governance Group, Bank for International Settlements, Basel, May.
- Blanchard, O., G. Dell'Ariccia and P. Mauro (2010), "Rethinking Macroeconomic Policy", IMF Staff Position Note, SPN/10/03, IMF, Washington, DC.
- Calitz, E. and K. Siebrits (2003), "Fiscal Policy in the 1990s", South African Journal of Economic History, Vol. 18, Issues 1 and 2, September 2003, pp. 50-75.
- Collier, P. (2007), "Managing Commodity Booms: Lessons of International Experience", paper prepared for the African Economic Research Consortium, January.
- Dincer, N. and B. Eichengreen (2009), "Central Bank Transparency: Causes, Consequences and Updates", NBER Working Paper, No. 1479, National Bureau of Economic Research, Cambridge, MA.
- Du Plessis, S. and W. Boshoff (2007), "A Fiscal Rule to Produce Counter-Cyclical Fiscal Policy in South Africa", Stellenbosch Economic Working Papers, No. 13/07, Stellenbosch University, Stellenbosch.
- Du Plessis, S. and G. du Rand (2010), "Review of Exchange Controls and the Exchange Rate", mimeo, Stellenbosch University, Stellenbosch.
- Edwards, S. (2007), "The Relationship between Exchange Rates and Inflation Targeting Revisited", in Mishkin, F.S. and K. Schmidt-Hebbel (eds.), Monetary Policy Under Inflation Targeting, Central Bank of Chile, Santiago.
- Eijffinger, S. and P. Geraats (2006), "How Transparent are Central Banks?", European Journal of Political Economy, 22(1), pp. 1-21.
- Frankel, J., B. Smit and F. Sturzenegger (2008), "South Africa: Macroeconomic Challenges after a Decade of Success", Economics of Transition, Vol. 16(4), pp. 639-677.
- Garcia, J. and A. van Rixtel (2007), "Inflation-Linked Bonds from a Central Bank Perspective", European Central Bank Occasional Paper Series, European Central Bank, Frankfurt.
- Garrow, C. (2008), "Challenges of Inflation Targeting for Emerging-Market Economies: the South African Case", Commentary, Challenges for Monetary Policy-makers in Emerging Markets, South African Reserve Bank Conference Series.
- Girouard, N. and C. André (2005), "Measuring Cyclically-Adjusted Budget Balances for OECD Countries", OECD Economics Department Working Papers, No. 434, OECD, Paris.
- Guichard, S. et al. (2007), "What Promotes Fiscal Consolidation: OECD Country Experiences", OECD Economics Department Working Papers, No. 553, OECD, Paris.
- Hannoun, H. (2007), "Policy Responses to the Challenges Posed by Capital Inflows in Asia", speech at the 42nd SEACEN Governors' Conference, Bangkok, 28 July.

- Ho, C. and R. McCauley (2003), "Living with Flexible Exchange Rates: Issues and Recent Experience in Inflation Targeting Emerging Market Economies", BIS Working Papers, No. 130, Bank for International Settlements, Basel.
- IMF (2009a), South Africa: 2009 Article IV Consultation Staff Report, IMF, Washington, DC, September.
- IMF (2009b), Fiscal Rules Anchoring Expectations for Sustainable Public Finances, IMF, Washington, DC.
- Journard, I. and C. André (2008), "Revenue Buoyancy and its Fiscal Policy Implications", Economics Department Working Papers, No. 598, OECD, Paris.
- Kahn, B. (2008), "Challenges of Inflation Targeting for Emerging-Market Economies: The South African Case", in Challenges for Monetary Policy-Makers in Emerging Markets, South African Reserve Bank Conference Series.
- Karoro, T., M. Aziakpono and N. Cattaneo (2009), "Exchange Rate Pass-Through to Import Prices in South Africa: Is There Asymmetry?", South African Journal of Economics, Vol. 77:3, pp. 1-27, September.
- Leape, J. and L. Thomas (2009), "Capital Flows, Financial Markets, and the External Balance Sheet", in Aron, J. et al. (eds.), South African Economic Policy under Democracy, Chapter 5, Oxford University Press, Oxford.
- Ljungman, G. (2008), "Expenditure Ceilings a Survey", IMF Working Papers, No. 08-282, IMF, Washington, DC.
- Lysenko, T. and G. Barnard (2010), "Strengthening the Macroeconomic Policy Framework in South Africa", OECD Economics Department Working Papers, OECD, Paris, forthcoming.
- Magud, N. and C. Reinhart (2006), "Capital Controls: an Evaluation", NBER Working Papers, No. 11973, NBER, Boston, MA.
- Mihaljek. D. and M. Klau (2008), "Exchange Rate Pass-Through in Emerging Market Economies: What Has Changed and Why?", BIS Papers, No. 35, Bank for International Settlements, Basel.
- Minegishi, M. and B. Cournède (2009), "The Role of Transparency in the Conduct of Monetary Policy", OECD Economics Department Working Papers, No. 724, OECD, Paris.
- Mnyande, M. (2008), "South Africa's Experience with Monetary Policy within an Inflation-targeting Policy Framework", in Monetary Policies and Inflation Targeting in Emerging Economies, OECD, Paris.
- National Treasury (2010), Budget Review 2010, Pretoria, February.
- OECD (2008), OECD Economic Surveys: South Africa Economic Assessment, OECD, Paris.
- OECD (2010), OECD Economic Surveys: Chile, OECD, Paris.
- Parsley, D. (2010), "Exchange Rate Pass-Through in South Africa: Panel Evidence from Individual Goods and Services", South African Reserve Bank Working Paper, forthcoming.
- Pétursson, T. (2009), "Does Inflation Targeting Lead to Excessive Exchange Rate Volatility?", Department of Economics Working Papers, No. 43, Central Bank of Iceland, Reykjavík.
- Schindler, M. (2009), "Measuring Financial Integration: A New Data Set", IMF Staff Papers, Vol. 56, No. 1, pp. 222-238, IMF, Washington, DC.
- South African Reserve Bank (2007), "Introduction to the South African Reserve Bank", Pretoria. Available at www.reservebank.co.za.
- South African Reserve Bank (2008), Monetary Policy Review, SARB, Pretoria, November.
- South African Reserve Bank (2010), Monetary Policy Review, SARB, Pretoria, May.
- Stiglitz, J. (2010), Freefall: Free Markets and the Sinking of the Global Economy, Allen Lane.
- Sutherland, D. et al. (2010), "Counter-cyclical Economic Policy", OECD Economics Department Working Papers, No. 760, OECD, Paris.
- Svensson, L. (2009), "Transparency under Flexible Inflation Targeting: Experiences and Challenges", Sveriges Riksbank Economic Review, 1/2009, Sveriges Riksbank, Stockholm, pp. 5-44.
- Svensson, L. (2010), "Inflation Targeting", in Friedman, B. and M. Woodford (eds.), Handbook of Monetary Economics, Vol. 3a and 3b, North-Holland, forthcoming.
- Turner, D. (2006), "Should Measures of Fiscal Stance be Adjusted for Terms of Trade Effects?", OECD Economics Department Working Papers, No. 519, OECD, Paris.
- White, W. (2009), "Should Monetary Policy 'Lean or Clean'?", Federal Reserve Bank of Dallas Globalization and Monetary Policy Institute Working Papers, No. 34, www.dallasfed.org/institute/wpapers/2009/0034.pdf.

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Chapter 3

Closing the labour utilisation gap

South Africa suffers from extremely low labour utilisation, which interacts with other economic and social problems such as inadequate education, poor health outcomes, and crime. The causes are complex, and a range of policies looks to be required to reduce unemployment decisively. In some areas, OECD experience may point to promising approaches, such as on reducing the restrictiveness of product market regulation, increasing the degree of co-ordination of wage negotiations, weakening legal extension of collective bargaining agreements, and facilitating school-to-work transitions. In other areas the specific context of South Africa may call for additional or different approaches. In particular, rapid employment growth is unlikely to happen without improvement in overall economic growth, and it would help if that growth were more labour-intensive than in recent years. South Africa also needs to make particular efforts to improve basic education, and to continue to redress the spatial misallocation of the population, although these measures will not make a big difference to employment outcomes in the near term.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Low labour utilisation remains South Africa's most salient problem

South Africa differs from most other major emerging market economies by its exceptionally low ratio of employment to working age population. In the BRIIC countries, for example, all or almost all of the gap in GDP per capita vis-à-vis the OECD average comes from the shortfall in labour productivity, whereas in South Africa almost half is accounted for by the gap in labour utilisation (Figure 3.1). While in OECD countries the employed generally account for 60-75% of the working age population, in South Africa that figure has been less than 50% for more than a decade, and is currently little more than 40% (Figure 3.2).

Low levels of labour force participation are one aspect of the underutilisation of labour. South Africa's aggregate participation rate is lower than almost all OECD countries, and is also low relative to other middle-income countries (Figure 3.3A). Discontinuities in data sources make it impossible to make reliable comparisons between the 1990s and more recent years, but the participation rate appears to have risen in the second half of the 1990s, before fluctuating without a clear trend from 2000 to 2008 and then falling

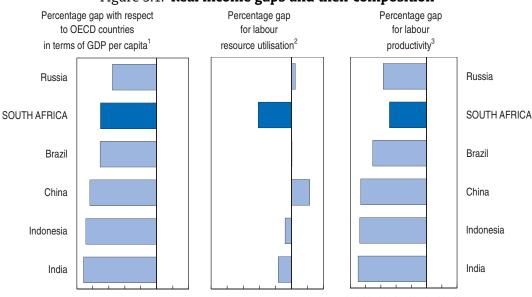


Figure 3.1. Real income gaps and their composition

- -100-80 -60 -40 -20 0 20 40 -100-80 -60 -40 -20 0 20 40 -100-80 -60 -40 -20 0 20 40
- 1. For 2007, relative to the simple average of OECD countries in terms of GDP per capita, based on revised 2007 purchasing power parities (PPPs) from the World Bank. The sum of the percentage gap in labour resource utilisation and labour productivity do not add up exactly to the GDP per capita gap since the decomposition is multiplicative. See Blöndal and Dougherty (2009) for details.
- 2. Labour resource utilisation is measured as total employment as a share of total population, based on national labour force and household surveys.
- 3. Labour productivity is measured as GDP per person employed, including estimated informal employment. Source: OECD, Going for Growth 2010, Figure 7.2, and OECD estimates.

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% % South Africa ---- OECD countries - BIIC1

Figure 3.2. **Employment rate, 2000-09**Employment as a percentage of working age population, 15-64 years

1. Brazil, India, Indonesia and China (age group 15 years and over).

Source: Statistics South Africa, Labour Force Survey (revised), Quarterly Labour Force Survey; ILO, KLIM Database; OECD Labour Force Statistics Database and OECD Economic Outlook 86 Database.

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somewhat since the onset of the recession (Figure 3.3B). Participation rates are lower for the black African population and for youth (Table 3.1).

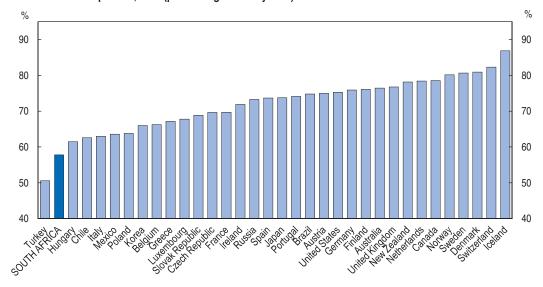
The most striking feature of South Africa's labour market, however, remains the extreme levels of unemployment (Figure 3.4). Few if any countries have seen such sustained high levels of open unemployment. South Africa's overall unemployment rate has been above 20% ever since the late 1990s, with a peak of 27% in 2002. Indeed, part of the phenomenon of low participation rates is itself a function of the severity of unemployment. Discouraged workers are estimated to account for some 5% of the working age population, so that the broad measure of unemployment, including such individuals, exceeds 30% (Table 3.2).

Much of the unemployment appears to be structural. Applying the standard OECD methodology of estimating the structural unemployment rate, i.e. the non-accelerating-inflation rate of unemployment (NAIRU), suggests that very little of the high unemployment rates seen over the past fifteen years has been cyclical (Figure 3.5). This is not to say that unemployment is only frictional or voluntary. Indeed, there is good evidence that the unemployed are overwhelmingly involuntarily out of work. For example, Kingdon and Knight (2001) find that the unemployed are substantially disadvantaged vis-à-vis both the formally and the informally employed in terms of income and expenditure, and also feel less happy. Nonetheless, regardless of any doubts about the NAIRU concept and the precision of its estimation in South Africa, the fact that the standard measure of unemployment has been continuously above 20% since the late 1990s shows that high jobless rates are more than a cyclical phenomenon.

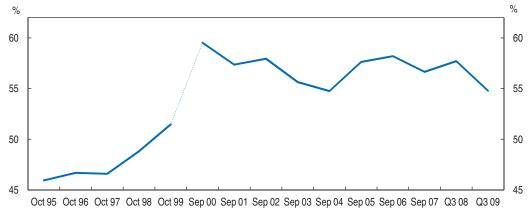
Youth unemployment is especially serious. South Africa is far from alone in having youth unemployment rates well in excess of those for older age groups: the ratio internationally is typically between 2 and 3, with youth accounting for nearly half of the unemployed globally despite accounting for only a quarter of the labour force (ILO, 2006; Lam et al., 2007; World Bank, 2009). Nonetheless, as with overall unemployment, South Africa is an outlier when it comes to youth unemployment (Figure 3.6). In other

Figure 3.3. Labour force participation rates

A. International comparison, 2008 (persons aged 15-64 years¹)



B. Evolution over time (labour force participation rate, 15-64 years²)



- 1. 2007 and 15-60 for Brazil.
- 2. 15-65 before September 2000 and 15+ in October 1995.

Source: OECD Labour Force Statistics Database; ILO Laborsta Database; Statistics South Africa, October Household Survey, Labour Force Survey (revised) and Quarterly Labour Force Survey.

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middle-income emerging market economies about 80% of youth in the labour force were employed in 2007, whereas in South Africa the figure was only 53%.

Young blacks are the most likely of all to be jobless. Racial disparities in unemployment rates have been very persistent. Among Africans, more than half of the age group 15-24 is unemployed, more than three times the rate for whites, with the coloured and Indian populations having intermediate rates (Table 3.3). The extremity of the youth unemployment problem is wholly a function of the very high rates for blacks and coloureds: the rates for whites and Indians/Asians are comparable to youth rates for OECD countries (Figure 3.7).

The low employment rate has indirect as well as direct economic costs. Beyond representing an enormous loss of potential national income, the high rate of non-employment also contributes to a range of other social problems, including poverty, lack of

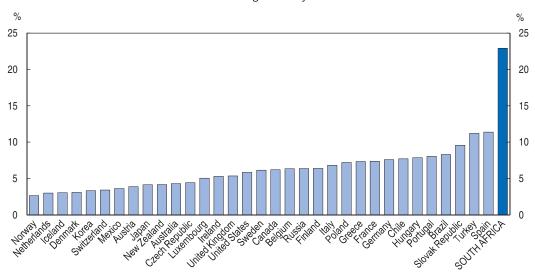
Table 3.1. Labour force participation rate by age and population group

Per cent					
	1995 ¹	2009			
All population	45.9	55.8			
By age group:					
15-24		27.9			
25-34		74.0			
35-44		76.9			
45-54		68.5			
55-64		41.5			
By population group:					
Black African	41.2	52.9			
Coloured	58.5	65.3			
Indian/Asian	55.3	58.3			
White	58.8	69.3			

^{1.} Data for 15+.

Source: Statistics South Africa, October Household Survey 1995, Quarterly Labour Force Survey.

Figure 3.4. **Unemployment rate, 2008**¹
Persons aged 15-64 years



^{1. 2007} data for Brazil.

Source: OECD Labour Force Statistics Database; ILO Laborsta Database; and Statistics South Africa, Quarterly Labour Force Survey.

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Table 3.2. Narrow and broad measures of unemployment¹

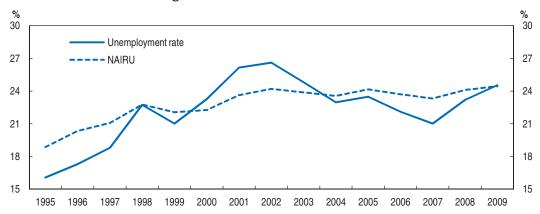
rei Cent									
	2001	2002	2003	2004	2005	2006	2007	2008	2009
Narrow unemployment rate	25.4	27.2	27.1	23.3	22.6	22.3	23.5	22.9	24.0
Broad unemployment rate	33.1	35.0	35.9	34.6	33.2	31.8	32.3	27.5	30.1

^{1.} Annual average.

Source: Statistics South Africa, Labour Force Survey (revised) and Quarterly Labour Force Survey.

social mobility, crime and AIDS. These problems in turn exact economic costs which can therefore be attributed in part to the failure to generate more employment. A number of studies of the economic impact of HIV/AIDS concur that real GDP growth is weaker (by at

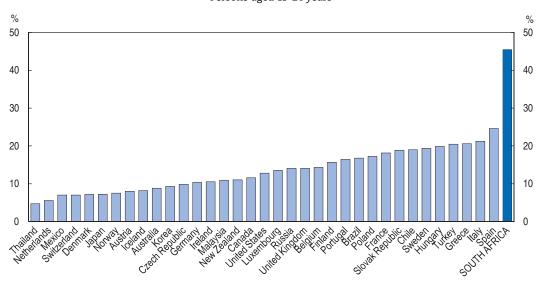
Figure 3.5. **Evolution of the NAIRU**



Source: Statistics South Africa, October Household Survey, Labour Force Survey (revised) and Quarterly Labour Force Survey; and OECD estimates.

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Figure 3.6. **Youth unemployment rate, 2008**¹
Persons aged 15-24 years



1. 2007 data for Brazil.

Source: OECD Labour Force Statistics Database; ILO Laborsta Database; and Statistics South Africa, Quarterly Labour Force Survey.

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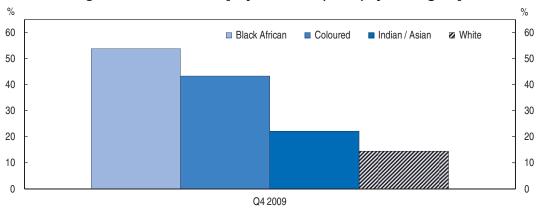
least 0.3 percentage points a year) than in the absence of the AIDS epidemic, while the disease also worsens inequality and poverty (Bureau of Economic Research, 2006; Arndt and Lewis, 2000; Quattek, 2000). The World Bank's Investment Climate Survey of South Africa (World Bank, 2005) estimated the costs of crime to businesses at about 5% of labour costs, while the very high rates of violent crime in particular are regularly cited, including by the government itself, as a factor discouraging foreign direct investment, although this is difficult to quantify (Stone, 2006). South Africa's extensive social grants have helped mitigate the poverty and inequality which are in large part a function of high unemployment (Leibbrandt, 2010; OECD, 2009), but are restricting fiscal space and threaten to strain fiscal sustainability (Fedderke, 2009).

Table 3.3. **Unemployment rates by age and population group**Per cent. 04 2009

Fer Cerrit, Q 1 2009								
	15-24	25-34	35-64	Total	Share in working age population			
All population	48.3	28.5	13.5	24.3	100.0			
By population group:								
Black African	53.8	32.2	16.6	28.6	77.7			
Coloured	43.3	22.4	11.2	20.8	9.6			
Indian/Asian	22.1	9.4	8.6	11.1	2.9			
White	14.5	5.0	3.4	4.9	9.8			

Source: Statistics South Africa, Quarterly Labour Force Survey, Quarter 4, 2009.

Figure 3.7. Youth unemployment rate (15-24) by racial group



Source: Statistics South Africa, Quarterly Labour Force Survey.

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A range of demand- and supply-side factors have contributed to low employment levels

It is not surprising that a problem as unusual as South Africa's low degree of labour utilisation is the result of a complex interaction of forces. The extreme degree and persistence of high unemployment levels in South Africa has given rise to an extensive literature, which identifies many contributory factors on both the supply and demand sides of the labour market.²

Supply-side factors

Deficiencies in education and training contribute to skill mismatches. As in many other countries, years of education and probability of being unemployed are highly correlated in South Africa (Table 3.4), but the discrepancy between employment probabilities for those at the lower and upper ends of the skill distributions is particularly large.³ A common thesis is that in a world of skill-biased growth, South Africa has failed to improve education and training sufficiently to allow the skills of the labour force to keep pace with demand. Bhorat and Lundall (2004) set out evidence of skill-biased technological change in South Africa, while a variety of studies (e.g. Human Sciences Research Council, 2003; Clarke et al., 2005) find excess demand for workers in high-skilled occupations. Meanwhile, international tests indicate that South Africa has both a low average level and very high dispersion of educational attainment (OECD, 2008a; OECD, 2008b). High-school

Table 3.4. Unemployment rates by level of educational attainment

			Per cent			
	2003	2004	2005	2006	2007	2008
All population	27.1	24.7	23.8	22.6	22.3	22.9
None	17.3	13.1	15.6	16.3	13.2	14.6
Some primary	25.1	22.5	22.8	20.3	20.4	21.6
Complete primary	29.9	25.1	25.0	23.5	24.2	23.8
Some secondary	34.1	31.9	30.3	28.3	28.9	29.3
Complete secondary	28.6	26.4	24.5	23.7	22.6	24.2
Higher	9.8	7.6	7.4	8.0	7.2	7.7

Source: Statistics South Africa, Labour Market Dynamics in South Africa, 2008.

pass rates (for the "matric") have fallen in recent years, from 73.3% in 2003 to 60.6% in 2009, with particularly low pass rates for mathematics (29% in 2009) and physical science (21%). Moreover, most students who enter the school system never make it to the matric, and most of those who pass do not go on to university. Some schools, especially the former white-only schools, benefit from higher per-pupil budgets as a result of the charging of top-up fees. While these schools maintain high standards, levels of literacy and numeracy for children in the worst schools are extremely poor. As to training, despite efforts to expand and improve training programmes, there is little evidence that this has borne fruit in improved employment rates via an upward shift in the skill-endowment of the labour force. The shortage of skilled workers may even depress unskilled employment as well, to the extent that there are complementarities between skilled and unskilled labour.

A population structure skewed towards younger age groups means that large numbers of young people reach working age each year (Table 3.5). Moreover, since the mid-1990s there have been significant increases in the labour force participation rates of youth cohorts (Table 3.6) as well as of black African women (Branson, 2006; Banerjee et al., 2007; Posel and Casale, 2002; Bhorat and Oosthuizen, 2006). Since a large part of each cohort of labour market entrants has low levels of employability, both because the quality of education needs to be improved and because the young lack work experience, the increasing labour force participation rate of the young has been a factor in the rise of unemployment. Banerjee et al. (2007) estimated that the change in age structure of the labour force, together with shifts in its gender and racial composition, could account for about a third of the increase in the unemployment rate between 1995 and 2005.

In part because of the legacy of apartheid, the spatial allocation of the population results in many people, particularly Africans, living far from where jobs are concentrated (Mlatsheni and Rospabe, 2008; Banerjee *et al.*, 2007). This raises the costs of job search and

Table 3.5. Breakdown of working age population by age group

Population	2009
Percentage share of	working age population (15-64)
(15-24)	32.3
(25-34)	26.5
(35-44)	18.2
(45-54)	13.7
(55-64)	9.4

Source: Statistics South Africa.

Table 3.6. Evolution of labour force participation rates by age category

			Per cent			
	16-20	21-30	31-40	41-50	51-60	61-65
1993	12.0	50.6	68.3	68.1	53.6	23.5
1997	10.2	49.2	65.6	63.1	45.4	17.2
2001	17.2	66.1	77.5	72.3	55.7	23.9
2005	17.5	65.7	77.7	72.8	56.3	25.1
2008	20.8	61.5	71.5	68.0	52.5	25.7
% change	8.7	10.9	3.2	-0.1	-1.1	2.3

Note: Table reproduced from Leibbrandt et al. (2009).

Source: PSLSD (1993), OHS (1997), LFS (2001, 2005), NIDS (2008).

reduces access to information flows about available openings. Travel costs are often an important issue deterring job search or accepting a job. Youth in particular tend to lack mobility and the resources required to engage in active job search, or to relocate in order to take advantage of job opportunities elsewhere. Consequently, they may restrict job search to opportunities available close to where they reside. In addition, crime and underdeveloped urban transport make commuting and job search travel more dangerous, which again tends to increase reservation wages.

High rates of illness in the working age population sap labour supply. Although overall adult infection rates have stabilised and rates among younger adults appear to have declined (Shisana et al., 2009), South Africa has more people living with HIV than any other country in the world (UNAIDS, 2008, Table 3.7), and more than a quarter of pregnant women are HIV positive. Poor health lowers employment prospects due to higher absenteeism, lower productivity and decreased capacity for active job search. This sets in place a vicious cycle in which poor health leads to lower income, which raises health vulnerability even further. Available evidence also suggests that unemployed youth in South Africa are at higher risk of contracting HIV than employed youth (UNAIDS, 2004). Even for non-infected youth, HIV infection of other household members may bring onerous care burdens, either of the sick individual themselves or their children who require care, sometimes requiring the healthy individual to withdraw from the labour market. Such care burdens may also constrain the amount of time available for employment or job search activities.

The expansion of social grants may have weakened job search incentives. Over the past decade there has been a substantial expansion in three main categories of social grant: the pension grant, the disability grant and the child support grant. This increase has made an impact on poverty (Van der Berg et al., 2005), but may also have weakened incentives for job search, although there are forces working in both directions. On the one

Table 3.7. **HIV prevalence**

	Per cent				
	2001	2003	2005	2007	2009
Total population	9.3	9.7	10.0	10.2	10.6
Adults (15-49)	15.3	15.9	15.9	16.5	17.0
Of which: Women	18.5	19.1	19.4	19.5	19.7
Memorandum item:					
Total number of people living with HIV (in millions)	4.2	4.5	4.7	4.9	5.2

Source: Statistics South Africa, 2008 Report on the Global AIDS Epidemic; UNAIDS/WHO, July 2008; UNAIDS/WHO Database.

hand, because the grants are quite generous, providing a subsistence income to individuals and even families, they reduce the need to find work (Booysen and Van der Berg, 2005). On the other hand, the payment of pension grants in particular may allow grandparents to care for children while adults leave home to work (Posel *et al.*, 2004). In any case, the big expansion of grants came about from 2000, when unemployment had already risen sharply. So any net job search disincentive effects are at most only part of the explanation for why unemployment has not fallen more since the early 2000s.

Demand-side factors

The greatest problems are probably on the demand side of the labour market. The supply side issues mentioned above have undoubtedly contributed to South Africa's poor employment outcomes. Since low employment rates have been accompanied by high levels of involuntary unemployment, however, the presumption must be that insufficient labour demand has been the major part of the low employment problem.^{4, 5}

Economic growth has been too weak to absorb a rapidly growing labour force. Over a long period, spanning several decades, South Africa has had at best mediocre economic growth, although growth performance has improved in recent years (Figure 3.8). Given steady population growth (and the likelihood that actual population growth is understated as a result of the influx of unregistered immigrants), South Africa's per capita income growth has been lacklustre, about 2% a year over the last decade, lower than most emerging market economies (Figure 1.15, Chapter 1). In the context of the surge in labour force participation after the end of apartheid, such growth rates were insufficient to prevent unemployment from rising rapidly. Before 1994 participation of black South Africans was artificially depressed by rules forcing them to remain in rural areas, restrictions on movement through the pass laws and legislated racial discrimination. This created a pent-up pool of work-seekers which was released in the second half of the 1990s. Participation rates stabilised after 2000, requiring less vigorous employment growth to absorb labour market entrants. Hence when the growth rate accelerated between 2004 and

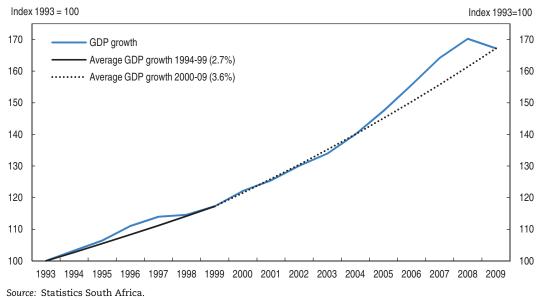


Figure 3.8. Real GDP growth

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the first half of 2008, the unemployment rate did fall substantially. So far, however, South Africa has been unable to sustain such growth rates for long – as noted in Chapter 1, 2004-08 looks (even more clearly now than before) like a period of above-potential growth with growing imbalances. During the economic downturn of 2008-09, employment fell much faster than output.

Such growth as has occurred appears to have become less labour-intensive, particularly taking into account the 2008-09 recession. The absence of a single consistent series for employment over the past two decades makes it difficult to ascertain its elasticity with respect to output. According to the broadest measure available for the 1990s, the October Household Survey (OHS), employment actually grew somewhat more rapidly than GDP in the period 1995-99. On the other hand, the Survey of Employment and Earnings (SEE), capturing only non-agricultural formal employment in larger enterprises, showed stagnation and even decline in employment from 1995-99. The truth for that period probably lies between the two, as the OHS had increasing coverage of the informal sector, inflating employment growth, while the SEE overweighted shrinking sectors relative to growing ones. Since 2000, the ratio of employment growth (as given by the Labour Force Survey for 2000-07 and the Quarterly Labour Force Survey for 2008-09) to GDP growth has been low, 0.2 for the period 2000-09 and 0.33 for the period of positive real GDP growth from 2000 to 2008.

The structure of the economy has shifted towards more skill-intensive sectors. One important aspect of this change has been a structural shift away from the (unskilled-labour-intensive) primary sector to (less unskilled-labour-intensive) services and manufactures. The secular decline of gold output, which has been largely driven by the exhaustion of easily recoverable gold reserves (Figure 3.9), has contributed to this phenomenon. In addition, gold production has become more capital-intensive as mines have had to be driven deeper to access remaining reserves. Total mining employment has fallen by more than a third from its peak in the late 1980s. Agriculture has also been shedding jobs on a secular basis. At least some of the main growing sectors, such as financial services, are less labour-intensive. Probably the most important factor in the failure to absorb labour in sufficient quantities, however, is the loss of manufacturing employment. One aspect of this structural change has been a declining share of output for

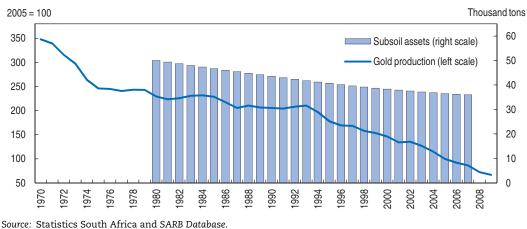


Figure 3.9. Gold production and reserves

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1994 = 1001994=100 Value Volume

Figure 3.10. South African exports – world market share

Source: OECD calculations based on SARB Database and IMF, International Financial Statistics Database.

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the tradable goods sector. South Africa is, of course, not alone in experiencing a shift from goods production to services, but in the case of South Africa this secular shift has been compounded by a weak export performance (Figure 3.10).

Real wages have proved to be downwardly rigid. As always when there is an excess supply of labour at prevailing wages, it can be said that real wages are too high. It does not, however, seem to have been the case that this disequilibrium situation was caused by an economy-wide rise in real wages. The data are not unambiguous: formal sector entreprise surveys suggest a fairly study increase of around 2% a year on average between 1995 and 2009 (Figure 3.11). As shown by Burger and Yu (2007), however, the broadest measures of real wages, derived from the household and labour force surveys, suggest if anything a decline over the decade beginning in the mid-1990s (Figure 3.12), although the picture is clouded by the break between the October Household Survey (1995-99) and the Labour Force Survey (2000 onward). They also show a fall in real wages for unskilled labour, the group with the highest rates of unemployment. At the level of the economy as a whole, therefore, for the period since the mid-1990s, there is little sign that employers overall were pushed up their labour demand schedules. Thus, to the extent that excessive real wages are

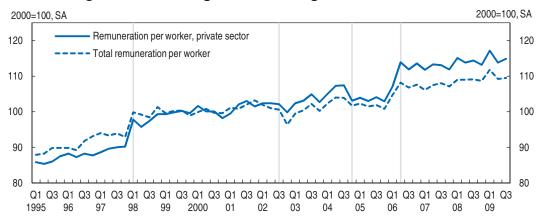


Figure 3.11. Real wages in the non-agricultural formal sector

Note: Breaks in series in Q1 1998, Q3 2002, Q4 2004 and Q2 2006.

Source: SARB Database.

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contributing to the low employment problem, it appears to be because wages would have had to fall much more than they did to prevent the big increase in (measured) unemployment that was seen during that period. The evidence suggests that since the early 1990s outward shifts in the labour supply schedule and/or inward shifts in the labour demand schedule, combined with some feature(s) of wage determination that prevented market-clearing, left overall real wages little changed but unemployment much higher.

Rand Rand 3500 3500 3300 3300 3100 3100 2900 2900 2700 2700 2500 2500 2300 2300 LFS Sep LFS Sep OHS OHS OHS OHS LFS Sep LFS Sep LFS Sep LFS Sep 1995 1996 1997 1998 2000 2005 1999 2001 2002 2003 2004

Figure 3.12. **Economy-wide real wage trends**Average monthly earnings, 2000 prices, adjusted for outliers¹

1. Observations above ZAR 200 000 (in 2000 prices) per month are excluded.

Source: Statistics South Africa, and calculations by Burger and Yu (see Burger and Yu, 2007).

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Labour regulation and union power are often cited as factors depressing labour demand. As noted by Burger and Von Fintel (2009), "many commentators argue that tighter labour legislation to protect the interests of the marginalised have had unintended impacts on the willingness of firms to absorb more labour". However, the OECD's Economic Assessment of South Africa (OECD, 2008) found little evidence that employment protection legislation is restrictive: South Africa has one of the lowest scores on the OECD's Employment Protection Legislation indicator, although there do seem to be problems in the mediation and arbitration of dismissals. Union power is a significant factor, however. As noted by Bhorat (2007), union wage premia are relatively high in South Africa, and the findings of strong real wage growth in manufacturing (where unionisation is high) despite high levels of unemployment suggests that unions are able to negotiate higher real wages even when labour market slack is extensive.

The lack of entrepreneurship in the population, which is at once a demand and a supply factor, also hinders the dynamism of employment. Entrepreneurship among the black African population was deliberately suppressed during the apartheid era, and reviving it is a major challenge that will take time to be met. Developing a culture of entrepreneurialism is further complicated by the fact that financial training, networks of business contacts, and collateral for loans are all underdeveloped for the majority. Relatedly, informal activity is less of a major alternative or backstop to formal employment than it is in many low- and middle-income countries. The informal sector, while far from negligible, is relatively small in South Africa, partly on account of potential barriers to entry or hidden costs in informal employment (Chandra et al., 2002). These are due in particular to land/credit constraints, the suppression of entrepreneurial skills in the

African population during the apartheid era and the high crime rate against business owners (Devey et al., 2003; Fields, 2006). There is a prima facie puzzle in the widespread perception that access to finance is limited while South Africa has an unusually well developed financial sector. This suggests a disconnect between the depth and breadth of the financial system.

Improving employment performance will require a range of policy actions

Applicable lessons from OECD experience to South Africa

While South Africa's employment problem is highly unusual both in scale and duration, a number of OECD economies have experienced unemployment rates approaching South African levels, and all subsequently achieved large reductions in those rates. The persistent high unemployment rates experienced by many OECD countries in the 1980s and early 1990s led to a major study of the problem by the OECD (the Jobs Study) which in turn resulted in the formulation in 1994 of the OECD Jobs Strategy. In 2005, when labour market outcomes had improved in many countries, the experience of the first decade of the Jobs Strategy was assessed and the recommendations revised (Annex 3.A1 and Box 3.1). Every country has its own particularities, which must be taken into account in formulating an employment strategy. Indeed, the differing history and conditions across OECD countries is probably an important reason for why the Jobs Strategy yielded relatively few unequivocal results about what works in raising employment. As regards South Africa, some factors found to be significant for OECD countries are clearly less relevant: for example, unemployment insurance (UI) replacement rates and the duration of benefits are relatively low in South Africa. As such, they have not been major explanatory factors for the prevailing levels of unemployment, although the OECD findings in this area do constitute a warning against an overly ambitious expansion of UI, and suggest that any increase in the generosity of unemployment benefits should be accompanied by enforcement of job search requirements and stepped-up activation policies. Even if the obstacles to greater employment are not always the same as in OECD countries, however, in certain respects South Africa stands out as having features associated with poor labour market outcomes in OECD countries, which suggests that these may be promising areas for reform.

Reforming the framework for collective bargaining could improve employment outcomes. South Africa is characterised by the pattern of collective bargaining found to be associated with the worst labour market outcomes in the OECD. Collective bargaining is largely at the sectoral level via bargaining councils (as well as public sector bargaining), with administrative extension of agreements within sectors. Given South Africa's institutional history, with a tradition of strong trade union involvement in the labour market, it is probably not feasible to shift to a system of highly decentralised bargaining. A more promising direction for South Africa might therefore be to increase the degree of coordination of wage determination, so that the macroeconomic benefits of wage restraint can be better internalised and the role of labour market outsiders strengthened (via a government voice in centralised negotiations). As noted in earlier chapters, the inflation expectations of business and labour have tended to be very backward-looking. It is possible that with a more co-ordinated wage setting, private expectations could be steered in a more forward-looking direction, and rendered consistent with the SARB's inflation targeting band. A higher degree of co-ordination could achieve any given level of overall real wage changes with lower nominal increases and an improved inflation performance.

Lower and less variable inflation could in turn permit the SARB to maintain lower real interest rates than otherwise, which would be supportive for growth. Increased coordination could be achieved by bringing social partners together at the beginning of each annual wage negotiation round and getting agreement on guidelines for increases in that year. Actual bargaining would continue to take place in the same way as it does at present, but against the background of such guidelines. Government involvement in the process could help to make the trade-offs between wages, employment and unemployment clearer to social partners.

Box 3.1. The experience of OECD countries with raising employment

The experience of OECD countries in recent decades, and in particular during the first ten years of the OECD Jobs Strategy, suggests a number of lessons as regards increasing employment.

Intermediate levels of wage co-ordination and centralisation are associated with greater wage rigidity and relatively poor labour market outcomes. Highly centralised collective bargaining institutions, as found in Scandinavia, the Netherlands, and a few other countries, and decentralised or weak collective bargaining, as seen in Anglo-Saxon economies, are found to produce better results.

Sectoral bargaining with legal extension of agreements is particularly poor for employment.

High and long-lasting unemployment benefits tend to increase unemployment. Some of the negative disincentive effects of benefit levels and their duration can be counteracted through more effective use of work-availability conditions and their incorporation into comprehensive activation strategies.

Restrictive product market regulation tends to reduce employment.

A high tax wedge on labour earnings negatively influences employment.

Employment protection legislation has no clear impact on total employment, but may impede the efficiency of labour reallocation. Some OECD countries succeeded in making the cost of protection more predictable by simplifying legal procedures in the case of dismissals.

Well-designed active labour market policies (ALMPs) can improve labour market performance by promoting job-search, improving the efficiency of the job-matching process and enhancing the work experience and skills of those who take part in them. Outcomes were found to be disappointing for certain ALMPs, however, underlining the importance of policy evaluation in order to reform or phase out those which are ineffective.

Policies to prevent early exit from school and improve school-to-work transitions can help limit youth unemployment.

A moderate minimum wage generally does not reduce employment significantly, but very high minimum wages relative to average wages can limit employment opportunities of some groups.

Empirical analyses have confirmed the importance of price stability and sound budget balances for economic growth with potential beneficial effects on employment. Meanwhile, economic downturns can result in protracted increases in unemployment, underlining the role of macroeconomic policies in stabilizing output. While a policy of increasing the degree of co-ordination of wage setting promises net benefits, it would not be without risks, of course. Although most empirical studies suggest that "corporatism" – greater centralisation and/or co-ordination of wage setting – is associated with better employment outcomes and resilience to shocks, some point in the opposite direction (e.g. DiTella and MacCulloch, 2002 on centralisation and unemployment; Bertola et al., 2001, on resilience to shocks). Moreover, there is robust evidence for advanced countries that higher centralisation/co-ordination of bargaining is associated with lower wage dispersion (OECD, 2004, Chapter 3). Evidence is mixed, however, on whether the compressed wage structures associated with corporatist bargaining reduce employment by pricing low-skilled workers – or those residing in economically disadvantage regions – out of work.

The importance of the legal extension of collective bargaining agreements should be reduced. While those OECD countries which had administrative extension of collective contracts in the early 1990s saw very little action to limit their use over the subsequent decade, suggesting that this measure is of such high value to incumbent employees or employers in the countries concerned that changes in this area are hard to implement, it was found that countries with the worst labour market outcomes over the first 10 years of the Jobs Strategy tended to be characterised by extensive legal extension (Brandt et al., 2005). In South Africa the law provides for the possibility of exemptions, but although smaller firms complain about extension, the number of applications for exemption is small, which may suggest that exemptions are not liberally granted.

Well-designed interventions to target vulnerable groups could help. In South Africa, as elsewhere, very high youth unemployment rates for the most part reflect high overall unemployment, with youth, being on the margins of the labour market, tending to be the worst affected. A necessary condition for satisfactory youth unemployment rates is therefore likely to be an increase in overall employment. In such a rising tide, however, youth may be last boats to be lifted, just as they are the first to be stranded in the ebb. Early labour market experience is found to be a predictor of longer term labour market status. If young entrants to the labour market fail to find employment, they tend to suffer a loss of human capital and diminished confidence. In South Africa there is also an increased risk of unemployed youth contracting HIV or turning to crime. Given that the negative externalities of long-term unemployment are likely to be particularly acute for youth, youth-specific measures should be an important part of an employment strategy.

Based on the OECD experience, one of the most promising areas in this respect is assisting young jobseekers with search. In South Africa, significant institutional capacity aimed at assisting work seekers in finding employment is already in place, and this provides a good starting point for additional efforts. There are many public Labour Centres providing services related to the Unemployment Insurance Fund, the Compensation Fund, inspection and enforcement services and employment skills development services. Local Labour Centres maintain a database of registered work seekers and are meant to act as a point of contact between them and potential employers with vacancies. A lack of resources hampers these functions, however. Marock (2008) reports that Labour Centres lack the capacity to actively engage with employers, as there is only one Employment Services Practitioner in each centre. In addition, the database in each labour centre is largely manual and thus not linked into any central database, resulting in lack of co-ordination between centres in filling vacancies. The Department of Labour is planning to introduce an electronic system whereby vacancies registered with them by employers are disseminated to all labour offices more rapidly, and this would be a useful step.

The Umsobomvu Youth Fund (UYF) represents another potential area of institutional support for policies aimed at improving youth employment outcomes. The UYF was created in January 2001, and reports to the Ministry of Labour while maintaining its own independent status. The UYF functions as a development finance agency and is tasked with promoting entrepreneurship, job creation, skills development and skills transfer among South Africans between the ages of 18 and 35. In particular, the UYF funds a number of Youth Advisory Centres, which provide another point of contact between work-seekers and employers, offering a combination of career guidance and life skills training. Thus, the UYF can complement the role played by the Labour Centres. The UYF could also help with the evaluation of any new wage subsidies by feeding data collected by the Youth Advisory Centres on employment outcomes in response to such subsidies directly into the central Department of Labour database.

Another area where South Africa might learn from the experience of OECD economies in facilitating school-to-work transitions is the provision of work experience and training. While approaches vary across OECD countries, the most common route has been to strengthen vocational training and, within the vocational framework, create a dual – rather than sequential – system where students alternate school-based training and apprenticeships. While vocational apprenticeships do also exist in South Africa, the main existing instrument to help labour market entrants find work is the learnership programme (Box 3.2). The potential of this programme to make a large dent in youth unemployment is diminished by design problems, especially excessive administrative costs.

Box 3.2. Learnerships

Learnerships, which became part of South Africa's National Skills Development Strategy (NSDS) in 2002, are nationally accredited training programmes intended to improve the employment prospects of new labour market entrants through formal training linked to work experience. Learnerships aim both to increase employment directly (since learnership grants act as an employment subsidy) and indirectly, by improving the skills of the workforce. Firms taking on previously unemployed learners are entitled to a maximum tax break of ZAR 60 000 per learner, of which half can be claimed in the year of enrolment and the balance upon completion of the learnership. If a firm takes on an already employed learner, it may claim 70% of this allowance. Employers also receive a grant, managed by Sectoral Education and Training Authorities (SETAs), for putting people onto learnerships, in order to cover the learner allowance, course fees for training and other associated training costs. Learnerships can thus be classified as wage subsidies linked to both temporary employment and the provision of structured learning by the employer. Learnerships differ from apprenticeships in that they provide not only training and skills acquisition but academically accredited learning. The aim is to strengthen the link between structured learning and work experience, providing a learner with a nationally recognised qualification.

In South Africa, learnerships are developed and registered by the various SETAs established by the National Skills Development Act of 1998, and graded in terms of the South African Qualifications Authority's National Qualifications Framework. Learnerships are primarily targeted at entry-level occupations and hence also implicitly at young labour market entrants such as school-leavers. In principle, though, the subsidy applies to any type of occupation or skill level, as long as the employer registers the learnership with the relevant SETA.

Box 3.2. **Learnerships** (cont.)

Although learnerships have been in place for several years, no rigorous evaluation framework was put in place, making it difficult to assess the programme's impact. However, by 2005, 109 647 individuals below the age of 35 had entered learnership/apprenticeship agreements, exceeding the NSDS initial target of having 80 000 individuals in learnerships by 2005 (Pauw et al., 2006). These estimates provide an indication only of entry into programmes, however, and no good data exist concerning attrition rates, throughput rates, or the success rate of learners in finding employment subsequent to completion of a learnership. Grawitzky (2007) reports that while the placement of unemployed learners has been estimated to be 46%, this figure has yet to be corroborated by other research.

Learnerships entail high administrative costs for employers. The administrative processes involved in setting up learnership programmes are complex, costly, and time-consuming. The programmes have to be developed along a restrictive set of guidelines and registered, and programme content has to be accredited. A common sentiment among firms interviewed by Pauw *et al.* (2009) was that the SETAs, which are meant to facilitate the processes, are incompetent, while mismanagement and high staff turnover rates within the SETAs created problems. The red tape involved in setting up and registering learnerships makes the exercise too burdensome for some firms, especially smaller ones that cannot afford to employ people specifically to manage learnership programmes and maintain contact with the SETAs, and which cannot spread fixed administrative costs over a large number of learners.

Secondly, the effectiveness of the learnership programme in absorbing unemployed workers or generating above-equilibrium employment is questionable. Pauw et al. (2009), find that the intake of previously unemployed learners (which account for about two thirds of the total, given the extra subsidy element for "unemployed learners" vis-à-vis already employed ones) largely represents people who would have been hired anyway. This is in part linked to the issue of administrative costs. Given this burden, firms tend to link the learnership system to their recruitment and employment strategies with the intention of employing learners upon completion of the training. They therefore only employ learners that they would have employed in any event. Viewed within the context of a generally expanding labour market between 2002 and 2006, the scale of the employment-generating effects of the scheme is unclear.

A third concern relates to the incentives that exist for firms. Learnerships are regarded as important in standardising and promoting learning in the workplace in relevant areas. However, many firms feel that the learning component or the accredited academic qualification attached to learnerships are not appropriate for all job-types. In this regard the decline of the apprenticeship system, which focused more on practical work experience or vocational training, is lamented. Officially the apprenticeship system is still in place, but since Black Economic Empowerment (BEE) points are only available to firms offering learnerships, there is an incentive to convert apprenticeship programmes to learnerships. Firms interviewed in the Pauw et al. (2009) study admitted that participation was motivated largely by the BEE charter and/or social responsibility concerns, with the subsidy playing only a small part.

Box 3.2. Learnerships (cont.)

If indeed firms typically only enrol learners that they would have employed in any event and if grants are not the main incentive for participation, the subsidies received by firms could be seen as windfall gains, especially for the one-third of learners who were already employed by the firm. The alternative view is that the cost of compliance actually exceeds the grant value. In theory, the subsidy is meant to compensate employers for the lower productivity of learners relative to other workers (linked to the opportunity cost when the worker is away on training), the cost of learning materials and the opportunity cost of management time in implementing the programme and mentoring learners. In reality, however, only a portion of the actual wage is covered, and although these subsidies may seem generous, firms claim that the excessive administration costs that they have to incur are to blame for their failure to expand their intake.

More differentiation of minimum wages and employment protection by age could also help tackle youth unemployment. Sectoral minimum wages, whether set by bargaining councils or by government, may have hindered employment growth, especially in restricting the employment opportunities of the young. While there appears to have been very little empirical work on the impact of minimum wages on youth employment in South Africa, the average minimum wage across all sectors, as calculated by Andrew Levy Partners, amounts to around 62% of the average formal sector wage, which is very high by international standards. Minimum wages are not differentiated by age, which is an approach that has had beneficial effects on youth unemployment in OECD countries. Youth exemptions for minimum wages could therefore be one part of a package to address youth unemployment. Another measure that could enhance the employment chances for youth would be to extend the probationary requirements in respect of new hires.

Reducing the restrictiveness of product market regulation in South Africa would help raise employment. Empirical analysis for OECD countries showed a robust relationship between changes in PMR and employment outcomes. As noted in Chapter 1, South Africa has more restrictive PMR than almost all OECD countries, with higher-than-average scores in all main areas. The employment benefit from moving to a PMR score in line with the OECD average would be substantial.

Improving the implementation of employment protection legislation would increase the dynamic efficiency of the labour market. Surveys (e.g. World Economic Forum, 2009) suggest that firms find firing more difficult and costly than the employment protection legislation itself (as reflected in South Africa's low score on the OECDs EPL indicator) would suggest. Some OECD countries have had success in making the cost of protection more predictable by reducing the complexity of legal procedures. Others have successfully opted for a "flexicurity" approach by facilitating hiring and firing decisions while also providing efficient re-employment services and income support to workers in the event of lay-off. While the latter approach is likely to be too costly for a middle-income country like South Africa, there does seem to be scope to speed up and simplify the arbitration process for dismissals, in particular as regards dismissals for cause. The relatively burdensome process for dismissals for cause vis-à-vis those for economic reasons may help to explain why job losses in the recession were so large, as firms may have taken advantage of the downturn to retrench workers whom they would have liked to dismiss for cause before. Empirical analysis for OECD countries suggests that EPL is not an important factor in

explaining unemployment, but there are reasons to believe that it can affect the persistence of unemployment in the wake of shocks as well as the dynamic efficiency of labour market flows.

South Africa-specific considerations

Various aspects of South Africa's history, geography, and level of development distinguish it from OECD countries and give rise to particular problems and potential solutions. Also, given South Africa's unusually serious initial position as regards employment, more activism may be called for than in developed countries where the absorption rate is much closer to potential.

South Africa's experience with fluctuations in unemployment seems consistent with the regularity noted for OECD countries that such swings are not primarily driven by big moves in real wages in the same direction. As noted earlier, the unemployment rate in South Africa rose sharply in the 1990s even as overall real wages were falling, while from 2002 to 2007 it declined by about 6 percentage points, during which time real wages rose by 9%.⁷ There is therefore a presumption that the initial policy focus should be on increasing labour demand for any given level of the wage. This means both trying to raise the aggregate growth rate and seeking to undo some of the unhelpful structural shifts that have contributed to the employment problem, which in turn means making growth more labour- and export-intensive. As noted in Chapter 1, macroeconomic policy has an important role to play in this respect, in parallel with supportive labour and product market policies and institutions which would play their part by yielding sufficient real wage restraint to ensure that improvements in the external balance are lasting. Prudence will remain one important element of this - indeed, in some respects macroeconomic policies should become more prudent than in the past. Thought should also be given, however, to additional policy levers that might be used to improve South Africa's export performance, as discussed in Chapters 1 and 2. These might include: a higher structural fiscal balance over the cycle, together with an increased degree of countercyclicality; measures to boost private savings; "jawboning" by the government and/or the SARB when the rand appears overvalued; intervention by the SARB to help mitigate upward pressure on the rand, particularly when this results from surges in private capital inflows; and possibly temporary market-based measures to discourage inflows if surges are seen as driving overvaluation and/or asset bubbles and cannot be dealt with in other ways. Again, however, avoiding overvaluation is at best a facilitating condition. Successful labour market outcomes will also depend on supportive institutions and structural policies. One important element is a collective bargaining framework that delivers wage moderation and gives greater influence to labour market outsiders, favourable conditions for entrepreneurship, improved basic education and better financing for SMEs.

A wage subsidy may have more potential in South Africa than in many other countries, although design is crucial. While international experience generally points towards job search assistance as the most effective form of active labour market policy, there is a question whether programmes targeted on placement/reducing matching costs can be of more than marginal importance where the main problem is a massive mismatch between aggregate labour supply and demand. By contrast, the problem of deadweight losses that has beset wage subsidy schemes in other countries may be of less importance in South Africa, since so few of the unemployed succeed in finding jobs currently. The other main problem, of substitution, might be addressed in part by having the wage

subsidy tied to training, as with the existing learnerships. The experience with the learnership programme represents a warning but also offers some encouragement for an expanded wage subsidy scheme. The overwhelming perception is not that the employment subsidy component of the learnerships is necessarily ineffective, but rather that the administrative requirements around the learning component of the programme are excessive. Many firms indicate a willingness to expand enrolment of learners and/or trainees if the administrative burden were reduced. An expanded wage subsidy could in fact build on the learnerships, with simplified administration. Another way of addressing the substitution problem would be to apply the wage subsidy to net rather than gross hires (perhaps limited to workers below an age ceiling), although this would require a monitoring mechanism, which would add complexity.

South Africa appears to have a particularly great need to develop entrepreneurship and increase access to finance for small and micro-enterprises. Under apartheid entrepreneurship in the African population was deliberately suppressed, and it will need fostering for some time to come. Some platforms like the UYF already exist to provide credit and services to young entrepreneurs. Together with rigorous evaluation of these activities, the resources allocated to such programmes might be increased. More generally, access to credit for business start-ups should be improved, for example by easing collateral constraints.

The spatial misallocation of the population is another specificity of the South African situation, calling for measures which would be of less significance elsewhere. In order to reduce labour market frictions, South Africa continues to need more urban housing, and public transport infrastructure. Financial assistance with transport for job search could also help overcome capital constraints faced by poor jobseekers in remote locations. Ways should also be explored of allowing the growth of employment opportunities where people live, perhaps via an easing of municipal restrictions, including on informal activities.

How to build on the government's approach to raising employment

The government's employment strategy is largely sound, but can be improved. Many of the recommendations made here are consistent with existing government policies or proposals. In various platforms, such as AsgiSA and the National Treasury's *Budget Reviews*, the government has correctly diagnosed most of the problems affecting employment levels. There have been, however, some weaknesses and inconsistencies. For instance, there is a tendency to support capital-intensive industries, despite the acknowledged need for more labour-intensive activity. In addition, employment strategies have put relatively little emphasis on basic education, the inadequate quality of which is probably the biggest factor in the skills mismatch confronting the country. Basic education is probably a bigger issue than training, but one which may take decades to turn around. Rather greater emphasis has been placed on training schemes, for which the international evidence is not particularly encouraging. The government's stance seems to err in the direction of thinking that training can fix much of the unemployment problem. In this respect the view of the Spence Commission may be instructive:

It is also not uncommon in policy debates in developing countries to hear that the problem is on the supply side: it is a matter of weaknesses in the labour force, not the weakness of labour demand. The underemployed population lack skills, the argument goes, therefore the solution is to train them. The aim is to upgrade labour supply, rather than stimulating labour demand. There is a certain theoretical sense in which

this argument is true. In principle, if workers were sufficiently educated and heavily trained, they would be worth the cost of hiring them, even with the full panoply of benefits and wages that prevail in the formal sector. But it is difficult, not to say extremely expensive, to upgrade the skills of workers before finding employment for them, partly because workers learn so much on the job. Thus, while there is no disagreement about the need for education and human capital investment, as a matter of strategy in many countries, this supply-side approach will often not be sufficient (Spence et al., 2008, Chapter 2, p. 46).

While there are many things that can and should be done to improve employment outcomes in South Africa, it is also important to avoid taking actions which will make things worse. One risk to bear in mind in this respect is going too far with the expansion of social support mechanisms. In recent years South Africa has massively expanded budgetary transfers for social protection, and these have proved to be effective in combating poverty. Moving too far in this direction will, however, undermine incentives to find and keep a job, as well as compromising fiscal sustainability and thereby undermining macroeconomic stability. It would also be unwise, from a labour market perspective, to unwind liberal laws relating to temporary labour. There have been calls, both outside and within the government, to respond to documented abuses by labour brokers by banning or heavily restricting the use of temporary agencies. This is an area where existing legislation is relatively liberal, and it contributes significantly to the flexibility of the labour market. Policy responses to reported abuses should focus on implementing existing laws and if necessary strengthening penalties for legal breaches by employers rather than restricting the market for temporary labour.

There appears to be an increasing incidence in government rhetoric on the notion of decent work. This is unobjectionable as an aspiration, but is less clear as a policy, as the term "decent work" can conceal difficult tradeoffs. The goal of decent work should not be allowed to perpetuate or strengthen the current pattern of a core of well-paid labour market insiders existing alongside a similar number of excluded and impoverished outsiders, either jobless or pushed into the informal sector.

Box 3.3. Summary of recommendations for increasing labour utilisation

Wage-setting

- The within-sector legal extension of collective bargaining agreements should be curtailed.
- The level of co-ordination in collective bargaining should be increased to allow for greater influence of outsiders on wages and conditions and to bolster the credibility of the inflation target range.

Product market regulation

 The burden of product market regulation should be lightened and competition policy strengthened.

Employment regulation

- Enforcement of existing labour laws relating to labour broking should be tightened, but liberal arrangements for temporary employment should be maintained.
- The arbitration process for dismissals for cause should be speeded up and simplified.

${\tt Box~3.3.}$ Summary of recommendations for increasing labour utilisation (cont.)

Reducing youth unemployment

- Efforts to strengthen job search assistance should be intensified.
- The use of wage subsidies should be expanded, possibly by building on the existing learnerships, but with a reduced administrative burden.
- Minimum wages should be differentiated by age.
- Probationary requirements in respect of new hires of young employees should be extended.
- Programmes to develop entrepreneurship among the young in disadvantaged groups should be expanded.

Other

- Improvements in basic education should be prioritised, even though the contribution to raising employment will be small in the near term.
- Further urbanisation should be facilitated to mitigate spatial mismatches: urban transport should be developed and affordable urban housing expanded.
- Access to credit for business start-ups should be improved, for example by easing collateral constraints.

Notes

- 1. One issue that appears to have caused the jump in labour force participation (and employment) at the time of the replacement of the October Household Survey by the Labour Force Survey is that coverage of agriculture, especially subsistence agriculture, improved.
- 2. Among the many analyses of South Africa's unemployment problem are Bhorat (2004), Kingdon and Knight (2004), and Banerjee et al. (2007).
- 3. The low unemployment rate shown in Table 3.4 for those with no education, and to a lesser extent to those with some or completed primary but no secondary education, probably reflects the greater tendency of those groups to be in subsistence activities or discouraged, and thus classified as not in the labour force. The advantage for employment prospects of having completed secondary education or better can also be seen from the fact that individuals with those levels of education make up a much larger share of the employed than they do of the unemployed.
- 4. Since unemployment rates are so extreme and since most of the unemployed do not receive unemployment benefits or other social transfers, there is already a strong presumption that most unemployment is involuntary. This question is examined in detail by Kingdon and Knight (2004).
- 5. One additional supply factor which may have contributed to the growing problem of open unemployment is illegal immigration. Large numbers of immigrants are known to have come to South Africa from neighbouring countries, although official migration figures for the most part fail to capture such flows. While the size of the effect on the South African labour market is unknown, it is plausible that the mostly unskilled migrants have increased the excess supply of low-skilled labour.
- 6. According to OECD data, in 2008 the highest ratio of minimum to average wages of full time workers in member countries was 0.505 in New Zealand. The simple average across OECD countries was 0.371. Australia had a ratio of almost 0.60 in the early 1990s, but no other OECD country approached that level in the past 20 years.
- 7. The peak unemployment rate in Statistics South Africa's revised *Labour Force Survey* series was 29.3% in March 2003, while the minimum was 21.0% in September 2007, giving a maximum decline of 8.3 percentage points. As there appear to be seasonal differences between the March and September series, however, it is probably more representative to compare annual averages or across years for the same month. On this basis the largest fall was about 6 percentage points.

Bibliography

- Arndt, C. and J.D. Lewis (2000), "The Macro Implications of HIV/AIDS in South Africa: A Preliminary Assessment", South African Journal of Economics, Economic Society of South Africa, Vol. 68(5), pp. 380-392, December.
- Banerjee, A. et al. (2007), "Why has Unemployment Risen in the New South Africa?", NBER Working Papers, No. 13167, NBER, Cambridge, MA, June.
- Belot, M. and J.C. van Ours (2004), "Does the Recent Success of Some OECD Countries in Lowering their Unemployment Rates Lie in the Clever Design of their Labour Market Reforms?", Oxford Economic Papers, Vol. 56(4), pp. 621-642.
- Bertola, G., F. Blau and L. Kahn (2002), "Comparative Analysis of Labour Market Outcomes: Lessons for the US from International long-run evidence", in A. Krueger and R. Solow (eds.), The Roaring Nineties: Can Full Employment Be Sustained?, Russell Sage and Century Foundations, pp. 159-218.
- Betcherman, G., K. Olivas and A. Dar (2004), "Impacts of Active Labor Market Programs: New Evidence from Evaluations with Particular Attention to Developing and Transition Countries", World Bank Social Protection Discussion Papers, No. 0402, Work Bank, Washington, DC, January.
- Bhorat, H. (2004), "Labour Market Challenges in the Post-Apartheid South Africa", South African Journal of Economics, Vol. 72(5), pp. 940-977, December.
- Bhorat, H. (2007), "Unemployment in South Africa: Descriptors and Determinants", unpublished consultant report for OECD, Paris.
- Bhorat, H. and M.J. Oosthuizen (2006), "The Post-Apartheid Labour Market", in Bhorat, H. and R. Kanbur (eds.), Poverty and Policy in Post-Apartheid South Africa, HSRC Press, Pretoria.
- Bhorat, H. and P. Lundall (2004), Employment, Wages and Skills Development: Firm-Specific Effects Evidence from a Firm Survey in South Africa, South African Journal of Economics, Vol. 72(5), pp. 1023-1056, December.
- Boeri, T., G. Nicoletti and S. Scarpetta (2000), "Regulation and Labour Market Performance", CEPR Discussion Papers, No. 2420.
- Boone, J. and J. van Ours (2004), "Effective Active Labor Market Policies", IZA Discussion Papers, No. 1335, October.
- Booysen, F. and S. van der Berg (2005), "The Role of Social Grants in Mitigating the Socio-Economic Impact of HIV/AIDS in Two Free State Communities", South African Journal of Economics, Vol. 73(1), pp. 545-563, December.
- Brandt, N., J.-M. Burniaux and R. Duval (2005), "Assessing the OECD Jobs Strategy: Past Developments and Reforms", OECD Economics Department Working Papers, No. 429, OECD, Paris.
- Branson, N. (2006), "The South African Labour Market 1995-2004: A Cohort Analysis", SALDRU Working Papers, No. 7, Southern Africa Labour and Development Research Unit, University of Cape Town.
- Bureau of Economic Research (2006), "The Macroeconomic Impact of HIV/AIDS under Alternative Intervention Scenarios (with Specific Reference to ART) on the South African Economy", University of Stellenbosch, Stellenbosch, June.
- Burger, R. and D. von Fintel (2009), "Determining the Causes of the Rising South African Unemployment Rate: An Age, Period and Generational Analysis", Economic Research Southern Africa (ERSA) Working Papers, No. 158, ERSA, Cape Town, December.
- Burger, R. and D. Yu (2007), "Wage Trends in Post-Apartheid South Africa: Constructing an Earnings Series from Household Survey Data", DPRU Working Papers, No. 07/117, University of Captown, Faculty of Commerce, Development Policy Research Unit, February.
- Chandra, V. et al. (2002), "Constraints to Growth and Employment in South Africa. Report 1: Statistics from the Large Manufacturing Survey", World Bank Discussion Papers, No. 14, World Bank, Washington, DC.
- Clarke, G. et al. (2005), South Africa: An Assessment of the Investment Climate, Africa Private Sector Group, World Bank, Washington, DC.
- Daveri, F. and G. Tabellini (2001), "Unemployment, Growth and Taxation in Industrial Countries", Economic Policy, Vol. 15, No. 30, pp. 47-104.
- Devey, R., C. Skinner and I. Valodia (2003), "The Informal Economy", Human Resources Development Council, Johannesburg.

- Di Tella, R. and R. MacCulloch (2002), "The Consequences of Labor Market Flexibility: Panel Evidence Based on Survey Data", European Economic Review, Vol. 49 (2005), pp. 1225-1259.
- Elmeskov, J., J.P. Martin and S. Scarpetta (1998), "Key Lessons for Labour Market Reforms: Evidence from OECD Countries' Experiences", Swedish Economic Policy Review, Vol. 5(2), pp. 205-252.
- Fedderke, J.W. (2009), "Sustainable Growth in South Africa", presentation at the OECD Seminar: Growth performance and sustainability in the enhanced engagement countries, 24 September 2009, OECD, Paris.
- Flanagan, R. (1999), "Macroeconomic Performance and Collective Bargaining: An International Perspective", *Journal of Economic Literature*, Vol. 37, No. 3, pp. 1150-1175, September.
- Gianella, C. et al. (2008), "What Drives the NAIRU? Evidence from a Panel of OECD Countries", OECD Economics Department Working Papers, No. 649, OECD, Paris, November.
- Grawitzky, R. (2007), "Setas A Vehicle for the Skills Revolution?", DPRU Working Papers, No. 07/125, Development Policy Research Unit, Cape Town.
- Heckman, J., R. Lalonde and J. Smith (1999), "The Economics and Econometrics of Active Labor Market Programs", in O. Ashenfelter and D. Card (eds.), *Handbook of Labor Economics*, Vol. 3A, North-Holland, Amsterdam.
- Human Sciences Research Council (2003), Human Resources Development Review 2003: Education, Employment and Skills in South Africa, HSRC Press, Cape Town.
- ILO (2006), Global Employment Trends for Youth 2006, ILO, Geneva.
- IMF (2003), "Unemployment and Labor Market Institutions: Why Reforms Pay Off", World Economic Outlook, Chapter IV, IMF, Washington, DC, April.
- Jimeno, J. and D. Rodriguez-Palanzuela (2002), "Youth Unemployment in the OECD: Demographic Shifts, Labour Market Institutions, and Macroeconomic Shocks", European Central Bank Working Papers, No. 155.
- Kingdon, G.G. and J. Knight (2001), "Unemployment in South Africa: the Nature of the Beast", The Centre for the Study of African Economies Working Paper Series, No. 153, Centre for the Study of African Economies, www.bepress.com/csae/paper153.
- Kluve, J. and C.M. Schmidt (2002), "Can Training and Employment Subsidies Combat European Unemployment?", Economic Policy, Vol. 35, pp. 409-448.
- Lam, D., M. Leibbrandt and C. Mlatsheni (2007), "Dynamics of Labor Market Entry and Youth Unemployment in South Africa: Evidence from the Cape Area Panel Study", IPC Working Paper Series, No. 34, University of Michigan International Policy Center, Ann Arbor, MI, http://deepblue.lib.umich.edu/bitstream/2027.42/55748/4/IPC-working-paper-034-Lam.pdf.
- Leibbrandt, M. et al. (2010), "Trends in South African Income Distribution and Poverty since the Fall of Apartheid", OECD Social, Employment and Migration Working Papers, No. 101, OECD, Paris, January.
- Marock, C. (2008), "Grappling with Youth Employability in South Africa", Human Sciences Research Council, www.hsrc.ac.za/Document-3565.phtml.
- Martin, J. (2000), "What Works among Active Labour Market Policies?", OECD Economic Studies, No. 30(I), pp. 79-113, OECD, Paris.
- Martin, J. and D. Grubb (2001), "What Works and for Whom: A Review of OECD Countries' Experiences with Active Labour Market Policies", Swedish Economic Policy Review, Vol. 8, No. 2.
- Mlatsheni, C. and S. Rospabe (2008), "Why is Youth Unemployment so High and Unequally Spread in South Africa?", DPRU Working Papers, No 02/65, Cape Town.
- Nickell, S. (1997), "Unemployment and Labour Market Rigidities: Europe versus North America", Journal of Economic Perspectives, Vol. 11, No. 3, pp. 55-74, Summer.
- Nickell, S. (1998), "Unemployment: Questions and Some Answers", The Economic Journal, Vol. 108, No. 448, pp. 802-816.
- Nickell, S. and R. Layard (1999), "Labor Market Institutions and Economic Performance", in Ashenfelter, O. and D. Card (eds.), Handbook of Labor Economics, Vol. 3C, North-Holland, Amsterdam.
- Nicoletti, G. et al. (2001), "Product and Labour Markets Interactions in OECD Countries", OECD Economics Department Working Papers, No. 312, OECD, Paris.

Nicoletti, G. and S. Scarpetta (2004), "Product Market Reforms and Employment in OECD Countries", paper presented at the CEPR/ECB Labour Market Workshop on "What Helps or Hinders Labour Market Adjustments in Europe", Frankfurt-am-Main, 28-29 June 2004.

OECD (1994), The OECD Jobs Study: Facts, Analysis, Stategies, Paris.

OECD (2004), OECD Employment Outlook, June, OECD, Paris.

OECD (2005), OECD Employment Outlook, June, OECD, Paris.

OECD (2006), OECD Employment Outlook, June, OECD, Paris.

OECD (2008a), Economic Assessment of South Africa, OECD, Paris.

OECD (2008b), Reviews of National Policies for Education: South Africa 2008, OECD, Paris.

Pauw, K., L. Edwards and J. Burns (2009), Investigation into the Merits of Using Wage Subsidies as a Policy Instrument to Promote Employment in South Africa, final research report for Department of Social Development.

Pauw, K., M. Oosthuizen and C. van der Westhuizen (2006), "Graduate Unemployment in the Face of Skills Shortages: A Labour Market Paradox", DPRU Working Papers, No. 114, DPRU, Cape Town.

Posel, D. and D. Casale (2002), "The Feminisation of the Labour Force in South Africa: An Analysis of Recent Data and Trends", South African Journal of Economics, Vol. 70(1), pp. 156-184.

Posel, D., J. Fairbairn and F. Lund (2004), "Labour Migration and Households: A Reconsideration of the Effects of the Social Pension on Labour Supply in South Africa", Working Paper, University of Kwazulu-Natal, June.

Quattek, K. (2000), "The Economic Impact of AIDS in South Africa: a Dark Cloud on the Horizon", in HIV/AIDS: A Threat to the African Renaissance?, Konrad Adenauer Stiftung Occasional Papers, Johannesburg, pp. 49-50, June 2000.

Scarpetta, S. (1996), "Assessing the Role of Labour Market Policies and Institutional Settings on Unemployment: A Cross-Country Study", OECD Economic Studies, No. 26, 1996/1, OECD, Paris.

Spence. M. et al. (2008), The Growth Report: Strategies for Sustained Growth and Inclusive Development, World Bank, Washington, DC.

Stone, C. (2006), "Crime, Justice, and Growth in South Africa: Toward a Plausible Contribution from Criminal Justice to Economic Growth", CID Working Papers, No. 131, August.

Traxler, F. (2000), "The Bargaining System and Performance: A Comparison of 18 OECD Countries", Comparative Political Studies, Vol. 33, No. 9, November.

UNAIDS (2004), 2004 Report on the Global AIDS Epidemic, UNAIDS, Geneva.

UNAIDS (2006), 2006 Report on the Global AIDS Epidemic, UNAIDS, Geneva.

UNAIDS (2008), 2008 Report on the Global AIDS Epidemic, UNAIDS, Geneva.

Van der Berg, S. et al. (2004), "Trends in Poverty and Inequality since the Political Transition", Stellenbosch Economic Working Papers, No. 1/2005, Stellenbosch.

World Bank (2005), Investment Climate Survey of South Africa, World Bank, Washington, DC.

World Bank (2009), African Development Indicators 2008/09: Youth and Employment in Africa: The Potential, the Problem, the Promise, World Bank, Washington, DC.

World Economic Forum (2009), Global Competitiveness Report, WEF, Geneva.

ANNEX 3.A1

The experience of OECD countries in raising employment

While South Africa's employment problem is highly unusual both in scale and duration, a number of OECD economies have experienced unemployment rates approaching South African levels, and all subsequently achieved large reductions in those rates. Boosting employment has been a major preoccupation for the OECD itself. The persistent high unemployment rates experienced by many OECD countries in the 1980s and early 1990s led to a major study of the problem by the OECD (the Jobs Study) which in turn resulted in the formulation in 1994 of the OECD Jobs Strategy. In 2005, when labour market outcomes had improved in many countries, the Jobs Strategy was assessed and the recommendations revised (Annex 3.A2).

Several policy areas have been found to have a significant influence on overall employment outcomes. These can be broadly categorised as macroeconomic policies, measures affecting job search and labour force participation, labour- and product-market features affecting labour demand, and education and training. In addition, some policies are found to affect the employment outcomes of particular vulnerable groups. Also, beyond the influence of individual policy measures, there is evidence that different measures can be mutually reinforcing.

Supportive macroeconomic policies help. Macroeconomic policies were judged to have played some role in the improvement in labour market outcomes seen across most of the OECD during the 10 years after the original Jobs Strategy was launched. Inflation, already quite low before 1994, fell somewhat further in most OECD countries, and monetary policy became more forward looking and credible. On the other hand, some OECD countries either experienced or were threatened by deflation, which tends to be unhelpful for employment. Overall, structural fiscal balances were little changed between 1994 and 2004, with a mixed picture across countries. The revised Jobs Strategy reiterated the basic recommendations of the original strategy as regards macroeconomic policy, i.e. that it should aim at price stability and sound public finances so as to keep interest rates low and encourage investment and labour productivity, with potential beneficial effects on employment. Macroeconomic policy is also to be used to help stabilise the economy in order to reduce the risk that transitory increases in unemployment due to adverse shocks become persistent and to ensure that the benefits of structural reforms are brought forward. Monetary policy should pursue medium-term price stability and, within the scope given by that objective, aim to stabilise economic activity, while fiscal policy should aim to restore and maintain sound public finances so that automatic stabilisers can be allowed to operate, supplemented as required and feasible by discretionary policy.

The legal and institutional framework for collective bargaining may be important. One Jobs Strategy finding was that successful labour market outcomes tended to be associated either with highly decentralised or weak collective bargaining, as typically seen in Anglo-Saxon economies, or with highly centralised collective bargaining institutions, as found in Scandinavia, the Netherlands, and a few other countries. An intermediate level of centralisation, typified by the sectoral level bargaining seen in some Continental European countries, was found to generate less satisfactory outcomes. Some other studies have found support for this "hump-shaped" hypothesis concerning co-ordination and centralisation (Elmeskov et al., 1998; Scarpetta, 1996), although the empirical literature remains inconclusive overall (for a survey, see Flanagan, 1999). The finding that a high degree of co-ordination is superior to an intermediate level appears to be robust, however, probably because centralised collective bargaining tends to facilitate wage moderation.

Sectoral bargaining with legal extension of agreements appears to be the worst option for employment. Administrative extension procedures, by which collective agreements bind on parties which were originally non-signatories, were identified as potentially damaging for labour market performance within the context of the original 1994 Jobs Study. By harmonising working conditions across firms within the sector concerned, such procedures prevent wages from reflecting firm-level conditions, notably as regards productivity levels. As a result, the least productive firms and workers are likely to be priced out of product and labour markets, while the most productive firms enjoy rents as they do not have to pay higher wages. Legal extensions also weaken an important restraint on unions' wage demands. Knowing that their wages will be imposed on non-members through statutory extension, unions are less likely to moderate their claims and employers are more likely to agree to them. The experience with the Jobs Strategy shed relatively little light on the effect of changing such arrangements, since in most countries such institutional arrangements change little over time. The labour market outcomes of countries that had already weakened or abandoned such procedures before the Jobs Strategy, such as New Zealand and Australia, were positive, however, and the concern with legal extensions was retained in the revised Jobs Strategy.

Collective bargaining arrangements may not only have direct effects, but can interact with other factors affecting employment outcomes. Some though not all empirical studies have found that high labour taxes are associated with higher unemployment rates (Belot and Van Ours, 2004; Nickell, 1997), and Elmeskov et al. (1998) find that the effects are larger in countries with intermediate centralisation/co-ordination, while Daveri and Tabellini (2001) find a positive interaction between labour taxes and strong trade unions and a low or intermediate degree of centralisation/co-ordination of wage bargaining. Less co-ordinated bargaining appears to allow trade unions to compensate for higher taxes by pushing up wages, worsening employment outcomes.

Overgenerous unemployment insurance benefits can harm incentives and hinder employment growth. The evidence from cross-country panel regression models suggests that generous benefits tend to raise the equilibrium level of unemployment. In most studies, the impact of benefits on unemployment is highly significant across all alternative specifications and, overall, long benefit duration is found to be more detrimental to employment than high replacement rates. The base-case estimates in the background report to the *Jobs Strategy* assessment in 2005 imply that a ten percentage point reduction in the gross UI replacement rate would reduce the equilibrium unemployment rate by 1.2 percentage points and increase the employment rate by 2.3 percentage points.

Restrictive product market regulation (PMR) tends to reduce employment. OECD experience suggests that such practices hamper the creation of new businesses in sectors where there is strong potential growth. More generally, they keep prices artificially high and therefore depress average real wages for the economy as a whole. By restricting output, they tend to reduce employment levels in the affected sectors, except when a protected environment allows over-staffing to be maintained, and labour demand may be further reduced if wages in these sectors contain an element of product-market rents. Combining PMR indicators with measures of labour market regulations, Boeri et al. (2000) and Nicoletti et al. (2001) find cross-country evidence that anticompetitive product market regulations adversely affect non-agricultural employment rates of OECD countries. Using time-varying indicators of PMR, Nicoletti and Scarpetta (2004) find that product market reforms contribute to increasing non-agricultural employment rates. There is also evidence (OECD, 2006) of significant interaction between labour and product market regulation, with the combination of both restrictive PMR and too strict EPL being most detrimental for labour market performance.

Tax wedges should be as low as possible. A high tax wedge on labour earnings has been found to negatively influence employment in OECD countries, and tax concessions targeted on low-wage workers have been found effective in shifting labour demand to this group. Most OECD countries made progress in this area during the first 10 years of the *Jobs Strategy*, and this was found to be one of the contributory factors to better labour market outcomes over that period.

Policies to prevent early exit from school and improve school-to-work transitions can help limit youth unemployment. In many OECD countries, as elsewhere, failure of the school system to provide the young with basic skills and mismatches between initial education and labour-market requirements make school-to-work transitions difficult, and youth suffer disproportionately from long periods of unemployment and short employment spells. One avenue for breaking the vicious circle of cumulative disadvantages for youth has been found to be reducing early exits from education. Outside the education system, the evidence on active labour market programmes (ALMPs) is mixed, but such programmes seem sometimes to help in reducing youth unemployment. Macroeconomic studies generally find a negative effect of ALMP spending on aggregate unemployment, but don't agree on its magnitude (e.g. Scarpetta, 1996; Nickell, 1997, 1998; Nickell and Layard, 1999; Boone and Van Ours, 2004), while microeconomic studies find a positive impact for some types of programmes, but not for others (see Heckman et al., 1999; Martin and Grubb, 2001; Kluve and Schmidt, 2002; Betchermann et al., 2004). Overall, intensive employment services, individual case management and mixed strategies with selective referrals to long-term programmes are found to have the largest impact in OECD countries. The provision of a combination of specially tailored services, ranging from targeted reemployment programmes to remedial education and training, or work experience - with wages set at the appropriate level – is considered the most promising approach. It is also found, however, that apparently similar programmes can yield widely different outcomes, so that detailed programme design is key (OECD, 2005).

Wage subsidies and public works schemes have tended to have disappointing results. Some OECD countries have used wage subsidies, especially for youth, as a way of stimulating labour demand and reducing long-term unemployment. Such programmes have tended, however, to suffer from the problems of deadweight losses – subsidised jobs are created that would have been created even without the subsidy – and substitution

effects – workers who qualify for a subsidy replace others who do not. As a result, they have often been disappointing in terms of bringing the unemployed into unsubsidised work (Martin, 2000; Martin and Grubb, 2001). Public works schemes suffer from similar problems, and participation in such schemes also appears sometimes to convey a negative signal of employability, reducing the probability of finding a job subsequently.

Employment protection legislation has no clear impact on employment levels, but may impede the efficiency of reallocation. Cross-country panel regression studies generally have not found robust evidence for a significant direct effect of EPL on unemployment. Most empirical studies conclude that EPL is effective at protecting existing jobs but also restrains job creation, so that the net effect on total employment is small in practice. Some studies find that strict EPL tends to compromise the employment prospects for those groups which are most subject to entry problems, such as young workers, women and the long-term unemployed, by reducing labour turnover and hiring (Bertola *et al.*, 2002; Jimeno and Rodriguez-Palanzuela, 2002; OECD, 2004).

One feature of the experience of OECD economies over the past 25 years which is notable, although it has no immediate implications for specific policies, is that large falls in unemployment usually occur without declines in real wages. Although, in theory, a cut in real wages is one way of reducing unemployment, in practice this has not how very high unemployment rates in OECD countries were brought down. For the 5 OECD countries which reduced their unemployment rate by at least 10 percentage points during the past 25 years, the average change in average real wages over the same period was +17%, and the largest fall was 5% (Figure 3.A1.1). Large reductions in high unemployment rates in OECD countries seem generally to involve not a move down a labour demand schedule but an outward shift in that schedule.

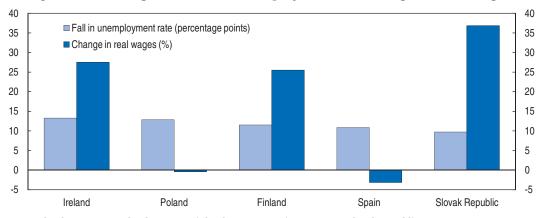


Figure 3.A1.1. Large declines in unemployment and changes in real wages

Note: Ireland 1986-2001, Poland 2002-08, Finland 1994-08, Spain 1994-2007, Slovak Republic 2001-08. Source: OECD calculations based on OECD Outlook Database EO86.

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ANNEX 3.A2

Recommendations of the 1994 OECD Jobs Strategy and the revised Jobs Strategy of 2005

In response to high and persistent unemployment in many OECD countries in the late 1980s and early 1990s, the OECD undertook a study of the factors underlying the deterioration of labour market performance. The resulting diagnosis - together with a set of policy recommendations to reduce unemployment, raise employment and increase prosperity - was published in 1994 as the OECD Jobs Study (OECD, 1994). The policy guidelines covered nine broad areas, including macroeconomic policy, creation and diffusion of innovation, entrepreneurial climate and labour force skill development, as well as various aspects of labour-market policies and institutions. In 1995, the inclusion of a recommendation to promote product market competition added a tenth policy area. These ten broad policy guidelines were backed up by almost 70 detailed policy recommendations. The general policy recommendations contained in the Jobs Strategy provide an overall framework for reform which was subsequently used to derive country-specific policy recommendations - tailored to the institutional, social and cultural characteristics of each member country - in the regular country reviews conducted by the Economic and Development Review Committee (EDRC). The ten broad recommendations of the Jobs Strategy were as follows:

- 1. Set macroeconomic policy such that it will both encourage growth and, in conjunction with good structural policies, make it sustainable, i.e. non-inflationary.
- 2. Enhance the creation and diffusion of technological know-how by improving frameworks for its development.
- 3. Increase flexibility of working-time (both short-term and lifetime) voluntarily sought by workers and employers.
- 4. Nurture an entrepreneurial climate by eliminating impediments to, and restrictions on, the creation and expansion of enterprises.
- Make wage and labour costs more flexible by removing restrictions that prevent wages from reflecting local conditions and individual skill levels, in particular of younger workers.
- 6. Reform employment security provisions that inhibit the expansion of employment in the private sector.
- 7. Strengthen the emphasis on active labour market policies and reinforce their effectiveness.

- 8. Improve labour force skills and competences through wide-ranging changes in education and training systems.
- 9. Reform unemployment and related benefit systems and their interactions with the tax system such that societies' fundamental equity goals are achieved in ways that impinge far less on the efficient functioning of the labour markets.
- Enhance product market competition so as to reduce monopolistic tendencies and weaken insider-outsider mechanisms while also contributing to a more innovative and dynamic economy.

In 2005 the original *Jobs Strategy* was reviewed, and recommendations were adjusted in the light of the experience of the preceding decade (see OECD, 2006). The revised recommendations, grouped in four main areas, were as follows:

Set appropriate macroeconomic policy

- 1. Macroeconomic policy should aim at price stability and sound public finances so as to keep interest rates low and encourage investment and labour productivity, with potential beneficial effects on employment.
- 2. Macroeconomic policy should be used to help stabilise the economy in order to reduce the risk that transitory increases in unemployment due to adverse shocks become persistent and to ensure that the benefits of structural reforms are brought forward. This calls for:
 - Monetary policy should pursue medium-term price stability and, within the scope given by that objective, aim to stabilise economic activity.
 - * Fiscal policy should aim to restore and maintain sound public finances so that automatic stabilisers can be allowed to operate, supplemented as required and feasible by discretionary policy. This is particularly important in countries that cannot employ monetary policy for that purpose.

Remove impediments to labour market participation and job-search

Implement well-designed unemployment benefit systems and active labour market policies

- 1. Unemployment benefit replacement rates and duration, as well as social assistance benefits, should be set at levels that do not excessively discourage job search and, especially where they are relatively generous, be made conditional on strictly enforced work-availability criteria as part of well-designed "activation" policies; moderate benefit sanctions should be part of an activation strategy.
- 2. Employment services should offer unemployed workers in-depth interviews and, job-search assistance, and participation in active labour market programmes should be compulsory after a certain length of joblessness.
- 3. Performance of employment services should be rewarded on the basis of job placement rates and stability in jobs of re-employed workers; active labour market programmes should be regularly assessed to ensure that inefficient programmes are terminated, and that the mix of programmes is adjusted to suit the needs of jobseekers and the labour market.

Make other non-employment benefits more work-oriented

- 4. Gate-keeping measures should be strengthened to avoid individuals with substantial work capacity leaving the labour market via sickness and disability systems; the degree of work capacity of people receiving such benefits should be reviewed periodically; rehabilitation with a labour market orientation should be available to those who have some work capacity; job-search support and financial incentives to go back to work should be provided for those with sufficient work capacity.
- 5. Early retirement schemes should be abolished and pension systems reformed so as to remove incentives for early labour market exit; mandatory retirement provisions should be eliminated.

Facilitate family-friendly arrangements

6. Family-friendly policies, including childcare support, as well as working-time arrangements which help reconcile work and family life, should be implemented so as to remove barriers to employment for those with family commitments.

Adjust taxes and other transfer programmes to make work pay

7. Employment should be made financially attractive vis-à-vis benefit receipt, including through tax-benefit reform and the provision of in-work benefits to make work pay, without creating excessive tax distortions for those earning higher incomes.

Tackle labour- and product-market obstacles to labour demand

Ensure that wages and labour costs respond to labour market developments

- 1. Ensure that minimum wages are set at levels that do not harm job creation significantly for low-productivity workers.
- 2. Payroll taxes on labour should be reduced, especially on low-wage earners, where these are high and the budget situation allows, and health premia should be kept under control.
- 3. In countries where sectoral collective agreements prevail, clauses which allow individual firms, through employer-employee agreement, to opt-out from higher-level agreements should be introduced or strengthened, and the administrative extension of collective agreements should be reformed.

Enhance competition in product markets

- 4. Legal impediments to entry of new firms should be removed in all areas where -competition is feasible, and administrative burdens on business start-ups should be reduced; move towards open international trade and investment in goods and services.
- 5. Competition-restraining state control of business operations should be reduced.

Facilitate the adoption of flexible working-time arrangements

6. Obstacles in labour legislation which impede the emergence, through employer-employees agreement, of flexible working-time arrangements should be removed; tax and social security provisions should not discriminate against part-time work or other flexible arrangements which help reconcile work and family life and promote flexible work-to-retirement transitions.

Make sure that employment protection legislation helps labour-market dynamism and provides security to workers

- 6. Employment protection legislation should be reformed in countries where it is overly strict, by sanctioning unfair dismissal (notably with respect to gender, age and ethnicity), but reducing constraints on dismissals for economic reasons, making severance costs and administrative procedures more predictable so as to reduce judicial uncertainty and requiring reasonable dismissal notice periods to help laid-off workers find new jobs.
- 7. Regulations on fixed-term and temporary contracts may need to be relaxed in some countries, but acting on this plank alone, while leaving legislation on permanent contracts unchanged, may aggravate labour market duality and undermine labour market performance in the long term.

Promote transitions to formal employment

8. Transitions to formal employment should be promoted through lower taxes on low-paid employment going hand-in-hand with better compliance of other taxes (notably on small businesses); reform of labour regulations and business registration requirement, to make firms more prone to create formal jobs; and closer ties between social protection and work to encourage workers to declare their job.

Facilitate the development of labour force skills and competencies

- 1. Governments, in co-ordination with social partners where this is consistent with national practice, should set conditions likely to improve labour force skills by:
 - establishing a system of recognition of new competencies gained by adults through training and work experience;
 - encouraging greater quality of training provision, including through performance monitoring of providers and the use of market mechanisms;
 - supporting training programmes which include co-financing from private agents and provide effective learning opportunities for disadvantaged groups;
 - expanding the scope of apprenticeship contracts by easing age limits and allowing flexible compensation arrangements; and
 - * ensuring that employment programmes are broad enough to be sensitive to the specific needs of disadvantaged people, including through second-chance schools.
- 2. In order to facilitate school-to-work transition, it is essential to:
 - reduce early exits from education, including by broadening vocational programmes, strengthening links between general and vocational education and improving career guidance; and
 - help combine education with work, notably through improved apprenticeship systems or more informal channels.

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