

# Industrial policy in a harsh climate: The case of South Africa

# 12

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## 12.1 Introduction

This chapter reviews South Africa's progress with the development and implementation of industrial policy over the post-apartheid era. This history falls into three broad phases: from the end of the Second World War to democracy in 1994, 1994–2007, and post-2007, with a particular focus on the last period. Economic policy, especially between 1994 and 2007, has been overwhelmingly dominated by orthodox laissez-faire economic reforms. These reforms were meant to achieve a step change in fixed investment and thereby catalyse higher levels of growth and employment across the economy, including manufacturing. However, they have not delivered significant or sustainable investment, growth or employment gains.

A policy shift on industrial policy began to emerge from 2007. Since then there has been significant progress with the development and implementation of industrial policy in terms of both cross-cutting instruments and sectoral strategies. Despite this, mobilization of the necessary support instruments has proceeded very slowly and has been subject to severe constraints. Meanwhile, the economy has suffered three major external and internal shocks: ongoing currency overvaluation and volatility, the global financial crisis and Great Recession, and a domestic electricity supply and price shock.

This chapter consists of six sections. The next section covers the literature on the role of the manufacturing sector and industrial policy. The third part reviews the most fundamental pre- and post-apartheid government policies affecting industrialization. The fourth section highlights South Africa's 2007 shift in industrial policy from neoclassical-based to structural-based reforms, with particular emphasis on ongoing structural constraints related to monetary policy, capital formation,

industrial financing, infrastructure provision and the supply of key intermediate inputs. The fifth section further discusses the implementation of this new approach in light of the three economic shocks and the identification of key institutional constraints. The last section concludes that, for industrial policy to succeed in South Africa, considerably greater coherence and coordination are required between industrialization objectives and macroeconomic and other economy-wide policies.

## 12.2 The importance of manufacturing and the need for industrial policy

There has been a recent international resurgence in the twin concerns of industrialization and industrial policy, even, to a limited extent, in institutions such as the World Bank, for which active industrial policy has long been anathema (Wade, 2012). This interest has arisen against the background of the disappointing results of orthodox policy reforms in a range of developing countries since the late 1980s and the manifest unsustainability of a finance-led economic model for developed countries in the light of the global financial crisis and associated Great Recession. At their core, orthodox economic policy prescriptions are premised on the notion that unencumbered markets in general and financial markets in particular rationally allocate resources to their most productive and developmental uses. This premise persists despite some developments within neoclassical economics itself that question such conclusions, largely based on market imperfections. As Kindleberger and Aliber (2005) have demonstrated, historically unregulated (or lightly regulated) financial markets are prone to vast and irrational inflation of asset prices (mania), which inevitably is followed by collapse (panic) and spillover onto the real economy (crash). Hence, even within the two exemplars of the Anglo-American finance-led model, vigorous debate has restarted about how to stimulate manufacturing through industrial policy measures.

For emerging economies, economic development is fundamentally a process of catch-up with the per capita living standards of developed countries. Orthodox policy proposals draw on theory that predicts catch-up will occur automatically through factor-price equalization across countries, in which trade increases the return to the abundant factor (assumed to be labour in a developing country) and decreases the return to the scarce factor (capital). The role of trade policy is reduced to maximum trade liberalization that will reveal and unlock production and exports of products and services in which countries have an underlying comparative advantage. This theoretical conclusion requires a range of assumptions

that are rarely met in real-world production and trade. They include the following: there are no qualitative differences among economic activities (no sector is more productive or has stronger linkage effects than another); returns to scale are constant or diminishing; there is perfect information about technological possibilities; and – critically – the adoption of technology is costless and instantaneous. It also assumes full employment and that capital is immobile. These theories solidified into what has become known as the Washington Consensus. Although even its original proponents questioned whether full opening of the capital account was desirable, the influence of the rational market hypothesis – which holds that unrestricted financial markets will allocate capital to its most efficient and productive uses (Palma, 2009) – effectively resulted, in practice, in the inclusion of capital account opening in policy advice based on the Consensus.

In contrast to the Washington Consensus, there is a long trail of literature emphasizing that there is “something special” about the role of manufacturing in economic development associated with the Kaldorian view of manufacturing’s irreplaceable role in generating dynamic increasing returns (Thirlwall, 1983). This literature identifies three channels through which manufacturing transforms the structure of an economy: (i) increasing returns at the firm level – that is, producing proportionately more output relative to inputs; (ii) dynamic increasing returns at the sector or cluster level – productivity improvements due to economies of proximity of related supplier and competitor firms and institutions; and (iii) economy-wide linkages and multipliers, as manufacturing draws in inputs from primary sectors, manufacturing itself and services as well as generating forward linkages to the rest of the economy.

In contrast to orthodox theory, this literature emphasizes that developing country growth and competitiveness are fundamentally driven by cumulative learning to adopt and adapt existing technologies and build interlinked firm- and cluster level capabilities (Amsden, 1992; Lall, 2004). These capabilities take time to build up, but they can be rapidly destroyed and will not necessarily be redeployed to another sector that is closer to the country’s notional comparative advantage in a world where one or more of the assumptions on which comparative advantage rests are likely to be violated.

Amsden (2003) describes how developing countries build on nascent industrial production capabilities by allocating economic rents conditionally, through a set of “reciprocal control mechanisms” (RCMs) that depend on performance. In one form or another, these rents require financing instruments to underwrite periods of learning to reach global competitiveness in target industries (Khan, 2000). The mixture of disciplining and financing instruments needs to be actively mobilized, can take a variety of forms, and must induce effort towards international competitiveness.

### 12.3 Apartheid-era industrialization

South Africa's industrialization has been characterized as dominated by a "minerals energy complex" (MEC) in two senses, both as a set of core sectors and as the predominant system through which capital accumulation has taken place (Fine and Rustomjee, 1996). These MEC sectors comprise various mining activities and further processing into semi-manufactured commodities so closely linked that the latter – despite formal statistical classification otherwise – are better understood as more closely linked to mining than to manufacturing.

Discovery of precious minerals – particularly gold – in the late nineteenth century kicked off a process of mining and mining-linked industrialization (Chabane, Goldstein and Roberts, 2006). State-owned enterprises (SOEs) and the state-owned development bank, the Industrial Development Corporation (IDC), played the central role in post-Second World War industrialization (Clark, 1994), supplemented by other instruments, particularly the extensive yet unstrategic use of import tariffs. Apartheid-era industrialization proceeded largely on the basis of "upstream" processing of mineral- and other natural resource-based commodities without sufficient impetus or policy coherence to develop the more labour-intensive and value adding "downstream" manufacturing sectors, which did not become internationally competitive. Using cheap coal as a feedstock, low-priced electricity was used as a policy instrument to create and expand a range of capital- and electricity-intensive industries that processed minerals and other primary resources into semi-processed commodities. Various industries including Electricity, Rail, Ports, Telecommunications, Steel, Petrochemicals and Aluminium were established by the apartheid State, generally through the introduction of SOEs.

The two SOEs that provided the most critical sets of inputs into downstream manufacturing, mining, and agriculture were privatized in the late apartheid era – Sasol (petrochemicals) in 1979 and Iscor (steel) in 1989. Limited regulatory mechanisms were put in place to discourage the abuse of dominance of (now) privately owned natural monopolies, let alone to strategically leverage their potential to contribute to the diversification of manufacturing. The lack of effective regulation has allowed the extraction of monopolistic rents from downstream firms, predominantly in the form of the practice of import parity pricing (IPP), whereby domestic prices are not set by domestic competition but instead are marked up to what they would cost to import (Roberts and Zalk, 2004).<sup>1</sup>

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<sup>1</sup> This practice results in uniquely high rents in the South African economy due to a confluence of factors: high weight/value ratios of intermediate products, relative under-industrialization of the sub-region, and long distances and high transport costs of alternative sources of import supply.

Notwithstanding a lack of coherent strategy outside of MEC manufacturing sectors, by the end of the apartheid era, important – although not fully competitive – capabilities were established in a range of downstream sectors including metal fabrication, capital equipment, automotives and agro-processing.

## 12.4 Washington Consensus conforming policy (1994–2007)

South Africa's post-apartheid policies – fundamentally informed by the 1996 Growth, Employment and Redistribution (GEAR) strategy (Department of Finance, 1996) – embodied Washington Consensus-type reforms theorizing that liberalization of key markets would lead to more efficient allocation of capital and thereby raise private investment levels and growth and employment rates.

GEAR assumed that domestic price stability would generate the necessary degree of certainty needed to undertake large-scale private investment. Monetary policy has been tight, anchored in the formal adoption of inflation targeting in 2000, with a target range of 3 to 6 per cent. This policy was accompanied by ongoing and substantial liberalization of the capital account; restrictions were lifted and limits were raised for corporate offshore investment and remittance of profits as well as individual portfolio investment. A number of large domestic companies received approval to shift their primary listings offshore – largely to the London Stock Exchange – on the premise that they would be able to raise funds more cheaply on international capital markets and thereby raise their investment levels in South Africa.<sup>2</sup>

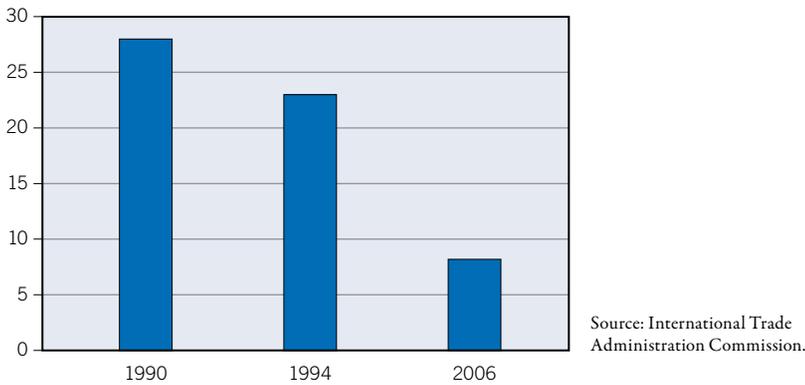
A lower fiscal deficit, it was argued, would result in lower interest rates and would thus “crowd in” private investment. Fiscal restraint, reinforced by substantial improvements in tax revenue collection, has indeed led to a lower debt-to-GDP ratio than that inherited from the apartheid State. Spending on health, education, housing, and limited forms of welfare grants (largely child support and old-age pensions) expanded, but not – until 2002 – expenditure on physical infrastructure.

A commitment to privatize various SOEs was only partially carried out. However, SOEs in a range of sectors were expected to become self-financing and generally commercialized, in preparation for privatization, through substantial cost-cutting of staff, new investment, and even maintenance of existing

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<sup>2</sup> Firms that have shifted their primary listings offshore include Billiton (mining/mineral processing), South African Breweries (brewing), Anglo American Corporation (mining), Old Mutual Life Assurance (financial services), and Dimension Data (information technology).

Figure 12.1 Average industrial tariff, South Africa, 1990–2006 (percentages)



infrastructure. This expectation encompassed much of the activities of utilities such as Eskom (electricity), Transnet (freight transport) and development banks such as the IDC in relation to sectors outside MEC manufacturing. However, they continued to provide concessionary terms to MEC manufacturing sectors in pricing of electricity, freight and cost of capital.

Trade liberalization – in Washington Consensus terms – should reveal nascent comparative advantage and reallocate investment to more productive activities. From 1993 onwards the trade liberalization process initiated by the late apartheid regime was accelerated, as South Africa joined the World Trade Organization (WTO) during the Uruguay Round. South Africa has implemented a tariff phase-down even more rapidly than required under its WTO commitments across a range of industrial and agricultural sectors, but with the exception of two “sensitive” industries: automotives, and clothing and textiles. The average industrial tariff declined precipitously between 1990 and 2006 (figure 12.1). South Africa also entered into two main regional free trade agreements, with the European Union (1999) and the Southern African Development Community (1994).

Edwards and Lawrence (2006) argue that trade liberalization has been the main cause of growth – albeit, by their own admission, limited – in South African manufactured exports since the early 1990s, driven largely by the growth of “medium technology” manufactured exports. Hence, they prescribe further trade liberalization as the main policy mechanism to increase manufacturing exports more generally. These are flawed conclusions for two main reasons.

First, this analysis fails to deal with the specifics of the main sectors that comprise the medium technology category and with the critical role that industrial policy – both past and present – has played in their relative export dynamism. The

major advancing sectors have been steel and other semi-processed metals, chemicals, automotives, and mining capital equipment. As noted above, semi-processed metals and chemicals were the lead sectors of apartheid industrial policy, had their origins as state-owned enterprises and recipients of major support from the IDC, and had developed capabilities that rendered them largely internationally competitive by the end of the apartheid period. Post-apartheid automotive policy did indeed involve large tariff reductions, but in the context of an export–import complementation scheme whereby automotive assemblers had to increase their production volumes and procurement of domestic components year by year in order to earn the same value of import credits (as discussed in greater detail below). Mining capital equipment had developed competitive capabilities over a long period of time due to the specific and demanding requirements of the South African mining sector. Most other sectors fared far less well under trade liberalization, and employment losses in these sectors were far greater than gains in other sectors. This experience is entirely consistent with Shafaeddin's (2005) study that finds that, for Latin American and African countries, trade liberalization has in general not been associated with diversification of manufactured exports except where industries are already very close to the global competitive frontier – in which case liberalization can be useful in providing the final impetus to international competitiveness.

Second, given that trade has already been liberalized by more than two-thirds and that in this context aggregate manufactured export growth has been considerably below the growth rates of peer medium-income developing countries, it is arithmetically implausible that removal of the last one-third of tariffs could have a major dynamic effect even if Edwards and Lawrence's argument is accepted at face value.

Part of GEAR envisaged a range of grant-based “supply side”, predominantly aimed at assisting small and medium (SMEs) manufacturing firms to adapt to a sharp increase in international competition. In practice, on-budget support for these measures was generally of limited scale and widely dispersed across a range of sectors and multiple policy objectives.

In contrast, and despite the emphasis of policy statements on SMEs, substantial on- and off-budget support continued to be extended to a number of capital- and electricity-intensive MEC sectors in three important ways. First, a range of resource processing firms received generous tax allowances and IDC funding for expansions in the post-apartheid period.<sup>3</sup> Second, this support was not tied

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<sup>3</sup> This included firms in industries such as carbon and stainless steel, aluminium, chemicals and paper and pulp.

to strong reciprocal conditionalities, in particular not meaningfully linked to the pricing policies of these natural monopolies in the domestic market. Third, these companies also continued to receive cheap electricity over most of the post-apartheid period.

In no industry have arrangements been more generous than for the main carbon steel producer. Iscor, which was established as an SOE by the apartheid state, was privatized in 1989. It has undertaken various expansions since the early 1990s, assisted with tax rebates and IDC funding. In 2001 its steel making and iron ore mining operations were unbundled, but with the effective guarantee of low-cost iron ore for a large part of its requirements through a “cost plus 3 per cent” supply arrangement from the mining entity.<sup>4</sup> These arrangements paved the way for the introduction of foreign ownership and ultimate majority shareholding by ArcelorMittal. Despite such favourable arrangements a commitment to introduce a “developmental pricing” model, made at the time of assuming majority shareholding, has never materialized.

Perhaps the most significant domain in which post-apartheid economic policy has ostensibly departed from Washington Consensus orthodoxy has been with respect to the promotion of a black capitalist class through Black Economic Empowerment (BEE) policies. BEE has gone through a few iterations since the mid-1990s, with transactions taking place chiefly in sectors where the State has some direct form of leverage, such as the issuing of licences or as a major procurer. Mining policy in particular has been almost overwhelmingly focused on facilitating transfer of significant ownership of the mining sector into black hands through the introduction of a new licensing regime in 2002. However, other developmental objectives – particularly leveraging mining rights for the greater development of downstream value-adding and more labour-intensive sectors – have received little practical attention.

There have also been major weaknesses with respect to post-apartheid institutions for skills development. The previous artisan system was replaced by a skills levy linked to sector education and training authorities (SETAs). This has resulted

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