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Working Paper

Policy co-ordination and growth traps in a middle-income country setting: The case of South Africa

WIDER Working Paper, No. 2014/155

Provided in Cooperation with:

United Nations University (UNU), World Institute for Development Economics Research (WIDER)

Suggested Citation: Bhorat, Haroon; Cassim, Aalia; Hirsch, Alan (2014) : Policy co-ordination and growth traps in a middle-income country setting: The case of South Africa, WIDER Working Paper, No. 2014/155, ISBN 978-92-9230-876-6, The United Nations University World Institute for Development Economics Research (UNU-WIDER), Helsinki, <https://doi.org/10.35188/UNU-WIDER/2014/876-6>

This Version is available at:

<https://hdl.handle.net/10419/108005>

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WIDER Working Paper 2014/155

Policy co-ordination and growth traps in a middle-income country setting

The case of South Africa

Haroon Bhorat,^{*} Aalia Cassim,^{*} and Alan Hirsch^{*}

November 2014

Abstract: South Africa has exhibited tepid economic growth over the past twenty years as well as high levels of income inequality characteristic of a middle income country growth trap. This paper compares and contrasts South Africa's growth trap relative to middle-income peer economies. In addition, we study the policies and structures of the South African economy that have indeed perpetuated the persistently low levels of growth observed. In particular we consider the capital-intensive nature of manufacturing, regulation in the telecommunication and transport sector and the inadequacies of Black Economic Empowerment policies. The paper concludes discussing the welfare outcomes on the vast majority of South Africans who are unable to participate in the economy.

Keywords: South Africa, growth trap, middle income country, policy co-ordination, industrial policy

JEL classification: O10, O20, O25, O40

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This study has been prepared within the UNU-WIDER project 'Jobs, Poverty, and Structural Change in Africa' as part of a series of studies on 'The Practice of Industrial Policy – Lessons for Africa', directed by John Page and Finn Tarp and implemented in partnership with Korea International Cooperation Agency (KOICA).

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ISSN 1798-7237 ISBN 978-92-9230-876-6

Typescript prepared by Janis Vehmaan-Kreula at UNU-WIDER.

UNU-WIDER also acknowledges core financial support to UNU-WIDER's work programme from the governments of Denmark, Finland, Sweden, and the United Kingdom.

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1 Background

On a number of indicators and measures, South Africa's post-apartheid performance has been both a significant improvement on the past, as well as representing a noticeable Pareto-improvement in the welfare of its citizens. The economy witnessed the longest period of positive uninterrupted growth in real GDP since the 1960s. Welfare gains are apparent in access to social services, housing and infrastructure services, and in a significant reduction in extreme poverty.

Compared with many of its emerging market peers however, economic growth has been pedestrian. In addition, the impact of the global financial crisis was relatively more severe in employment terms, and the recovery thereafter has been slow and unsteady in absolute and comparative terms. In terms of poverty, inequality and unemployment the numbers are not encouraging. Using the national poverty line of US\$43 per month (in current prices), 47 per cent of South Africans remain poor. In 1994, this figure was 45.6 per cent. More jarring, South Africa's unemployment rate is an eye-watering 25.4 per cent, whilst the Gini coefficient at 0.69, renders the country one of the most unequal in the world (Bhorat and Tseng 2014).

2 South African economic overview

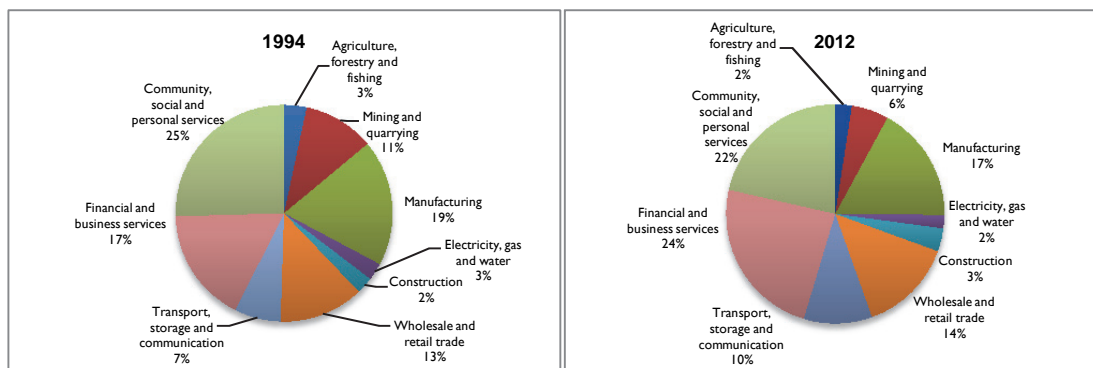
The South African economy grew at 3.2 per cent a year on average from 1994 to 2012. Potential growth is currently thought to be around 3.5 per cent, though it was estimated at around 4.5 per cent during the four-year period from 2004-07 when growth averaged around 5.5 per cent. Economic growth however, has mainly been driven by domestic demand and financed through a persistent current account deficit. The current account balance was close to zero around 2003 but has subsequently increased, and regularly hovered at around 6 per cent of GDP.

2.1 The structure of the economy and employment growth

In post-apartheid South Africa, economic growth has been uneven: In contrast to the relatively dynamic sectors, such as financial services, transport and communication, which grew annually at around 5 per cent between 2001 and 2012, sectors such as agriculture and manufacturing tended to grow slowly at around 2 per cent annually in the same period. In real terms, agricultural gross value added rose by 1.4 per cent a year from 1994 to 2012, manufacturing by 2.7 per cent a year, and general government services by 1.9 per cent a year. As a result, the financial sector's contribution to GDP was 5 percentage points higher than manufacturing in 2012. Furthermore, whilst primary sectors and manufacturing saw a decline in their GDP contribution in 2012, trade and transport were amongst the sectors that increased their share compared to 1994 (Figure 1).

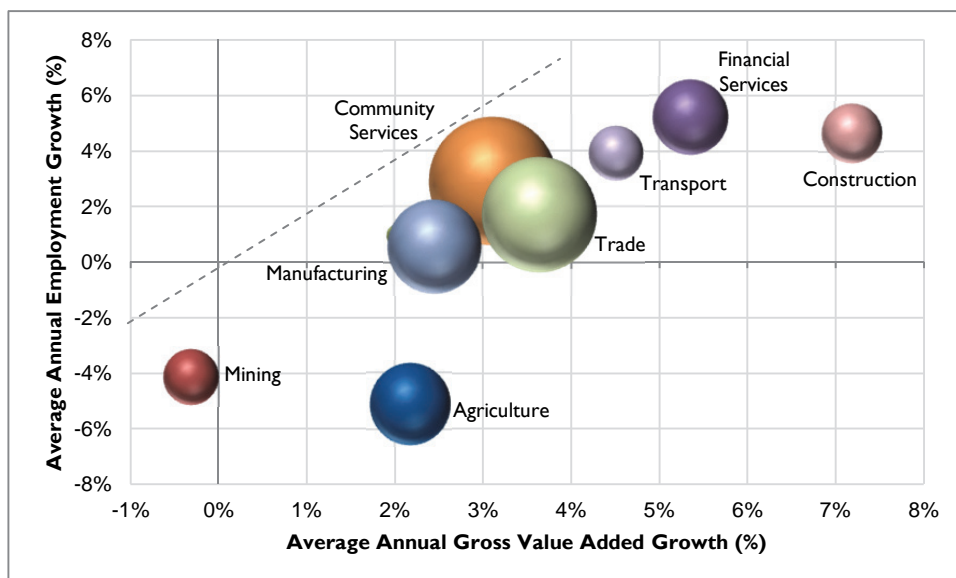
Figure 2 explores the interaction between GDP and employment growth by sector between 2001 and 2012. We expect that sectors in which there was positive output growth in the period would have been more likely to create jobs in the economy, while declining sectors would have shed jobs. Each of the bubbles in the figure represents a sector, while the size of the bubbles indicates the relative size of employment in that sector in the base year: 2001. The vertical axis measures average annual employment growth, while the horizontal axis shows the annual growth in gross value-added, both in percentage terms. Thus, the co-ordinates for the centre of each of the bubbles are the relevant sector's employment and gross value-added growth for the period. The 45 degree line divides the figure into two sections: Bubbles below the line show sectors in which employment growth was lower than gross value-added growth, while those above the line show sectors in which employment growth exceeded output growth.

Figure 1: Contribution to GDP by Industry¹ between 1994 and 2012



Source: South African Reserve Bank (2014).

Figure 2: Gross value-added and employment growth, by sector: 2001-2012



Source: South African Reserve Bank (2014) and StatsSA (LFS 2001 and QLFS 2012), authors' calculations.

Figure 2 firstly shows that the primary sectors of the economy fared particularly badly in the period between 2001 and 2012: Output growth was negative for mining (-0.3 per cent) and lowest among positive growth sectors for agriculture (2.2 per cent). Furthermore, these are the only two sectors that experienced a contraction in employment in the period, with employment growth in agriculture and mining falling by 5.1 per cent and 4.1 per cent, respectively. The discrepancy between output and employment was the highest in the two primary sectors.

¹ In this figure and the rest of the paper, we use shortened names for the sectors. The sectors' full names are as follows: Agriculture, Hunting, Forestry and Fishing; Mining and Quarrying; Manufacturing; Electricity, Gas and Water Supply; Construction; Wholesale and Retail Trade; Transport, Storage and Communication; Financial Intermediation, Insurance, Real Estate and Business Services; Community, Social and Personal Services; and Private Households, Extraterritorial Organizations, Representatives of Foreign Governments and other Activities not adequately defined.

For mining, employment decreases outstripped the decreases in growth. Poor performance of the mining sector can be attributed to a range of factors, including a strongly appreciating rand in the mid-2000s, infrastructural constraints (such as rail transport), the energy crisis in South Africa, and the application of new mining laws (OECD 2008), while damaging widespread strike action in the mining sector in 2010 and 2011 would have further exacerbated the problem.²

The tertiary sectors achieved relatively high output growth. Nonetheless, employment growth did not exceed output growth and only the finance and community services sectors experienced employment growth that was close to gross value-added growth. Specifically, gross value-added growth for the finance and community services sectors stood at 5.4 and 3.1 per cent for the period, while employment growth was 5.3 and 3.0 per cent, respectively. These two tertiary sectors thus experienced labour-neutral growth, while all other sectors saw output growth that was faster than employment growth.

Among the secondary sectors, output growth in construction was high, at 7.2 per cent, but employment growth in this sector was much lower at 4.7 per cent. The construction boom can be attributed to, among other factors, infrastructure projects related to the 2010 FIFA World Cup, the construction of the Gautrain rapid-rail system, and several other public and private sector investment initiatives including those undertaken by Eskom and Transnet (Hanival and Maia 2008). In contrast, neither the manufacturing nor utilities sectors saw a significant increase in employment over the period. The relatively poor employment results for manufacturing can, in part, be linked to the impact of the recession on the South African economy where the manufacturing sector, together with construction, experienced the largest job losses. Semi-skilled workers in particular, were negatively affected. Furthermore, informal sector workers were also particularly hard hit during the recession and accounted for a disproportionate share of jobs lost.

The structure of the economy has had very particular growth and employment outcomes. Estimates show that employment growth has been less responsive to changes in GDP; from the simple elasticities estimated below we find a 1 per cent increase in GDP results in a 0.69 per cent increase in employment. Whilst absolute employment growth has been significant, the elasticities in Table 1 confirm that certain sectors have been more responsive to employment creation than others. Sectors such as agriculture, manufacturing, and transport, have elasticities furthest away from 1, indicating lower capacity to create employment, unlike retail, finance and business, and community services, where elasticities are closer to or greater than 1, indicating higher levels of employment creation. Mining on the other hand, has an elasticity higher than 1; however this reflects the loss in both GDP and employment over the 1997 to 2012 period.

² We note that employment numbers for the mining industry from the household surveys (LFS and QLFS) are lower than numbers from firm-based data. Furthermore, the underestimation of employment within the mining and quarrying sector in the QLFS relative to the firm-based data is substantially larger than in the LFS compared to firm-based data. The QLFS thus seems less able to capture mining employment than the LFS.

Table 1: Simple employment elasticities, 1997- 2012

	Elasticities
Agriculture, forestry and fishing	0.37
Mining and quarrying	1.52
Manufacturing	0.22
Electricity, gas and water	-0.73
Construction	0.85
Wholesale and retail trade	0.90
Transport, storage and communication	0.42
Financial and business services	1.20
Community, social and personal services	1.30
All formal sector employees	0.76

Source: South African Reserve Bank (2014) and StatsSA (LFS 1997 and QLFS 2012), authors' calculations.

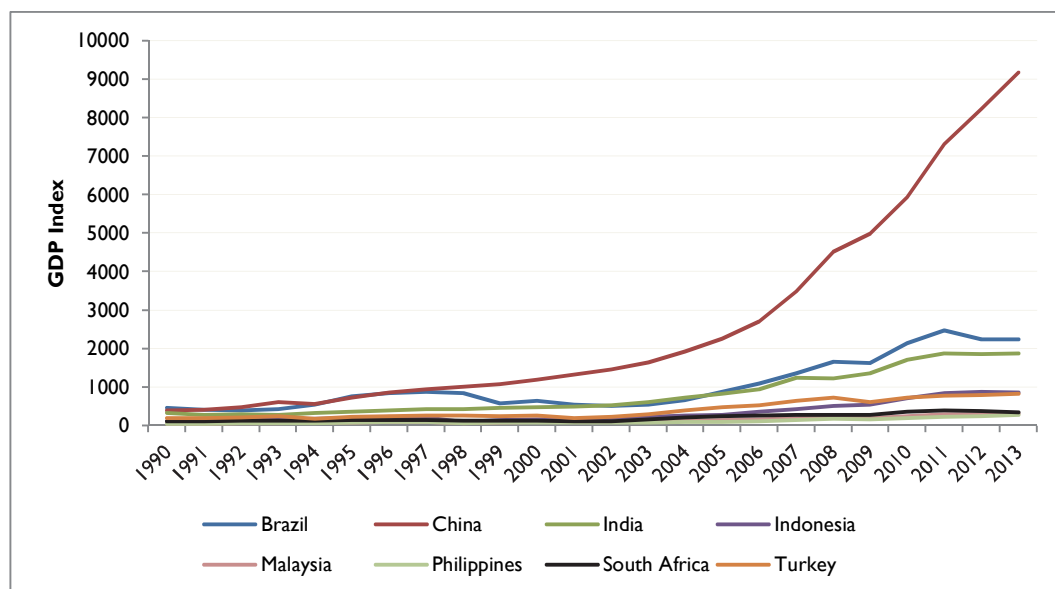
Post-apartheid South Africa has thus far delivered an economy characterized by an eroding primary sector and an un-dynamic and un-diverse manufacturing sector. In turn though, the modest growth levels since 1994 have been marked by a rise in financial and business services, and wholesale and retail trade. In short, this post-apartheid growth path has been built around South Africa's sophisticated and globally competitive financial sector and its consumer-driven domestic aggregate demand. Sustaining low levels of economic growth over the past decade has had a muted impact on employment, perpetuating high levels of unemployment and income inequality. Sustaining longer term growth which underpins employment and rising living standards would have to involve a far broader spectrum of the economy than the tertiary sector. The weakness of mining, agriculture, and in particular manufacturing, endangers the longer term ability of the South African economy to grow, generate employment and improve living standards (Rodrik 2013). In the next section, we hope to assess whether the outcomes of the structure of the economy are unique to South Africa, or are a broader middle-income country experience.

3 Middle-income country growth traps: The case of South Africa

Freed of the laws of apartheid for over 20 years now, the new South Africa has existed in a global era dominated by fast-growing emerging markets such as China and India. These economies have regularly recorded growth rates in excess of 6 per cent over a sustained number of years. South Africa, despite its membership of the G20 and the BRICS group of economies, remains mired in a cycle of low, single-digit GDP growth. This experience can be located within a broader phenomenon first described by Gill and Kharas (2008) and Kharas and Kohli (2011), as representative of a middle-income country growth trap (Figure 3).

In this literature, a variety of constraints on economic growth are identified as generating what is ultimately a growth trap—a cycle of low economic growth from which middle-income economies are unable to extricate themselves. Some of the features of this low growth trap will be assessed and described within the South African context. They include for example, an over-dependence on resource-based foreign exchange for export revenues and short-term growth; a capital intensive path of industrialization; a consumption—rather than investment-driven growth trajectory; reliance on state infrastructure for domestic growth, or simply a growth path built on sectors that are not employment-intensive.

Figure 3: GDP index, 1990-2013



Source: IMF Economic Outlook (2014).

3.1 The anatomy of a growth trap: A cross-country comparison

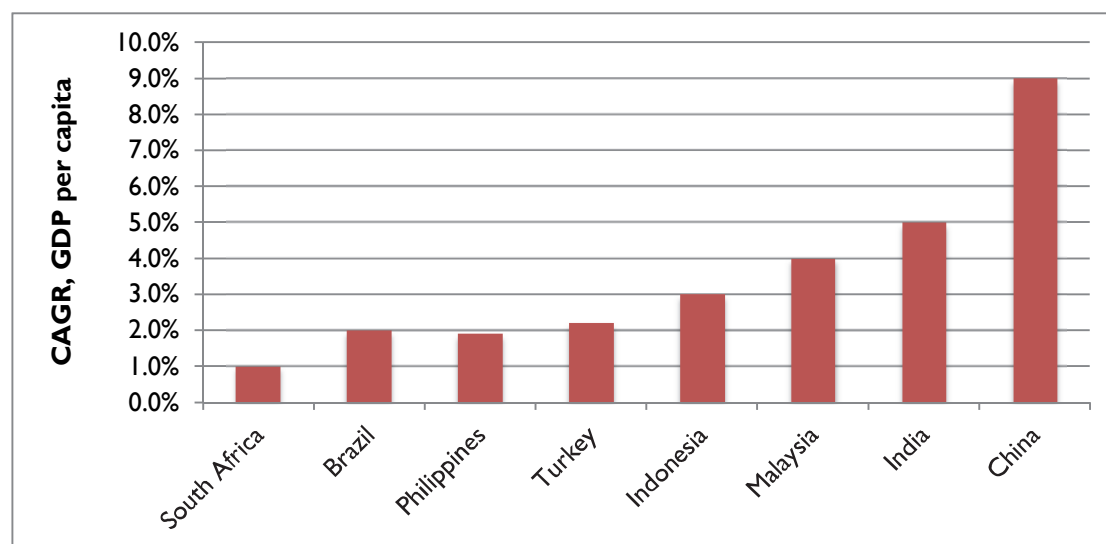
Whilst a number of countries have reached middle-income status since the 1950s, much fewer have achieved high-income status. Amongst those that have reached high-income status are Greece, Hong Kong SAR (China), Ireland, Israel, Japan, Portugal, the Republic of Korea, Singapore, Spain and Taiwan (Agénor et al. 2012). After a period of high economic growth, middle-income countries tend to fall into sustaining low levels of growth and productivity that characterize the middle-income growth trap.

Historically, a common trend for middle-income countries is that as imported technology is employed, labour is switched from low productivity to high productivity sectors, increasing growth gains resulting in a rise in per capita GDP. The technologies are usually employed in labour-intensive sectors, absorbing the pool of underemployed or unemployed labour. Productivity growth from technological catch-up is then exhausted, wages rise, and labour-intensive exports become more expensive and less competitive in international markets. At this point growth no longer occurs from shifting workers from a low productivity sector to a high productivity sector, such as from agriculture to manufacturing, and thus the gains for importing foreign technology diminish (Agénor et al. 2012; Eichengreen et al. 2011; World Bank 2011). Higher levels of growth then require exploitation of economies of scale through specialization and innovation allowing a country to move up the value chain and integrate into international trade of goods, money and ideas (Gill and Kharas 2008). Productivity slowdowns can be associated with difficulties in moving up the value chain, away from factor accumulation towards an innovation-driven growth path.

The middle-income country ‘growth trap’ is often illustrated by a cross-country comparison of GDP per capita over time. Many low income countries have moved up to middle-income country status by exploiting low labour costs. However, at some point, surplus labour is exhausted and wages start to increase (OECD 2014). Regulation, politics and firm structure are amongst the factors that essentially block innovations required to sustain economic growth or to develop a better-skilled labour force that can produce higher value-added products, taking labour on to a better wage (OECD 2014). China is a key example of an innovator that managed to

sustain high levels of growth and productivity, and as a result GDP per capita increased by 8 per cent annually between 1990 and 2013. Whilst not as high, India and Malaysia yielded annual GDP per capita growth of 5 and 4 per cent during the same period. Turkey, Brazil, and the Philippines on the other hand, yielded around 2 per cent annual increases of GDP per capita, whilst South Africa held the lowest increase in per capita GDP with a mere 1 per cent annual increase during the period (Figure 4).

Figure 4: Annual growth of GDP per capita between 1990 and 2013

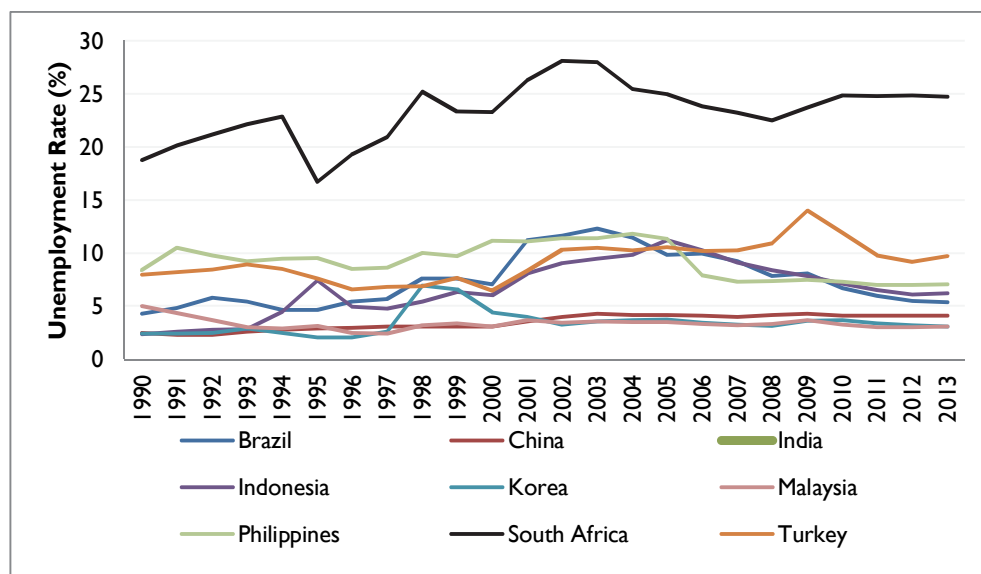


Source: IMF Economic Outlook 2014, authors' calculations.

Economies such as South Africa, Brazil, the Philippines and Turkey would be viewed tentatively as representing the sample of emerging markets, which over a period of 13 years have been unable to significantly increase per capita growth rates. This may represent the underpinnings of a growth trap in these emerging economies. The significantly lower growth path depicted for South Africa, even compared to other upper middle-income (UMI) countries that may be experiencing a growth trap, can in part, be explained by policies of the past. The apartheid government attempted to exploit cheap labour for mining and agriculture for far longer than it actually served as a productive engine of growth. These gains had already declined since the 1950s (Levy et al. 2014). The vast mass of the labour force was therefore not moved to higher productive sectors where they could be up-skilled. The entrenched racial politics of the time blocked the adjustment the economy needed for a better-educated and trained workforce, in the pursuit of higher growth levels.

Economic growth gains have therefore been insufficient to absorb the massive wave of new entrants into the labour market since the mid-1990s, resulting in unemployment rates persistently above 20 per cent (Figure 5). Structurally, the economy has grown in sectors such as the financial and services sector, demanding high skilled labour, whereas primary sector employment, generally geared toward lower skilled workers, has declined. Low-skilled work seekers, however, make up the large majority of the unemployed, whilst very few high skilled workers are unemployed.

Figure 5: Unemployment rate, 1990-2013



Source: IMF Economic Outlook (2014), authors' calculations.

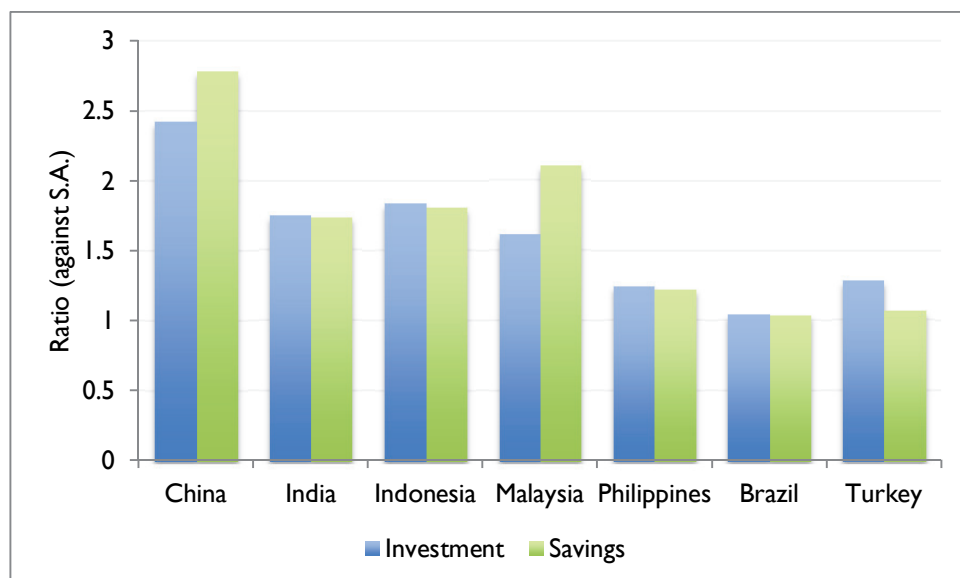
From the sample of upper middle-income countries above, even considering the 'growth trap' economies, South Africa's unemployment rate is extraordinarily high. This is even true amongst those economies that have experienced similarly low levels of growth and investment, such as Brazil and Turkey. Unlike these countries though, South Africa's informal sector is unusually small and is unable to absorb low-skilled workers, further exacerbating unemployment levels.

Investment, savings and economic growth

It is suggested that South Africa's relatively low fixed investment and savings rates are among the main factors holding back a growth take-off. Currently at just under 20 per cent, they are well below that of other emerging markets. Figure 6 presents a ratio of average investment and savings between 1990 and 2012 against South Africa. We find that countries experiencing consistently low levels of growth such as the Philippines, Brazil and Turkey had levels of investment and savings similar to South Africa. On the other hand, savings and investment in China, Malaysia, India and Indonesia have experienced average investment levels at least 1.5 times greater than South Africa.

Low investment rates are usually a result of low real returns to investment but evidence suggests that real returns to capital in South Africa are highly favourable (World Bank 2011). Real returns have averaged around 15 per cent between the 1994 and 2008 period whilst nominal returns were 22 per cent in the 2005-2008 period—which was the same as China, albeit over a longer period. Returns have been substantially higher than the prime lending rate, which is particularly surprising given the modest growth experienced by the South African economy. However, as returns were increasing, investment levels tapered off. It is possible then that domestic and foreign investors in South Africa may be inelastic with respect to the return on capital, but partially elastic to other factors such as perceived political risks, structural impediments and low national savings rates. Structural barriers include low levels of industrial competition because of concentrated industries with high barriers to entry; and volatile labour relations that are essentially a tax on investment and the scarcity of skills. The latter serve to raise the cost of doing business which may outweigh the high investment returns available in the South African market.

Figure 6: Ratio of investment and savings to South Africa

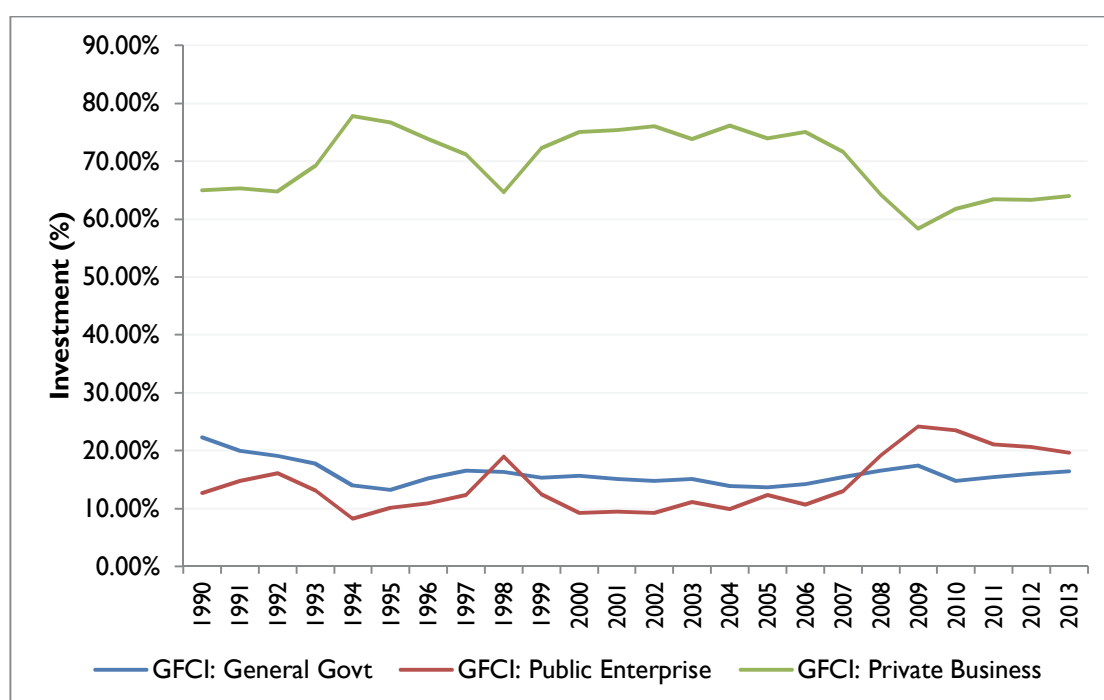


Notes: The average investment and savings (as a per cent of GDP) were calculated and a ratio was taken against South Africa.

Source: IMF Economic Outlook (2014), Authors' calculations.

Where investment has grown it has been driven by the private sector, whilst government and public enterprise expenditure tends to be fairly low. Private investment has made up between 65 and 75 per cent of total investment, and has been facilitated through large-scale capital expenditure projects in mining, platinum, automotive, chemical manufacturing, retail, real estate and tourism. It is worth noting that industries that attracted investment were invariably capital-intensive in nature, so reinforcing the economy's growth trajectory (Figure 7).

Figure 7: Gross-fixed capital investment trends in South Africa, 1990-2013 Q1

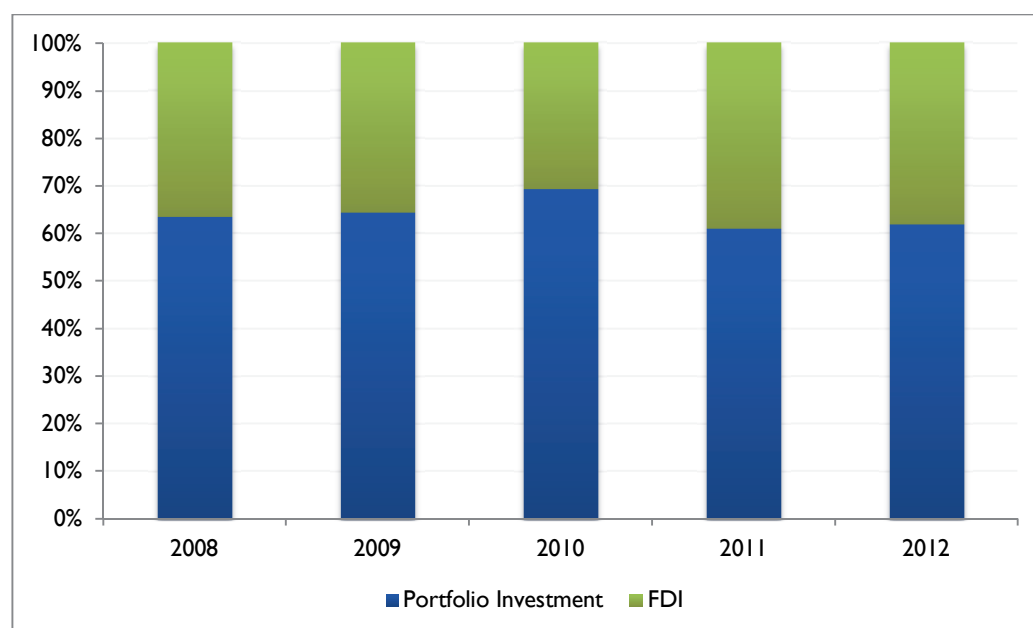


Source: South African Reserve Bank (2014), authors' calculations.

The national savings rate is arguably much lower than comparator economies because of the persistently high levels of youth unemployment (currently around 36 per cent), low levels of GDP growth, and low levels of public savings (World Bank 2011). In contrast, faster growing middle-income countries are generally characterized by higher levels of national savings as shown in Figure 6.

The low savings rate has meant that financing investment has necessitated a fairly large current account deficit. Financing of the deficit has largely been through portfolio investment instead of foreign direct investment (FDI), the latter of course being the more stable and consistent capital flow option for emerging markets. To put this into context, portfolio investment in South Africa has averaged around double the proportion of FDI annually (Figure 8).

Figure 8: Investment flows, 2008-12



Note: Whilst external investment flows may include other sources, we have just included FDI and Portfolio Investment for the purpose of this analysis.

Source: South African Reserve Bank (2014), authors' calculations.

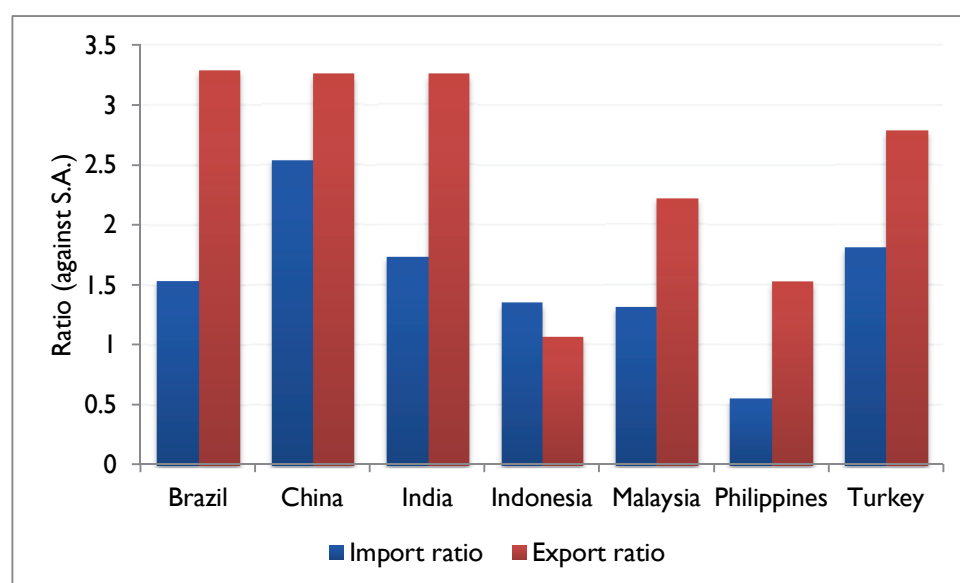
The dependence on short to medium term capital inflows tends to perpetuate dependence on the resource sector, processors of resources, and powerful, publically-quoted oligopolies in the services sector. The market power of these companies produces the generous margins that portfolio investors seek (Bhorat et al. 2013b).

Is South Africa competing in a global value chain?

Economists generally agree that a sufficient degree of trade openness is strongly associated with economic growth as well as per capita income growth (Krueger 1998), although the virtues of openness should not be overstated (Rodriguez and Rodrik 2001). We know that trade increases the technological capacity of a nation through transferring technological information, expanding the market, and thus spurring technological innovation (Grossman and Helpman 1991). Technological change and innovation are in turn fundamental to promoting economic growth, notwithstanding the role of trade in this (Nelson and Winter 1982).

The fastest growing emerging markets such as China and India have grown export capacity by 15 and 11 per cent per annum respectively for the 1990 to 2012 period. In contrast, Malaysia has grown at a slower rate and export capacity has grown at around 7 per cent per annum. The one reason for this outcome has been the fact that productivity has significantly declined since the beginning of the century and labour-intensive production and exports, including high technology exports,³ have not diversified much over the past two decades. Malaysia now faces competition from low-cost producers including China and India and more recently Cambodia and Vietnam. When contrasted with China and other growing Asian countries, this shows how not moving up the value chain toward innovation-based products and services results in a slowdown in growth, characterizing the ‘growth trap’ (UNIDO 2009). Whilst Malaysia may be considered to be less productive relative to faster growing Asian counterparts, exports are still twice that of South Africa, where exports grew by just 3.5 per cent per annum over the period (Figure 9).

Figure 9: Ratio of exports to South Africa, 1990-2012



Notes: The average exports and imports (as a per cent of GDP) for the 1990 to 2012 period were calculated and a ratio was taken against South Africa.

Source: IMF Economic Outlook (2014).

In an attempt to increase competitiveness and to reduce domestic oligopoly power, the South African government reduced tariffs in the late 1990s consistent with the Uruguay Round of the General Agreement on Tariffs and Trade (GATT). In theory, tariff reforms are associated with greater dynamism, particularly in manufacturing (Subramanian and Jonsson 2000). However, in the South African case the effects were limited as tariff reform was not continued into the 2000s due to labour market constraints, and the volatile exchange rate was not conducive to investment in export production (Bhorat et al. 2013b). Furthermore, increasing wages in the tradables sector resulted in employment contracting in labour-intensive industries such as clothing, textiles and footwear. As a result, the volume of exports in tradables declined, with the exception of the motor industry which operated (and continues to operate) under a

³ Whilst high technology exports make up a significant part of Malaysia's exports, growth of these exports remains at under 1 per cent per annum between 1993 and 2012. China's growth in high technology exports amounted to 7 per cent per annum within the same period.

strong incentive scheme. Export production and diversification have therefore been relatively weak compared with other UMIs.

Extensions to trade theory hold that international competitiveness is a function of micro-level innovations in technology and increasing technological sophistication (Dosi and Soete 1983). This suggests that the method of production and the basket of exported goods are critical to growth, development and international competitiveness (Gallagher et al. 2008).

A number of East Asian countries performed well in this respect, taking advantage of lower transport costs as well as international trade barriers (Agénor et al. 2012). Numerous East Asian countries increased production firstly through sectoral diversification and later on through further specialization when economies of scale were realized in certain sectors (Gill and Kharas 2008). The Asian region also benefits from regional integration that had been established to a lesser extent in Latin America and Africa. China, for example, is currently one of the single largest high technology exporters in the world, with average annual growth of 7 per cent between 1993 and 2012, as well as growing exports in high skilled services. Malaysia and the Philippines have, however, seen a decline in high technology exports as China becomes more competitive. By way of the contrast evident in export diversification into higher value products, Table 2 gives an indication of the ratio of UMI to South African exports in certain key industries. Amongst its middle-income peers, South Africa relies relatively more than others on exports of ores and metals, insurance, and financial services, but falls short in innovative or value-added exports.

In summary, after the advent of democracy in 1994, South Africa re-entered the global economy through a rapid process of trade liberalization. While imports and exports increased relatively sharply, South Africa lagged behind its emerging market peers who had better production methods and a more diversified basket of goods. Though sanctions had encouraged domestic diversification of production in South Africa, management, skill and technology levels were not comparable to developing country peers. In addition, liberalization led to greater import penetration than export diversification, though it is true that in the earlier years of liberalization it appeared that South African producers were able to respond to opportunities. South African competitiveness was hampered by the factors mentioned above; most notably labour market constraints and the volatile exchange rate. As a result, the composition of exports is still made up of a large share of commodity type exports (ores and metal exports). Furthermore, manufactured exports still rely heavily on primary commodity inputs. As such, South Africa's export profile continues to be capital-intensive in nature and driven by natural resources (Bhorat et al. 2013b). The only evident and significant diversification in exports is through insurance, financial services (4 per cent average annual growth), and perhaps tourism.

3.2 Human capital accumulation

It is well known that human capital accumulation will raise earnings levels, both in terms of private and social returns. This suggests that educational attainment has a key role to play in reducing income inequality through improved labour market opportunities. The literature on what differentiates high growth economies from stagnating ones notes that it is often the accumulation of technical knowledge through high quality education, thus allowing a society to assimilate foreign technology and improve levels of productivity (Nelson and Phelps 1966; Abramovitz 1986; Engelbrecht 1997; Gill and Kharas 2008).

Table 2: Ratio of export production relative to South Africa, 2000 and 2012

	High-technology exports (% of manufactured exports)	Insurance and financial services (% of commercial service exports)
Brazil	2.34	0.93
China	4.68	0.18
India	1.18	0.70
Indonesia	2.31	0.26
Malaysia	9.16	0.21
Philippines	11.69	0.13
Turkey	0.39	0.43
Korea, Rep.	5.40	0.56
	Manufactures exports (% of merchandise exports)	Food exports (% of merchandise exports)
Brazil	0.90	3.30
China	1.75	0.41
India	1.32	1.19
Indonesia	0.87	1.58
Malaysia	1.36	1.08
Philippines	1.59	0.78
Turkey	1.55	1.20
Korea, Rep.	1.71	0.14
	Ores and metals exports (% of merchandise exports)	Agricultural raw materials exports (% of merchandise exports)
Brazil	0.47	1.76
China	0.07	0.26
India	0.21	0.67
Indonesia	0.30	2.41
Malaysia	0.06	1.10
Philippines	0.14	0.28
Turkey	0.12	0.27
Korea, Rep.	0.08	0.40

Notes: High-technology exports are products with high R&D intensity, such as in aerospace, computers, pharmaceuticals, scientific instruments, and electrical machinery.

Source: World Bank (2014), authors' calculations.

An outcome of the apartheid government's policy was first a highly unequal schooling system, and second, a tertiary education system that was not accessible to those with poor levels of schooling. Table 3 shows average schooling scores in South Africa for Mathematics and two languages. Two results are immediately obvious. First, in every grade and for every subject other than Grade 3 Language, pupils in the South Africa schooling are, on average, failing standardized tests.

Table 3: Average school scores in 2012

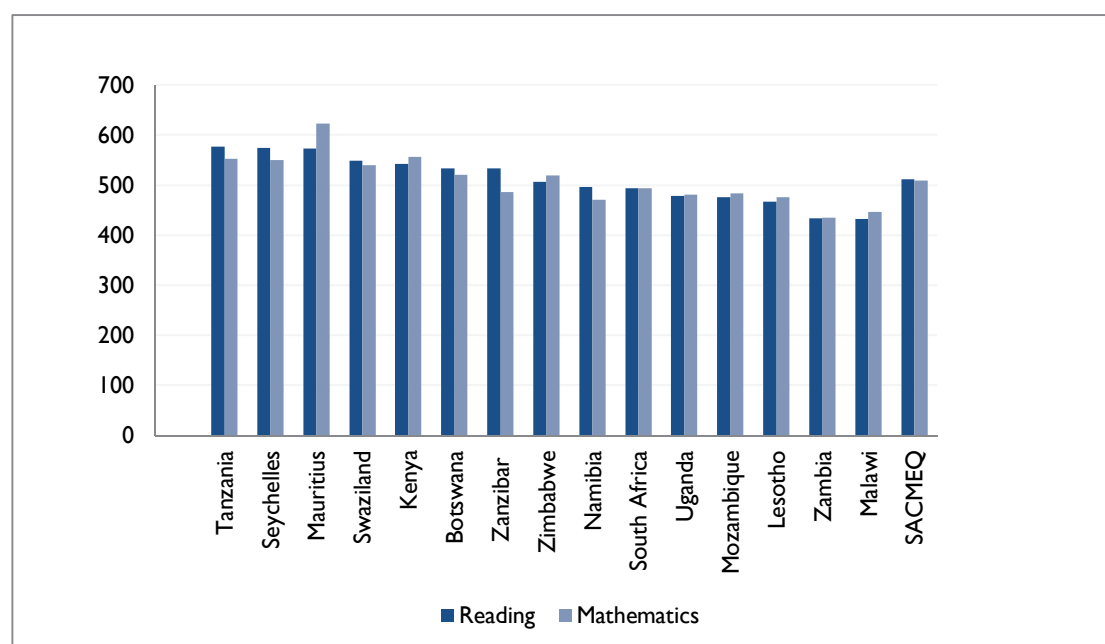
Average percentage scores	Grade 3		Grade 6			Grade 9		
	Language	Mathematics	Home language	First additional language	Mathematics	Home language	First additional language	Mathematics
South Africa	52%	41%	40%	30%	27%	43%	35%	13%

Note: Direct comparison between Home Language (HL) and First Additional Language (FAL) should be done with extreme caution as the language tests done in 2011 in Grades 1 to 6 was pitched at the level of language of learning and teaching.

Source: The Presidency (2012).

Second, the evidence suggests that a pupil's progress through the schooling system falls, as shown by declining average pass rates. Mathematics scores are instructive as the 41 per cent score in Grade 3 declines to 13 per cent by Grade 9. Unsurprisingly then, when examining cross-country results for standardized mathematics and reading scores, South Africa falls below a number of African countries including Tanzania, Swaziland, Kenya, Botswana and Zimbabwe, as well as below the global average scores, in both subjects (Figure 10).

Figure 10: Standardized mathematics and reading test scores, 2011



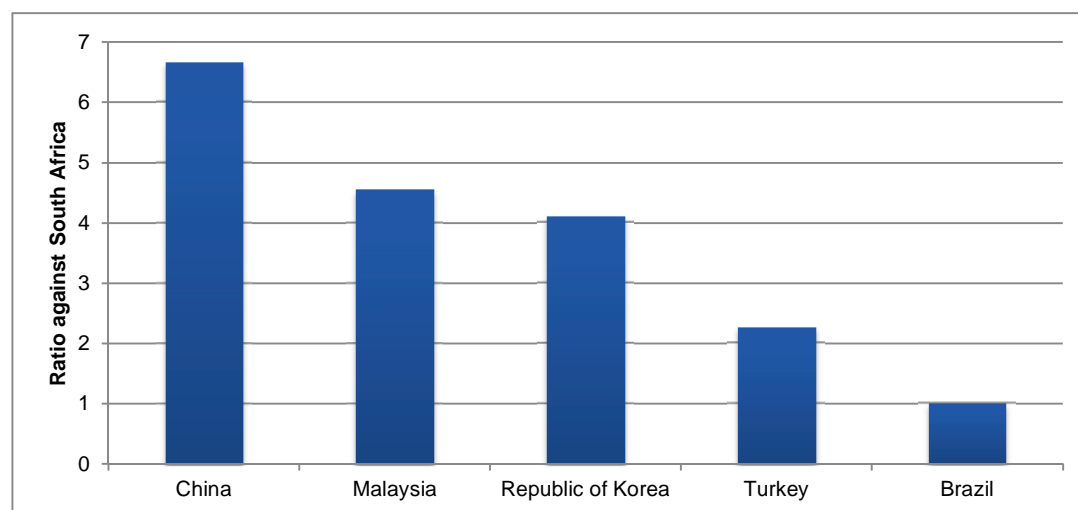
Notes: SACMEQ III was undertaken from 2005 to 2010, targeted all pupils in Grade 6 level (at the first week of the eighth month of the school year) who were attending registered mainstream primary school. The desired target population definition for the project was based on a grade-based description and not age-based description of pupils.

Source: The Presidency (2012), author's calculations.

Using a standard Cobb-Douglas production function approach, we find that amongst all education cohorts (schooling, schooling with matric, vocational training and university) a statistically significant impact on economic growth returns is only derived for the employed with university degrees (Bhorat et al. 2014a). Whilst the number of enrolments into tertiary institutions has more than doubled since 1994, the proportion of graduates from the population of high school leavers varies between 15 and 17 per cent. Of those enrolled, only between 4 and 6 per cent graduated with a Science, Engineering and Technology degree. Figure 11 presents the

ratio of graduates in similar categories of study. Whilst Brazil had a similar number of engineering graduates to South Africa, Turkey had just over double the proportion of graduates, but Malaysia had just under 5 times the proportion of graduates in this field. In comparison, 40 per cent of the students in China are enrolled in mathematics, science and engineering fields, constituting around 6.7 times the proportion of graduates that South Africa has in this field. Needless to say, significant investment in technical human capital accumulation is essential for developing a domestic absorption capability of global knowledge (Yao et al. 2008).

Figure 11: Ratio of enrolments and graduates at tertiary institutions, 1994-2011



Notes: Brazil, Malaysia, Korea and Turkey reflect engineering, construction and manufacturing graduates; South Africa reflects the Science, Engineering and Technology graduates and China reflects Maths, Science and Engineering graduates.

Source: The Presidency (2012); UNESCO (2014), authors' calculations.

The above lack of technical knowledge accumulation has in part, prevented the diversification of exports and the absorption of the labour in the pursuit of a more diversified growth path. Ultimately though, the quantity and quality of human capital held by individuals remains poorly matched to meet the conditions required for this more diversified growth path. This structural mismatch may be a key constraint in the economy's attempt to break out of its current low growth trap.

The data presented thus far clearly illustrates that South Africa falls below peer emerging economies in terms of key economic variables such as investment, savings, trade volume and diversification, and human capital accumulation. In the sections to follow we discuss the interaction between policy co-ordination and key economic players that has led to certain industrial biases that may have inhibited economic growth and perpetuated unemployment.

4 Policy co-ordination and economic growth traps in South Africa

Signs of poor economic policy co-ordination emerged as early as 1996, two years after democracy, when three different and conflicting economic policy frameworks were developed and published by different parts of government: The Reconstruction and Development Planning (RDP) office in the Presidency produced the National Growth Path Framework; the Labour Department's Presidential Labour Market Commission produced an approach towards a social plan; and the Treasury produced the influential Growth, Employment and Redistribution

(GEAR) strategy. From this uncertain point of departure, economic co-ordination proceeded on an erratic downward path.

While the WTO-linked trade liberalization programme forged steadily ahead on the principle of reducing oligopoly power to encourage new investment, the policy around network industries seemed to move in the opposite direction. Electricity provision remained a monopoly of Eskom—the very large state-owned corporation—and while the national legacy fixed-line telecommunications provider Telkom was partially privatized, its monopoly over fixed line provision was extended by the state to a five-year period and beyond, in the misguided belief that it would follow through on its commitment to the extension of services to unserved customers in poor rural areas, as well as to raise the privatization sale value of the company.

4.1 Industrial policy

In the area of industrial policy, the Department of Trade and Industry (DTI) pushed a sector, or cluster-based, development strategy which would combine various incentives, but the National Treasury opposed what it called ‘picking winners’ and blocked programme implementation, weakening the already shaky relationship between domestic producers and the government.

When a tax incentive programme to encourage investment was introduced following the adoption of the Growth Employment and Redistribution policy in 1996, its design was compromised by the inability of its architects to fend off entrenched interests in the labour and business communities. This rendered it difficult for anyone to benefit from GEAR, and it was soon withdrawn.

Historically, industrial policy incentives introduced under apartheid, such as the Regional Industrial Development Plan (RIDP) in 1960 and the Simplified Regional Industrial Development Plan (SRIDP) in 1993, were essentially spatial tools to create industrial zones away from city centres, to restrict migration of black people into urban areas. RIDP support was biased in favour of labour-intensive sectors and evidence suggests that increased investment incentives in the 1990s and early 2000s led to increased employment (Kaplan 2003). However, given the priorities of the incentives, there was little impact on skills development, technology upgrades, or attracting foreign investment. The Small and Medium Manufacturing Development Programme (SMMDP) was introduced in 1998 and was biased towards capital intensive industry, despite the fact that the SMMDP was designed ‘to encourage new investments in small and medium sized manufacturing companies...’ (Kaplan 2003). The Spatial Development Initiative was also introduced, targeting smaller projects that would be managed within a unit of the DTI.

Several studies have shown that although the subsidies tended to favour the formal sector and some had a bias towards capital investment, the industrial incentives introduced by the DTI in the post-1994 period were reasonably well targeted and appeared to have some impact (Rustomjee 2006; World Bank 2006). However, the 1994-2005/6 period certainly saw a decline in the overall value of the budget for DTI programmes (Rustomjee and Hanival 2008). What the same studies tend to point to though, was the lack of co-ordination between DTI programmes and the orientation of other influential government departments. For example, incentives for small businesses were rendered relatively impotent by the very slow movement towards improving the regulatory environment for small businesses. Indeed, a series of reports prepared for the Presidency in 2005 showed how municipal laws and labour laws, amongst others, stood in the way of the expansion of the small business sector.

What Fine and Rustonjee (1996) named ‘the mineral-energy complex’ (MEC) elicits significant government support and attention. In most cases government has sought, in the words of one senior DTI official, ‘quick wins’—such as the Maputo Corridor and other large, capital-intensive and energy-hungry projects. These projects invariably serve to support the mining industry and are focused on capital-intensive, heavy manufacturing.

Historically, economic policy interests have been well aligned to the MEC. The cheap labour policies of the late colonial and apartheid eras served the very labour-intensive mines from the time that Cecil Rhodes was Prime Minister of the Cape Colony. In recent decades macroeconomic stability was biased towards ensuring suitable exchange rates for commodities exports such as gold and minerals; and state-owned enterprises—largely the minerals and energy complex (Fine and Rustonjee 1996; and Takala 2008). Capital within the MEC was also highly concentrated and strongly linked to the financial sector, which maintained control and economic power, and MEC owners and managers had a huge influence on policy.

5 Big business, big government and big unions: A policy co-ordination paradigm in South Africa?

An unintended consequence of the structural development of the South African economy has not only been to perpetuate low levels of growth, but also to facilitate rent-seeking between key players in the economy. Empirical evidence suggests a link between rent-seeking, poor economic performance, and high levels of income inequality (Olson 1971; Chakraborty and Norris 2005). Rent-seeking activities are often driven by the relatively elite or wealthy in a society through social pacts, which choose rent-seeking over engaging in productive activities. From this section onwards, we assess the role of the political economy, policy co-ordination, institutional factors and market structure, in reinforcing rent-seeking and poor economic performance.

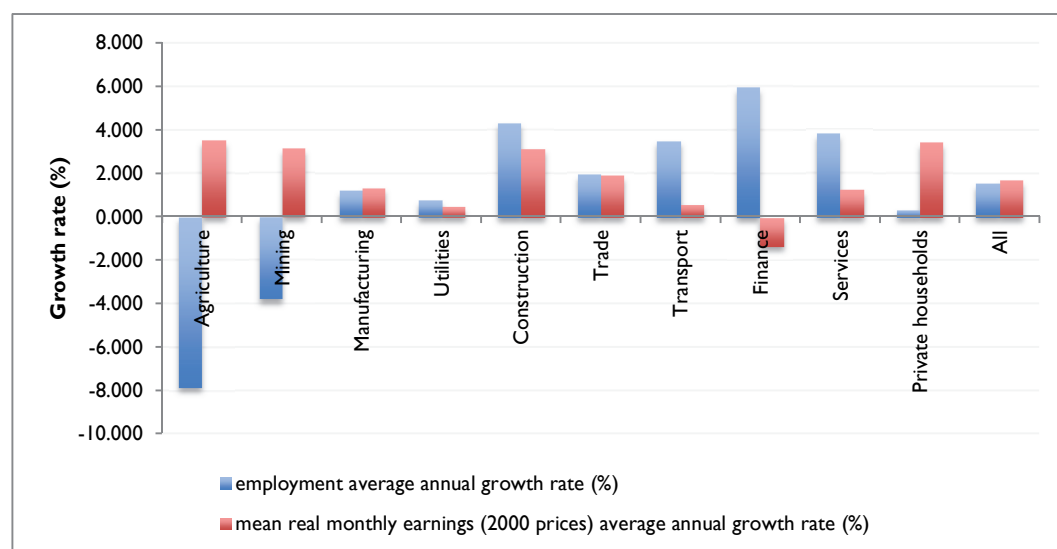
One of the democratic parliament’s first acts was the National Economic Development and Labour Act (NEDLAC) in 1994, which constituted a tri-partite council of government, business and labour to negotiate labour laws, and required for potentially binding consultations on other economic and social legislation. For a while it seemed that the foundations were being put down for a system of social pacts that would overcome the divisions within South Africa’s economic society. Policy co-ordination would ostensibly be pursued through this tripartite structure—much in the spirit of the country’s political negotiations which shaped the peaceful transition to democracy. However, co-operation and trust between the three social partners weakened after the GEAR policy was adopted in mid-1996, and lost further credibility with the failure of a Jobs Summit in October 1998.

One consequence of the weakening of NEDLAC has been that the corporate sector and trade unions settled in an uneasy, but stable, political economy equilibrium. This equilibrium was defined by high margins, or rents, distributed between organized labour and big business. In particular, for sectors where the cost of not complying with big government and big labour was high, big business’ growth and development trajectory has been invariably shaped by the implicit contract between these three actors. The recent labour market disputes in the mining industry are strongly indicative of this growth narrative. What is also demonstrated in the conflict on the platinum mines is the deep inequality of income between the insiders and the outsiders in the labour market. It is also within this environment of a strong alliance with the union movement, that the ruling party, whilst publically pushing for employment-friendly labour market policies,

has found it difficult to materially counter trade union interests in terms of labour market reform.

The wage premia associated with militant trade unions have, to some extent, worked as a disincentive to employment creation. Figure 12 suggests that overall mean monthly earnings, and specifically in agriculture, mining, manufacturing and for private households, grew at a faster rate than employment between 1997 and 2012. In manufacturing and mining in particular, employment declined annually. Quite simply what this suggests is that the distribution of rents for organized labour may have been counter to employment generating policies.

Figure 12: Employment and wage growth, 1997-2012



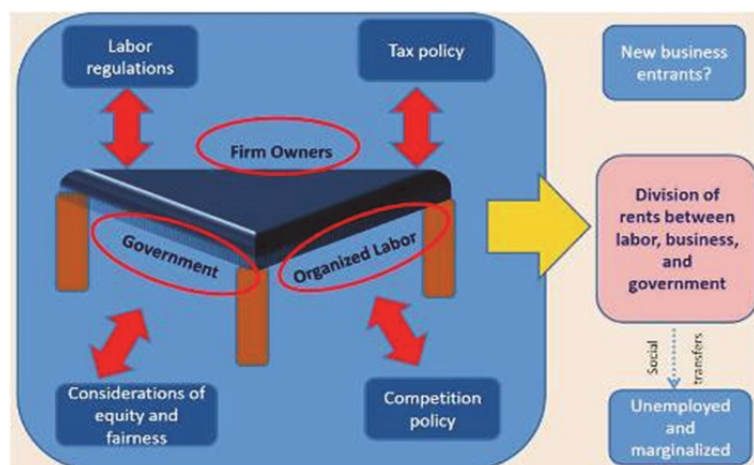
Source: South African Reserve Bank (2014), authors' calculations.

Mahajan (2012) describes the firm owners, government and organized labour to be 'locked in a continual, rambunctious public tussle over the distribution of the high rents being generated under the system'. This triad is constrained by the bounds of labour regulation, competition policy, tax policy and equity considerations. However, these constraints have not always been productivity enhancing. This process has created a barrier to entry for new firms that could create a more competitive environment and normalize returns. Within this, the unemployed are left out, as are those who would like to see rents being transferred into higher productivity, higher investment, growth-enhancing actions. The outcome is an economy that performs below its potential.

Some form of modification of this unintended agency triumvirate then, it is argued, may be essential for placing South Africa on a more inclusive growth path (Figure 13).

Perhaps the overriding characteristic of government in South Africa today is fragmentation, particularly in economic policy formulation and implementation. So, while the DTI steadily drives forward the fifth iteration of its Industrial Policy Action Plan with nine cross-cutting interventions and over 30 sectoral strategies, this is generally not seen, or acted on, as if it were a strategy followed by all arms of government. Although political support for industrial policy is stronger than before, at the level of policy and rhetoric, the ability of government to implement and monitor programmes systematically is limited.

Figure 13: The triumvirate



Source: Mahajan (2012).

The reasons for this implementation weakness include the capture of parts of government by special interests, and the focus of government on other issues which may be important—such as the very low growth rate or the growing government debt. Overall, the performance of government has deteriorated quite sharply in recent years. While the World Bank Governance indicators in Table 4 show that South Africa’s governance effectiveness and control of corruption are neither the lowest nor the highest amongst its developing country peers, there has been a clear secular decline in the country’s quality of governance rankings since 1996.

Table 4: South Africa and comparators – governance percentile rank (100 = best)

	South Africa	Brazil	Mexico	Thailand	Turkey
Government effectiveness					
1996	79	51	59	63	57
2002	74	59	62	64	59
2012	64	50	63	61	65
Control of corruption					
1996	79	56	38	50	45
2002	69	55	51	48	32
2012	54	56	43	47	63

Source: Worldwide Governance Indicators as prepared for Levy et al. (2014).

The outcome is that government is not strong or effective enough to lead a process of breaking free from the path dependent pattern of low value-added exports, and oligopolistic market structures with high margins. Such a strong, efficient state is also essential for managing a change from a growth path financed by short term capital flows and dependent on domestic consumption levels.

6 Testing the paradigm

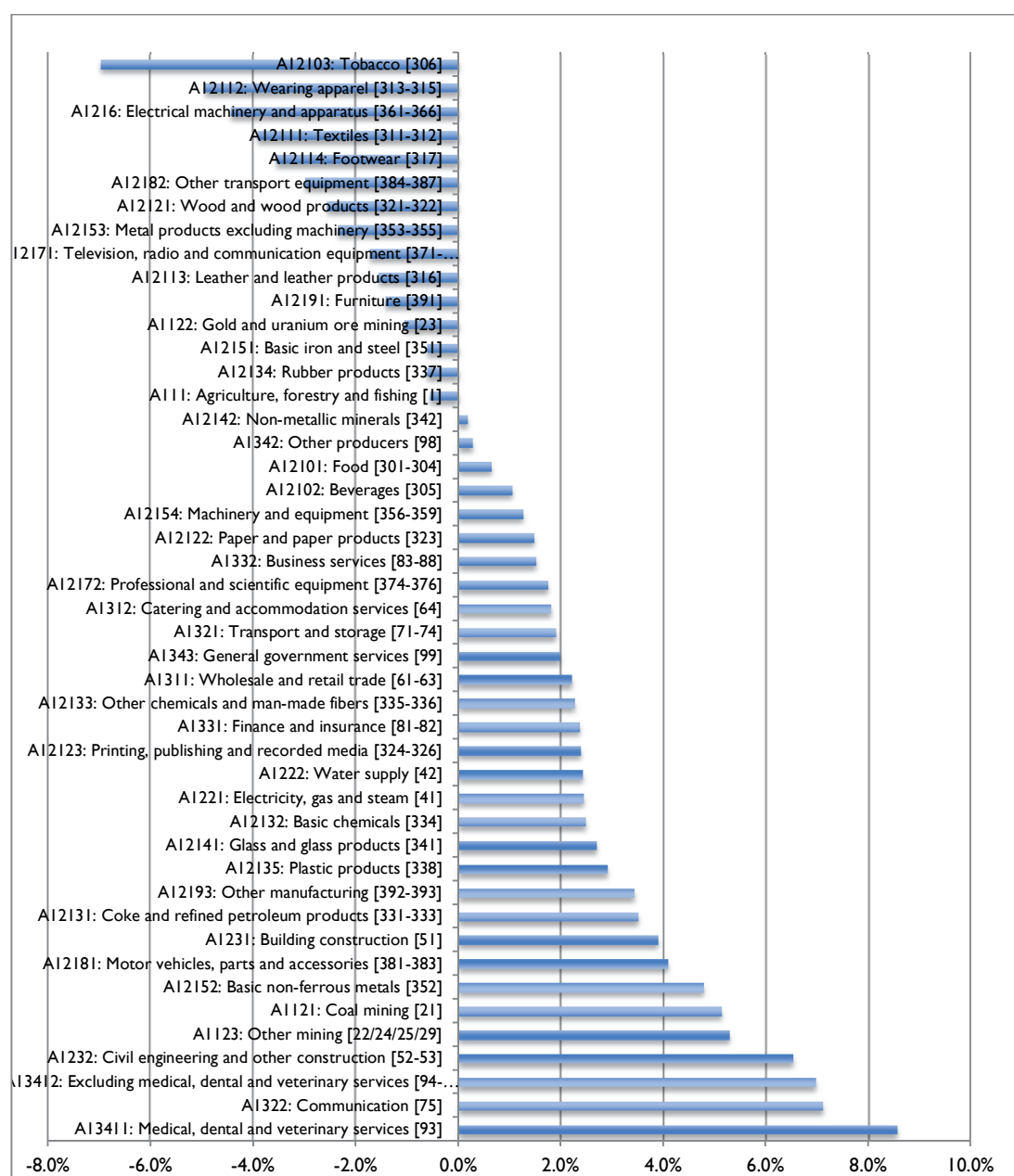
After describing this notion of a tripartite-driven growth trajectory above, we hope to provide examples or instances wherein this growth paradigm and peculiar firm policy co-ordination in South Africa may be evident, or indeed, not evident. In particular, we hope in this section, to explore policy outcomes or sectoral growth experiences for example, which have effectively excluded the unemployed and those in the informal sector—thus generating this ongoing problem of a low-level growth trap for South Africa.

We will attempt to briefly examine the following instances where policy interventions or economic outcomes are indicative of an economy on a path which reinforces this low-level growth trap.

6.1 Capital investment has not favoured labour-intensive sectors

The notion of investment bias towards MEC subsectors comes across clearly in Figure 14 that measures annual growth in capital at a subsectoral level. We see an annual decline, between 1990 and 2012, of capital investment into labour-intensive sectors such as clothing (-4.9 per cent); electrical machinery and apparatus (-4.4 per cent); textiles (-3.9 per cent); footwear (-3.5 per cent); wood and wood products (-2.6 per cent); television, radio and communication equipment (-1.7 per cent) and furniture (-1.4 per cent).

Figure 14: Annual growth in capital investment by sub-sector, 1990-2012



Source: Quantec (2014), authors' calculations.

Among those sub-sectors that have seen increasing annual capital investment within the period include medical and dental services (8.5 per cent); communication (7.1 per cent); civil engineering and construction (6.5 per cent); coal mining (5.1 per cent) and motor vehicles (4.1 per cent). At an industry level, annual growth in capital investment in community services as well as finance and business services has in fact out-weighted investment growth in manufacturing, and particularly light manufacturing.

Essentially, we find capital-intensive industries, that by their nature were obviously less inclined to drive aggregate employment growth, attracted far more investment. Table 5 presents annual investment growth between 1997 and 2013 against the Capital-Labour (K-L) ratio by sector. Immediately, we see that capital intensive sectors, with low K-L ratio's, such as construction, transport and mining, had the highest rates of annual capital investment growth of around 7 to 10 per cent.

Table 5: Investment growth against K-L ratios by sector (1997-2013)

	K-L	Investment growth
Agriculture, forestry and fishing	-0.38	0.00%
Mining and quarrying	-1.80	7.13%
Manufacturing	5.15	4.14%
Electricity, gas and water	-4.81	7.69%
Wholesale and retail trade	0.83	5.78%
Construction	1.53	10.22%
Transport, storage and communication	1.57	8.07%
Financial and business services	0.32	2.56%
Community, social and personal services	0.77	5.96%

Source: South African Reserve Bank (2014); Quantec (2014); authors' calculations.

Sectors such as agriculture have received low levels of government support, and investment in capital has declined annually. Amongst all the sectors, the K-L ratio was highest for the manufacturing sector, suggestive of high levels of investment in heavy manufacturing and mechanization. Sectors such as wholesale and retail, finance and business, and community services had K-L ratios of less than 1, reflective of employment growing faster than capital in these sectors. Whilst these sectors have been the key employment drivers in this sector, investment was driven by capital-intensive sectors.

Figure 15 examines the interaction between capital and labour at an aggregate sectoral level between 1997 and 2012. The horizontal axis measures annual growth in capital intensity whilst the vertical axis measures annual growth in employment.⁴ As previously, each bubble represents a sector and the size of each bubble is representative of the size of employment in the base year, 2001. The interaction of capital intensity and employment first speaks to whether mechanization through capital deepening has been used to displace labour, and second, the level of investment in capital formation associated with increasing labour in a particular sector.

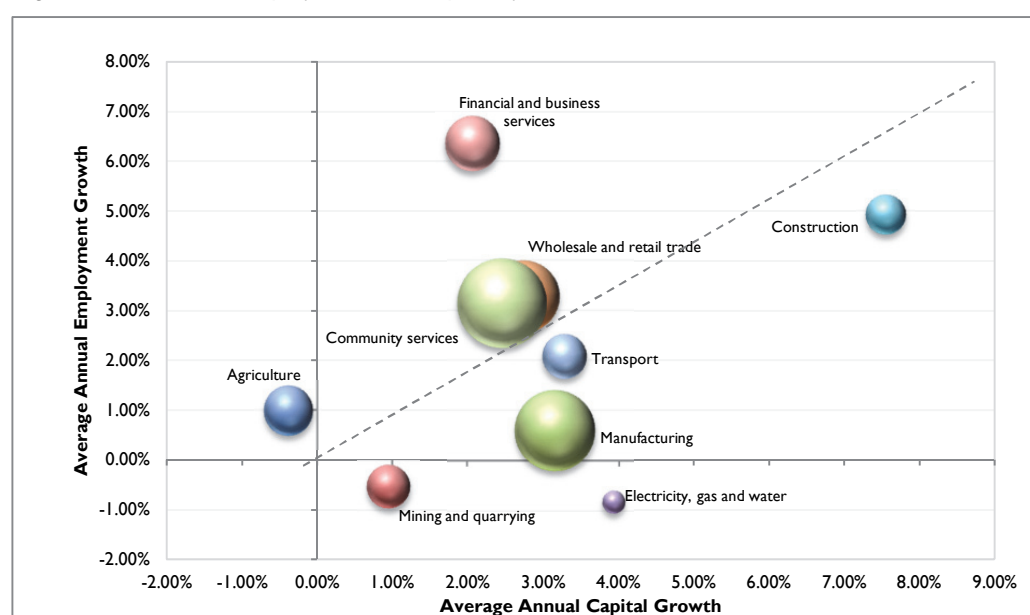
Rodrik (2006) found that between 1980 and 2005 capital deepening resulted in a higher demand for skilled workers as opposed to low-skilled workers, which is amongst the reasons for the wage

⁴ Annual employment growth differs in the two figures above as the versions of the LFS and QLFS used were not the same, as such different quarters or annuals were used and may yield different growth rates.

push⁵ presented earlier. This is clear for sectors such as construction, manufacturing, mining and electricity that have increased capital intensity at a rate greater than employment. It is worth mentioning that whilst mining increased capital intensity by just under 1 per cent per annum, gross value added declined for the sector. Construction on the other hand increased annual capital formation by 7.54 per cent at a rate greater than employment (4.84 per cent) and gross value-added growth (7.2 per cent). This indicates that generating both employment and value added in construction came with a cost of high levels of investment in capital deepening.

The manufacturing sector has seen higher levels of capital formation than growth in employment, hence reinforcing a capital intensive growth trajectory. Annual capital formation was around 3.15 per cent whilst employment growth was less than 1 per cent. This indicates increasing mechanization in sectors that may have previously been more labour-intensive, as well as increased investment in heavy manufacturing.

Figure 15: Growth of employment and capital by sector, 1997-2012



Source: LFS and QLFS sources from Statistics South Africa (2014); Quantec (2014); author's calculations.

Where employment has grown it has followed a high-skilled labour demand trajectory such as that found in the finance and business and community services sector (Bhorat et al. 2013a). Employment has exceeded growth in capital in finance (6.36 compared to 2.05 per cent), community services (3.15 compared to 2.44 per cent) and wholesale and retail (3.28 compared to 2.74 per cent). These sectors have therefore had lower levels of investment in the form of gross capital formation, yet increased employment suggesting that the cost of creating employment was lower. Driving these trends in wholesale and retail for example, was in part an increase in informal sector employment. The apparent labour intensity in finance and business services was driven by the rapid rise of temporary employment service providers—a relatively new phenomenon in South Africa. The finance and business service sector employment growth was only lower than employment growth in construction, but the former had far lower levels of annual capital growth at 2.05 per cent compared to 7.54 per cent for the latter. This suggests that

⁵ Rodrik decomposed sectoral real remuneration into skill composition and skill adjusted (residual) or wage push components.

the cost of creating employment in finance was fairly low, and we would argue that this has been driven by the temporary employment services (TES) sector.

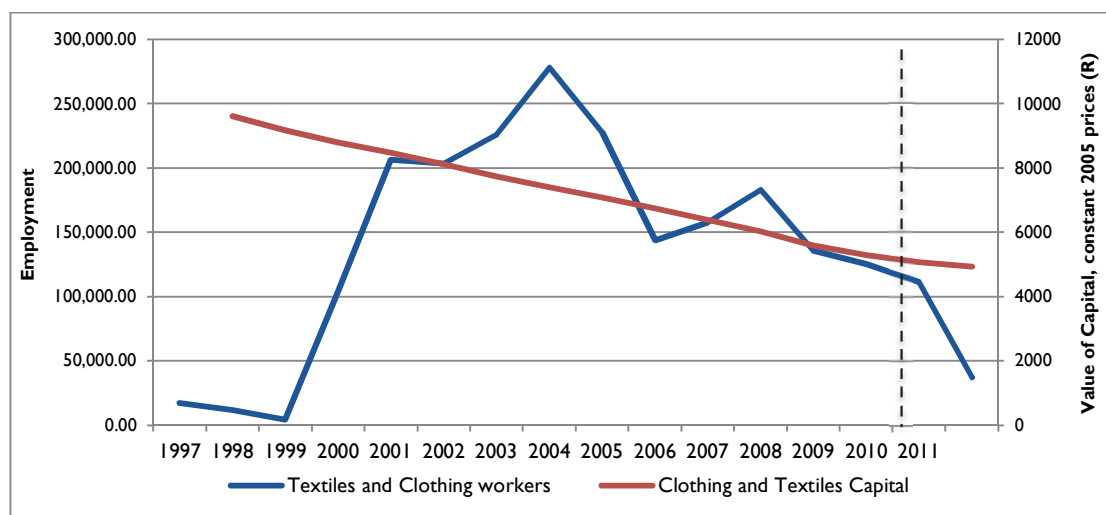
Sectors that yield the lowest levels of capital accumulation such as agriculture, increased employment by 1 per cent annually. There is a sense that this sector could have had the potential to absorb low-skilled labour yet is in decline, and in part because of poor levels of investment in this sector, and the imposition of the minimum wage (Bhorat et al. 2014b).

Ultimately, it is clear from the above, that capital investment in a number of South African main sectors has not yielded high growth returns for employment. Sectors which have gained employment on the back of capital investment have either been in the public sector (CSP), reinforced the consumption-based growth trajectory of the economy (wholesale and retail trade), or indeed have been labour outsourcing sectors. In particular, the growth engine of many fast-growing emerging markets in the world—manufacturing—remains unable to convert capital expenditure into sufficiently high levels of employment generation.

Light manufacturing in South Africa

Clothing and textiles: The clothing and textiles industry has exhibited falling industry employment since the mid-2000s and consistently declining levels of capital investment over the past few decades. However, in 2010/11, the clothing and textiles competitiveness programme was developed to introduce a production and competitiveness enhancement incentive, with the objective of encouraging production and job creation activities more directly. By the end of September 2013, the National Treasury estimated that 728 enterprises had been supported and approximately 62,350 jobs had been saved, although it is unclear how many new jobs have been created (Figure 16).

Figure 16: Capital and employment growth in the clothing and textile sector



Source: Quantec (2014); PALMS (2014).

It is suggested that the productivity incentives were conditional on compliance with the minimum wage regulation and the subsidy was generally taken up by larger firms. In 2011, it was announced by the Minister of Economic Development that non-compliant clothing firms would have to become compliant through a phasing in of the minimum wage. This resulted in the closure of a number of small businesses. It is further suggested that companies taking up the subsidy may be related to political players for example, Seardel, who in part are owned by the South African Clothing and Textile Workers Union.

Automotive sector: Unlike the clothing sector, the automotive sector attracted large capital investment. Subsidies under the Automotive Production Development Programme (APDP) to the motor industry constitute some 20 per cent of total industrial support in South Africa. Yet the industry is highly capital-intensive and is a very poor job generator. Investments in excess of R12 billion since 2000 have resulted in virtually no job growth in vehicle assembly. Employment in components production (including tyres) has grown by a modest 6 per cent, or barely over 1 per cent per year, over the same five-year period. There are also significant questions about technical, skills and knowledge spillover effects from the industry, and the perennial question of repatriation of profits. It is not clear that this subsidy programme generates the kind of dynamic, high-growth which is also employment-intensive, which South Africa currently requires. Very few middle-income countries have based a long-run growth strategy on a capital-intensive, niche-based industry and indeed the overall paltry employment performance in manufacturing is most wildly evident in the motor industry.

6.2 Transport tariffs have not facilitated trade

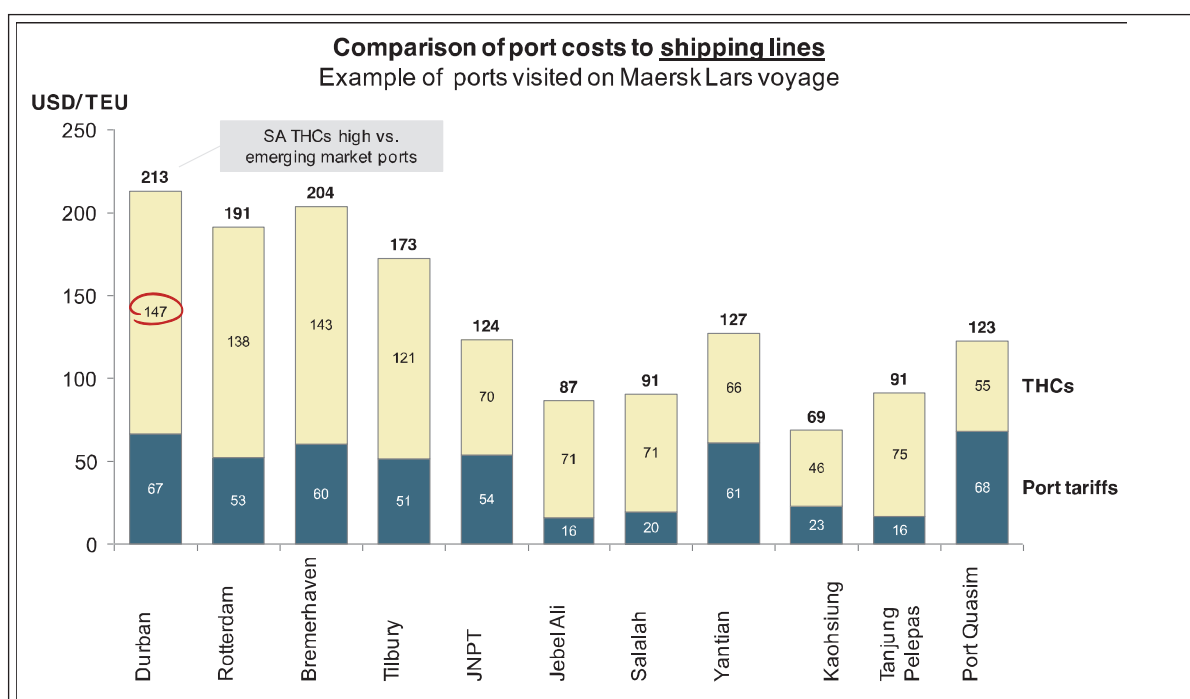
The bulk of South African export⁶ and import trade is through its seaports yet tariffs have been inhibitive of trade in certain sectors, whilst favouring others. A state-owned enterprise, Transnet, owns all South African ports through the Transnet National Ports Authority (TNPA) and controls the bulk of operations through the Transnet Ports Terminal. State ownership of all national ports means that there is little room for competition between or within ports and therefore little incentive to improve efficiency or productivity levels, which could reduce costs by generating economies of scale. Private competition in other developing countries has often facilitated state-owned ports to become internationally competitive.

An outcome of limited competition was that the South African marine tariff structure (port costs to shipping lines) has been recognized to be amongst the highest amongst emerging markets (Ports Regulator South Africa 2012). The comparison of terminal handling charges (THC) in Figure 17 suggests that Durban—South Africa's major port—has very high THCs compared to the benchmarked ports. In 2012, charges in Durban were found to be in line with European ports, which have higher labour costs than South Africa does. The reason behind these charges is the differential pricing that operates for bulk and container transport. Ports Regulator (2012) roughly estimated that a Durban cargo owner faced between 364 per cent to in excess over 800 per cent higher charges than the global average for containers. On the other hand, bulk commodities are charged much lower total port costs than the global averages.

Historically, tariffs are set by TNPA such that they cover infrastructure investments, port operating costs, as well as a rate of return on assets. There is a sense that the tariff structure does not promote a competitive price or improved efficiency levels, as it guarantees TNPA a profit as well as cost recovery. For this reason, the port may also run at a lower level of inefficiency than it potentially should (TIPS 2014). Research has also suggested that port tariffs subsidize Transnet's other capital expansion programmes, such as those in rail.

⁶ 96 per cent of export volumes are estimated to be transported by the sea (TIPS 2014).

Figure 17: Comparison of port costs



Source: Ports Regulator South Africa (2014), Maersk port cost calculator.

Although not all industries are subject to uncompetitive tariffs, and a few examples of the disparity in pricing are worthy of noting:

- *Coal and iron:* Coal (Richards Bay) and iron ore (Saldana Bay) were found to face costs 43 per cent and 19 per cent below the global average, respectively. The cargo dues faced by cargo owners for coal and iron ore are below the global norm by 50 per cent and 10 per cent respectively (Ports Regulator 2012).
- *Automotives:* The Automotive industry faces significant premiums when compared to the global average. Cargo dues are significantly higher than the global average with total cargo dues on vehicles at a 744 premium to the global average. Vessels face a 47 premium discount to the global average. In addition, volume discounts accrue primarily in favour of large firms. It has been estimated that on average, large automotive companies face cargo dues at 3 times the global average with the smaller automotive companies facing cargo dues at 8.43 times the global average (Ports Regulator 2012).
- *Steel:* In terms of the steel industry, there has been a bias towards industries that offer low levels of value added and by definition, lower levels of job creation (Ports Regulator 2012). This was evident through the differential cargo dues charged for stainless steel and mild steel prior to recent regulatory reform. The mild steel industry that stops at one level in the value add process and then exports its product to have further value-added in another country, paid roughly one quarter of the price paid by the stainless steel producer that took that product and added further value inside of the country, for the same use of infrastructure. The port charges therefore undermined any strategy to promote the export of manufactured goods and trade.

The relatively lower charges for low value add and larger firms reinforce biased policy co-ordination in favour of particular industries to the detriment of other economic activities. Indeed, this underpins South Africa's pattern of low economic growth, shaped by large, capital

intensive firms within the mineral energy complex. An outcome of the MEC in particular, has been to offer support to various industries through incentives, and of particular interest here, lower transport costs.

The National Ports Regulator has pushed for a restructuring of tariffs given their findings on how skewed South African tariffs are relative to the global average. Amongst the factors that were believed to increase costs were the inefficiency at ports, the lack of transparency in how tariffs were decided on, and the general lack of justification for these costs (TNPA, 2010). In addition, the tariff rates seemed counter-intuitive to national development goals including those in the National Development Plan, such as boosting the light manufacturing industry with a purposeful impact on both exports and job creation.

Transnet proposed a new tariff structure for 2012/13, decreasing the cost of containers and increasing the cost of bulk. Even after decreasing the container tariff by half though, the new rates remained between 8 and 50 times higher than the cost of bulk.

Current data indicates far higher prices for cargo than bulk. Cargo dues on imports and exports for containers are between 30 to 200 times higher than dues on bulk as shown in Table 6. This similarly suggests that that containers are subsidizing bulk exports which in part explains the limited growth and diversification of South African exports in the past twenty years.

Table 6: Cargo dues on imports and exports (by ton) for 2014

	Imports		Export	
	Minimum	Maximum	Minimum	Maximum
Break bulk	9.02	132.41	3.10	109.06
Liquid bulk	6.10	62.32	3.00	46.72
Dry bulk	9.23	62.32	3.18	62.32
Containers	1976.34	3952.64	650.00	2302.29

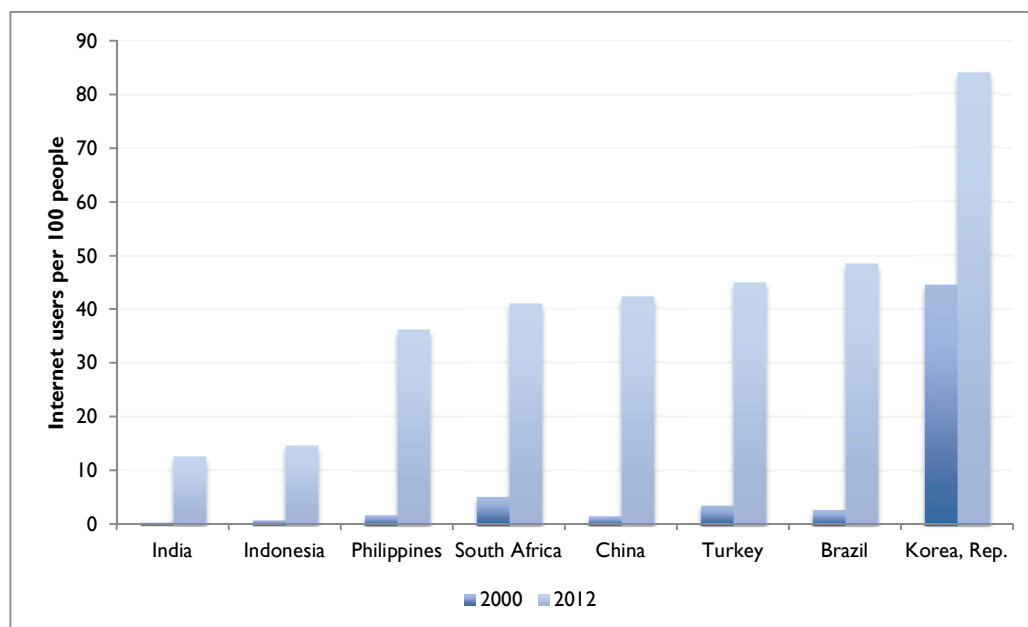
Source: Transnet National Ports Authority (2014).

It is clear that, as only one example, port tariff rate levels and their structure, serve to reinforce a growth trajectory favouring large, capital-intensive and resource-based firms and sectors. In so doing the economy's port tariff regime is indirectly a constraint on labour-intensive growth.

6.3 Regulation in the communications sector has perpetuated anti-competitive conduct

A number of East Asian countries managed to escape potential growth traps through developing advanced infrastructure in the form of high-speed communications networks and broadband technology (Gill and Kharas 2008). Better communication technology facilitates knowledge flows within and across borders. Information and Communication Technology (ICT) manufacturing and implementation was formally embedded in the national development strategy of Korea and the result was a far more developed ICT system than a number of other emerging markets, manifest in part in an internet usage rate in excess 80 users per 100 people (Figure 18).

Figure 18: Internet users per 100 people, 2000 and 2012



Source: World Bank DataBank.

South Africa's ICT sector in 2000 lagged significantly behind comparator countries. For example, in 2009, there were only nine internet users per 100 people. However, in the past five years internet access has increased significantly, with 41 users per 100 people in 2012. Access to mobile phones has of course been central to this shift. Pricing, however, remains a barrier to access and usage of both fixed-line and mobile phone services. In addition, the cost of equipment such as internet-enabled mobile phones and personal computers is prohibitively high—as is the cost of accessing services, which has limited growth in the uptake of data services. Growth and development gains that could potentially be achieved through this sector have only recently been realized.

Historically, the telecommunications market in South Africa has been highly concentrated and dominated by the incumbent state-owned operator Telkom. Telkom is 67 per cent government owned, whilst 30 per cent is held by strategic equity partners. For the most part of the last 20 years, Telkom has had a monopoly over local and long distance calls, backbone infrastructure for internet provision, international services and public pay phones (Hodge 1999). It is also amongst the largest internet service providers in the country. The Telecommunications Act (Act 103 of 1996) allowed Telkom exclusivity, while it met its obligation to roll out 2.81 million new lines. After its period of exclusivity a second network operator was to be licensed in 2003. However, this was severely delayed due to legal and regulatory bottlenecks and the second operator only became operational in 2007. Telkom has been charged by the competition regulators for anticompetitive behaviour—notably in terms of pricing—which has had an overall impact on service providers and ultimately consumer access.

It is suggested that the policy choices of government toward the telecommunication sector have been consistent with the preferences of the pivotal interest groups, and through this, government political fortunes (Hodge and Ayogu 2002). In particular, policy has enforced a weak regulatory regime which has imposed limitations on liberalization in the industry. First, Telkom has had little direct competition in the market for public telephony in the past twenty years. As a result, there was therefore little pressure on Telkom to reduce its price-cost margin through which they earned higher profits (Hodge 1999). In the first decade of the twentieth century, it was reported

that the cost of South African broadband was significantly higher than in other OECD countries and the cost of leased lines was more than double that of the OECD average (Gillwald et al. 2010). Second, mobile operators compete on value added services instead of price. Because Telkom has kept their prices high, there has been little pressure on mobile operators to reduce price. In addition, Telkom has had a 50 per cent share in Vodacom, South Africa's dominant mobile provider, which suggests an incentive to keep prices high to maintain profits. Third, whilst regulation has put a price cap on Telkom services, it has done so through a basket of services—leaving a lot of room to keep certain services costs high. This has failed to lower Telkom's price-cost margin. Fourth, the lack of competition from other technologies has presented little incentive to drive down price and has similarly not driven improved levels of productivity. This has consequently constrained levels of output, employment and innovation in the industry. When competition was introduced in the industry, Telkom had sufficient market power as well as long-term contractual agreements that allowed some flexibility in price restructuring (Hodge 1999).

The evidence is thus of another majority state-owned entity where regulation has been used to distort markets to extract rents in favour of certain stakeholders. This has perpetuated a poor quality, inefficient system that has hampered knowledge transfers and increased the cost of doing business in South Africa that essentially, lowers the potential levels of output and economic growth.

6.4 Black economic empowerment for the minority

The premise of Black Economic Empowerment (BEE) was to redress inequalities of the past through a redistribution of ownership rights to those who were previously economically disadvantaged. Essentially, BEE was introduced (in 2001) as a tool to support greater economic equality, as it was unlikely that this would be a natural market outcome of the then new political environment (Acemoglu et al. 2007).

BEE narrowly focused on transferring ownership and control to the political elite. This meant that BEE had limited impact and largely excluded low-skilled labour, the unemployed, and those in the informal sector. As a tool for redistribution, the policy has been a failure. Instead it has become, apparently unintentionally, a tool for distributing state revenue amongst the elites of the society—so reproducing the pattern of highly unequal economic growth. Instead, as Manning (2009) suggests, it has created clusters of rent-seeking behaviour by elites and thus has had a limited impact in empowering the broad majority of black South Africans.

In some sense the outcome, or rather lack of outcome, of BEE in redressing past inequalities is unsurprising, given the concentrated nature of South African business and the emphasis on networks. Andrews (2008) suggests that big business frustrating growth through their concentrated conglomerate structures is much the same as those distorting racial empowerment. In South Africa, despite BEE, outsiders are still black, suggesting that BEE has not done enough in terms of promoting racial equity.

Acemoglu et al. (2007) presented evidence of the domination of narrow-based BEE. Information was collected on board members of companies listed on the JSE, as well as the African National Conference (ANC) executives and elected officials since 1994.⁷ Names of the Board members and ANC members were then matched up. Fifty-six ANC politicians were found to be on the board of directors of JSE-listed firms. This result is produced in the Figure

⁷ The ANC is the dominant political party since 1994.

19, essentially reinforcing the strong interrelationship between political power and large corporates. In particular, it is suggested that previously white-owned firms have been trying to match politically connected people to secure their property rights, or to influence government policy.

The demographic distribution of economic assets remains through the process of BEE then, skewed, and the benefits of redistribution are ostensibly shared by a small section of the previously disadvantaged. Black ownership on the Johannesburg Stock Exchange is estimated to be about 15 per cent, up from about 4 per cent in the mid-1990s (National Planning Commission 2011). Whilst firms are actively responding to BEE and in its new guise—Broad Based Black Economic Empowerment (BBBEE)—it is suggested that this is done in a static structural context where firms look to established networks for participation in the economy, limiting the number of beneficiaries of BEE (Andrews 2008). Although many Africans have benefitted from BEE, this has tended to be a narrow elite, and as a consequence, this has had no noticeable impact on aggregate levels of inequality.

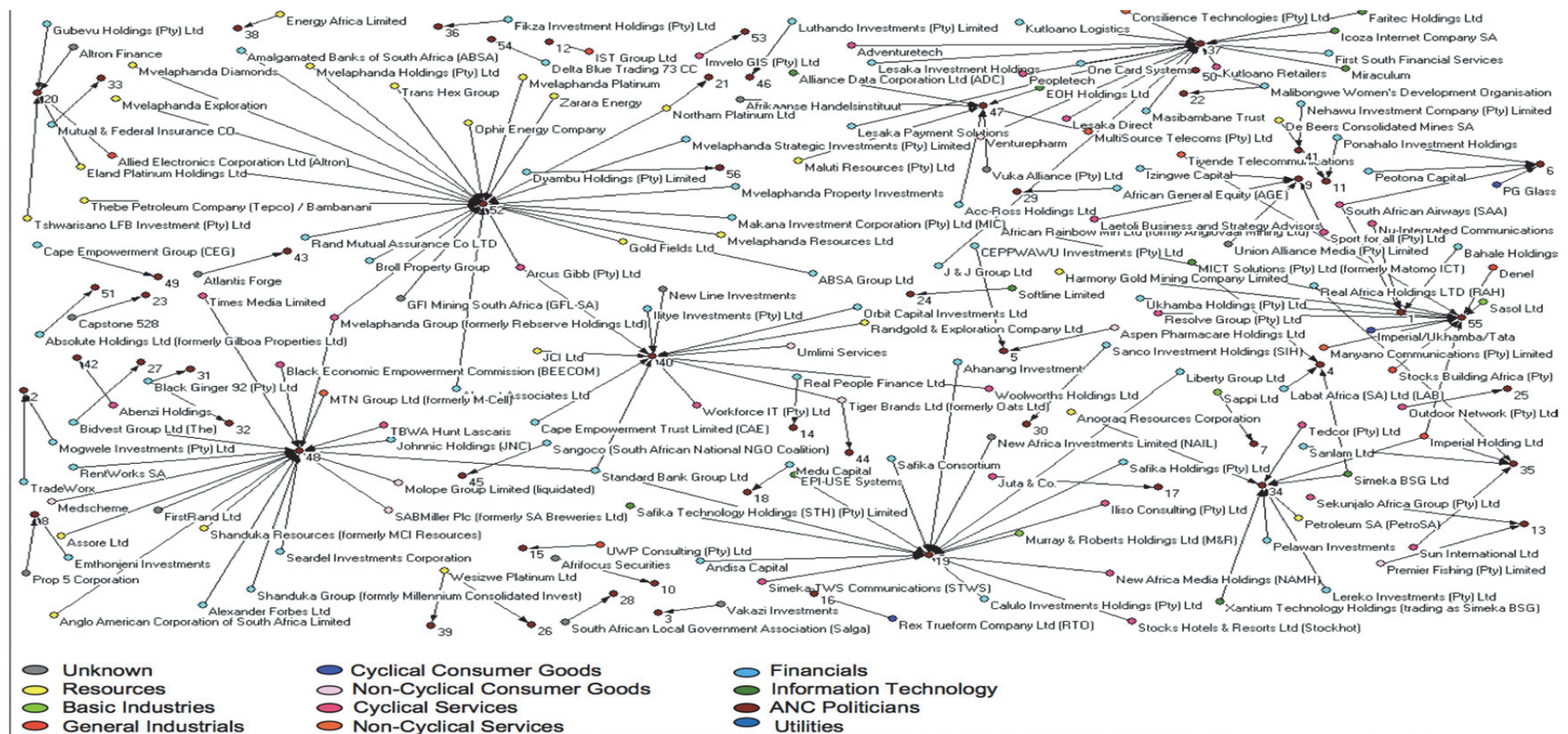
Practically, there is a sense that BEE has complicated firm creation and undermined skill requirements for managerial positions. In addition, transformation, through BEE, has become artificial and dis-empowering as it's selectively transferred rents without the transfer of skills. In terms of the economic effect, in 2007, Acemoglu et al. found no significant effect of BEE on investment, labour productivity, or profitability. Weak evidence was found for negative effects on investment and productivity (Acemoglu et al. 2007). Positive effects of BEE were limited and may have been cancelled out by the negative effects.

Ultimately the above suggests that the policy of BEE, and latterly BBBEE, have served as an instrument of political and policy access for large corporate South Africa. Gathering that political elites retain some ownership protects the assets of the incumbent. Yet, that this policy has had the consequence of not redistributing wealth, certainly has not served as an engine for a more dynamic inclusive growth path for South Africa.

7 Poverty and inequality outcomes

We use the Growth Incidence Curve to examine aggregate economic growth over a wide range of the income distribution. The GIC measures the rate of growth per capita income (or expenditure) between two points in time (between 1995 and 2010) at each percentile of the income (or expenditure) distribution. The GIC graph allows us to compare the incidence of growth in poorer segments of the population with the better off segments, or with the rate of growth of mean income (or expenditure). We can then assess whether those at the lower end of the distribution experienced income (or expenditure growth) pro-poor growth, that is, was growth in income (or expenditure) above or below mean income (or expenditure growth). This is a conceptually useful tool for analysing aggregate economic growth over a wide distribution. Overall, the GIC for South Africa is suggestive of an economy in which per capita expenditure, between 1995 and 2010, grew at a greater rate for those at the upper end of the income distribution than those at the bottom end of the distribution (Figure 20).

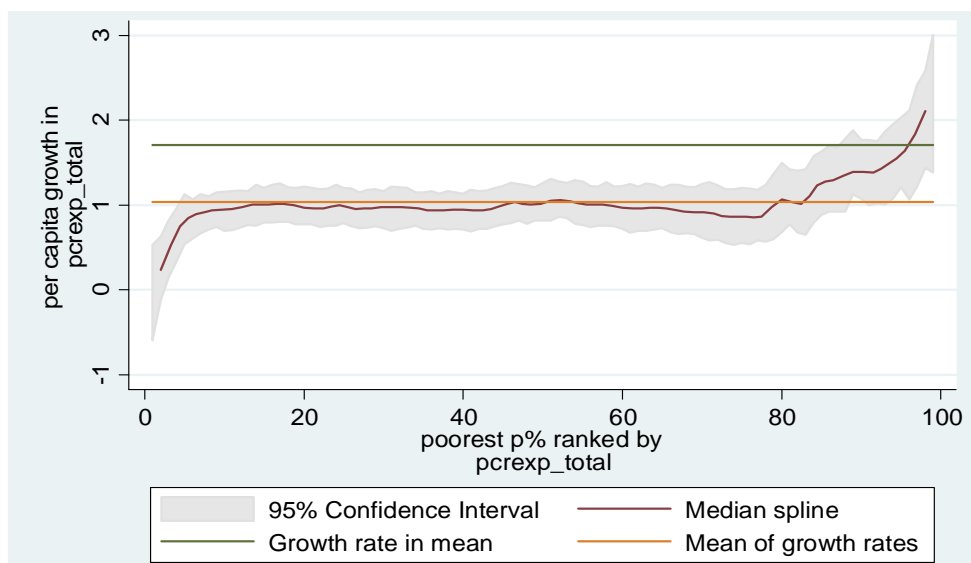
Figure 19: Network of ANC members and JSE Board Members⁸



Source: Acemoglu et al. (2007); reproduced with the permission of the authors.

⁸ Acemoglu et al. (2007) collected information from McGregors on the board members of all the companies listed on the JSE and then collected information on all members of the ANC executive committee since 1994 and all elected ANC politicians both at the national and regional level.

Figure 20: National GIC for per capita real expenditure, 1995-2010



Source: Development Policy Research Unit (2014).

For the bulk of the distribution, expenditure grew at a rate similar to the mean (1.71 per cent). For those above the 80th percentile expenditure increased at a rate greater than the mean. Below the 20th percentile however, in the 15 year period, expenditure has grown at a rate less than 1 per cent below the mean growth of the income distribution. We suspect that social grants make up a fairly large proportion of household income and expenditure at the bottom of the distribution, and it is expected that the positive growth rate of per capita expenditure was in part due to South Africa's intensive social assistance schemes.

In the post-apartheid period as the GIC results allude to, South Africa has become a progressively more unequal society. The Gini coefficient has increased by 3 points from 1995 to 0.69 in 2010 in terms of income (Table 7).

Table 7: Gini coefficients, 1995 and 2010

	1995	2010
Total*	0.618	0.66
By race of household head		
African*	0.548	0.581
Coloured*	0.474	0.542
Asian	0.445	0.489
White	0.397	0.45
By gender of household head		
Male*	0.606	0.647
Female*	0.575	0.619

Notes: The Gini coefficient is calculated using household expenditure.

Source: Statistics South Africa (2014), authors' own calculations.

The data suggests that since democracy, inequality levels in aggregate and for male- and female-headed households have increased. In turn, African and Coloured household inequality has risen.

Absolutes also matter though, and hence in the post-apartheid period, one of the most unequal middle-income countries in the world has become possibly *the* most unequal country. Arguably, the pattern and level of economic growth lies at the core of this welfare outcome, which has ensured that a minority of high-end, well-educated households at the top of the distribution have gained relative to those at the bottom-end. This lack of pro-poor growth in South Africa is a direct manifestation of a path dependency in growth which consistently favours modes of economic activity which both reproduce patterns of inequality and marginalize employment creation.

8 Conclusions

This paper has attempted to characterize South Africa's economic development trajectory as being starkly representative of a low level economic growth trap. An undiversified export profile, a low quality schooling system, and insufficient savings and investment levels all serve to perpetuate this growth malaise. Yet in our analysis, the reasons for this malaise seem clear enough: An incoherence in policy co-ordination and a lack of clear politically supported industrial policy framework looms large. In turn, the implicit social contract between big business, government and labour is readily evident in key areas of the economy ranging from port tariffs to telecommunications. In the aggregate we argue, those instances of a sewn-up social contract serve to perpetuate a growth path which favours: capital-intensity over labour-intensity; the currently endowed to the marginalized; and heavy manufacturing over light manufacturing. These are the ingredients we argue, for a low growth performance and the perpetuation of a growth path which is unable to engender strong redistributive outcomes and employment gains.

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