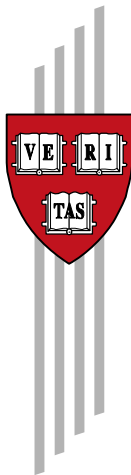


Final Recommendations of the International Panel on ASGISA

Ricardo Hausmann

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Abstract: As part of the Accelerated and Shared Growth Initiative (ASGI-SA), the National Treasury of the Republic of South Africa convened an international panel of economists through Harvard's Center for International Development. This panel spent two years analyzing the South African economy and its growth prospects, and composed 20 papers spanning all aspects of economic policy. The present paper synthesizes this body of work. We summarize the panel's assessment of the binding constraints to growth in South Africa and provide specific policy recommendations to help achieve the goal of accelerated and shared growth.

Keywords: South Africa, economic growth

JEL Codes: O50

This paper is part of the CID South Africa Growth Initiative. This project is an initiative of the National Treasury of the Republic of South Africa within the government's Accelerated and Shared Growth Initiative (ASGI-SA), which seeks to consolidate the gains of post-transition economic stability and accelerate growth in order to create employment and improve the livelihoods of all South Africans. For more information and the entire series of papers, visit the project's web site at <http://www.cid.harvard.edu/southafrica>.

Final recommendations of the International Panel on ASGISA

Ricardo Hausmann, Chairman

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Introduction

The transition to democracy in South Africa since 1994 has been remarkable. The country was able to replace a system that denied basic economic and political rights to the majority of its population with a true market democracy. It managed to make the transition while strengthening peace, macroeconomic stability, trade openness and property rights. Inflation was brought down from double digit levels to less than a third of its 1990 level. The rating of the country in external credit markets became one of the best among emerging markets. Economic growth accelerated after a decade and a half of decline that started around 1980. These are indeed impressive economic and social achievements in the context of daunting political challenges.

Nevertheless, during the first decade of democracy GDP per capita grew by only 1.1 percent per year. The combination of this rather modest rate of per capita GDP growth, uncertainty about the implications of changing labor market rules, a structural change in the economy away from low-skilled jobs, and a significant increase in the proportion of South Africans looking for jobs caused a very large increase in unemployment from close to 15 percent in 1995 to over 27 percent in 2004. Furthermore, reflecting a history of exclusion, income inequality has remained very high, ranking third in a sample of 86 countries for which data exists for circa the year 2000¹.

Conscious of the fact that growth was lackluster and that inequality was still very high, the government proposed in 2005 the Accelerated and Shared Growth Initiative for South Africa (ASGI-SA). The National Treasury appointed an international advisory panel to help identify the binding constraints to shared growth, propose policies to overcome them and monitor developments². This is a synthesis report of our findings.

¹ However, the country was able to allocate about 5 percent of GDP to social transfers to its previously disadvantaged peoples and significantly expand the allocations for health, education and low-income housing in the budget, suggesting that income inequality after taxes and transfers may show a substantially different picture.

² Members of the team are listed in Appendix 1.

Recent trends

Since 2004, growth has accelerated to close to 3 percent in per capita terms. Employment has expanded, and the unemployment rate has begun to decline from its peak in 2002 of close to 30 percent to a level close to 25 percent in 2007 in spite of a very rapid increase in the number of South Africans searching for jobs. Inflation has in general remained very close to the targeted levels in spite of the increase in the international price of energy and raw materials. Consumer confidence has been strong, buoyed by an emerging black middle class. Investment has risen from about 16 percent of GDP in 2000-2002, to over 18 percent of GDP in 2005-2007.

However, the acceleration of growth has been driven mainly by domestic demand and has been financed through a rising current account deficit, which has moved from close to balance around the year 2000 to about 7 percent of GDP at the start of 2007. This indicates that domestic demand has been growing faster than GDP and that investment has risen faster than savings. The external balance expresses these growing gaps. This has happened in spite, and maybe because of rising prices³ for South Africa's mineral exports. Moreover, the composition of domestic demand shows that the bulk of the increase took place in consumer durables and in investment in the non-tradable sector, such as real estate, finance and services. Investment in tradables has been rather flat, indicating that the external borrowing is not being used to finance the capacity to produce exports with which to pay back the debt. In addition, current government investment plans in energy, transportation infrastructure and the preparation for the 2010 World Cup are bound to create significant new investment pressures in non-tradables in the remainder of this decade. Clearly, the planned increases in public investment will have to be financed *in the aggregate* from domestic sources, as external finance is already uncomfortably high.

This indicates that the growth acceleration observed since 2004 does not appear to be externally sustainable. Eventually, domestic demand will have to grow more slowly than GDP in order to reestablish external balance, but as demand slows down, it will bring down the growth in the non-tradable sector: (construction, finance, retail and other services). To maintain overall growth and employment, the country will need to rapidly increase its exports.

This is a major challenge, as South Africa's exports have exhibited remarkably little dynamism over the long run. In the 44 years between 1960 and 2004, the real value of exports grew by only 34 percent (about 0.7 percent per year). By contrast, export growth was 169 percent in Argentina, 238 percent in Australia, 1887 percent in Botswana, 385 percent in Brazil, 387 percent in Canada, 390 percent in Chile, 730 percent in Israel, 1192 percent in Italy, 4392 percent in Malaysia, 1277 percent in Mexico and 120 percent in New Zealand, to name a few relevant comparators.

³ As argued in Frankel, Smit and Sturzenegger (2006), the ample global liquidity has expressed itself in high commodity prices and low interest rates which have reinforced the flow of capital into commodity exporters and fed an asset price boom there.

The recent growth spurt has also highlighted the importance of infrastructure bottlenecks. Over the long period of slow growth since 1980, the country has invested little in its transportation and energy infrastructure and this translates into congestion and brown-outs as the increased demand pushes against a limited supply. This corroborates the importance of the investment program identified in ASGI-SA. But since investment is particularly import-intensive, this will further increase the pressures on the external accounts.

Summing up, the current rate of growth of the economy is *above* what is sustainable given the current pattern of growth and the structure of the economy and, still, it remains below the desired target of 6 percent announced by ASGI-SA for the start of the next decade. To achieve the growth target of 6 percent, additional efforts will have to be made to relax the *binding constraints* that keep the speed limit of the economy below what ASGI-SA would like to achieve. Identifying those binding constraints and relaxing them through policy interventions in a way that achieves a better participation of the population in the fruits of growth is the key to achieve the goals of ASGI-SA.

A strategy for shared growth

At present there are about 13 million South Africans working. This represents only about 42 percent of the working age population. In countries in Latin America, Eastern Europe and East Asia at similar levels of development, the proportion is about 50 percent higher. Those currently not working in South Africa are predominantly black, women, young and poorly educated. In fact, while over 85 percent of those with a university degree are working, fewer than 35 percent of those without a matric have jobs. While employment among men is about 50 percent, it is only 34 percent among women. While 60 percent of those between the ages of 35 and 50 are working, fewer than 25 percent of those between 20 and 25 are. While the unemployment rate of whites is less than 6 percent, it is above 30 percent for Africans.

Hence, if today South Africa had a rate of employment similar to that of comparable countries in other parts of the world, over 6 million more South Africans would be working. They would be predominantly African, women, young and with no post-matric education. An important fraction of the income generated through increased employment would be received by this group of South Africans. Another way to describe this situation is to note that these citizens represent a very important untapped resource to create shared growth. If the employment ratio could increase by 50 percent at current average productivity levels, GDP per capita would rise by as much. The goal of ASGI-SA is an increase of GDP per capita of 38 percent by 2014. Achieving this target through increased employment rates would imply sharing the opportunities with the groups currently excluded from productive opportunities.

Part of the difficulty in the South African labor market is the fact that there have been very large declines in the absolute number of jobs in agriculture and mining. In 2004, mining employment was 29 percent lower than in 1994 and 43 percent below its

historical peak in 1986, a loss of 177,261 and 323,603 jobs respectively. In agriculture the picture is similar: agriculture shed 112,352 jobs between 1994 and 2004, a fall of 12.1 percent. In contrast with other high growth countries, the decline in primary sector jobs was not compensated with increased employment in manufacturing, which also declined since 1982. During the decade between 1994 and 2004, manufacturing jobs fell by 11.7 percent or 165,448 jobs and by 21.0 percent or 332,441 jobs since its 1982 peak. These are very large reductions in absolute jobs at a time when the labor force has been growing rapidly.

It is important to note that in South Africa, agriculture, mining and manufacturing have been the activities most intensive in unskilled labor. Their relative decline has affected principally the opportunities faced by South Africans with lower educational attainment. In manufacturing, about 60 percent of jobs are classified as low skilled, while in the private non-tradable sector fewer than 25 percent are. The parts of the economy that have grown the most, such as finance and business services, tend to be the most skill-intensive. Hence, the jobs have been lost in the sectors whose skills are more closely matched with those of the millions of working age South Africans who are out of a job. This pattern of growth aggravates the impact of the skills constraint on the economy: the sectors that grow are the ones that are most intensive in what is most scarce. It also aggravates the external imbalance: the sectors that grow (i.e. the non-tradables) use up foreign exchange but do not generate it, while those that stagnate are the ones that can potentially improve the external position of the economy. To achieve greater levels of employment and a stronger external position the economy needs a relative expansion of the tradable sector which implies more low skilled jobs.

Hence, a strategy for externally sustainable and shared growth involves the creation of jobs in the tradable sector, which in an open economy translates into *export for jobs*. Such a pattern of growth is needed in order to create the external resources required to sustain growth. It is also needed to create the kinds of jobs that use the human resources that the society has at its disposal.

It is clear from business surveys and from the general national debate that skills are in short supply and a strategy to relax this constraint is necessary. However, we argue that the skills constraint is aggravated by the pattern of growth that South Africa is experiencing, and in fact is in large part its result. The growth strategy of ASGI-SA has to be based on the people that South Africa has, not on the people that it wished it had. A strategy based on the relative expansion of the tradable sector represents a better match with the currently under-utilized human resources of the economy.

Why is this not happening automatically through the normal operations of the market? In the next section we shall analyze the binding constraints that may be keeping the economy from realizing this potential. However, it is important to understand at the strategic level the fact that shared growth is not the only priority that is expressed in the current policy stance of the government. Black Economic Empowerment (BEE) is a second and separate goal. There are elements of BEE that should form part of any strategy for shared growth in South Africa. Reversing discrimination allows society to

use the talents of its entire people. A more equal distribution of ownership and control will make property rights more secure encouraging investment and risk-taking.

Now, while increased emphasis has been given more recently to broadening its scope, BEE has been focused mainly on issues of *ownership* and *control*. In a society where for decades ownership and control were denied by law to the majority of the population, reversing this reality is a valid policy goal. But there are ways in which the implementation of BEE can also create important trade-offs between ownership and control, on the one hand and shared growth, on the other. For example, it may complicate firm creation, exacerbate skills constraints in managerial positions, create greater regulatory burdens and uncertainties and thus discourage investment and job creation. Making BEE compatible with shared growth is an important strategic and difficult objective.

Diagnostic

When looking for binding constraints to growth it is useful to look at relative performance. Here a metaphor is useful: when trying to understand why there are so few animals in the Sahara desert, it is useful to note that the few animals one does find tend to be camels and not hippos. If the problem is lack of water, the animals that survive are the ones that are particularly good at managing water. In the context of South Africa, it is clear that the sector that has grown less and that has suffered the biggest employment losses has been the tradable sector: this is expressed in the dismal long term growth in per capita real exports and in the massive job losses in the sector. This sector has some characteristics that make it vulnerable.

The level and volatility of the real exchange rate

First, the tradable sector is particularly sensitive to the level and volatility of the real exchange rate. The real exchange rate is the relative price of tradables to non-tradables and thus its level affects the relative profitability of the two sectors. In addition, its volatility tends to cause a rise in the instability of profits and hence increase the riskiness of investment. But the impact is greater in the tradable sector because in the non-tradable sector, prices and wages usually move in tandem: in good (bad) times, wages are high (low) but so are prices. This tends to stabilize profits as revenues and costs co-move. By contrast, in the tradable sector, when the currency is strong, which is usually in good times, export prices in Rand are low because of the strong currency, but wages are high. Hence revenues and costs tend to move in opposite directions making profits more volatile.

The fact that investment and growth in the tradable sector have lagged is indicative of problems with the level and stability of the real exchange rate. Regarding the level, it is important to note that an *equilibrium exchange rate* is one that is compatible with *full employment* and *external balance*. The fact that the country has a large current account deficit and high unemployment indicates that the only way to achieve both external

balance and full employment is with a more competitive real exchange rate. Greater domestic demand cannot do this because it would reduce unemployment through the expansion of the non-tradable sector, but would widen the already large current account deficit even further. In this respect, it is important to note that the paper by Edwards & Lawrence (2006) for this project shows that exports have been quite responsive to the real exchange rate in South Africa.

The volatility of the real exchange rate in South Africa has been high. It has averaged around 11 percent per year over the last quarter century and over the last 15 years. This puts the country in the bottom quartile of a sample of 95 countries, not as bad as Nigeria (34.4) or Venezuela (14.4), but much worse than Australia (6.2), Malaysia (6.8), Canada (5.5) and Chile (5.2).

Now, the real exchange rate is an endogenous variable. Its level and volatility are not set by government but are the outcome of the whole macroeconomic balance. Therefore, it is this balance that must be the focus of policy. The greater the level of domestic demand, the stronger the real exchange rate. The more volatile the level of domestic demand, the more volatile the real exchange rate. We will therefore propose that the government maintain the main features of its macroeconomic strategy in terms of fiscal prudence and inflation targeting, but that it introduce some changes. First, fiscal policy should be set with an aim of increasing savings so as to make a significant contribution to funding the ASGI-SA public investment objectives. Second, the target fiscal policy should not be the actual deficit but the structural deficit, i.e. a concept of deficit that takes into account the expected levels of the terms of trade and the cyclical conditions of the country. This will introduce more stability to the level of government spending. Finally, the South African Reserve Bank (SARB) should maintain its flexible inflation targeting regime but should be more responsive to deviations of the real exchange rate. It can do so through a greater use of intervention in the currency market when it deems it necessary to prevent excessive appreciation, and by signaling its concern about the level of the exchange rate to markets when appropriate. The SARB should communicate its new emphasis to the public.

Trade Policy

In addition, the effective relative price faced by a particular tradable activity will depend on trade policy. The existence of tariff protection in intermediate goods acts as a tax on those industries that use these goods as inputs. Work by Edwards and Lawrence for this project suggest that this effect is important and that a strategy based on the relative expansion of the tradable sector would benefit from a reduction in the tariff on inputs. We will therefore suggest changes to the tariff regime and to the regional integration strategy followed by South Africa.

The logistics system and other input costs

A second characteristic of the tradable sector is that it is global in nature and subject to competition from other countries. Since foreign costumers have options, they will not be

willing to pay for aspects that make South Africa relatively costlier. For example, the foreign consumer will not be willing to pay for the cost of South Africa's remoteness means as expressed in the extra transportation cost that buying from South Africa might represent. This cost is deducted from the value added that South African companies can pay to their stakeholders. Inefficiencies in the logistic system act as a tax on exports or alternatively as a lower export price and hence limit the creation of jobs in this activity. True, this same logistic cost acts as a tax on imports, improving the relative competitiveness of South African tradable firms in the domestic market. But increasingly, economic activity and especially the manufacturing sector rely on the use of a widening array of inputs that are globally sourced. An inefficient logistics system will also imply a smaller overall size of the domestic tradable market.

The acceleration of the rate of growth of the economy is already bumping against infrastructure constraints that have been identified by the ASGI-SA program. The economy has invested very little in transportation and energy since the 1970s and it shows. Whether it is road, rail, port or pipeline congestion or electricity shortages, the economy is clearly demanding an expansion of capacity. It is important that the requisite investment be made so that they do not become a constraint to the growth process. These investments are needed because of the effect they will have on increased supply. They will also trigger demand pressures on the economy. Now, the economy already has more domestic demand than it can handle, as expressed in the current account deficit. Therefore, it is important that this public investment program be accompanied with greater fiscal savings, as discussed above.

In addition, many markets in South Africa suffer from limited competition. High margins and restricted entry are in theory and obstacle to growth. Work by Aghion, Braun and Federkke for this project have shown that on average margins in South Africa are 50 percent higher than in other countries and that this is strongly related to poor growth. Hence, there is evidence that lack of competition is a problem, limiting investment in activities that present large barriers of entry or that use inputs from activities with strong pricing power.

Labor market constraints

In a similar vein, problems with the relative cost and riskiness of the labor relationship are more damaging to the tradable than the non-tradable sector. This is so because an increase in the cost of labor paid by all local employers can be passed on to the consumer if the activity is non-tradable, since all competitors must pay it, but not in tradable activities, since foreign competitors face a different labor code. This is especially important for tradable activities, such as manufacturing, that are not sheltered by natural rents as is the case in mining.

The analysis of the labor market by Banerjee, Galiani, Levinsohn and Woolard for this project suggests that the pattern of employment and unemployment is compatible with the existence of wage rigidities that are not proportional to the wage, but that bind more at the bottom of the pay scale. Unemployment is concentrated among young blacks, with

less than a college degree and hence, if employed, would have received relatively low wages.

It is important to point out that all empirical studies of labor demand show that high skilled and low skilled workers are strongly complementary, not substitutes. Coffee and tea are substitutes while coffee and sugar are complements. The implication of complementarity is that the greater the supply of one, the greater the demand of the other. The shortage of highly skilled workers causes a lower demand for low skilled workers: the lack of engineers may cause the loss of hundreds of blue collar jobs. If the rate of substitution is low, the constraint on highly skilled workers may cause such a low demand for low skilled workers that the wage at which they would be employed is unacceptably low. Since the shared growth strategy involves maximizing the job opportunities of the less skilled, it is fundamental that the high skill constraint be relaxed, especially in tradables. An obvious policy to quickly relax the constraint is through a liberalization and encouragement of high skilled immigration. We shall propose such a policy below. Greater immigration of highly skilled workers will help limit the increase in wage inequality that is already happening and that will get worse as the economy keeps growing at the current rate.

It is important, in this respect, to stop and reverse the emigration of high-skilled whites. This will be helped by the rising compensation for the highly skilled, which will worsen income distribution, but there is substantial anecdotal evidence that BEE rules may be sending a negative message to both young white university graduates and those in senior management. In addition, BEE rules are increasing the demand for high-skilled previously disadvantaged South Africans at a time when they are already facing very high and rising demand. To the extent that this tightens the skills constraint at the top it lowers the demand for lesser skilled workers and thus widens income and opportunity disparities among the previously disadvantaged. Encouraging the retention of all high skilled South Africans and the attraction of foreign high skilled persons will be crucial to limit wage inequality and facilitate the creation of jobs for the less skilled and thus achieve shared growth⁴.

Dynamic analysis of labor market outcomes suggests that the young are never even given the chance to show their capabilities. This may be related to the fact that firms can get more educated or experienced workers at the minimum wage they are required to pay and that they fear trying out inexperienced workers for fear that it will be costly to undo the relationship⁵.

Therefore, we propose a wage subsidy allowance for all 18-year olds that they can use throughout their life to facilitate the school to work transition and to assure that the

⁴ In fact, in a general equilibrium context with strong skilled-unskilled complementarity at the industry level, the presence of a skills constraint will cause most job destruction in the unskilled intensive sector, which in South Africa is the tradable sector and the one that stands to benefit the most from a relaxation of the skills constraint through immigration.

⁵ The Investment Climate Assessment survey of the World Bank ranked restrictive labor market regulations as the top constraint faced by business. The Economist Intelligence Unit also ranks labor regulation risks relatively high.

educational skills of the new cohorts do not deteriorate through a long period of unemployment. We will propose that during the probation period in which the allowance is used, employers be free to dismiss workers without any justification. This will encourage more experimentation and a more efficient matching of workers to jobs.

In addition, there is a rising wage differential between union and non-union workers, after controlling for personal, regional and industry characteristics, especially among the unskilled and semi-skilled Africans where it increased from 21 and 15 percent respectively in 1995 to 37 and 33 percent respectively in 2004. It is noteworthy that the manufacturing sector exhibits a relatively high rate of unionization: 40.2 percent in 2004 when the national average was 29.6 percent. Hence, union strategy must recognize the trade-offs between higher wages for the already employed and greater employment creation, especially in tradables.

An additional source of concern is the fact that the training system is not helping ease the skills constraints associated with technical training. In 1998 Parliament approved the Skills Development Act that created Sector Education and Training Authorities (SETAs). The generalized perception is that the performance has been mixed. Some SETAs have achieved significant involvement by employers and workers and deliver adequate training. Many however do not. In general, relatively concentrated sectors with large firms perform better. More fragmented sectors cannot overcome constraints to collective action. We will propose reforms to improve the performance of SETAs. These reforms are based on the idea that there should be easier formation of SETAs and greater choice for firms to choose their SETAs and have their levies move with their choices. This will create automatic mechanisms for the correction of problems by allowing entry and exit.

Obstacles to structural transformation

A fourth characteristic of the tradable sector is that it is subject to greater obstacles to productive transformation. When a producer innovates (i.e. becomes the first domestic producer of a good) in the non-tradable sector, she becomes a monopolist of her innovation in the domestic market. This makes it easier for her to recoup the costs associated with the innovation. By contrast, in the tradable sector there is competition from pre-existing foreign producers so that the expectation of recouping the efforts at innovation is smaller. This is readily seen by comparing the market for mobile telephony (a non-tradable) with the market for mobile handsets (a tradable). All countries nowadays have mobile telephony, including Sudan, a failed state unable to control the country. The inadequacy of the business environment translates into a smaller and more expensive service, but there is a domestic price at which some service is offered. However, handsets are produced in only a few countries. If a country cannot meet the international price it produces zero handsets.

In general, countries face two types of market failures that limit structural transformation: information externalities and coordination failures. Attempts at innovation create information about which bundles of novel products and business models work and which

do not. This information spills over to other players who benefit from it without incurring the innovator's costs. This dulls the incentive to innovate. Developed countries mitigate this effect through patent protection and R&D subsidies. In developing countries the efforts at innovation have less to do with the invention of new products or processes than with the search for products that can be profitably produced in the country gives its actual and potential capabilities. Because of these informational spillovers, the market generates too little effort at searching this space.

The second type of obstacle consists of coordination failures. In general, production of a particular good requires a combination of general purpose inputs and inputs specific to that good. If the latter can be imported, they will be. But if the specific inputs need to be produced domestically, there will be a chicken and egg problem in the market for such inputs. Individuals, firms and government will have no incentives to invest in the creation of these specific inputs unless they can market them to a corresponding industry. However, nobody will invest in that industry unless the requisite inputs are readily available. In practice, this limits the type of structural transformation that the market can generate: countries move from existing activities to new activities that are "near" the existing ones in the sense that they use similar relatively specific inputs.

Coordination failures are particularly difficult when the required inputs are provided by the government, instead of the market, as in the case of property rights, regulation, infrastructure and training. The difficulty is that there typically is neither a price system to create information about relative needs nor a profit motive to give automatic incentives to respond to the information. Instead, the quality of the government becomes crucial. Hence, poor government capacity in the delivery of specific public inputs is a potential binding constraint on structural transformation.

Not all countries face the same difficulty in moving to new products. This depends on how "near" are alternative products from current ones. Some products, such as electronics or chemicals, tend to have very close neighbors. However, others tend to require highly specific inputs that have no close alternative use. A case in point is mining: its property rights regime, its logistics and even its skills requirements are quite specific, with few alternative uses, meaning that the activity is not that good as a stepping stone into other areas.

South Africa faces particular challenges in structural transformation. On the one hand, it is a country that has historically relied on its natural non-renewable mineral resources as a source of comparative advantage. But mineral resources cannot be accumulated. Instead, they are depleted through production. So, while South Africa was a major gold exporter in 1960 when its population was just 17 million, it now faces an exhaustion of its gold production while at the same time its population is 47 million. Mineral exports per capita have been on a downward trend over the past 45 years, and finding other areas of economic activity to replace them has been slow and difficult. Moreover, specialization in mining does not facilitate the move into other sectors, because as

mentioned above it uses capabilities that can't be easily adapted to other activities⁶. Recent trends in diversification of the South African economy suggest that future progress should be easier, given that South Africa has moved to products in denser parts of the product space.

Accelerating structural transformation is strategic for South Africa not only because mining has been falling in per capita terms for decades, but also because the faster development of new high productivity tradable activities will create jobs that can pay decent wages, so that full employment can be achieved without a major decline in wages at the bottom of the pay scale.

We shall propose a strategy to accelerate structural transformation by encouraging search and by addressing coordination problems in the supply of specific public goods. In addition, we will propose a strategy to improve the performance of key government agencies that affect competitiveness.

BEE, Ownership and Control, and Shared Growth

Black Economic Empowerment (BEE) can be compatible with, and indeed an important element of, shared growth. A society that is perceived as fair is more likely to protect property right and thus encourage investment, effort and risk-taking. In addition, a redistribution of assets and opportunities may create a more equal distribution of income and greater social mobility. Finally, there are many economic, social and political advantages in creating a black entrepreneurial class. But elements of BEE as currently envisioned, by requiring equity transfers imply an open-ended tax on existing and new capital. Furthermore, it complicates the creation of new firms by demanding either equity or senior-management participation⁷. Furthermore, while the process started in a decentralized manner by finding sector-specific opportunities for improvement, the recent approval of the codes of conduct may create an environment in which firms are more interested in complying with a fixed set of requirements rather than innovate in strategies to promote empowerment.

There is now very strong demand for blacks for senior management positions and it is likely to increase significantly with current growth trends. As firms try to comply with this element of the BEE scorecard, they will face an increasing skills constraint at the senior management level. By contrast, there is ample room to improve empowerment through job creation, training and supplier development for people currently at the bottom of the income distribution. We shall propose that the scorecard be rebalanced to encourage these latter types of activities. It would also be useful to define sunset clauses for BEE: if the policy is successful, it should become redundant.

⁶ Using new techniques we analyzed the position of South Africa and found that it has traditionally specialized in a poorly connected part of the product space, making structural transformation harder (Hausmann and Klinger 2006).

⁷ New firms are only given one year to comply and small firms are defined as having a turnover of less than 5 million Rand.

One worrisome reminder of the potential costs of interventions in the area of ownership and control is the recent performance of the mining sector. The introduction of a new mining law (associated with a redistribution of ownership and control rights between the state and the industry) and the BEE requirements have contributed to a decline in investment and output at a time when the industry has been facing very high international prices and when investment has been rising elsewhere. If this can happen in a high rent industry such as mining (granted not only because of BEE rules) it signals the potential for serious problems in sectors where the profitability is much less certain.

Policy initiatives

In this section, we will summarize the policy recommendations to allow of the international panel to implement the strategy described above. We shall start with macro policies,

Macroeconomic strategy

Domestic demand has been growing above the sustainable rate of growth. This is expressed in a widening current account deficit and an inflation rate above the target. Moreover, we estimate that the investment goals of ASGI-SA are incompatible with external balance unless there is a greater contribution to national savings by the fisc. Finally our studies suggest that fiscal policy has been pro-cyclical and the SARB has been unresponsive to movements in the real exchange rate. Both effects have accentuated the volatility of the real exchange rate.

Recommendation 1. Fiscal policy should make a greater contribution to national savings in order to bring down the growth of domestic demand. In addition, this should permit SARB to achieve the inflation target with a lower interest rate and hence with a more competitive exchange rate. We recommend a larger fiscal surplus target for 2008. Given current conditions, it should be at least in the 1 to 2 percentage points of GDP, depending on cyclical considerations (see the next recommendation).

Recommendation 2. Fiscal policy should be set in a clearly counter-cyclical fashion. This can be achieved by targeting the structural fiscal deficit. A methodology should be adopted to calculate the structural deficit taking account of the business cycle, the position of the current account (which affects tariffs and VAT revenues) and the level of export prices. This may involve the creation of an independent commission to propose the relevant calculations, as is done in Chile.

Recommendation 3. The National Treasury should eliminate the existing restriction on capital outflows. These restrictions play no useful role in the current context. It is an open question whether there may be some use in maintain a legal framework to re-impose controls on outflows in the future if need be, but this should be done in a way that does not creates transaction costs today.

Recommendation 4. Maintain the current inflation targeting regime but adopt a strategy that pays more attention to the level and stability of the real exchange rate. This involves

the use of SARB statements on the exchange rate when it deviates from what the bank considers compatible with external and internal balance. In addition, it should be willing to intervene to back up its statement. This can be coordinated with the National Treasury that can consider other interventions, such as paying down the foreign dollar denominated debt or changing the regulations on pension funds regarding foreign asset holdings. There should be an explicit statement of the SARB announcing the change in policy emphasis to maximize the impact of the new strategy.

Trade and competition policy

Recommendation 5. SACU trade policies should be reformed using a strategy that focuses on liberalizing input tariffs so that tariffs on final products can also be reduced and exports stimulated through the creation of a competitive input base. The tariff structure should be radically simplified using just two or three rates although a limited number of temporary measures could also be implemented for infant industry and safeguard purposes.

Recommendation 6. The SACU tariff revenue sharing formula should be renegotiated with distinct revenue-sharing and development components.

Recommendation 7. South Africa should take the lead in encouraging African economic integration but avoid entanglements in unrealistic Customs Union agreements. Instead, it should promote free trade areas and focus on physical and institutional integration issues.

Recommendation 8. Adopt a pro-active rather than a complaints-driven competition policy in order to reduce barriers to entry. Entry can also be encouraged by adjusting the BEE policy and reducing tariffs on inputs as described above.

Labor market policies

Recommendation 9. Facilitate the school to work transition and encourage employers to experiment with younger workers by a once-and-for-all wage subsidy card of a fixed amount (e.g. 6 months of minimum wage) to all South Africans when they turn 18-year olds. Employers would deduct part of their payments from this subsidy. The subsidy should allow employers to recoup part of their salary payments to young workers from the card. This will allow for a subsidized trial period that is portable between employers while it lasts. Students continuing their education past the age of 18 can use it years later when they decide to enter the labor market. During the subsidized trial period there would be no-questions-asked job termination.

Recommendation 10. Facilitate the creation of new SETAs by eliminating the requirement that it be constituted from organized labor and organized employers and the need for nomination by NEDLAC. Allow firms to move to the SETA of their choice. Allow firms to belong to more than one SETA. Have the moneys provided by the levy move with the decisions of affiliation taken by the firm.

Recommendation 11. Encourage high-skilled immigration. A simplified fast-track for all work visa applicants with a postgraduate degree from a reputable institution would help

ease the skills shortage while at the same time create more jobs for less-skilled South Africans.

Industrial Policy

Recommendation 12. Focus the activities of the Industrial Development Corporation (IDC) in the financing and incubation of activities that explore the possibilities of new products, new processes, new geographical zones or new forms of organization and that can crowd in significant additional investment through imitation and replication of the identified business model. The IDC should also look at specific infrastructure projects that can address industry-specific needs, such as industrial zones. The IDC should allocate part of its profits to funding substantial exploratory and pre-investment studies. The IDC should be evaluated not in terms of the returns it receives on old investments – it should not see itself as an asset management firm – but on its ability crowd in investment and structural transformation. It should be encouraged to turn over the portfolio by disinvesting in old assets to finance new activities. It should not focus on financing small and medium enterprises per se or BEE deals.

Recommendation 13. Substitute or complement the current DTI policy of developing Customized Sector Programs with a strategy based on an open-architecture approach with self-organization of relevant actors. This should relieve the DTI's capacity constraints by mobilizing the energy and resources of the rest of society. The strategy should focus on the provision of industry-specific publicly provided inputs, such as infrastructure, property rights, regulation, research and development, market studies and market access conditions to be identified by a myriad of self-organizing bodies. The government should encourage the self-selection of these bodies taking into account their willingness to co-finance the initiatives. The government should also ensure that activities undertaken by these bodies be monitored, with the aim of continuously improving the way projects are selected and adjusted to knowledge generated by their implementation. DTI or other sector ministries should certify that resources are used for activities that qualify as either public goods or inputs that cannot be provided by the market either because the government has taken on the responsibility of the activity (e.g. ports) or because it is impractical for markets to do it. The resources of this program should not go into subsidies, which should form part of a different initiative.

Recommendation 14. We propose that a special central budget for structural transformation be created and announced. This budget will be allocated to public entities that are responsible for providing the public inputs identified through the process described above. This should facilitate the coordination between the departments in charge of leading the dialogue with productive activities and the public entities in charge of the provision of the requisite public inputs, thus alleviating the intra-governmental coordination problem and allowing a dynamic adaptation of the budget to evolving needs.

Recommendation 15. The existing MIDP program has fulfilled its goal of retaining and growing an auto industry that has the potential of becoming competitive in the global industry without government support—but the industry is not there yet. The central issue faced by the sector is one of large-scale coordination. Many (but not necessarily all) of

the OEMs can see a path of scaling up to a level at which they can be competitive, but they are in need of a well-developed domestic supplier base for this to become a reality (in view of the logistics cost of importing components from great distances). Potential first-tier suppliers, on the other hand, themselves have to operate at large scale to meet the needs of the OEMs, but are hesitant to make the investment in South Africa if that means that they will be tied to a single OEM and therefore left hostage. The solution is to focus the incentives away from exports and towards incentivizing capacity expansion and generation in supplier industries directly. We recommend a gradual phasing out of the IRCC scheme, and its replacement by a supplier-base promotion scheme that consists of two “windows:”

- a. A standard incentive that takes the form of a subsidy on the wage bill or the capital cost for new capacity by first-tier suppliers to OEMs.
- b. An ‘open window’ where the support depends on specific needs of the firms in question.

Qualifying firms would be asked to choose between the two windows. The idea is to give firms the option of making specific demands that fit their own requirements best. The scheme has the added advantage that it would allow the government to learn about the obstacles faced by investors in the industry.

Recommendation 16. Beneficiation should not be used as the basis for selective intervention and industrial promotion. Greater processing of natural resource exports does not constitute either an easy or a natural next step in the process of structural transformation, especially in South Africa. Downstream sectors already benefit from proximity to inputs and South Africa’s remoteness from the rest of the world. If these sectors have not developed on their own, it is *prima facie* evidence that either they face low social returns or confront obstacles similar to those of other sectors. We find that in South Africa there are many other activities that appear to be either “closer” or potentially more valuable than downstream processing. Privileging beneficiation is unwarranted and it takes government’s attention away from other opportunities that may have more potential to create export jobs in South Africa. The idea, currently under discussion, to allow firms the ability to discharge their BEE equity obligations through beneficiation should be expanded to include any additional *greenfield* diversification activities undertaken by the mining industry.

Public administration

Recommendation 17. Adopt ISO-9000-type certification standards for government entities that provide economically-relevant services. Leverage the rich experience of the South African Bureau of Standards (SABS) to create standards of service and feedback mechanisms that will allow over time the gradual improvement of selected government processes. Given the strategy delineated above, some examples of critical services are the work visa procedures in the Home Affairs Department (to alleviate the skills constraint through immigration), the Companies and Intellectual Property Registration Office (CIPRO) (to facilitate firm creation and entry), the Medicines Control Council (to facilitate the development of a safe and sustainable medicinal drug industry), the

Customs Services (to minimize international transaction costs) and the South African Revenue Service (to make sure that taxation is as efficient as possible).

Recommendation 18. Require municipalities rated by National Treasury as “poor” in capacity to use central bodies (e.g. National Roads Agency, Department of Water and Forests, IDT) for procurement or provision of municipal services such as water, electricity, roads, housing, and sanitation. Municipalities would continue to make the strategic choices about what mix of such services they wish to pursue, which maintains the decentralization of decision-making. But such decentralization would now be cognizant of the administrative limitations of many municipalities.

Black Economic Empowerment

Recommendation 19. Add elements to the existing scorecard, giving firms flexibility to decide where to focus their empowerment initiatives. The new elements should focus explicitly on bottom up empowerment interventions and economic growth elements such as employment or firm creation, learnerships, apprenticeships and training and spatial development. Firms should be required to explain in a succinct plan the elements and targets they choose, given the context of their sector.

Recommendation 20. Eliminate the equity participation requirement for all (truly) new firms so as to facilitate firm creation and to clarify that the implicit tax associated with BEE deals will fall on the capital accumulated in the past and not in the future. Provisions should be made to make sure that “old equity” firms do not use financial engineering to elude the equity requirements.

Recommendation 21. Develop a credible system to collect information on BEE, and put in place a mechanism that uses that information to evaluate progress and signal the future directions of the policy. The currently available information on BEE performance is neither credible nor sufficient. Such information has to be collected, and then systematically used to evaluate BEE as a policy. There is clear potential for the current situation of little information, little evaluation, and uncertainty about the future to harm both investment and empowerment.

Appendix 1 – Project Team Members

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Appendix 2 – Project Papers

Acemoglu, D., S. Gelb and J. Robinson. 2007. “Black Economic Empowerment and economic performance in South Africa.” Harvard University Center for International Development Working Paper, *Forthcoming*.

Andrews, M. 2007. “Is Black Economic Empowerment South Africa's growth catalyst? A study of the policy's impact on relational structures in the economy.” Harvard University Center for International Development Working Paper, *Forthcoming*.

Aghion, P., M. Braun and J. Fedderke. 2006. “Competition and Productivity Growth in South Africa.” Harvard University Center for International Development Working Paper #132.

Banerjee, A., S. Galiani, J. Levinsohn and I. Woolard. 2006. “Why Has Unemployment Risen in the New South Africa?” Harvard University Center for International Development Working Paper #134.

du Plessis, S., Smit, B. and F. Sturzenegger. 2007a. “Identifying Aggregate Demand Shocks in South Africa.” Harvard University Center for International Development Working Paper, *Forthcoming*.

du Plessis, S., Smit, B. and F. Sturzenegger. 2007b. “The Procyclicality of Fiscal and Monetary Policies in South Africa.” Harvard University Center for International Development Working Paper, *Forthcoming*.

Edwards, L. and R. Lawrence. 2006. “South African Trade Policy Matters: Trade Performance & Trade Policy.” Harvard University Center for International Development Working Paper #135.

Edwards, L. and R. Lawrence. 2007. “SACU Tariff Policies: Where should they go from here?” Harvard University Center for International Development Working Paper, *Forthcoming*.

Frankel, J. 2007. “On the Rand: Determinants of the South African Exchange Rate.” Harvard Center for International Development Working Paper #139.

Frankel, J., B. Smit and F. Sturzenegger. 2006. “South Africa: Macroeconomic Challenges after a Decade of Success.” Harvard Center for International Development Working Paper #133.

Hausmann, R. & B. Klinger. 2006. “South Africa's Export Predicament.” Harvard University Center for International Development Working Paper #129.

Hausmann, R., B. Klinger and R. Lawrence. 2007. "Examining Beneficiation." Harvard University Center for International Development Working Paper, *Forthcoming*.

Hausmann, R., D. Rodrik, and C. Sabel 2007 "Reconfiguring Industrial Policy." Harvard University Center for International Development Working Paper, *Forthcoming*.

Kelman, S. 2007. "Discussion paper on procurement issues in South Africa that affect growth and development." Harvard University Center for International Development Working Paper, *Forthcoming*.

Levinsohn, J. 2007. "Policies to address unemployment in South Africa." Harvard University Center for International Development Working Paper, *Forthcoming*.

Levinsohn, J. 2007. "HIV/AIDS and school attendance in South Africa." Harvard University Center for International Development Working Paper, *Forthcoming*.

Ortiz, A. and F. Sturzenegger. 2007. "Estimating the Taylor rule for the SARB." Harvard University Center for International Development Working Paper, *Forthcoming*.

Rigobon, R. 2007. "Through the Pass-Through: Measuring Central Bank Credibility." Harvard University Center for International Development Working Paper #143.

Rodrik, D. 2006. "Understanding South Africa's Economic Puzzles." Harvard University Center for International Development Working Paper #130.

Stone, C. 2006. "Crime, Justice, and Growth in South Africa: Toward a Plausible Contribution from Criminal Justice to Economic Growth." Harvard University Center for International Development Working Paper #131.