
6 *The challenge of employment creation in South Africa*

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Employment creation is the greatest challenge facing South Africa. The apartheid regime's isolationist and exclusionary policies led to many years of slow economic growth and employment stagnation. Economic growth resumed in 1992 and employment grew from 1997 up to the global economic crisis in 2008. The key question facing the country is how to resolve the widespread marginalisation and unemployment.

I wrote for earlier *State of the Nation* volumes (Altman 2004, 2005). At that time, analysis of employment and unemployment dynamics was still in its early days, with new data sets and a plethora of analysts trying to make sense of why the unemployment rate was so high.

Much has changed since then. Firstly, the quality of data has improved substantially and data are issued more timeously. Secondly, the body of research on employment and unemployment has deepened. Among this emerging work, a decade of research and debate at the Human Sciences Research Council (HSRC) has deepened understanding of trends and dynamics, and led to policy debate on how to make inroads into deep unemployment and working poverty. Thirdly, this work at the HSRC has since been incorporated into the work of the National Planning Commission in the Presidency.

This chapter outlines central lessons learnt over the past decade on the nature of job creation in South Africa and what needs to be done to reduce unemployment. It especially reflects on the knowledge gained through research and policy interaction that developed at the HSRC over this period. The chapter begins by reviewing trends in employment, unemployment and working poverty. The second section reviews the employment scenarios developed by the HSRC, starting with an outline of the three scenarios and then delving into select lessons learnt from this process. Central questions relate to which sectors might be relied on to create jobs and which not, the role of government in direct job creation, the connection between employment and poverty reduction, and the need for social protection measures. A conclusion ends the chapter.

Employment trends

Over the past decade there has been much debate and confusion about whether the South African economy has had robust employment creation and what sort

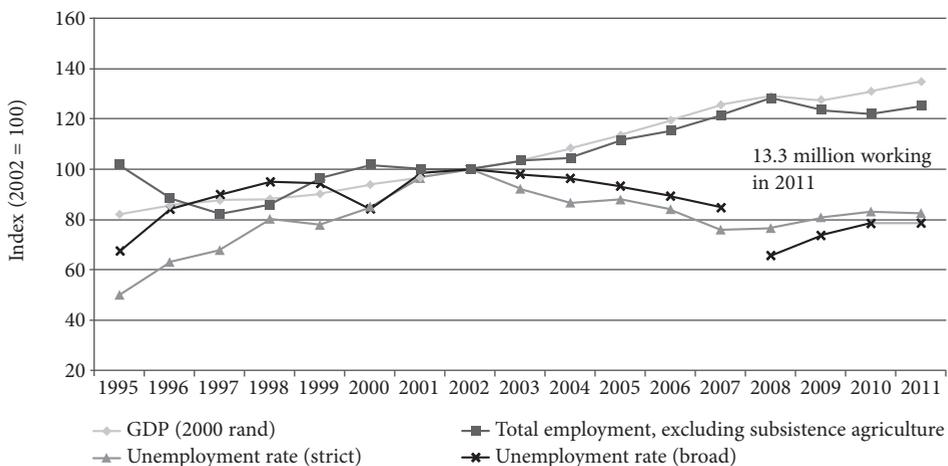
of employment has been created (see Altman 2004, 2008). There was a prevailing view that still persists that growth had not generated employment or that there had been jobless growth, despite the evidence (Altman 2004, 2005; Borhat & Oosthuizen 2006). Figure 6.1 shows the trajectory of employment, unemployment and GDP growth over the period 1995–2011.¹ There was a strong relationship between GDP and employment growth between 2001 and 2008 when employment expanded by 2.4 million, or an average of 300 000 jobs annually. For every percentage point of growth in GDP, employment grew by about 0.6 per cent. This is high by global standards, where high-growth developing countries generally experience employment-to-growth ratios of about 0.3–0.5 per cent (Kapsos 2005). The unemployment rate fell from about 30 per cent to 23 per cent over this period.

Over the course of the global downturn the South African economy shed 1.05 million jobs between the first quarter of 2009 to the third quarter of 2010, a loss that did not correspond to relatively small changes in output, as seen in Figure 6.1. Analysts have yet to explain with evidence why this took place. Employment began a slow recovery from the end of 2010. By the end of 2011, 365 000 jobs had been regained, the strict unemployment rate was 23.9 per cent, 4.2 million people were unemployed and 2.3 million were discouraged (Stats SA 2011).

Why then is there a public perception that the economy is not creating jobs? I would propose four main reasons.

Firstly, the early statistics showed what was known as a ‘jobs bloodbath’ in the period 1994–1997. The dip is shown in Figure 6.1. This experience dramatically influenced public perceptions. I led a process at the HSRC that drew in top experts, the statistical agency, Treasury, the Presidency and other role-players to review the

Figure 6.1 *Employment, unemployment and GDP, 1995–2011*



Source: Stats SA surveys (1995–1999, 2000–2007, 2008–2011)

employment statistics from 2002–2004. This showed that instead of the reported loss of almost 1.5 million jobs between 1995 and 1997, the losses were probably closer to 500 000. The period of employment growth from 1997 to 1999 was also likely to have been less dramatic than was reflected in the statistics (Altman 2008). Unemployment was therefore already high, after many years of slow growth. Real GDP was stagnant for the decade from 1982 to 1992 and GDP per capita fell between 1974 and 1992.

Secondly, the recorded unemployment rate rose dramatically between 1995 and 2002, from 15.1 per cent to 30.4 per cent (Stats SA 1995, 2002). This statistical rise was mostly caused by the expression of labour market entry. The phenomenon of asking the population about themselves was new and the statistical agency learnt over time how to pose questions more accurately. In the initial years it would ask whether the respondent was seeking work, and these questions were subsequently nuanced to capture more information about desire to work if jobs were available (Altman & Woolard 2006). For example, in earlier years many women were registered as child carers and not in the labour market, whereas in later years many of these women were reclassified as seeking or desiring work. In addition, an expanding economy would have attracted new entrants. Between 1995 and 2002 the working-age population grew by 2.3 per cent per annum, as compared to the strict labour force, which grew by 5.6 per cent per annum, and the labour force participation rate rose from 46 per cent to 59 per cent (Altman & Woolard 2006). Almost all of this increase fed into a pool of measured unemployed, the majority of whom were African people. While the rate of measured unemployment doubled between 1995 and 2002, the proportion of working-age people that was not working remained the same: for example, approximately 60 per cent of working-age Africans were not working throughout the period. In other words, the same proportion of the working-age population was working or not working in 1995 and 2002, even while the unemployment rate was rising (Altman & Woolard 2006). What changed was the proportion of people who said they were searching for work, and who were therefore reallocated statistically from being inactive to participating in the labour force.² Both employment and unemployment rose simultaneously. The proportion of unemployed people searching for work in the labour market rose at the same time as the proportion of working 15–64-year-olds rose.

Thirdly, the majority of new employment was created in the services sector; this was captured in the main household survey (the LFS), but was not adequately measured in the main business survey (the Survey of Employment and Earnings, or SEE) until 2002. If a researcher or analyst used the household data, they would show rising employment and output. If the business survey data were used, it would appear that employment was falling as the economy was expanding.³ An outdated firm register was the cause of this discrepancy, which reflected older activity but not the newer forms of business that were emerging. This register was updated in 2002 and a new sampling frame was created on this basis. This led to a break in the data series, where the numbers reflected by the SEE as employed jumped from 4.66 million in 2001 to 6.51 million in 2002. The majority of this additional employment now captured was found in banks, insurance, real estate and business services; wholesale and retail;

and to a lesser extent community services and construction. By comparison, the LFS showed stagnant employment that year, reported as about 7 million in both years. From then on, the two surveys have moved approximately in tandem, with differences caused by the informal sector, agriculture and small firms.⁴

Many analysts rely on South African Reserve Bank (SARB) reports and data. The SARB sources employment data from the firm surveys. It published data that reflected rising GDP and falling employment over the period 1996–2001 and continued to do so to the time of writing this chapter (SARB 2012). Many analysts and economists quote this divergent trend, and the view has stuck in many minds (Altman 2008; Altman & Woolard 2006).

Finally, and most importantly, employment growth has not been fast enough to make major inroads into the population's experience of economic marginalisation. The rate of employment growth is not enough to absorb labour market entrants, much less the backlog of unemployed. The number of jobs created has merely kept pace with the expansion of the labour market, making only small inroads into overall unemployment numbers. The broader population would have found that their situation remained unchanged, even while some were benefiting from this period of expansion.

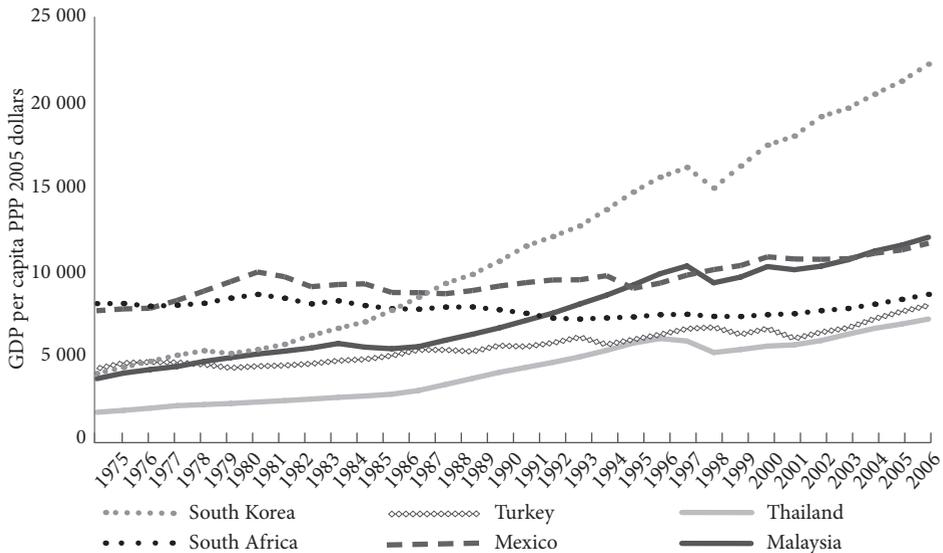
Over the period 2001–2008 expanding employment had a definite impact on falling rates of unemployment and dependency. In 2001 there were about 7.6 million broadly unemployed, but by 2007 this had fallen to 7.3 million. As noted, the unemployment rate fell from 30 per cent to 23 per cent. Altman and Woolard (2006) show that economic dependency ratios (or the number of non-working people to working people in the population) improved: in 1996, 3.6 people depended on one working person, but this ratio fell to 2.8 by 2005. In 1996, 38 per cent of those aged between 15 and 64 were working; by 2008 this figure had risen to almost 45 per cent. Job losses during the economic crisis reversed this to 41 per cent in 2011 (Stats SA 2011). Although the trend represents an improvement, the scale of economic marginalisation and inactivity is higher than in most other countries. In other similar developing countries one would expect at least 60 per cent of 15–64-year-olds to be working (Kapsos 2005).

South Africa is dogged by high rates of poverty and inequality. By 2008/2009, 52.3 per cent of the population was living below a proposed poverty line of R577 (Stats SA 2012). The proportions living in poverty have not changed dramatically since 1994. However, the numbers living in the deepest poverty were reduced with the substantial expansion in social grants from 2000 (Van der Berg et al. 2007). Employment did expand substantially from 1997 to 2008. However, high dependency ratios caused by the backlog of unemployed, along with low earnings among a large section of the workforce, mean that earnings from work have a slow impact on poverty reduction. Van der Berg et al. (2007) estimate that employment growth may have accounted for only 20 per cent of the reduction in poverty between 2000 and 2006.

GDP per capita rose by 1.6 per cent a year from 1994 to 2009, and by 2.2 per cent between 2000 and 2009 (OECD 2010). These were the first years of GDP per capita growth since the 1970s, which was an important success of the new government. To reduce poverty,

an economic growth rate that exceeds that of the population will be required, alongside improved distributional and employment stimulation programmes. Figure 6.2 compares GDP per capita growth rates in South Africa and other countries. The South African experience was comparable to that of Brazil in the 2000s, but far lower than that of countries like Malaysia (approximately 3 per cent) or Indonesia (just under 4 per cent). There is an enormous backlog caused by a stagnating economy: between 1975 and 2003 GDP per capita fell by 12.5 per cent. Over that same period the economies of South Korea and Malaysia had tripled and doubled their GDP per capita, respectively, while Mexico and Turkey had increased their GDP per capita by almost 50 per cent. Employment grew by only 0.7 per cent per annum between 1970 and 1995, or by 1.4 million jobs, benefiting only white, coloured and Indian people, with no net employment expansion for African people. South Africa achieved its 1975 per capita GDP levels once again by 2001. The improvement in GDP per capita after 1994 was comparable to that in other emerging economies, but not sufficiently long, high or well distributed to make major inroads into poverty levels. Three conditions are needed for sustainable poverty reduction and wealth creation: that growth should persist for a long period, at a sufficiently fast rate, and that it be well distributed, ideally through the activation and remuneration of the population.

Figure 6.2 GDP per capita, some global comparisons, 1975–2006



Source: Data prepared for OECD (2008)

Note: PPP – purchasing power parity

Which sectors created employment?

The economic path in South Africa is commonly characterised as skill intensive with little employment created for low-skilled workers (Bhorat & Hodge 2002; Bhorat & Oosthuizen 2006). What does the evidence say?

Tables 6.1 and 6.2 compare employment levels by sector and occupation in September 2001, 2008 and 2011.⁵ Between 2001 and 2008, 36 per cent of all jobs created were in low-skilled occupations and about 35 per cent were in high-skilled occupations. About 29 per cent of all jobs were created in semi-skilled and skilled occupations, ranging from clerks, service and sales workers to crafts and trades, and machine operators. There was a substantial loss in skilled agricultural workers: excluding this category, skilled and semi-skilled opportunities would have accounted for 36 per cent of all jobs created. Between 2001 and 2008 the proportion of people working in highly skilled occupations rose from 21.2 per cent to 24.2 per cent. In low-skilled occupations the proportion rose from 28 per cent to 30 per cent. The proportions in the middle tier – skilled and semi-skilled – grew in number, but fell as a proportion of the total from 50.7 per cent to 46 per cent.⁶

Three-quarters (75.5 per cent) of employment created between 2001 and 2008 was found in the service sectors, especially trade, finance and business services, and community, social and personal services. Construction added a further 17.5 per cent. Manufacturing created 339 000 jobs, reaching total employment of almost 2 million, which was substantial relative to output growth. However, its share of total employment shrank from 15.4 per cent to 14 per cent. The resource sectors – agriculture and mining – played a very small role as contributors to employment. Their share of total employment fell from 11.1 per cent in 2001 to 7.1 per cent by 2011, and in aggregate they shed 227 000 jobs (Stats SA 2001, 2011). About 160 000 jobs were lost in mining alone, despite a global commodity boom, caused by technical change, electricity supply challenges and regulatory uncertainty.

Table 6.1 Sector employment (formal and informal), 2001, 2008, 2011

Sector	Employment ('000)			Change in employment ('000)	% of total jobs created
	2001	2008	2011	2001–2008	2001–2008
Agriculture	692	764	630	72	2.1
Mining	487	321	327	–166	–4.9
Manufacturing	1 605	1 944	1 789	339	9.9
Utilities	95	86	81	–9	–0.3
Construction	594	1 191	1 057	597	17.5
Trade	2 397	3 164	3 060	767	22.5
Transport	543	774	788	231	6.8
Finance & business services	975	1 636	1 739	661	19.4
Community & social services	1 988	2 661	2 902	673	19.7
Private households	1 055	1 298	1 118	243	7.1
Total	10 431	13 839	13 491	3 408	

Source: Stats SA (2001, 2008, 2011)

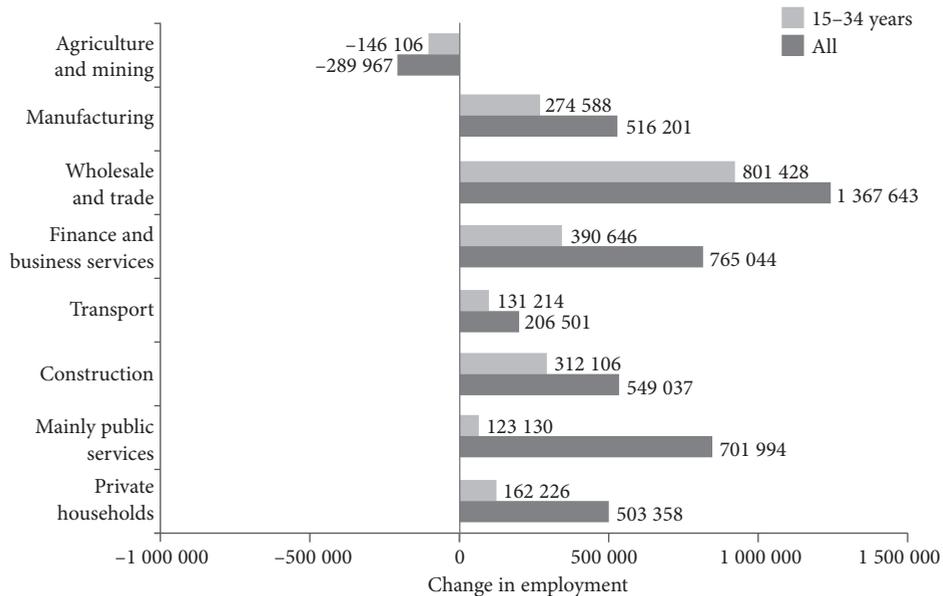
Table 6.2 *Employment by occupation (formal and informal), 2001, 2008, 2011*

Occupation	Employment ('000)			No. of jobs created	% of jobs created
	2001	2008	2011	2001–2008	2001–2008
Manager	661	1 083	1 130	422	13.9
Professional	485	747	745	262	8.6
Technician	1 146	1 516	1 498	370	12.2
Clerk	1 101	1 434	1 523	333	11.0
Sales & services	1 396	1 732	1 960	336	11.1
Skilled agriculture	469	109	67	-360	-11.9
Craft & related trade	1 434	1 881	1 637	447	14.7
Plant & machine operator	1 085	1 207	1 126	122	4.0
Elementary	2 115	3 092	2 933	977	32.2
Domestic worker	916	1 042	878	126	4.2
Total	10 808	13 843	13 497	3 035	

Source: Stats SA (2001, 2008, 2011)

The implications for youth employment are substantial. Those aged 15–34 years account for 45 per cent of the workforce. Figure 6.3 shows that most working people in this age group found employment in the wholesale and retail trade, business services, and construction. Their presence in manufacturing expanded by almost 250 000, which was almost half the opportunities created in that sector, while 500 000 additional manufacturing opportunities accrued to those aged over 35. New public service jobs primarily went to over-35s.

Figure 6.3 *Change in employment by sector and age, 1998–2008*



Source: Stats SA (1998, 2008)

Wages and employment

In 2010 the median income from work was R2 800 per month overall, and R3 683 per month in the non-agricultural formal sector, as shown in Table 6.3. The bottom 25 per cent of earners earned R1 500 per month, the top 25 per cent R6 500 and the top 5 per cent R17 000.

The variation by race and gender is substantial. In the bottom 50 per cent of earners, the average earnings of African workers is one-quarter to one-fifth that of their white counterparts. The median earnings for African workers was R2 167 per month, 33 per cent lower than the national average, as shown in Table 6.3.

Substantial gender differences in labour market status are evident. On average, women earn 25–50 per cent less than men. The unemployment rate for women and men in 2010 was 27.6 per cent and 23.3 per cent, respectively, even though the labour force participation rate of women was only 47.6 per cent, as compared to 61.7 per cent for men (Altman & Ngandu 2010). Women tend to be crowded into lower-paying occupations and sectors, with 56 per cent working in retail, wholesale and restaurants, and personal or domestic services in 2009, as compared to 43 per cent of men. Real remuneration per employee in community, social and personal services, and in the retail and wholesale trade increased, respectively, by 1 per cent and 0.9 per cent per annum between 2000 and 2009. Remuneration in male-dominated sectors such as motor vehicles, parts and accessories, and transport equipment rose by 9.6 per cent and 10.4 per cent per annum, respectively, over the same period (Altman & Ngandu 2010).

In the decade from 1995 to 2004 real wages were stagnant or fell across the economy and especially for unskilled and semi-skilled workers (Burger 2010). Between 2004 and 2007 real remuneration for unskilled male workers rose by a real annual average of about 3–5 per cent. By September 2007 the average earnings of unskilled workers was R5.68 per hour (as compared to R4.28 per hour in September 2000), or the equivalent of R908 per month in 2000 rand value. Unskilled female workers experienced stagnant earnings throughout this period and earned on average 17 per cent less than their male counterparts. Semi-skilled male workers' real average earnings rose by about 1.9 per cent per annum to an average of R9.19, or R1 470 per month in 2000 rand value. Average earnings for semi-skilled men and women were similar, while skilled⁷ and highly skilled women tended to earn about 10–20 per cent less than their male counterparts. Earnings for high-skilled African workers rose substantially between 1997 and 2002, but had little impact on narrowing the racial gap (see Burger 2010).

Substantial wage inequality persists. White workers earn three times more than coloured workers in semi-skilled occupations, with no improvement in this ratio since 1995. They also earn twice that of their African counterparts in skilled and high-skilled categories, again with no narrowing of the aggregate gap (Burger 2010). The quality of jobs will sometimes differ, since higher-skilled workers may have more permanent positions with benefits and are more mobile by desire. Unskilled workers may work full time, but not necessarily throughout the year.

Table 6.3 Median monthly earnings by sector and race, 3rd quarter 2010

	No. of employees ('000)	Bottom 5% (rands)	Bottom 10% (rands)	Bottom 25% (rands)	Median (rands)	Top 25% (rands)	Top 10% (rands)	Top 5% (rands)
By sector		Weighted average						
Total	11 058	570	845	1 500	2 800	6 500	12 000	17 000
Formal	8 571	867	1 200	2 000	3 683	8 000	14 000	19 000
Informal	787	450	600	1 000	1 600	2 600	4 500	8 000
Agriculture	568	500	700	1 000	1 213	1 517	2 730	4 800
Private households	1 132	300	400	650	1 000	1 500	2 000	2 600
By race								
African		500	700	1 200	2 167	4 500	9 000	12 567
Coloured		850	1 083	1 560	2 652	5 500	10 000	14 000
Indian		1 500	2 000	3 300	6 000	11 000	16 500	25 000
White		2 000	3 000	5 000	9 500	15 000	25 000	34 000

Source: Stats SA (2010)

The 1990s were a watershed for labour relations in South Africa with the establishment of the National Economic Development and Labour Council (Nedlac) and the laying of the foundations for what was called 'regulated flexibility'. A set of labour regulations was negotiated and introduced to promote collective bargaining, dispute resolution and the protection of basic rights. The Labour Relations Act 66 of 1995 underpinned democratic rights to organise, bargain and represent collective interests.

However, it was also recognised that the majority of the workforce do not directly benefit from this representation and rely on weak individualised employment relations. The regulatory protections in respect of vulnerable and unorganised workers have been progressively implemented over the past decade. The central protections are offered by the Basic Conditions of Employment Act 75 of 1997 and minimum wage determinations set by sector and region.

The number of formal sector employees whose remuneration was set through bargaining councils expanded from 1.2 million to 2.6 million between 1995 and 2005 (Bhorat et al. 2007). Most of this increase was accounted for by the public sector, and mostly in professional and clerical professions. The proportion of private sector employees covered by bargaining councils fell from 14.7 per cent to 13.3 per cent over this period.

Statutory wage determinations are aimed at protecting vulnerable, unorganised workers in the forestry, agriculture, contract cleaning, taxi operator, civil engineering, private security, domestic work, wholesale and retail, hospitality, and clothing sectors. This also includes learnerships and children under 15 in the performance of advertising, artistic and cultural activities.

The rates are set at levels that are affordable to industry and act as a wage floor. As an example, the minimum wage rate set for farm workers in 2007 was approximately R1 000 per month, for domestic workers it was R750–1 000 per month depending on the region, and for private security workers it was R1 600–2 400 per month. Compliance is uneven. For example, Borat et al. (2010) find that 55 per cent, 39 per cent and 80 per cent of farm workers, domestic workers and private security workers, respectively, were paid less than the minimum. Minimums for shop assistants were set at R1 500–2 000 per month, and about half were paid at a lower rate than this. Overall, 45 per cent of covered workers were paid below legislated minimums. Our analysis using the September LFS for 2005 and 2006 found that the median wages earned in 2005 in 10 out of 15 occupations analysed were lower than the minimum determinations set in 2005, and in 7 out of 15 occupations in 2006.

A central challenge facing South African economic policy is to find a balance between achieving decent work and standards so that working people and their families can achieve an acceptable standard of living, while also ensuring that there is a cost structure that is conducive to expanding employment.

Employment scenarios

In a context of extremely high unemployment and a sense of intractability, I established an ‘employment scenarios’ process based at the HSRC in 2006. It was aimed at supporting some of the fundamental elements required for coordinated policy and innovation. These elements included the following:

A common goal. Prior to 2004, the stated policy intention was to ‘reduce unemployment’. With such an unspecific goal, it was difficult to differentiate between meaningful and minor progress. In 2004 the ruling African National Congress and the government made a commitment to halving unemployment by 2014 (ANC 2004; The Presidency 2006). No specifics were mentioned, yet this provided a notional target on which to hang a common goal. The HSRC employment scenarios used the commitment to halving unemployment as their central focus.

The context is one where a large portion of the population is unemployed and progress would take many years to be felt, so even significant improvements might not be experienced as such. Setting a target offers a way of charting a path through a complex and poorly understood challenge.

The first step in drawing up the employment scenarios was to define the meaning of ‘halving unemployment’ and then to test whether this goal was meaningful. This was initially defined as reducing unemployment from 28 per cent (March 2004) or 26 per cent (September 2004) to 14 per cent or 13 per cent by 2014. Then it was proposed that this should be seen as an interim target on the way to 6.5 per cent by 2024. The research team identified the level of employment creation required to achieve this target. This required an understanding of how fast the labour force

might grow, based on population growth, demographic change, health status, immigration and emigration, and labour force participation. It was proposed that the labour force participation rate would need to rise from 56 per cent in 2004 to 58 per cent in 2014 and 63 per cent in 2024.

We found that employment levels would need to rise by 5 million between 2004 and 2014 and by 10 million to 2024 to achieve the respective unemployment targets (Altman 2007). The employment target is a more realistic policy focus. Unemployment rates depend considerably on changes in behaviour, that is, whether people are searching for work. The employment target is a more transparent measure of economic health and participation.

This target became widely used. The intention was to enable a benchmark against which it was possible to say whether meaningful progress was made. Anyone in the population could know that if approximately 500 000 jobs were being created annually, then the country was moving towards the ultimate target. If this was not being achieved, a policy review might be required.

This same target was used in the Economic Development Department's New Growth Path (NGP) in 2010, and more recently in the National Development Plan (NDP) 2030 of the Presidency's National Planning Commission in 2011/2012. In the years from 2005 to 2008 the economy almost generated the targeted number of jobs. However, almost a million jobs were lost between 2008 and 2010. The target of halving unemployment by 2014 became elusive and was extended to 2020. The NGP estimated that 5 million jobs would be needed over a decade to achieve the 14 per cent unemployment target by 2020. The NDP estimated that 11 million jobs would be needed to reach 6.5 per cent unemployment between 2010 and 2030.

An evidence-based understanding of causes and solutions. There is only an indirect link between policy choices and employment outcomes. This is a general characteristic of the efforts of economic policy to influence markets. Employment outcomes are an even more distant result.

The methodology used for evidence-based scenarios involved sector- and issue-based analysis, economy-wide modelling, spreadsheet modelling, and feedback loops through expert review and scenario sessions.

Role assignment. Although job creation may be a top priority for most citizens, its coordination and responsibility for it lie with no one specifically. How would a government, a department or a stakeholder group be held accountable?

At the Presidential Jobs Summit of 1998 it was agreed that all Cabinet memos would identify the job creation implications of all government policies. However, the technical capability of identifying what these might be was limited. For example, the job creation implications of building a road are often understood to be in its construction, yet the road's true potential would be measured in terms of its facilitation of economic activity over time. The contribution in the construction

phase is more measurable and easier to grasp; the contribution to economic activity is more difficult to measure and depends on many other factors.

The HSRC employment scenarios process therefore identified the elements of job creation to distinguish between those aspects that could be important contributors and those having more limited impacts. The idea was to reveal the relationship between different types of intervention or economic change and the employment outcome. This was a step-by-step process that compared elements ranging from macroeconomics to labour market policies, sector contributions, network industries and public employment. This was aimed at enabling policymakers and civil society to more accurately focus their minds on high-impact policies.

A dialogue forum. South Africa has a range of forums for negotiation, bargaining and dialogue. Two central gaps were identified. The academic approach to sharing findings involves the presentation of a paper followed by discussion. This imparts information, but does not necessarily impact on action. The forums for negotiation such as Nedlac or the policy meetings in government are another location for the insertion of ideas. However, in my experience, only small innovations are possible once this stage of review is reached. Policymakers will have in mind an approach that they would like to pursue, while stakeholders enter negotiations with their positions formed. Compromise is a more likely outcome than innovation. For the employment scenarios, a different sort of forum was sought. A range of leaders from business, government and labour, and experts with positional or influencing power and from a range of ideologies and political locations were drawn together. Many of them said there was a need to 'raise the bar' in our understanding of unemployment and what to do about it. There was a sense of the employment policy dialogue going in circles and not progressing.

The approach taken was designed for a specific purpose. This was not a small scenarios group that retreated for lengthy periods, came to an end point and delivered a report. Instead it was designed as a network model. A core reference group was formed, with topic-specific subgroups. At any time there may have been a hundred participants. The employment scenarios linked into stakeholder groups such as the Millennium Labour Council and policy forums such as the government's Directors-General Economic and Employment Cluster. The approach involved having many short interactions on one idea at a time, discussed in a range of forums so that ideas percolated within stakeholder groups. The specific topics and the approach taken to researching them were discussed with the reference group at the start of each phase and throughout the process so that there was a sense of ownership and involvement. In turn, the researchers benefited from early feedback and learning loops. We found that learning and adoption are not greatly assisted by one paper and a workshop, but by many small interactions over time that enable ideas to infuse routines and ways of thinking.

Central learning from the employment scenarios

Three 2030 employment scenarios were developed for the HSRC process and revised for the NDP, as presented in Table 6.4. These scenarios revolve around both global conditions and local policy choices. The purpose of the scenarios is to enable policymakers to see the opportunity cost in the future of actions taken at present. Mostly, the global conditions consider whether the West recovers from the economic downturn, and the growth path for China and India. Domestically, the policy choices revolve around the fulfilment of commitments in respect of infrastructure that underpins economy-wide productivity. In the scenarios modelling we tested situations where there was a skills constraint and where it was lifted; this had a significant effect on employment outcomes.

Table 6.4 *Employment scenarios to 2030*

Sectors	Employment in 2010	Employment in 2030		
		Scenario 1: mediocre minerals exporter	Scenario 2: successful minerals exporter	Scenario 3: successful diversified exporter
Agriculture	627 000	513 854	627 000	803 788
Mining	297 000	268 804	388 349	436 893
Manufacturing	1 556 000	1 879 348	2 168 947	2 288 905
Leader & high paid services (e.g. finance, transport)	2 025 000	3 009 043	3 656 513	4 187 781
Follower services (e.g. retail, personal services)	1 927 000	4 180 710	4 874 585	4 966 878
Construction & utilities	828 000	1 053 622	1 277 699	1 407 060
Informal sector & domestic work	2 922 000	4 093 532	4 604 434	5 012 101
Public sector, private social services & parastatals	2 529 000	3 277 650	3 518 023	4 225 313
Expanded Public Works Programme (EPWP)	420 000	5 483 277	2 644 291	431 120
Total	13 131 000	23 759 840	23 759 841	23 759 839
Average GDP growth (%)		3.3	5.0	6.4
% working-age population employed	41.0	47.1	54.4	60.1
% unemployment without EPWP	25.0	27.7	16.5	7.7

Source: Stats SA (2004)

The scenario modelling considered potential employment growth in aggregate as well as sector contributions. From there, a link was made to the extent of incomes that might be earned and of wage inequality for different outcomes.

Possible sector contributions to employment in future

Three scenarios were laid out, and Altman (2007, 2009) expresses the underlying story lines. Laying out possible sector composition in 10 or 20 years helps guide one towards an understanding of what might realistically happen and therefore where to invest effort. The broad sectors are considered below.

Agriculture and mining. The range of possible employment outcomes for agriculture and mining are based on papers prepared by Aliber et al. (2008) and Baartjies (2011). Aliber et al. (2008) considered a number of possible agricultural land use and distribution scenarios. Baartjies (2011) carried out a review of potential employment in the mining of each main mineral, taking into account factors such as changes in technology, rand-dollar exchange rates, regulatory conditions and the availability of energy. These sectors are unlikely to be central sources of new jobs. Their employment prospects range from shrinking to expanding by 300 000 over 20 years. The most likely result would be the sustaining of current employment levels through a range of modest, but meaningful stimulatory policies.

Non-agricultural private formal sector. Non-agricultural private formal sector employment is thought to expand by an average 0.72 per cent for every 1 per cent of GDP growth in the weakest scenario, by 0.68 per cent in the middle scenario and by 0.64 per cent in the strongest scenario. In these scenarios the economy grows by an average of 3.3 per cent, 5.0 per cent and 6.4 per cent per annum, respectively. Intuitively, one might expect that the ratio of employment to output would be higher in the stronger scenario. However, productivity and higher capital investment are contributors to high growth rates. High employment-to-output ratios can often indicate an unsustainable path with limited investment. For example, high-growth economies in south-east Asia have employment-to-output growth rates of 0.5, as compared to 0.6–0.7 in South Africa (Altman 2007; Kapsos 2005). From here the sectors are made to fit. Based on country case studies prepared by Berry (2006), manufacturing employment might be expected to grow by 1 per cent per annum in a low-growth scenario, to a high of about 2 per cent per annum in the best scenario. Manufacturing might therefore contribute a maximum of 6 per cent to the total employment target. The biggest variant in the scenarios is between higher-paying versus lower-paying services. In the scenarios these are called ‘leaders’, such as transport, finance and business services, and ‘followers’, such as retail or personal services. In the higher-growth scenario there is a greater complement of leader services than in the lower-growth scenario. Overall, these are the largest employment creators.

Construction. Construction employment is projected to grow by 5–6.5 per cent per annum in the first decade as a result of commitments to public infrastructure. It then contracts by 1–2.5 per cent in the following decade as public infrastructure programmes diminish.

Public employment. Public employment is estimated to grow by 600 000–1.1 million, depending on the pace of growth, the deepening of public service delivery and available tax revenue.

Public employment programmes such as the Expanded Public Works Programme (EPWP) are treated as a residual. This makes up for the shortfall between the employment created through the public and private sectors as against the employment target. In the low scenario (scenario 1), half of all jobs are created through these programmes, requiring 5.5 million opportunities annually by 2030. In scenario 3, only 431 000 opportunities are needed annually. This would cost a maximum of R130 billion in scenario 1 or R15 billion in scenario 3, using 2010 rand value. This is meant to show the opportunity cost of not acting more meaningfully to promote private sector growth and also of implementing special employment-intensifying programmes.

The scenarios were built on knowledge gained through background research and dialogue. Some of the central lessons learnt from them are discussed below.

The challenges of employment creation in a resource-based middle-income economy

Mineral-exporting economies tend to have difficulty diversifying their industrial base, and also experience slower-than-average growth and high inequality. The technical problem arises where the exchange rate is linked to commodity prices, whether influenced by commodity flows or export prices. The exchange rate can become overvalued in periods when commodity prices rise, thereby creating a brake on value-added goods and services exportables. Instead, non-traded activities benefit, especially services like retail. In contrast, an appreciation of a currency that reflects the rising value and sophistication of exports is to be expected and often reflects economic success. Infrastructure will also tend to be aligned to the needs of minerals exporters, creating a further bias. The difficulty arises when the boom is over, the external balance is negatively affected and there are relatively few producers of goods in the economy. South African firms have adapted to this cycle by producing for local or export markets, depending on the exchange rate. This enables firm survival, but is not conducive to long-term planning and secular expansion.

Some countries stabilise this volatility by managing their foreign exchange earnings. In addition, the currency may be overvalued for periods of time, resulting in calls to bring its value down. However, most countries that have done this have devalued their *pegged* currencies. South Africa has a floating currency, so this approach is less manageable. The critical challenge involves enhancing the quality and cost of other domestically produced inputs and services such as transport, education or energy that can overwhelm the impact of the currency by shifting the production mix over time.

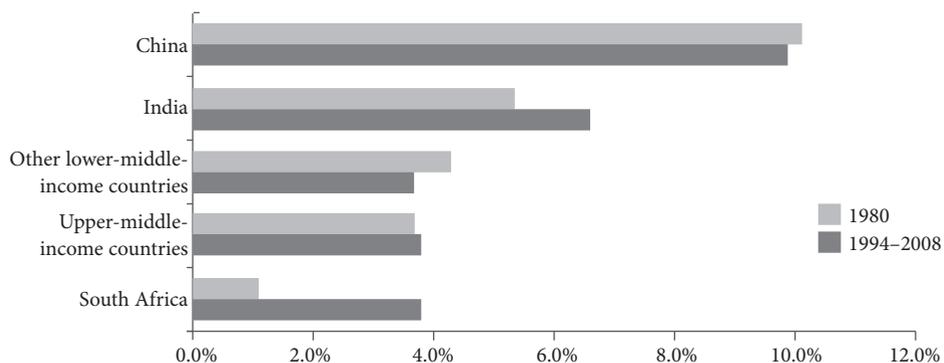
A further non-technical problem arises in government decisionmaking. Minerals exports buffer the economy and create the appearance of growth. This can create a diminished sense of urgency among policymakers.

Over the past two decades there has been evidence of a resource curse in South Africa. The profile of exports has diversified, but at least half are still derived from minerals-based activities, whether mining or slightly processed minerals. Their

demand and prices are set in commodity markets. South Africa experienced the most rapid employment growth during the commodity boom of 2003–2008 and most employment was created in domestically oriented services. This is typical of a commodity boom, when currencies appreciate, making imports more attractive and stimulating domestic construction, retail and business services. South Africa's goods-producing sectors did not similarly benefit over this period. The challenge will be to see whether manufacturing will recover once the impact of the economic crisis has passed. Many countries achieve more rapid growth, but few sustain it.

Some say it is easier to shift from being a low-income country to a middle-income one than it is to then shift to being a high-income one (Easterly 2002). The evidence shows that growth accelerations were more common in low-income economies in the 1960s and in middle-income economies in the 1980s, and about equally possible in the 1990s (Hausmann et al. 2004). It is difficult to see why there would be any inherent difference, as structural change always requires vision and discontinuity in which insurmountable barriers might appear to block the way. Yet it is true that not many middle-income countries have broken the barrier to high-income status over the past 40 or so years. Figure 6.4 shows growth rates for middle-income economies for the period 1980–2008 that generally average below 4 per cent per annum. South Korea is an exception. Some would argue that countries that are more reliant on non-commodity export income were worse affected by the global economic crisis. The key differentiator is the extent to which the country has invested in product development and technology. A middle-income economy implies that the cost structure is higher than for a lower-income economy; the former would have difficulty competing on the basis of factor costs (costs associated with non-traded goods and services inputs such as labour). Therefore, factor costs cannot be treated as a competitive advantage, except insofar as the country ensures that these factors are as competitive as possible, given the level of development. The trajectory from middle- to high-income status requires the country to have companies with competitive products and processes, brands, and/or distribution networks. The central point is to have national systems

Figure 6.4 GDP growth rates in middle-income economies



Source: Calculated from World Bank World Development Indicators, data for GDP in constant US dollars. Downloaded from <http://databank.worldbank.org> in October 2010

of innovation that penetrate the business culture from the top down to the shop floor. The difference between Malaysia and South Korea was that the latter's real competitive advantage came from its capabilities and products. Malaysia relied on multinational investments that did not lead to similar technology spillovers.

Being a middle-income resource-based economy should benefit development. High rates of unemployment pose a challenge, since there is a serious productivity–employment challenge. For South Africa to compete globally, it will be necessary to compete on excellent products and rising productivity. Rising firm productivity results in falling employment-to-production ratios. The employment scenarios therefore focused on identifying productivity improvements that stimulate employment. This involves improvements to productivity and pricing across the economy that in turn improve firm-level productivity. Examples include electricity, transport, telecommunications and food.

The future of resource-based employment

As a country develops, resource-based employment can be expected to fall, at least as a share of the total. This contraction had been evident in South Africa since the 1980s. The employment scenarios research showed that mining and agriculture could make a small but meaningful contribution to employment if the right policies were in place. By 2030 mining could potentially add a maximum of 140 000 net new jobs, or alternatively could contract by 30 000. Platinum group metals would lead the way in an expansion. This analysis was based on a commodity-by-commodity forecast, taking into account deposits, changes in technology, exchange rates and supporting policies (Baartjies 2011). Agricultural employment could contract by 114 000 jobs or expand by 175 000. This would depend on the extent and type of land reform, land in former white areas being brought into cultivation, expected productivity improvements and other supportive policies (Aliber et al. 2008).

The development process normally results in rising productivity and falling levels of employment in agriculture and mining. The research contradicted this, showing that a meaningful contribution could be made should the right policy commitments be implemented. In mining, these policy commitments involved providing more certain approaches to licensing, ensuring energy security and the availability of water, and expanding the skills base. In agriculture, these commitments would involve designing strategies to get more land under production through regulation and land reform, intensifying extension services, stabilising the price of inputs, and strengthening markets for small farmers.

The potential contribution of manufacturing to employment

Manufacturing is an important ingredient in the development process and is often monitored for its employment-creating potential. However, as countries become richer, manufacturing output may continue growing, but the share of manufacturing

employment begins to fall. Each decade, the share of manufacturing in total employment begins falling at ever-lower levels of per capita income. This is partly explained by global technology diffusion. Countries dominated by minerals exports also have a lower share of manufacturing employment than do non-minerals exporters at any level of per capita income. However, some countries, such as Indonesia and Malaysia, have broken out of this pattern and managed to achieve higher proportions of manufacturing employment by emphasising labour-intensive manufacturing exports (Palma 2006).

In support of the employment scenarios, 11 country case studies were prepared, with a focus on those that managed to accelerate and sustain high growth rates for extended periods (Berry 2006). A special review was also done of a selection of minerals exporters (Berry 2008). The case studies explored the contributors to this growth, but, more importantly, what sectors contributed to employment creation, and the wage and income distributional outcomes. The most surprising result was the extent of the role that domestically oriented services such as trade and commerce played, generally accounting for 60–70 per cent of all jobs created.

Few countries generate manufacturing employment growth in excess of 2 per cent per annum. Some very successful manufacturing industries do not contribute to net new employment at all. This explains why manufacturing is becoming a smaller share of total employment in so many countries. At this rate, the absolute maximum that could be expected from South African manufacturing is perhaps 300 000–700 000 net new jobs between 2010 and 2030, or a maximum of 6 per cent of the employment target.

The idea that manufacturing might play a small role in job creation runs counter to traditional economic and development thinking and rules of thumb. Manufacturing is meant to drive economic dynamism and linkages. If services industries have played such an important role in job creation, how is it possible that the countries involved in this process sustained high growth rates? Part of the answer lies in the growing distinction between sectors that drive growth and those that drive employment. Increasingly, these are not necessarily the same industries or activities. This is especially so in minerals-exporting economies.

One policy approach to intensify employment from export sectors could involve the stimulation of labour-intensive manufacturing through enclave-type export-processing zones (EPZs). In a low-income economy this might be needed to create conditions that are more sophisticated than the rest of the economy. In a middle-income economy an EPZ aimed at labour-intensive exports might be used to create special incentives that artificially reduce the cost of production, with tax breaks or labour law holidays. This could be justified if it was thought that the EPZ could generate large numbers of jobs or stimulate new rounds of economic growth. For middle-income countries the jury is out. For example, about 0.9 million jobs were created in the Mexican *maquiladora* (export zones) between 1990 and 2000, of which 20 per cent was lost by 2006 to Asia (CFO 2007). This is only 4.5 per cent of the jobs needed to absorb Mexico's expanding labour supply (Polaski 2004).

Having a higher proportion of manufacturing is not necessarily a guarantee of higher growth rates. Ros (2006) shows that Mexico managed to achieve high manufacturing export growth *without achieving export-led growth*. This is explained by the role of the *maquiladora* in generating large numbers of jobs in low-skill assembly activities, without any promotion of the development of capabilities. Therefore, the usual reasoning used to explain why manufacturing promotes growth – for example, learning and linkages – would not apply. Berry (2008) argues that Malaysia may have a similar problem, albeit less extreme, in having promoted electronics assembly without having developed deeper capabilities. There is now growing evidence that this policy approach will not be easily sustained in a middle-income economy. For example, Malaysia appears to be challenged by a ‘middle-income trap’, where insufficient investment has been made in technology and products that allow for competition that is not based on factor cost. The essential message is that a middle-income country will struggle to compete in labour-intensive manufacturing and has to trade up to more sophisticated products with a lower labour content if it is to succeed in expanding its manufacturing base.

In the 11 case studies of high-growth economies, the majority implemented some combination of a currency devaluation to boost exports, investments in key network services and strong market access arrangements. Chile had the strongest market orientation in the group, but even it invested heavily in research and development to initiate new industries and devalued its currency for a period. It succeeded in expanding its manufacturing base, but lost employment.

A middle-income economy will not succeed in sustainably expanding employment through labour-intensive manufacturing. These economies must compete on the basis of competitive costs, but, more importantly, productivity, product niches, technology and strategic market access. Substantial subsidies and unsustainable labour reforms would be needed to compete on the basis of factor costs such as labour. Therefore, the promotion of manufacturing capability needs to be appropriately targeted to products for which the country has some competitive advantage, where there is growing global demand and rising terms of trade, and substantial existing or potential linkages into the domestic economy.

The role of services in employment and growth

To achieve shared growth through wage income, industrial policy must apply itself to enabling the expansion of newer industries that have the same growth-inducing properties normally associated with manufacturing. The most likely source of both growth-inducing and employment-creating industries will be services. New ways of thinking about how to stimulate these sectors will be required, as will strategies to identify ways of promoting backward linkages into manufacturing.

Traditionally, services are seen to rely on demand from goods-producing sectors and are not viewed as having a propulsive effect on the economy or employment. In response, Tregenna (2008) analysed the linkages between services and manufacturing

in South Africa. She asked whether the growth in services employment was really a reflection of outsourcing, whether services can generate demand for manufacturing or whether manufacturing is the only engine of growth. She found that there had been real growth in services such as security guards, cleaners, clerks, and service and sales workers, that was not simply the result of a reallocation of workers from manufacturing to service employers. Furthermore, she studied the extent to which manufacturing relies on purchases of services sectors: this would show whether services generate demand and therefore stimulate manufacturing.

Firstly, she looked at 'upstream linkages', finding that 29 per cent of intermediate inputs into services came from manufacturing in 2003, while 15 per cent of intermediate inputs into manufacturing came from services. Twenty-eight per cent of the manufacturing goods that are intermediate inputs go to services.

Secondly, she looked at 'downstream linkages'. Here she found that 17 per cent of services products that are intermediate inputs go to manufacturing and 16 per cent of all manufacturing output makes up intermediate inputs into services. Ten per cent of all services output goes as intermediate inputs into manufacturing.⁸ This shows that the manufacturing and service sectors generate demand for each other.

The employment scenarios research shows that no intervention or sector will singularly resolve unemployment. This point is made in answer to periodic expressions of hope that one or other intervention might create 'a million jobs'. Examples of such references have been made to the potential of tourism, biofuels and information and communication technology. There is also much expectation that construction will create many jobs on the back of large-scale government infrastructure investment. Green jobs have also been identified as a major job creator. A series of industry case studies were prepared to provide a stronger evidence base for expectations of direct and indirect employment creation. For example, industries assessed for their job creation potential included, among others, civil construction, tourism, metered taxis in urban areas and recycling (see Lowitt 2006, 2007a-c, 2008). The Industrial Development Corporation did a similar exercise to review the potential for 'green jobs' (IDC 2011). Altman (2012) reviews the potential for employment in Information Technology (IT)-enabled services.

These studies showed potential direct employment creation in the range of 20 000-250 000 in any one of these sectors. Altman (2012) and Lowitt (2012) propose that IT-enabled services could offer more potential for direct employment creation if the country strategy were better placed to leverage global offshore business.

In our research and policy engagements there was a sense of disappointment in coming to such limited conclusions. However, this mindset needs to change. Employment will arise as a result of deeper linkages in the South African economy and will expand as an organic process of one thing leading to another. The diversity of the South African economy is a strength.

While sector interventions will be important, a recognition that employment is likely to arise from many different, perhaps as yet unknown, activities heightens the importance of improving the general business environment. Economic policy may have more impact on employment if efforts are primarily concentrated on reducing the risk of investing in newer activities.

For example, government has committed itself to reducing volatility in exchange rates, ensuring that the country is competitive, and improving the price and quality of utilities and network industries. These will be critically important to supporting labour-absorbing traded goods and services.

Some of the other levers available to government that will become increasingly important in the promotion of newer industries include encouraging and facilitating skills acquisition, easing the movement of people in and out of South Africa, providing more supportive R&D incentives for services industries, and placing more emphasis on services trade arrangements enabling market access.

New business entry and expansion

Small growing businesses are an important source of new employment in most countries. However, many factors in the South African economy favour large firms over small ones and hinder growth from small to medium size. In a context of high unemployment there are questions as to why the informal sector is small, accounting for about 20 per cent of the workforce. Most employment growth in South Africa – about 70 per cent – has been found in formal registered businesses. Informal employment tends to grow in tandem with the formal sector, rather than as a fallback security net. For example, during the economic downturn both formal and informal sector jobs were lost between 2008 and 2010 (Stats SA 2008, 2009, 2010).

There are four potential reasons why the informal sector and the small business sector might be small. These include the following:

Barriers to entry and accumulation. Barriers might be caused by lack of access to capital or skills, high crime rates, or lack of entrepreneurial skills; there are also barriers associated with market structure.

South Africa's capital-intensive structure of production and services that penetrates deep into all markets, providing consumers with attractions such as lower unit prices, branding and credit. Informal sellers depend on these firms for their inputs and must find special niches such as selling in smaller quantities. There are few production linkages in the informal economy: most informal retailers repackage goods bought from the formal sector.

The fact that the benefits of business registration and compliance outweigh those of informality. In many middle-income countries a good portion of the informal sector is similar to the formal one, but simply evades regulations. In South Africa, tax rates

are relatively low, there are flexible forms of registration and taxation, and urban regulations may make it relatively more difficult to operate as an informal entity.

When unemployment is demand deficient (and not completely structural). However, a stimulus would not necessarily encourage consumers to purchase from informal or formal small firms.

Much more convincing interventions will be needed to stimulate greater productivity in market-oriented, essentially non-traded services, such as taxis, retail, hairdressing, micro and small-scale agriculture, personal services and business services. Their expansion is constrained not only by internal constraints such as skills or finance, but also by market concentration. Little is known about how the more marginalised parts of sectors grow relative to their larger counterparts. For example, how might informal retail grow as shopping malls penetrate the townships? A critical question posed by the employment scenarios programme was whether the informal sector is constrained by lack of skills or lack of buyer interest. If consumers had more cash, would they use it in stores that often provide lower prices and credit, or would they spend more on niches provided by the informal sector (Valodia et al. 2007)?

The role of government in direct job creation

Even at relatively high rates of economic growth, the commitment to halving unemployment will require substantial direct job creation by government. The higher the rate of growth, the more the public service can expand; the lower the rate of growth, the more government will have to devote resources to public works schemes. The South African government has not yet taken up this role in a way that has a marked impact on activity rates or poverty alleviation.

The public service

The public service can play an important role in job creation and in underpinning low-skilled wages. In South Africa, the public service has also been important as a first recruiter of African graduates. The public sector should be no specific size. Some less-developed economies may have a larger civil service that is an important source of formal employment – almost akin to a social insurance policy in countries that lack sufficient sources of stable employment (see Rodrik 2000). In some countries it is used as a way of absorbing graduates and reducing social tensions. The figures vary depending on the source, but it could be said that the public services in Latin America and East Asia respectively account for about 14 per cent and 11 per cent of the labour force. These figures are much higher when taken in proportion to the non-agricultural labour force, rising to 18 per cent and 20 per cent, respectively. On average, industrialised countries have higher proportions of their labour force employed in the public service (about 17 per cent) (Marinakakis 1994; Rodrik 2000). The public services in economies such as Sweden or Norway that have strong welfare states employ a large proportion (more than 30 per cent) of the formal workforce

(Hammouya 1999), and at some points in time this has been an explicit or implicit part of their method of dealing with unemployment.

South Africa's public service is smaller: it employs about 9 per cent of the labour force and about 10 per cent of the non-agricultural labour force, and accounts for about 18 per cent of formal employment. In South Africa, public employment contracted in the 1990s (it was equal to 15 per cent of the labour force in 1995), was stagnant in the 2000s and began expanding from 2006.

The choice to expand public employment is a purely administrative or political one. From a budgeting perspective only, it involves decisions about the proportion of the budget to be spent on personnel, and the way this spending will be allocated between salaries and new hires (Hassen & Altman 2010). In South Africa, there was an intention for expenditure on public personnel to rise 25 per cent faster than the rate of GDP to 2014 and then stabilise (Altman 2009). Over the period 2006–2010 the public service expanded by approximately 50 000–60 000 new jobs per annum. A considerable portion of the budget intended for new hires was allocated to salary adjustments through bargaining processes that were delinked from the budget process.

The number of new personnel to be hired then depends on the skill intensity or composition of potential employees. Hiring in the South African public service has mostly been done in the higher grades and is skill intensive. In recent years the emphasis has shifted from hiring into the bureaucracy to employing front-line professionals such as teachers, doctors and police who are vital for service delivery. However, the public service is not playing a significant role in drawing in lower-skilled young people. Of the 1.2 million public servants, only 60 000 are found in the lower two grades (out of a total of 16). In a context of high unemployment, it is critical that the public service play a labour market role in providing first work experiences.

Relatively high remuneration is one of the reasons for few hires in the lower grades. In 2010 the lowest rank of the bottom grade (Grade 1) started at R45 000 per annum, or close to R90 000 per annum with benefits. Low-skilled workers such as cleaners or porters fall into Grades 1 and 2. Their pay without benefits would be approximately three times that earned in the market. The public sector determination is meant to improve equity and reduce working poverty. However, the practical effect is that work is outsourced to the market and marginalised workers are not given the opportunity to enter the public service with attendant benefits.

The public service should play a role as first employer in the context of high youth unemployment; it has not done so for the past decade. Hassen and Altman (2010) have made a number of recommendations that were put forward by the Department of Public Service and Administration in its 2010 Public Sector Summit. These include the introduction of a new entry-level grade at a rate of pay between Grade 1 and a market rate, and the introduction of an internship or learnership programme and a transitional jobs programme that offers school leavers a 12-month work experience. These programmes would aim at expanding the numbers in the public service by 10 per cent in any one year.

Special employment programmes

No matter how successful employment policy is, it is certain that severe unemployment and underemployment will persist in South Africa. The problem has simply become too big for market-based solutions to solve within the next 10–20 years. The problem includes both severe unemployment and very low levels of remuneration from market-based employment.

The HSRC's employment scenarios, before and after the global economic crisis, show the need for a more convincing expansion of special employment programmes and propose a minimum target of 1.5 million opportunities annually by 2014 (pre-crisis estimate) and of 2.0 million (post-crisis) by the same year (see Altman 2007, 2009; NPC 2011). The Department of Public Works adopted the pre-crisis targets in its revised programmes and embarked on a path of experimentation to explore ways of expanding the employment numbers reached.

The emphasis in public works programmes tends to be on construction activity, which is the most traditional approach. However, the HSRC's review of opportunity across the various programmes showed that community-based services such as early childhood development or home community care were likely to offer the greatest opportunity for job creation as a result of service delivery gaps (Altman & Woolard 2006).

By 2010/2011 it was estimated that the full range of special employment programmes may have reached about 605 474 people, or 230 000 full-time-equivalent opportunities (DPW 2012). This reaches about 4 per cent of the more than 6 million broadly unemployed. This programme is useful to participants, but cannot yet be seen as an employer of last resort. The NDP proposes that 50 per cent of the unemployed ultimately be reached by some kind of special employment programme.

The expansion of special employment programmes is an administrative decision. As such, the extent of unemployment is closely related to the state's intention to allocate sufficient resources to employing members of the population who are unable to find opportunities in the market. The main questions include: How much budget will be allocated to these activities? How much should be spent on these services? What are the positive and negative labour market effects? Is there a willingness to invest deeply in administrative capability in localities or community-based organisations to enable the required reach? These are highly pertinent questions in the context of extremely high unemployment rates. Meaningfully absorbing marginalised work seekers through special employment programmes in the South African context would cost a significant amount. Such programmes have more chance of success in that they are directly created, but are less sustainable than other kinds of investments, for example in micro-enterprises.

There is a growing commitment to special employment programmes through the EPWP and related projects. In Phase 1, from 2004/2005 to 2008/2009, the EPWP's main focus was on intensifying labour use in a very large public civil works

programme. After many years of contracting public infrastructure investment, the government committed itself to substantially increasing it. An innovation was to then build on these pre-existing commitments, which required companies that were awarded contracts to adopt labour-intensive methods where appropriate. In addition, new lines of activity were introduced that recognised the role of community-based social services, environmental services and economic projects. EPWP I exceeded its target of achieving a million work opportunities (DPW 2012). The target was cumulative over five years and low relative to the numbers of unemployed people: a million work opportunities equate to an average of 200 000 opportunities created annually. The evaluations showed that EPWP I created very short-term opportunities with falling wages paid per opportunity (Altman & Hemson 2008). The evaluations also called into question the highly complex set of objectives, such as training, that were largely not achieved. Moreover, participants could have only limited access to the opportunities created, with the idea that they were then meant to find work, known as 'exit opportunities'.

A new Expanded Public Works Programme (EPWP II) was introduced in 2009. This programme kept to the objective of intensifying the use of labour on infrastructure projects. However, the overall approach was to simplify the objectives of the programme and to decentralise decisionmaking. EPWP II targets were increased to reach 2 million opportunities per annum by 2014. The HSRC employment scenarios had identified 1.5 million opportunities annually as a minimum target that should be set, and the Department of Public Works initially adopted the rationale that was proposed. The target was then further increased after the economic downturn. This was a watershed, as previously there was policy acceptance of the lower numbers that had been reached for many years previously, that is, generally less than 400 000 very short-term opportunities reached in any one year. The new targets would translate into 4.5 million work opportunities averaging 100 days per opportunity over five years to 2013/2014. These bolder targets required bigger budgets and institutional innovations that would enable more rapid expansion on a sustainable basis. In the new programme the structural character of South African unemployment was recognised and participants would now be allowed to access more than one opportunity consecutively.

Simplification and programme decentralisation are central innovations in the new programme. In the Community Works Programme (CWP), communities identify useful work priorities and a thousand participants are employed per site. An approach to local facilitation fosters local leadership and collective agency. The CWP rapidly scaled up from a pilot to reaching almost 90 000 people (or almost 24 000 full-time-equivalent jobs) by 2011 (DPW 2012). The municipal and non-state sector employment incentives enable decentralised employment in local and non-profit organisation activities. Municipalities that reach their employment targets in public works projects are able to apply for an employment incentive. The 'non-state sector employment incentive' is targeted at non-profit organisations that can apply to cover labour costs on an annual basis at EPWP wage rates (approximately

R60/day in 2011). These community-based services, such as home-based care and early childhood development for children under age five, have the greatest potential for growth, although this has not yet been realised (Altman & Woolard 2006). The first step has, however, been taken in the realisation of this potential, whereby targets have been raised from a current 20 000 to 400 000 opportunities by 2014. This is an area of opportunity that was first mooted in the 1998 Presidential Jobs Summit as ‘care of dependents’, but which has only recently attracted resources and deeper commitment. The challenge is to identify appropriate institutional models that enable a bureaucratic state to channel resources into a highly marginalised non-profit sector.

The need for substantial special interventions

The HSRC employment scenarios are built on South African and global experience. We reflect on how fast a middle-income country might grow and on trajectories for employment creation in our context, but also on the trajectories of all high-growth economies. Very few middle-income countries achieve an average GDP growth rate above 4 per cent per annum. This does not mean it cannot be achieved in South Africa, but that it will require special commitment. Most successful fast-growing economies have not had a pre-existing challenge of high unemployment. Most Asian countries, and others like Brazil, have strong agricultural foundations with a relatively large part of the labour force still earning their livings from farming. Special commitment will be needed to improve the functioning of markets through infrastructure, education, healthcare, and the strengthening of urban functionality and foreign market access, among other things. Special interventions will still be needed to stimulate smaller producers and provide special public employment programmes. For example, achieving scenario 2 would mean that South Africa would have to achieve an average growth rate of about 5 per cent per annum over the 20-year period. Even then, 2.6 million special employment programme opportunities would be needed in any one year if there were no other special interventions.

This will be a particular concern for youth. Table 6.5 shows the employment scenarios by age group. Should the economy grow by 5 per cent per annum, the unemployment rate for 15–24-year-olds would likely be 44 per cent by 2020 and 31 per cent by 2030. For 25–36-year-olds the unemployment rate would potentially be 26 per cent and 19 per cent for these years. This is due to the probability of employers hiring older, more mature staff first. Smaller, more educated groups of youth would also benefit.

Some examples of special interventions could include the following:

- Micro-agriculture should be stimulated. Almost 2 million people are already employed in this sector, many currently under age 30.
- The education system expects to absorb more youth. If a million more young people stayed in school or pursued post-school education, this would add to the human capital base and reduce pressure on the labour market.

- If labour market matching functioned more effectively, thus improving information, access to public transport or job readiness, it would help to deepen employment absorption at any rate of growth.
- Small business should be stimulated through intensified local procurement by the private and public sectors.

Table 6.5 *Employment scenarios by age*

		Baseline		Scenario 2		Scenario 3	
Average GDP growth		3.3%		5.0%		6.4%	
2010		2020	2030	2020	2030	2020	2030
Employment (million)							
15–24	1.27	1.55	1.98	1.65	2.15	1.89	2.38
25–34	4.38	5.34	6.84	5.44	7.10	6.62	8.33
35–64	7.48	9.12	11.68	9.39	12.26	10.40	13.09
Total	13.13	16.01	20.50	16.48	21	18.91	23.80
Unemployment rate (%)							
15–24	49.4	54.0	38.0	44.0	31.0	28.0	12.0
25–34	28.4	32.4	22.8	26.4	18.6	16.8	7.2
35–64	13.4	13.5	9.5	11.0	7.8	7.0	3.0
Total	24.0	27.0	19.0	22.0	15.5	14.0	6.0

Source: Scenarios prepared by the author for NPC (2011)

Note: These scenarios are calculated based on the relative probability of being employed in each age group between 1998 and 2008.

Employment and poverty

South Africa has both high open unemployment and low incomes for a large proportion of those who are in work. An employment policy will have to consider both employment creation and sustained poverty reduction, as they do not necessarily go hand in hand. There are two complementary ways of ensuring that the benefits of growth are broadly shared: through the composition of industrial growth and through the way in which private and social incomes are distributed. More specifically, this requires some combination of:

- expanded employment opportunities;
- a composition of employment that enables rising real wages; and
- expanding national wealth that is shared more equitably through wages and fiscal distribution systems.

Employment, remuneration and wage inequality

The composition of employment matters a great deal. High-productivity (usually traded) sectors tend to pay more than low-productivity sectors, even for the same skill or occupation. As an example, a cleaner in a shop will likely earn less than one in

an automobile factory. The more people that work in higher-paying traded sectors, the more households will be able to depend on wage income for their livelihoods. The challenge is that it is more difficult to create employment in traded sectors because of rising productivity.

The employment scenarios linked sector outcomes and wage earnings. This involved identifying the proportion of formal sector employees in each sector earning less than R1 000 per month, R1 000–2 499 per month and more than R2 500 per month in 2004, using data from the September LFS (see Valodia et al. 2005). The comparison was made to 2004 because this was the base year against which the government objective of halving unemployment was being measured.

Table 6.6 shows what formal sector workers earned in each sector. There was substantial variation in earnings, with domestically oriented sectors tending to have a higher proportion of low-earning workers. For example, almost all workers in private households and agriculture, and more than half of construction and retail workers, earned less than R1 000 per month. Community, social and personal services have a large government component, so 69 per cent of workers earned more than R2 500 per month. More than half of mining, finance and transport workers earned more than R2 500 per month, while more than half of manufacturing workers earned less than R2 500 per month.

Table 6.7 shows the calculations that were prepared comparing the wage distribution in 2004 to possible outcomes by 2020 and 2030. They were initially prepared for the HSRC scenarios and revised for the NDP. For simplicity, it is assumed that wages are stagnant in all groups. The aim was simply to identify what proportion of workers would likely fall into these three groups based on the respective growth of the different sectors in different scenarios. While Table 6.6 shows the distribution of formal wages, Table 6.7 includes informal workers and those in public employment schemes, all of whom would fall into the lowest

Table 6.6 *Distribution of formal sector workers by sector and monthly remuneration, 2004 (percentage)*

	Less than R1 000	R1 000–2 499	R2 500+
Agriculture, hunting, forestry & fishing	85.2	4.7	10.1
Mining & quarrying	10.1	32.6	57.4
Manufacturing	35.6	21.9	42.4
Financial intermediation, insurance, real estate & business	29.4	15.9	54.7
Wholesale & retail trade	56.0	17.3	26.7
Construction	58.0	22.2	19.8
Community, social & personal services	20.4	10.7	68.9
Private households	95.7	3.4	0.9
Transport, storage & communications	28.3	16.7	55.1

Source: Stats SA (2004)

Note: Rows may not add up to 100% due to rounding.

Table 6.7 Earning distribution and inequality in the three scenarios (percentage)

Earnings per month	2004	2020			2030		
		Scenario 1	Scenario 2	Scenario 3	Scenario 1	Scenario 2	Scenario 3
<R1 000	47.9	56.4	54.2	50.8	59.9	54.2	47.9
R1 000–2 500	17.9	15.1	15.9	17.0	13.8	15.6	17.4
>R2 500	34.0	28.6	30.0	32.3	26.6	30.4	34.8
Unemployment	25.6	13.0	13.0	13.0	6.5	6.5	6.5
Unemployment without additional EPWPs	27.8	28.5	25.3	20.4	29.4	20.6	11.4

Source: Figures for 2004 calculated from Table 6.4, sourced from Stats SA (2004)

earning category. This group is proportionately larger when the market does not expand as needed, because it is assumed that government aims to achieve its targets and would create sufficient public employment scheme opportunities to make up for the shortfall.

In 2004, 48 per cent of all working people earned less than R1 000 per month and 34 per cent earned more than R2 500 per month. In scenario 1 more people are working, but the rates of unemployment and wage inequality are higher. About half of the opportunities created are found in special employment programmes. In scenario 2 the unemployment rate falls, but wage inequality is higher. It is only in scenario 3 that wage inequality remains the same as in 2004. In this case there is a substantial expansion in dynamic traded sectors such as manufacturing or finance, successfully stimulating domestic linkages. The proportion of people working in domestically oriented sectors such as retail is greater in scenarios 1 and 2 than in scenario 3 (NPC 2012).

These scenarios understate the potential implications for rising wage inequality. As shown earlier in this chapter, remuneration tends to rise faster in sectors that benefit from productivity growth. So real wage growth over the long run tends to be faster in manufacturing or finance than in retail or hospitality. It is to be expected that those in the upper earning group will benefit disproportionately from wage increases, while those in the lowest group will experience slower real improvements.

The link to household incomes

With high dependency ratios in low-income households, the majority of working people live near or below the poverty line.

In a context of low household incomes, community-based safety nets are essential. For example, the success in reducing poverty in south-east Asia and China is related to land tenure systems and agrarian reforms as rural safety nets (Campos & Root 1996).

In South Africa, social grants offer the most important safety net for families with children or pensioners. However, the income from such grants is small relative to the shortfall to the poverty line.

In 2005, 60 per cent of the workforce earned about R1 000 a month or less.⁹ Social grants add a further R1 000 to the average low-income household, while about four people depend on one wage earner. Let's say on average poor households are 30 per cent larger than the average, so that five people depend on one wage earner. Therefore, with the grants, average income per person would have been about R366 per month in 2010 (in 2005 rand value) (confirmed in Jehoma interview). This is well below the poverty line proposed by Statistics South Africa.

If the employment objective were reached by 2030, about 2.5 people would depend on one wage earner, while in poor families this might be about 3.25 people. With the expected sources of job creation and the effort to expand jobs at the lower end, it is possible that real wages would not rise substantially. Say the average was still R1 000 in 2005 rand value and the value of the social grants was also the same in real terms. Then the average person in a low-income family would live on R564 per month in 2030. This would mean that about 60 per cent of households would still be near the poverty line. What if real wages doubled over the 20-year period? Then this person would live on R820 per month. Some would say that this is the point at which households just begin to achieve 'traction'. This reflects a possible future for 60 per cent of the working population, even if full employment is reached, which falls far from the intended meaning of this objective.

In a context of expanding services employment and needing to expand low-skill employment in large numbers, it is possible that real wages for low-skill and semi-skilled workers will not rise substantially. Earnings for professionals will also likely tighten as supply increases and there is more competition at the high end. This will result in working poverty for as long as the cost of living is high relative to incomes.

When we embarked on the employment scenarios, our starting hypothesis was that halving employment might also make a major contribution to halving poverty. However, the review of wage levels relative to the cost of living made us realise that the contribution of employment creation could be less than previously thought. The state has an essential role in ensuring the achievement of a social floor, as part of its economic development strategy. It is clear that private incomes will not be enough to ensure meaningful and sustainable economic participation otherwise. A successful development trajectory involves building up the country's population, and this is not possible when lives are so precarious. The social floor involves deepening the contribution of the social wage to the system of social protection, improved delivery of education and health services, improved access (especially by young mothers) to social services, a lower cost of living and lower costs of wage goods. The net effect would be to reduce the poverty line and to improve access to services that enable human capital development and class mobility.

Conclusion

The challenge of high unemployment and working poverty can seem intractable. This chapter has reviewed some insights from the HSRC's employment scenarios aimed at supporting evidence-based employment policy.

There is a perception among the public that economic growth has not stimulated employment. This view is not based on fact. There has been a very close relationship, especially from 1998 to 2008, but the backlog of unemployed is so large that only a small proportion of households would have felt this improvement. Economic growth and job creation will have to be sustained for many years to achieve meaningful economic participation.

Between 2001 and 2008 three-quarters of all new jobs were created in the services sector, especially retail, finance and business services, and community, social and personal services. Construction also contributed more than 17 per cent to new employment. Manufacturing created 339 000 jobs and its share of formal employment fell from 15.4 per cent to 14 per cent. The informal sector has played a small role, contributing 10 per cent to job creation. Jobs were lost in agriculture and mining; the latter was surprising in the context of a global commodity boom. Most young people under the age of 34 find jobs in services. All new manufacturing jobs go to those over 35.

It is generally thought that jobs are mainly being created for high-skilled workers. However, the evidence shows that both high-skilled and low-skilled jobs were created. Jobs were created for middle-tier workers, but their share of the workforce fell. Wage inequality and widespread working poverty are central concerns. In 2010, 50 per cent of working people earned less than R2 800 per month, and for African people this figure was R2 167 per month. Protections and minimum wage rates are set for vulnerable workers, but their enforcement is weak. With dependency ratios of between four and six, at least half of working people are in households that fall below the poverty line. Working poverty could be addressed through higher wages, more widespread employment and/or reducing the cost of living.

The HSRC employment scenarios were established to bring key decisionmakers and stakeholders together to reflect on a path to full employment. The process began by identifying a common goal, developing evidence-based understandings of causes and solutions, and determining the assignment of roles. An important challenge involves stepping out of one's immediate environment and contextualising oneself within a global one. Some of South Africa's challenges are common to similar countries. For example, the country most certainly suffers from a 'resource curse' and finds it difficult to break out of its dependency on minerals exports into higher-value goods and services exports. The fact that most jobs have been created in services is common to most other countries. It is unlikely that manufacturing will ever be the most important source of employment growth, although it may help

to drive growth and linkages into other sectors. Middle-income countries become trapped in low growth if they do not invest in product development. They are not successful at competing on the basis of factor costs such as labour.

The chapter outlines the potential contribution of the various main sectors, from resources, to manufacturing, to services. We found that no one sector should be made a fetish. Instead, emphasis should be placed on strengthening contributors to economy-wide productivity improvements that stimulate employment. These help to create a platform for widespread activity and linkages. Examples include energy, water, transport and education. At this point in South Africa's development, improvements in these services can contribute to raising productivity across the economy and reduce the domestic cost of production. This in turn makes labour (as a complement in the production process) more competitive.

Even under the best conditions there will be a shortfall in market-based employment and the state will have to step in to generate special employment. At a minimum, 2 million opportunities will be needed in public works programmes should other large-scale interventions not be pursued. However, market-based solutions are more sustainable, such as micro-scale agriculture.

Wage inequality and working poverty will be a central concern in the future, especially as it is probable that large numbers of jobs will be created in low-skilled domestically oriented services. Government will need to commit to ensuring that a social floor is achieved. In part, this should be aimed at reducing the cost of living for items such as food, transport, housing, education and healthcare.

There is an overarching critical concern for the state of the nation. Persistent poverty and inequality could undermine long-run policymaking aimed at economic stimulation. Campos and Root (1996) argue that more equitable income distribution enables the social stability essential for implementing economic policy that is supportive of long-term development. Otherwise, the popular emphasis is on distributional programmes at the cost of economic development. Currently, social grants are a central contributor to reducing the deepest poverty. These play an essential role; however, a sustainable path will require the activation of the population into productive activity.

Interview

Selwyn Jehoma, deputy director-general, Social Security, Department of Social Development, Pretoria, by telephone, 5 March 2012

Notes

- 1 The most realistic employment figures can be found from 2001 when the Statistics South Africa Labour Force Survey (LFS) was introduced and regularised. A labour force and household survey was introduced in 1995, made possible as a result of the first ever comprehensive population census. First there was the October Household Survey (OHS) that

ran from 1995 to 1999. The biannual LFS ran from 2000 to 2007, and the Quarterly Labour Force Survey was introduced in 2008. Figure 6.1 shows a break in the measure of broad unemployment between 2007 and 2008 when the measurement changed. While a trend in employment is represented in Figure 6.1, the reader is reminded that effectively there were breaks in 2000 and 2008. The break from 1999 to 2000 was the more important one, as the LFS had not been adjusted to match up with the OHS data.

- 2 Strict unemployment is measured in terms of those people who say they are looking for work, as a percentage of working-age people who say they are looking plus those who are working. It excludes people who are discouraged and also those who fall outside the labour market (such as students, the disabled or homemakers). The more meaningful measure is not the official one: this looks at the proportion of working-age people who are working or not working. This is a better measure of welfare and activity, especially when the labour market is volatile and transforming, as in South Africa.
- 3 In the 2004 *State of the Nation* there are two chapters, one by me and the other by Prof. Nicoli Natrass, that contradict each other for this reason.
- 4 Before this update the trends in the household and business surveys diverged. For example, in the household surveys it appeared that employment grew from 6.64 million to 7.03 million in 2000, whereas the SEE reflected a contraction from 5.2 million to 4.7 million over the same period. As a demonstration of the leap in firm survey figures, employment in banks, insurance, real estate and business services was reported to have risen from 193 000 to 1.23 million between 2001 and 2002. Employment in the wholesale and retail trade was reported to have risen from 885 000 to 1.298 million in the same years. Employment in community, social and personal services was reported to have risen from 1.4 million to 1.7 million in these years. These leaps were due to the revision of the business register.
- 5 These years are chosen because 2001 data are more comparable to later years than would be figures sourced from the OHS, 2008 marks the advent of the downturn, and the 4th quarter 2011 offers the most recent information.
- 6 The work of Borhat and Oosthuizen (2006) has shown rising skill intensity. This research compares 1995 to 2002, showing that the share of low-skilled workers declined by 3 per cent, from 31 per cent to 28 per cent, and the shares of semi-skilled and skilled workers both rose by 2 per cent. The two years compared are sourced from different data sets and are not comparable: 1995 data are from the OHS and 2002 are from the LFS. A shift of 2–3 per cent is not significant in this context. Earlier work showed a rising skills intensity between 1970 and 1995. Production methods are a central explanation for falling demand for low-skill workers (Bhorat & Hodge 2002). The majority of losses are accounted for by falling agricultural employment. The majority of gains were associated with expanded professional and clerical work. Rising skill intensity is to be expected in the process of development, especially over a 25–32-year period. The data may actually reveal that there has not been substantial skill intensification: instead, they may reflect a decline in agriculture, weak investment in production, and the emergence of services in the context of a slow-growing economy. The need to stimulate demand for low-skilled and semi-skilled occupations remains.
- 7 Highly skilled workers account for about 10 per cent of the workforce and 90 per cent have some post-secondary schooling. The term ‘skilled workers’ refers to technicians and

associate professionals, who account for about 18 per cent of the workforce. Semi-skilled workers include categories like clerks, service workers, skilled agricultural workers, craft and trade workers, plant and machine operators, and assemblers. They account for about half of the workforce. Unskilled workers in the formal sector account for about 22 per cent of the workforce and include ‘elementary occupations’ such as office cleaning.

- 8 Put another way, any good or service might be sold directly to the market, or may be bought as an intermediate input into the production or distribution process. ‘Upstream linkages’ refer to demand generated by goods or services for inputs: these are procured by goods or services producers. ‘Downstream linkages’ refer to the demand for the good or service in the next stage of production. The manufacturing sector depends on service industries to buy 28 per cent of its output destined for further processing. The services sector depends on manufacturing to purchase 10 per cent of its sales destined for further processing.
- 9 This is the amount given by the National Treasury. The LFS would say that about 59 per cent earned R2 500 or less, but this refers to the amount people report earning at the time they are asked, not what they earn through the year.

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