

INDUSTRIAL POLICY IN SOUTH AFRICA:

TARGETS, CONSTRAINTS AND CHALLENGES¹

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1. Introduction

Sanjaya was a firm proponent of industrial policy. He provided a trenchant critique of the view that liberalization could result in genuine and sustained development. For Sanjaya, the heart of the development process was the acquisition of technological capacities. The advance of technological capacities in a developing country setting is subject to ubiquitous market failure, coordination problems and strong informational uncertainties. Government has accordingly an essential role to play. Government intervention could take three forms – selectivity, focused on “picking winners” (these “winners” might be sectors or activities); functionality, focused on improving the functioning of markets and finally the horizontal approach, focused on improving activities in certain selected activities. Sanjaya argued that ‘...technology development generally involves a mixture of function, horizontal and vertical policies, the exact mix varying with country context and the capabilities of its policy makers.’ (Lall, 2001:32)

This paper examines industrial policy in Africa’s most developed and industrialized economy – South Africa. In the current discussions and deliberations as to how South Africa could significantly raise its rate of growth, industrial policy has moved to center stage. The Accelerated and Shared Growth Initiative for South Africa (ASGISA) outlines a number of key targeted sectors that will receive government support and the National Industrial Strategy (NIS) proposes a new approach and a considerable expansion of industrial policy supports. While focused on South Africa, this paper raises number of issues concerning the role of industrial policy generally and it questions a number of issues that were central to Sanjaya Lall’s views on industrial policy. It also addresses a number of additional issues that were not dealt with by Sanjaya, especially the significant institutional capacity constraints facing even the most developed African country, in effecting industrial policy. The paper argues that the institutional requirements for designing and implementing an effective industrial policy are very demanding. The paper then briefly propose a way forward for industrial policy that takes account of and works within these constraints and institutional limitations

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Two other aspects of Sanjaya's approach are also important. First, for Sanjaya, industrial policy was aimed almost exclusively at the manufacturing sector. Sanjaya regarded manufacturing as "the only sector of the economy that appears to be able to act as a catalyst of economic development and modernization" (Lall and Pietrobelli, 2003:2). Second, Sanjaya argued that policy support should be aimed at exports. For Sanjaya, a central plank of industrial policy was to push, indeed even more emphatically, to "force", firms into global markets (Lall, 2003:29). Apart from the economic advantages of exports, notably scale and learning, Sanjaya regarded fiercely competitive global markets as critical to disciplining both firms and bureaucrats (Lall, 2003:29).

This approach - an active state led industrial policy employing a mix of selective, functional and horizontal interventions in order to advance technological capabilities and particularly focused on manufacturing exports - Sanjaya regarded as applicable to all developing regions and countries. This included Africa, the region that has the weakest endowments in respect of manufacturing industry. "...manufacturing is the only sector of the economy that appears to be able to act as a catalyst of economic development and modernization. As many other countries have done, Africa must industrialize efficiently in order to achieve growth and competitiveness and reap the benefits of modern technology." (Lall and Pietrobelli, 2003:2).

Sanjaya noted the continuing tendency of African countries to export unprocessed raw materials and the very low levels of manufactured exports (Lall and Pietrobelli, 2003:6). The principal reason that he advanced for this state of affairs was the lack of any coherent industrial policy. "Sub-Saharan Africa does not seem to use any strategy for building technological competitiveness. This region has attracted little FDI into activities that stimulate technological learning; the boom in low-wage-seeking export-oriented FDI has, with the exception of Mauritius, bypassed the region. Industrial policies in the region are generally not coherent..... and import-substituting industries have yet to develop the minimum base necessary to benefit from trade liberalization. These policy failures are reflected in the region's trade performance at the global level" (Lall and Pietrobelli, 2003:8).³

This paper examines industrial policy in Africa's most developed and industrialized economy - South Africa. In the current discussions and deliberations as to how South Africa could significantly raise its rate of growth, industrial policy has moved to center stage. The Accelerated and Shared

Growth Initiative for South Africa (ASGISA) outlines a number of key targeted sectors that will receive government support and the National Industrial Strategy (NIS) (at the time of writing still before the Cabinet) proposes a new approach and a considerable expansion of industrial policy supports. An external team of foreign experts engaged by the Treasury to review South Africa's growth policies concurs with the central place accorded industrial policy.

While focused on South Africa, this paper raises number of issues concerning the role of industrial policy generally and it questions a number of issues that were central to Sanjaya's views on industrial policy. It also addresses a number of additional issues that were not dealt with by Sanjaya, especially the significant institutional capacity constraints facing even the most developed African country, in effecting industrial policy. The paper argues that the institutional requirements for designing and implementing an effective industrial policy are very demanding. The paper then goes on to briefly propose a way forward for industrial policy that takes account of and works within these constraints and institutional limitations

2. Industrial Policy and Manufacturing

2.1 South Africa's Manufacturing and Export Performance

A number of recent assessments have found evidence of poor performance of South manufacturing:

- Output. Manufacturing output per capita has been stagnant since 1985 (Hausman and Klinger, 2006: 7). Over the last two decades, South Africa's share of global manufacturing value add and regional (Sub-Saharan Africa) manufacturing value has declined persistently (Kaplan, 2004:623-4).
- Exports. Over the decade 1992-2002, South Africa's manufactured export growth has been somewhat slower than global growth, slower than Latin American and significantly slower than developing country growth (Alves and Kaplan, 2004:3-5). Post-1960, South Africa performed poorly when compared to all countries with a population of over 4 million and a GDP of at least 25% of South Africa's...South Africa is an outlier in terms of export performance, ranking 50th out of 56 countries (Hausman and Klinger, 2006: 3). In terms of exports per capita, South Africa also compares very poorly by comparison with other resource exporters - Argentina, Australia, Canada and Malaysia. Even if the apartheid years are omitted and only the period

³ "African governments also need to stimulate technological activity in, and relevant to, manufacturing industry." (Lall, 1995:128).

1991-2004 when South Africa's performance improved significantly is considered, "...South Africa still remains among the poor performers internationally in terms of export growth." (Hausman and Klinger, 2006:6).⁴

- Composition of Exports. South Africa has very low participation in global trade in the most dynamic products and its share is declining (Gibson and van Seventer, 2004; Zalk, 2004). None of the manufacturing sectors are significant net exporters – only in minerals is there any significant net export. Categorized by technological level, South Africa has a very weak presence in high technology products with very little indication of any significant change (Alves and Kaplan, 2004).
- In comparison with its income level, South African exports tend to be unsophisticated i.e. proportionately more of its exports are in the less sophisticated products that tend to be exported by countries with lower levels of income and that the sophistication of South African exports has not increased significantly over time (Hausman and Klinger, 2006:11) In marked contrast, using a different measure of the sophistication of exports, but one also where sophistication of exported products are calculated based on the income levels of the exporting countries, Lall et al find that South Africa's exports are significantly higher than would be predicted by its income level, and that this has increased in the period 1990-2000 (Lall et al 2005:18). There is evidence that the level of sophistication of a country's exports have an effect on its growth (Hausman, Hwang and Rodrik, 2006). Hausman and Klinger accordingly conclude that "...for much of South Africa's history, GDP has been pulled down by low level of sophistication of its export basket" (Hausman and Klinger, 2006:12).

2.2. A Focus on Manufacturing?

There is a long tradition in development economics that accords with Sanjaya's assessment of manufacturing as the necessary engine of economic growth and central to technological change.⁵ Within this tradition, manufacturing is generally conceived of as possessing four sector-specific characteristics that are not held by other sectors. It is these specific characteristics which give manufacturing a particular privileged role in the development process.

- Manufacturing development improves profitability throughout the economy pecuniary external economies. Strong backward and for-

ward linkages allow for manufacturing growth to substantially and positively "pull" growth elsewhere in the economy⁶

- Manufacturing enjoys stronger dynamic economies of scale. Combined with learning by doing, this allows for higher productivity change in manufacturing than elsewhere
- Manufacturing is the site of major technological innovation. This then diffuses to other sectors raising their technological capacities and their returns.
- The above characteristics of manufacturing are combined with the historical observation that all the development "successes" have been strongly associated with manufacturing growth. Hence, a growing manufacturing sector and growing manufacturing exports is seen as indispensable to economic development.⁷

Rodrik and Hausman and Klinger see poor manufacturing growth and poor manufacturing export performance as having been central in retarding economic growth in South Africa. Rodrik compares the growth performance of Malaysia with South Africa and attributes Malaysia's higher growth to its superior manufacturing performance (Rodrik, 2006). A similar conception is also evident in ASGISA which identifies as a major imbalance a "hollowing out" whereby non-commodity exporters are unable to compete effectively in global markets (ASGISA, 2006:4). Rodrik, Hausman and Klinger and ASGISA therefore share a common perspective that leads them to a policy focus on manufacturing sectors and especially on manufacturing exports.

From this perspective, increasing manufacturing growth and manufacturing exports will both increase employment since manufacturing is more labour intensive (and especially more unskilled labour intensive) than other sectors and raise output growth, since this will have pecuniary and technological spillovers through the economy. Moreover, growing exports will clearly support the trade balance which is currently in substantial deficit and which currently poses the major constraint to raising the rate of growth.

However appealing the association between growing manufacturing and manufacturing exports and the ASGISA objectives of raising employment and output appear to be, the empirical basis for such a standpoint in

⁴ Edwards and Lawrence 2006:7-8 however see substantial growth in South African non-commodity exports post 1990 at approximately the same level as global growth.

⁵ Broadly associated with Kaldor, others in this tradition include Rosenstein-Rodan,irschman, Prebisch, Chenery and Pasinetti.

⁶ "...the presence of complementarities in investment, production and consumption is considered to be greater in manufacturing than in other sectors because manufacturing activities give rise to more and stronger forward and backward linkages." UNCTAD, 2006:153.

⁷ This is exemplified by UNCTAD. "The development of a strong manufacturing sector has been at the core of all successful catch-up experiences over the past 250 years, which suggests that achieving a lasting productivity-based increase in manufacturing is indispensable for a sustained rise in income levels and ultimately the eradication of poverty." UNCTAD, 2006:150

South Africa is not yet established. Output and employment have been increasing most rapidly in the service sector. While in general, manufacturing tends to have a higher (unskilled) labour intensity than services, there are very significant variations within both the manufacturing and service sectors. Similarly, downstream and upstream linkages vary considerably within the manufacturing and service sectors and while manufacturing as a whole tends to have a higher export ratio, there is again significant variation both between and within the manufacturing and service sectors.⁸

Indeed, some recent, albeit preliminary work, suggests that output, employment and income multipliers may be higher for the services sector (Tregenna, 2006:46). If South Africa's industrial policy is to be in any way selective of particular economic activities, this should include sub-sectors that are located in both the manufacturing and the services sector. Further empirical work will need to be undertaken to assess employment and output multipliers and the contribution to net exports of the different manufacturing and service sub-sectors.

3. Key Constraints on Industrial Policy

Two systemic constraints currently severely constrain industrial policy. The first relates to the domestic macroeconomic framework and the second to international agreements.

3.1. The Macroeconomic Framework

South Africa, in company with a number of other developing countries, particularly in Latin America, has adopted orthodox macroeconomic policies that are focused on ensuring low domestic inflation. These policies have had a considerable measure of success - domestic inflation has declined and there is growing confidence that inflation will remain within the chosen band. However, macroeconomic policies have not brought stability in key prices that matter for investors and particularly for exporters – the interest rate and especially the exchange rate.

South Africa has experienced high real interest rates and significant interest rate movements. This has stifled investment – more particularly on the part of new entrants who tend to rely more heavily on borrowing.⁹

⁸ In their identification of sectors that may warrant particular support, Hausman and Bailey schema relies on export data that are confined to industrial exports and that exclude services. Thus, four of the 14 targeted sectors in the NIS, "...do not enter our international trade data and therefore can't be evaluated." Hausman and Klinger, 2006:31.

⁹ Established South African firms tend to rely heavily on retained earnings – not unexpectedly when real interest rates are high. (World Bank, 2005). But, new firms are much more reliant on borrowing from the banking system.

South Africa has also had significant fluctuations in the exchange rate¹⁰ and (arguably) significant periods in which the exchange rate has been over-valued. The level and especially the volatility of the exchange rate has stifled investments. In a World Bank survey, 76% of firms exporting to the US regarded exchange rate instability as a serious problem, as did 57% of exporters to the other OECD countries (World Bank, 2005:97). The exchange rate has been particularly non-conducive to new entrants who have to incur large sunk costs in order to enter export markets.¹¹

3.2 Restriction Imposed on Industrial Policy by International Agreements

New rules and regulations governing global trade and intellectual property embodied both at the multilateral level and in many regional and bilateral arrangements, have significantly reduced the freedom of developing countries with respect to industrial policy (Gallagher, 2005). There are three major areas where restrictions occur – Traderelated Investment Measures (TRIMS); the Agreement on Subsidies and Countervailing Measures (SCM) and the Agreement on Trade-related Aspects of Intellectual Property (TRIPS).¹² Currently, of most significance to industrial policy in South Africa is the SCM.

The SCM classifies four types of subsidies: enterprise, industry, regional and prohibited.

Prohibited subsidies, include any form of explicit direct or indirect support to exporters and are immediately actionable. The SCM prohibits granting subsidies based on export performance. Policies that make state support dependent on export performance, such as were applied in Korea or Taiwan, are now prohibited. At present, South African industrial policy has only two explicit targeted sectors – clothing and textiles and autos and auto components. In both sectors, exporters receive support through earning rebates on imports that are proportional to their exports - the Import Rebate Credit Certificates (IRCCs) in respect of autos and auto components¹³ and the Duty Credit Certificate Scheme (DCCs) in respect

¹⁰ According to Gelb, since mid-2001, the Rand has possibly been the most volatile currency openly traded in global markets Gelb, 2004:8.

¹¹ For a discussion of the impact of gyrations in the exchange rate in constraining Latin American exporters, see UNCTAD, 2003:Chapter VI

¹² For an inventory and discussion of these restrictions, see UNCTAD, 2006:166-179

¹³ Introduced in 1995, the MIDP has enjoyed a measure of success. It has unquestionably underpinned a significant expansion in auto and component exports. However, while exports have risen, the main concern in regard to autos and components is the high levels of importation (currently 60% for passenger vehicles) and the low levels of local content, particularly in relation to exports

of clothing and textiles¹⁴. These are explicit supports to exporters and are therefore almost certainly open to successful challenge in the WTO.¹⁵

This concern has led to a reformulation of the support programmes for both the auto and components and the clothing and textile industries. This process has been difficult and drawn out and is still in process.

It is, of course, possible to replace explicit support to exports by more general subsidies such as some form of production allowance and various proposals have been made in this regard. However, general subsidies are certain to be very expensive since they apply to all output. For the same expenditure of resources, the incentive to exporting will be blunted. For example, the DCCS provided a 15% incentive to clothing exporters. Were the same level of support to be granted but now to all output, whether for the export or the domestic market, the incentive to exporters would be only 5%. Since the DCCS had only a very limited impact on exports at 15%, its impact on export is likely to be minimal. Similarly, to provide support to auto and component exports via some form of production or investment allowance applicable to all production will be extremely expensive. This greater expense will certainly strengthen the hand of those who are, in principle, opposed to any form of industrial policy.¹⁶

For Sanjaya, a central plank of industrial policy was to “force”, firms into global markets. He regarded fiercely competitive global markets as critical to discipline both firms and bureaucrats (Lall, 2003:29). But, the disciplining and monitoring standard that linked the level of state support to producers to their successful engagement in the export market has been removed under the SCM, rendering state support, more expensive, less effective and much more difficult to monitor and control.

In reviewing the changes to “the rules of the game” under the aegis of the WTO, Sanjaya posed three critical questions to the development community. “Is the degree of policy freedom left to developing countries sufficient to promote healthy industrial development? If East Asia offers lessons for industrial policy, will the new environment allow them to be implemented? Without strong policy intervention, will persistence with

liberalization be sufficient to drive industrialization” (Lall, 2003:34), His answer was not a very optimistic one - “probably not.”

Certainly, in the South African context, reformulating export policy supports so as to make them WTO compatible is proving to be very difficult.

4. Institutional and Governance Requirements for Effective Industrial Policy

The institutional arrangements to direct and manage industrial policy effectively are very demanding. Where the institutional basis is weak, the risks of government failure and the squandering of public resources are enhanced.

4.1 Coherence

Effective industrial policy requires coherence in at least two respects. First, there needs to be coherence in terms of the goals and objectives of industrial policy. If industrial policy is defined in terms of desired policy goals and outcomes as aiming to favour/target certain economic sectors or activities,¹⁷ it is important that the selection criteria by which the economic sectors or activities are identified be consistently applied. Inconsistent application of criteria and selection of activities will dissipate effort, cause confusion and clearly be sub-optimal. Secondly, there needs to be coherence in terms of responsibility within government such that industrial policy is effectively overseen and directed.

In South Africa currently a number of governmental policies do indeed very selectively favour certain sectors and activities. There is much that occurs that is effectively industrial policy, albeit that this is disguised as other activity. This “hidden industrial policy” includes the following:

- Direct state support for armaments production – especially subsidies to Denel¹⁸
- Support to mineral processing – especially subsidized infrastructure and energy to Coega¹⁹

¹⁴ Introduced in 1995, the MIDP has enjoyed a measure of success. It has unquestionably underpinned a significant expansion in auto and component exports. However, while exports have risen, the main concern in regard to autos and components is the high levels of importation (currently 60% for passenger vehicles) and the low levels of local content, particularly in relation to exports

¹⁵ Countries classified as ‘least developed’ (i.e. where GNP per capita is less than \$1,000 in 1990) are excluded from the WTO provisions pertaining to prohibited subsidies. Lesotho is the only SACU state that qualifies as a LDC. Lesotho could therefore continue to utilize the DCCS without being in contravention of its commitments to the WTO. But, all other SACU countries are obligated to replace the DCCS with a WTO compliant programme.

¹⁶ This is playing itself out in South Africa at present where Treasury is resisting the industrial policy formulations of the dti.

¹⁷ Chang, 1996:60 defines industrial policy “...a policy aimed at particular industries (and firms as their components) to achieve outcomes that are perceived by the state to be efficient for the economy as a whole (original emphases). Similarly Pack and Saggi define industrial policy as “... basically any type of selective intervention or government policy that attempts to alter the sectoral structure of production towards sectors that are expected to offer better prospects for economic growth than would occur in the absence of such intervention i.e. in the market equilibrium.” (Pack and Saggi, 2006:196).

¹⁸ Denel received an allocation of R2billion in the 2006 Budget. A further allocation of R567 million was made in October (National Treasury (2006).

¹⁹ The full extent of the subsidy will only become evident if and when the aluminium smelter project is confirmed

- Support to the development and production of nuclear energy plants - direct subsidies to the Pebble Bed Modular Reactor (PBMR)²⁰
- Intervention in Upstream Fuel and Chemicals production – the proposed “windfall” tax on SASOL.

All of these policies are highly selective. Collectively, they entail very significant and very direct commitments of state resources. Most importantly, these economic activities embody very different economic characteristics – different from each other and different from the objectives set out in ASGISA and the NIS. To take just two examples:

- The PBMR is very research intensive, very high technology. This project alone absorbs a very large number of South Africa’s scientists and engineers. Should government be supporting activities that are highly intensive of the factors that are in most scarce supply? None of the other sectors that are proposed for support in ASGISA or the NIS are near as technology intensive as the PBMR.
- The mineral processing activities, specifically aluminum, that government is attempting to attract to Coega to anchor the project and justify the significant expenditures on infrastructure, are very highly capital intensive. Employment creation is minimal. This choice conflicts with one of the explicit objectives of ASGISA and the NIS, namely that industrial policy has as a central objective an increase in employment.

This is not to argue that any of these selective interventions will not eventually succeed in their own terms. The PBMR or Coega, for example, may prove to be very effective.

However, as a consequence of their absorption of significant scarce skills and capital, the systemic impact of these projects is likely to be distinctly negative. The systemic impact on the effectiveness of these projects on overall industrial policy has not, thus far, been considered.

In addition, it is noteworthy that many of these selective interventions are not driven by dti. Support for armaments, the PBMR and Coega are driven by Public Enterprises. The windfall tax on SASOL is driven by the Treasury. This is not to say that the dti has no “presence” in these areas. But policy is initiated and managed by other departments with little perceived reference to the NIS. The conclusion is stark – institutionally, there is no clear center in government that designs and implements industrial policy. No ministry has oversight and provides direction to the totality of industrial

policy presently. Lack of coherency in desired policy goals and outcomes is complemented by a lack of organizational coherency within government.

4.2 Strategic Collaboration

Information problems beset investors in developing countries. In particular, the cost functions of new “non-traditional” activities cannot be determined ex ante, but only after the investment has actually been made. Information failures result in economies staying the same course and not diversifying into new activities with associated spillover effects. Rather than conceiving of industrial policy as a set of outcomes, principally altering the sectoral composition of the economy, industrial policy can be seen as a process that entails discovering the underlying cost structure of an economy. This discovery process requires strategic collaboration between government and business. Government engages in discussion particularly with businesses and also other players, such as research institutions. The purpose of this discussion is for government to understand the opportunities and constraints that face investment and for businesses to understand government’s objectives in economic development and restructuring of production and the constraints under which it operates. Structured information exchange between government and business therefore aims at identifying the barriers to diversification and to the determination of policies that are likely to best overcome those barriers (Rodrik, 2004:3). In this conception, rather than the result of autonomous decision making on the part of government, the determination of government policy flows from a process of strategic engagement with business.

Developing a well-functioning structured engagement is not a straightforward matter. Strategic collaboration between government and business can take many forms that will differ as between different national contexts. But, there is little tradition of such engagement in South Africa. Apart from a very few examples such as the Motor Industry Development Council at national level and some important initiatives at the provincial levels (see below), there is currently limited institutional basis for this collaboration. A considerable degree of mutual “suspicion” exists as between business and this manifests in distance and even distrust that is inimical to an effective strategic collaboration. The prevailing model is accordingly one essentially of government making policy albeit often supported by research. Consultation with business generally takes place once government has largely decided on its policy position.

What is at issue here is a radically different model. If industrial policy is to be effective in South Africa, the role of business in the formulation and development of industrial policy must be considerably expanded and this

²⁰ The PBMR received an allocation of R580 million in the 2006 Budget. A further allocation of R462 million was made in October (National Treasury, 2006).

will need to be embodied in new well-defined institutional arrangements. Moreover, where governmental capacities are weak, the optimal role of business in this strategic collaboration will in consequence be enhanced. In South Africa, governmental capacities in relation to industrial policy are indeed very limited.

This is elaborated on below.

4.3 Governmental Capacities

The design and implementation of effective industrial policy is heavily dependent on a strong and competent state bureaucracy (UNCTAD, 2006:215). Ideally, this bureaucracy should be closely connected with the business community and have a good understanding of their situation. This will allow for the interchange of information and facilitate the structured engagement outlined above. At the same time, the government bureaucracy should retain a degree of independence and autonomy such that it does not serve narrow sectoral or other interests. This is best encapsulated in the term “embedded autonomy” (Evans, 1995).

Currently most of those responsible for industrial policies are new recruits to their positions. They have a limited understanding of their sectors. So-called sector specialists have no direct work experience in the sector to which they have been appointed. Indeed, very few personnel have experience of working anywhere in the private sector. In South Africa, there is no “revolving door” as between business and government that, for example, has characterised the Japanese MITI.

It is accordingly critical that government seeks to build and enhance its industrial policy capacities, particularly the capacities of sector specialists. This could be done by requiring governmental personnel to acquire experience working in the sector and/or recruiting into government those with such experience directly from the sector. But, this will take some time to effect. In the interim, governmental capacities to develop and implement industrial policies will necessarily be distinctly limited.

In the context of its own very limited competencies, government will be particularly reliant on business for information and market intelligence and accordingly in the formulation and design of effective industrial policies. Moreover, limited governmental capacities will constrain the scope and the depth of industrial policy. Whereas in Japan for example, high levels of competency and in-depth knowledge allowed for the government bureaucrats to engage directly in proposing a large number of significant large-scale interventions and supports for business, such an approach would be currently far from optimal in South Africa.

4.4 Distributional Conflicts

Industrial policy entails support to firms. The profitability of those firms enjoying support rises above the market level. Thus, at the heart of industrial policy is the creation of rents. Such rents allow these “favoured” firms to grow at rates that exceed what would have been possible in the absence of industrial policy. The management of those rents is central to the effectiveness of industrial policy.

In South Africa, distributional concerns challenge this perspective. Thus, there is opposition to “white” or “well-established” businesses benefiting at the perceived expense of “black” or “emergent” business. Many policy programs to support firms therefore provide enhanced support for black-owned and small firms. Industrial policy in South Africa does not therefore only aim to enhance growth of particular sectors or activities, it also aims to enhance growth of those firms in the designated sector or undertaking the designated activity that are black-owned or small. This can dilute the impact on growth. Export support is a case in point. Smaller firms and black-owned firms currently enjoy privileged access to export support. However, since exporting frequently entails economies of scale and a minimal scale of entry, larger well-established firms will tend to have a higher export potential than smaller firms and newer entrants.

Nor are distributional concerns confined to supporting black or emergent businesses. Industrial policies in South Africa are also configured with the intention of raising employment. This concern for employment is not confined to selecting sectors and activities that are held to be more labour intensive, it often impacts on the determination of the policy instruments themselves.

To take one example, the Strategic Investment Projects (SIP) was developed to encourage large scale so-called “propulsive investments.” Government’s concern was that South African needed to be able to offer incentives to large investors, more particularly large foreign investors, who were being lured to other countries, at least in part, by attractive investment incentives. The incentives were refashioned such that support was conditional on and proportional to employment criteria.²¹ Requiring that firms receiving the SIP, in addition to investment criteria, also met employment criteria, reduced its effectiveness as a support to investment and output.²²

²¹ For details of the SIP see International Marketing Council of South Africa, 2003.

²² *20 The extent of the SIP support was dependent, in part, on the perceived impact on employment. Moreover, this was monitored such that if the employment criteria were not, in fact realized, the SIP could be withdrawn. The possibility of withdrawal, of course, further reduced the appeal of the SIP to potential investors. For details on the Sip see dri, 2005.*

This is not to question the validity of equity/distributional goals entailed in South Africa's industrial policy. But, these goals do have consequences for output growth, rendering industrial policy, at least as presently applied, more problematic in South Africa than elsewhere where distributional issues are of less concern and where the focus can be exclusively (or almost exclusively) on enhancing output.

4.5 Skills and Training

The central objective of industrial policy is to enhance the productivity and efficiency of firms. Where protection is resorted to, this should only be a temporary measure whereby "space" is given to the protected firms to advance their productivity such that they can, within a defined period, compete without government support.

A number of factors will impact on firm level productivity. Of particular importance in a knowledge driven economy are human resources - the level of skills. The dti's industrial strategy lays stress on the central role of knowledge and knowledge driven activities in securing a competitive edge (dti, 2002). All sectors of the economy, including manufacturing, are becoming increasingly skill intensive, but the supply of skills is severely constrained.

In the World Bank's recent survey of the investment climate, more enterprise managers said that worker skills were a serious obstacle to their enterprises' operations and growth than any other area of the investment climate. Consistent with this, per worker labor costs are very high in South Africa—over three and half times higher than in the most productive areas of China, over two and half times higher than in Brazil and Lithuania and over 75 percent higher than in Malaysia or Poland. Although wages are relatively high for all types of workers in South Africa, they are particularly high for highly skilled workers and managers. An additional year of education is associated with an 11-12 percent increase in wages in South Africa—compared to about 5-7 percent in developed economies. The high premium paid for education results in salaries for skilled workers and managers that are high by international standards). Despite this skill shortage, South African firms invest less in training and were less likely to have training programmes than in most comparator countries (World Bank, 2005:64-66).

Where skills are in short supply, and where in addition training is very limited, industrial policies designed to raise productivity, however well designed and formulated, are likely to have only a very restricted impact.

4.6 Conclusion

The two key institutional requirements for an effective industrial policy are the professionalism and capacities of the government and the effectiveness of the strategic collaboration as between government and business. As outlined above, both are currently very limited in South Africa. Moreover, the limited capacities of the government are currently exacerbated by a lack of focus and cohesion around the objectives, content and conduct of industrial policy. In addition, distributional conflicts make it difficult to develop institutions and practices that manage the rents that are a constituent feature of active industrial policies. Finally, the principal objective of industrial policy, namely to enhance technological capacities and raise firm level productivity, is severely constrained by the current scarcity of skills and the limited training being undertaken.

Two broad conclusions emerge from this analysis. The first is that government should not expect too much of industrial policy. Under current conditions, industrial policy is likely to have only a limited impact on GDP growth. The second conclusion is that the design of industrial policy needs to be fundamentally re-examined. The constraints and institutional limitations outlined above should be factored into a consideration of the scope and content of industrial policy.

5. A Way Forward

What are the implications of the above analysis for the further development of industrial policy?

Industrial support policies should not be confined to manufacturing sectors. Further work needs to be done to determine the likely output and employment gains consequent upon any expansion of sectors and sub-sectors.

As regards the constraints, first a macroeconomic policy that results in both high real interest rates and an exchange rate regime that is (arguably) overvalued and (definitely) highly variable will severely curtail the impact of any industrial policy.²³ Currently, in South Africa, there is no coherence as between macroeconomic policies and microeconomic policies designed to enhance investment and productivity improvement. This will need to be addressed.

²³ This is similar to the situation that has prevailed through much of Latin America. For the impact of unfavourable macroeconomic policies on industrial policy in Latin America, see UNCTAD, 2003: Chapter VI.

Second, the constraints imposed by the WTO will require that South Africa's two current sector specific policies – namely those for autos and auto components and for textiles and clothing – will have to be fundamentally re-designed. The MIDP has been widely held as a highly successful policy, although this perspective has been strongly challenged.²⁴ Whatever perspective is adopted in regard to the MIDP, it is clear that the MIDP is no “model” to be followed in other sectors. Export-import complementation schemes, such as are currently operative in the autos and auto components and the clothing and textiles sectors, are likely to be successfully challenged in the WTO. What has worked in the past (arguably) provides little guide for the future. Moreover, since it will be difficult to confine any support programmes solely to exports, any new programmes are likely to require considerable resources. Assessments of the economy wide implications will need careful consideration – something that has been largely absent from the design of existent support programmes.

As regards institutional and governance requirements, custodianship and system wide responsibility for industrial policy should be clearly demarcated within government. The overriding objective of industrial policy is to raise the productivity and efficiency of firms. This is consonant with the objectives of the dti. Public enterprises and Treasury have other objectives. Responsibility for industrial policy should therefore rest with the dti. While there may be real or perceived weaknesses in the dti currently, attention should be given to enhancing the dti's capacities to manage and direct industrial policy. The proliferation of interventionist industrial policies, albeit under other guises, needs to be carefully reconsidered. The desirability of such policies cannot be assessed solely on their own terms. They should also be assessed in terms of how they contribute systemically to the structural transformations being sought for the South African economy as a whole.

To reiterate, industrial policies are growth policies. They are correctly centrally directed at raising firm level productivity and efficiency. There is a danger that requiring industrial support measures, in addition, to make a substantial contribution to other equity objectives – notably employment creation and the development of black and female owned firms – may serve to blunt the central purpose and efficacy of industrial policy. If industrial policy supports do necessarily tend to favour certain firms and hence raise returns for recipients. One consequence is that they can therefore entrench existent firms which may impose barriers to entry for new firms. In designing industrial support measures, it is therefore important to attempt to ensure that these measures do not unduly serve to

raise the barriers to entry for new firms. Similarly, government will want to safeguard against support measures enhancing capital intensity and resulting in employment loss. Industrial policies should therefore be seen as essentially growth policies. Industrial policies must accord with and can make some, albeit modest, contribution to government's equity objectives. In the main, however equity goals are best addressed through other measures that are specifically targeted to these goals.²⁵

The efficacy of industrial policy is heavily dependent on policies implemented elsewhere in government. Of particular importance is the issue of skills. Skills have been identified as currently the key constraint on firm investment and performance. The evidence suggests that the supply of skills is not being augmented and that despite their difficulties in securing skills, firms are nevertheless undertaking very little training.

Perhaps the most important institutional and governance requirement for an effective industrial policy relates to the respective roles of government and the business sector. Governmental capacities to formulate and to implement industrial policy are currently very limited. Where governmental capacities are very limited, the private sector rather than government should play the leading role in the identification of constraints and opportunities for sectors and in the design of policies to address these.

This perspective has informed the approach taken in the development of the provincial microeconomic development strategy (MEDS) in the Western Cape. What is envisaged in the MEDS is that given its near monopoly on information, the proposals for enhancing productivity and efficiency will emanate very largely from business. While the proposals emanate from business, the decision on which proposals to support remains with government. Government should make its decisions on which proposals to support based upon its declared objectives for output particularly and also for equity. Since government's capacities are limited, decision making may well require government having recourse to external advice (Western Cape Government, Department of Economic Development and Tourism, 2005: 135).

Institutionally, strategic collaboration can take a number of forms. Sector associations are one institutional mechanism for the engagement of business. In the Western Cape, a different institutional mechanism is operative. In this province, the provincial government has established a number of special purpose vehicles (SPVs) which are primarily composed of business representatives with some representation of sector specialists from

²⁴ Flatters, 2005.

²⁵ Of course, it will also be important to ensure that policies for employment creation or BEE will need to accord with industrial policies.

the department of economic development and tourism of the provincial government and other stakeholders with an interest and knowledge of the sector. These SPVs function effectively as sector development organisations. The objective is not merely to develop existing firms, but critically to also enhance opportunities for new entrants – notably small firms and particularly black and female owned and managed firms.

The provincial government supports SPVs that are broadly representative and that have considerable legitimacy within the sector. Ideally, membership of the SPV should be diverse and include small firms. Government can have some confidence that policy proposals that emanate from such associations are likely to have broad legitimacy within the sector. The task of government is to support those proposals that will develop the sector in a manner that accords with governmental objectives of both growth and equity.

The principal role of the SPVs is to institutionalise the exchange of information between the private sector and government. The SPVs allow for government to obtain information as to firms' future investments and the factors that are promoting and restraining investment activity. They are the institutional mechanism through which potential policies to support the sector are discussed and debated and ultimately presented to the provincial government for assistance.

Moreover, the role of the SPVs is not confined to discussing policy proposals. SPVs may well engage directly in implementation. The provincial government may grant funding support for a proposal that emanates from an SPV and task that organisation with ensuring that the programme is carried out and that the funding is spent effectively. Governmental capacities are not solely limited in terms of policy formulation. Arguably, an even more critical constraint lies in government's capacity to implement. SPVs, or other institutional forms of sector organisation, "... can carry much of the burden of industrial policy – both in its design and in its implementation, thus economising on limited governmental capacities." (Kaplan, 2006).

As regards funding, the MEDS favours a co-funding mechanism. Since many of the market failures are partial rather than total, some of the funding support can and should come from the beneficiaries themselves. Thus, in regard to training for example, since firms will gain at least some of the benefits of training expenditures, government support for training programmes can be partial. This limits the deployment of government fiscal resources. At the same time, this gives government a significant measure of security that public monies are being spent in projects to which the in-

tended beneficiaries, who possess far more information than government as to their real development needs, are prepared to commit their own resources (Western Cape Government, Department of Economic Development and Tourism, 2005: 136).

The institutional design proposed here is certainly not free of risk. The capacities required of government are still far from trivial. The danger of governmental capture, always real, may be enhanced where a close relationship is cultivated with business associations and where, in addition, government capacities are weak. But, however this is structured institutionally, in the present context in South Africa, the design and development of effective industrial policy will necessitate a major role for business.

Institutional arrangements will necessarily evolve and change over time. It is of critical importance that the institutional design of industrial policy embodies feedback mechanisms and structured monitoring and evaluation, something that has been largely lacking from previous policies. This will enable governmental capacities to grow with experience - a version of learning by doing (Western Cape Government, Department of Economic Development, 2005: Chapter 6). As its own capacities enhance and develop, government will then be in a position to be more effective and also more adventurous in advancing its industrial policies.

References

- Alves, P. and Kaplan. D. (2004) South Africa's Declining Export Shares: The Developing Country Challenge Trade and Industry Monitor (June) vol. 30 pps. 2-6.
- Accelerated and Shared Growth Initiative South Africa (ASGISA) (2006) Background Document. Media Briefing by the Deputy President Pumzile Mlambo- Ngcuka. A Summary. (February 6)
- Chang, H. J. (1996) *The Political Economy of Industrial Policy* Macmillan, London.
- Department of Economic Development, Western Cape (2005). *Micro-economic Development Strategy for the Western Cape. Synthesis Report. Version 1.* July. Department of Economic Development, Western Cape.
- Department of Trade and Industry (the dti) (2002) *Accelerating Growth and Development. The Contribution of the Integrated Manufacturing Strategy.* DTI, Pretoria.

- Edwards, L. and Lawrence, R. (2006) South Africa Trade Policy Matters: Trade Performance and Trade Policy (Mimeo)
- Evans, P. (1995) *Embedded Autonomy: States and Industrial Transformation*. Princeton University Press, Princeton, N.J.
- Flatters, F. (2005) The Economics of the MIDP and the South African Motor Industry. Paper prepared for TIPS/NEDLAC South African Trade and Poverty Programme (SATPP) Policy Dialogue Workshop, Johannesburg, November 1-18.
- Gallagher, K.P. (ed) (2005) *Putting Development First: The Importance of Policy Space in the WTO and International Financial Institutions*. Zed Books, London and New York
- Gelb, S. (2004) *Economic Growth and Development: The Framework for Empowerment*. Institute for Justice and Reconciliation, Taking Power in the Economy. Gains and Directions. Economic Transformation Audit.
- Gibson, K. and van Seventer, D. (2004) South Africa's Absence from Global Trade in Dynamic Products Trade and Industry Monitor March vol. 29 pps.2-6
- Hausman, R., Hwang, J. and Rodrik, D. (2006) What you export matters. NBER Working Paper 11905, National Bureau of Economic Research, Cambridge, MA.
- Hausman, R. and Klinger, B. (2006) South Africa's Export Predicament (July) Mimeo. Center for International Development, Kennedy School of Government, Harvard University.
- International Marketing Council of South Africa (2003) SIP Incentives on Stream http://www.southafrica.info/doing_business/incentives/SIP.htm
- Kaplan, D (2004) Manufacturing in South Africa over the last decade: a review of industrial performance and policy Development Southern Africa (Oct.) vol. 21 (4) pps. 623-644.
- Lall, S. (1995) 'Structural Adjustment and African Industry' World Development 23,12.
- Lall, S. (2001) *Competitiveness, Technology and Skills*. Cheltenham, Edward Elgar.
- Lall, S. (2003) 'Reinventing industrial strategy: The role of government policy in building industrial competitiveness' The Intergovernmental Group on Monetary Affairs and Development (G-24) Second Draft. Mimeo (September)
- Lall, S. and Pietrobelli, C (2003) Africa's Technology Gap. Case Studies in Kenya, Ghana, Tanzania and Uganda. New York and Geneva, UNCTAD
- Lall, S., Weiss, J. and Zhang, J. (2005) The 'Sophistication' of Exports: A New Measure of Product Characteristics' Working Paper No. 123 (January) QEH Working Paper Series, Queen Elizabeth House, Oxford University.
- National Treasury (2006) Medium Term Budget Policy Statement and Adjusted Estimates of National Expenditure, 2006. Accessed at <http://www.treasury.gov.za/documents/mtbps/2006/default.html>
- Pack, H. and Saggi, K. (2006) 'The case for industrial policy: a critical survey'. Working Paper 3839. The World Bank, Washington D.C.
- Rodrik, D. (2004) 'Industrial Policy for the twenty-first century' Discussion Paper No. 4767 Center for Economic Policy Research, London
- Tregenna, F. (2006) The contribution of manufacturing and service sectors to growth and employment in South Africa' Human Sciences Research Council, employment growth and development initiative (October)
- United Nations Conference on Trade and Development (UNCTAD) (2003) Trade and Development Report, 2003. United Nations, Geneva
- United Nations Conference on Trade and Development (UNCTAD) (2006) Trade and Development Report, 2006. United Nations, Geneva