AN INDUSTRIAL STRATEGY FOR A POST-APARTHEID SOUTH AFRICA

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1 INTRODUCTION

South Africa makes the transition to democratic government in an inauspicious economic context. There are, of course, multiple causes for the fall in real per capita incomes since the early 1980s, but it would be a mistake not to flag the central role played by declining rates of industrial accumulation. More particularly, since 'industry' includes both utilities and mining - which, with the exception of gold, have performed strongly over this period - it is in the weak growth-record of the manufacturing sector that the key to South African economic decline lies. Similarly it is almost certainly in the reinvigoration of manufacturing that a rosier economic future rests in the post-apartheid era.

These inauspicious domestic circumstances are compounded by the current global economic environment. With the exception of China and a few of the second-tier Asian and Latin American newly industrializing countries (NICs), there has been a universal downward-trend in growth rates. Entry in external markets is increasingly difficult, partly because of the growth of protectionist barriers in key, large economies and partly because of heightened competition. At the same time, most of the developing world (including South Africa) is being forced to open domestic markets to imports. Thus global competition increasingly impinges upon manufacturing in virtually all economies.

The challenges posed by these global developments do not only arise from a heightened level of competition, but also from its changing structure. There is growing evidence from a range of economic sectors that the basis of competitive performance has been changing. In the past competition has largely been determined by price, but it is increasingly coming to be affected by a range of additional product-oriented factors. These include product quality, product variety and differentiation, and the speed of innovation.

In order to achieve these competitive attributes, producers are required to be increasingly flexible, both with respect to their output structures and the use of their inputs. Although a number of factors contribute to this flexibility, it is clear that organizational components play a prominent role. This organizational restructuring involves different types of interfirm linkages, new types of relationships between design, marketing and production specialities within firms, and flatter corporate hierarchies that permit the introduction of new forms of work-organization and which play a critical role in achieving the necessary flexibility and product-qualifying production parameters. Comparative global evidence suggests that the search for greater flexibility is also associated with rises in both capital and labour productivity; it hence also facilitates price competitive production. In these changing global circumstances the ability to compete internationally arises less from access to reservoirs of cheap labour and natural resources, than from an endowment of widely spread skills.

A post-apartheid South African economy thus faces a series of critical challenges. Over the past two decades the manufacturing sector has been unable to compete effectively in external markets and the recent moderate growth of manufactured exports has arisen primarily from a combination of export subsidies and the recession in the domestic market. In many sectors the ability of manufacturers to compete in the domestic market has reflected the effectiveness of import controls.

A large group of researchers - representing between 25 and 30 person years of effort - have been addressing both the threats and opportunities facing South Africa's industrial (and especially its manufacturing) sector. This project - the Industrial Strategy Project - initiated by the Congress of South African Trade Unions (COSATU) and the Economic Trends Research Group, has, since January 1992, been investigating the competitive status of 13 of South Africa's industrial sectors, assessing not only their abilities to withstand global competition, but also their potential for meeting basic needs.[1]

[1] The sectors are automobiles and components, building materials, chemicals, consumer durables (white goods and brown goods), electronics and energy reticulation, food (bread, poultry, meat and wine), garments, heavy engineering, the informal manufacturing sector, paper and pulp, mineral beneficiation, shoes and leather, and textiles.

In addition the Industrial Strategy Project has also considered the role played by competition policy, trade policy, technology policy and regional policy in South Africa's industrial evolution.

This article briefly reports some of the findings of this team and suggests a framework in which a policy agenda for promoting the international competitiveness of South African industry may be developed. This enhanced competitiveness is necessary both to meet the threat of import competition and to penetrate external markets more effectively. The strategy which is laid out shows the strong positive association between the requirements to increase the rate of growth and those which will address some of South Africa's more pressing basic needs. In addition to specifically targeting the basic components of low-wage consumption, the strategy rests on the premise (based on research findings in South Africa and abroad) that the roots to a revival of productivity growth lie in an altered distribution of power relations, within production itself as well as in the social determination of resource allocation. Unless the underlying problems of productivity-growth are overcome, there will be little chance of a more development-oriented government tackling South Africa's acute social and economic problems.

2 MANUFACTURING PERFORMANCE, 1970-1992

Over the past two decades the manufacturing sector has developed a number of distinctive characteristics:

- Manufacturing value added has not increased since 1981.

- Employment in manufacturing has been stable since 1980 and has fallen by seven per cent over the past two years.

- The economy-wide rate of investment has fallen, from more than 26 per cent of GDP in 1980 to 15 per cent in the first quarter of 1993. The size of aggregate capital stock in the industrial sector fell by ten per cent between 1984 and 1990.

- It is the most capital intensive sectors which have maintained their growth rate. For example, the sanctions-busting chemicals sector (with a capital cost per job in R1990 of R631,000) now accounts for almost 40 per cent of total capital stock, whereas the combined share of the labour intensive clothing (R2,400 per workplace) and shoe industries (R7,400) is only 0.6 per cent. The absolute value of capital stock in the clothing sector fell by almost 40 per cent between 1972 and 1990.

- Export performance has been poor, in part because of sanctions. The recent growth in manufactured exports has been fuelled by a costly export-incentive scheme and our researchers have found little evidence of a strategic reorientation by manufacturing firms towards the external market.

- Total factor productivity growth in manufacturing declined by 1.02 per cent p.a. between 1972 and 1990.

- Unlike other countries with similar per capita incomes, South Africa's informal manufacturing sector is very poorly developed.

3 THE OBJECTIVES OF INDUSTRIAL STRATEGY

Four linked objectives can be feasibly targeted by Industrial Strategy:

Raising productivity

Raising productivity in manufacturing lies at the heart of the proposed Industrial Strategy. This involves a dual challenge of bringing South African firms closer to the international frontier and closing the gap within manufacturing between high- and low-productivity firms. As noted in the Introduction, there is extensive international experience which makes it clear that the raising of productivity requires paying particular attention to the disembodied organizational components of production.

Employment creation

Outside of the microenterprise sector, manufacturing's direct contribution to employment is unlikely to be significant and will be in high productivity-high wage jobs. But indirectly it will facilitate employment growth by relaxing the balance of payments constraint and by making it possible to create employment in the service sector and in the provision of social infrastructure.

Reviving investment

Whilst there is considerable scope for improving the productivity of investment, the decline in the absolute size of the capital stock makes it imperative that th e rate of industrial investment be enhanced if output growth is to be revived.

Improving trade performance

Past economic growth has been hampered by poor performance on the trade front; for example, the capacity to import index (which reflects both the terms of trade and export growth) fell over the 1980s.[2] This suggests the need both to improve overall levels of manufactured exports and to make the transition to higher value products which are not subject to declining terms of trade.

4 THE PROPOSED STRATEGY

Partly because of past policies promoting import substitution and partly as a consequence of sanctions, South African manufacturing is unusually diversified and is characterised by a lack of specialisation. A greater measure of focus is thus necessary if the objectives of Industrial Strategy are to be met. Five strategic initiatives are required to meet the objectives outlined above.

Moving up the value chain

The ability of the South African manufacturing sector to compete internationally is circumscribed by wage levels which, whilst similar to those in Mexico and Brazil, are significantly higher than those in many of the Asian developing economies. Instead of reducing South African wages to these low levels, it is proposed that the value added in production be raised to reflect the need for a 'living wage'. This involves the move both to sectors of higher value added and the transition within sectors to niches of higher value added. In each sector this will require the choice of products and processes which involve higher levels of skill and design, make better use of the sophisticated financial and technological infrastructure and South Africa's unique endowment of natural resources.

Lowering the cost of living

One of the paradoxes of South African manufacturing is that high relative wages coexist with low standards of living. This is a complex phenomenon, partly arising from the apartheid's grotesque priorities in social infrastructure provision and partly as a consequence of the underspecialised nature of South African manufacturing. In this latter respect, the price of basic wage goods has been increased by a combination of low productivity and the high costs of production of many domestically manufactured goods.

The strategic response to this paradox is twofold. First, there is a need to gradually vacate those subsectors producing for basic needs in which South African producers are unable to compete effectively with imports from low-wage economies. Secondly, there is considerable opportunity for lowering the cost of production of many wage goods, including by promoting the activities of the microenterprise sector.

'Targeting' - improving the 'competitive fundamentals'

Moving up the value chain and lowering the cost of basic wage goods presupposes a measure of targeting. For a variety of reasons it is unlikely that South Africa will be able to replicate the successful experience of South Korea in which specific sectors and sub-sectors were identified for expansion in the context of a relatively undiversified economy. Instead, the strategic focus should lie on targeting the competitive fundamentals which underlie manufacturing productivity growth to encourage an appropriate transition in industrial structure. These fundamentals include skill acquisition, technology diffusion and the institutional fabric required to upgrade key industrial capabilities. However, there may be particular circumstances where private capital is unwilling to invest in projects which are of a longer-term nature, and where there may be the need for a more targeted approach towards investment.

Enhancing productivity

In the light of the performance of the South African economy over the past two decades, there is an urgent need to improve productivity growth. This is necessary in order to compete effectively with imports, to penetrate external markets and to supply basic wage goods (with low tradable content) at low cost and with high quality. Through a flattening of managerial hierarchies, changes in work organization and the development of a more skilled labour force, the path to productivity enhancement is simultaneously redistributive.

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[2] By contrast, it grew by 120 per cent in the first-tier NICs, by almost 80 per cent in the second tier NICs and by more than 60 per cent in the developed market economies during the same period.

Addressing distributional issues

The major distributional challenges facing a post-apartheid administration will have to be met by a policy response at the level of macroeconomic management and resource allocation. Nevertheless, in addition to the productivity enhancing changes in work-organization necessary to revive productivity growth, there are a number of respects in which an appropriately-focused industrial strategy can help to meet these distributional targets. Sector-specific strategies in the building materials sector will facilitate the provision of basic housing and infrastructure. In addition, the higher wages which will come as a consequence of moving up the value chain will contribute to a reduction in one element of income inequality. Thirdly, the promotion of the micro-enterprise sector will increase employment as well as incomes within this sector and hence reduce another element of income inequality. And, fourthly, the Industrial Strategy will need to focus on the supply of basic housing and infrastructural goods which are important elements of low income consumption.

5 AN INDUSTRIAL POLICY FRAMEWORK

The central elements of both the objectives and the strategic focus of an Industrial Strategy designed to promote appropriate forms of industrial restructuring have been briefly described. These need to be translated into policy if industrial growth is to be revived. But 'policy' should not be thought of as an abstract process in which restructuring emerges from an elegant definition of direction. Instead it only has concrete meaning when it leads to changes in the allocation of effort and resources. Hence the domain of policy formation cannot be confined to the state, but most also include active participation by other stakeholders in the process of production, distribution and consumption.

The policy framework addressed in this Industrial Strategy is composed of three elements. The first recognizes the powerful productivity-enhancing incentives that can flow from **market relations.** The key market signals affecting allocations here in the South African context are those which affect the inward and outward bias in production (that is, trade policy) and that which focuses on the competitive environment (competitions policy). Nevertheless even when markets function effectively, they do not provide adequate signals to facilitate the industrial restructuring which is required in South Africa. It is also necessary to specifically target the need to **build industrial and technological capabilities**, particularly those which are relevant beyond the short-term. For these capabilities to be built, attention will need to be given to **institutional design** which compensates for the prevalence of market failure in the process of industrial accumulation.

5.1. Making markets function effectively

The trade regime

In the past, trade policy in South Africa has been hotly contested. Over the past 18 months there has, however, been a surprising degree of consensus on the steps which are necessary to rationalize the trade policy regime. The first step is to reduce the excessive degree of dispersion which currently makes South African import tariffs almost uniquely complex. Second, there is an agreed need for import tariffs to be liberalized over time; the high protection of basic wage goods plays a particularly important role in reducing low income consumption standards. However this process of liberalization must be carefully crafted to complement the other elements of the Industrial Strategy which are designed to foster appropriate forms of industrial restructuring. Further, since there is a joint need for protecting the industrial sector and for removing the inward bias, an export promotion programme is important. This will need to include both an effective form of duty drawback as well as the development of a suitable institutional framework.

Linked to the promotion of exports is the question of the exchange rate. One important element here is to diminish South Africa's high rate exchange rate instability since international experience makes it clear that this is a major constraint to manufactured exports. Another important element concerns the level of the exchange rate itself. There is some agreement that the current level is too high, although it is unclear how significant this over-valuation is. The realignment of the exchange rate will however need to be a real one, and at the same time steps will need to be taken to ensure that it is not at the cost of low income consumers.

The domestic market and ownership

South African producer, financial and distribution markets are highly concentrated. Whilst in some circumstances the aggregation of power may promote the rapid growth of industrial capabilities (as, for example in Korea), research shows that this has not hitherto been the case in South Africa. There is little evidence of productive inter-firm collaboration between different firms within the large conglomerates, between conglomerates, between small- and medium- sized enterprises (SMEs), and between the conglomerates and SMEs. At the same time there is considerable evidence of competitive collusion within and between the major conglomerates.

The function of policy should not be aimed primarily at market structure in itself, but at market performance. Enhanced competition and more productive forms of competition - these two policy objectives are not contradictory - may be achieved either by breaking up the conglomerates or by forcing them into a different pattern of behaviour; it all depends on how the conglomerates respond to this policy initiative. One way of promoting more desirable forms of market performance is to **strengthen competitions policy**. This can be achieved by enhancing the power of the competitions authorities and by a closer monitoring on conglomerate behaviour to inhibit past patterns of inter-conglomerate collusion ('conglomerate forbearance'). Specific steps will also need to be taken to protect and to promote SMEs as a countervailing power to the large conglomerates.

Another way of promoting better market performance is through policies designed to affect **corporate ownership and governance**. A number of the conglomerates have begun to 'unbundle' their activities, and this process would be enhanced by prohibitions on the pyramiding control of ownership on the stock exchange - this is widely practiced in other countries. Two of the six major conglomerates are mutual associations, and this suggests that their corporate strategies may be subject to different forms of influence. Partly through this it should be possible to increase the participation of other stakeholders, by diversifying ownership structures and promoting ownership by managers, small businesses, community trusts and workers. Finally, corporate disclosure requirements in South Africa are undemanding, and these should be revised. Amongst other things, it is difficult to monitor market performance without adequate disclosure.

Reducing the cost of inputs

Despite being exceptionally well-endowed with natural resources, many South African manufacturers find themselves paying high prices for their **inputs**. In some cases South African-sourced inputs are cheaper in Europe than in the domestic economy. Where South Africa produces these inputs at competitive prices and quality, they should be made available locally at the FOB international price.[3]

Evaluating the cost of **labour inputs** is more difficult. Yet real unit labour costs can be significantly reduced by enhancing labour productivity, by increasing the social wage (through better housing and infrastructure), through other interventions designed to reduce the cost of living (including through tariff reform), and through the promotion of some limited forms of labour market segmentation which allow manufacturers to take advantage of the lower wages in rural areas and disadvantaged regions.

It is sometimes asserted that South African manufacturers pay unduly high prices for **capital** and that this accounts for the declining levels of investment in manufacturing. Our research has shown little evidence of this, but there is evidence of the need for quasi-public investment in large projects (such as the new aluminium and stainless steel plants) to facilitate a process of crowding-in investment and by spreading the risk to the private sector in these very large projects with long payback periods.

5.2 Building capabilities

The prevalence of market-failure requires an effective Industrial Strategy to explicitly focus on capability-building. Three key elements are relevant in the South African context - human resource development, technological capabilities, and SME and microenterprise development.

Human resource development

There is a particularly marked segmentation of skills in South Africa, reflecting the inheritance of the apartheid regime. On the one hand professional skills are highly developed and often achieve international excellence. On the other hand, artisanal and basic educational skills - especially in the black population - are limited. This poses acute problems for the manufacturing sector, especially as the new forms of competition (noted at the outset of this article) are very demanding of human resources. Consequently, the need to explicitly target human resource development requires the highest priority in any programme of industrial restructuring.

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[3] FOB - 'free, on board' - refers to the price charged for exports without any insurance or freight costs.

Industry's needs require attention to be given to adult basic education, both for new entrants to the labour force and to those currently in employment. But this must be complemented by a crash-programme designed to enhance industrial training. A key component of this boosting for industrial training lies in tying wages to skill acquisition and COSATU has made a number of important proposals in this regard (modelled on recent Australian experience) which are an important step forward. It also requires a reformulation of the national industrial training system and possibly also the introduction of a training levy on manufacturers.

But, in itself, enhanced skill development makes little sense unless programmed as part of a comprehensive restructuring of work-organization in the industrial sector. Here a few South African firms are beginning to reorganise themselves to take advantage of Japanese management techniques (such as just-in-time production and total-quality-control) have begun to show the way forwards and are developing what might be called a 'learning production strategy'. These changes in work and factory organization are not only absolutely essential to the revival of productivity growth in South Africa (and for that matter in all economies) but also provide the key towards meeting the objectives of lower unit labour costs and reduced the costs of living. These changes in factory politics present a sharp contrast to the legacy of apartheid industrial relations and emphasize the extent to which industrial competitiveness is intertwined with social processes.

Technological capabilities

The strategic refocusing of the industrial sector will require a transition from the current technological trajectory, and it is unlikely that this refocusing will arise as a consequence of more effectively functioning markets. Off a relatively low base, R&D spending has declined significantly over the past three years; moreover, whilst R&D output performs well in terms of scientific outputs, its performance in relation to technology-related parameters is weak. Consequently there is a need to stimulate appropriate technological activities and a number of measures are proposed. Tax-credits for R&D will be an important start. Sector-specific support programmes, complemented by measures supporting innovation-oriented, inter-firm linkages, may be focused within a Sector Partnership Fund involving joint private/state sector initiatives to foster industrial restructuring. In addition, in the past much of South African industry's technology has been derived from imported and largely unadapted technology, and measures can be taken to increase domestic technological inputs, as well as to limit the restrictive clauses which often hold back exports.

But the primary focus with respect to technological upgrading lies in speeding-up technology-diffusion in order to meet the twin objectives of closing the gaps between South African and global best-practice and between leading and lagging South African firms. A key part of this agenda is a programme designed to assist firms in strategic refocusing, to reorganize their production operations to meet the challenges of the new competition and to take advantage of efficiency-enhancing changes in work-organization, factory layout and production organization. The diffusion of university- and research establishment-based R&D to industry is another important area of policy concern, as is the need to develop specific programmes to foster the utilisation of technologies by SMEs.

Building capabilities in the SME and microenterprise sectors

The dominance of the large conglomerates finds its expression in a very underdeveloped SME sector; it is this sector which has been the source of dynamism in many global economies. In part the proposals made to enhance competitions policy will compensate for the underdevelopment of these firms, but additional support is required. This should target the technological needs of SMEs, as well as their requirement for finance (including venture capital). It is also proposed that a multi-tiered wage structure should be utilised to recognise the variation in wage rates between different areas and different sized firms. But this should occur with the recognition that this multi-tiered system will not undermine industrial wages as firms grow in size. Finally, one of the key challenges facing South African SMEs is the need to develop suitable cooperative relationships of the sort which have fostered the remarkable growth of SMEs abroad. This should be a specific target of industrial policy.

The problems of the microenterprise sector are especially marked and arise from a combination of a hostile external environment and low levels of skill and entrepreneurial capabilities. These constraints will in part be met by a peaceful transition to democracy, but will also require continued policy support with respect to training, access to finance and the development of sub-contracting relationships with the formal sector. NGOs will have a particularly important role to play in this sector's future development.

5.3 Institution building

The mediation between more effective market relations and capability-building will require the development of appropriate institutions. Many of these institutions have been identified in earlier sections - for example, with respect to export promotion, support for microenterprises, technology diffusion to SMEs, and the diffusion of new organizational practices to the industrial sector. Some of these institutions are already currently in existence and seem to play an effective role, particularly with respect to meeting the needs of the conglomerates and the formal sector. But there is clearly the need for extensive additional institutional development if the policies identified above are to be implemented effectively.

But in addition to these task-specific institutions, there are two critical elements of institutional structure which are required to support this proposed path of industrial restructuring. The first involves the pattern of industrial relations, at the national-, sectoral-, firm- and plant-levels. International experience makes it abundantly clear that the path to productivity lies in moving away from the conflictive relations endemic to the apartheid era. In both the interests of greater equity and efficiency it is important that a legislative framework be adopted to facilitate the growth of these coöperative relationships insofar as they affect the allocation of resources and the productivity with which they are utilised.

Second, Industrial Strategy is not a well-crafted document, but an effective process of consultation, consensus-building and rapid implementation. Based upon South Africa's specific experience these are only likely to be achieved in the context of tripartite policy formulation. Such negotiations already exist in the National Economic Forum and the various sectoral working groups which are emerging, but they need to be strengthened and linked into wider discussions of the future trajectory of the post-apartheid economy.

6 CONCLUSIONS

The past trajectory of the South African industrial sector has not been appropriate to meet the needs of the economy or of the population's basic needs. Based upon the work of a large team of researchers and on extensive discussions with key stakeholders in the political and economic arenas, an Industrial Strategy has been identified to meet the objectives appropriate to a democratic South Africa. The path laid out is not easy, nor is it conflict-free. However, unlike the past trajectory of industrial growth, it does represent a viable option for the future.