THE INDUSTRIAL DEVELOPMENT CORPORATION UNDER APARTHEID: FINANCING THE INDUSTRIALISATION OF SOUTH AFRICA 1940 TO 1990

by

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A dissertation submitted to the Faculty of Commerce, Law and Management of the University of the Witwatersrand, Johannesburg in fulfilment of the requirements for the degree of PHILOSPHIAE DOCTOR in APPLIED DEVELOPMENT ECONOMICS.

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Johannesburg
October 2020

Declaration

> "I hereby declare that this is my own unaided work, the substance of or any part of which has not been submitted in the past nor will be submitted in the future for a degree to any university, and that the information contained herein has not been obtained during my employment or working under the aegis of any other person or organisation other than this university.

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(name of candidate)

(signature)

Signed this 9th day of March 2021 at Johannesburg"

ACKNOWLEDGENTS

First and foremost, I would like to thank my main supervisor Professor Bill Freund, who advised me to pursue doctoral studies from as far back as the mid-1990s and importantly for believing in me. I would also like to thank my second supervisor Professor Nicolas Pons-Vignon who played a key role in many aspects of this thesis from the early stages to its final draft.

Many colleagues at the IDC have been supportive in particular the Executive for Strategy David Jarvis and the Head of Research and Information Jorge Maia. Also deserving mention are colleagues in the InfoCentre and the Records Department of the IDC who kindly assisted me access the right sources of information. I would also like to acknowledge and thank the staff in the National Archives for their assistance. I should also acknowledge financial assistance received from the IDC to cover my tuition.

Finally, I need to thank my young family for allowing me to neglect my parental responsibilities and dedicate my time to researching and writing this thesis. My father and late mother deserve special thanks for their unwavering support, love and encouragement and the keen interest they took in my education.

ABSTRACT

As an agency of the state formed to finance industrial development, the IDC was an integral part of the South African variant of developmentalism and its abandonment. However, the IDC was required by its founding act to support enterprises that exhibit 'economic merit' when extending credit to clients. Relative to development banks in developmental states that were catalysts in the shrinking of the gulf between early industrialisers and their economies, the IDC was reliant on private capital and retained earnings for funding constraining its ability to offer concessionary funding which speeds-up industrialisation. Largely as an outcome of the compulsion by the corporation to maintain a strong balance sheet to please its funders, the IDC's role in promoting industrial development without state funding was limited.

The developmental impulse which was underpinned by solid economic growth in South Africa was most evident from the 1940s to the mid-1970s. By and large the IDC was an obedient agency of the state used as conduit for funding developmental projects like SASOL, FOSKOR and the textile industry. The textile industry was eventually included in the import substitution programme which began in the mid-1920s issuing from pressure applied by aspirant textile manufacturers coupled with interest coming from established foreign manufacturers. The state grudgingly altered its approach in favour of providing protection and entrusted the IDC to develop the industry through financing, supporting and transforming the industry. The formation of SASOL by the state underwent a challenging and costly phase which largely confined the IDC to the side lines except as a conduit for state financing of the project. The second phase, arguably the most developmental, saw the IDC in partnership with the state and SASOL, expand and diversify the chemical industry. The third and final phase was the creation of giant synthetic fuel plants in Secunda motivated by security concerns and financed by the state with the IDC playing the role of a facilitator.

The rising levels of African urbanisation impelled the state to shift its focus away from developmentalism towards the security of the apartheid state. For three decades the IDC was a central state institution through which the state financed the industrial decentralisation programme. A key project of apartheid in the 1980s was the militarisation of South African society which extended to the economy as the state further strayed away from the developmentalism of the past. Partly conditioned by international isolation and sanctions the state and the IDC conspired to establish industries in support of the project.

The IDC played a key role in the attempt by the state to transform the South African economy from the one governed by the logic of import substitution to an export-oriented one. Particularly after the 1960s the IDC increasingly became interested in boosting industrial exports as the

state and the corporation sought to transform the manufacturing sector into an export-oriented one. However, the export promotion programme was overshadowed by security priorities and largely ineffective partly because it was poorly designed and starved of funding.

ACRONYMS

ABI	Accepting Bank for Industry
ADE	Atlantis Diesel Engines
AE&CI	African Explosives and Chemical Industries
AHI	Afrikaanse Handelsinstituut
ANC	African National Congress
ARMSCOR	Armaments Corporation of South Africa
BTI	Board of Trade and Industries
CEF	Central Energy Fund
CGIC	Credit Guarantee Insurance Corporation
CKD	Completely Knocked Down
CNRD	Council for Natural Resources Development
COSATU	Congress of South African Trade Unions
CSIR	Council for Scientific and Industrial Research
CSS	Central Statistical Service
DBSA	Development Bank of Southern Africa
DTI	Department of Trade and Industry
ESCOM	Electricity Supply Commission
FDI	Foreign Direct Investment
FOSKOR	Phosphate Development Corporation
GASCOR	South African Gas Distribution Corporation
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GEIS	Generalised Export Incentive Scheme
ICDC	Integrated Circuit Design Centre
IDC	Industrial Development Corporation
IFC	Industrial Finance Corporation
IMF	International Monetary Fund
JSE	Johannesburg Stock Exchange
KDB	Korea Development Bank
KfW	Kreditantstalt für Wiederaufbau
MEC	Minerals-Energy-Complex
MITI	Ministry of International Trade and Industry
NAAMSA	National Association of Automobile Manufacturers of South Africa
NATREF	National Petroleum Refiners of South Africa
NCF	National Clothing Federation

NFC	National Finance Corporation
NDHSA	National Discount House of South Africa
NIEs	Newly Industrialising Economies
OECD	Organisation of Economic Co-operation and Development
PMC	Phalaborwa Mining Company
PWV	Pretoria Witwatersrand Vaal
RENAMO	Mozambican National Resistance
SADF	South African Defence Force
SAMES	South African Micro-Electronics System
SARB	South African Reserve Bank
SASOL	South African Coal, Oil and Gas Corporation
SEPC	Social and Economic Planning Commission
SFF	State Fuel Fund
SOF	State Oil Fund
SWAPO	South West Africa People's Organisation
UK	United Kingdom
UN	United Nations
UNITA	National Union for the Total Independence of Angola
UP	United Party
US	United States
WTO	World Trade Organisation
ZF	Zahnfabrik Friedrichshafen

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Chapter One

Introduction

The interplay between the state, the Industrial Development Corporation (IDC) and finance in the industrialisation of South Africa constitutes a common theme of this study. At a global level and in South Africa, the subject is replete with literature, but none thus far dedicated to the IDC. The study focuses on the IDC in its first half-century in the context of import substitution programme circumscribed for the most part by the notorious political programme of apartheid. The financing of industrialisation comes under the spotlight as one of the major themes of the study.

The central argument of this thesis is that the IDC was a pivotal agency of the South African state in driving forward its key industrialisation projects that formed the dominant part of its developmental agenda. The IDC assumed the role of a conduit of state funding and an implementer of state developmental and apartheid-inspired projects. Simultaneously the IDC was also used by the state to support economic projects meant to shore up the political programme of apartheid which served not only to distract from the developmental thrust but ultimately undermine it as well. In its founding act passed in 1940 the IDC was created to promote industrial development through financing firms that exhibited 'economic merit' a criterion it applied when funding projects that were not state-sponsored but initiated by the corporation itself or by private capital. The IDC was not a concessionary funder for industry but it was established partly to fill the void left by colonial banks that shunned firms in the manufacturing sector in need of finance for investment. However, state-sponsored projects funded through the IDC relied on financing that was concessionary in that shareholding rather than loans predominated.

The primary aim of this thesis is to determine whether South Africa's trajectory to industrialisation contained the attributes associated with the developmental state theory through the prism of the IDC. To accomplish this the study aims to compare and contrast the South African experience of financing industrialisation with countries that are widely considered developmental states. It is imperative to keep in mind as Freund (2019:102) emphasised, 'The developmental state paradigm is a classic ideal type. As with feudalism or slavery or even capitalism, the real economic-social linkages, on the ground show variation, relics of the past and idiosyncratic features.'

In developmental states finance constituted a key pillar of the model. In comparison to financial institutions in developmental states, the IDC was underfunded, too risk averse and consequently preferred supporting firms that it deemed held a promise of profitability. Outside of state-initiated and financed projects, the IDC made an impact on developmentalism through financing the industrialisation of South Africa, to some extent. This however fell far short of what was achieved by similar institutions in Asian developmental states. The manufacturing sector, despite the requirements for more funding in the 1950s and 1960s and expanding strongly, did not receive requisite funding to sustainably narrow the gulf between South Africa and early industrialisers. For the IDC the ability of its funding recipients to honour their obligations in terms of servicing their debts was paramount in stark contrast to Japanese and Korean models.

Chapter Two surveys international literature on the developmental state theories. It analyses the interplay between the state, the banking system and the industrialisation phenomenon. The East Asian miracle is examined through the role played by exports in their phenomenal growth out of underdevelopment. The last parts of the chapter are devoted to the analysis of the part played by finance in the industrialisation phenomenon as it spread from England to Europe and to other parts of the globe. The chapter also focuses on the development finance in late industrialisers.

In Chapter Three the study attempts to come to terms with the evolution of the South African financial sector historically with a focus on banking. Since the IDC was created to function in the financial sector, the chapter provides a context in which the corporation operated. It briefly outlines the history of the IDC and how it metamorphosed in its early days. The chapter examines in detail how the state transformed what was essentially an imperial banking system into one that fell under its sway and became national in character. It also explores the IDC's contribution to transforming the banking sector through deepening financial services. The analysis of the financing activities of the corporation and how the IDC itself was funded beyond state contributions is another focus area of the chapter.

Chapter Four marks the beginning of focused analysis of IDC financing activities of specific industries. The chapter is devoted to the emergence of the textile industry in South Africa, the pioneer of the industrialisation phenomenon worldwide, through the lens of the IDC. It traces the origins of the textile industry in South Africa and its relationship with the state in its formative years. This is an example of a state that was not autonomous acting above class interests in the developmental state paradigm but instead reacted to a vocal segment of the capitalist class which applied pressure on the state to alter its policies to support the emergence of a domestic textile industry. Rather than an influential civil service driving state policy class interests held sway in the post war rise of the textile industry which the state delegated much of the responsibility of developing to the IDC. Furthermore, the chapter attempts to come to terms with the performance of the industry and underlying causes behind its lack of competitiveness ahead of the increased exposure to foreign competition in the 1990s. The spotlight also shifts to IDC investments in the textile industry with a view to gain deeper comprehension of the corporation's impact on the industry.

The principal aim of Chapter Five is to provide an account of the emergence of an industry under the direct aegis of the state in the shape of SASOL, the IDC's cash cow for many decades. It investigates the lead up to the formation of SASOL in 1950 with a focus on the part played by the state and the IDC. Even at the level of the state ideological contestations independent of the influence of class interests can lead to the adoption or not of developmental approach to economic policies. In the case of the SASOL project, an orthodox market approach opposed the creation of a synthetic oil project proposed by more developmental arms of the state. Depending on the period the dominant class interests prevailed, civil service-dominated or the political programme driven by the desire to preserve the apartheid state triumphed. In particular the chapter concentrates on the financing dimension of the SASOL project. It explores the partnership between the IDC and SASOL in the 1960s in the expansion and diversification of the SASOL project into the chemical industry. The focus also shifts to the IDC in designing the framework and financing model for the largest expansion of the SASOL project in Secunda. The changing relationship between the IDC and the state in connection with the benefits the corporation derived from the SASOL project in its entirety is also scrutinised.

Chapter Six hopes to make up for the scant attention paid to the role played by the IDC in the implementation of the industrial decentralisation programme. Initially subordinate to the developmental impulse industrial decentralisation is best understood through periodisation. Its failure to deliver reduced urbanisation of Africans, a political imperative necessary to ensure the survival of apartheid, saw the policy shift to one that disregarded the implications for developmentalism. It constituted, from the late 1960s, an apartheid-inspired project that underlay the deviation from developmentalism from then on until its demise in the early 1990s.

The chapter begins by mapping out the origins of industrial decentralisation prior to its official adoption in 1960. It also examines the implementation and policy shifts in the 1960s which culminated in the adoption of the draconian Physical Planning Act of 1967. The spotlight shifts to the financing of the programme by the state through the IDC and other activities of the corporation in support of the policy. The chapter also makes an appraisal of industrial decentralisation against its set goals. It looks at the programme after the implementation of generous incentives in 1982 and its impact on industry location overall in the lead up to its abandonment when the demise of apartheid looked imminent in 1990.

The compulsion to preserve apartheid in the face of growing international hostility to the South African government forms a key theme of Chapter Seven. The chapter demonstrates how the IDC became instrumental in the militarisation of the South African economy in the 1970s and 1980s. It analyses the relationship between capital, the state and its agencies in the military-industrial-complex as part of efforts to bypass arms embargoes and other sanctions. Attention also shifts to the development of the armaments industry and the rise of state arms company ARMSCOR. The relationship between the IDC and the state in the creation of firms and other suppliers of munitions to further the militarisation of the economy cause will form an area of focus in the chapter.

Chapter Eight sets out to come to terms with South Africa’s failed attempts to transform its import substitution industrialisation programme into an export-led growth one and how the IDC contributed to its achievement. The chapter also seeks to discover the underlying causes to the shift in the thinking of policy makers particularly in the 1970s and 1980s. It examines the composition and destination of South African exports with a view to determine limitations to their performance. The chapter highlights key policies adopted and the many reports on export promotion methods recommended by various commissions of enquiry and reports of the BTI. State and IDC-sponsored programmes designed to promote exports of manufactures will be analysed with the intention to assess their efficacy. The shift to trade liberalisation recommended by the IDC in the late 1980s will also form an important part of the analysis.

The final chapter aims to make some salient concluding remarks in the light of developmentalism in South Africa. It draws together key themes and findings of the study.

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This thesis brings to focus the literature on the developmental state especially is regard to the Far East where distinctive financial arrangements played a paramount role. Woo (1991:2) refers to the concept of a strong state whose key attributes include the ability to coerce, capacity to act above class or groups with relatively high levels of autonomy and possessing the capacity to alter or replace structures. In Korea the state was able to manipulate financiers to support its economic policies and thus maintain a high level of independence from the global financial system. As Woo (1991:6-7) puts it,

> The Korean state has moved from a dependent, penetrated status to one of relative autonomy by positioning itself astride the flow of foreign capital, refracting capital in a

> prismatic fashion to fund rising industries, create mammoth firms, buttress its social support, and in dialectical fashion wrest national autonomy from the external system. Its very openness to the outside world (especially in contrast to Latin America's residual import substituting pattern), combined with its remarkable insulation at home, give it a dynamic, pivotal role in moving from mendicant to world-competitive status.

At the level of the nation state Woo (1991) conceptualises the state as deriving power from its ability to coerce. She places money at the centre of such power and uses it to analyse the part played by finance in Korean development. The state's effectiveness, according to Poulantzas, becomes a function of its independence and ability to act above class interests. However even strong states in the periphery tend to prove weak in the face of the international financial system and powerful donor funders.

However, in the 1990s under pressure from the Western world Korea relented and turned its model on its head succumbing to financialisation. Its banking system, the bedrock of its industrialisation model abandoned its focus on propping industrial policy and concentrated its energies on providing consumer credit emulating Western models (Epstein, 2005:15). We will consider here, however, to what extent if any the IDC fits the Korean model and to what extent its limitations created developmental obstacles.

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This study relies to a very large extent on archival material held in the National Archives in Pretoria. The IDC, particularly in its early days, diligently made available to the Department of Commerce and Industries minutes of Board meetings and other reports. Over the years communication between the state and the IDC pertaining to major projects that the IDC was drawn into was stored in the National Archives. It formed a key source for this study. Internal reports generated in various government departments that constituted the basis for policy formulation also form a valuable source for this thesis. Policy documents of, in particular, the Department of Commerce and Industries relating to the IDC and its key clients like SASOL and FOSKOR were consulted. While the archives carry a wealth of information covering the 1940s to the 1960s, from the mid-1970s to the 1980s there is a palpable dearth of information particularly relating to policy and state activities on issues that may be connected to state security. Reports about systematic destruction of state records in the lead up to the 1994 elections does seem to receive support from the experience of this research.

The IDC has a massive collection of records of its activities from its formation to this day. Much of this information is kept in-house while some has been digitised. Other records are kept off-site in warehouses of a contracted company. I accessed, for the purposes of this study, substantial volumes of information which were not filed in any particular order. Much of the information consulted constituted communication between the IDC and the state and processes involved in the financing of state-sponsored industries and firms. Information which was made available to me on clients and communication between the IDC was also consulted. Overall it is challenging to piece together this information stemming from incompleteness of the information due to missing reports accompanying letters, unavailability of some copies of letters sent by the IDC and many supporting reports referred to but unavailable also served as a constraint.

Despite the advantage of being an insider as an employee of the IDC, accessing older information proved a major challenge largely due to the absence of both a filing system and a legal requirement to keep such information. The shortcomings notwithstanding, I was able to offset the hiatus in state records on SASOL and military related information in the 1970s and 1980s with records obtained from the IDC. Unfortunately, detailed and readily accessible information including minutes of the board and management meetings and client information from the internal IDC website only covers the period (from the 1990s onwards) outside the purview of this study. It was only used for this study as an exception.

The departure of a long-time manager in the Records Department of the IDC implied that significant institutional memory relating to the location of many records was lost with him. This is particularly important in the context of old records stored without readily available related filing information. Late in the writing of this thesis I managed through my own initiative to track down rich documents on the development of the electronics industry in the 1980s that was kept by a document storage company contracted by the IDC. Unfortunately, it was too late to include them in this thesis. Moreover, a researcher in the mid-1990s managed to access minutes of annual meetings of shareholders dating back to the 1940s which I could not access. I have no reason to believe that information like this has been destroyed but due to poor filing system it is hard to track down. However, current efforts to trace and capture in an orderly fashion all the information stored should open up rich sources for future researchers that could not be accessed for this thesis.

The IDC InfoCentre has in its collection wide ranging historical information on the IDC which I consulted widely for the purposes of this thesis. Annual Reports of the IDC from 1940 are an invaluable source of wide-ranging information regarding the role played by the corporation and were closely scrutinised for this thesis. As a means to account to Parliament they are reliable in the provision of reliable data about the IDC which were independently audited. However, the limitation that applies to annual reports, the IDC's are no exception, is that they are meant to create and maintain a particular perception in the public and would gloss over controversial matters. The press clippings containing reports relating to the IDC from the 1940s to the late 1970s which have been digitised also proved an invaluable source. However, this collection ceased in the late 1970s only to resume in the mid-1990s and no clear explanation to this could be established. Promotional brochures and other intermittent reports produced by the IDC over the decades have been packaged and are stored in several files that are kept in the InfoCentre. Other annual reports of companies funded by the IDC were also analysed including those of SASOL sourced from University of Cape Town Library website dating from 1951 to the late 1970s. FOSKOR's annual reports and other IDC related companies were also sourced from the National Archives.

Over the years the South African government published many reports of commissions of enquiry it set up. Many such reports were relied upon in this study and proved a valuable source for analysing policy direction over the decades. The Board of Trade and Industries was a key state agency in the design of trade and industrial policy in South Africa. Both published and unpublished reports formed an important source of valuable information in this regard. Censuses of Manufacturing published by Central Statistical Services (CSS) and the Department of Statistics were also consulted for the purposes of this study.

Various websites were consulted in particular Quantec, the South African Reserve Bank, WTO, the World Bank and the International Monetary Fund (IMF) for local and global historical economic data. Print media clippings from South African Labour and Development Research Unit (SALDRU) available on the internet were a supplementary source albeit to a limited extent relative to others. This source included some industries pertinent to this study but covered mostly periods in the 1970s and 1980s.

Chapter Two

Developmental States: Industrial Policy and Development Finance

2.1 Introduction

At the conclusion of the Second World War in 1945 two major divides prevailed in the world. One division was between the capitalist West and the socialist East while another was between the West and the ‘Third World’. Much of the ‘Third World’ consisted of colonies of major Western powers or newly liberated countries from colonial rule. The reconstruction of the world’s economies after the war signalled the beginning of an extended period of what came to be known as the ‘golden age’ of capitalist expansion. While Western Europe and North America constituted the engine of post war economic growth, the emergence of Japan generated heated debates on the underlying causes of its superior performance.

The second divide between the rich West and the poor South remains to this day and the gap in wealth keeps widening. As ‘Third World’ countries broke free from colonial shackles, dreams of post-colonial societies of political freedom and economic prosperity soon turned into disappointment. After many decades of experimenting with various economic policies only a little more than half a dozen economies among them Japan, and city states of Hong Kong and Singapore have managed to catch up with the rich North. Despite the passage of time the bulk of developing countries remained mired in underdevelopment unable to ‘catch up’ with their developed counterparts.

An analysis of successful industrialisation episodes often battles to steer clear of laying down a set of lessons based on policies that were efficacious and those that were not for countries seeking to emulate the prosperity of successful industrialisers. However, it is always important to remember as Gerschenkron (1962:6) reminds us that ‘[n]o past experience, however rich, and no historical research, however thorough, can save the living generation the creative task of finding its own answers and shaping their own future.’ For his part Johnson (1999) underlined the significance of a particular period in which a successful industrialiser developed as a potential partial determinant of the success of the policies adopted. For instance, developing countries are constrained from adopting certain protectionist policies due to their membership of the World Trade Organisation. This does not, however, imply that developing nations are locked in a steel cage because as Cramer et al (2019) have proposed African countries have many policy options available to drive their economies to higher growth planes.

As the means of laying the groundwork for this thesis, an examination of theories of the 'developmental state' will be made below. This is a particularly pertinent framework in comprehending the role of a development finance institution like the IDC, against the backdrop of the centrality of finance in late industrialisers. In this chapter an analysis will be made of the relevant theoretical frameworks like the 'governed market'. The chapter will also focus on the major characteristics of a developmental state. It will in particular critically look at the role of the state in East Asia an area in which much of the existing literature on developmental states focuses on.

In essence this chapter is about experiences of late industrialisers as they attempt to catch up with their more developed counterparts. It will also look at the experience of continental Europe specifically the role of the banking sector in promoting industrialisation. The chapter shifts attention to the catalytic part played by the banking system in support of industrialisation. It considers the experiences of various countries in Europe and attempts to explain the differing experiences in a select number of countries. A significant part of this chapter is devoted to development banks as a common feature of belated industrialisation isolating salient determinants of their success. The chapter also shines the spotlight on exports because they are universally credited for the rapid growth of East Asian economies through a comparative quantitative analysis of a select group of countries in different regions. It goes further and underlines the significance of industrial exports as a proportion of total exports in the economic development of late industrialisers.

2.2 Difficulties of Late Industrialisation and the East Asian Miracle

Late industrialisation for countries seeking to transition from 'backwardness' to becoming industrial societies brought an added dimension of catching up with the pioneers. Unlike England during the Industrial Revolution, state intervention became increasingly significant and necessary as industrialisation spread to Western Europe, North America, Japan and other parts of the globe. Late industrialisers also faced the availability of manufactured goods from other countries competing with domestically-produced products. Moreover, for the first few decades after the Industrial Revolution imperial Britain relied heavily on foreign markets because its working class was too poor to absorb the country's industrial goods beyond basic necessities (Hobsbawm, 1968:111). In addition, the country pried open virgin markets many of which became its colonies and controlled many naval routes to access these markets. In Germany and the US, a large part of their industrialisation included protecting their nascent industries against import competition. State intervention assumed a central role as countries propelled themselves out of 'backwardness' through industrialisation.

In general, the transition to industrialisation in a 'backward' country is often strained by impediments associated with prevailing economic activities. The establishment of a large army of industrial workers that is divorced from the land and dependable, a major hurdle for late industrialisers, is an important precondition to a successful industrialisation episode that constitutes (Gerschenkron, 1962:9). Dominant economic interests like merchant capital, feudal structures landlords, peasantry carry the potential to impede the march to economic development founded on industrialisation. In Japan the landlord-tenant farming arrangement was abolished shortly after the end of the Second World War and laying the foundation for a revolutionary agrarian reform (Sumiya, 2000:24).

By the early 1990s it had become apparent that over a period lasting a quarter of a century a group of developing countries had recorded growth rates that were faster than other developing countries and developed nations (World Bank, 1993). Even more significant was that when measured by GDP size and GDP per capita, this group of countries managed to narrow the gap between themselves and industrial countries. The countries exhibited marked improvement in other indicators like inequality, industrialisation, and skill formation. While the group comprised countries largely from Africa and Latin America, East Asian 'Tigers'- South Korea, Hong Kong Taiwan and Singapore stood out. Their experience cast a shadow of doubt on the notion that developing countries were locked in underdevelopment particularly when their economic relations with developed countries were most intimate. Moreover, the growth of these countries came to be characterised as primarily export driven.

Unlike most analysts, Kim (2009) traced the origins of strong economic performance of East Asian Tigers to the period before 1960. He explains that the form of colonialism and the level of equality in society played a determining role on whether a country's economic performance was phenomenal or not. Kim asserts that the 'income distribution is fundamental cause, not a result, of long-term growth.' The form of colonialism in much of south east Asia was 'extractive' in that it was supported by a tiny settler community implying that it was oriented towards massive levels of exploitation. Moreover, it was premised on indirect rule which divided the indigenous society creating inequalities through a parasitic indigenous ruling class that retained its authority after colonial rule (Kim, 2009). This in turn made it difficult for colonial institutions to be transformed by post-colonial states. 'Extractive' colonialism established high levels of inequality in the colonies.

Although Korea experienced extractive colonialism it had a higher Japanese settler population relative to others and along with Taiwan underwent a different type of decolonisation. Taiwan and Korea, two economies that recorded phenomenal economic performance from 1960, were more egalitarian than their neighbouring East Asian countries as a result of land reform programmes. The political reason for the redistributive aspect of the developmental state, according to Doner et al (2005), has been to pacify large parts of the populace so that internal threat that could emerge from a revolt from the peasantry, for example, can be averted. These 'side payments' tended to transcend land reform assuming different guises in various developmental states. In Taiwan land reform programmes were initiated from 1949 to 1953 allocating land to almost half of rural households (Kim, 2009:392). In Korea land reform policy was implemented by the American military government only to be accelerated by the Korean state in 1949 and 1950. This led Rodrik (cited in Kim) to attribute 90% of the Taiwanese and Korean growth since 1960 to income equality. Kim (2009:394) concluded that the coupling of the demise of colonial rule and land reforms engendered egalitarianism. In Korea land reform mobilised idle capital used for land speculation for investment in manufacturing simultaneously dismantling the conservative landlord class (Amsden, 1989:37). In post-World War II Japan the Supreme Command of Allied Powers ensured that fundamental land reform was implemented involving the abolition of the landlord-tenant system (Sumiya, 2000:24). The bulk of the land that was in the hands of landlords was transferred to tenants by the state which compensated the previous owners.

Amsden (2001) compared income equality among several countries over the 1975 to 1983 period using various measures and found a significant degree of egalitarianism in Korea, Japan and Thailand. The income distribution measured by the ratio of income of the highest and lowest 20% measured below five while the Gini coefficient for land was lower than 0.5 in 1960. Brazil, one of the most unequal societies in the world, by comparison recorded 27.7 and 0.86, respectively. Income distribution has a positive impact on economic development among late industrialisers as it makes it easier to provide largesse to a few 'national champions' in a more equal society than otherwise.

Moll (1992) has questioned the quality and reliability of inequality data in East Asia and cautions against making sweeping statements that rest heavily on the data without close examination of the methodologies employed in the collection, size of samples and comparability across borders. In the Taiwanese case studies which is the focus of the study Moll (1992:296) notes however that 'while precise magnitudes are open to question, it is clear that the distribution of income in Taiwan is more equal than in most developing countries.'

2.2.1 Theoretical Approaches to the East Asian Rapid Economic Expansion

Sustained rapid economic expansion in a quarter of a century from 1960 of a group of East Asian economies further bolstered the validity of the developmental state theory. East Asian Tigers as they came to be known included South Korea, Singapore, Hong Kong and Taiwan proved that it was possible for an underdeveloped economy to exit the status and be firmly on the path to development. The source of debate would lie in determining the underlying causes of the ‘East Asian miracle’. Explanations ranged from those who viewed the superior economic expansion of the East Asian Newly Industrialising Economies as the vindication of the efficacy of free markets. The World Bank (1993), while careful to acknowledge the role of the state, argued that subsidies and other forms of intervention accentuated the importance of prudent macroeconomic management, the primacy of the market, fiscal prudence, macroeconomic stability as well as, openness to foreign direct investment and trade among others. The second school of thought acknowledged a limited level of state intervention but viewed it as necessary to remove obstacles to the smooth functioning of the markets.

Several analysts pointed to the centrality of the state in introducing certain incentives and distortions in the market to accomplish certain goals in a sense ‘governing the market’ (Wade, 1990). Wade contends that in such a paradigm the state leads the market and not the other way around. The manifestation of such a level of state intervention is evidenced in the generation of a different result in investment and production than would have been in its absence (Wade, 1990:29). The theory ascribes the East Asian miracle to higher rates of investment particularly in strategic sectors coupled with the facing up to foreign competitive pressures domestically and abroad (Wade, 1990:26). Equally significant was the intervention of the state in the economy to guide the market to yield certain results. Among the key methods of state intervention was favouring industrial capital over finance leading to the subsumption of the latter under the former. Wade (1990:29) further notes that,

> Government policies deliberately got some prices “wrong”, so as to change the signals to which decentralized market agents responded, and also used nonprice means to alter the behaviour of market agents. The resulting high level of investment generated fast turnover of machinery, and hence fast transfer of newer technology into actual production.

In getting the prices ‘wrong’ the Korean state in particular sought to generate new profitable investment avenues. According to Amsden (1989:8), the state purposefully altered relative prices using subsidies to accomplish certain outcomes in the economy. In return for the state’s largesse however stiff targets were set for the beneficiaries. What sets Korea apart was its ability to exercise its authority over private capital and impose penalties on deviant firms when it deemed it necessary (Amsden, 1989:14). The government, it can be argued, manipulated market forces to marshal investment into targeted industries.

With the Cold War at its zenith, the American government was more than willing to pour in vast amounts of money into South Korea and Taiwan. The Koreans and the Taiwanese were able to leverage these funds to promote their mega projects in industrial development. Korea benefitted from multi-lateral finance which it used with relative independence from donor nations. The distinguishing factor between Korea and Latin American states is that the latter received foreign direct investment from multi-national enterprises which had very specific goals which were at odds with home-grown policies (Woo, 1991:8).

2.2.2 Industrial Policy

The centrality of the state in South Korea's and other East Asian Tigers' industrial policy is undeniable. Export promotion was prioritised and supported by subsidies, grants in conjunction with export institutions that ensured that targeted sectors receive further support in return for meeting set export goals (Kim 1985). Amsden (2001:160) concluded that for late industrialisers institutions laid the foundation for growth. However, export promotion was not pursued to the exclusion of import substitution industrialisation policies. On the contrary high tariffs were imposed to protect favoured sectors while they were also incentivised to pursue export markets. The principle of 'reciprocal mechanism' was also applied in the provision of protection against imports. The Korean state offered the electronics industry import tariffs on the understanding that firms in the industry would export a percentage of their output (Amsden, 2001:151).

Amsden (2001:118) believes that Korea and Taiwan grew their textile industry behind tariff walls with the aid of concessionary finance and restricted foreign direct investment. In Taiwan's case tariffs were not only increased in the late 1940s to the middle of the 1950s but remained high for the period immediately thereafter. As the case of Taiwan shows such protection was not unconditional. For its locally built motor vehicles, Taiwan offered protection so long as the imported equivalent remained below 15%; otherwise imports would be permitted to enter the Taiwanese market (Amsden, 2001:157). In Korea the promotion of the machinery industry was aided by the imposition of an import quota as soon as the country commenced manufacturing domestically (Kim, 1985:27).

Japanese economic expansion after the Second World War has been widely associated with export growth to the neglect of its import substitution programme. Its export growth was a product of the inability of the domestic market, constrained by the low buying power of its population, to match the rapidly rising domestic production (Sumiya, 2000:75). Its export programme was initially dominated by light industries notably textiles while protection was afforded to infant industries like motor vehicles and high technology. A selective programme of trade liberalisation was also adopted partly as an outcome of increased pressure from trading partners in particular the US. From the 1970s as traditional exports like textiles and steel were taking a back seat, high technology products assumed leadership. Japanese superior competitiveness of its products stemmed from higher levels of productivity relative to key competitors (Sumiya, 2000:106). Higher productivity was predominantly a result of higher ratio of investment in machinery to GDP compared to Western nations.

The design and implementation of industrial policy relied on informal interactions between Ministry of International Trade and Industry (MITI) and industrialists. According to Sumiya (2000:93), the state and business saw the need to 'acknowledge the validity of not only the "invisible hand" of the market place but also the "visible hand" of the government.' Sumiya reiterates that Japanese trade and industrial policy was not founded on a *laissez faire* approach to economic policy formulation and implementation but very much a product of state control through MITI.

In Latin America the paucity of indigenously created firms coupled with the shortage of a class of professional managers lay behind the region's lack of economic prosperity (Amsden, 2001:119). Countries with industrialisation experience prior to the outbreak of the Second World War tended to industrialise faster than those without. Such experience produced a class of professional managers and engineers laying the foundation for post Second World War growth. After the war the bulk of 'the rest'[1] relied on sending their citizens overseas to be trained as engineers and managers (Amsden, 2001:63). In the contemporary world economy, it is imperative for a country seeking to prosper economically to possess industries that are internationally competitive. As Khan (2012:17) correctly observed, the challenge for many developing countries is that they only have few such industries even though they exhibit a promise to be competitive in the future.

2.3 The Developmental State

In coming to terms with the phenomenal economic performance of Japan over a quarter of a century to 1975, Johnson (1982) coined the concept of a 'developmental state' distinguishing it from the Anglo American capitalist state on the one hand and the Soviet-style socialist state on the other. Japanese post Second World War phenomenal economic growth, and later in the midst of oil crisis-induced stagflation in much of the Western world, baffled adherents of neo-liberal economic orthodoxy because it adopted precisely the policies that in their world would not yield sustained robust economic expansion.

According to Sumiya (2000:13-14), '[t]he basic posture of Japan's industrial policy throughout the post-war years can be characterised as nurturing of industry with an emphasis on technological innovation and rationalization.' Among the policies that Japan implemented through MITI include restrictions on imports of finished products yet permitting those of new technology and machinery (Johnson, 1999:38). Japan required that foreign exchange earned from exports be sold to a bank in ten days or less conferring to the state leverage over imports.

Johnson's model of a developmental state rests on four pillars. Firstly, was a lean and efficient state run by a highly skilled management (Johnson, 1999:38). The role of such a bureaucracy is to come up with a strategy to isolate industries for support to promote faster growth. In addition, the bureaucracy oversaw competition in the industries concerned to ensure their growth and efficacy. Secondly, the bureaucracy is given leeway to design and implement its policies. Furthermore, the bureaucracy has sufficient powers to negotiate decisions with political heads and was largely shielded from party political influence when recruiting and promoting civil servants (Wade, 2014:4). Thirdly, the state intervenes in the economy through the establishment of state financial institutions and sets broad targets for the economy as a whole while keeping the communication lines open. Fourthly, in Japan MITI was charged with industrial policy and managing related sectors of the economy. It remained modest in size though its influence reached lower levels.

Amsden's (2001) Korean-based notion of a developmental state also consists of four pillars namely, development finance, domestic content, eclectic management of market access and creation of national champions. At a political level the state needs to be shielded from capture by specific groups while simultaneously retaining its ability to implement its key policies (Kim, 2009:384). In the industrial policy realm, the state constructs tariff walls to protect targeted industries from foreign competition and offering them subsidies in return for meeting set targets. Failure to meet the targets results in penalties being imposed by the state.

Fine (2013) distinguishes between the political and economic schools in the developmental state paradigm. The political school places primacy on the ability of the state to implement certain policies independent of influence by a particular group or class. Put differently, the state's ability to exercise autonomy and act above class interests takes priority in the political school's approach. As Johnson (1982:44) explained, '[T]he effective operation of the developmental state requires that the bureaucracy directing economic development be protected from all but the most powerful interest groups so that it can set and achieve long-range industrial priorities.' The pioneering work of Johnson (1982) falls within this category and he goes further to analyse the relationship between political heads and the bureaucracy. Politicians reigned while the bureaucracy ruled where the latter claimed to represent national interest while politicians spoke on behalf of certain interests (Johnson, 1982:38). The role of the bureaucracy came under the spotlight with the World Bank arguing that in East Asia it played a role in producing a sound economic strategy. Adherents of the developmental state approach argued that the states successfully resisted efforts by various interest groups from influencing it allowing the state to pursue nationally set goals. According to Evans (2008:16), engagement with industry made it possible for a class of industrialists to emerge and remain united. The economic school is concerned with the choice of industrial policy that would lead to economic development. The theory rests on the assumption that unfettered markets contain characteristics that without state intervention would not lead to economic development.

Johnson (1999:48) believes that 'industrial policy is not an alternative to the market but what the state does when it alters incentives within markets in order to influence the behaviour of civilian producers, consumers, and investors.' Johnson (1999:60) further cautions that to get it right takes some diligence and once the formula is perfected a foundation for phenomenal economic performance would have been laid. Moreover, the developmental state makes an effort to lower risks, mediate conflict and assists entrepreneurs create their vision. The state is a catalyst in a relationship that benefits both parties in pursuit of developmental targets while firms remain viable.

In general, industrial policy in a developmental state is designed to promote the emergence of domestic firms as key suppliers to major multinational enterprises and ultimately turning some of them into original equipment producers (Wade, 2014:4). As part of its innovation the developmental state tends to turn a blind eye to breaches of intellectual property rights as its way of permitting innovation and diversification (Wade, 2014:5). In the long term however, the state does promote R&D and begins to ensure adherence to intellectual property laws.

Khan (2012:22) attributes the prosperity of East Asian Tigers to the ability of their states to manage rents accrued and turning them into tools for developing other capabilities. In less successful economies when such rents do become available they are often appropriated by those who are connected to the ruling elite to the detriment of a nation's developmental goals. Khan dismisses the notion that policymakers in the newly industrialising economies succeed due to their ability to 'pick winners' arguing that the foresight needed on the part of technocrats and private sector would be impossible to possess. Kim (2009:384) however views success as issuing from identifying industries that carry a promise to perform well in the future and likely to bring social rewards to the country concerned.

In the case of Japan, the country placed industrial policy on top of its agenda in times of democracy and military dominance (Johnson, 1999:54). Countries seeking to industrialise are rarely short of ideas on how to go about it. Failure is often at the level of effective implementation and prioritisation and could be remedied through strong leadership (Ohno, 2009:21). A strong leader or a leadership collective committed to industrial policy is a necessary though not sufficient condition for effective implementation of the policy (Wade, 2014:11).

Khan (2012:22) could not establish a correlation between good governance and economic growth. Chang (2002) has argued cogently that current developed countries in their early stages of industrialisation barely adhered to the market-oriented policies they today prescribe to developing countries. Moreover, the key constituents of what is currently regarded as good governance principles including, democracy and bureaucratically systematised property rights were largely absent in early industrialisers until much later in their development trajectories.

2.3.1 External Threat and Institutions

According to Doner et al (2005) 'developmental states will only emerge when political leaders confront extraordinarily constrained political environments.' The ruling class in such environments are compelled to construct institutions out of fear, firstly, of intractable protests (internal threat) stemming from a fall in the welfare of citizens. Secondly, insufficient foreign exchange necessary to acquire military hardware to counter external threat to state security. Thirdly, state budgetary limitation stemming from the absence of safe revenue streams. Doner et al (2005) refer to this phenomenon as 'systemic vulnerability' where all three conditions occur simultaneously.

A common theme that perhaps permitted the developmental states in East Asia to receive more acceptance despite certain authoritarian traits is the external threat (Wade, 2014). The conclusion of the Korean War left a legacy of long-lasting enmity between South and North Korea with the latter constantly making threats to the former to this day. Relations between Taiwan and mainland China have been characterised by the latter viewing the former as a renegade province. Singapore's short-lived unification with Malaysia from 1963 to 1965 was designed to improve the city state's security. After the break-up security concerns were further heightened by the pull out of the British military by 1971 which left Singapore's security from external threat in doubt (Doner et al, 2005).

Evans (2008:3) observed that incipient development theories were premised on the notion that economic growth is a function of political institutions and their ability to set targets. He further stated that according to the theory the capacity of the state would tend to assume greater salience in the future than it did in the last century. The political dimension of the creation of successful institutions in developmental states according to Doner et al (2005) is that they emerge from the competitive politics of the ruling elite motivated by self-preservation not out of charitable intents of private interests.

2.3.2 The Role of Learning

Developmental state theorists and the World Bank alike point to the higher levels of investment in education by the East Asian Tigers relative to countries at similar level of development as one of reasons behind their success. Ohno (2009:10) underscores the importance of technical and vocational training for those nations seeking to emulate the East Asian success. He further states that policies designed to promote human resources development for industry need to be an integral part of a country's industrial policy goals. In addition, beyond formal skills acquired by labour and management 'tacit knowledge that cannot be learnt from textbooks and manuals' assumes greater significance (Khan, 2012:18).

Amsden (2001) underlined the significance of learning among late industrialisers from early industrialisers. 'A technology transfer was a necessary condition for late industrialisation but never a sufficient one' (Amsden 2001:52). In addition to technology transfer, late industrialisers learned to install and organise the technology and made this a continuous process as a way of keeping up with developments. Learning improved markedly in the post-world war era due to improved education, communication and transport which enabled late industrialisers to send their nationals to other countries to acquire skills (Amsden, 2001:63).

In Korea the state played a key role in the promotion of R&D carrying as much as 60% of the total R&D expenditure in the economy in the 1970s (OECD, 2012:47). By the 1980s the country's industrial policy focused on skills development, technological innovation and scientific knowledge creation which saw the private sector carry much of the R&D expenditure costs. The pursuit of knowledge-intensive industries brought out a side of Japan that welcomed foreign capital under strict conditions designed to promote industrial development.

Foreign capital was permitted to invest in the Japanese computer industry in return for licensing basic patents to domestic manufacturers (Sumiya, 2000:104).

2.4 Development Finance

A more traditional factor in successful national development is finance. The role played by banks in promoting industrialisation has been closely scrutinised for many decades. Banks, be they private or state-owned, have been catalytic in supporting the growth of industry in latecomer industrialisers in both developed and developing economies. They played a role beyond providing much-needed finance to help catch up with early starters in the industrialisation phenomenon. Gerschenkron (1962) viewed the role of industrial banking in the economic development of late industrialisers in particular France as the turning point.

Following the birth of the International Bank of Reconstruction and Development (World Bank) in 1944, national development banks mushroomed in many nations across the world. After the second world war development banks became dominant tools of financing by governments (Amsden, 2001:127). In Brazil from 1950 to 1990 all major investments undertaken involved BNDES (also known as National Bank for Economic and Social Development) which had become a ‘natural’ monopoly in the long-term market (Amsden, 2001:128-129). By the 1980s, however, national banks were increasingly viewed with scepticism and scholars of neo liberal persuasion were writing their epitaph or calling for their abolition. The financial meltdown of 2008 led to renewed interest in and increased role for national development banks in Europe and other parts of the world. Without ascribing economic performance solely to development banks, some rapidly expanding economies in the recent past including China, India, Turkey and Brazil have the highest share of development banks (Marois, 2016:13).

Although Bretton Woods institutions and neoclassical economists advise developing countries to relinquish ownership and control of development banks, development finance has been and remains a vital tool of industrial policy in many parts of the world. In spite of its advanced economy status, Germany’s development bank Kreditantstalt für Wiederaufbau (KfW), has been playing an increasingly key part in the country’s economy as mirrored in the rising share of its total assets to GDP from the mid-1960s to the mid-2010s (Naqvi et al, 2018:679). Despite the US being considered the paragon of free market economics, its Import Export Bank, established in 1934, has been an important policy instrument used extensively by the American government to promote the country’s exports.

Development banks have also been closely linked to late industrialisation. One explanation for the need for development banks, has been that they are necessary to address 'market failure'. Gerschenkron (1962) is credited as the originator of the market failure thesis which argues that the high levels of long-term capital required in the short period for the catch up process to materialise could not be met by risk averse and short-term oriented private capital. Gerschenkron was criticised in some quarters for confusing policy adoption with a limitation and ignoring nations that did not adopt policies for rapid economic growth in his selection of case studies (Verdier, 2000:291) According to Mazzucato and Penna (2016:307), development banks 'are not market failure fixes: they are powerful policy and political tools to direct resources to priority and strategic areas that contribute to economic development and growth.'

Booms and busts are historically inherent features of capitalist economies which has prompted some to insist that state banks are created to play a counter cyclical role. During the downward phase of the business cycle when short-term oriented and risk-averse private financial institutions withhold investment necessary to stimulate growth, development banks intervene through making finance available in the market planting the seeds of the next upward phase. Instead of focusing on the business cycle, Mazzucato and Penna (2016:314) point to the explosion of profitable short-term financial instruments with minimal risk that serve to attract capital away from productive sectors. The structure of the financial sector in an economy can contribute to the growth of capital equipment, infrastructure, technologies and skills while others do not.

2.4.1 The Banking System in Continental Europe and Japan

By virtue of being the trailblazer in industrialisation there was no need for England to catch up with the leaders and therefore the pace of industrialisation was not of great importance. As a result, English banks were fundamentally sources of working capital for industry while industrialists relied on profits as a key source of investment capital. Industrialisation in continental Europe differed in that it included another dimension, that of catching up. The credit system confers to the state power to manipulate the path to industrial development as it favours one industry over another thus mould the structure of the industrial sector. A unique banking system emerged which differed substantially with English banks, in that, industrial banks that arose were characterised by an intimate relationship with industry and a long-term focus. Firms needed to access external credit beyond retained earnings to give impetus to growth for the catch-up process to materialise in late industrialisers.

For France which Loriaux (1999) considered a developmental state, the key tools of industrial policy were subsidies and regulation of finance. After the Second World War the French government marshalled, through its various agencies, funds from the national budget to industry (Loriaux, 1999:245). Contrary to Gerschenkron, Loriaux (1999) ascribes pre-Second World War funding of industrialisation to self-financing on the part of French firms while banks became key sources of funding for industrial development after the Second World War. The French state utilised largesse and subsidised loans to create large corporations through mergers and acquisitions to counter the rising American influence in the economy.

According to Da Rin and Hellmann (2001), banks carry the potential to drive industrialisation of an economy on condition they are big enough to invest in a large enough number of firms. Beyond the size of the banks, as the Belgian experience disclosed, in the second half of the 19th century they were proactive in seeking firms to finance, made working capital available and provided extra finance for expansion in addition to financing shareholders (Da Rin and Hellmann, 2001). Through, among others, placing bank officials on boards of investee firms, Belgian banks were able to gain deep insight into the workings of industries to permit them to play a role of co-ordinator of industry.

Germany is widely regarded as a model where banks were central in the country's industrialisation. German credit banks fused commercial and investment banking in promoting industrial development through forging a close relationship with their industrial clients (Da Rin and Hellmann, 2001:72). This permitted the banks to have access to useful information on the activities of their clients to hold sway in investment decisions. The German banking system represented a fusion of short-term activities associated with commercial banks at the time and those of a credit mobilier (Gerschenkron, 1962:13). Credit mobilier was unique in that it funded firms in the manufacturing sector and utilities with a long-term horizon. The banking system however remained subsumed under the industrial sector despite its pivotal part in the expansion of railways and industry in mid to late 19th century Germany. Perhaps more importantly, German banks had a more intimate relationship with their industrial clients transcending the financial sphere through leveraging the entrepreneurial and management functions. The banks derived the benefit of having overall insight into the manufacturing sector through financing of a variety of clients giving them advantage of identifying opportunities to profit from mergers and forming cartels (Gerschenkron, 1962:15).

In continental Europe the state played an important role in the ways the banks related to industry through regulations and actively creating banks to support industrialisation. In Japan, as a late starter to industrialisation, the state was particularly central and, through regulations, tended to encourage banks to focus on short-term lending. Demand for capital was elevated in post Second World War Japan prompting the Bank of Japan to intervene through buying securities of the Reconstruction Finance Bank which financed industry. Funding to industry targeted specific industries and favoured investment in capital equipment (Sumiya, 2000:30). In contrast to the US where financialisaton centred around the stock market and the dominance of institutional shareholders (Rojas, 2011:40), the post war Japanese system of industrial financing rendered shareholders largely uninfluential (Johnson, 1982:313).

The explosive expansion of the Japanese economy from 1959 to 1970 which catapulted the country to second spot after the US as the largest economy in the world by 1970, has been ascribed in a large part to the ubiquitous availability of technology to competing firms (Sumiya, 2000:75). Although the dearth of funding was a major problem for firms, finance was sourced from the main banks with the Bank of Japan playing a supportive role through credit creation. The discount rate was deliberately kept low while interest rates in the economy remained low creating high demand for credit. During the 1950s and 1960s Japan recorded high rates of personal savings which were marshalled to key public and private projects under the tutelage of the country's Finance Ministry (Sumiya, 2000:80). In the 1950s the Japanese state did not only depend on the market for funds to flow into strategic industries but funnelled funds to those industries. Over and above the state created three credit banks for long-term credit and used public funds to finance selected industries through financial institutions. In the 1960s and 1970s Japanese firms were highly indebted paving the way for the state to influence them through interest rates and provision of finance (Pempel, 1999:150). In his study of Japan, Korea and Taiwan, Johnson (1987:147) stressed that,

> [O]ne enduring characteristic of all three economies is government reliance on financial and monetary means to guide and control private sector activities. These financial measures are often unorthodox by Anglo-American standards, particularly in their emphasis on the supply of capital to industry primarily through the banking system.

2.4.2 Strategic Investment by Development Banks

Development banks have generally been associated with long term capital and concessionary funding. Finance from the private sector governed by the profit motive tends to avoid projects with a long-term horizon or imposes onerous conditions that ultimately undermine the success of the projects (Marois, 2016:4). The success of development banks has been partly aided by the varied sources of finance which ranged from the state to foreign funders enabling them to shoulder long term projects. BNDES relied on payroll deductions and pension funds as key sources for the bulk of its capital. Such sources of cheap money make it possible for BNDES to extend credit at concessionary rates with a long-term horizon (Marois, 2016:16). Although firms benefited from long-term capital at concessionary rates, these came with conditions that were designed to promote efficiency while ensuring alignment with national policy goals (Amsden, 2001:140).

It also became imperative that firms reciprocated because competition alone could not be relied upon to guarantee superior outcomes. This approach made it incumbent upon development banks to possess oversight capabilities to ensure compliance on the part of their clients. The 'reciprocal control mechanism' was used extensively in East Asia and Brazil as a form of discipline to ensure that firms receiving state benefits became efficient operations and capable of competing at any level (Amsden, 2001). Exports featured prominently in 'reciprocity control mechanism' where certain subsidies like duty free imports were conditional upon the accomplishment of set export targets. The Korean Development Bank imposed a limit of 65% of required investment capital in a project on borrowings ensuring that the recipient firm contributed to investment as a tool for its customers to prioritise performance (Amsden, 2001:145).

Development banks have historically funded targeted industries that are regarded as key to unlocking the growth potential of an economy but unattractive to private finance due to high risk (Naqvi et al, 2018:674). According to Amsden (2001), chemical and steel industries received the bulk of investment capital in the 'rest' as part of targeting industries which aided in the selection of lucrative firms of the future. Despite its industrialised nation status Germany continues to utilise its development banks especially KfW as tools of industrial policy through targeting industries deemed strategic to this day. As far back as 1950 KfW observed that there was no dearth of capital in Germany but that it was misallocated and impelling it to correct that through targeting high value added branches of industry while sharpening the competitiveness of the economy and altering its structure (Naqvi et al 2018:676).

2.4.3 Development Banking in Developing Countries

Development finance was key in developing countries after the Second World War necessitated by a large infrastructure deficit and the absence of a Marshall Plan-like finance to upgrade their capital equipment. In many cases it arose out of market failure for long term capital which, for one reason or another, the private sector banking sector was not involved. Prior to the Second World War, as Amsden (2001:78) observed, gross fixed capital formation in developing countries was abysmally low and wealth creation grew at a very slow pace. Stagnant or falling wages bred instability often characterised by strikes, hardly the necessary ingredients to attract badly needed investment in new machinery at the time (Amsden, 2001:79). At the cessation of hostilities ‘the rest’ had economies that were lagging the developed world in technology characterised by old machinery and skills.

Could foreign direct investment have played a role as a substitute for industrial banking? Although prior to the Second World War the bulk of foreign direct investment flowed to developing countries, it was largely destined for mining (Dicken, 1998:48). On the eve of the war two-thirds of foreign direct investment FDI stock was concentrated in developing countries. This trend had its origins in the 19th century when the world economy was driven by the desire to access raw material and prying open new markets (Gordon, 1994). This was also a key aspect of the South African economy up to 1939.

As Amsden (2001:127) observed, the states in the ‘rest’ were at the centre of investment and FDI tended to follow after strong growth led by national firms. After the war development banks were the key agents of the various states driving national investment. In Brazil for four decades all major investments made involved the country’s major development bank BNDES (Amsden, 2001:128). The importance of development banks in the industrialisation of ‘the rest’ manifested itself in high shares of financing to industry in particular as a percentage of manufacturing gross fixed capital formation.

Development banks not only tightened their standards on their customers, they also ensured that the skills of their monitoring staff were also enhanced (Amsden, 2001:145). Along the same lines, the Industrial Development Bank of India had a requirement to appoint a director who would give feedback on the activities of the funding recipient and ensured set conditions were not broken (Amsden, 2001:146).

Research is an important aspect of development banks as the case of Bank Industri of Malaysia has shown. It relies on research to gain a full grasp of the industry prior to financing it (Amsden, 2001:147). Bank Industri also conducted in-depth sectoral research to determine which industries to invest in and to comprehensively screen funding requests. The Industrial Development Bank of India’s insisted on appointing directors as part of an information gathering exercise to ensure that the client sticks to the agreed conditionalities.

The Korean state turned the financial sector models adopted by other late industrialisers on their heads placing the state at the centre of credit allocation. Having seized power in 1961, the Korean military state nationalised the banks conferring to the state ownership and control of the entire commercial banking system (Amsden, 1989:16). The Korean government created its development banks financed through taxes, private deposits and the issuing of bonds in world markets (Kim, 1985:36). In the early days of the country's industrial development, the banks were the key agencies of the state used to channel funds to targeted sectors of the Korean economy. They included the Korea Development Bank which accounted for about 15% of the country's total national debt, the Korea Export-Import Bank and the Korea Long-Term Credit Bank.

Subsidised finance alongside protection and foreign investment restrictions played an instrumental role in the spinning and weaving industry in Taiwan and Korea (Amsden, 2001:118). Others insist that in South Korea, for instance, that concessionary finance was at the heart of the country's industrial development (Kim, 1985). Korea and Taiwan had major banks in the hands of the state well into the 1980s (Amsden, 2001:120). According to Kim (1985:35), 'Perhaps one of the most important instruments used for implementing sector-oriented industrial development in Korea is public-sector control and allocation of credit.' In 1974 Korea formed the National Investment Fund with a purpose of providing long-term capital to industry (OECD, 2012:39). Specialist banks were also created to fund targeted industries by the state. According to Woo (1991:159)

> In an otherwise thriving capitalist nation of scrupulous entrepreneurs, the formal financial sector remained most backward. Every bank in the nation was owned and controlled by the state; bankers were bureaucrats and not entrepreneurs, they thought in terms of GNP and not profit, and they loaned those favoured by the state. The monetary authority – the Bank of Korea – forfeited what little autonomy it had during the days of reform (1965-1972); in its stead, the Ministry of Finance came to direct monetary policies, the Economic Planning Board to oversee bank budgets, and the Ministry of Commerce to influence the flow of export and other policy loans.

Not only was concessionary financing with guarantees the dominant form of loan funding in Korea, it was often complemented with tax, tariff and subsidies for technical and scientific research (Kim, 1985:35). Figures computed by Woo (1991:159) reveal that real interest rates on bank debt from 1974 to 1980 stood at negative 6.7%. The banking sector in the country remained the primary source of finance for investment in the country's manufacturing sector. Loans for targeted industries including shipbuilding, light manufactures, chemical and steel industries called 'policy loans' were a form of state financing that lay behind the success of such industries (Kim, 1985:36). Their importance was accentuated by the fact that 'policy loans' accounted for roughly 50% of the country's total lending by the banking system. Moreover, policy loans were long term in nature underwritten by the state virtually eliminating default (Woo, 1991:163).

The 'policy loans' approach did imply that financing proposal originating from firms outside of targeted sectors were overlooked. They also tended to favour large-scale projects to the exclusion of SMEs (Kim, 1985:37). Moreover, targeted firms took the opportunity provided by these loans to raise their borrowing levels to dangerous debt to equity ratios. Between 1973 and 1982 debt to equity ratio of Korean manufacturing firms was 373% (Amsden, 2001:226). According to Woo (1991:170), the debt to equity ratio of the biggest seven *chaebols* in 1980 exceeded 1 000% with one registering well above 47 000%. Although not to the same extent, post war Japanese companies were highly indebted well beyond their net worth (Johnson, 1982:203). From reliance on internally generated capital prior to the second world war, such firms were, after the war, up to 80% dependent on debt which was ultimately backed by the central bank.

Brazil's BNDES is the country's dominant development bank that was created in 1952. Its area of focus has been long-term financing and has a central role in this. It does appear that market failure in the long-term market was the motive behind its formation. Amsden (2001:133) observed that BNDES was virtually a monopoly in long-term financing in Brazil. Its share of total manufacturing investment in the country was around 18% in the 1980s.

The creation of BNDES was a result of pressure from the country's middle class for the country to establish its own heavy industry (Amsden, 2001:136). BNDES helped establish the steel industry which grew rapidly to supply domestic needs and later penetrated the export market. By the 1970s BNDES was the force behind the import substitution industrialisation programme of the state which saw investments in chemical, metal, cement and paper products among others. BNDES is known for setting high standards for its clients ensuring that they adhere to set debt to equity ratios, imposing restrictions on dividend distribution to holding company and requiring clients to create technologies in-house, among others (Amsden, 2001). Ensuring adherence to its sometimes interfering requirements also meant that BNDES had to improve its own supervisory capacity.

2.4.4 Export Financing as a Catalyst to Upgrading

Export finance provided by KfW centred on enabling German firms gain the edge in foreign markets over competitors. The German market was not large enough to sustain a competitive capital goods industry and KfW used its financial muscle to enable firms capture foreign markets allowing them to reap the benefits of economies of scale (Naqvi et al, 2018:677). High risk large projects like shipbuilding, aircraft, and industrial plants for export shunned by private banks were funded by KfW intending to assist German firms eclipse competitors in foreign markets (Naqvi et al, 2018:677). In the 1970s Airbus which had been playing second fiddle to industry leaders Boeing, Douglas and Lockheed benefited greatly from this approach.

Faced with a small domestic market, the company supplied high risk clients with the support of KfW export finance to steadily gain increased market share and ultimately became a global giant that it is today.

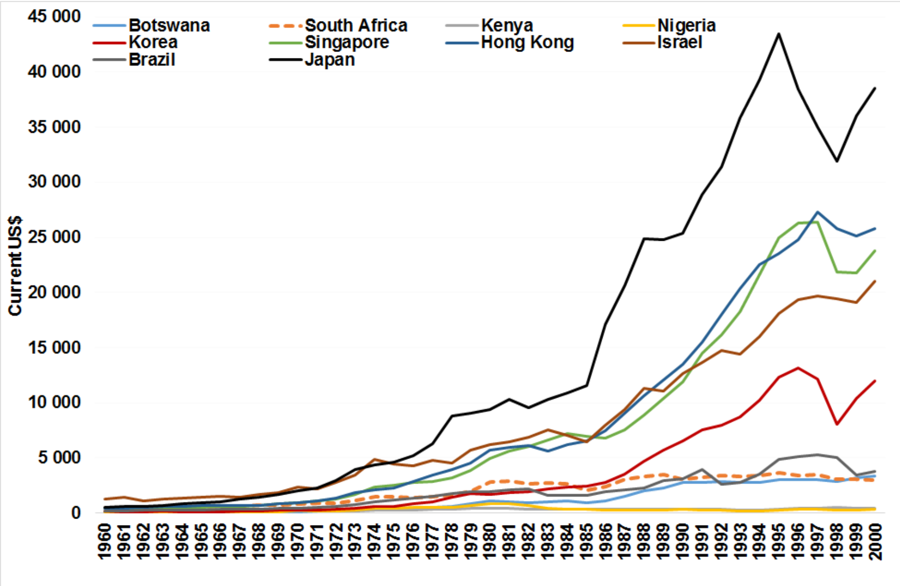
In Korea development finance was also used as a lever to promote exports. Korean ‘policy loans’ were dominated by export credit which was the key driver of the country’s export growth in the 1970s. The KDB rewarded exporting clients with long-term finance and concessionary funding in return for meeting export performance targets. Those that failed to perform had such benefits revoked (Amsden, 2001:149). In addition, real interest rate for export loans between 1975 and 1980 ranged between negative 19.3% and negative 10.6%. Accessing export loans was also made easy for exporters where a letter of credit from an importer was deemed sufficient (Woo, 1991:164). Along with remarkably low interest rates this encouraged some Korean exporters to fill export orders at a loss hoping to recoup the losses through export loans. However, the carrot and stick approach was also applied as failure to meet set targets by the state could result in deregistration of the exporter concerned inevitably leading to loss of the benefits.

2.5 Why Exports Altered the Course of Development

Having analysed the importance of development finance attention shifts to the relationship between exports and economic development. Thirlwall (2011) sought to explain the varying rates of growth between countries whose economies are open in balance of payments. Economic growth in open economies, Thirlwall (2011) maintains, was largely a proxy for export growth divided by income elasticity of demand for imports. According to Kaldor (1970:486), the pace of economic development of a region is a function of the rate of expansion of exports. Proponents of the export-driven model, Thirlwall further observes, are essentially referring to the balance of payments constraint theory tempered by income elasticity of demand for imports. The balance of payments constraint rule states that ‘no country can grow faster than that rate consistent with balance of payments equilibrium on current account, unless it can finance ever-growing deficits, which in general it cannot’ (Thirlwall, 2011:321).

Figure 1 illustrates three sets of countries outside of Japan and their performance as measured by GDP per capita. Selected countries include the East Asian Tigers, key African economies, Japan, Israel and Brazil taken as important economies in their respective regions. We look at other indicators of the same economies later to analyse certain trends. However, data availability for all countries has not always been consistently available. Three sets of countries emerge that grew from comparable levels of GDP per capita in 1960 although they ranged from $57 for Botswana to $1 229 for Israel, the average was about $361. First are the fast-growing economies including the city states of Singapore, Hong Kong alongside Israel and South Korea. The second group entails what Ohno (2009) calls countries confined to the 'middle income trap' they are Brazil, South Africa and Botswana (see also Engel and Taglioni (2017). The third group comprises Nigeria and Kenya that appeared confined to underdevelopment (although significant strides were made in the last two decades in the two countries).

Figure 1. GDP per Capita Growth of Selected Economies, 1960-2000

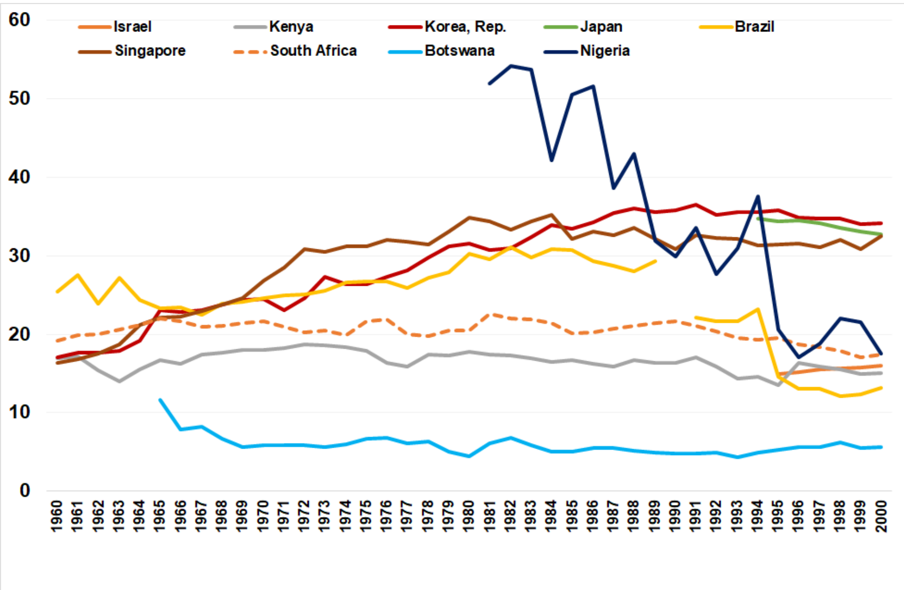


Source: World Bank

The importance of the manufacturing sector in the economy has been widely researched. Kaldor (1970) asserts that all developed economies achieved their status through industrialisation. There is no doubt that the Korean spectacular economic expansion in the second half of the 20th century was powered by the manufacturing sector (OECD, 2012:32). Kaldor's three Growth Laws place the manufacturing sector at the heart of sustained GDP expansion and economic development (See Storm, 2015:670-674). The First Growth Law states that industrialisation is vital for structural change and is the driver of economic growth. Recent research has also established robust positive correlation between economic transformation in favour of manufacturing and GDP expansion. Kaldor's Second Law describes the close link between increased manufacturing output and productivity. Increased manufacturing output, Kaldor reasoned, permits for higher levels of specialisation and further division of labour in the economy as a whole. The Third Law of Kaldor states that as the manufacturing sector expands, other sectors of the economy will pass on their workforce to industry raising productivity in other parts of the economy.

In Figure 1 GDP per capita of the two Asian Tigers and Japan grew rapidly in the last four decades of the twentieth century. They also registered high and rising percentages of their manufacturing sector to GDP as depicted in Figure 2. The connection between the importance of the manufacturing sector does appear to suggest its ability to propel an economy to higher growth planes. Nigeria appears to be an ‘outlier’ whose high shares of the contribution to GDP of the manufacturing sector appear to have been undermined by the growing significance of oil in its economy. Outside of Nigeria amongst developing countries, the pattern seems to be that the higher than the share of manufacturing sector to GDP the faster the growth of GDP per capita and vice versa. Brazil’s manufacturing sector to GDP measure remained comparable with the NIEs and Japan until the 1990s when it shrank precipitously. South Africa, Kenya and Botswana had lower shares of manufacturing to GDP and their GDP per capita growth rates were not particularly impressive. In Botswana’s case GDP per capita expanded rapidly from the mid-1980s but remained in the middle-income group.

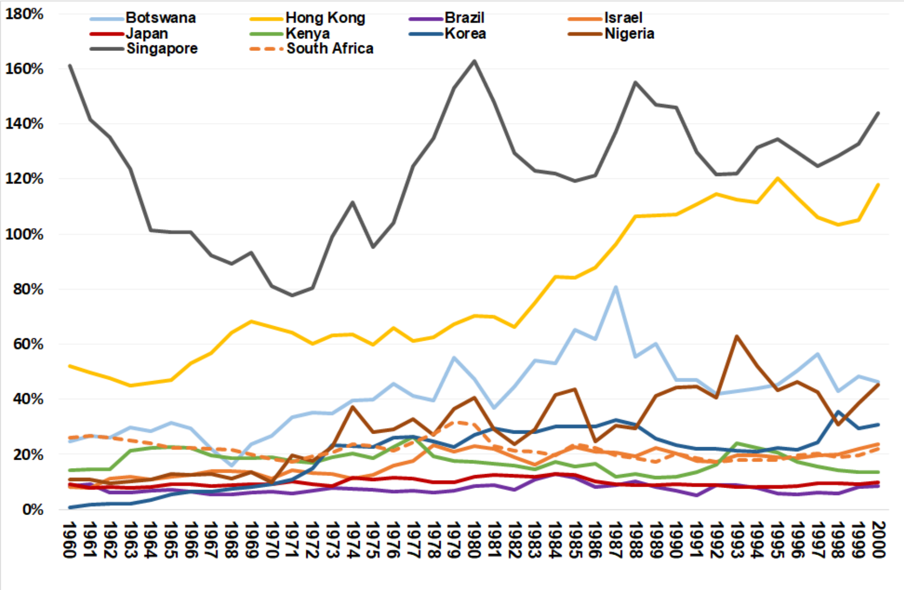
Figure 2. The Share of Manufactured Exports to GDP of Selected Countries



Source: World Bank

Exports have been widely credited for the rapid expansion of East Asian NIEs. However, as shown in Figure 3, the relationship between exports as a proportion of GDP appears divorced from GDP per capita performance shown above. The city states of Singapore and Hong Kong remain outstanding performers when measured by export to GDP ratio. However, commodity exporters of Botswana and Nigeria outperform the rest while Brazil and Japan are poor performers using this metric. This suggests that perhaps it is not just exports that drove economic growth but that the answer could lie in the composition of such exports.

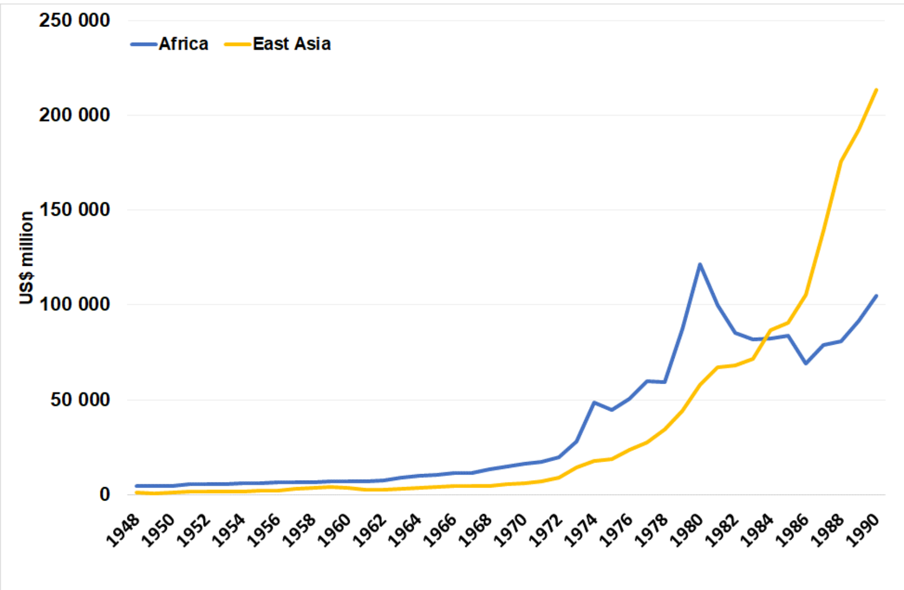
Figure 3. Merchandise Exports to GDP of Selected Countries at Current US$



Source: World Bank and WTO

From the 1940s to the mid-1980s Africa had a bigger slice of world exports than East Asia (minus Japan). Moreover, because Africa's output was lower than East Asia's the former's economies were also more export-oriented than the latter. Yet exports appear to have failed to drive Africa's growth forward from the 1960s to the mid-1980s.

Figure 4. African vs East Asian Exports, 1948-1990



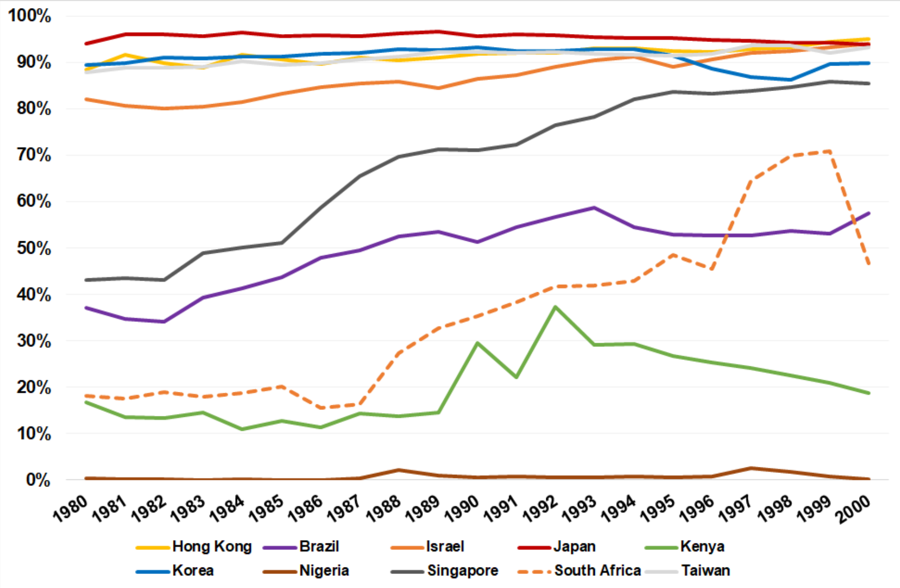
Source: WTO

In the case of Japan, its spectacular rise was not predicated upon exports but a large and growing domestic market in addition to technological advancement and innovation (Sumiya, 2000). The dominant mythology around Japanese growth in the 1980s and 1990s underlined the significance of its cheap labour underlying its competitiveness. On the contrary the rise of unionisation after the Second World War underpinned the rapid rise in salaries and wages which generated massive purchasing power (Sumiya, 2000:18). In addition, the market for intermediate goods in Japan expanded rapidly on the back of a ballooning industrial sector.

A more accurate depiction of East Asian outstanding economic performance of the last half-century or so could be termed 'manufactured export-led growth' rather than just export-led. Figure 5 tracks the share of manufactured exports to total exports of selected economies to determine whether it carries any significance. It is clear that the same economies that performed well using the GDP per capita measure tend to have very high ratios of manufactures in their total merchandise exports. Five of the countries under consideration recorded 80% or higher proportion of manufactures in their exports and are stellar performers in GDP per capita rises over the two decades. The only outlier appears to be Singapore which began with an export share that was low and comparable to that of Brazil but managed to raise its GDP per capita rapidly. However, Singaporean industrial exports as a share of total merchandise exports to GDP also increased markedly over the two decades to reach 85.4% in 2000.

Middle income countries of Brazil and South Africa also had higher than underdeveloped economies' share of manufactures in their total exports. In South Africa's case the rise of manufactured exports as a portion of total exports can be ascribed to the rise of motor vehicles and parts exports from the mid-1990s in the wake of the adoption of a tailor-made export subsidy programme for the industry. Simultaneously, gold, its mainstay of exports for over a century had been waning in importance. While Brazil for much of the period had a high share of manufactured exports to GDP ratio, its manufactured exports to total exports lagged behind those of the NIEs and Japan suggesting that the country's less than spectacular performance in GDP per capita expansion lies therein.

Figure 5. Share of Manufactured Exports to Total Exports

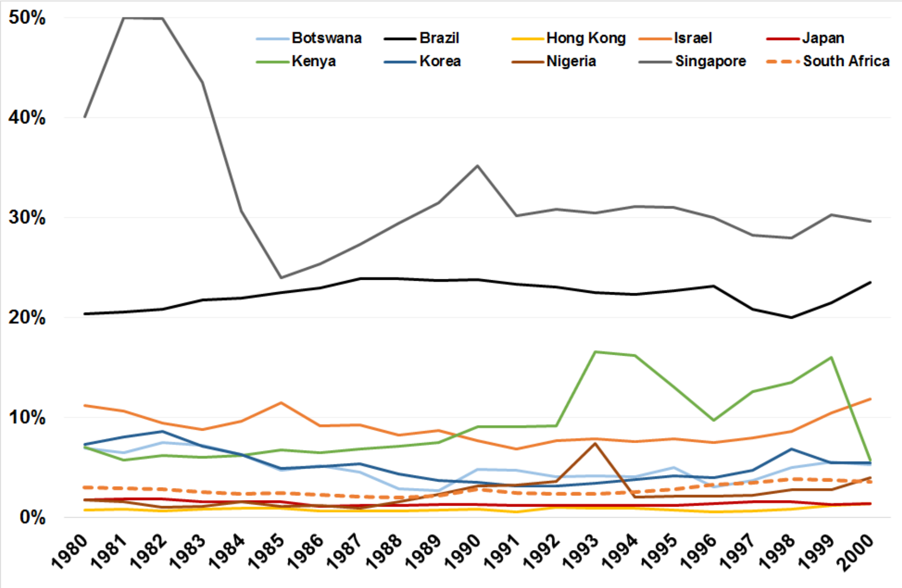


Source: WTO

Developmental states theory has largely been silent on the importance of services. The manufacturing sector is believed to be they to key to driving the catch-up phenomenon for late starters to industrialisation. Recent literature points to the significance of high-value added services like software development, financial services and medical services in international trade. Shedding their image as non-tradeable, services are increasingly tradeable and are no longer viewed as mere appendages to merchandise trade.

Singapore's splendid economic performance can be partly explained by the country's high percentage of services exports relative to its GDP and the composition of its services exports. As illustrated in Figure 6 Singapore registered the highest percentage of commercial services exports to its GDP than the rest of the countries selected. Moreover, the composition of Singaporean commercial services is more diversified than other countries that had high shares like Kenya. Kenyan commercial services are dominated by tourism and transportation, a reflection of its successful national airline Kenya Airways' performance and a globally renowned tourism industry. Over the two decades under review in excess of 90% of Kenyan commercial services exports by value consisted of transportation and travel (tourism). By contrast, Singaporean travel and transportation exports averaged 53.9% over the same period. Prominent high value-added commercial services exports from the city state included business services, financial services and information technology services. Brazil, which recorded 20% or higher share of services exports to GDP, exhibited uniqueness in its composition of services exports in that they were dominated by business services ahead of transportation and travel. Of significance overall is that no link exists between rapidly expanding East Asian Newly Industrialising Economies (excluding Singapore), Israel plus Japan and the percentage of services exports. This further supports the importance of manufactured exports in propelling economies out of the 'middle income trap'.

Figure 6. Share of Commercial Services Exports to GDP of Selected Countries



Source: WTO and World Bank

2.6 Conclusion

This chapter sought to place the rise of late industrialisers within the developmental state framework. Beginning with Japan and spreading to parts of East Asia, industrialisation was founded on import substitution policies with the state playing a central role by and large through industrial policy. The emergence of Japan as an industrial power confounded many neo-liberal economists because available evidence disclosed the centrality of the state and not the market which it manipulated to deliver certain desired outcomes.

The civil service plays a central role in a developmental state in designing and implementing industrial policy. The rise of the East Asian Tigers served to undermine the validity of the dependency theory. However, the debate on what lay behind their rapid economic expansion over a quarter of a century from 1960 rages on. More recent focus on egalitarianism appears to carry some cogency. The evidence supporting the centrality of state intervention in Korea and Taiwan for instance is hard to contest. Even the World Bank, while emphasising on the usual prudent macroeconomic management and fiscal austerity did concede to some levels of state intervention. It was argued here that the export-led theory does not fully explain the success of late industrialisers. Instead the manufactured export-led approach appears to carry more weight in the debate.

It was clear from this study that the banking system played a central role in the industrialisation of late starters. In the case of continental Europe this appears to have been occasioned by the desire to catch up with England, the pioneer of industrialisation. The banks in Germany France and Belgium, among others, had a more intimate relationship with their industrial clients offering them deep insight into the workings of industry as a whole. They also played a direct role in management to ensure that their demands are met and that the bank is adequately informed about the activities of its clients.

Developing countries adopted a model of development banks which had the backing of the national governments. Development banking has been a key tool to manipulate the markets and changing behaviour of market players to accelerate belated industrialisation. They tended to have as their mandate the implementation of industrial policy of the state as key consideration when disbursing funds. In Korea firms in targeted sectors received funding on condition they were in sectors that industrial policy was targeting and could qualify for further support in the form of tax breaks, subsidies and tariff protection. In return certain targets had to be met with failure to achieve them resulting in punitive sanctions.

Chapter Three

The IDC, the State and the Rise of the Banking System: Getting the Priorities Wrong

3.1 Introduction

The South African financial system is among the most sophisticated and strongest in the world that is comparable to and even surpasses some developed countries. Globally, South African banks are highly regarded for embracing innovation, digitisation and exhibit resilience in the face of global financial crises. The country's banking system also bears the hallmarks of a developed country banking system. In 2016 the share of domestic credit extension to the private sector to GDP of 144% was higher than that of the average European Union member state. The World Bank's World Development Indicators show that South Africa has 66.7 automated teller machines per 100 000 people, the same as high income countries' average. The country's insurance and financial services as a percentage of commercial services exports stands at 7.3% relative to 10.1% for high income countries. Along with real estate and business services the financial sector today accounts for the largest percentage (22%) of GDP among all sectors of the South African economy. Yet well into the noughties over half of the country's adult population remained outside of the banking system because they did not possess bank accounts.

The banking system in South Africa has not always been a dominant sector it is currently but had to shed its colonial legacy after the Second World War to expand rapidly to become a key sector of the South African economy under the tutelage of the state. The South African Reserve Bank, the key agency of the state in regulating the banking system, steadily asserted its authority while simultaneously nurturing its growth over the same period. The IDC, although a minor player when measured by various yardsticks relative to large commercial banks, played a supportive role in the rise of the South African banking system in the second half of the twentieth century.

Prior to analysing the role of the IDC in the industrialisation of South Africa it is imperative to come to terms with the emergence of the banking system within which the corporation was embedded. This chapter briefly traces the emergence of the IDC as a key agency of the state in the financial sector during the Second World War and in the decades that followed. It outlines the IDC's formation and the key individuals involved in getting it up and running. The corporation's formation occurred against the backdrop of a nascent financial sector whose dynamic growth was constrained by vestiges of a colonial banking system. The chapter considers the banking system in the 1940s and subsequent decades and how the state transformed the banking system into a dominant sector of the economy. In the process the chapter will provide the context that subsequent examination in later chapters of the role the IDC played in financing industrialisation through the lens of several industries.

The chapter scrutinises closely the design and implementation of state policy regarding the development of the banking system in South Africa. It also examines the regulatory environment led by the state and in particular the Reserve Bank that conditioned the decisions of the IDC to finance particular projects and to what extent. The spotlight will shift to the dual role played by the IDC as it directly financed industrialisation while supporting the development of the South African banking system through nurturing other banking institutions. More light will also be shed on the sources of finance employed by the IDC which have been the subject of mythologies resulting in them being widely misunderstood or taken for granted in some of the literature.

3.2 The Formation and Transformation of the IDC

The IDC was formed during the Second World War in 1940 as the brainchild of three scientists namely, H J van der Bijl, H J van Eck and F Meyer. The war provided more reason for the state to promote industrialisation and as Prime Minister Jan Smuts put it in a speech in 1940 (cited in Innes, 1984:166),

> The war must inevitably throw us back on our own resources. Much of what has been imported will now have to be manufactured locally… It is for this reason that the Government have decided to ask Parliament to establish an Industrial Development Corporation which will be able to finance and guide our industrial development and prove for industry the sort of boon that the Land Bank has proved for agriculture.

In 1934 van der Bijl advised the state to create a financial institution to make up for the dearth of industrial finance houses in South Africa that would support small firms in the manufacturing sector (Jacobs, 1948:129). Van der Bijl was a highly regarded and influential scientist in Europe and the United States where he worked for several years. He chaired and founded not only the IDC but Escom and Iscor as well (Cartwright, 1971). Van der Bijl was also a key figure in policy making at the highest echelons of government including in the inner circles of Smuts. It was Smuts who convinced van der Bijl (through van der Bijl's father), who had been working in the US at the time, to return to South Africa (Bozzoli, 1997). Van der Bijl believed that only through industrialisation could South Africa develop economically.

The Industrial Development Act No. 22 of 1940, the founding legislation of the IDC, stated that its objective was '[t]o constitute a corporation the object of which shall be to promote the establishment of new industries and industrial undertakings and the development of existing industries and industrial undertakings and to provide for incidental matters.' It is important to distinguish two objects of the act that became key in the day to day operations of the corporation. Section 3 (a) refers to funding new industries and industrial undertakings while section 3(b) is about financing expansion, of existing industries. In 1942 the act had to be amended to include the provision that the Governor General had to approve, in terms of section 3 (a), the creation of a new industry. The IDC Act excluded Members of Parliament and Senators from becoming directors of the corporation ostensibly to insulate the corporation from political influence.

The IDC act further emphasised that the support to industry should be guided by 'economic merits' including economic viability of the investment. The act required the IDC, in dispensing its duties, to ensure that 'every application or proposal dealt with is considered strictly on its economic merits, irrespective of all other considerations whatsoever'. The IDC was, in addition, constrained from making a telling contribution by the tiny pool of funds it received from the state further compelling the corporation to select most profitable projects to ensure its financial health remained intact. As demonstrated in Chapter Four, especially in its first decade of operation, a large portion of IDC capital was earmarked for the textile industry leaving a reduced pool of funds to finance other industries.

Van der Bijl, in his role as Chairman of Escom, viewed inexpensive power as the key ingredient in industrial development. In its maiden Annual Report (1923) he stated that Escom would focus its efforts on ensuring the provision of affordable electricity (Marquard, 2006:126). Van der Bijl was a key figure in the formulation of South Africa's industrial policy prior to and during the Second World War. He was at the centre of the development of the iron and steel industry which with electricity, he believed, would form the bedrock of the economic development of South Africa. The creation of the IDC, in his view, became necessary when other industries failed to emerge from the foundation that had been established. Meyer, on the other hand, was in the 1920s a technical advisor to the Department of Commerce and Industries (Collings 2002:15). He went on to produce for the government a report on the potential for synthetic oil-from-coal based on the experiences of countries elsewhere in the world. Van Eck, as will be shown later in the study, held many roles in policy making and on boards of companies which earned him the title 'father of South African industry.'

The IDC was financed by the state to get it off the ground. The funding structure consisted of 4 500 000 'B' shares in Iscor previously held by the state and 500 000 'A' shares subscribed to by the government for £1 each. In addition, over three years the state made payments of £500 000 to the incipient corporation. The benefit of Iscor shares to the IDC was that they were already paying dividends (Cartwright, 1971:10). Financing by the state after initial payments in the decades that followed took a different form and was often tied to specific state-initiated or supported projects. The advent of the IDC generated great interest among industrialists. In its first eight months or so all requests but one for funding which collectively exceeded the total available capital were rejected on the grounds that they possessed no 'economic merit' (van Eck, 1967:45). In 1941 the first loan of £1 500 financed the expansion of a bakery manufacturing rusks in the small town of Molteno in present day Eastern Cape. The Ouma Rusks brand remains popular to this day and the rusks are still produced in the same town.

The IDC and other parastatals including Iscor and Escom reported to the Department of Commerce and Industries which before 1948 was under Minister R Stuttaford. When the National Party ascended to power, it renamed the Department of Economic Development the Department of Economic Affairs under Eric Louw and later Albert van Rhijn as Ministers. The Department of Economic Affairs became more powerful and influential and by the late 1960s the IDC reported to it.

As Cross (1994) observed, prior to 1948 the IDC board had only one Afrikaner in van Eck while the rest of the members were English-speaking. This was deemed unacceptable to the new state intent on ensuring the transformation of state institutions to the benefit of Afrikaners. In what could be paralleled to the current ruling African National Congress-sponsored Black Economic Empowerment and Affirmative Action policies, the IDC board was hastily transformed as Afrikaners replaced English-speaking board members under the tutelage of Minister Louw. It does not appear that the performance of the IDC was affected adversely by the Afrikanerisation project nor as shown later in the chapter, led to preference of Afrikaner capital with the exception of the financial sector.

Although the Nationalists set in motion a process to alter the composition of the board to have more Afrikaner representation, an inquiry set up in 1958 headed by Nico Diederichs, an appointee of Prime Minister H F Verwoerd in the Ministry of Economic Affairs and former chairman of the Broederbond, characterised the IDC as "English". Senior managers remained predominantly English-speaking with only two Afrikaans-speaking out of six general managers (Cross, 1994:124). Apart from van der Bijl and van Eck the inaugural board of directors of the IDC consisted of English-speaking businessmen and a former trade unionist (see Cartwright, 1971:11). It turns out that by the time of the investigation Afrikaans speakers were already dominant on the IDC board thanks to the efforts of Louw. Although nearly two in every three IDC employees were Afrikaans-speaking, the changes at board level did not extend to senior management (excluding board) which remained dominated by English speakers to the chagrin of the Diederichs-led investigation (Cross, 1994:124).

The Diederichs investigation was outraged on discovering that the IDC continued to use English in internal communication while the corporation communicated with government officials in Afrikaans (Cross, 1994:124). In contrast, it was around the same time that SASOL was co-operating with Afrikaans universities to create an updated Afrikaans vocabulary. The project culminated in the establishment, in 1960, of a committee to create and formalise Afrikaans technical words (Sparks, 2012:88).

In the manufacturing sector in the 1940s Afrikaner-owned firms were principally small operations located in rural South Africa with strong connections to agriculture through processing the sector's produce (O'Meara, 1983). In addition, Afrikaner-owned firms were conspicuous by their absence in the lynchpin engineering, metal products and transport equipment industries. Afrikaner-owned firms' share of manufacturing turnover by 1970 had risen to 15%, having acquired stakes of departing foreign firms in the aftermath of the 1960 Sharpeville massacre. Afrikaner based insurance giant SANLAM was among those that bought industrial holding firms at low prices (Feinstein, 2005:189).

Excluding the IDC's shareholding in SASOL and FOSKOR, themselves not Afrikaner private businesses, by the end of the 1950s the corporation had provided limited support to Afrikaner capital. Contrary to the widely held perception that the IDC was an instrument of Afrikaner economic empowerment (Feinstein, 2005:179), in its first two decades at least and in manufacturing, the corporation's Afrikaner clientele remained very limited. According to Cross (1994:125), by 1958 the IDC had disbursed £250 000 to Afrikaner firms, representing only 2.5% of total investment. The limited share of Afrikaner recipients of IDC financing was not a result of prejudice but a direct outcome of the dearth of Afrikaner capitalists outside of the bigger companies like SANLAM, Volkskas and Rembrandt and in the corporation's primary market, the manufacturing sector (Cross, 1994:125).

3.3 The Development of the South African Banking System

Banks have a vital role to play in the economy through mobilisation of idle funds thus providing much-needed finance for the productive sector (Solomon, 1983:128). They stimulate economic activity as capital shifts from savers to areas of the economy where it is most needed. The banking sector assumes the part of an intermediary between savers and borrowers in addition to its role of creating money. The greater the number of ways to borrow and lend the more developed the financial system (Kantor, 1975:1). The effectiveness of central bank authority is principally a function of the level of development of both the capital and money markets (SEPC, 1948:72). Prior to the 1950s in South Africa the Reserve Bank's control over interest rates, credit terms and foreign capital inflow was constrained by the absence of domestic money and capital markets (SEPC, 1948:187).

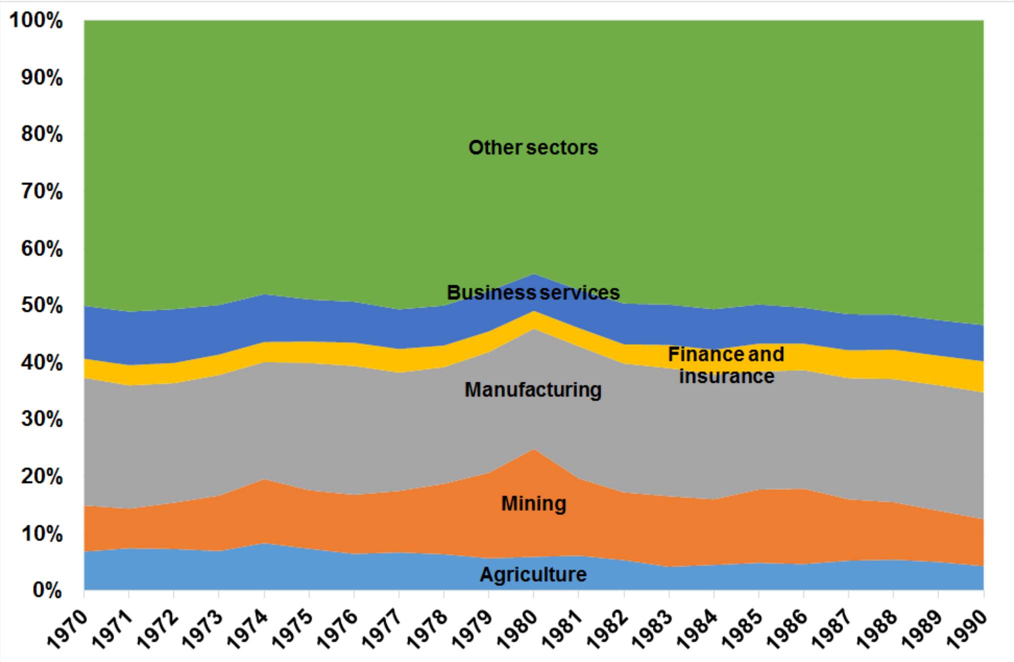
The link between savings and investment has been the subject of close scrutiny by economists. Generally, orthodox economists hold the view that savings are a precondition to investment. According to this view, the financial system facilitates the flow of excess funds to private firms from households, private companies and the government sector generating investment (Cramer et al, 2019:83). Keynsians assert, however, that investment can lead to savings and that investment need not be preceded by savings. South Africa in the 1940s and 1950s was flush with pools of savings that lay idle and hoarded. The paucity of long-term capital demanded by industry was not an outcome of lack of savings in South Africa. Instead limitations imposed by the nature of the banking system and policy priorities associated with keeping inflation in check contributed to the accumulation of savings that did not lead to investment. Moreover, a proliferation of financial instruments and associated institutions emerged absorbing the bulk of savings.

By the 1940s the South African state was keen to develop a financial sector independent from foreign influences whose pace and direction was controlled by the state. The primary concern was less to do with the dominance of the British in the sector than to gain control of the policy levers necessary to promote its own development agenda. As it turned out British input and capital was instrumental in the growth and diversification of the post Second World War banking system in South Africa. Without a dynamic and diversified banking system the management of monetary policy by the Reserve Bank lacked efficacy as external and other factors served to undermine its efforts.

3.3.1 The Structure of the South African Banking System

The banking system in South Africa moved from a very fragmented sector; a legacy of colonial banks, to a highly concentrated one from the 1910s. According to Jones (1992c:156), 'the financial structure continued to remain remarkably underdeveloped and unsophisticated.' As late as 1970 the private financial sector contributed only 3.3% to South Africa's GDP (derived from Quantec, 2017 and SARB (2015)), a confirmation of its relative insignificance as a contributor to the economy in the decades leading up to that year. Unlike the South African economy currently, the productive sectors primarily drove the economy during the period rather than finance. The financial sector relative to today where it is a key driver of the economy, remained a modest sector but growing strongly for over three decades after the Second World War. In 1970 the financial sector was substantially smaller than agriculture making it an unlikely driver of the productive sector of the economy. It became increasingly important in the 1970s and 1980s adding 5.7% to GDP by 1990, overtaking agriculture in the process (see Figure 7 for relative shifts of various sectors). The financialisation[2] of the world's economies would become an increasingly dominant theme in the wake of the collapse of the Bretton Woods system (See also Ashman, Fine and Newman, 2010).

Figure 7. Share of GDP by Selected Sectors 1970-1990



Source: Quantec

Some of the underlying reasons behind the formation of the IDC was, as stated by van der Bijl in its maiden Annual Report, that South Africa's banking system at the time remained oriented towards the provision of undirected short-term funding (IDC, 1941:1). The IDC was, in part, created to fill the void left in the long-term capital market which it argued lacked proper planning. The dearth of industrial finance houses in South Africa similar to those in the UK and the USA also made it imperative for the IDC to enter that market to stimulate investment in the manufacturing sector. According to the Social and Economic Planning Commission (SEPC, 1948:146) which was chaired by van Eck, 'The Banks in this country have always subscribed, in principle at least, to the British tradition that it is no part of the business of a commercial bank to provide industry with long-term capital.' In contrast, South Africa had a well-developed financing mechanism for mining houses (IDC, 1941:3). Although the Johannesburg Stock

Exchange which had been in existence since 1887 was another vehicle for providing long-term finance, start-ups and smaller firms would not have been suited to this kind of financing (Jones, 1992a).

Unlike financing for mining projects, finance for the manufacturing sector by dedicated industrial finance houses was conspicuous by its absence in South Africa (IDC, 1941:3). Writing about the local banking system, Norval (1962:107) observed that 'commercial banks do not, as in the case of Western European countries participate in the capital and share requirements of industrial undertakings'. Commercial banks provided working capital and other banking services like call accounts and overdrafts to firms in secondary industry. Banks displayed a propensity to offering short-term loan facilities and were loath to grant long-term finance on a large scale (ibid). The SEPC (1948:149) concluded that South African banks' approach to long-term funding was that it was best left to specialist institutions with a narrow mandate while commercial banks play a well-defined and particular role.

From the 1910s to the 1940s the banking sector was dominated by two imperial (English) banks Standard Bank and Barclays, the latter having acquired National Bank of South Africa in 1926 (Solomon, 1983:145). In 1948 the two banks accounted for 95% of total demand deposits and over 85% of all loans and advances in the country (SEPC, 1948:114). The fact that the two banks were controlled in London was a source of discontent in South Africa as part of the general dislike in the Afrikaner community of British influence in the country. As if to rub salt in the wounds, the directors of the British banks' subsidiaries in South Africa were all based in London where strategic decisions were taken. Moreover, before 1949 in the absence of a market for surplus funds locally, the two banks sent such funds to London (Solomon, 1983:156). The imperial banks clearly had no interest in developing the South African banking system beyond what it was and were content to see surplus funds flow from South Africa to London.

The structure of the banking system included commercial banks, people's banks, loan banks and deposit receiving institutions. In 1950 South Africa had five registered commercial banks namely Barclays Bank, Nederlandse Bank, Standard Bank, Stellenbosch District Bank and Volkskas.[3] There were two people's banks (known elsewhere as credit unions or societies), a single loan bank and over two dozen other deposit-receiving institutions. The above institutions were regulated under the Banking Act of 1942. Other financial institutions included numerous building societies which assumed the role of savings banks and less formal co-operative credit societies among Africans.[4] Unlike in many other countries South Africa had only two savings banks and one people's bank stemming partly from the role played by permanent building societies as savings institutions. State-related banking institutions that were deposit-taking included the Reserve Bank, the Land and Agricultural Bank, Public Debt Commissioners and some municipalities. The regulations of state-related banking institutions fell outside of the Banking Act. The IDC was not part of this group because it was not a deposit-accepting institution.

Even before the National Party assumed power in 1948 serious consideration was being given to the limited influence the South African state had on the banking system. In a study of the banking sector and its function in the economy, the SEPC (1948:72), concluded that 'the South African Reserve Bank … is handicapped in its efforts to regulate credit conditions by the absence of well-developed money and capital markets.' Another characteristic of the South African capital market which tended to undermine the influence of the Reserve Bank was the preponderance of the large mining and financial groups having ready access to overseas capital markets (SEPC, 1948:75). The oscillation of foreign capital inflows was a source of frustration because the state exercised little control over it, thus exposing South Africa to the effects of external instability.

South Africa adopted orthodox policies in relation to interest rates which were not developmental or particularly helpful for the catch-up process. In formulating monetary policy that it deemed ideal for South Africa the SEPC (1948:76) subscribed to the notion that the main objective of credit control in South Africa should be the creation and maintenance of monetary and credit conditions that make it possible for a high and stable level of income and employment in the Union. The council was also wedded to the idea that the Reserve Bank would serve the country well by adopting orthodox policies that ensured that credit conditions were eased and interest rates lowered to minimum levels possible during periods of stagnation or decline. In addition, the bank was advised to increase rates and tighten credit, particularly to any industries which may exhibit signs of 'reckless expansion', when inflation seemed to show signs of rising (SEPC, 1948:76).

M H de Kock, the Reserve Bank Governor who took over the position in 1945 was a firm believer in monetary policy as a tool to lower inflation. After the Second World War the Reserve Bank initially relied on moral suasion as a means to leverage monetary policy convinced that the two dominant banks would co-operate and reduce credit extension levels (Franzsen, 1983). The central bank's interventions proved ineffective in 1957 and 1958 as increased demand for credit saw credit extension rising prompting it to invoke the amended Reserve Bank Act of 1956 and raised the reserve requirement in May of 1958 but to no avail. Clearly the bank’s influence on the banking system was still ineffective in the late 1950s, in spite of its many attempts.

Contrary to developmental states of Korea and Taiwan the nationalisation of the banking system in South Africa was viewed as superfluous. The SEPC also considered the ramifications of nationalising the South African banking system in part or as a whole. Due to the fact that the state determined the broad monetary policy and the cordial relationship between the Treasury and the Bank, it was deemed unnecessary to nationalise the central bank. Moreover, the Governor General had the powers to intervene to ensure the Reserve Bank complied with government’s wishes under the Currency and Exchanges Act of 1933 (SEPC, 1948:173).

In the light of the 2017 national conference of the ruling African National Congress (ANC) which adopted a resolution to nationalise the South African Reserve Bank and subsequent ongoing discussions in Parliament, the analysis of the policy towards ownership options of the bank in the 1940s remains pertinent and are still worth examining today. The upshot of the SEPC (1948:173) report was that ‘the Reserve Bank is already, in fact though not in form, a public body, and there is no danger that it would ever either wish or be able to challenge the authority of the Government’. In addition, 90% of the bank’s profits were paid over to the Treasury. Similarly with commercial banks, the council saw no need to nationalise the banking system because the state exercised its authority over the banking system. In contrast the developmental states of Taiwan and Korea chose to nationalise their banking systems placing them firmly under the control of government bureaucrats.

Table 1. Absolute and Relative Sizes of Various Financial Institutions, 1953, 1964 and 1969

	Total Assets (R million)			Share of total assets		
Year	**1953**	**1964**	**1969**	**1953**	**1964**	**1969**
Registered Banks						
Commercial Banks	901	2 044	3 717	42%	36%	38%
Merchant Banks	-	264	530	-	5%	5%
Hire-Purchase, Savings and General Banks	77	744	1 613	4%	13%	16%
Discount Houses	-	200	391	-	4%	
Sub-Total	978	3 252	6 251	46%	58%	63%
Other Financial Institutions						
National Finance Corporation	133	154	257	6%	3%	3%
Land and Agricultural Bank	138	303	570	7%	5%	6%
Post Office Savings Bank	174	136	163	8%	2%	2%
Building Societies	712	1 760	2 596	33%	32%	26%
Sub-Total						
Total Deposit Receiving Institutions	**2 135**	**5 605**	**9 837**	**100%**	**100%**	**100%**
Other Financial Intermediaries in the Private Sector						
Insurers	562	1 505	2 713	74%	63%	54%
Private Pension Funds	200*	883	1 614	26%*	37%	32%
Unit Trusts	-	-	720	-	-	14%
Total Other Financial Intermediaries	**762**	**2 388**	**5 047**	**100%**	**100%**	**100%**

*=estimate

Source: Franzsen, 1970

Among registered banks commercial banks dominated while building societies reigned supreme in the 'other' financial intermediaries as measured by assets. Building societies accepted savings from the public which they used to finance housing. According to Jones (1992b:239), the performance of building societies rested on the expansion of the savers and house purchasers. Indeed, the faster than commercial banks' assets growth of building societies in South Africa has been ascribed to the bourgeoning middle classes in the inter war years and post Second World War eras (Jones, 1992b:239). As will be shown later, mortgage loans constituted the lion's share of credit extension by monetary institutions. Building societies, as was shown in Table 1, remained the second largest category when measured by assets after commercial banks. By the mid-1960s the tendency by insurance companies and pension funds to invest the bulk of their investible funds in shares and real estate was firmly entrenched (Dickman, 1973:374). By contrast to East Asia, this kind of investment in fixed property – by whites – was not only given support and approbation but was also private sector-driven. In Japan, as was shown in Chapter Two, the concentration of massive personal savings fell under the direct control of the state which turned them into a key tool of industrial policy.

While building societies' assets expanded rapidly in the 1960s and 1970s, changes in regulation, negative real interest rates and the entrance of commercial banks in the home loan market combined to undermine the strong performance of building societies (Jones ,1992b). The changes also opened the door for building societies to be transformed into companies, no longer institutions owned by depositors (Fine and Rustomjee, 1996:105). By the late 1980s they found it increasingly difficult to attract savings. Although in 1985 regulations were altered to permit building societies to compete in the same market as commercial banks they ended up being swallowed by the latter.

3.3.2 The National Finance Corporation

The National Finance Corporation (NFC) was formed in 1949 in the aftermath of the politically inspired capital flight of 1948/9 (Solomon, 1983:157) to receive short-term deposits for investment in the South African economy. Created and underwritten by the Reserve Bank, it pioneered the emergence of a local money market. The money market is a market for the issuing and trading of short-term (one year or less) instruments. According to the Minister of Finance N C Havenga, the NFC was formed,

> to promote the development of an active money market in the Union and the use of idle capital in the national interest; to facilitate the participation of foreign capital in the development of the Union's resources, and to promote co-operation among the different classes of financial institutions in the Union.[5]

Franzsen (1983) stressed that the Reserve Bank initiated the creation of the money market and the NFC in particular to enlarge the market for government securities. The state's eagerness to promote the formation of the NFC was partly motivated by its own need to access the idle funds for its capital projects because it was saddled with a large overdraft of £50 million with the Reserve Bank.[6] By 1952 78% of the NFC's investments comprised Treasury Bills. When the NFC was established, the Treasury invited building societies, commercials banks, insurance companies, mining corporations and other financial institutions to subscribe for the initial capital. In the final allocation, which was oversubscribed, almost one hundred institutions became its shareholders.

Jones (1992c) alleged that the lack of demand for short-term debt was the underlying reason behind the money market arriving belatedly in South Africa. On the contrary, the desire for a money market was indeed pressing caused by the large amount of dormant funds in South Africa. These have been a feature of the South African economy as far back as the early

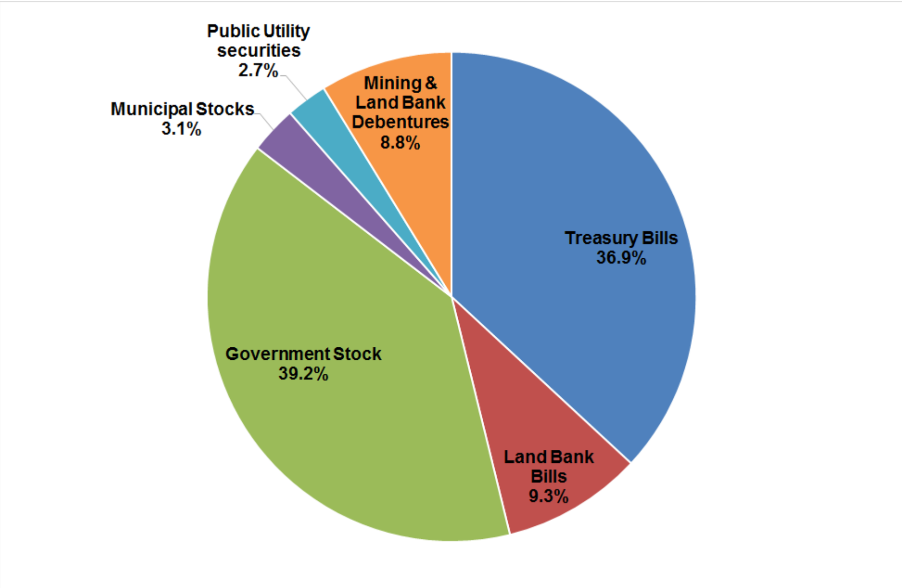
1940s (IDC, 1941). The idle funds in the period leading up to the creation of the NFC were believed to range between £200 million and £300 million.[7] As the Registrar of Banks and Building Societies noted, many institutions including provincial and local spheres of the state possessed huge sums of money not immediately required.[8] Building societies and large companies also found themselves in a similar situation. A mine, for instance, in the early stages of a project had more money than it needed, also found no avenue to invest the excess money over a few months until it was required. There was no shortage of dormant capital but vehicles to mobilise it for productive investment. In this case the accumulation of savings did not lead to investment as expected until the birth of the NFC, appearing to confirm the notion that savings do not automatically generate investment. According to Dickman (1971), the conservatism associated with family-owned firms was an important impediment to the flow of savings into investment. However, the NFC experience represents a missed opportunity to use latent capital for industrial development which instead went largely to finance state expenditure generating handsome profits for its shareholders.

Judging by the massive collective amounts invested and deposits processed by the NFC the need for a money market was indeed pressing and long overdue. Despite a very high minimum deposit of £50 000, within a month of opening its doors the NFC attracted £25 million. In 1952 the NFC had received £412.8 million and processed withdrawals totalling £432.9 million.[9] By 1964 the corporation was processing R5.8 billion annually in its depositors' account.[10] In the early 1950s it had already become profitable and paid its shareholders handsome dividends of 10% and 12.5% in 1952 and 1954, respectively. Its significance in the banking system was accentuated by its 6% share of total assets of deposit taking institutions and other financial intermediaries in 1953, its fourth year of operation (Franzsen, 1970:178).

The idea that the National Party's desire to break Britain's stranglehold on the South African financial sector through the creation of a local money market which found resonance in the Reserve Bank was the primary motive behind the creation of the NFC (Jones, 1992c:156) is most probably an exaggeration. There is a strange ambiguity here. On the one hand, there was a fixed commitment to fiscal orthodoxy and on the other, a nationalist desire to move away from the financial sphere dominated by the British. The Reserve Bank viewed the formation of a money market as a useful tool in its quest to control credit and money supply. The bank would be more empowered and by extension the state to gain the levers of the South African banking system through the creation of a money market (Franzsen, 1983). While the London-controlled Standard Bank and Barclays tended to invest excess funds in Europe, the sheer absence of a money market in South Africa was largely to blame.

Figure 8 shows that the NFC's investment was lopsided in favour of state-issued debt and related institutions. This casts a shadow of doubt to the assertion by Fine and Rustomjee (1996:155) that the NFC grew very rapidly in the 1950s through mining stocks subscription and financial intermediation on behalf of the mines. The mines were a key source of deposits which earned the interest paid and as shareholders' dividends that ranged between 10% and 15%, but as shown in Figure 8 government stock and Treasury bills accounted for three-quarters of the NFC's investments. The growth of the money market in South Africa was such that by 1963 the country surpassed its British peers when total funds were measured in proportion to the size of the economy (Kell, 1992:196). The stellar performance of the NFC barely a decade and a half after its establishment lends more credence to the view that a dire need for a money market in South Africa existed after the Second World War.

Figure 8. The Structure of NFC Investments, 1964



Source: NFC[11]

A striking feature of the NFC's activities until the mid-1960s was the absence of manufacturing sector-related investments. Developmental states in Asia tended to prioritise supporting industrial policy using state-sponsored finance pooling schemes. In this regard the NFC did not contribute to easing the problems faced by manufacturers in accessing capital outside of working capital and overdrafts from commercial banks. As shown in Chapter Five the IDC did raise money from the NFC to fund SASOL more as an aberration than a norm. The NFC played the role of a pioneer in the money market paving the way for dominant players in the financial sector to enter the market and eclipsing the NFC in the process (Innes cited in Fine and Rustomjee, 1996:156).

3.3.3 The Banking System and its Impact on Various Sectors of the Economy

As the financial sector grew in size and sophistication, the Reserve Bank, aided by legislation, began to have a palpable influence on the banking system and ultimately the economy. In 1965 the Reserve Bank with the support of the Finance Ministry issued an instruction to the banks to limit credit extension which in the bank's opinion was fuelling inflation through 'non-essential consumption'.[12] In the mid-1960s the passage of the Banking and Building Societies Amendments Act marked the culmination of a study commissioned by the Minister of Finance meant to confer more power to the Reserve Bank in regulating the flow of credit. The bank was preoccupied with inflation and prioritised keeping it in check at the expense of credit extension to promote accelerated industrial development. The number of registered banking institutions doubled to 58 by 1970 relative to 1953 accompanied by the extension of the branch network of banking institutions measured collectively (Franzsen, 1970:180).

Although the manufacturing sector had been asserting its dominance by 1940 it only accounted for 9% of secured loans and advances which were most likely long term. As Table 2 shows this compares unfavourably with trade and commerce or individuals. The manufacturing sector was starved of loan capital necessary to accelerate industrialisation akin to developmental states as they sought to narrow the gap between themselves and peers in early industrialisers.

Table 2. Distribution of Commercial Bank Discounts and Advances in the Union of South Africa

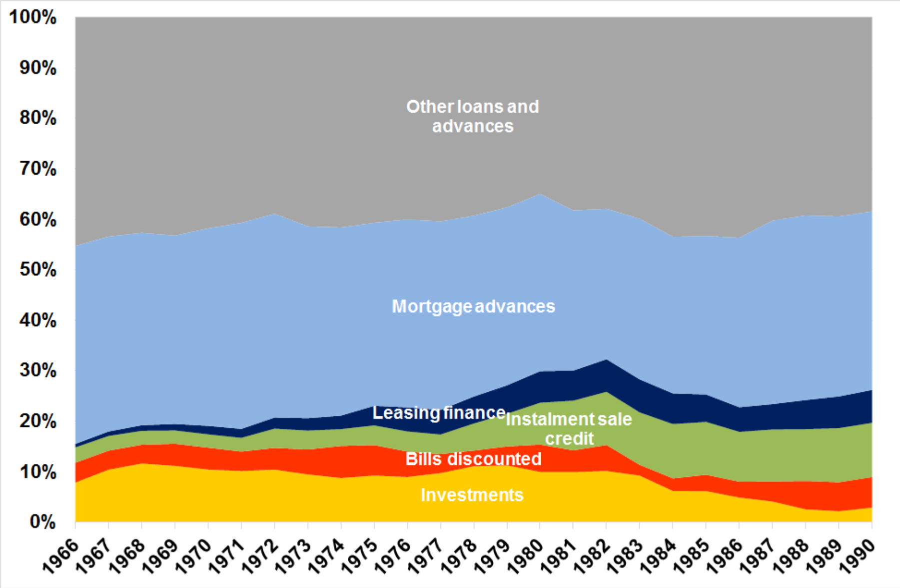
	1932	**1936**	**1939**	**1940**
Bills Discounted				
Manufacturers	11%	18%	19%	22%
Loans and Advances (Unsecured)				
Manufacturers	8%	9%	6%	8%
Trade and Commerce	20%	21%	18%	24%
Individuals	13%	16%	13%	14%
Loans and Advances (Secured)				
Manufacturers	9%	7%	7%	9%
Trade and Commerce	24%	31%	35%	36%
Individuals	11%	12%	15%	15%

Source: SEPC

The manufacturing sector was an outlet for profits earned from mining activities which took the shape of investment by mining capital. While mining money had an influence on the industrial development of South Africa in general, it was far from effecting fundamental shifts desired (SEPC, 1948:194). Although prior to 1950, mining houses diversified their investments into the manufacturing sector, much of this funding flowed into industries that manufactured products related to mining (Feinstein, 2005:174). Mining giant Anglo American Corporation's investments exhibited a clear bias in favour of industries that supplied the mines like chemicals, where explosives were dominant, construction plus iron and steel (see Norval, 1962:100). The corporation's investments in chemicals led by its subsidiary African Explosives and Chemical Industries (AE&CI) and construction accounted for nearly 70% of Anglo American's total loans and shareholding in secondary industry in 1961. This is an ideal example of 'market forces' unguided by state intervention adopting a trajectory of economic development that favours narrow interests. The state failed to create incentives in industries that were targeted or lacked the vision to isolate them for development. Concessionary financing formed the foundation of credit extension to targeted industries in many late comers to industrialisation as they sought to catch up with the leaders.

The Franzsen Commission noted in 1970 that credit facilities available to farmers and small industrialists from banks were not suitable for financing medium-term projects. The commission observed that of the R500 million credit made available, a large percentage was destined for instalment credit to individual borrowers for consumption. In Japan by contrast, consumer credit was not well-developed which contributed to a savings culture in the country (Johnson, 1982:14) which the state leveraged to promote industrialisation. Figure 9 shows that leasing and instalment grew the fastest, jointly taking 17.2% of total credit extension by 1990 while investment slumped from 11.6% in 1968 to as low as 2.2% in 1989. Over the period leasing and instalment sale credit grew to the detriment of investment. 'Other loans' which includes overdrafts, factoring, advances and credit cards was the second largest category of credit extension. Overdrafts predominated in this category and were largely utilised for working capital by enterprises. Overdraft credit tends to be more expensive for enterprises and is generally not associated with long-term investment and is not particularly helpful in driving the catch up phenomenon. The importance of this form of income for the banks was that it was short term and yielded income on the basis of higher interest relative to investment for instance.

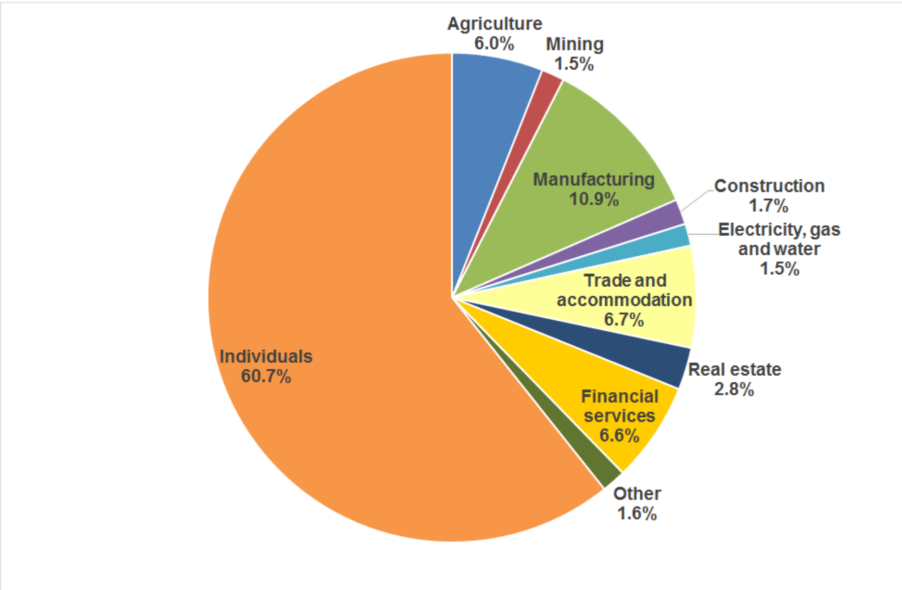
Figure 9. Credit Extension by all Monetary Institutions to the Private Sector



Source: SARB

As shown in Figure 10 the bulk of credit extension was destined for households while the manufacturing sector was a distant second. The high percentage of credit in the hands of households is a reflection of the sheer dominance of mortgages in credit extension and to a lesser extent other forms of credit including credit card and overdrafts. Households tended to account for over 90% of mortgage loans (van der Walt, 1997). The manufacturing sector increased its share of credit extension to 12.6% in 1986 at the expense of individuals.

Figure 10. Credit Extension to the Private Sector by Economic Activity, 1976



Source: Van der Walt

The character of the banking sector transformed markedly in the 1970s with the transfer of ownership to national capital and the concomitant exit of British interests. Afrikaner presence as a result rose significantly alongside focused financing to the manufacturing sector albeit still under market terms with no state involvement meant to shift investment patterns in favour of targeted industries. There is no evidence that the banks shifted away from practices of previous owners in any significant way that would typify a successful late comer industrialiser. If anything, the financial sector raised its dominance in the economy partly mirrored in its contribution to South Africa's GDP and the accompanying decline of industry.

The establishment of Afrikaner banks in Volkskas and Trust Bank in 1942 and 1955 respectively heralded a new period characterised by heightened competition in the market leading to a shake-up of the duopoly and conservatism that had come to define the banking sector for several decades. SANLAM's Trust Bank in particular adopted fresh approaches to marketing and was considered progressive in embracing unorthodox banking techniques (Solomon, 1983:147). Volkskas targeted rural clients and those left out of banking services by imperial banks offering affordable prices for banking services but was also deeply rooted in Afrikaner nationalism. The Nationalists-led state contributed greatly to the growth of Volkskas through direct patronage to the bank and indirectly through the economic empowerment of Afrikaners, the bank's major clientele. The bank however was an insignificant funder of the industrial sector prior to the 1960s due to its rural bias in its operations. Later in the mid-1970s, having become conscious of German banks' role in post-World War II reconstruction Volkskas formed an industrial arm (Verhoef, 1992:126).

Major financiers with Afrikaner roots were SANLAM subsidiaries Bonuskor and Fedvolks which invested the bulk of their funds in the manufacturing sector (Fine and Rustomjee, 1996:153). In 1980 the IDC held a 7.2% stake in Bonuskor. Feinstein (2005) has argued that the growth of the financial sector after the Second World War proved a major boost for the emergence of Afrikaner capital outside of agriculture. In the wake of the triumph of the National Party at the 1948 polls, further stimulus to the growth of Afrikaner capital was received. Later on in 1960 following the flight of foreign capital that was triggered by the Sharpeville massacre, Afrikaner giants including SANLAM bought stakes from exiting enterprises at very low prices. Although international investor confidence in the South African economy was shaken to the core, growth was restored within three years much to the benefit of national capital.

Excessive foreign ownership of banks was deemed undesirable in South Africa and had to be eliminated as recommended by the Franzsen Commission in line with comparable countries including Australia, the USA and Canada. The creation of new banking institutions outside of the commercial banking sphere saw the emergence of banking institutions characterised by the dominance of domestic ownership. In mid-1970 nine banking institutions remained under foreign control, defined as a 50% or higher stake, which included four commercial banks (Franzsen, 1970). The commission recommended that banking institutions under the control of non-residents should be required to reduce foreign shareholding to below 50%. It was expected that by ensuring that ownership of financial institutions was spread as widely as possible, banks would be more impartial when extending credit to clients. This was no longer patriotism but a fear of security breaches and outside influence politically.

The implementation of recommendations regarding ownership helped local insurance giants and conglomerates take significant stakes in commercial banks. Insurance giants SA Mutual and Liberty became substantial shareholders in Standard Bank. In 1977 the Labour government in the UK applied pressure on Barclays for supporting the apartheid state through its purchase of defence bonds (*Rand Daily Mail*, 11.1.77). The South African Defence Force generated hundreds of millions of rands through defence bonds (Cawthra, 1986:82) to fund its war in neighbouring countries and to suppress opposition to apartheid inside the country which is described in detail in Chapter Seven. Eventually Barclays remaining in South Africa became increasingly untenable over the following years as the anti-apartheid movement in Europe intensified its campaigns against the parent companies in London. The advent of sanctions also speeded up ownership changes which saw Barclays end up a subsidiary of Anglo American under the name First National Bank while Standard Bank fell under the control of insurance giant, Liberty.[13]

In the mid-1970s black entrepreneur Sam Motsuenyane helped found African Bank hoping to turn it into a commercial bank with Africans as its main clientele. Five major banks, Barclays, Standard, Nedbank, Volkskas and Trust Bank collectively contributed R300 000 to the original share capital of R1 million and assisted in training staff which saw management of the first three branches in black hands (*Daily Dispatch*, 12.4.79). In the 1990s African Bank merged with three micro-lenders and became the largest micro lender in South Africa by far when measured by assets. African Bank approached the IDC for share capital in 1995 but the corporation deemed such a request to be outside its mandate and advised Motsuenyane to consider engaging one of the large commercial banks instead.[14]

Investec was formed in 1974 with wealthy customers as its target clientele. It financed manufacturing industries and commercial properties in Durban (Padayachee, 2002:154-155). In 1991 Afrikaner banks including Volkskas, Trust Bank, United, Allied and Bankorp coalesced to form ABSA owned by the Rembrandt Group and SANLAM. In the early 1990s ABSA was considered the largest banking group in South Africa marking a symbolic milestone in the progress made by Afrikanerdom in the banking system. By the late 1980s, therefore, the banking system in South Africa had been largely transferred to domestic capital and could be described as national in character.

3.4 The Role of the IDC in the Banking System

The IDC at least in its first decade was not governed by the logic of transforming industrial development in a particular direction but opted to pursue profitable clients, thus followed the market rather than guide it. The requirement contained in the IDC Act that the corporation should fund projects that display ‘economic merit’ tended to triumph particularly outside of targeted industries by the state that might not deliver profitability soon enough. This partly stemmed from the corporation’s need to remain profitable as retained earnings constituted its key source of capital for financing its clients. In Japan borrowers in the books of the Japan Development Bank only paid back a quarter of the plant and equipment loans (Johnson, 1982:186). As will be demonstrated, state funding for the IDC dried up early on and was confined to state-initiated projects funded by the state through the corporation.

The IDC was already profitable by its third year of operation, recording a profit of £21 853 15s 9d. Three months short of its tenth anniversary the corporation had only registered losses amounting to under 0.06% of its total investments since its inception (IDC, 1950:2). This is very significant considering that very large investments in SASOL and FOSKOR were yet to be made which could have distorted the picture. The reason behind the financial success of the IDC was disclosed in this revealing statement made in the corporation’s 1956 Annual Report (IDC, 1956:9),

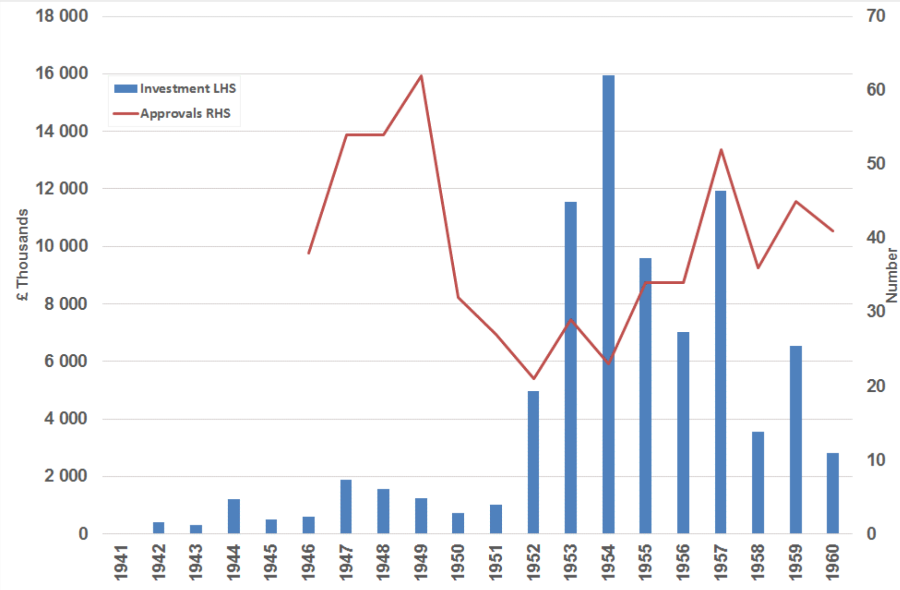
> Generally speaking the Corporation endeavours to direct its assistance to ventures whose successful operation is reasonably assured and in particular welcomes applications for assistance from concerns which are already operating profitably but require capital for logical extension of their activities. The IDC’s function is not normally to assist the distressed borrower nor is it a lender of last resort, although such cases do receive consideration.

Moreover, in general the IDC did not provide favourable terms relative to private sector lenders and its conditions were virtually the same as those of other financial institutions (IDC, 1957:10). The corporation also frequently sought a substantial or equal contribution of 40% by the loan recipient and the balance coming from other financiers (*Finance Week*, 22-28.05.80). In development banking models elsewhere contribution was a tool to guarantee client commitment to the project through risk sharing. However, the IDC took into consideration the ability of its client to repay particularly in the first two years and could waive the repayment of the principal loan to lighten the burden as the client was allowed to reap the benefits of the capital (IDC, 1958). Only on rare occasions did the IDC offer unsecured loans and interest-free loans to clients under some conditions.

Although the IDC supported projects with ‘economic merit’ as required by the IDC Act, unlike a private sector bank seeking to maximise profits, the corporation deviated at times from the rules that typify a normal commercial bank. In 1966 the corporation felt that the manufacturing sector needed consolidation, development plus improvement of production methods. These factors filtered into the corporation’s financing activities (IDC, 1966). Unlike in developmental states South African economic policy considered high rates of inflation as undesirable and the IDC aided the South African government in pursuit of the cause to keep it at low levels. In Japan when inflation became a concern, alternative instruments to interest rates were used to keep inflation in check including ensuring that markets became competitive, monitoring gas and power prices as well as upgrading the distribution sector (Sumiya, 2000:494). When the state, through the Reserve Bank, sought to lower inflation the IDC stepped in to play its part by minimising its financing to the private sector with short-term goals and focusing instead on long-term projects (IDC, 1967:33). High profitability was critical in the IDC’s ability to finance new projects and remain sustainable. Profits constituted the backbone of the corporation’s financing of ‘other industries’ aided in no small part by a robust but internally oriented manufacturing sector and judicious selection of clients backed by thorough investigation of potential clients.

The IDC was starved of funding from the state to support industrial development-led economic growth that would generate growth rates necessary for the catch up process to materialise. Its contribution to industrialisation was limited by the ‘economic merit’ principle not only because it was a legislative requirement but also due to its dependence on income sourced from the markets. To provide concessionary funding necessary for accelerating industrialisation was also made the more difficult by the fact that the corporation sourced its finances from the same markets and at similar terms as private sector banks. The restrictive monetary policy by the Reserve Bank, concerned primarily with taming inflation also contributed to limiting the rates of credit extension for investment to firms.

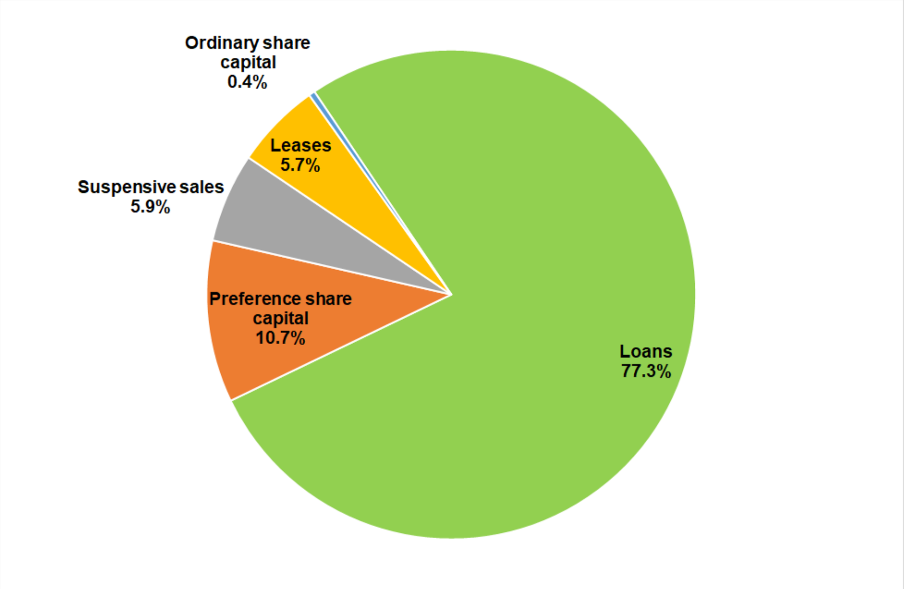
Figure 11. IDC Investment and Number of Approvals 1941-1960



Source: Derived from various IDC Annual Reports

The dominant mode of financing of the IDC in its first decade remained shareholding. In 1950 total investments to date comprised 20.3% loans, 42.3% preference shares and 37.4% ordinary stocks (IDC, 1950:2). Unlike loans, shareholding, particularly of ordinary shares, confers to the financier the right to vote and enhanced influence in the direction of the recipient firm through representation on the board. It also implies that the relationship between the financier and the investee firm tends to be more intimate. Shareholding is also beneficial to the recipient firm as this does not saddle the business with interest payments. In the 1950s shareholding was the dominant form of funding employed by the IDC due to the SASOL project which was supported through increased shareholder (the state) capital injection. Over the years the pendulum swung in favour of loans which by 1982 accounted for 84% of all financing which proved attractive due to their long-term nature (five to seven years) and fixed interest rates (IDC, 1982). More than half of applications for finance in the first half of the 1980s were for plant and equipment followed by factory building which accounted for 37% (IDC, 1984:9) and as illustrated in Figure 12, loans were predominant.

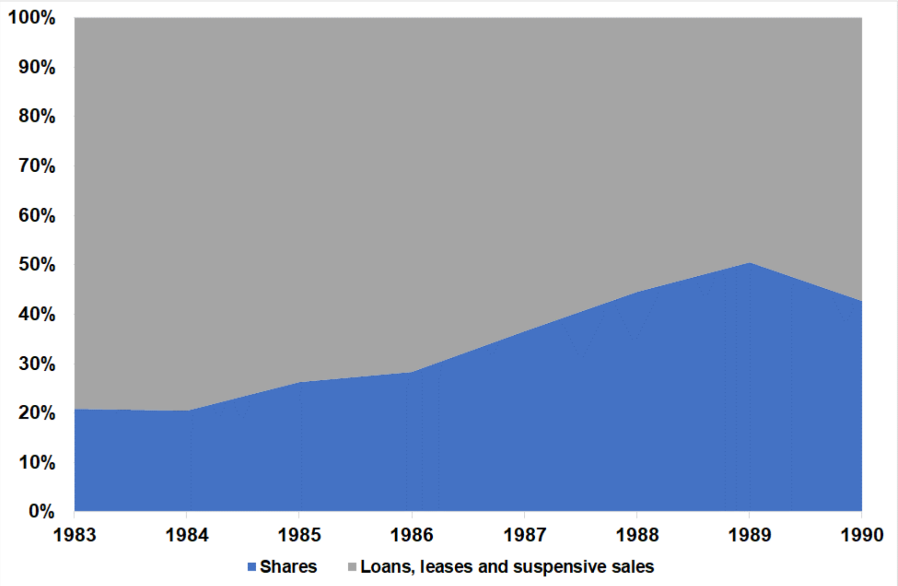
Figure 12. The Structure of IDC Funding, 1981-1985



Source: IDC, 1985

Periods when shares grew vis-à-vis loans were generally associated with strategic investments like SASOL II and III from the mid-1970s to the early 1980s. The growth of shares as a method of financing in the late 1980s shown in Figure 14 reflects the advent of the offshore natural gas project, Mossgas. In 1988 the Mossgas project accounted for 45.2% of total IDC financing by value in a year that saw the corporation's total funding authorisations jump by 212% relative to the year prior (IDC, 1988). The project also helped raise the country's gross fixed investment in manufacturing by 8% (IDC, 1990:10).

Figure 13. Breakdown of the Structure IDC funding, Shares vs Loans, Leases and Suspensive Sales



Source: IDC (various years)

The IDC was an important facilitator in support of the efforts of the state to engender a large and flourishing South African financial sector. This was regarded as a solution to the dearth of long-term capital for industry even though it was expected to function along market lines. This is problematic in the catch-up process which demands the manipulation of market forces to drive industrialisation. Following an investigation in 1956, the corporation was convinced that the creation of a money market institution along the lines of the NFC but more suited to secondary industry was imperative. The study which included the analysis of balance sheets of over 200 public industrial firms disclosed the heavy reliance on short-term credit and unsecured debt from sources other than banks (IDC, 1956:8-9). This the IDC viewed as a competitive disadvantage for secondary industry because the cost of capital was high. The IDC (1956:8) noted that,

> There is a growing tendency for working capital or short-term requirements to be financed against a pledge of fixed assets. This practice frequently inhibits the raising of essential long term capital because the assets against which this should logically be raised are no longer free.

Ironically, long-term capital was more expensive than short-term capital, finance from the public sector or building societies (Dickman, 1973:374).

In the wake of the withdrawal of restrictions imposed by the Reserve Bank on commercial banks to limit credit extension as part of its efforts to arrest inflation, the state's approach had altered somewhat by 1957. The Minister of Finance J F T Naude conceded that economic development needed be prioritised even if inflation was not lowered to required levels.[15] The state was concerned about the slowdown in the rate of investment in the manufacturing sector which was ascribed to the dearth of risk capital from domestic and foreign sources. Towards the end of the 1950s the world had slipped into a recession. Industrial development was perceived as the determinant of the rate at which the country developed while the need to ensure that industry received the capital was described as 'urgent'.[16] Naude's appeal was not heeded by the Reserve Bank which exercised its autonomy and continued to raise interest rates disregarding the impact of its actions on investment in the manufacturing sector. The bank's primary concern was to keep inflation at bay. In Korea the Finance Ministry determined the rate of interest while in Japan the central bank which was, by and large, an extension of the Finance Ministry, deliberately kept the discount rate to a minimum in order to sustain demand for credit on the back of lower interest rates. In the South African case, monetary policy trumped everything else.

3.4.1 The IDC and the Rise of Merchant Banks and Discount Houses

By the 1960s the South African banking system and the financial sector as a whole had grown strongly and was sufficiently diversified to permit the South African Reserve Bank and by extension the state to exercise more control over it. The creation of the NFC, merchant banks and discount houses played a key role in transforming the South African banking system into an increasingly sophisticated and influential sector in the South African economy. English banking capital was not only a model that South African peers emulated but also an important partner. This is concerning because, as argued in Chapter Two, the English banking system evolved during the Industrial Revolution and had no need to finance the catch-up process.

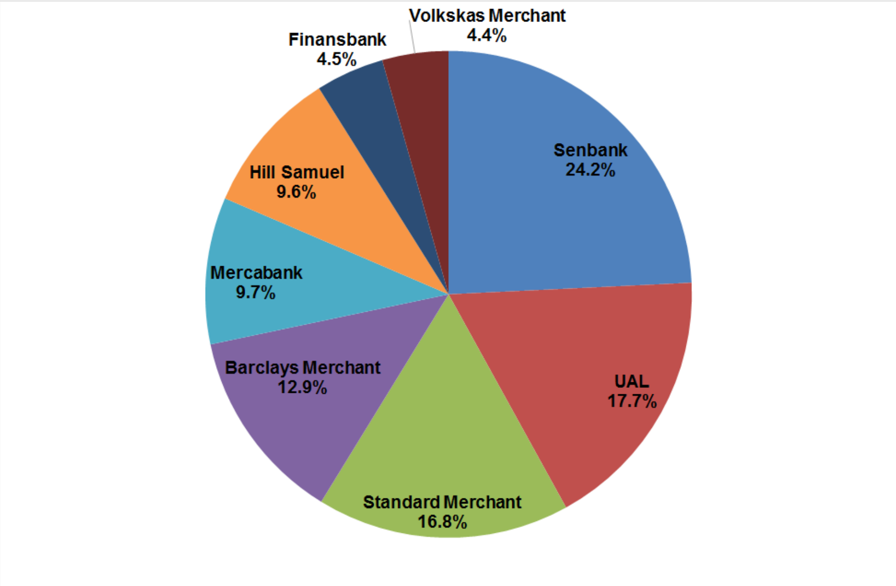
The first merchant bank in South Africa opened its doors only in 1955 against the backdrop of financial sector expansion and diversification. A merchant bank (or acceptance house) is a bank that serves primarily large companies and handles big deposits (Solomon, 1983:155). Anglo American was instrumental in the emergence of merchant banks in the 1950s (Feinstein, 2005:177) providing the capital, recruiting key staff and securing regulatory approval. Ernest Oppenheimer personally spearheaded the formation of Union Acceptances, pushing it through a divided Anglo American board. Like the imperial banks prior to 1955, mining companies ploughed their idle funds into money markets in London which became increasingly undesirable in the context of the needs for such funds in South Africa. For Anglo American the prospects of a deluge of funds from Free State gold fields (Jones, 1992c:155) made it more pressing for the company to seek domestic outlets in which to invest such funds. For over a decade and a half imperial banks kept clear of the merchant banks segment thus taking no active part in the deepening of the South African financial sector.

Jones (1992c) believed that the strong expansion of merchant banking in the 1960s was caused by the rapid expansion of the secondary sector which constituted the engine of growth for the South African economy as a whole during the period. During this period the financial sector grew in leaps and bounds buoyed by a rapidly industrialising economy in which the manufacturing sector expanded faster than GDP. Admittedly, growing from a low base, this trend could be traced back to the 1910s and was sustained until the early to mid-1980s (See Bell and Madula, 2002:101). The merchant bank segment also represented the genesis of the financialisation of the economy as more and more capital circulated in the financial sector at the expense of the productive sectors. As was noted in the previous chapter the proliferation of lucrative financial instruments attracts capital away from productive activities detracting from the developmental imperative.

By 1973 no less than 10 merchant banks were in existence alongside discount houses, hire purchase banks and building societies (Jones, 1992a:190). In under two decades the financial sector in South Africa had transformed from an underdeveloped sector constrained by vestiges of colonial banking to an increasingly dynamic and sophisticated one. By the mid-1980s South Africa had more bank offices than leading European economies including France, the UK and Germany as measured in relation to GDP (Jones, 1992b:254). While the rapid transformation of the colonial banking system to a well-developed one was impressive, it was also a reflection of the entrenchment of the traditional sort of financialisation of the South African economy where money went into private investments in property, into commerce and domestically-oriented manufacturing. The IDC in creating the Accepting Bank for Industry (ABI) also aided the financialisation project and assisted the dominant commercial banks become larger and more influential. The establishment of discount houses further deepened financial services in South Africa ensuring that capital continued to circulate more and more within the financial sector.

As the commercial banks entered the merchant bank market in competition with unaffiliated merchant banks the latter opted to merge. In May 1969 IDC-affiliated Central Accepting Bank for Industry and another independent merchant bank City Merchant Bank joined forces to form a new bank called Central Accepting Bank (Senbank) (IDC, 1969:12). Management problems saw Anglo American abandon Union Acceptances which went on to merge with Syfrets (Jones, 1992c:154). In 1973 Nedbank swallowed up the merger. In the aftermath of the Soweto uprisings which generated nervousness among investors and distrust in merchant banks presented commercial banks with the opportunities to swallow them up (Jones, 2002c:170). By the mid-1970s all major commercial banks had their own merchant banks. The National Discount House of South Africa (NDHSA) and two major banks Standard Bank and Volkskas became shareholders in the holding company, Senbank. Senbank remained oriented towards long-term deposits which accounted for 63% of its total deposits in 1978 (*Financial Mail* 17.11.1978). It was the largest merchant bank by assets in the late 1970s followed by Union Acceptances as illustrated in Figure 14.

Figure 14. The Market Share by Assets of South African Merchant Banks, 2nd Quarter 1978



Source: Financial Mail

The IDC played its part in establishing merchant bank, the ABI, which served to promote industrial development and contribute to the growth of the banking system. Following an investigation into the needs of the financial services industry, the IDC facilitated the formation of the ABI in 1957 in which it became a shareholder with private sector players (IDC, 1958:12). IDC officials travelled to London to gain first-hand experience from Kleinwort & Sons and the Discount House of London. Part of the ABI's mission was to provide short-term finance and assist commercial businesses source domestically produced manufactures (Cartwright, 1971:27). It was formed to, among others, utilise accepting credit to fund the production and transport of manufactured products (Norval, 1962:104). The ABI continued to perform satisfactorily in the early 1960s and in 1963 it was listed on the Johannesburg Stock Exchange.

The creation of the National Discount House of South Africa (NDHSA) in June 1961 following shareholders' agreement as an off-shoot of the ABI discount activities was part of the IDC's contribution to deepening and diversifying financial services. In mid-1961 the IDC and other shareholders in the ABI agreed to split the bank's discounting division to form the NDHSA in partnership with foreign and domestic financial institutions (IDC, 1960:7). A discount house is a banking institution whose primary function is to purchase bills of exchange at a discount using call loans from the banks. The NDHSA was formed against the backdrop of the accumulation of excess short-term funds in the country. Although the deepening of the financial services contributed to liberating the country from the stranglehold of Britain, British capital was key as a source of expertise and capital in the establishment of South Africa's merchant banks and discount houses. The NDHSA was a joint venture with Gillet Brothers, a merchant bank based in London (IDC, 1962:8). According to Kell (1992:193), London discount houses constituted prototypes that South African peers imitated.

The ABI provided management services in the early stages of the NDHSA and along with Phillip Hill Acceptance Company and Central Finance Corporation, ABI gradually exited the secured call market. The NDHSA was a call deposit taking institution against bankers' acceptances, Treasury Bills plus short-term shares and a participant in the money market. In 1965 efforts by the Reserve Bank to curb credit extension by commercial banks were felt by both the NDHSA and ABI though their overall performance were not adversely affected (IDC, 1965:5). Until 1970 when a third discount house was licensed, South Africa only had two discount houses.[17] Derek Keys, who joined the IDC in 1965, became NDHSA Managing Director and the corporation also deployed its Deputy General Manager W Miller as its Chairman. Keys became an important figure in Afrikaner business circles and eventually politics. He chaired Gencor and was a board member of several other companies before becoming a government Minister in 1991 but left his position of Minister of Finance a few months after the first democratic elections in 1994.

The dominant instrument in the activities of discount houses was the banker's acceptance. 'A banker's acceptance is a bill of exchange drawn on and acceptable by a bank' (Falkena, Fourie and Kok, 1995:122). It is easily negotiable in mature secondary markets. In 1964 commercial banks established the negotiable certificate of deposit whose demand rose strongly into the 1970s as the market welcomed alternative methods of bank deposits and flexible interest rates (Kell, 1992:199). By the 1980s the discount houses in South Africa had transformed themselves into formidable institutions taking on other financial institutions in the bond and money markets in an increasingly sophisticated and powerful financial system.

3.4.2 The IDC and Afrikaner Financial Capital

Afrikaner capital was a major beneficiary of the development of the financial sector (Feinstein, 2005:177) with the IDC assuming the role of an important facilitator and partner. Shareholders of the ABI including the IDC opted to merge the ABI with Central Accepting Bank, an offspring of Bonuskor, itself an extension of SANLAM to create a larger merchant bank (IDC, 1966:6) thus cement the relationship between the IDC and Afrikaner capital. The merger gave birth to Central Accepting Bank for Industry (Senab). Commercial banks displayed lack of interest in participating in the merchant bank sphere until the late 1960s when they began to create their own merchant banks.

The 1940s was a period of rapid expansion of South Africa's agriculture which was dominated by Afrikaner farmers. They reaped large profits which found their way into Afrikaner financial institutions. As argued earlier, the IDC was important in the development of the financial sector in the post-world war era and was catalytic in the rise of Afrikaner financial capital. From a negligible share of financial sector's turnover in 1948/9 Afrikaner capital accounted for 25% of the sector in the mid-1970s. Dormant capital from agriculture was central to this phenomenon (O'Meara, 1983). By the late 1950s insurance companies and pension funds had also amassed massive savings and further savings from the general public flowed into building societies and bonds that could have been invested in company stocks or the real economy (Dickman, 1973:374). This is further indication of the location of the pools of idle savings that were not leveraged to raise the rate of fixed investment especially in industry.

3.4.3 The Formation and Failure of the Industrial Finance Corporation

The IDC continued to contribute to the proliferation of financial institutions and instruments that was underway in the 1950s and 1960s. Led by van Eck, the IDC engaged the Reserve Bank under its Governor M H de Kock in consultation with the state to create the Industrial Finance Corporation (IFC) with an initial capital of £5 million. Such engagements culminated in the registration of the IFC in July 1957 created to augment rather than replace the IDC. The IDC and the Reserve Bank were public sector minority shareholders each holding 18% stake with commercial banks, insurance companies, mining companies and other investment companies holding the rest (IDC, 1957:8). The IDC was entrusted with the management of the IFC for a fee.

The creation of the IFC was viewed as part of the solution to heightened demand for industrial finance in the context of the rapid industrialisation of the South African economy. The IFC was meant to fill the void left by the NFC in the provision of long-term loans.[18] According to the Minister of Finance J F T Naude, the IFC was 'intended to cater for the financing of expansion and new enterprises which are too large for single institutions or even a group of institutions.'[19] The £50 000 minimum requirement per project funded was said to be a reflection of its focus on larger projects (IDC, 1959:12) excluding applications for small firms in the process, although £50 000 was not a particularly high figure at the time.

The rapid growth of the financial sector and the availability of numerous sources of finance saw the IFC fail to take off. The continued lack of demand for its resources reflected the multiplicity of sources of finance in South Africa in the mid-1960s (IDC, 1963). The slow start of the IFC was initially ascribed to slowing economic growth in its first year (IDC, 1958:12). As a source of venture capital, the IFC continued to attract little interest from clients in its second year. In the early 1960s the IFC was described as dormant despite having sufficient cash resources when called upon to finance projects in the future (IDC, 1961:7). The fact that the capital set aside for investment especially in the IFC's early years did not translate into fixed investment points to an additional pool of idle capital that was not mobilised. It does appear that the IFC duplicated the services of the IDC and offered no compelling reasons to investors to use its services.

The IFC ended up reliant on large projects rerouted to it by the IDC. The aluminium smelter company Alusaf and fertiliser producer Fedmis are two prime examples. The company failed to play the developmental role that it was established to play and did not accomplish much (*Finance Week*, 22-28.05.1980). In 1979 IDC trusts Industrial Selections and National Selections took over the company compensating shareholders in cash or in stock of the two trusts. Its failure served more as a distraction for a period but did not represent a major blow to the overall developmental thrust.

3.4.4 Financing the IDC through the Markets

The mythology around IDC funding suggests that the corporation has been a recipient of an annual budgetary allocation from the government to fund its financing activities. What is not widely recognised is that the IDC was very profitable and relied on its profits, parliamentary allocations primarily for large state-initiated projects and debt to finance its clients. The IDC did not only depend on the state for its financing but like many financial institutions it borrowed significantly from other sources of funding. This made the corporation's balance sheet a matter that met lenders' expectations and encouraged the IDC to seek profitable projects rather than create industries with long-term prospects that would not necessarily yield profits in the short to medium term.[20] As was shown in Chapter Two, generally development banks benefited from easy access to inexpensive long-term capital which enabled them to extend concessionary lending to their clients.

The state authorised the IDC to raise debt of up to 75% of its issued capital without requiring permission of the state as its shareholder. Apart from special projects like SASOL, FOSKOR and SOEKOR and programmes like industrial decentralisation, state finance ceased to flow into IDC coffers in 1954, something that the corporation routinely reminded readers of its publications. After 1954 however state funding was intermittent and contingent upon government-initiated projects and programmes under the corporation's management. The IDC also managed to build up substantial reserves over the years which enhanced its borrowing capabilities from the public and private sectors domestically and from foreign funders. Such funds alongside repayments, dividends and interest earned formed the foundation of its financing programmes including projects initiated in-house and funding requests from clients who approached the corporation. The dependence on internally-generated income to fund clients without capital injection from the state meant that the IDC would remain a less significant funder relative to commercial banks. High risk projects with long gestation periods like SASOL could not be initiated or funded by the IDC. The IDC could only be a conduit for funding of state-sponsored projects.

By the early 1960s the IDC's own forecasts revealed that the demand for its finance outstripped its available resources (IDC, 1961:7). Although the corporation was registering record profits, it could not meet the financial needs of a rapidly expanding manufacturing sector from internally-generated income alone. The IDC was therefore impelled to seek alternative sources of finance to augment its increasingly insufficient pool of funds. This in spite of a surge in loan instalments and redeeming of preference shares excluding those from SASOL and FOSKOR. Equivalent funds from the two companies totalled R43 million by 1962 since their formation (IDC, 1962:4). Viewed differently, such funds were roughly 26 times the value of the IDC's yearly Section 3 (b) investments. In the context of constrained global financial markets which also extended to South Africa, the IDC opted to seek finance from the USA which saw the corporation securing US$5 million from the First City Bank of New York.

Much of the borrowing of the IDC was for specific projects but not to the exclusion of financing of its 'other industries'. In 1952 the IDC borrowed from the Public Debt Commissioners £1 million to finance the formation of Sasolburg, through a company established to build and manage a town to house SASOL employees. In this regard, as it did in the establishment of Rosslyn, the IDC went beyond the traditional functions of a developmental bank in support of a strategic project. The IDC also took a £2 million loan from the cash-flush NFC against a seven-year debenture to fund SASOL.[21] The corporation also raised debt finance off-shore of $8.5 million from Chase Manhattan in July 1959 meant for the normal business of the IDC i.e. section 3 (b) of the IDC Act. Table 3 below shows the medium and long-term loans the corporation raised by 1957.

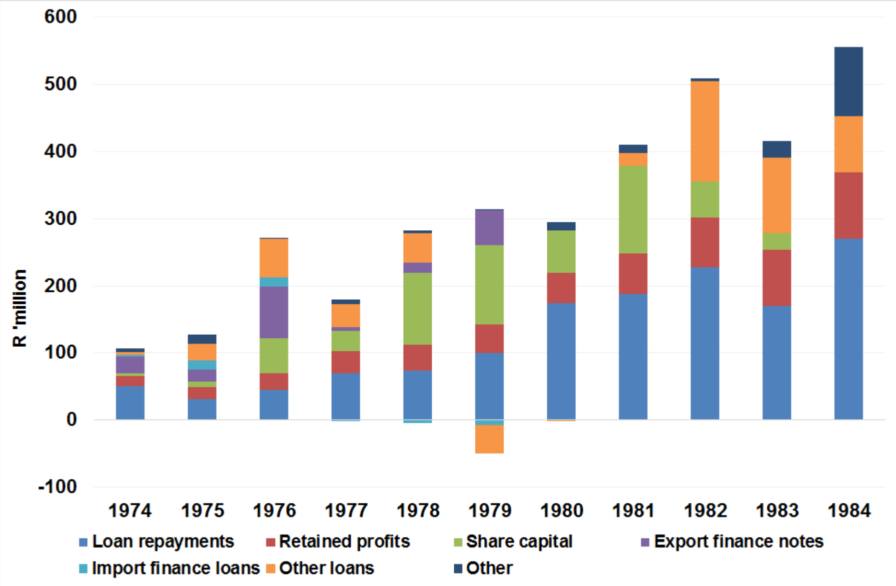
Table 3. Medium-term and long-term loans raised by the IDC by 1957

Source	Amount	Purpose	Repayable
Union Government	£736 973	FOSKOR	From levy received from FOSKOR on phosphate produced and sold
Union Government	£1 000 000	SASOL	March 1969
Public Debt Commissioners	£1 000 000	SASOL	July 1967
National Finance Corporation	£4 000 000	SASOL	October 1962 – March 1963
Public Debt Commissioners	£3 000 000	SASOL	December 1971
Total			**£9 736 973**

Source: IDC, 1957

By the mid-1970s SASOL had become the single largest source of dividends contributing immensely to the IDC's improving profitability. Such funds were used to support industrial decentralisation, another key government project financed through the IDC. Due to the changes made to this arrangement in 1979 when SASOL II was being created, the IDC made a request to the state in 1985 to reinstate the arrangement permitting it to use the funds for all its industrial financing and not only for decentralisation which was benefiting from generous funding from the state through the IDC.[22] Profits were an important and consistent source of funds for disbursement by the corporation as shown in Figure 15 while loan repayments were the single largest contributor with the exception of 1978 and 1979. Share capital representing government injection into the corporation's coffers was significant from the mid-1970s and early 1980s due to the financing needs of capital-hungry SASOL II and III.

Figure 15. Sources of IDC inancing 1974-1984



Source: IDC, (various years)

When 'special projects' no longer required funding from the state for various reasons the IDC increasingly relied on internally generated income and outside borrowings to finance its clients. Industrial decentralisation was the last major special project of the state which faded in the late 1980s when it became clear that apartheid's demise was imminent. Although the IDC continued to manage state-funded projects, their diminution in size and significance implied lower inflow of finance from the state to the corporation's coffers and concomitant rising dependence on internally generated income. The IDC (1970:5) declared in its Annual Report that 'The most important source of capital for normal functions of the IDC are the regular scheduled repayments of loans, redemption of preference shares, the sale of ordinary shares, the sale of ordinary shares, and profits.' In the first three decades of the corporation's existence the total amount from these sources was R243 million from financing of projects under Section 3(b) of the IDC Act alone. In 1969/70 alone redemptions and repayments totalling R36.9 million flowed into the IDC's coffers.

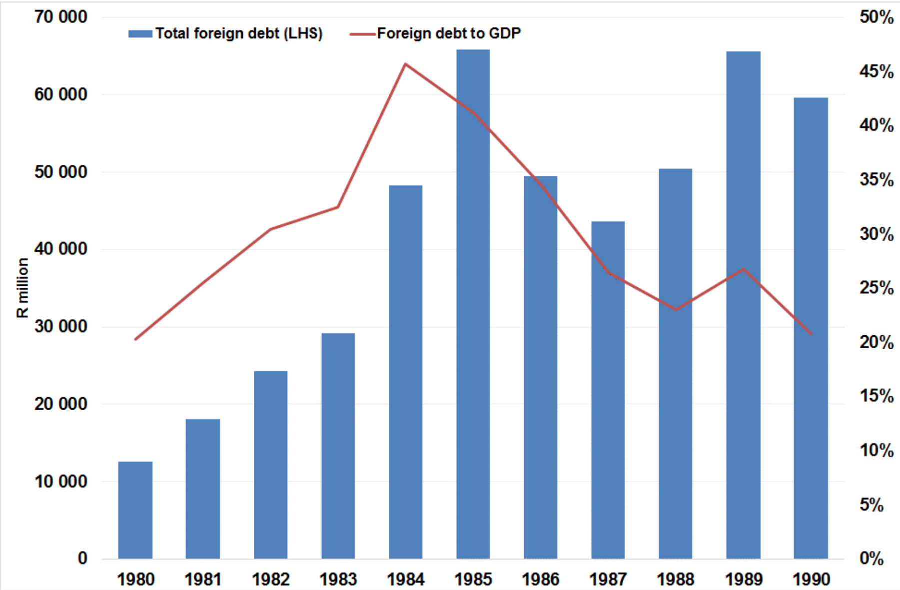
The IDC mobilised domestic savings through capital markets as a supplement to its budget to plough into productive sectors. In issuing debt the IDC preferred to go directly to lending institutions as part of relationship building and keeping the corporation up to date with developments in the markets (*Finance Week*, 22-28.05.1980). The relationships as a result yielded important partnerships for the IDC with the same institutions in financing projects. In 1961 the corporation made its maiden issue of local registered loan stock of R 3 million (IDC, 1962:4) followed in 1963 by R7.5 million loan floated to the public which was also oversubscribed (IDC, 1963). In February 1964 three new loans were floated on Johannesburg capital markets (IDC, 1964). The IDC's seventh loan stock issued at 6.5% redeemable in 1991 (IDC, 1966:24) was followed by another R4 million stock issue which was fully subscribed on its first day revealing its attractiveness to institutional investors. Like all IDC loan stock, it was listed on the Johannesburg Stock Exchange (JSE) (IDC, 1967). In 1970 IDC loan stock issues totalled R43 million. The capital raised was long-term in nature and consistent with many development banks' model of raising capital.

Against the background of an underdeveloped capital goods industry South African investment was dependent on imported technology. The IDC (1966:10) entered into an agreement for the extension of foreign credit with French, Italian and Spanish banks for acquiring capital goods from the three countries by South African companies. The IDC acted as an intermediary providing finance to the local buyer of capital goods from the European countries while the supplier received their payment from their domestic bank. The provision of this facility was on condition equivalent goods were not produced in South Africa.

In the aftermath of the 1976 riots which shattered foreign investor belief in South Africa, the IDC refrained from borrowing in the local markets and instead raised finance from overseas. However, South African borrowers overseas could raise debt at much less favourable rates than previously. In the mid-1970s the corporation went off-shore to raise R61 million in funding to meet rising demand for larger loans domestically which was attributed to growing capital intensity (IDC, 1975). In 1981 the IDC had outstanding foreign loans in its books totalling R200 million and R166 million in domestic debt (de Waal, 1982). State guarantee as a pre-requisite and forward cover on its long-term debt made it possible for the corporation to access loans (*Euromoney* June 1984).

By the mid-1980s when financial sanctions against South Africa appeared increasingly likely the IDC expressed confidence that it had borrowed sufficiently from foreign markets and would not be adversely affected. IDC borrowing offshore was part of a rising appetite for foreign debt displayed by both South African private and public sector institutions which climaxed in the debt crisis of August 1985 (Padayachee, 1991). South African banks, in response to the Reserve Bank pushing interest rates to 25% in 1984, went offshore to raise short-term loans to support their local credit extension activities largely unchecked by the authorities (Hirsch, 1989:273). To help cushion the impact of the exchange rate depreciation and unsatisfactory levels of profitability, the IDC deviated from its normal lending patterns offering clients preferential shares which comprised 39% of its financing in 1985/6.

Figure 16. South African Total Foreign Debt and as a Share of GDP, 1980-1990



Source: SARB

In 1962 the IDC created Industrial Selections Limited designed to raise funds from the general public (white) who, in return, would become shareholders of various companies in which the IDC held a stake through this vehicle (IDC, 1962:7). National Selections was formed seven years later to play a similar role but focusing on IDC investment in the beneficiation of minerals. As listed entities on the JSE Industrial Selections and National Selections had in the early 1980s approximately 3 500 shareholders among them insurance companies and pension funds (de Waal, 1982). The two trusts, as shown in Table 4, invested in listed companies with strong IDC connections as its subsidiaries or recipients of the corporation's funding. In the 1970s stockholders in the two trusts earned handsome returns. In this regard the IDC managed to redirect savings from the general public to investment in the real economy in a wide array of sectors of the economy. This was an ideal example of how savings could be utilised to accelerate fixed investment but overall they were not fully utilised.

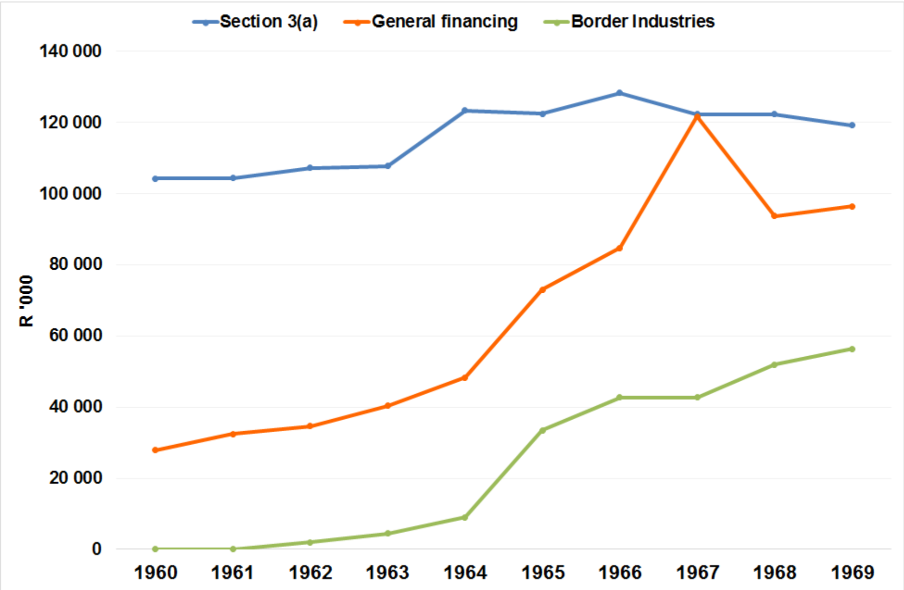
Table 4. IDC's Listed Shareholding, 1980

Industrial Selections		**National Selections**		**IDC**	
Gubb & Inggs	17.5%			Bankorp	7.2%
Impala	5.0%	Impala	5.0%	SASOL	30.0%
Palabora	1.1%	Palabora	2.8%		
Safmarine	4.2%	Safmarine	4.9%	Safmarine	40.3%
Sentrachem	1.7%	Sentrachem	2.5%	Sentrachem	12.5%
C G Smith Investments	7.6%	C G Smith Investments	3.9%	C G Smith Investments	1.5%

Source: Finance Week

Financing through the trusts was necessary as it underpinned the corporation's 'general financing' which had been growing phenomenally in the 1960s (IDC, 1967). This growth was much faster than government-funded projects including SASOL and 'border industries'. Not only did the 'general financing' (under section 3(b) of the IDC Act) attract the bulk of IDC finance but was the cash cow of the corporation for the 1960s. In contrast the investment under section 3(a) which comprised SASOL, FOSKOR and Fine Wool (until 1965 when it was sold to Feltex in return for Feltex shares) grew slowly in the 1960s. By implication in the 1960s the state, through the IDC, was not focused on creating new industries or expanding SASOL and FOSKOR but on industrial decentralisation. The IDC instead focused on financing existing firms in their quest to expand capacity and upgrade their technologies which took priority.

Figure 17. IDC Investments by Category, 1960-1969



Source: IDC, (various years)

3.5 Conclusion

The financing of industrialisation in South Africa after the Second World War bore some resemblance to the experiences of developmental states in Asia. A significant part of IDC financing arm, by contrast, was undercapitalised, driven by the profit motive, and compelled by circumstances to rely on the market for capital. Despite the high demand for capital from the manufacturing sector, the state through agencies like the South African Reserve Bank, prioritised the adoption of orthodox monetary policies, weakening British influence in the financial sector, arresting inflation and deepening financial services. The banking system itself was loath to provide long-term investment capital and prioritised consumer credit and mortgages. The market for long-term capital remained stunted attributable to non-interventionist approach adopted by the government despite the presence of the IDC.

A massive pool of savings under the stewardship building societies, although offering attractive interest rates to savers, supported primarily property development. Other large concentrations of savings including those in the hands of farmers, insurance companies and pensions funds failed to support fixed investment in the manufacturing sector but went instead to property and equity markets. The failure to intervene by the state to ensure that idle savings in the economy were leveraged to grow fixed investment, saw savings remain hoarded for extended periods of time. Permitting the market to operate unfettered in this sphere also saw savings flow into a myriad of lucrative short-term instruments and related institutions which yielded outcomes that were not developmental. In the South African case it was shown that the presence of savings is not a sufficient condition for investment as mainstream economics would have us believe.

Lack of state policy leadership to pool these savings together for investment similar to the Japanese model constituted a detraction to the developmental impulse. By contrast to developmental states where massive amounts of savings fell under the direct control of the state which it used to promote the growth and diversification of industry, the South African state assumed the role of a regulator leaving the 'market' to allocate capital largely to mortgages and short-term lucrative channels like credit card debt, overdrafts and instalment credit. Little has changed to this day where banks continue to market personal loans bearing high rates of interests yielding large short-term profits.

The IDC emerged during the Second World War with legislative support to be a catalyst of industrial development in South Africa. Although South Africa had a large enough banking system it did not sufficiently minister to the needs of industrial enterprises as a catalyst to the take-off of industrialisation as envisioned by the state at the time. The IDC in the early 1940s was given legislative authority which it dispensed with minimal state interference. The IDC was created against the backdrop of a banking system that was conservative, unsophisticated and underdeveloped. The commercial banking sector was closely linked to its British origins avoiding long-term loans and failed to contribute meaningfully to the development of a diversified and sophisticated banking system necessary to support industrialisation. Until the late 1950s the Reserve Bank was rendered uninfluential by high levels of foreign capital inflows, cash-flush mining houses plus the paucity of both capital and money markets. The state, through the Reserve Bank, stepped in to establish in 1949 the NFC to mop up massive dormant funds and contribute to the growth of the banking system that was national in character.

Armed with legislative mandate, the IDC managed its finances with great diligence disbursing catalytic finance to deserving yet less risky ventures in line with its mandate of supporting firms that display good prospects for future profitability. The creation of the IFC by the IDC and the Reserve Bank ended in failure but the formation of IDC-sponsored ABI meant to serve the needs of manufacturers in addition to supporting the growth of the domestic banking system was a success. The ties between the IDC and Afrikaner capital were strongest in the financial sector and the corporation contributed to fortifying Afrikaner financial institutions. IDC's support for Afrikaner manufacturing was undermined limited number of firms owned by Afrikaans speakers. The foundations for a more financialised economy that we are witnessing today were laid in the 1950s with the emergence of merchant banks, discount houses and the steady rise of the multiplicity of financial instruments that attracted large volumes of capital because they offered short-term lucrative returns. The structure of the financial sector characterised by the proliferation of such instruments tends to militate against investment in plant and equipment. The IDC also contributed to the increased circulation of capital within the financial sector as an owner and player in various branches of the diversifying financial sector.

The IDC relied on a number of sources for finance that it ploughed into the productive sectors of the economy. The state was the primary source of finance for the IDC when the corporation was established and later on for large projects that were managed by the corporation on behalf of the state. Perhaps not widely appreciated was the IDC's dependence on borrowing from domestic and foreign markets. A lesser-known fact was that the IDC generated sufficient income internally through loan repayments, share redemption and profits among others to cover a large portion of its funding disbursements needs. The IDC also relied on foreign sources of debt to finance its activities in the lead up to the debt crisis of 1985. Reliance on private sources of capital encouraged the corporation to fund projects that had 'economic merit' constraining it from becoming a truly developmental financial institution supporting large projects in need of patient capital as envisioned by its founding fathers.

Once the Reserve Bank gained control of credit extension, keeping inflation at bay became the priority of monetary policy. Industrial development was also subordinated to this logic. The financial sector flourished in the 1970s and 1980s and as an outcome of state intervention, became national in ownership character. The period also witnessed the diminution of investment as a percentage of private sector credit extension and the concomitant rise of leasing and instalment sale which reinforced the short-term orientation of the banking system.

The next two chapters cover two industries that the IDC was a key part of their emergence in partnership with the state constituting a key part of the developmental impulse from the mid-1940s to the mid-1970s. Chapter Four considers the emergence of a textile industry which spearheaded the original Industrial Revolution and industrialisation episodes among late industrialisers. Although the state was initially reluctant to support the industry's emergence, pressure from industrial capital saw the state delegate its development to the incipient IDC. It constituted the largest beneficiary of IDC financing in the early decades of the corporation's existence and continued to occupy an important position among IDC's clientele until the close of the 1980s. The developmental theme typified by injection of shareholder capital from the IDC, provision of import tariff protection by the state and generally supportive industrial policy helped speed up the growth of the textile industry, a latecomer to industrialisation in South Africa.

In Chapter Five the rise of the chemical industry on the back of the SASOL project in the second half of the twentieth century provides an ideal industry to test the validity of the developmental state hypothesis in South Africa. The state, the IDC and SASOL were key actors that drove the project through its developmental phase which was later overshadowed by politically-inspired massive expansion of the oil-from-coal project from the mid-1970s to the early 1980s. Diversification and rapid expansion of the chemical industry spearheaded by the state resulted from the pursuit of developmentalism during this period. The IDC was drawn into the SASOL II and III projects to help the state through facilitation and arranging for financial models. In time, however, the state lost sight of its developmental imperatives preoccupied with responses to sanctions and threats of military action and actual attacks mounted from neighbouring countries.

The apartheid theme in the industrialisation of South Africa manifests itself in the chapter on industrial decentralisation programme. The IDC was the key player in facilitating the financing of the programme. Although initially subordinated to the developmental imperatives, industrial decentralisation from the late 1960s became a key focus of state policy and a distraction from the faltering developmental thrust. As the militarisation of South African society permeated the economy as part of the defence of apartheid, the IDC's relationship with the state became more intimate and warrants closer scrutiny. The industrial policy was subordinated to the defence of apartheid and unlike in other economies the defence project could not be aided to transform successfully to the civilian market once it was no longer a priority when the demise of apartheid was being negotiated. Similar to developmental states, albeit late, South Africa made concerted endeavours to transform its import substitution programme into an export-oriented one. The underlying reasons behind its failure, in particular limited financial support over an extended period, form a major part of the penultimate chapter. The conclusion brings together the overall key findings of the study.

Chapter Four

The IDC, the State and the Rise of the Textile Industry: Developmentalism from the Bottom

4.1 Introduction

The textile industry spearheaded the Industrial Revolution in 18th century England. The industry was critical in the early stages of industrialisation of many countries in Europe as the phenomenon spread across the continent, North America, Japan and across the rest of the globe. After the Second World War along with the garment industry, the textile industry was at the head of the industrialisation of East Asian Newly Industrialising Economies. The clothing and textile industries are widely believed to have pioneered globalisation in the 1970s and 1980s as production shifted from the West to low cost sites in developing countries while design and marketing remained anchored in developed countries. Yet in South Africa the textile industry was initially left out of the import substitution industrialisation programme adopted in the mid-1920s. It is in this light that we examine, through the prism of the IDC, the belated development of the textile industry in South Africa after the end of the Second World War to the early 1990s.

Having examined key developments in the financial sector which constituted the backdrop against which the IDC was formed and functioned, the present chapter is devoted to the analysis of the activities of the corporation as they relate to the emergence of the South African textile industry. The state, in reaction to mounting requests for finance and tariff protection from various quarters, delegated to the IDC the development of the textile industry even before the corporation opened its doors. Two dominant themes that will be examined closely are, first, the part played by the IDC that transcended developmental banking models elsewhere as it used its proximity to both the state and industry to influence state policy direction. Secondly, the financing instruments employed by the IDC in supporting the emergence and expansion of the textile industry and how they compared with successful models among late industrialisers. The textile industry in South Africa was decimated in the aftermath of the trade liberalisation embarked upon by the post-apartheid government in the mid-1990s. Preceding the conclusion will be an attempt to isolate the root causes of the industry decline including those that could be traced to its foundation.

The initial area of contestation was the level of protection necessary to develop a large enough textile industry to substitute imports. The creation of the IDC served to provide much-needed capital and policy framework for the industry to develop and transform. Protection will also be analysed as it assumed centrality in the industry's take-off in South Africa in the second half of the twentieth century. The performance of the IDC as an agency of the state and an influencer of policy particularly protection will be outlined and examined in detail.

The chapter begins by briefly analysing the origins of the South African textile industry in the late 1930s before shifting attention to the growth and development of a woollen textile industry. It also examines the emergence of the cotton textiles segment of the industry beginning in the 1940s. The part played by the state beginning in the 1940s will come under the spotlight with a particular focus on the Board of Trade and Industries and the Department of Commerce and Industries alongside the Department of Economic Affairs setting the scene in which the financing activities of the IDC will analysed. The chapter traces the relationship between industry players and the state in shaping the trajectory of the textile industry in its formative years and beyond.

4.2 The Delayed Rise of the Textile Industry in South Africa

Despite having adopted import substitution the Pact government overlooked the textile industry as a beneficiary of protective tariffs. In the late 1930s South Africa was regarded as 'by far the lowest tariff country in the world as far as wool piece goods are concerned'[23]. The absence of protective tariffs went against the experience of many successful latecomers to industrialisation. Unsurprisingly the textile industry remained stunted only to be rescued by the conditions imposed by the Second World War and subsequent restrictions on imports after the war. Pressure applied by aspirant textile manufacturers and related bodies seeking protection and support were repulsed by the United Party government that remained partly committed to the free trade ideology.

The lead up to the formation of the IDC saw the state assign to the corporation the responsibility to develop the textile industry in South Africa. The IDC laid a solid foundation for the woollen and cotton textile industry during the war preparing the industry for its rapid expansion in the decades that followed. The defeat the UP at the 1948 polls of marked an important milestone in the policy approach of the state to the textile industry. The state and its agency for trade policy, the Board of Trade and Industries, steadily altered their approach to providing protection for the textile industry. The remarkable catch up with industries that received protection from the mid-1920s took a little over two decades, peaking in the mid-1970s.

Undoubtedly the rise of the textile industry in South Africa was a direct result of protection afforded to the industry, albeit delayed. Like many industries in the manufacturing sector the textile industry could not be weaned from protective tariffs nor transformed into an export-oriented industry. Some of the seeds of the industry's decline in the last two decades can be traced to the foundation when import substitution was viewed as an end in itself. By contrast, East Asian states expected their industries to reciprocate the benefits derived from state support through meeting stiff targets including transitioning to export-orientation. Moreover, as argued in Chapter Eight the promotion of exports in South Africa as part of government policy only became a consideration in the early 1970s. For the most part the anti-export bias produced by high rates of import tariffs was not matched by any significant and sustained subsidies. High levels of protection tend to generate an anti-export bias which as the Steenkamp (1983:33) Commission argued, was the case with South African clothing and textile industries. Moreover, protection tends to make the domestic market more profitable rendering the export market less attractive. With the exception of the General Export Incentive Scheme (GEIS) which was short-lived, export subsidies made available to manufacturers proved insufficient to make exporting attractive.

4.2.1 The Early Years

The first textile factory in South Africa was established towards the end of the 19th century to manufacture blankets. When the Second World War broke out in 1939 South Africa had 43 textile firms with about 4 700 people in their employ. The textile industry was largely confined to the production of woollen products, in particular blankets, and was not yet geared to supplying the garment industry with inputs. Army blankets and sheeting (near-white material used commonly as curtains) were key drivers of demand for textiles prior to and during the war.

The developmental impulse observed by Freund (2019) during the war years until the removal from power of the Smuts' United Party in 1948 only made a significant impact on the trajectory of the textile industry in South Africa aided in large part by the IDC. With proponents of free trade rendered less influential during the war, domestic production of previously imported products took precedence because many products were no longer readily available from world markets. The domestic textile industry benefited immensely from the disruption to world trade and the demands of the war.

The only tariff protection provided for the textile industry prior to the Second World War was for blanket manufacturing which had come to typify the textile industry during the period. Tariffs in this pioneering segment of the industry were particularly high, peaking at 312% (Hirsch, 1979:13). South Africa was dependent on imports to satisfy its demand for textile articles.

Britain was the principal source of cotton and woollen piece goods while Japan and the US supplied the rayon and synthetic piece goods, the smaller share of textile imports. Moreover, South Africa was among the largest markets for British textiles in 1946 and 1947 and it remained the United Kingdom's biggest market for fabrics and cotton yarns (Kilvington, 1996). From buying only 2.8% of its inputs from the local textile industry in the mid-1940s, the garment industry had raised the figure to 18.9% ten years later (Derived from Barker, 1962:446). As Barker (1962:435) noted the clothing industry in its early years had previously depended entirely on imported textile inputs because the textile industry did not produce textile piece goods.

The production of woollen fabrics in South Africa was virtually non-existent prior to 1950 (Steenkamp, 1983:68) despite the country being the second largest producer of raw wool. During the interwar years South Africa continued to rely on imported textiles largely from its former imperial power Great Britain. In 1940 South Africa imported a total of £2 095 162 worth of woollen piece goods, over half of which originated from the UK.[24] Japan and Italy were the next biggest sources of such imports. Imports of textiles also fell precipitously from 93.2% in the mid-1940s to 65.9% of the South African market by the mid-1950s (Hirsch, 1979:13) confirming that import substitution in the industry was well on track.

The emergence of the textile industry had less to do with direct state intervention than a result of indirect state action that shielded the industry from foreign competition. After the war protection was not forthcoming but the pent-up demand globally and the decimation of production capacity by the war in key global suppliers of textiles Japan and Germany permitted the South African textile industry to grow apace aided by limited import competition (Steenkamp, 1983). Tariffs for the rest of the textile industry remained of a 'fiscal' nature implying that they were about 10% or lower.

4.2.2 Protection from the Bottom, Financial Support and the Catch-up Process

Protection of infant industries in late industrialisers is widely considered an essential tool of industrial policy because their infant industries cannot in general compete with imports. In South Africa the mere fact that the textile industry failed to emerge prior to receiving some form of protection is indicative of how critical protection was to the industry's emergence. As will be shown later, protection was of vital importance to the industry's continued survival in whose absence it faced potential collapse several decades after its take-off.

Growing interest in producing woollen textile articles and knitted products in South Africa on the part of foreign textile manufacturers and local players, contributed to the stimulation of interest in policy circles to investigate the possibility of creating a woollen textile industry.[25] Increasingly the textile industry was viewed as the last industry where import substitution could still be pursued.[26] The state identified Australia, the biggest wool producer worldwide, as an important model for textile production that South Africa could consider emulating. In 1937 a private company called Transeuropean Exploration and a textile industry expert mooted Australia to the state as an ideal-type wool-producing country with a large domestic woollen textile articles market importing minimal amounts. In the light of woollen articles imports totalling £2.3 million in 1937 and the long-term threats posed by the emergent artificial fibre industry to the wool industry in South Africa, the company called for state support to construct a woollen textile industry.[27] A textile expert who was part of 'Australian primary producers goodwill delegates' to South Africa 'expressed surprise at SA's [South Africa's] backwardness in respect of secondary industry particularly in the woollen textile line'.[28] Yet the Board of Trade and Industries rejected the proposal.

In 1938 the Minister of External Affairs J B M Hertzog wrote to his Australian peer W M Hughes and the Prime Minister requesting information pertaining to support measures that the Australian government provided to its woollen textile industry when it was created.[29] Even after receiving the report which detailed the emergence of the industry in Australia the South African government exhibited minimal enthusiasm towards developing its own woollen textile industry. Protection of the woollen products in Australia was substantially higher (30-45%) than that of South Africa which stood at 5%. Subsidies were also offered particularly in the early stages of the Australian woollen textile industry's development, over and above protection against substitutes.[30]

Requests for import tariffs prior to 1948 were routinely repulsed by the Board and Trade and Industries. Prior to the Second World War the South African government was most reluctant to provide protection for the textile industry beyond blankets preferring instead to let market forces determine the direction and pace of its growth and development. Under pressure from aspirant textile manufacturers, the state opted to assign the responsibility to develop the industry to the IDC. However, the corporation was also expected to fund only businesses that displayed 'economic merit' as required in the corporation's founding Act.

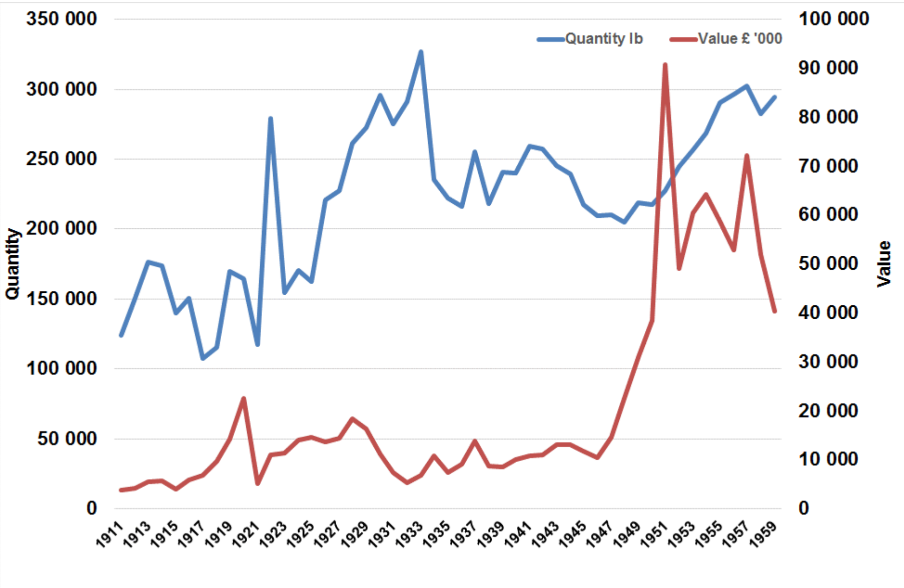
South Africa has been among the top exporters of wool in the world for well over a century. An in-depth study into the potential for production of woollen products in South Africa was made available to the IDC by the Acting Secretary of the Department of Agriculture and

Forestry. Among its conclusions was that the modest size of the South African market precluded the successful production of woollen products.[31] The Department of Agriculture sponsored S G Shuttleworth to study at the Procter International Research Laboratory in London. His area of focus was the potential for developing a woollen textile industry in South Africa. In July 1939 in a report to the Department of Commerce and Industries he concluded that,

> It is out of question for South Africa to compete with countries having well-established industry, prompt machinery service, technical facilities, a plentiful supply of highly skilled labour, and low standards of living, unless there is protection, especially in these days of subsidised export.[32]

Wool exports remained by far the dominant export product. In the early 1950s South Africa exported in excess of 90% of wool produced in the country (*South African Textiles* March 1953).

Figure 18. South African Wool Sold 1911-1959



Source: Bureau of Census and Statistics, 1960

Correspondence between state officials in the late 1930s and early 1940s revealed general unwillingness on the part of the state to offer tariff protection for woollen textiles or financial support. The BTI, whose mandate was to determine the level of protection for South African industries, responded to queries from potential investors that it was willing to consider providing tariff protection but would do so if the industry was large enough or once the factory begins production. The memorandum presented to the IDC board in October 1944 formed the basis of the debate argued that the wool available in South Africa was of a good grade and that a domestic wool manufacturing could be established on these grounds.[33]

Pressure from local entrepreneurs and industry bodies was increasingly applied on the Department of Commerce and Industries to provide support for the woollen textile industry. The town of Bloemfontein saw itself as the future hub of the woollen textile industry due to its strategic location in central South Africa and 'in the heart of a great wool-producing area, which placed the necessary raw material at its very door.'[34] On 31 October 1940 the Town Council formed a delegation consisting of four erstwhile mayors of the town to re-engage the state to help create the textile industry in Bloemfontein. The delegation was also mandated to meet with the newly-formed IDC to pursue the matter with the corporation.

At the annual congress of the South African Agricultural Union held in October 1940 in Bloemfontein, a unanimous resolution was passed urging the state to support the creation of the woollen textile industry and provide financial support to industrialists.[35] The Union also urged the IDC to investigate the establishment of the woollen textile industry. In response to the Agricultural Union's letter conveying the resolution to the Department of Commerce and Industries, the Secretary for Commerce and Industries C V Meyer argued that 'it has not been the policy of Government to undertake the establishment of industries or the erection of factories in South Africa. That has been left entirely to the initiative of private enterprise.'[36] Instead he advised the South African Agricultural Union to engage the IDC on the issue.

The outbreak of the Second World War introduced a new dimension in the formulation of industrial policy in general and for the textile industry in particular. The hesitation that characterised the 1930s in relation to constructing tariff walls for the textile industry gave way to strong support due to shortages wrought by the war coupled with the spike in demand particularly for army blankets. The paucity of woollen products due to the disruption of world trade meant that the need to produce the products domestically became more pressing. The period after the cessation of hostilities also marked a turning point in the development of the textile industry in South Africa as it expanded rapidly.

In the wake of the rise to power of the National Party in 1948 the BTI softened its stance to requests for the imposition of protective import tariffs for the textile industry. The textile industry, like most of the manufacturing sector, had been protected indirectly by import controls which were introduced in 1948/9 to remedy post-war balance of payments crisis (Lumby, 1983:223). In addition to the introduction of exchange control in 1948 that decreased imports from countries outside of the sterling zone to half of those for 1947[37], consensus was finally reached by 1950 that the textile industry needed to be developed following the BTI's investigation into the textile industry.[38] The BTI, chaired by A J Norval, concluded in July 1950 that 'If the textile industry is to survive and develop further it is necessary to give it adequate protection against low wage countries.'[39] The South African textile market, the board argued, was one of few in the world that did not impose import quotas while affording its textile industry only moderate protection. The final recommendation of the BTI was the raising of maximum protective duties for a wide range of textiles and textile articles to 25% and 50% while others received protection defined in terms of a formula duty. Unlike before when the board would require the industry requesting protection to start producing competitive products it made an about turn arguing that 'If protection of an infant industry is to have any sense at all, it cannot wait until that industry is capable of supplying all, of a country's requirements. It therefore necessarily entails a cost to the community.'[40]

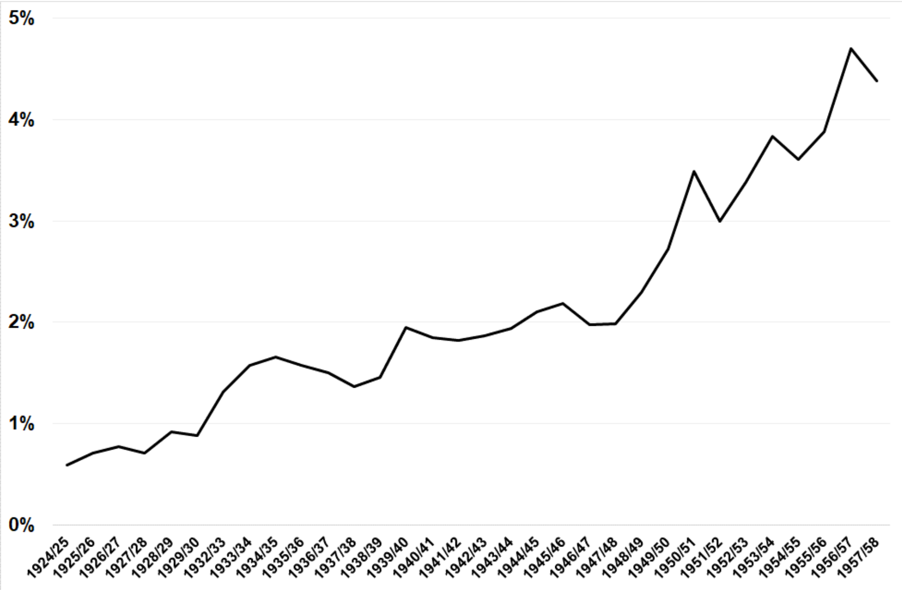
Following the removal of import controls in 1951/2, segments of the textile industry could not withstand foreign competition. Within three years five cotton textiles manufacturing firms shut their doors and the South African Cotton Manufacturers Association requested a meeting with the Minister of Economic Affairs Albert van Rhyn.[41] The BTI after weighing many competing interests concluded in 1951 that the South African textile industry required tariff protection, a stance that received support from the government. The Board was careful not to raise the tariffs too high to fuel inflation or undermine the competitiveness of the garment industry through higher input costs among others.[42] The BTI was however convinced that the pressure exerted on the textile industry was only temporary. The surge in imports was ascribed to among others replenishing low stocks by importers following import controls of the late 1940s, the imposition of exchange controls and the fall in textile prices globally.[43] The Board however agreed to reactivate suspended import duties of worsted textile articles and raised the levels to a maximum of 20%. As we shall see below, the industry was in fact expanding rapidly in any case.

Although the shift to developmentalism under National Party rule was palpable the pendulum had not swung fully. Support for the textile industry grew steadily with certain parts of the state fully behind it and others not. By the mid-1950s the incipient textile industry in South Africa had come under pressure from overseas competitors exacerbated by the phasing out of import controls. Lobbying of the BTI by industry bodies to impose protective duties on textile imports from countries including Japan, Hungary, Poland and India was intensified. While the Minister of Economic Affairs, Eric Louw, supported the provision of protective support, the authority to enact tariffs lay with the Minister of Finance, Nicolaas Havenga. In 1954 the textile industry expressed frustration with Havenga's indecision calling on him 'to climb off the fence on the side of protection' (*South African Textiles*, April 1954).

Special import duties imposed on Japanese textile imports at the close of 1953 managed to stem the inflow from the country.[44] By 1954 Hong Kong had become an important source of imports prompting the BTI to conclude that 'competition from Hong Kong constitutes a serious threat to the South African cotton textile industry.'[45] Indications were that the industry in South Africa could compete on an equal footing with imports from the Western world but could not do so against products from the East. The situation has barely altered to this day. Allegations of dumping in the South African market by other countries were made by textile industry players throughout much of the period. As import controls were steadily phased out by 1957, the textile industry was left exposed to foreign competition.

After the war the IDC, the British textile industry and finance contributed to the expansion of the South African cotton textile industry (Kilvington, 1996). The post-war period was characterised by the strong expansion of industries in the manufacturing sector and the textile industry was in the top three performers as measured by the rate of gross output growth among ten industries. The textile industry was thrust onto a new and higher growth plane aided by rising levels of protection and in no small part capital injection from the incipient IDC and the corporation's involvement in policy advocacy. Overall the textile industry managed to stage a remarkable catch up process with other industries that took off several decades earlier. For over a decade after the war the industry recorded growth rates that surpassed that of the manufacturing sector as a whole as evidenced by its rapidly rising proportion of manufacturing net output. Within a decade the textile industry more than doubled its share of manufacturing output as illustrated in Figure 19. The rapidity of the growth undoubtedly issued partly from the fact that the industry grew from a low base relative to the rest of the manufacturing sector.

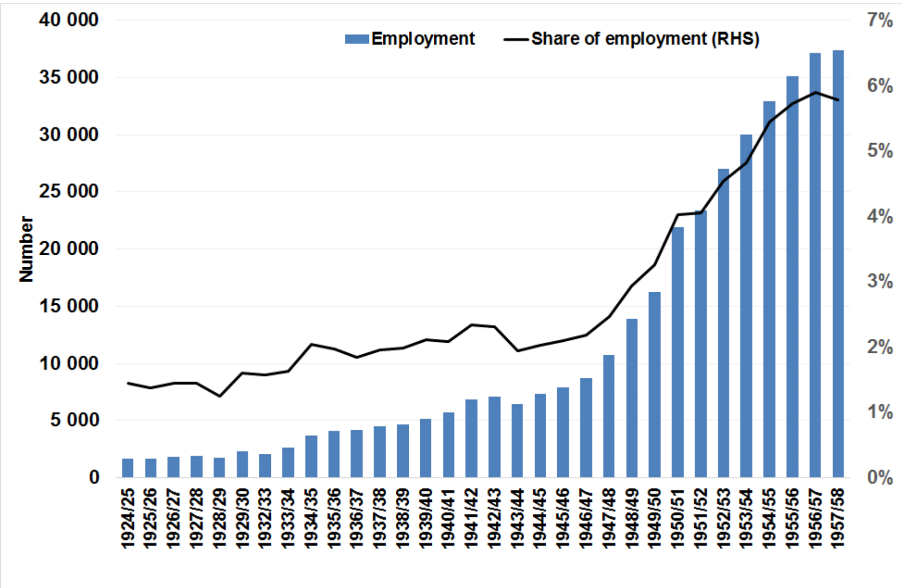
Figure 19. Net Output of the Textile Industry as a Share of Manufacturing Net Output



Source: Bureau of Census and Statistics, 1960

In tandem with net output, as illustrated in Figure 20, the textile industry's employment rose two and half times in a decade as it increasingly assumed greater significance as an employer within the manufacturing sector. It was during this period that the manufacturing sector constituted the engine of growth of the South African economy. The domestic market for manufactured goods including textiles expanded solidly in the 1950s and 1960s.

Figure 20. Employment in the Textile Industry and as a Share of Total Manufacturing Employment



Source: Bureau of Census and Statistics, 1960

4.3 The Transformative Role Played by the IDC in the Textile Industry

Although the delegation of developing the textile industry to the IDC by the state was done grudgingly to be regarded as deliberately developmental in approach, the corporation's involvement in the industry displayed significant developmental attributes. While the IDC was not associated with concessionary loans when disbursing its capital, establishment of new and acquisition of existing firms constituted developmental funding. Such firms received state finance indirectly which was beneficial because the firms concerned were not saddled with repayments of loans. IDC finance was developmental similar to concessionary funding, a key ingredient in many economies that industrialised successfully later than others. The corporation invested directly in textile firms in partnership with private investors as a shareholder. However, when the IDC made available debt finance it was often not concessionary as it did not necessarily make available better terms than those offered by commercial banks.

It was not just mere coincidence that the emergence of the textile industry and that of the IDC occurred at about the same time. The textile industry in South Africa owes a significant part of its existence to the financing activities of the IDC as ordered by the state and its influence on trade and industrial policy. As detailed below, when the IDC was being established but not yet enacted, the Minister of Commerce and Industries R Stuttaford declared that he expected the corporation to study the textile industry with a view to supporting its development. In the 1940s, the IDC not only invested the bulk of its capital in the industry but joined other lobby groups to secure much-needed tariff protection for the industry to ensure its continued survival and expansion when it was threatened by intense foreign competition.

The IDC channelled its resources into researching the textile industry (IDC, 1941:1). The outcome of these efforts saw the corporation invest substantially in the textile industry beginning with the acquisition of wool scouring factories in Durban. This was a manifestation of the fulfilment of its role to develop the textile industry and contributing to import substitution as assigned to it by the state. The IDC did not just concentrate on finished goods but financed raw materials production as well. The plans entailed the reduction of the dependence on imported raw materials as home-grown wool was the major input. The first worsted woollen factory in South Africa began operating in 1946 and by 1951 twelve plants were in existence (BTI, 1961:5). The woollen segment of the industry employed 2 200 workers having invested £5 million. In the first decade of the IDC's existence the textile industry became the dominant industry in the corporation's investment portfolio as measured by the amount of capital invested.

Following comprehensive research and analysis into the textile industry in the early 1940s in fulfilling the expectation of the state, the IDC was to play an instrumental role in the growth and development of the textile industry in South Africa. The textile industry, under the tutelage of the IDC was instrumental in the accomplishment of many of the policy objectives of the state including import substitution, industrial decentralisation and strengthening backward linkages with commercial agriculture. Rising demand for textiles in South Africa in the early 1940s (during the Second World War) coupled with spiralling prices of imported textiles, provided the IDC with an ideal opportunity to help spearhead the industry's emergence in the country.

The IDC initially invested in the textile industry with a view to laying a foundation for the rise of upstream development of the wool industry. It began by purchasing existing concerns in the wool industry in Durban in order to assist the government in meeting war-related demand and for the corporation to gain practical experience in the industry (IDC, 1941:2). In 1941, in its first year of operation, the IDC established a wool division which preceded the corporation's involvement with the wool-washing and scouring activities in Pinetown (Cartwright, 1971:58). Among the companies acquired were Congella Wool Washery and Pinetown Wool Washery with the former already a profitable company (IDC, 1942). In addition, the corporation's involvement in wool-washing and scouring was meant to support the manufacture of the well-known South African army blankets through the production of a suitable type of wool. From 1942 to 1943 the IDC's wool division supplied treated wool that led to the production of six million South African army blankets (Cartwright, 1971:58). By 1944 the IDC was confident enough of the experience gained to go full steam ahead in the wool processing industry (IDC, 1944:2) and simultaneously drive the industrial decentralisation agenda.

With the amended IDC Act permitting the corporation to establish new industries, Fine Wool Products of South Africa was established in January 1945 in Uitenhage with a capital investment of £650 000. In November of the same year the IDC wrote to the Minister of Economic Development requesting approval from the Governor General in terms of Section 3 (a) of the IDC Act to create a wool processing industry.[46] It was approved on condition that the Minister of Economic Development gave the green light to the siting of the factory. Van Eck advised the board that following his trip to present day Eastern Cape, he believed that Uitenhage would be the ideal location due to the availability of water and the proximity of a nearly century-old wool-washing firm, Gubb & Inggs Wool Washery. In 1947 the IDC went on to acquire a subsidiary of an Australian-owned wool processing firm Felt and Textile South Africa who was in need of capital for expansion at the time (Cartwright, 1971:60).

Three key factors were necessary to develop the woollen textile industry in South Africa which were in short supply. They were financial support, tariff protection and skilled operatives. It was also made patently clear that requests for financial support from the Department of Commerce and Industries would not be entertained and emergent textile firms were advised to approach private financial institutions.[47] Considering the underdeveloped status of the financial sector in South Africa in the late 1930s this was reflective of a state that lacked the will to support the development of the textile industry. The Wool Council despite possessing some funds and advocating for the establishment of a domestic woollen textile industry could not legally finance the creation of textile firms.

By and large, all aspirant entrepreneurs who approached the government had little or no capital of their own to invest and invariably expected the state to assist in providing finance. Although the demand for finance existed, private finance capital was either unwilling or too risk averse to extend credit to the emergent textile industry. In September 1940 the Minister of Commerce and Industries R Stuttaford disclosed that the soon-to-be-formed IDC would investigate the viability of establishing the woollen textile industry shortly after the corporation's inauguration.[48] Stuttaford had introduced the Industrial Development Bill which led to the IDC Act to the House of Assembly in April of the same year. He believed that the perennial problem of lack of capital for the establishment of the textile industry would be solved by the IDC once the study proved that the industry was viable. The IDC was created, it can be argued, to address market failure regarding the textile industry, one of the most important functions of a development bank. Stuttaford further stated that the IDC would only support firms deemed able to 'stand on their own feet'. As much as the United Party-led government entrusted the construction of a textile industry in South Africa to the IDC, the corporation was not expected to deviate from its approach to funding firms that displayed the promise to become profitable in favour of developmentalism except that it opted to use shareholding as its dominant form of funding.

4.3.1 The Shift to Cotton and the Role of the IDC

The cotton articles segment of the textile industry also emerged under the auspices of the IDC and the state. In the 1950s, globally and in South Africa, cotton was by far the dominant fibre dwarfing both wool and the emergent man-made fibres combined. The IDC was at the centre of the establishment of the cotton textile industry in South Africa. Van Eck had to overcome scepticism expressed by free trade ideologues in the corporation's board. In mid-1942 the IDC's technical adviser A Cornish-Bowden produced a memorandum that was made available to the Social and Economic Planning Commission which was chaired by van Eck. It made wide-ranging recommendations on the location, the shape and form the pioneering fine cotton spinning and the worsted industry would assume.[49] Firstly, the location of the industry had to be in the proximity of a sufficient pool of African labour. Secondly, coastal areas were preferable but away from the ports to avoid exposing the factories to enemy attack. Ports would become important in accessing raw materials in peace time.

South Africa did not grow cotton implying that the country's emergent cotton textile industry would depend on imported cotton. Access to infrastructure and a railway line to deliver cotton from inland suppliers specifically the Belgian Congo was deemed an important criterion when selecting firm location. Thirdly, easy access to the Rand, the hub of marketing, distribution and seat of government, was an important consideration. Pietermaritzburg was deemed the ideal location for the industry although East London also qualified but was ruled out on the grounds that it was less accessible to Johannesburg than Pietermaritzburg.

In October 1944 Board members were tasked with studying the cotton textile industry further with a view to engaging in a more informed discussion at the following meeting.[50] The same meeting went on to discuss the woollen and worsted spinning and weaving segments of the textile industry. The memorandum triggered intense discussion on the corporation's future role in the cotton textile industry. Some IDC board members echoed the free trade ideology espoused by government officials in relation to the textile industry in opposition to the proposed role of the corporation in the development of the textile industry. In concert with the approach of the UP government, they maintained that the textile industry should not be afforded tariff protection.

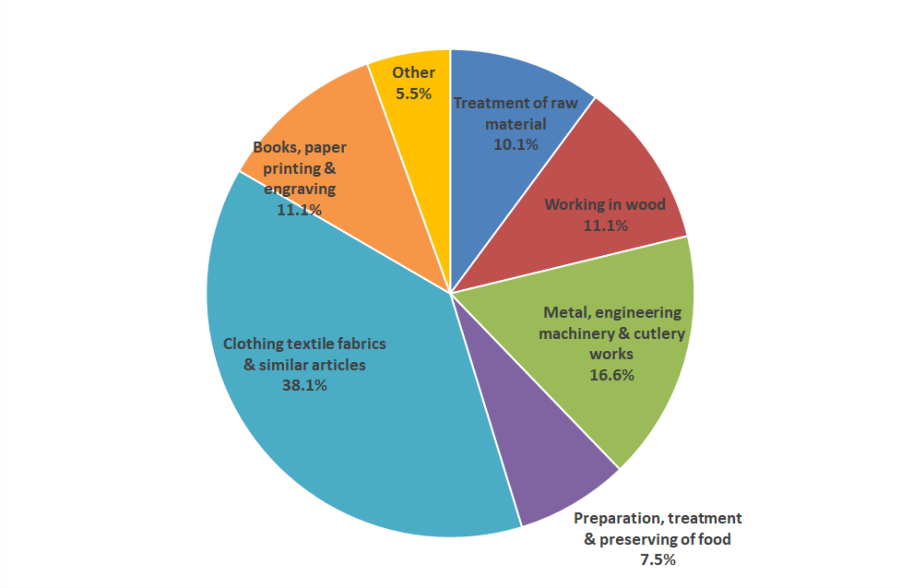
In the following board meeting van Eck reminded the members of the board of the limited scope for further industrial development on the one hand and the pressing need to employ Africans on 'organised and disciplined lines' on the other.[51] The board was divided on the cotton textile project as presented by van Eck with those opposing it citing lack of full knowledge of the industry and reliance on a single expert. While two board members still had doubts, possibly aggravated by the £3 million capital injection needed, van der Bijl and another board member were in support of going ahead with the project. In what was his last meeting as he tendered his resignation, van der Bijl suggested that another expert should be engaged, or alternatively an IDC representative could visit England to further study the industry.

Unlike the wool industry where British manufacturers had strong relations with South African wool suppliers, cotton manufacturers in Britain were interested in developing production in South Africa (Kilvington, 1996). Faced with limited protection and intensifying competition from foreign suppliers to the UK market, British cotton articles manufacturers saw overseas expansion as their next phase of growth. It was not only capital that flowed into South Africa but British textile operatives and managers as well. They formed an important building block of the South African textile industry in the first few decades after the Second World War.

In defence of his stance against the anti-protectionists van Eck argued that the existing small cotton textile firms required protection due to their inefficiency and lack of economies of scale. He went on to propose that the IDC engage in much larger projects.[52] The creation of large textile factories by the IDC was meant to transform the textile industry which until then, as Hirsch (1979:13) noted, was constrained by the nature of the market at the time. This, Hirsch (1979) further stated, lay behind the textile industry lagging behind as it could not produce efficiently due to the absence of long enough runs. The IDC, well aware of this, opted to transform the South African textile industry through the creation of large factories.

The IDC entered the textile industry at a time when the desire to develop the industry on the part of the state and industry in South Africa was not particularly high (IDC 1953). Figure 21 shows that the industry absorbed well over two-thirds of the corporation's financing approvals in value which totalled £3 993 998 over the same period. This was partly influenced by the war which generated strong demand for blankets driven by the army. As the war came to an end the demand for woollen textile products petered out. Although wool had been a success it remained a smaller market segment particularly when compared to cotton. The IDC acquired intimate knowledge of its textile industry investments placing key staff on the boards of its clients. Van Eck chaired Fine Wool Products and was joined by George Kuschke, the corporation's General Manager, as another IDC appointed board member and B.C Brayshaw as alternate director.

Figure 21. Total IDC Funding Approvals by Industry from 1941 to June 1945



Source: IDC, 1946

4.3.2 The Birth of Good Hope Textiles Corporation

The birth of a cotton textile industry was linked simultaneously to ideas about the development of South Africa's so-called native reserves which requires special attention. The United Party government under Smuts experimented with establishing a town for Africans designed to mirror modern European towns within a segregation framework fused with a developmental dimension. The Native Affairs Department had been planning the establishment of a township called Zwelitsha (meaning 'new era') to be a model town in which the textile factory was an integral part (Mager, 1999). Designed by the Secretary of Native Affairs D L Smit, Zwelitsha was envisioned to become the embodiment of what Mager (1999:48) calls 'segregationist-developmentalist ideology'. The town became home to those expelled from white farms bereft of land of their own and would become the core of the industrial work force completely dependent on wage labour.

The crisis of overpopulation, extreme penury and land degradation in the reserves from the mid-1930s was of great concern to the state (Bell, 1978). The Department of Native Affairs was under the leadership of D L Smit who was at the centre of designing and implementing plans to remedy the problems in the reserves. The department had two locational ideas as conceived by Smit which included what came to be known as 'border industries' under the National Party in the 1960s, villages located in the proximity of industries and in rural areas sending their workers to towns only returning home after a longer period (Bell, 1978:120). Zwelitsha became the first such village with Good Hope Corporation as its lynchpin factory.

The fully-fledged economic development of Bantustans project was years away: Zwelitsha was however in a 'location' in what would become Ciskei.

The Departments of Economic Development and Native Affairs as part of a larger project 'of the land settlement and general native rehabilitation scheme', invited the IDC to join in partnership to form a cotton textile factory.[53] In October 1943 a report presented to the IDC board noted that the Minister of Native Affairs planned to create a large cotton factory under the Native Trust and was considering handing over the management to the IDC. The corporation opted to investigate its establishment through public flotation in case the state cancelled the scheme. Earlier in July 1943 the IDC completed a study into industrial decentralisation whose findings were made available to the state.[54] In January 1944 the IDC was of the view that the factory needed to be located in the King William's Town area.

However, the establishment of the Good Hope Textile Corporation's factory was complicated by the fact that it was to be located in a 'Native Reserve' which required parliamentary approval (IDC, 1946:2). Under segregation and indeed apartheid these areas were set aside for Africans and investment by white capital was viewed in state circles to go against the perception promoted by the state as under African authority although a dominant view was that such industries would help keep Africans from relocating to towns. The birth of the 'border industries' policy in 1960 served as an ideal solution to the dilemma.

The IDC's investigation in close consultation with the Department of Native Affairs with input from a textile consultant covering matters including wage rates, housing of employees and location of the site[55] culminated in the birth of the Good Hope Textile Corporation. Having studied the English textile industry and ready to establish Good Hope, the IDC was approached by Calico Printers Association of Manchester, England who had subsidiaries in Egypt, India, China, Indonesia and Australia.[56] The Good Hope Textile Corporation was registered for business in July 1946 in equal partnership of £500 000 initial capital each with Calico Printers Association (Cartwright, 1971:61). The factory was vertically integrated and processed cotton in its raw form to produce a finished product. This emphasised the desire by the IDC hierarchy to promote not only the replacement of imports but the use of inputs sourced locally as well. Subsistence farmers in the vicinity, it was expected, could be turned into cotton producers (Mager, 1999) supplying the factory with its most important raw input.

The fundamental principle guiding IDC's approach to the location of its textile subsidiaries away from the major centres rested on wage differentiation. Low wages in rural areas constituted the most important consideration when the corporation located its textile factories.

The IDC's technical adviser A. Cornish-Bowden proposed in a memorandum as far back as 1942 that the textile industry could only be developed on the basis of African labour and in his words 'the textile industry must be considered … [to] be almost entirely a native industry.'[57] The IDC defended its low wage policy and invoked state intervention when necessary to thwart union attempts to have the wage rates in its factories raised. Despite acknowledging that Good Hope employees could hardly make ends meet, the corporation opted to provide huts for single men marking the abandonment of Zwelitsha's founding principles as a prototypical village (Clark, 1994:142). Yet the IDC was supposedly eager to support a community of labour that was 'not transient and that a tradition of life-long employment can be built up amongst the population in the area.'[58]

Although the IDC was wedded to a low wage policy for its rural textile factories, it generated unintended consequences. Labour turnover was very high at its factories reaching 100% at Good Hope as workers found their way to the cities undoing its very goal of slowing African urbanisation. Moreover, the cost borne by its textile firms of training workers proved onerous in the context of very high turnover of labour. Yet the IDC maintained that the low wages formed the cornerstone of the industrialisation of remote areas and its board applauded when Fine Wool repulsed attempts by the Textiles Workers' Union to raise wages (Clark, 1994:144). The other problem was that blacks ensconced on the land, were more able to strike and turn militant than the migrants.

In April 1952 Good Hope Textiles Corporation workers led by the African Textiles Workers' Industrial Union demanded higher pay embarking on protests which resulted in hundreds of workers getting arrested on varying charges.[59] The strike which began on 22 August ended in October of the same year. Out of 727 workers employed by Good Hope at the beginning of the strike 260 were no longer in its employ after the strike. The company abandoned its preference for young educated workers in the aftermath of the strike opting for older uneducated workers as the former were viewed as the instigators of the strike (Mager, 1999:57-58). Hirsch (1979) has shown that at IDC-owned factories of Good Hope and Fine Wool African male employees received half of what the textile industry paid employees in Industrial Council areas. The low wage situation was aggravated by the fact that the textile industry paid on average lower wages than the manufacturing sector as a whole.

In 1958 Good Hope Textile Corporation was responsible for 100% of calico printing, 60% of calico production, one-half of weaving activity and one-third of spinning in South Africa.[60] The company complained about high levels of both absenteeism and labour turnover which it claimed raised its labour costs. In addition, for its 1957/58 financial year Good Hope Textile Corporation made a loss of £200 656.

4.3.3 The IDC and Protection of the Textile Industry

By contrast to many development banks, the IDC went beyond providing funding for the textile industry and clamoured for supportive policies to the developmental agenda in regard to the industry. Placing the IDC at the centre of the development of the textile industry, the state accorded the corporation with significant influence on policies relating to the industry. A key part was protection which forms a key pillar of the developmental state paradigm. Although the National Party-led state was more developmental in orientation, protection for the textile industry was not automatic. Following rising competitive pressures exerted on the textile industry by competitors in the East, the IDC called for a more coherent tariff protection policy for the industry (IDC, 1953:3). It cited the high levels of protection afforded to the industry in many a trading partner markets (IDC, 1953:2). In 1956 the corporation made yet another impassioned plea to the BTI and the Commissioner for Customs and Excise to provide tariff protection against 'unfair competition' (IDC, 1956:9).

Into the 1950s the BTI steadily conceded to requests for protection by the textile industry marking a shift away from the earlier approach of selective protection and stringent conditions before protection was afforded to an industry. This typified the board's approach in the 1930s and 1940s. Following requests by industry bodies in 1951 the BTI eventually agreed to reinstate suspended tariff duties. In December of 1954 the BTI maintained that 'it is quite clear that additional steps will have to be taken to protect the textile industry if it is not to suffer serious harm.'[61]

Under pressure from import competition, the IDC shut the only printing works in the country, which formed part of Good Hope. Good Hope itself directly appealed to the government to intervene and raise the levels of tariff protection.[62] The company claimed that importers had flooded the domestic market with cheap products that were having devastating effects on existing textile producers. Earlier attempts to get the BTI to raise tariffs which included pleas as well to the BTI and the Minister of Economic Affairs by the South African Cotton Manufacturers' Association fell on deaf ears. The BTI eventually countered the effects of this competition through the introduction of import tariffs which made the IDC hopeful it would re-open the printing works to business (IDC, 1959:11).

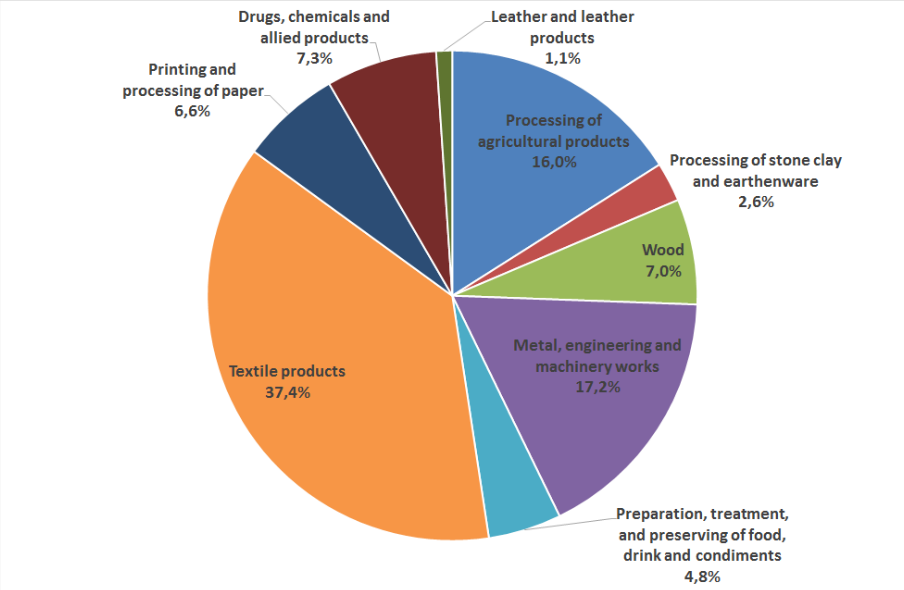
The Commission of Enquiry into the Policy Relating to the Protection of industries apparently advised the IDC to focus on smaller firms to which the corporation responded that it was doing exactly that. The corporation also showed that 61% in value of its financing was for applications of £50 000 and below. The BTI report also discussed industrial decentralisation as a possible survival strategy for textile firms. The IDC responded that it was already a key player in the programme. But the corporation re-emphasised the importance of lower wages relative to the main centres to offset the many disadvantages like cost of transport to market and provision of housing (IDC, 1956:10). Lower wages were justified on the grounds that the cost of living is also lower in remote areas.

In 1960 the BTI displayed keenness to afford protection to investors involved in import substitution of textiles marking a significant break with past practices. 1960 was a significant year because the killings of 69 protestors in Sharpeville by the police generated a political crisis that shattered investor faith triggering capital flight. The state had ordered the BTI to investigate opportunities for further import substitution promising to offer protection if deemed necessary. In connection with the textile industry the board stated that 'if it [the BTI] is convinced of the availability of any new industry… [i]t will recommend to the Minister that the Government give assurance in advance that the industry concerned will be protected' (BTI, 1960:1). The imposition of tariffs by the BTI paved the way for Good Hope Textile Corporation and Fine Wool Products to expand their operations. By 1961 the IDC had been ascribing the overall satisfactory performance of its three textiles firms, Fine Wool, Good Hope and Hex River Textiles to the implementation of tariff protection (IDC, 1961:8). The IDC did not believe that tariffs imposed would lead to higher prices but that domestic competition coupled with a stable market would exert a downward pressure on the prices. Just like the state protection was viewed by the IDC as a sufficient condition for the textile industry to flourish because the focus remained on the domestic market.

4.3.4 Performance of IDC Funding Recipients in the Textile Industry

By June 1950 the IDC's total financing approvals had reached £7 403 974, from 137 proposals accepted by the corporation. Figure 22 illustrates graphically the division of IDC funding approvals by industry from the corporation's formation to 1950. The textile industry remained the largest single recipient of IDC financing absorbing 37.4% (£2.7 million) of total disbursements by the corporation since its inception. However, the highest number of approvals went to the metal, engineering and machinery works, reflecting the lower value per financing approval on average. The textile industry also accounted for the largest percentage of funding approvals of over £100 000 per approval, a further corroboration of the IDC's support for larger establishments on average in the industry. The metals, engineering and machinery works approvals averaged only £31 088 per approval.

Figure 22. Total IDC Funding Approvals by Andustry from 1940 to June 1950



Source: IDC, 1950

By the mid-1950s IDC interests spanned cotton, wool, carpet, material for shoes, upholstery and worsted wool segments of the textile industry in South Africa, among others. Hex River Textiles in Worcester was a French-owned firm manufacturing worsted cloth and an offshoot of their highly prosperous Egyptian operation. In late 1956 in the aftermath of the Suez crisis the Egyptian authorities expropriated its assets including the South African operation as a form of retaliation for the Anglo-French-Israeli invasion (Cartwright, 1971:62). The IDC purchased controlling shareholding of Hex River Textiles from the Egyptian authorities marking the corporation's entry into worsted fabric production.

The IDC continued to expand and strengthen its investment in textiles buoyed by the strong performance of its existing portfolio. Its preferred method of financing was entering into partnerships with foreign investors with experience in the textile industry, injecting shareholder capital or extending a loan to the venture. The corporation's approach also involved identification of products that were imported in large enough quantities to warrant production in South Africa. In addition to its investments in textile firms in Elangeni Estate in the decentralised area of Hammarsdale, the IDC partnered with a UK investor to create an import substitution textile factory in East London. In 1963 Cyril Lord established its factory in a joint venture with the IDC bringing into South Africa expatriates to work as operatives (IDC, 1963). The company responded positively to an invitation by the South African government for investors in the manufacture of poplin. It also managed to attract other companies to South Africa in industries related to poplin manufacture. However, Cyril Lord's performance in the early years was undermined by import competition (IDC, 1966:15-16). Cyril Lord was financed to the tune of R4.5 to R5 million to produce poplins which were not manufactured in South Africa at the time. This was another of many of IDC's promotion of import substitution in the textile industry.

The development of the textile industry in South Africa in the second half of the 20th century involved forging strong ties with foreign (British) capital. The IDC was central in courting foreign capital in the textile industry to partner with in expanding the industry into new areas not yet reached by import substitution. David Whitehead was established in 1955 in Tongaat, Natal to manufacture cotton fabric with the aid of IDC money to the value of R2.5 million. The IDC continued to provide funding for the company including R3.5 million and R1 million long-term loans (*Sunday Times* 29.7.73). In the mid-1970s the company had a turnover of R8 million employing 1 300 workers.

In 1960 in the aftermath of Sharpeville and consequent capital outflow, the IDC expressed satisfaction with the protection afforded to the textile industry a year earlier citing improved profitability and strong recovery of the industry (IDC, 1960). The Minister of Economic Affairs Nico Diederichs ordered the BTI to investigate additional areas where import substitution had not yet reached and could still be pursued with the aid of tariffs from the state (BTI, 1961). The textile industry was the first to be investigated. In December of 1962 Diederichs announced the launch of a scheme to promote the development of the textile industry valued at R45 million under the management of the IDC. This was an outcome of studies conducted by the BTI meant to identify potential areas for import substitution in the textile industry (BTI 1961). The IDC's role under the scheme was to provide finance for the construction of building, acquisition of plant and working capital.[63]

By the mid-1960s, against the backdrop of solid growth in the economy, the IDC sought additional opportunities for financing import substitution projects. Strong consumer demand led to a jump in imports caused by the build-up of stock in anticipation of the implementation of tariff protection (IDC, 1965:9). The IDC used its financial muscle to restructure, modernise and raise the capacities of the dominant players in the textile industry. At about this stage Good Hope Textile Corporation had over 3 100 African workers in its employ while Cyril Lord was on course to employ over 1 150 workers (IDC, 1964). By 1967 the IDC was calling for more rationalisation of the industry as a means to survive. Economies of scale, the corporation believed, as it did in the 1940s represented the salvation for the industry (IDC, 1967:32-33).

In the mid-1960s order books of numerous textile mills had decreased and the industry was battling to remain price competitive amidst cut-throat competition from imports. The corporation took the lead through buying out its British partner's 50% shareholding in Good Hope Textiles Corporation, Calico Printers and merging its textile interests in Cyril Lord and Linofra of Elangeni in Natal (IDC, 1968:12). Da Gama Textile Company was born and it became the holding company of the three textile subsidiaries of the IDC - Good Hope, Cyril Lord and Linofra.

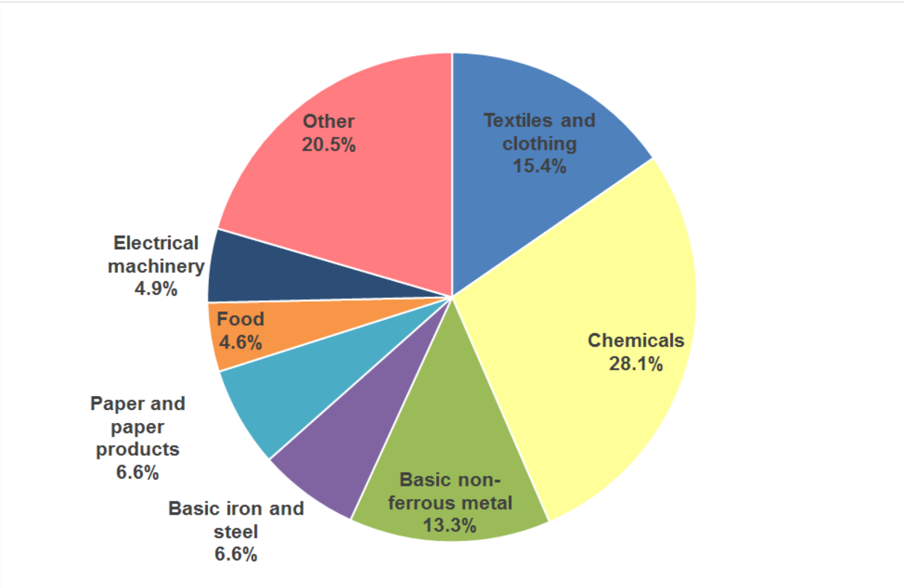
By 1977 textile firms under the da Gama umbrella had doubled their capacities relative to 1970 (IDC, 1977). In the early 1980s the Good Hope plant was regarded as the largest textile factory in the Southern Hemisphere with a staff complement of 4 000.This was also viewed as a positive development for the border industry programme as it strengthened the presence of the textile industry in remote regions. On the back of improved profitability of da Gama in the early to mid-1970s, the IDC raised its investment in the three branches of the company by R21.2 million (IDC, 1974:16). The capacities of Cyril Lord and Good Hope Corporation rose by 45% from 1970 to 1977. By the close of the 1970s da Gama had increasingly modernised its factories and managed to remain profitable.

In developing the textile industry, the IDC went beyond just providing finance. Depending on requirements the IDC provided other support to the projects it funded to ensure their success. Attracted by industrial decentralisation incentives which included tax benefits of over R325 000, in 1972 Progress Industries' expansion programme took it to East London. The IDC provided a building on a lease basis at very favourable rentals and unsecured loan finance to the tune of R250 000 (*The Star*, 25.8.72). The factory's flagship was knitting which was supplemented by dyeing and finishing. It was expected that this would be an export-oriented plant with the UK and Germany as its main foreign markets. This investment by the IDC dovetailed with the corporation's twin mandates of promoting industrial decentralisation and the textile industry.

When restructuring its textile interests the IDC remained focused on establishing large firms and financing import substitution gaps identified. In 1962 the IDC created South African Nylon Spinners to produce continuous nylon filament yarn. In the same year the corporation, in partnership with East Asiatic, formed Neckelmann (SA) to produce for the knitting industry stretch and bulked and continuous filament yarn. The Sagov Group grew to become one of the biggest vertically integrated firms producing, from synthetic yarns, knitted textile articles and knitted garments (IDC, 1973:6). In 1973 the IDC sold Feltex to a sugar company CG Smith Investments. Feltex was formed in the 1930s by an Australian and when it needed capital to expand in the 1950s it partnered with the IDC which also took shareholding in the company. Later as a fully South African owned firm Feltex produced a variety of products including carpets, footwear, felts and slippers (Cartwright, 1971:59-60).

By 1975 the bulk of IDC funding approvals (72.7% in value) had been devoted to the manufacturing sector (IDC, 1975:24). The dominant beneficiary of IDC funding remained the chemicals industry led by SASOL but it was directly followed by the textile industry. Between 1940 and 1975 the textile-clothing industry received in funding approvals a total of R 139 million of which only R10 million was for the clothing industry. Considering that the IDC often engaged in joint ventures with both domestic and foreign capital the impact of its investment far exceeded the above-mentioned amount. The dominant recipients of IDC financing were spinning, weaving, finishing and textile articles segments of the textile industry.

Figure 23. IDC Funding Approvals in the Manufacturing Sector, 1940-1975



Source: IDC, 1975

The IDC reiterated its bias towards textile and clothing industries when considering financing propositions due to their labour-intensive attribute (IDC, 1979). In the late 1970s the industry was under pressure from rising imports. Strong demand for funding from the clothing and textiles industries in the early 1980s was mirrored in the number of approvals by the IDC to the industries. In 1981/2 the IDC approved 21 applications from the industries totalling R20 million or about 8.6% of total industrial financing by the corporation that year (IDC, 1982:5).

In 1980 the IDC sold its controlling share in da Gama Textiles to a UK textile firm Tootal, a product of a merger between IDC's initial partner at Good Hope Corporation Calico Printers'

Association and English Sewing Cotton Company, with a view to selling the remainder of the company to the British company by 1990 (IDC, 1980:8). By introducing Tootal the IDC expected the company to strengthen da Gama's profitability through its technical expertise and international experience in textiles. Indeed in 1985 Tootal claimed that,

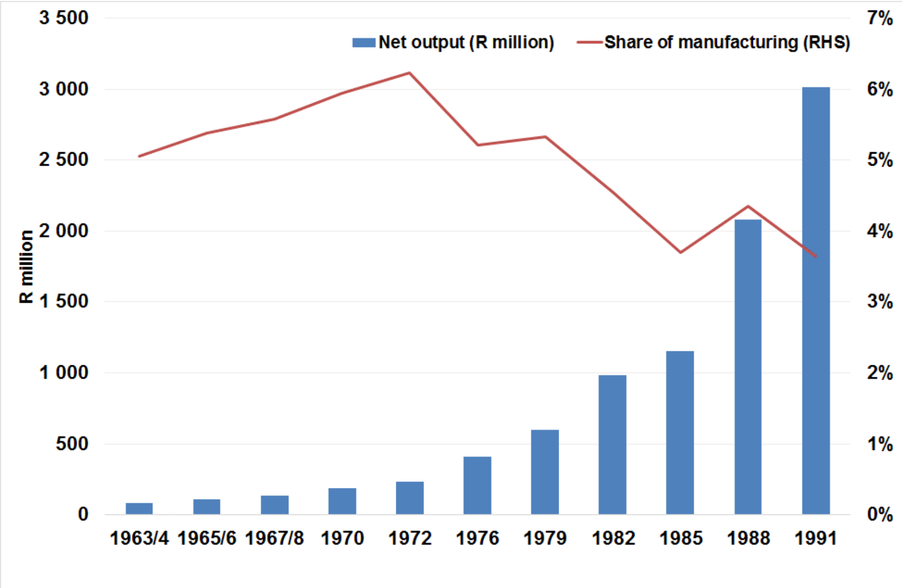
> We have transformed a grossly overmanned manufacturing led business, producing questionable quality with a down-market image and appalling customer service, to one which is now producing top quality merchandise on time, to very discerning buyers such as Woolworths.[64]

Tootal, and by IDC's own admission, had managed to engineer a remarkable turnaround of Da Gama Textiles. Tootal made unsuccessful attempts to take full ownership of the company through offers to buy IDC's stake. The IDC was firm in rejecting initial offers it deemed undervalued its shareholding and would have meant writing off as much as R27 million from the corporation's books. Eventually its increased offer of R35 million including dividends and the condition that Tootal lists part of its stock on the Johannesburg Stock Exchange were accepted in October 1986.[65] Da Gama Textiles employed some 4 500 people and its turnover had reached R131 million in 1986 on the eve of its listing on the Johannesburg Stock Exchange. The listing ensured that local shareholding would continue to influence the future direction of the company. Having been at the forefront of establishing the cotton segment of the textile industry in the 1940s, alongside the BTI and on behalf of the state, the IDC was engaged in yet another study among others on how to grow the cotton industry (IDC, 1988:12).

4.4 Factors that Undermined Competitiveness in the 1970s to the 1990s

The textile industry continued to expand rapidly in the 1960s in rhythm with the strong performance of the manufacturing sector. Both net output and employment expanded strongly recording faster growth rates on average than the manufacturing sector as a whole. Buoyant demand conditions coupled with a fast-growing economy laid the foundation for the textile industry to expand solidly. The belief in import substitution aided by protection as an end in itself allowed policymakers to neglect export expansion which would have required the provision of support measures to promote competitiveness in the industry. This explains the decimation of the textile industry once protective measures underwent phase down in the 1990s because it was the only tool the state relied on to develop the industry. The IDC, unlike prototypical development banks, did not require textile firms that benefited from its financial and other support measures to reciprocate through engaging in exports. The provision of protection aided the synthetic segment of the textile industry to grow to capture the bulk of the South African market by the early 1980s (Steenkamp, 1983:36). However, the reliance on imported chemicals, raw materials and dyes due to the dearth of local production, placed the local industry at the mercy of overseas suppliers. Around the mid-1970s the textile industry witnessed the beginning of the diminution of its importance in the manufacturing sector as shown in Figure 24.

Figure 24. Net Output of the Textile Industry and as a Share of Manufacturing net Output 1963-1991

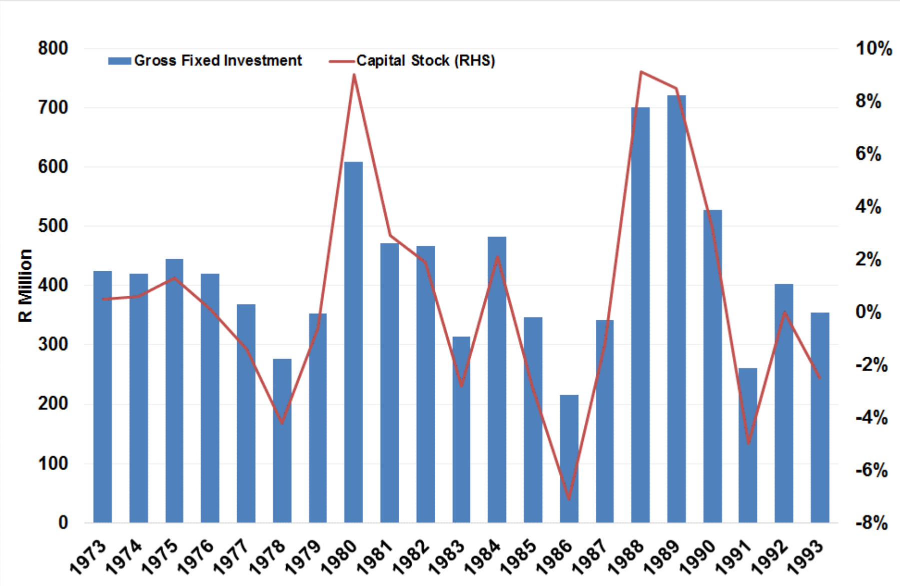


Source: CSS (various years)

In the 1970s and 1980s state policies were successful in keeping imports of textiles at bay. Maree (1995) has shown that from 1972 to 1989 imports of textiles constituted 14% of domestic demand while the similar figure for the manufacturing sector as a whole was 19%. He concluded that 'manufacturing is the most protected sector while, within manufacturing, the textile, apparel and leather products subsector is the most protected' (Maree, 1995:48). When measured using effective rates of protection at the close of the 1980s, clothing, textile and leather products recorded the highest figures of all manufacturing sub-sectors – more than three times higher (Maree, 1995:40). Effective rates of protection take into account protection afforded to inputs and not just the final product. Among the most protected textiles using this method were knitting mills, carpets and rugs, garment and hosiery knitting as well as spinning and weaving (Maree, 1995:50). Protection was aimed at survival and not at encouraging an industry capable of competing internationally, even with neighbouring Rhodesia.

The South African textile industry was characterised by less than satisfactory expenditure on capital goods in the 1970s and 1980s (Maree, 1995:26). Relative to other textile-producing nations including South Korea, and other South African industries within the manufacturing sector, the South African textile industry remained a laggard. As shown in Figure 25 for two decades the gross fixed investment by the industry barely rose while the performance of capital stock grew marginally over the period. According to the BTI (1988c:100), investment in the South African textile industry from 1982 to 1988 was miniscule or non-existent in stark contrast to Western countries and Asia where investment remained buoyant. A survey conducted in the early 1990s disclosed that ageing machinery had become endemic to the South African textile industry (Maree, 1995:27).

Figure 25. Textile Gross Fixed Investment and Capital Stock Growth at 1993 Prices



Source: IDC,1995

In the early 1980s South African raw material costs for spinning, weaving and finishing ranged between 50% and 55% of total costs (Steenkamp, 1983:28) implying that competitiveness was to a large extent determined by access to inexpensive raw materials. Maree (1995:64) maintained that the cotton agreement did not generate a major competitive disadvantage in the 1980s since for most of the period South African cotton prices were lower than the international price. However, South African textile firms paid an import parity price for locally sourced cotton because they were required to pay over and above the price of cotton, an equivalent of freight and insurance from Liverpool to local cotton producers (Steenkamp, 1983:25). Moreover, cotton spinners were required to exhaust the allocated quota of locally grown cotton prior to receiving the permit to import. The Textile Federation complained that their members were compelled to keep cotton inventories well above their immediate requirements (Steenkamp, 1983:25) impacting negatively on their cost containment efforts.

Wool was also available at international prices with local woollen textile manufacturers benefiting from not having to bear freight costs and enjoying shorter lead times. By contrast, textile manufacturers utilising polyester were most disadvantaged. In the early 1980s South

African polyester fibre costs were 57% higher relative to countries in the East and while polyester yarn was 99% higher (Steenkamp, 1983:26). Even when compared to developed countries like Italy and the UK, South African prices were substantially higher. The situation altered slightly in the early 1990s as they paid 35% more than the international price for polyester (Maree, 1995:66). Considering that the cost of synthetic yarn could account for as high as 50% of the total cost of producing a fabric (Steenkamp, 1983:28), the competitiveness of downstream textile producers was severely eroded by the high cost of synthetic fibre (see Table 5). This constituted a major weakness in the local textile industry considering that over the second half of the 20th century increasingly the consumption of textile shifted towards man-made fibres not only in South Africa but the world at large. In the late 1980s the BTI (1988c:26) concluded that lowering import tariffs on man-made fibres and yarn was the solution to ensuring that local producers supply price competitive inputs.

Table 5. Breakdown of Costs of Textile Production in the 1980s

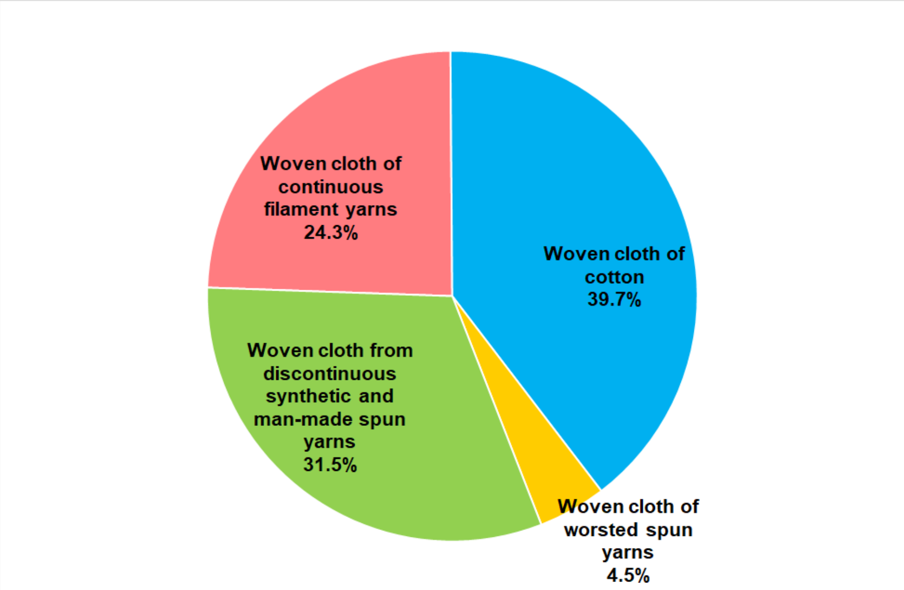
% shares	Amortisation	General	Energy	Labour	Raw materials	Total
Yarn						
Polyester/cotton	21	22	3	17	37	100
Texture yarn (167 dtex)	10	4	2	9	75	100
Woven fabrics[a]	11	15	2.5	20	51.5[b]	100
Knitted fabrics	2-6	1.5-10	1-1.5	3-13	70-91	100
Finishing	5-19	3-5	4-8	40-62	15-30	100

a using 65/35 polyester cotton; b yarn cost

Source: NCF, 1994

South African production of fabric in the late 1980s, illustrated in Figure 26, did not resemble prevailing trends globally in the consumption of fibres with the exception of wool. The country's cotton consumption was substantially less than the global share while man-made fibres were higher. The downstream manufacture of textiles otherwise remained oriented to the domestic market with limited exports from the 1940s to this day. In 1991 wool exports accounted for well over 60% of total textiles exports (chapters 50-60 and 63 of the Harmonised System). On the other hand, imports, which stood at R2.1 billion, were more diversified with fabrics for the manufacture of garments more prominent.

Figure 26. Production of Fabrics by Type of Fibre, 1988



Source: Derived from NCF, 1990

4.5 Conclusion

The South African textile industry was a late starter in entering the import substitution programme which covered many industries in the manufacturing sector beginning in the mid-1920s. Prior to the Second World War the industry remained largely confined to the production of blankets which enjoyed very high tariff protection. Concerned with the potential cost-raising effects of the textile inputs for the garment industry the United Party government partly imbued with the free market ideology routinely turned down requests for protection. Pressure from aspirant textile manufacturers coupled with interest from established foreign manufacturers, led the state to alter grudgingly its approach in favour of protection of the textile industry. Although the South African state displayed attributes of a developmental state, it proved that the state need not be autonomous acting above class interest. It responded positively with the aid of the IDC to pressures from a class of industrialists who wished to see the textile industry develop in South Africa. During the Second World War demand from the military and disruption to world trade helped sustain a growth spurt of the textile industry in South Africa.

The creation of the IDC marked an important turning point in the development of the textile industry in South Africa as the corporation directed its efforts to planning its future growth, financing and supporting the industry. When the IDC was conceived the textile industry topped the list of priorities of the state as a vehicle to not only socialise the risks but to resolve market failure in the private banking system in dealing with the textile industry. Unlike in later decades, the IDC was reliant on fiscal transfers from the state to finance its clients in its first 15 years.

In the 1940s the IDC, in collaboration with the state, had helped lay the foundation for the take-off of the textile industry in South Africa in the late 1940s to the mid-1950s. The corporation was not only an important source of much-needed capital that had constrained the textile industry's emergence but a key architect of the industry's development. Indeed, the take-off of the textile industry in the mid-1940s to the 1960s IDC financing activities and policy influence were deeply interwoven. The corporation helped create a protected environment for the industry when foreign competition threatened to recapture the South African market in the mid to late 1950s.

Research featured prominently in the IDC prior to investing in the textile industry as the corporation sought to gain full knowledge of the workings of the industry as ordained by the state in the lead up to its formation. Its initial investments in established textile firms was part of the learning experience which later involved analysis of the English textile industry. Sectoral research capacity is an important attribute of BNDES and other development banks worldwide. As with other development banks, the IDC deployed its senior officials to boards of companies in the textile industry to oversee the running of such companies and gather information useful for its knowledge accumulation.

While IDC financed the textile industry with capital from the state extending long term loans in tandem with development bank models across the world, its dominant mode of funding was stockholding. This type of financing was long term in nature which also applied to loans it extended to the textile industry. The IDC was, as a result, intimately involved in the running of the firms it invested in using insight gained from other clients in the industry. By entering into partnership with foreign capital the IDC brought into South Africa much-needed expertise while sharing the risks with its joint partners. By contrast to other development banking models, the IDC engaged in other support measures beyond financing like provision of factory space at a reduced rate. More importantly, the IDC was a key policy advocate. The corporation ensured that the state provided and kept much-needed import protection to help maintain the growth momentum of the textile industry from the 1950s to the 1980s. Absent in the IDC funding approach was the reciprocal mechanism – employed to good effect in other developmental states – which would have transformed the textile industry into an exporter of note and sharpened its competitiveness against imports. Consequently, constraints to competitiveness which lay primarily in raw material input costs were not addressed and became the industry's Achilles heel when the South African economy was exposed to foreign competition in the 1990s.

By and large the South African state was developmental in constructing a large textile industry propped up by protection but was found wanting in the provision of other measures to create a competitive industry not only capable of withstanding foreign competition but able to export on a large scale beyond the southern African region.

With the state a firm ally of the textile industry, it could not wean the industry from protective tariffs as it continued to request more protection from imports. Protection was a necessary but insufficient condition for the development of the textile industry in South Africa. Failure to adopt policies designed to promote exports generated an industry that was inward looking lacking in global competitiveness. Dependence on protection appears to have permitted the industry to neglect investment in up to date technologies which was evident in the 1980s rendering it unprepared for exposure to international competition as South Africa's reintegration into the world economy in the 1990s intensified.

Chapter Five

'The IDC is not a "Post Office"'[66]: State Intervention in the SASOL and FOSKOR Projects

5.1 Introduction

A defining moment in the history of the IDC was the decision by the South African government to create the capital-intensive synthetic oil company South African Coal, Oil and Gas Corporation[67] (SASOL) through the IDC. Although the IDC has reduced its shareholding in SASOL over the last four decades by massive amounts, it remains a substantial shareholder (8.2%) in the company benefiting immensely financially from the relationship. Currently SASOL remains by far the single biggest contributor (50%) to the IDC's dividends under the corporation's portfolio investment. Although conceived long before the adoption of the apartheid system, SASOL became a pivotal project of the state's industrial and energy policies for much of the second half of the twentieth century. The company grew strongly from humble and challenging beginnings in the early 1950s with the financial and legislative support of the state to become a multi-national energy and chemicals giant that it is today. Following the demise of apartheid in the 1990s and the re-admittance of South Africa into the global community, SASOL expanded beyond South African borders and is widely viewed as a success story of a company that was deeply rooted in apartheid.

The principal aim of this chapter is to examine closely the interplay between the state and the IDC in the creation and financing of the SASOL project. It begins by tracing the origins of SASOL with a particular focus on financing, policy formulation and implementation. The chapter will demonstrate the extent of IDC's role as a source of vital development finance needed to develop a strategic industry as targeted by the state. It intends to analyse the motives behind bringing in the IDC as a conduit for financing and incubating SASOL.

The chapter also looks closely at the impact of SASOL's growth in the 1960s and expansion into other areas of the chemical industry. It further examines its financing and how the IDC positioned itself to promote import substitution industrialisation. The expansion of SASOL to Secunda beginning in the mid-1970s and its privatisation are key milestones that will also be analysed in the chapter. The financing of the original SASOL plant and its expansion which continued to be contentious between the state and the IDC into the late 1980s will also come under close scrutiny. In the last section of the chapter, the case of FOSKOR demonstrates that development finance is the ideal vehicle for developing strategic industries targeted by the state and IDC general financing was unsuitable especially when guided by the 'economic merit' principle. This will be followed by the conclusion which draws together major themes with a focus on the significance of IDC development finance in the chemical industry and especially SASOL. Moreover, it points to some unintended consequences of the SASOL project including constraining further diversification of downstream industries because of pricing that was not developmentally oriented.

5.2 The State's Developmental Role Viewed through the Oil-from-Coal Project

The establishment and development of the SASOL project in the second half of the twentieth century exhibited many attributes of the South African state as developmental state. The intervention in the economy by the state assumed the form of direct investment impacting palpably on the gross fixed capital formation in the country. The SASOL project was massive, with a long gestation period but fraught with high risk and inability to attract investment from private capital. Although initiated by Anglovaal, a private company, it soon became clear that the state was the only capable institution to drive the project forward. While the IDC is mistakenly viewed in some quarters as the funder behind the SASOL project, for nearly four decades the corporation was a conduit for state funding. In return, the corporation benefitted immensely from the relationship with SASOL through dividend income and a reinforced balance sheet useful when raising capital in the markets. As shown in Chapter Three the IDC was poorly resourced and adopted an eclectic funding model picking and choosing clients with good prospects of profitability guided by the 'economic merit' principle contained in the corporation's founding act. It can be argued that by and large the IDC followed rather than guided the market in its funding activities and only deviated from the principle when directed to do so by the state which invariably provided the funding in such extraordinary projects like SASOL.

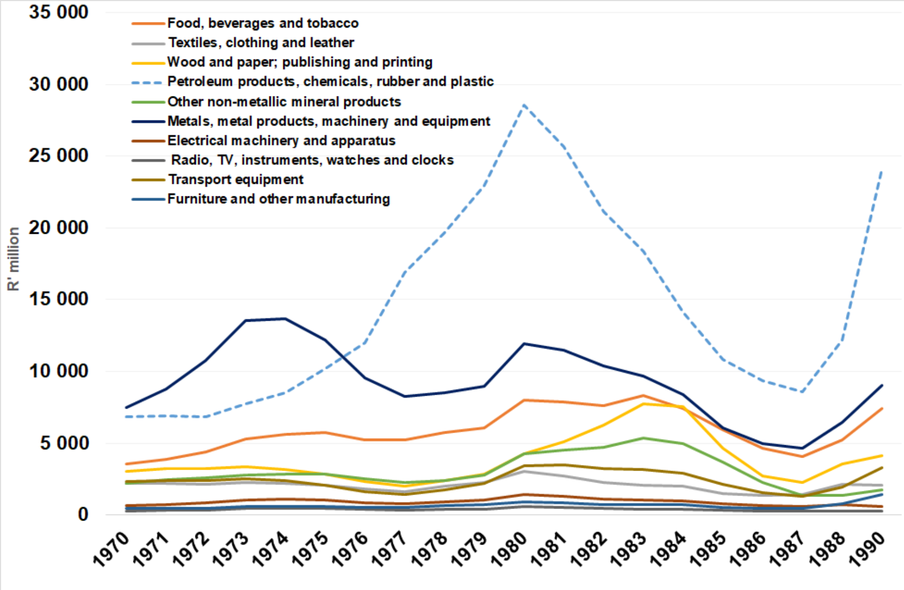
Although fundamental disagreements between the Treasury and the Department of Economic Development initially reigned supreme in the mid-1940s, consensus was eventually reached and protection for the synthetic fuels industry was put in place. This led to the emergence of the fuel refinery industry as previously imported refined products were manufactured in South Africa. The intention of the state was partly to displace foreign domination of the liquid fuels industry that carried the potential to hinder the growth of oil-from-coal project. In line with industrialisation among other late starters, domestically-owned rather than foreign firms were being positioned to spearhead industrialisation.

The ascension to power of the National Party in 1948 marked a significant shift in the state's approach to economic policy. A key part involved the desire to shift economic power away from English-dominated private capital to the state. It is important to note as Cross (1994) observed that the policy direction altered gradually and much of the impact was felt in the 1960s in parastatals like ISCOR, ESCOM and the IDC. The influence of the Broederbond,[68] Cross further argues, was not as strong in the 1950s and on assumption of power the National Party did not have an overarching plan ready for implementation.

The first phase of the project which was anchored in the oil-from-coal plant in Sasolburg laid the foundation for a catalytic industry in the development of heavy industry in particular the chemical industry. It was a classic case of the state leading the market raising investment of state-owned companies to even higher levels. In the 1960s the second phase utilised the Sasolburg plant as its platform to diversify and expand into other related industries. State investment and determination of targeted industries was at the centre of this phase with SASOL and the IDC providing support through funding auxiliary matters like working capital. The IDC, almost invariably in partnership with SASOL, used the opportunity to select profitable projects in related industries to finance.

State funding continued into the third and perhaps most important phase of the SASOL project albeit in different forms. The security dimension similar to the developmental states of Taiwan and Korea loomed large in the conception of the considerably larger SASOL II and III. As sanctions against Pretoria intensified and in the aftermath of the oil crisis of 1973 the expansion was made especially urgent. In South Africa according to Kaplinsky (1995:190), ‘in a context of low confidence, the only sectors where manufacturing investment held up during the 1980s were those sectors where the state played a central role in resource allocation.’ (See also Figure 27). By the late 1970s economic policy was shifting towards increased ownership by private capital and restructuring of state-owned companies. In this regard the state also abandoned much of the developmental approach it exhibited in the chemical industry. As SASOL was absorbed into the security project meant to preserve apartheid the company was gifted to private capital. Moreover, the state assured investors in SASOL that it would retain tariff protection for the company when international crude oil prices fall and guarantee a good return on their investment (Marquard, 2006:303-304). The privatisation of SASOL was hailed in the liberal press as a clear indication of the P W Botha’s regime’s abandonment of state intervention in the economy in favour of a more market-based approach.

Figure 27. Gross Fixed Capital Formation of Industries in the Manufacturing Sector at Constant 2010 Prices



Source: Quantec

5.2.1 The Origins of SASOL, how it was Financed and the IDC

The origins of SASOL go as far back as the 1920s when a committee which included among others Hendrik van der Bijl was set up to investigate the potential carried by the extraction of oil-from-coal alongside shale oil. In its report released in 1925, the committee declared that South Africa had sufficient coal and shale resources to create an industry whose competitive advantage over imports could be derived from its closeness to the large market inland (Marquard, 2006:277). In 1926 H J van Eck was hired by Escom as a technologist due to van der Bijl's fascination with the extraction of oil from coal prior to using its residue to fire boilers (van Eck, 1967:43). It was only in the mid-1940s that it became a priority of the state leading to the enactment of the Liquid Fuels Act of 1947. In a March 1946 Cabinet memorandum prepared by the Department of Economic Development under the tutelage of Minister Sidney Waterson, it argued that the oil-from-coal project would require from the state a 'guaranteed market for their products subject to adequate safeguards'.[69] Waterson also expressed displeasure with large foreign oil companies' dominance of the South African fuel market which was, in his view, reason enough to justify protection for the new company.

Waterson leaned more towards developmentalism as he was intent on the state intervening in the economy to establish an industry that was national in character that would also stymie foreign dominance in the fuel industry. The Minister of Finance Jan Hofmeyr was, by contrast, committed to free market orthodoxy. The formation of a synthetic oil company constituted a contested terrain within state circles. In 1946, the Treasury, in an internal document prepared for Hofmeyr, was scathing in its criticism of a memorandum presented by the Waterson.[70] At the heart of the criticisms was the safeguarding of the market for the proposed oil-from-coal company by the state at the expense of existing importers of refined fuels through the imposition of duties on imports. As Hofmeyr concluded, 'I am very apprehensive about the Government making promises which may lead to the establishment of industries which may develop in such a way that the Government has to go to extreme lengths to keep those industries alive.'

A follow-up letter from Waterson to Hofmeyr in December 1946 was accompanied by a more detailed memorandum and a draft Bill on the creation of the synthetic oil industry.[71] The overriding concern in Waterson's arguments remained the dominance of large oil firms and their potential to torpedo efforts to develop the new industry. It was also recognised that with protection comes the temptation on the part of protected industries to abuse the market which would manifest itself in higher prices. To mitigate this potential effect, it was proposed that '[t]he principle of surplus profit-sharing between the manufacturer and consumer as embodied in the Electricity Act may with advantage be adopted'.[72]

In August 1949 Anglovaal was granted a licence to produce synthetic oil. The Liquid Fuel and Oil Industry Advisory Board had made it a condition that the company would not be permitted to access American dollars held in South Africa for any of its transactions.[73] In the aftermath of the 1949 devaluation of the South African pound, Anglovaal struggled to secure funding commitment of £20 million. The company eventually managed to secure commitment from American financiers for a loan on condition that it received guarantees from the South African government. It subsequently wrote to the Minister of Economic Affairs requesting government guarantees which were denied on the grounds that the state could not provide guarantees to a private company. However, World Bank Vice President Robert Garner, who met the adviser to the Minister of Economic Affairs, influential Broederbond member, Frans du Toit and some senior South African government officials, said that the bank would be prepared to offer funding only if there was state guarantee even if it was made available through the government or its agency. He further stated that the IDC would be an acceptable agency as long as the government provided a guarantee.

In April 1950 du Toit was optimistic that through the IDC the state would provide the guarantee and was full of praise for Anglovaal's efforts to promote the project of national significance in oil-from-coal.[74] In his words,

> I can assure you that everyone with knowledge of the sterling work done by your group in getting this great national project to its present state of development can but appreciate what those efforts will mean to the future of our great and promising country.

The state still had a principal problem to overcome, that of providing guarantees to a private enterprise. When consulted the Minister of Finance Nicolaas Havenga had agreed in principle to guarantee a loan from the World Bank to the tune of £15 million.[75] But fear of censure from parliament over an intimate relationship between the state and a private firm saw the sudden withdrawal of the idea of providing guarantee to Anglovaal (Clark, 1994:161).

In 1925 German chemists Franz Fischer and Hans Tropsch patented the process of extracting oil-from-coal. In the 1920s South African chemical engineer Etienne Rousseau joined other researchers in the oil-from-coal analysis (Collings, 2002). The growing interest in alternative sources of oil in the 1920s and 1930s in Europe occurred in the context of the belief that oil reserves were insufficient and unlikely to last very long. This view was shattered when new oil fields were discovered in the US and the Middle East triggering a plunge in the oil price (Collings, 2002:14). As the new process of extracting synthetic oil was dear, interest in oil-from-coal processes waned and remained confined to experiments in the US (Collings, 2002:14). The 14 plants that existed in Germany were almost reduced to rubble by the Second World War while in the US the plant in Brownsville, Texas used a somewhat different technology from the Fischer-Tropsch employed in Germany (Sparks, 2012).

In South Africa the Coal Commission of 1946 was upbeat about the potential for synthetic oil production under the tutelage of a state-owned firm (Marquard, 2006:90). However, even before the committee reported on its recommendations the Liquid Fuels Act number 49 of 1947, designed to be the guiding policy for the liquid fuels industry, was passed through parliament (Marquard, 2006:278). For a while in state circles disagreement on whether to support an existing synthetic oil firm (Anglovaal) or to create a state-owned firm prevailed.

An interim committee, set up to advise the South African government, visited Europe to analyse the suitability of various technologies for South Africa and make recommendations on the establishment of a synthetic fuels industry. Prior to the government making a final decision on whether to proceed with an oil-from-coal project, in April 1950 it dispatched IDC Chairman Hendrik van Eck and Etienne Rousseau (both part of the interim committee chaired by du Toit to lay the groundwork for the creation of SASOL) to the US to analyse a similar project in Texas at a company called M.W. Kellogg to assist in determining its viability in South Africa. Before the establishment of the IDC, van Eck had undergone special training in the Fischer-Tropsch process and had worked for an oil-from-coal firm Anglovaal Consolidated Investment

Group (Bozzoli, 1997:201) in the 1930s as a consultant and considered a trailblazer of the process in South Africa (SASOL,1970:2).

Van Eck was scheduled to travel to the USA to study what he believed was ‘a large scale plant at Brownsville and have detailed discussions’.[76] Van Eck, the South African embassy was led to believe, had come to the US on a private visit but American officials he was scheduled to meet appeared convinced it was an official visit. The embassy was advised by Pretoria to assist him in arranging for meetings and logistics. When going there the assumption was that the project would be supported by the state but Anglovaal would remain the company managing and driving the operations of the project. Simultaneously the state would investigate the possibility of working out a funding deal with the World Bank. Du Toit penned a letter to van Eck while he was still in the US informing him about the desire in Afrikaner community to have the oil-from-coal project driven by the state (Sparks, 2012:41). Van Eck concluded that based on technical and economic evaluation of the American project, a similar undertaking would be viable in South Africa. The Cabinet went on to seek parliamentary approval for a guarantee of £13 million.

While in the US van Eck and Rousseau learned that the Kellogg project was a modest experimental plant but Rousseau chose to extol the company as highly experienced and capable of taking a synthetic oil project to commercialisation (Sparks, 2012:49). Other information they received indicating that the US plant may have been in disarray was duly ignored. In January 1951 Rousseau argued that,

> [w]e are unanimous in our feeling that we would be very unhappy to lose the services of the W. M. Kellogg Company in our first project. They have gone about things the right way and we have complete faith in their ability to do as good an engineering and construction job as has ever been done in South Africa.[77]

However, Rousseau’s assertions on the abilities of Kellogg were based on the company’s ‘reputation in engineering circles in the United States for their “conservatism”, which he took as a sign that he could trust that they were not pushing an untried process onto SASOL’ (Sparks, 2012:50).

In concert with the policy of import substitution industrialisation, SASOL received protection from imports in the form of lower excise duties. Similarly, new refineries that sprang up beginning with Enref in 1954 were as a result of the introduction of protection from imports. Up to that time South Africa imported refined products and only began to import crude oil in the same year following the construction of Enref, a massive oil refinery in the country in Durban owned by US oil giant Mobil. The foundation for a large fuel refining industry which exists to this day had been laid.

5.2.2 State-led Development in the Rise of SASOL

The key milestone in the history of the IDC and indeed the South African economy was the decision by the state to create a synthetic oil company, SASOL funded through the IDC. Contrary to Marquard's (2006:278) assertion that the decision to support the synthetic oil project by the government was imbued with IDC-led import substitution industrialisation, the abundance of coal in South Africa was the primary motive behind the establishment of a coal-from-oil industry. Actually, the IDC was brought in by the state to become the vehicle through which it could finance the SASOL project. According to Sparks (2012), the ability to extract the coal cheaply on the back of inexpensive African labour further made it possible for South Africa to establish the industry. World Bank officials were unconvinced, bereft of the appreciation of the political economy of South Africa under apartheid, of substantially low labour costs that underlay the viability of the SASOL project when comparing it with similar attempts in other nations around the globe (Sparks, 2012:45). This made it difficult for the bank to commit to funding the SASOL project.

While the state was intent on proceeding with the oil-from-coal project, Anglovaal indicated that it required a state guarantee for the estimated £20 million they would raise from EXIM bank.[78] Doubts over whether it would raise the necessary funds, coupled with the conflict with its two employees of a subsidiary involved in shale oil who were prominent Afrikaner chemical engineers Etienne Rousseau and Johnny van der Merwe, gave the calls for state involvement some appeal (Sparks, 2012:38). Rousseau went on to share his views with du Toit. He further recommended that the oil-from-coal project needed to be taken over by the state with the IDC driving it (Sparks, 2012:39). The justification for the state to take over the SASOL project was that a private sector entity was not capable of raising the necessary capital for the project of SASOL's magnitude.

It was very clear from the onset that the state, through the Minister of Economic Affairs, would retain full control over the company. The IDC was identified as an important vehicle through which the state could create and nurture SASOL as the means of avoiding the long and complicated route of forming a state-owned company which would require among others the passing of an Act of Parliament.[79] According to Clark (1994:161), Parliament was known for requiring state corporations to offer part of their shareholding to private investors, a requirement that carried the potential to dilute state influence in the direction of the SASOL project. And '[i]n view of the economic and strategic significance the establishment of the industry was deemed to be of national importance and Government decided to provide the necessary funds through the Industrial Development Corporation.'[80] As the Minister of Economic Affairs Eric Louw put it bluntly 'the [SASOL] scheme … cannot be achieved with IDC's present resources'.[81] Moreover, the IDC's £5 million capital was fully committed and the corporation only had £300 000 in its coffers for other expenses. In 1950 efforts began to amend the IDC Act of 1940 to pave the way for the state to guarantee loans the IDC would raise to finance SASOL which was accomplished the following year.

Van Eck concluded in a memorandum about the creation of SASOL to IDC board members on 30 March 1950 following a meeting with du Toit, the Minister of Finance Nicolaas Havenga and Eric Louw the Minister of Economic Affairs that,

> [f]rom the technical information at my disposal it would appear that this scheme promises to be one of the most far reaching projects to be initiated in the country and we should do everything to foster it particularly also as Government is anxious to see it go ahead as soon as possible.[82]

SASOL was over and above a strategic project of the state with the IDC acting as a conduit in the company's financing. From when the SASOL project was initially conceived there was no doubt about the role of the IDC or lack thereof,

> Sasol will thus be able to function as an independent and self-governing unit through its own Board of Directors (nominated by the Minister of Government for appointment) without the IDC exercising any control over the company's internal affairs.[83] (Google and author's translation)

SASOL itself never wanted to even appear as a subsidiary of the IDC. As far back as 1951 SASOL Managing Director Etienne Rousseau complained about the funding model appearing to render SASOL a 'subsidiary of the I.D.C.' (Sparks, 2016).

In its Annual Report the IDC (1952:2) declared that,

> Although SASOL technically is a wholly owned subsidiary of the IDC, the Corporation does not control this undertaking which is operated by its own Board of five Directors, three of whom, including the Chairman are appointed by the Government direct, so long as any portion of the Government-guaranteed loans are outstanding, while the other two are appointed by the Corporation in consultation with Government.

In addition, the state had the right to take over the IDC's shareholding in SASOL at any time and similarly the IDC could call on the state to exercise its right (see IDC, 1956). Parliament would still have oversight due to the fact that any company created by the IDC under Section 3 (a) of the IDC Act was required to table its Annual Report to Parliament. Overall the feeling expressed by du Toit was for the government to exercise maximum control of the company particularly in its infancy.

The Department of Commerce and Industries and the IDC acted as intermediaries between SASOL and the Treasury. The government authority responsible for SASOL was the powerful Department of Economic Affairs under Eric Louw. Certain important information on SASOL was only shared with Louw's department but not the IDC or the Department of Commerce and Industries.[84] By 1967 the IDC itself was reporting to the Minister of Economic Affairs.

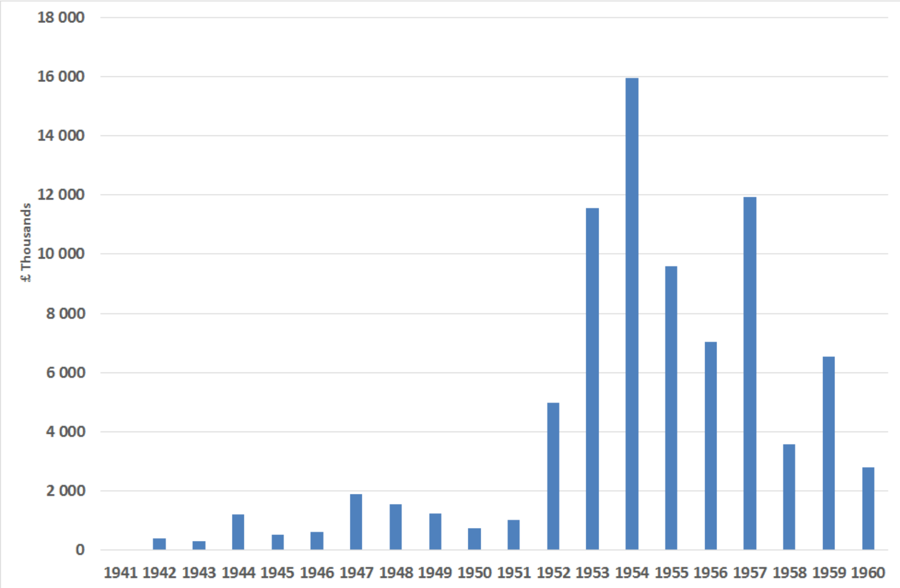
5.2.3 SASOL's Impact on the Economy and its Financial Cost to the State

Prior to the formation of SASOL and to a lesser extent FOSKOR the IDC until that time had been focused on promoting import substitution industrialisation. It can be argued that this marked a period when the IDC was thrust into the vortex of the Minerals Energy Complex (MEC). In an influential book Fine and Rustomjee (1996:5) argue that the MEC 'lies at the core of the South African economy not only by virtue of its weight in economic activity but also through its determining role throughout the rest of the economy.' The development of the manufacturing sector in South Africa was strongly connected to mining and energy with this relationship reinforced by the financial system and the state. Fine and Rustomjee (1996) argue cogently that much of what is considered manufacturing is an extension of mining with separation introduced for statistical uniformity. SASOL fits perfectly in this framework; manufacturing synthetic fuel from coal consuming inordinate amounts of electricity from coal-fired power stations. As a system of accumulation, the MEC concept views the bringing in of other sectors of the economy outside of the MEC through diversified conglomerates which own and control large parts of the economy in addition to relationships between the state and capital as central to the model.

The recommendations of the Coal Commission included the need to increase the utilisation of low grade coal which was known at the time to be 'inexhaustible' in South Africa. SASOL and the consolidation of power companies into Electricity Supply Commission (ESCOM) generated a large market for low grade coal. The emergence of refineries also assisted in the extension of linkages with other industries notably chemicals (Marquard, 2006:280). The widely held notion that SASOL emerged as a product of the apartheid state's response to economic sanctions (Feinstein, 2005:183) is insufficient because the oil embargo was not yet a key consideration up to the 1960s when it was first mentioned, only to be implemented in the 1970s (Marquard, 2006:248).

The £13 million approved by the Cabinet to fund SASOL in 1950 far exceeded total IDC investment since its inception. Figure 28 clearly illustrates that with the advent of SASOL financing, its total annual investment dwarfed the IDC's total financing prior to 1950. The creation of SASOL and the concomitant injection of large amounts of capital by the state via the IDC is clearly visible in the figure. This was a reflection of both the gigantic nature of the SASOL project and the limited size of financial resources of the IDC in its first decade.

Figure 28. Gross IDC Investment 1941-1960

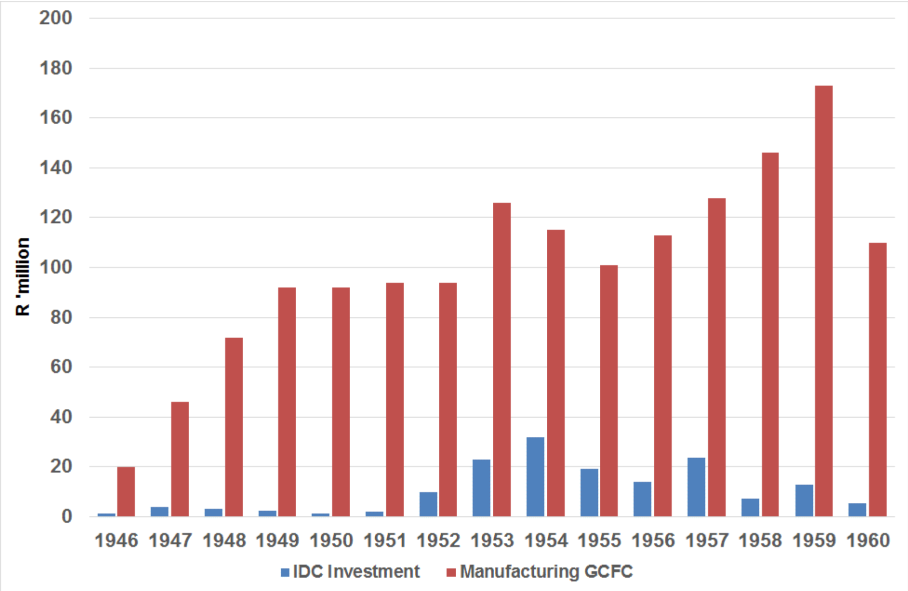


Source: IDC, 1960

Figure 29 shows total manufacturing gross fixed capital formation (GFCF) compared to IDC gross investment from 1946 to 1960. In the mid-1950s investment by the IDC saw a surge in total GFCF in South Africa's manufacturing sector. In 1954 finance disbursed through the IDC was equivalent to 27.7% of total manufacturing gross fixed capital formation which lay behind much of the 30% nominal increase of overall manufacturing GFCF over the previous year. Over 80% of the capital invested in 1954 by the IDC went into SASOL as the corporation raised its shareholding in the company by £13 million. In the same year a further loan of £2 million was extended to SASOL by the IDC from its own resources. Although appearing to ring hollow in the face of SASOL overwhelming capital injection the rest of its investment activities combined, the IDC announced that its primary objective remained financing the private sector (IDC, 1957:7). By the close of the 1950s the state had parted with £48 million in supporting SASOL relative to only £8.2 million it poured into IDC coffers in the corporation's first two decades. Undoubtedly SASOL was a key project in the list of priorities in the mould of South African Railways & Harbours, ISCOR and ESCOM. The IDC on the other hand was an important tool of the state, as the financial support received indicates, lower down in the list of key state institutions.

From Figure 29 below IDC financing was unsurprisingly a modest contributor to total manufacturing gross fixed capital formation. It hardly needs re-emphasising that the noticeable sharp rise in IDC investment in the 1950s was a result of the SASOL project. For a financial institution that was under a decade old with only £5 million initial capital, the capital disbursed was bound to remain miniscule relative to total manufacturing investment. Moreover, IDC investment in industry was viewed by its hierarchy and indeed the state as catalytic. To this end, by mid-1943 recipients of IDC funding had mobilised an additional £1 925 000 from other sources relative to £699 086 invested directly by the corporation (IDC, 1943:3).

Figure 29. IDC Investment vs Manufacturing Gross Fixed Capital Formation



Source: Derived from IDC (various years) and SARB

In financing SASOL the state sought to avoid a repeat of the Iscor experience which burdened the company with massive interest payments prior to it reaching economic levels of production (Marquard, 2006:279). Funding the SASOL project through loans was not suitable as later on the project loans that were extended to SASOL were converted into shareholding funded by the state. In its own words the IDC (1951:2) stated that,

> Your directors agreed that it would be inappropriate for the corporation to finance SASOL loan requirements from permanent capital raised by the corporation for this purpose would, on account of their magnitude have to be supported by a full guarantee by the Union Government.

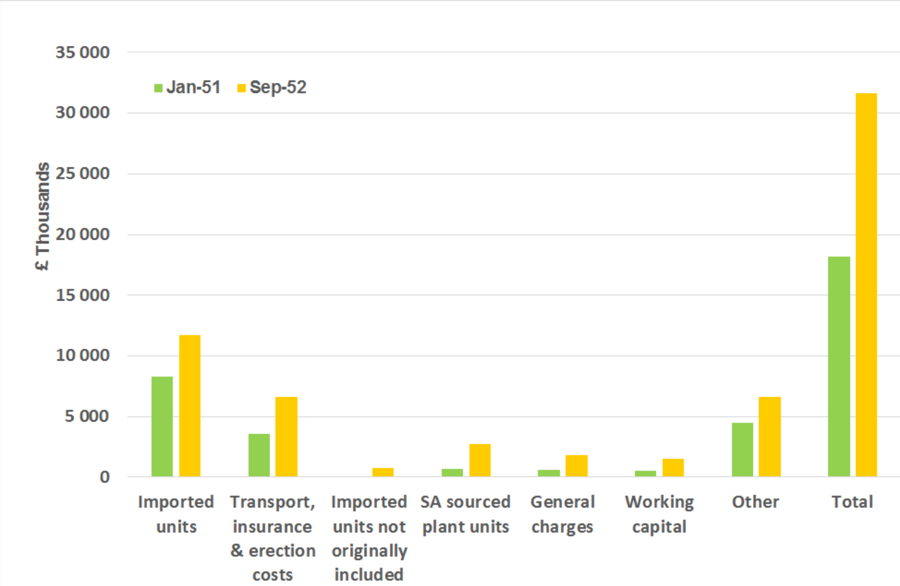
The Treasury was uncomfortable committing public funds to the SASOL project as far back as 1951 agreeing only in principle to the financial structure but still needing clarity on whether the IDC would provide part of the funding if it secured a loan from Switzerland.[85] In December 1951, through the Secretary of Finance D H Steyn, the Minister of Finance Nicolaas Havenga indicated that he was 'very disappointed that S.A.S.O.L.'s capital requirements have increased to such an extent that he would probably not have approved of the scheme had he visualised that the cost would reach such dimensions.'[86] The fact that the state complained about the financial burden of the bankrolling SASOL is a clear indication that based on its magnitude and the level of risk, the project could only have been carried out with the financial backing of the state.

Worse was to come for Havenga from the SASOL project. Towards the end of 1952 SASOL made further requests via the IDC and through the Department of Commerce and Industries for a massive £6.7 million or about 50% increase over the following financial year. This prompted Rousseau to write directly to Havenga saying SASOL was as shocked as he was by the ballooning budget. He blamed the fact that SASOL was a pioneering project and the massive rise in the price of steel overseas. In January 1953 Havenga reiterated his belief that the SASOL project would not have received his stamp of approval citing the diversion of funds from equally or more deserving social projects due to lack of funds as a result of the project.[87]

To put it into context the Department of Commerce and Industries' budget for 1950/51 was £3 200 000 compared to £2 867 000 SASOL received from the state in 1951/2 financial year. On the budget figure cited above (£34.5 million) total financial requirements of SASOL were equivalent to 15.8% of the 1950/51 total expenditure of the national government. The comparable figure in today's terms would be the annual budgets of the departments of Basic Education, Higher Education, Arts and Culture plus Sports and Recreation combined. As argued in Chapter Three, the South African capital markets in the early 1950s remained underdeveloped which was partly mirrored in the mere 8.6% contribution to GDP in 1950 of the finance, insurance, real estate and business services sector. By 2000 this sector would more than double its share of GDP to 17.4% (Derived from SARB, 2015). With SASOL adding to debt requirements from Railways, Escom and government departments it meant that the limited capacity of capital markets would not have been able to meet the required capital.[88]

Louw was also horrified by the explosion of the SASOL budget in the wake of the revisions, questioning the integrity of Kellogg and instructing SASOL management to implement cost-cutting measures.[89] Following a letter received from Louw, Havenga was equally outraged by the turn of events complaining that SASOL proceeded to raise the budget without obtaining approval of or informing the Ministers concerned who themselves were required to notify Parliament and obtain its approval of any budgetary changes.[90] In addition, Havenga wanted SASOL management to convey a message to Kellogg of the government's displeasure with its *modus operandi*. As shown in Figure 30 the total budget jumped by 74.6% in less than two years.

Figure 30. Changing SASOL Cash Requirements from January 1951 to September 1952



Source: SASOL, 1952

The financial year 1955 was significant in that the IDC for the first time since 1950 did not require funding or guarantees from the state to finance SASOL (IDC, 1955:1). By this time the IDC had injected £34.5 million of public funds into the company, 165% higher than the initial capital injection allocated by Cabinet. The initial increase above the £13 million was partly caused by the devaluation of the South African pound in 1949 which pushed the cost of importing the plant from overseas higher (Collings, 2002:17).

The reservations of the Minister of Finance should be viewed against the background of massive transfers by the state to the incipient state sector which were estimated at £192 850 000 in the four years after the end of the Second World War.[91] The Treasury had already lent £98 million to the Railways and £22.5 million to Iscor with the latter still requiring a further £12.5 million and ESCOM needing £38 million. In parliamentary debates Havenga was lashed for allowing government spending to reach £200 601 187 in the 1951/52 budget.[92] Yet in the 1950/51 Budget Havenga had imposed austerity measures to counter high inflation which was triggered by the devaluation of the pound in 1949 (Budget Speech, 16.3.50). Havenga was well-known for his austere approach to managing the national budget during his time as Finance Minister in the 1920s under Prime Minister J B M Hertzog. In addition, he was a very influential Minister and a favourite of Hertzog due to their close relationship (Koorts, 2014:211). However, that Havenga died in 1957 having retired in 1954 after losing the battle to succeed Malan earlier perhaps eased matters. Therefore SASOL's funding requests could not have come at a worse time for the Finance Minister who was under pressure to arrest growing government expenditure.

Yet in 1957 the Treasury approved a request to cancel SASOL's £5 million debt and substitute it with shareholding (IDC, 1957:10). This was also an admission that market-based funding methods for strategic projects were unsuitable and particularly for an emergent financier like the IDC which was short on funds and focused on profitable ventures. In early 1959 a meeting between the government, the IDC and SASOL to restructure the financing structure of SASOL resolved to settle SASOL loans to the tune of £9 million and inject a further £3 million in return for ordinary shares in the company (IDC, 1959:10). Parliamentary approval was secured a week before fiscal year end. In no more than eight years at the end of the 1950s SASOL had absorbed £48 million of state funding channelled through the IDC (IDC, 1960), well over three-and a half times the initial estimated cost of £13 million. SASOL alone accounted for 58% of total gross IDC investments in the corporation's first two decades. Table 6 below chronicles SASOL funding over the company's first decade.

Table 6. Chronology of State Financing of SASOL Through the IDC

Financial Year	Ordinary shares	Loans and Preference shares
1950		IDC approves SASOL project on basis of total estimated capital of £18 000 000
1951	£663 000	
1952	£3 530 000	
1953	£12 000 000	+£1 000 000 Sasol Township
1954	£25 000 000	+£2 000 000
1955	£25 000 000	+Loans £9 500 000
1956	£25 000 000	+Loans converted to preference shares (12/07/56) £5 000 000 Loans £10 700 000
1957	£30 000 000	Pref shares £5 000 000. Loans £10 150 000
1958	£30 000 000	Pref shares £5 000 000. Loans £11 250 000
1959	£42 000 000	£6 000 000 pref shares. Loans £0
1960	£42 000 000	£6 000 000 Pref shares. Loans £0

Source: IDC

The Members of Parliament from the opposition United Party questioned the wisdom of using state funds to the tune of £48 million by 1958 in SASOL, a company that was yet to generate any profit (Collings, 2002:53). In Parliament the Minister of Economic Affairs, Albertus van Rhijn, was at pains to explain that SASOL was a major technological project which was bound to encounter delays and unforeseen expenses. He appealed for patience as the final outcome was going yield a very large chemical industry and make South Africa world leader in oil-from-coal technology (Sparks, 2012). It was taken for granted that SASOL as a pioneer in commercialising oil-from-coal technology was setting the benchmark that other nations would emulate in the future (IDC, 1961:9). South Africa would, it was believed, be best placed to provide lessons to the world on the synthetic oil industry. The unease with technical problems and slow progress extended to the ruling National Party prompting the Minister of Economic Affairs in the late 1950s to request Rousseau to address the National Party parliamentary caucus on the issue (Sparks 2012:91). Although the IDC was an obedient agency of the state when dealing with SASOL, it drew a line when the demand of the state threatened to undermine the strength its balance sheet and jeopardised its other financing activities.[93] In the first phase of the SASOL project debt finance proved hopelessly inadequate. SASOL was unable to honour its debt obligations to the IDC due to losses and delays, threatening the IDC's ability to repay the short-term debts it received to finance SASOL.

The IDC did not only depend on the state for its financing but like other financial institutions it borrowed significantly from other funders. In 1952 the corporation borrowed from the Public Debt Commissioners £1 million to finance the creation of SASOL Townships Limited, a company established to build and manage a suburb to house SASOL employees. The IDC also borrowed from the NFC. The government extended to the IDC an interest-free loan of £738 735 to buy phosphate mining rights for FOSKOR. The loan was to be repaid over a long period through a levy that was payable to the state. The IDC served as an intermediary in this deal (IDC 1952:3). The IDC borrowed $8.5 million offshore from Chase Manhattan in July 1959 meant for the normal business of the IDC i.e. section 3 (b) of the IDC Act.

5.2.4 Technical Problems and Lessons Gained

Learning, particularly involving knowledge from foreign sources, constitutes an important pillar of the industrialisation ideal-type among latecomers to industrialisation (Amsden, 1989:20). In the case of SASOL learning took centre stage because the oil-from-coal project had no precedents on a commercial scale and its foreign partner was less than honest about its capabilities. The decision to proceed with the Kellogg plant which was motivated 'by its reputation as the best in the world in petroleum project development'[94] caught up with SASOL. Numerous technical problems began to surface resulting in the management of SASOL blaming Kellogg for deceiving them and lying about the capabilities of the synthesis process (Sparks, 2012:55). Angry exchanges between SASOL and Kellogg ensued with the latter suggesting that technical problems were a result of the former's ineptitude. The many setbacks suffered by SASOL as a result of Kellogg's technology fiasco made the company mistrustful towards external experts impelling it to create its own internal research programme in 1958 (Sparks, 2012:91). Although it did not sit well with some National Party politicians, foreign expertise and English-speaking technicians were crucial at SASOL (Freund, 2019:110). News about the floundering SASOL project also reached Germany. It turned out that a report produced by the IDC identified 'poor workmanship of some of the plant delivered'[95] as the major cause of SASOL's problems. In 1956 SASOL (1957:10) itself cited poor workmanship as the underlying cause behind the frequent halting of the synthesis plant due to leakages in some heat exchangers.

The plant failed to operate in 1954 as scheduled, exposing fundamental flaws in the Kellogg synthesis unit (Sparks, 2012). The 30-metre high Kellogg reactor came crashing down on one occasion due to incessant shaking caused by over 200 tons of the catalyst's five metres per second (18km/h) movement inside the reactor (Collings, 2002:50). The movement of gas under high pressure led to the wearing of the surface of the curved pipe at the top of the reactor. For about a decade SASOL lost a few reactors to fires. The fires were ascribed to very hot gas plus catalyst leaking through the seals, coming into contact with atmospheric oxygen and igniting (Collings, 2002:51). These series of events coupled with others led SASOL management to conclude that South Africa was in effect made to bankroll the learning experience of Kellogg (Sparks, 2012:57). Heated exchanges characterised by accusations and counter accusations continued to bedevil the relationship between SASOL and Kellogg.

In 1956 the SASOL plant was operating at lower than anticipated capacity due to numerous technical difficulties which turned out to be quite complex requiring the involvement of outside consultants (IDC, 1956:10). As a result the IDC agreed to provide additional capital of £2.3 million pushing the total investment in SASOL to £43 million. In 1959, following an agreement with the government, all loans extended to SASOL were liquidated in order to free the company from bearing the costs of interest. This involved a £12 million transfer from the government to the IDC (1959:10). The IDC was quick to emphasise in the context of very large investments it made using government finances and that the last payment it received from the state for its normal business was made in 1954.

Technical problems experienced at SASOL were attributed to inferior materials, late arrival of plant and equipment from overseas and the absence of a similar project elsewhere where lessons could have been learnt. Increasingly SASOL was forced to rely on its own technicians and domestic suppliers. By the end of the 1950s as much as 60% of the company's plant requirements were sourced from South Africa (IDC, 1958:18). As Rousseau put it 'We have been faced with many very difficult chemical and engineering problems…which could only be solved by the experience built up at Sasolburg' (SASOL, 1957:8). The technical problems were so serious that, by SASOL's own admission, they constituted a major distraction leading to the neglect of other growth opportunities in the chemicals industry (SASOL, 1959:6). The delays and technical difficulties encountered by SASOL meant that its profitability would also be delayed making it most challenging for the company to service its debt.

In improving gasifiers incrementally from the mid-1970s SASOL and Lurgi engineers worked for many hours to perfect the coal gasification process resulting in SASOL becoming a co-licensor of the technology (Collings, 2002:28). Later on in the 1980s when developing the next phases of SASOL the experience was a lot less daunting than in the 1950s. SASOL III in particular took a remarkably short period to complete due to the experience gained in SASOL I and II. In 1978 some 200 SASOL employees relocated from Sasolburg to Secunda (SASOL, 1978:2).

5.2.5 The Role of Cheap Labour, Housing and the IDC

Sparks (2012:9) has argued that the much-publicised low-cost coal from which South Africa derived its competitive advantage in the synthetic oil industry was a euphemism for ‘hyper exploited black labour’. Therefore South Africa was a forerunner in commercialising oil-from-coal on a large scale precisely because it was able to extract coal at lower costs relative to other countries on the back of ultra-cheap black labour. Without a cost structure of SASOL it is difficult to determine with certainty the validity of the proposition. Indeed coal mining remained labour intensive and as Collings (2002:28) put it,

> The traditional way of mining coal, which still prevailed in southern Africa at the middle of the 20th century, was to drill holes in the coal, using hand-held drills; pack them with explosives; detonate the charges to blast the coal; remove the coal from the face of the seam by pick-axe; manually load coal hoppers with lumps of coal; then push the hoppers along rails in the working section before attaching them to an endless-rope haulage system.

SASOL vigorously resisted attempts to erode its source of competitiveness in low wages. In November 1953 the Native Commissioner was called to Sasolburg by the Compound Manager to intervene following calls on African workers to strike for higher wages and better conditions.[96] Some 1 200 African workers at SASOL were called to a meeting where the Native Commissioner, the Compound Manager and the Commandant Captain were present. Low wages were the prime grievance in addition to verbal and physical abuse of African workers at the hands of their white supervisors. While the company agreed to address living conditions and other grievances, workers were told that they were free to resign if they were unhappy with their wages. They were also reminded of the 1946 mineworkers’ strike where their peers were fired *en masse*. In addition, police were on stand-by during the gathering though they were never required to intervene.

By the mid-1960s African workers constituted the majority of the workforce on Sigma coal mine in Sasolburg while relatively well-paid white workers were in the majority in the SASOL plant. A breakdown of SASOL workforce is shown in Table 7. Even with access to inexpensive labour SASOL could not operate its oil-from-coal plant profitably and competitively without the aid of state protection, finance, subsidies and policy support at prevailing low crude oil prices. Security loomed large when SASOL was conceived and configuring the racial composition of its workforce (see Freund, 2019). African workers could not be trusted to keep sensitive information of the SASOL plant from Pretoria's enemies.

Table 7. Breakdown of White and African Labour at Sasol

	SASOL (excl. Sigma Mine)		**Sigma Coal Mine**	
	White	**African**	**White**	**African**
1967	3 337	2 565	235	1 771
1968	3 334	2 312	234	1 805
1969	3 383	2 150	227	1 786
1970	3 210	2 111	206	1 599
1971	3 182	2 021	188	1 565

Source: SASOL 1971

IDC development finance was used to develop Sasolburg including provision of housing for SASOL employees. In this regard the IDC went beyond the role played by most development banks in financing belated industrialisation. SASOL grew initially in a purpose-built town of Sasolburg in the Orange Free State 14 km across the Vaal River from Vanderbijlpark. The significant role played by the IDC in housing development was in the creation of SASOL Townships when the corporation provided £1 million in funding. The funds were borrowed from Public Debt Commissioners in July 1952 underwritten by the state to re-lend to SASOL Township Limited, a company tasked with managing the new suburb (IDC, 1952). The primary function of the funds was to develop residential and business areas in Sasolburg. Soon thereafter the houses sprang up; shops and a recreation hall were also constructed. The creation of a suburb in an area that previously was a farm and bereft of the infrastructure was necessary to entice SASOL workers to live the town. The new town was located in the proximity of the SASOL plant and the Sigma coal mine.

By 1955 SASOL Townships registered a profit on the back of sales of developed land for business. As shops, industries, and amenities were developed the white population reached 4 500 (SASOL, 1955:6). In 1957 infrastructure constructed by the company was sold to the local authority. As the founder of Sasolburg, in 1960 45% of all properties in the town belonged to SASOL. SASOL continued to play a role in providing housing for its employees including those of its subsidiary Natref, and in another new town, Secunda, in the late 1970s and 1980s.

5.3 The Role of the IDC and SASOL in the Expansion of the Chemical Industry

Having overcome the debilitating technical problems SASOL entered the second phase of its existence which was characterised by diversification into other parts of the chemical industry. In partnership with the IDC the company introduced new products in the South African market invariably linked to its petrochemical plant in Sasolburg. This served to reinforce the transition to the dominance of heavy industry in the manufacturing sector and enabled SASOL to export on a large scale. It was during this phase that SASOL, buoyed by improving profitability, became a key source of funds for the IDC, a role it continues to play to this day. SASOL paid its first ever dividend to the IDC in 1961/2 financial year triggering a huge jump in the corporation's profits (IDC, 1962:4). In spite of an increasingly strong balance sheet of the IDC the expansion and diversification phase remained a state project from design to funding stages. The IDC also took advantage of SASOL's expansionary efforts to promote industrial development through downstream chemical industries often in partnership with SASOL. The corporation played an important role in establishing new industries with an import substitution dimension to it. The third phase marked the creation of the massive complex in Secunda with the IDC not only a conduit of state funding but providing the financing framework for the creation of SASOL II and III. Despite the passage of time the state insisted on receiving what it deemed a fair share of the benefits of SASOL as late as the close of the 1980s.

Development finance was critical during the expansion phase. The state funded most of the projects through increased shareholding in the IDC making it easier for the corporation to extend long-term credit to its clients in the chemical industry. Financing the various companies the IDC typically went into joint ventures that were characterised by IDC and SASOL injecting shareholder capital which had come to typify IDC's long term funding method. Through this approach both SASOL and the IDC were able to mobilise additional funding from other investors in the joint ventures as well as the banking sector. This phase also involved targeting of certain strategic industries in the chemical sector like gas, fertiliser and rubber manufacturing firms.

5.3.1 SASOL's Diversification into Chemicals and the Role of the IDC

Although the SASOL project absorbed massive amounts of capital, its importance in the local fuel market before the 1970s remained miniscule. In 1955 the company satisfied 6% of total domestic demand for fuels and by 1973 the figure had fallen to 3% (Marquard, 2006:279). Rousseau reported in 1971 that 'at the end of 1970, after making corrections for octane changes, we were receiving, within a fraction of a cent, the same income for a gallon of petrol as we did in 1955' (SASOL 1971). In the eyes of apartheid ideologues, the high cost of the SASOL project was justifiable as it was part of the broader project of relocating economic power from English-dominated mining capital to the state and the industrialisation it was spearheading (Sparks, 2012:31). The hallmark of Afrikaner intellectual expertise that the SASOL project came to represent overcame parliamentary opposition and prevailing attempts at 'prudent' fiscal management under the tutelage of Treasury. Emphasis was repeatedly placed on the fact that the SASOL project was of 'national importance'. Moreover, SASOL became a platform from which to create a more national (Afrikaner) industrial base to counter mining cum English capital base epitomised in the chemical industry by Anglo American-owned AE&CI and its affiliates.

The state remained at the centre of the diversification and expansion programmes of SASOL determining the agenda for the company, approving projects initiated by the company and importantly providing finance. In the early 1960s Rousseau and the Minister of Economic Affairs Nico Diederichs held several meetings to discuss the future of SASOL. In March 1963 Rousseau summarised the proceedings to include a request for Cabinet approval of the intensification of oil-from-coal research aimed at creating a larger plant.[97] The discussions also concluded that SASOL on its own could proceed to establish synthetic nitrogen, ethylene, styrene, butadiene production and possibly gas supply. In 1966 the state ordered SASOL to intensify research into synthetic oil with the possibility of creating a new plant in mind (SASOL, 1966:2). SASOL, through Rousseau, was increasingly communicating directly with the Minister of Economic Affairs bypassing both the IDC and the Department of Commerce and Industries.

The IDC and SASOL considered the feasibility of expanding SASOL when requested by the state to do so but van Eck counselled the government not to expand SASOL on the grounds that the oil price had been consistently low. Instead he advised the state to establish a refinery inland in the proximity of the strategic oil storage facility which led to the birth of National Petroleum Refiners of South Africa (Natref) in Sasolburg (SASOL, 1970:2). SASOL became the majority shareholder of Natref with the local affiliate of French oil company Total South Africa and the National Iranian Oil Company (Collings, 2002:73).

Having overcome the distraction wrought by technical problems in the 1950s SASOL was able to transform itself into a more diversified energy and chemicals company in the 1960s. The period marked an important phase in the history of SASOL having made a limited impact on the chemicals liquid fuels market. This also signalled an important shift in the trajectory of its development but not away from the MEC. The oil-from-coal plant remained the foundation of the company's diversification and expansion into the chemical industry. In 1960 SASOL announced its plans to grow its petrol capacity and expand into other areas of the chemical industry under the rubric of 'Expansion Scheme' (SASOL, 1960:3). Having received the necessary approval from the state, it had hoped that the scheme would be financed through internally generated income. However, finance flowed from the IDC in the case of the butadiene and styrene plant in the form of shareholder capital injection, the incipient merchant banking sector and commercial banks made available working capital (SASOL, 1962:3). SASOL contributed R9 million from retained profits and cash.

SASOL was central to the rapid growth of the chemical industry in South Africa in the second half of the 20th century. From the mid-1920s to the close of the 1940s net output of the chemicals and chemical products industry fell as a percentage of total manufacturing net output from 12.1% to 9.5% (Feinstein, 2005:126). Over the same period by comparison Iscor-dominated basic metals industry almost doubled its share of net manufacturing output to 17.6%. The fortunes of the chemical industry began to change for the better as mirrored in the rising significance of the industry in net manufacturing output which rose from 9% in the mid-1950s to 14% in 1972 (Feinstein, 2005:126). Figures computed by McCarthy disclosed that from 1970 to 1982 the chemicals industry (excluding rubber and plastics) recorded the fastest average growth of 15.2% in manufacturing value added. By 1982 the chemical industry (excluding rubber) had raised its share of manufacturing net output to 13.2% (McCarthy, 1988:11) undoubtedly resulting largely from state's expansion of SASOL with the help of and in partnership with the IDC and SASOL-initiated expansion into the chemical industry. Clearly state intervention in this regard determined the direction and pace of industrial development leading rather than tracking the market.

By 1961 over 35% of SASOL's turnover was attributed to chemical products with an export component of over 10% of total chemical products sales (SASOL, 1962:3). Synthetic waxes from the Fischer-Tropsch process, were exported to many countries in Europe, North America and Asia in particular, Japan. In 1970 SASOL's sales of chemicals in the home market stood at R24.4 million or about one-third of the company's total turnover (SASOL, 1970:4). State intervention yielded a unique and desirable outcome in exports since the bulk of South African exports of industrial goods tended to be confined to the small southern African market (discussed in detail in Chapter Eight).

According to Lumby (1983:234), the advent of SASOL gave the chemical industry a major stimulus as many by-products became available to local producers. The local fertiliser industry was a major beneficiary of this growing on the basis of SASOL-produced inputs. In 1964 SASOL expanded into fertiliser production because the ammonia it was synthesising contained nitrogen which is a key input in fertiliser production (Collings, 2002:80). The IDC (1964) reported that new plants producing nitric acid and limestone ammonia nitrate for fertiliser were progressing satisfactorily. Fortuitously, the ammonia had to be removed from the synthesis gas before it entered the Fischer-Tropsch reactors for further processing. However, for a variety of reasons including a rather modest fertiliser market for decades, SASOL Fertiliser was not a financially successful subsidiary despite being the dominant firm in the market. In partnership with a number of investors the IDC provided finance to assist a fertiliser firm Fisons expand to the Highveld (IDC, 1958:14). It was hoped that its expansion would benefit agriculture in the Highveld. Its inland factory was located in Sasolburg where it also created intractable environmental problems.

From the 1960s to the 1980s SASOL increasingly diversified its asset base, establishing new companies in the chemical industry with strong connections to its synthetic oil base. From technical challenges to environmental mitigation requirements to cost management, SASOL's engineers and scientists were required to conjure up new methods and products that eventually saw the company enter other branches of the chemical industry. In conjunction with foreign companies and their staff, SASOL was able to produce globally competitive chemical products permitting it to become highly export oriented. Relative to the Northern hemisphere, South African coal was found to be harder and containing inorganic products, in particular, rock. Sasol Mining invested in new home-grown technology that saw a highly mechanised and increasingly automated mining methods with improved safety (Collings 2002). A foundation for a world-class mining environment was laid.

Being a profitable venture but no less dependent on state funding, SASOL's foray into the energy and chemical industry in the 1960s allowed the IDC to help intensify import substitution industrialisation, growth and diversification in the chemical industry in collaboration with SASOL. SASOL also became a source of a wide array of feedstocks necessary for the production of chemicals and established, often with the involvement of the IDC, several plants downstream. Care was also taken when joint ventures with foreign capital were forged to ensure South African control of the new companies was retained. The activities of SASOL and the IDC served to erode the power of English capital in favour of the state and Afrikaner capital. But the coal base of SASOL's numerous products ensured that it remained locked in the MEC.

IDC development finance was also catalytic in this phase as it crowded in investment from the private capital which often partnered with the corporation and SASOL in forming new ventures.

In addition, foreign expertise was sourced to construct new plants. Canadian firm Polymer Corporation and US company Fluor Corporation were given contracts to build the Synthetic Rubber Development Company plant. The partnerships with private capital, domestic and foreign, also served to attract much needed capital for investment and foreign expertise. In a joint venture with the IDC and other shareholders, SASOL created a synthetic rubber carbon black factory in the proximity of its Sasolburg factory. The Synthetic Rubber Development Company was established following in-depth research into the viability of such a venture (IDC, 1962:7). In 1962 the IDC established with a foreign partner the Synthetic Rubber Development Company. The new company's plant was located close to the SASOL plant and sourced its inputs, butadiene and styrene, from SASOL (IDC, 1962). The financing of the Synthetic Rubber Development Company came from the state through the IDC. The total fixed capital for the plant was R7 million and it began production in May 1964.

The state was asked to provide more funding through increased share capital. In the case of a butadiene plant partly owned by SASOL, the IDC funded it through R16 million obtained from the state (IDC, 1963). Butadiene is an organic compound extracted from petroleum used in the preparation of synthetic rubber. Soekor was created in 1965 to explore for oil as a joint venture between the IDC and SASOL financed by the state through the Strategic Mineral Resources Development Account itself a product of an Act of Parliament. The principal aim of Soekor was to gather information on the possible existence of oil, prospect and conduct exploration where possible.

By the early 1960s SASOL reported significant efficiency gains accompanied by diversification to downstream chemical products (IDC, 1963). Extensions to the SASOL plant were underway by 1963/4 and were estimated to cost R89 million (IDC, 1964), R37 million of which had already been spent. In 1964 the IDC (1964) declared that 'SASOL is now the heart of a vast complex of new chemical industries for which it is providing essential raw materials.' Six years later SASOL and its subsidiaries were engaged in the production of hydrocarbon oils, waxy oils, waxes, solvents, ash, fuels, coal tar products, nitrogenous products, and other chemicals (a complete detailed list of all the products and their applications has been attached to the Annex). By mid-1965 the IDC's total funding to SASOL stood at R113 million the bulk of which (96.9%) in the form of shareholding. By mid-1965 the IDC's investments in the chemicals industry (excluding the SASOL project) were worth nearly R65 million, making it the highest recipient of IDC financing of all industries at the time (derived from IDC, 1965).

In a joint venture with SASOL the IDC created the South African Gas Distribution Corporation (Gascor) in August of 1964. Methane is a by-product of processes in gasifiers and reactors and it formed the basis of the new company. Assisted by buoyant demand from industrial clients and households Gascor grew strongly extending its gas pipeline to places as far as Olifantsfontein outside Pretoria, on the East Rand and, using the Transnet pipeline, Durban (Collings, 2002:82-83). As energy intensive industries switched to gas the demand for gas rose phenomenally from the late 1960s to the mid-1970s. However, Gascor struggled to record a profit partly due to restrictions imposed on it by the state regarding price increases (SASOL, 1975:3). By the mid-1990s SASOL Gas, the renamed company, had in excess of 1 300 km of underground gas pipeline covering key industrial centres in South Africa supplying gas, the vital source of energy for burgeoning industry.

SASOL entered production of numerous chemical products over the decades. Ammonia by-products formed the basis for the creation of a division producing mining explosives. When the state sought to develop the plastics industry in South Africa it turned to SASOL (Collings, 2002). Using its reserves SASOL was able to fund new projects like the naphtha cracker and butadiene-styrene plants (IDC, 1963).

According to Fine and Rustomjee (1996:166), 'Afrikaner capital furthered its investments in chemicals with the assistance of the IDC.' In the 1960s SASOL and the IDC constituted a counterweight to the dominance of English and foreign capital in the chemical industry. Although AE&CI epitomised the preponderance of mining capital in the industry, SASOL and AE&CI co-operated as their relationship with Sentrachem in forming joint partnerships displayed. The birth of Sentrachem in 1967 was an outcome of IDC engagements with British firm BP Chemicals and Federale Volksbeleggings to merge the chemical interests of the three organisations (IDC, 1967:26). Karbochem, Klipfontein Organic Products, National Chemical Products and Synthetic Rubber Products became full subsidiaries of Sentrachem. The merged company would source its inputs from SASOL in what was described as an arms-length relationship. Emphasis was made in the agreement which was binding to all parties in Sentrachem that they were 'to maintain all-time South African control of this important Company' (IDC, 1967:26). Sentrachem grew strongly and by the mid-1970s its turnover had reached over R130m from R33 million in about nine years, while profit before tax rose from R4.1m to over R23m (*Volkshandel*, November 1975). Sentrachem was involved in many areas of the chemical industry including insecticides, ethyl alcohol, acetylene, chlorine, caustic soda and polyvinyl chloride (PVC).

In 1979, with the IDC playing a facilitating role, German company Südchemie and Konchem entered into a joint venture to create a company called African Catalysts located in Sasolburg to supply SASOL with its catalyst needs and manufacture other chemicals and chemical products.[98] Konchem was jointly owned by the IDC and SASOL.

The IDC benefited from its association with SASOL through dividend receipts. By 1975 SASOL was by far the largest source of dividend payments flowing into the corporation. Dividends from the company in 1975 stood at R5.4 million and rose to R6.8 million in 1976 (IDC, 1976:6). Until 1979 the IDC used such proceeds to finance state-sponsored industrial decentralisation programme (the subject of Chapter Six) and helping reduce the onerous financial burden the state endured bankrolling the programme.

Having had to carry large but unprofitable strategic subsidiaries for some time like Gaskor and the fertiliser business, SASOL used its dominant position in the market to reap super profits in other parts of the chemical industry but to the detriment of downstream chemical industry. As discussed earlier, the Minister of Finance feared in the mid-1940s companies protected from foreign competition could use of their dominant position to charge exorbitant prices became a reality as SASOL diversified to other branches of the chemicals sector. The SASOL-IDC partnership in the chemical industry spawned a dominant industry upstream. A more concentrated upstream industry emerged in polymers and a less so downstream in plastics has seen the former possess pricing power to the detriment of the latter (Roberts, 2001). This has helped generate a downstream industry that has been inwardly focused unable to compete in foreign markets precisely because of high input costs. As a supplier of raw materials to a wide array of industries SASOL was less developmental in this regard.

The diversification programme was overshadowed by the politically inspired SASOL II and III projects from the mid-1970s to the early 1980s. However, when SASOL realised that its fortunes were tied to the oil price which looked set to remain depressed, it refocused its energies on diversification. SASOL recorded impressive capital and labour productivity that far outstripped that of the manufacturing sector as a whole (Hodge, 2000). As the process to integrate South Africa into the world economy gained momentum SASOL’s exports grew strongly. The growth seemed to stem from a challenging operating environment imposed by a combination of rising prices of its dominant input, coal and the low price of oil in the 1980s which advantaged competitors who relied on oil as feedstock. With no influence on the prices of oil and coal SASOL could only focus on improving productivity and R&D to remain competitive. In the late 1980s SASOL’s synthetic oil business was recording a loss with overall performance sustained by the petrochemical business (Hodge, 2000:5). As a result SASOL opted to intensify investment in the petrochemical business which surged well into the 1990s.

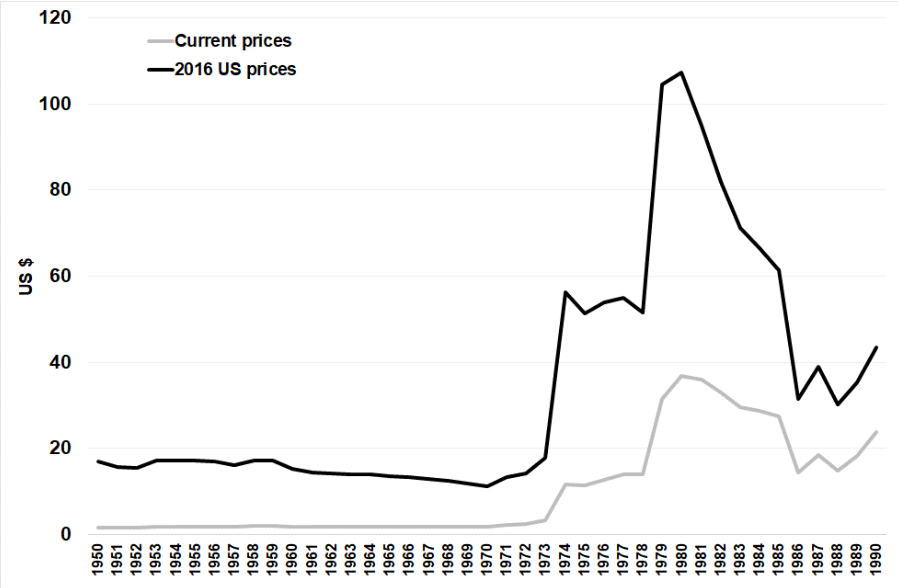
The diversification after the SASOL II and III projects was characterised by more downstream higher valued-added petrochemical businesses.

5.3.2 The Oil Embargo, the Expansion of SASOL and how it was Financed

The energy security strategy of the apartheid state has its roots in the early 1960s and was crystallised in 1964 when the IDC introduced the Strategic Fuel Fund. The IDC spearheaded the creation of National Petroleum Refiners of South Africa (Natref) which was commissioned in 1971 located in Sasolburg. The corporation also had a hand in liquid fuels policy design and managing strategic oil stocks. The establishment of the Energy Policy Committee which included the IDC, the Department of Commerce and Industries, the Department of Minerals and Energy Affairs and SASOL assumed the role of a think tank on matters related to energy security (Marquard, 2006:259). Marquard also shows that important policy directions were charted by a group of individuals from public and private institutions who also devised the oil security plan. Major decisions of the group did however exclude the IDC and SASOL. Van Eck was also appointed to chair a commission of enquiry on the construction of a petroleum products pipeline from the coast inland.[99]

The 1973 oil crisis which saw the price of crude oil quadruple overnight (see Figure 31) generated a major crisis across the world. It also marked a critical break to the post war golden era in capitalist expansion which benefited in no small measure from the low energy prices. In addition, calls to isolate Pretoria by the international community grew louder and were underpinned by efforts to impose mandatory arms embargo against the apartheid state as discussed in Chapter Seven. SASOL (1966:2) declared back in 1966 that it was 'it was providing active assistance in respect of other measures which are being taken by the Government for the purpose of attaining greater self-sufficiency on the part of the Republic as far as the availability of oil is concerned.' When the oil embargo imposed in 1973 by Arab nations against Israel and its allies was lifted in 1974, the embargo against South Africa remained in place (Marquard, 2006:285). The country became dependent on Iran for as much as over 90% of its crude imports. The Iranian state refused to endorse the embargo. The South African government had to rethink its energy policy which included the expansion of SASOL, from November 1974, lowering road speed limits and studying energy saving efforts of Western nations in coping with high oil prices, among others.[100]

Figure 31. Crude Oil Prices 1950-1990



Source: BP (2017)

The 1979 revolution in Iran saw the new regime break its relations with South Africa which at the time imported 96% of its oil from the Middle Eastern country (Marquard, 2006:299) triggering a crisis for the apartheid state. The overthrow of the Shah coupled with the UN-sponsored embargo of 1977 (discussed in detail in Chapter Seven), made completing the SASOL II and III projects critical.

In December 1974 the Minister of Economic Affairs Owen Horwood announced the impending birth of SASOL II many times larger than the first plant in Sasolburg. The announcement was followed a few months later by the acquisition of over 1 000 square kilometres of land by SASOL and mining rights marking the start of a new town, Secunda (meaning second in Latin) (Collings, 2002) some 130 kilometres east of Johannesburg, to host the new SASOL plant. In December 1973 SASOL began exploring for coal in parts of the eastern Transvaal under a pseudonym (Sasol, 2000). The location of Secunda was chosen to be in the proximity of large coal fields.

SASOL and the IDC had since the 1960s moved closer to each other as they joined forces to expand into the chemicals industry. By the mid-1970s the intimate relationship between the IDC and SASOL was underpinned by the three IDC directors on the SASOL board of seven directors namely A J van den Berg who was Chief General Manager, J J Kitshoff who was the Chairman, T de Waal who served as the General Manager of the corporation.

By contrast to the planning of the first SASOL plant, the state appears to have delegated more responsibilities to the management of SASOL and the IDC. In the wake of a Cabinet directive SASOL and the IDC met on several occasions in 1975 to design the structure of the new subsidiary owned in equal shares by SASOL and the IDC to facilitate the creation of the SASOL II project.[101] The establishment of SASOL II was approved by the state at a cost of just over R1 billion (IDC, 1975:16), a figure revised upwards to R2.5 billion allowing for 8% annual escalation (Collings, 2002:68). About 57% to 60% of the amount budgeted for SASOL II factory and the mine was expected to be spent on local firms (SASOL, 1978:4).

SASOL in conjunction with the IDC worked out the framework within which SASOL II was to be established. The IDC played an instrumental role in the policy development of the SASOL II project, proposing funding models and as the conduit to the actual financing. The IDC played a bigger role in this enormous project that went beyond the function a typical development bank. The state's approach to funding SASOL II and III differed fundamentally from its approach to financing of the original SASOL project. It shifted the bulk of the financing burden from its finances to the motorists and only committed loan funding which it made refundable within five years. The proceeds of privatisation of SASOL yielded the funds to finance SASOL II while a favourable regulatory environment ensured that SASOL remained a highly profitable institution, permitting the new project to prosper while benefiting the IDC as a key shareholder.

As part of socialising the risks of the SASOL II project, a new tax imposed specifically to support the expansion of the synthetic fuels industry was introduced and constituted by far the largest source of funds for the next two phases of the SASOL project. The State Oil Fund Act No.38 was enacted in 1977 and charged 7.4 cents per kg customs or excise duty on liquefied petroleum gas, four cents per litre customs or excise duty on petrol and one cent customs or excise duty on kerosene, distillate fuel or residual oil. On a litre of petrol of 25 cents the four cents customs or excise duty amounted to about 16% of the price. The proceeds collected were meant for,

> the financing or promotion of the acquisition of coal, the exploitation of coal deposits, the manufacture of liquid fuel, oil and other products from coal, the marketing of the said products, and any matter connected with the said acquisition, exploitation, manufacture and marketing.[102]

The State Oil Fund (SOF), established as a non-profit company managed by SASOL, was responsible for the management of the funds derived from the taxes. Construction loans for SASOL II originated from the state and Konoil, an IDC subsidiary, marshalled to the SOF, the conduit for financing the project (IDC, 1984:13).

A new company initially conceived under the name SASOL-Transvaal (later SASOL Limited) was to be formed as a joint venture between the IDC and SASOL. The reason behind establishing a separate company lay in the desire to shield SASOL from the financial impact of a large project that would not generate income particularly in its early stages.[103] The coal mine was financed through an interest free loan from (State Fuel Fund) SFF because state funding only began to flow in the 1976/7 financial year. Once the money from the state was transferred, part of it was used to settle the loan. With the blessing of the government and stemming from an agreement between the IDC, SASOL and the SOF, in 1979 SASOL I was sold to SASOL Limited for R293 million plus 30% shareholding in SASOL Limited.[104]

A holding company Konoil that was fully owned by the IDC held the corporation's stock in SASOL I, II and III as described below. Its purpose was to facilitate the privatisation of SASOL utilising the proceeds of the sale to finance SASOL III (IDC, 1979:9) and moneys from the state or its agencies. The privatisation of SASOL culminated in the listing of SASOL Limited on the Johannesburg Stock Exchange in October 1979 which saw 70% of the company fall into private hands. Yet SASOL was not yet amenable to private sector (debt) funding as the bulk of the finance originated from the state in various guises although money raised from the listing originated from the private sector.

Konoil held 33.75 million (30%) of the 112.5 million in SASOL Limited shares owned by the IDC as well as 50 million shares (50%) in each of SASOL II and III. In financing the latter Konoil relied on the R293 million from the sale of SASOL I and R350 million transfer from the state.[105] The R350 million funding of SASOL II and III from the state was paid over with the understanding that the IDC would refund the state with interest.[106] The funds received from the Treasury for SASOL II and III were reimbursed to the state in the mid-1980s with interest or profit earned, following an order from the Ministers of Finance and Minerals and Energy Affairs made in 1984. Konoil paid R259 million to the state in return for shareholding in SASOL that was held by the IDC.[107]

As in the SASOL I project, the state rather than the IDC funded the next two phases of the project. Unlike SASOL I which was financed virtually entirely from the national revenue fund, SASOL II and III also benefited directly from a special tax dispensation tailor-made to finance the projects and refundable transfers from the state via the IDC. Finance from the state came in the shape of Parliamentary appropriations flowing into IDC coffers in return for increased shareholding in the corporation by the state.[108] The IDC channelled such funds into the SASOL II project through Konoil. Retained profits by SASOL also played an important role in the funding of SASOL II. In 1977 SASOL reported that it spent R26.3 million in working capital for the establishment of Secunda and construction of housing the town (SASOL, 1978:4). In 1981/2 the IDC ceased to be the conduit through which the state financed SASOL (IDC, 1982:3).

SASOL passed the management of the SFF and the SOF to the IDC which assumed ownership of the two funds. However, the IDC (1984:13) announced that 'While the SFF and the SOF are both subsidiaries of the IDC, the Corporation has no beneficial interest in the companies and is not responsible for their funding.' Table 8 shows the detailed breakdown of state funding of SASOL II and III over the first five years of the project.

Table 8. State Funding for SASOL II and III Through the IDC and Konoil

	Share capital in IDC	**Investment by the IDC/Konoil**	
		SASOL II	SASOL III
1977	10	5	5
1978	85	85	-
1979	115	115	-
1980	50	-	50
1981	100	-	100
Total	**360**	**205**	**155**

Source: IDC Papers[109]

The impact of economic reforms announced by the P W Botha administration in 1979 was characterised by a shift away from the centrality of the state in the direct management of the economy and ownership of companies. This was felt in IDC's ownership of SASOL. The process of privatising SASOL was well underway and culminated in the listing of SASOL on the Johannesburg Stock Exchange in October of 1979. Rather than the much-vaunted distribution of shareholding to ordinary (white) citizens, dominant corporates received the bulk of the stock made available (Sparks 2016). In privatising SASOL,

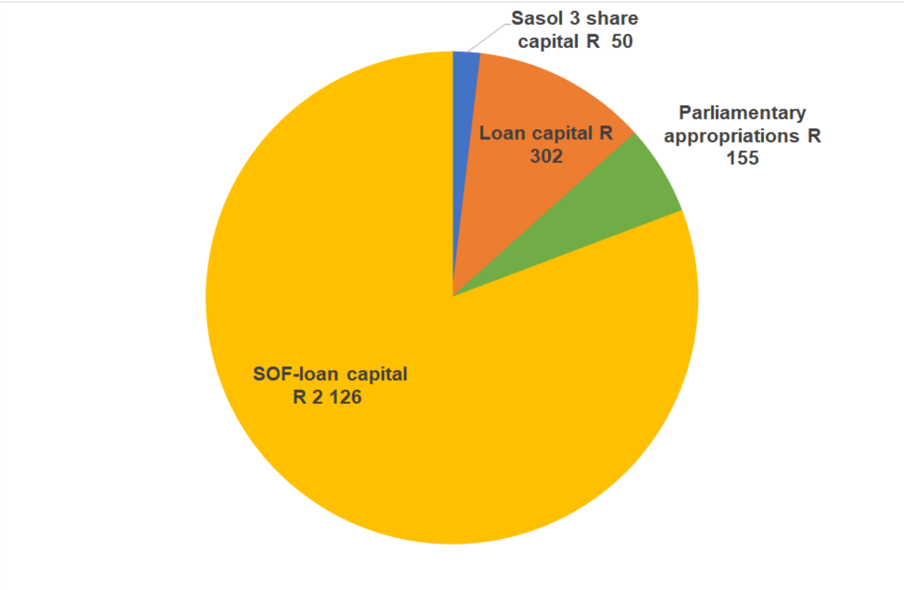
> the government surrendered control of the company, for(e)going the profit streams associated with the divested share and for(e)going the technology ownership whilst retaining virtually all the risk associated with the business of the company (Rustomjee, 2007:105).

By the early 1980s large financial institutions including insurance giant SANLAM which was deeply rooted in Afrikaner nationalism, SA Mutual, Volkskas, Barclays and pension funds among others had amassed a large percentage of shareholding in SASOL. With the fears of an oil embargo dissipating in 1990 the SASOL I plant was transformed into a petrochemical plant (Marquard, 2006:279).

The period following the completion of SASOL II and III was a difficult one for the IDC as it had to make substantial payments to the state and justify its continued holding of the SASOL stake, a key source of finance for the IDC. While the IDC is widely perceived to be the progenitor of SASOL, its dependence on the company was vividly displayed when the Department of Mineral and Energy Affairs proposed that IDC shareholding in SASOL should be transferred to the Central Energy Fund.[110] The IDC stated that without such shareholding it would be financially crippled to the extent that its creditworthiness would also be severely compromised to a point of undermining its ability to raise funds in the markets. As a result, the corporation could be compelled to depend on the state to meet its financial obligations.

In the 1980s dividend income from SASOL was important in keeping the IDC profitable and as a source of funds for investment in the industrial decentralisation programme. In 1983 the IDC received R19.5 million in dividends from SASOL which rose to R36 million in 1987. When in the mid-1980s the cash deficit was expected by the corporation, R50 million earned through Konoil more than covered it.[111] SASOL remained the single most important asset on IDC books and by 1988 IDC shareholding in the company was valued at over R800 million while total assets of the corporation stood at just more than R3 billion. In spite of having a reduced stake in SASOL, over 25% of IDC's assets resided in the company.

Figure 32. Breakdown of SASOL III Funding from the IDC (millions)



Source: IDC Papers[112]

By the 1980s the relationship between the IDC and the state had altered somewhat with criticisms of the corporation coming from senior government officials among them its own

Chairman P J van Rooy and Kent Durr, then Minister of Trade and Industry (Black 1993:228). The IDC found itself having to justify its role to the Cabinet which had grown increasingly sceptical of how the corporation deployed state funds in SASOL II and III and its role in the economy in general. In retort the IDC maintained that it required the income from the Konoil investment in Sasol III to support industrial development.[113] Armed with a report from its auditors the IDC insisted that further repayments would not only erode the IDC capital base but were also illegal. The IDC further explained that the only legal method of payment would be through paying a dividend to the state. Eventually the payments were made in the form of dividends because the IDC could not redeem its own shares.[114]

By mid-1985 the state had received R360 million as compensation for SASOL II and III it advanced to the projects through the IDC.[115] The state did not give up on getting compensated for what it deemed a fair share of SASOL's stock and continued to engage the IDC and other parties to secure compensation for its investment in SASOL as late as the close of the 1980s.The Public Accounts Committee of Parliament tasked the Treasury, the departments of Commerce and Industries and Minerals and Energy Affairs with investigating how SASOL I was financed with a view to recovering such funds. Ultimately, in November 1989 the Secretary of the Treasury conceded that after investigation and consultation with the IDC, it was never the intention of the Government to recover the monies and considered the request of the committee to have expired.[116]

5.4 The Formation of FOSKOR

In its second decade the IDC made another important sally into the chemical industry. It entered phosphate mining when it helped create the Phosphate Development Corporation Limited (FOSKOR[117]) meant to support the production of artificial fertilisers for agriculture production. The shortage of phosphate had been exacerbated by the Second World War and continued even after the cessation of hostilities. The state regarded FOSKOR as a project of strategic importance (Clark, 1994:162). The FOSKOR project fell in the same fold as the SASOL project in terms of the risks and magnitude of the capital required. The IDC with its bias towards ventures that display good prospects for viability was not the ideal vehicle for funding FOSKOR, state views to the contrary notwithstanding.

The formation of FOSKOR in 1953 constitutes an important window through which the relationship between the IDC and the state which took both co-operative and conflictual dimensions can be analysed. The story of FOSKOR began in 1951 when an agreement was struck between the state and the Transvaal Ore Company for the state or its nominated company to acquire farms in the mining district of Pietersburg[118] (now Capricorn District). During the Second World War importing phosphate into South Africa was severely disrupted (IDC, 1952:3). The Minister of Economic Affairs Eric Louw announced in July of 1951 that the state was intent on mining phosphate in the north-eastern Transvaal.[119] It was effectively an import substitution project as South Africa was importing about 90% of its rock phosphate requirements. The stated primary objective was to support commercial agriculture which, given the soil type in South Africa, relied heavily on phosphate fertilisers.

Anglo-American-owned AE&CI wrote to the Minister of Economic Affairs expressing its reservations about the impact of creating a phosphate industry on its business should supplies from North Africa be adversely affected by the move. Its major concern was the potential shortages that could be generated through changing sources of rock phosphate in the light of contracts already entered into.[120] However, in 1963 AE&CI opened a large fertiliser plant outside Johannesburg that used FOSKOR rock phosphate (Crompton, 1994:136). As the only buyer of phosphate concentrates from FOSKOR, AE&CI determined the price after considering what it would have cost to import the products from Morocco.[121] Put differently, the company employed import parity pricing.

5.4.1 Financing FOSKOR and Technical Difficulties

The funding of FOSKOR was a source of contention between the IDC and the Treasury mediated through the Minister of Economic Affairs. The state attempted to force the IDC to rely on retained earnings and reserves to finance a high-risk strategic project. However, the project did not qualify under the 'economic merit' condition which generated intense resistance from the IDC. FOSKOR was a project that could not be bankrolled by the private sector and only development finance from the state via the IDC was the ideal instrument.

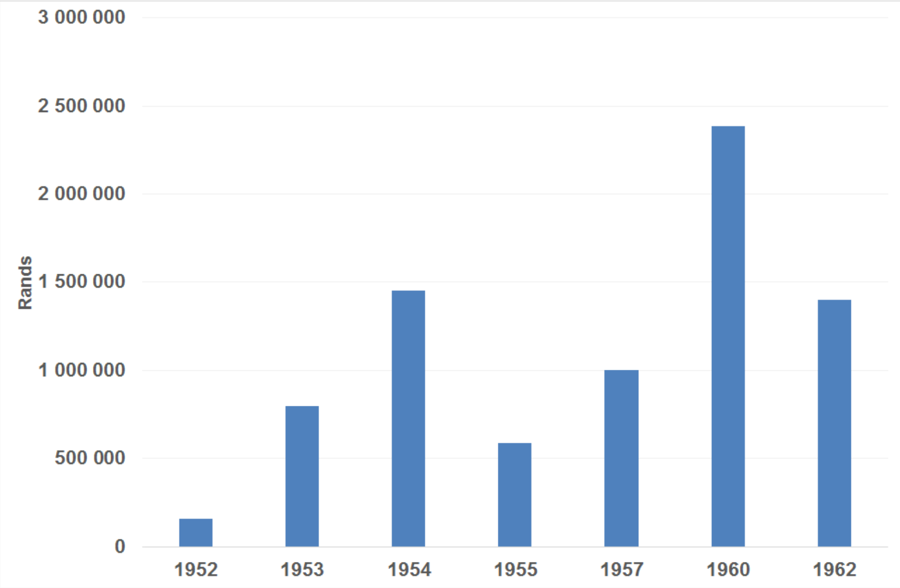
This occurred against the backdrop of scepticism by many geologists about the economic viability of mining phosphate economically as its extent was uncertain with a concentrate of about 9% of the ore mined (Cartwright, 1971). It also implied that the process of separating phosphate from the ore would be costly exacerbated by the transport costs to markets from a remote area in Phalaborwa, the site of the mine. Initially the IDC appeared to be buying for time when it expressed the desire to familiarise itself with the implications of committing itself financially with the FOSKOR project. Instead it agreed to provide funding in return for indemnity from any losses by the state.[122] Already feeling the burden of financing SASOL the Treasury refused to sign the proposed indemnity leaving Minister of Commerce and Industries to offer pursuit of a parliamentary approval for reimbursement in case the IDC incurred a loss.

In December 1951 the Minister of Finance Nicolaas Havenga recommended that the FOSKOR project should be shelved as a result of the heavy financial commitment imposed by the SASOL project.[123]

Barely one month later in January of 1952 the IDC wrote to the Secretary of Commerce and Industries stating that it expected to be reimbursed for expenditure on FOSKOR and that a further £700 000 would be needed and reiterated that it expected to be indemnified from this and all future disbursements.[124] The IDC stood firm, insisting that it had not approved the funding for FOSKOR and that such costs should not be included in the corporation's budget because they were imposed too late on the IDC by the state. Moreover, the corporation further argued, FOSKOR's financial requirements threatened to take away money from more deserving funding proposals like the soda ash project plant proposed by the Department of Commerce and Industries.[125]

In March of 1952 the IDC sent in another proposal which included an interest-free loan from the state which the IDC would in turn re-lend to FOSKOR. Moreover, IDC funding of FOSKOR would still be considered temporary and FOSKOR board would have to be established and have three nominees each from the state and the IDC.[126] A meeting between van Eck and the Secretaries of Commerce and Industries and Finance eventually led to a breakthrough when an agreement was signed in April of 1952. The proposal included a financing mechanism that entailed a levy being charged per ton of concentrate produced to be used to reduce the loan advanced to FOSKOR. The government extended to the IDC an interest-free loan of £738 735 to buy phosphate mining rights for FOSKOR. The loan was to be repaid over a long period through a levy that would be payable to the state. The IDC served as an intermediary in this deal (IDC 1952:3). The Minister of Finance endorsed the new agreement in February 1953.[127] In March 1955 despite FOSKOR facing technical and infrastructure constraints, the IDC received its maiden payment of 1s per ton of phosphate sold from the scheme which was used to pay off the loan made to the corporation by the state (IDC, 1954:2). Ultimately long-term financing, a key attribute of development banks, was applied to the FOSKOR project at most favourable rates. Figure 33 illustrates the funding from the state to the IDC to finance FOSKOR. Importantly the socialisation of the risk became the ultimate solution to the impasse.

Figure 33. Finance from the State Authorised for FOSKOR through the IDC



Source: IDC, (various years)

In 1956 FOSKOR was still faced with serious technical challenges that needed to be overcome before economical phosphate could be produced. The igneous phosphate that the company mined needed more sulphuric acid relative to its Moroccan equivalent (IDC, 1956:11). It became imperative that additional research and analysis to make soluble phosphate for fertiliser producers be conducted. In later years FOSKOR investment showed much promise and required substantially less capital injection by the IDC especially when compared with SASOL.

A major breakthrough was finally made in 1956/7 which saw FOSKOR reducing its production costs as it became adept at transforming phosphate concentrate into superphosphate (IDC, 1957:11). It turned out later on after numerous tests and experimentation that FOSKOR managed to invent a method that treated the phosphate-containing ore termed pyroxenite to produce phosphate (Cartwright, 1971:25-25), a method that the company was able to patent. Yet in 1958 FOSKOR Chairman Frans du Toit still described the company's installations as nothing more than 'a large scale pilot plant'.[128] The discovery of other minerals including copper and zirconium attracted foreign companies in the late 1950s including Rio Tinto and Newmont from the UK and the US respectively. The IDC remained a partner in their ventures in Phalaborwa albeit with minimal shares (Cartwright, 1971:26).

5.4.2 IDC, the State and FOSKOR's Expansion

The case of FOSKOR is indicative of an IDC that had neither the risk appetite nor the financial muscle to finance risky and technically challenging projects like FOSKOR even when promoted by the government. The private sector's appetite was also non-existent leaving the state as the only primary financier for the FOSKOR project. In addition, the Articles of Association of the IDC constrained its borrowing powers to 50% of paid-up capital and needed a general meeting to raise it.[129] Like SASOL, large and risky projects initiated by the state needed the state itself to back them with financial support from its own coffers. As it stated in its communication with the Department of Commerce and Industries, the IDC in its promotion of import substitution was diligent and eclectic in financing industries. It sought to support those establishments with the largest potential to promote import substitution[130] and deemed less risky.

The risk averse nature of the IDC is reflected in a typical loan granted in 1946. The IDC required the two owners of Rason and Massi applying for a £5 000 loan to provide security in the form of personal guarantee or sign a hire purchase agreement. Among other conditions the client was required to comply with were the repayment of the loan within two years, total remuneration of all directors capped at £2 000, provision on a monthly basis of technical and financial information and no disposal or mortgaging of any of its assets.[131]

Ten years after its creation FOSKOR was ready for the expansion that would take its import substitution project to completion as it would fully meet local demand for phosphate (IDC, 1962:9). The plant was completed in March 1963 although it did not immediately operate at full capacity due to lack of capacity from the power station (IDC, 1963). Extensions commissioned in 1963 were designed to create sufficient capacity to meet South Africa's total demand for phosphate concentrate (IDC, 1962:9). A year later FOSKOR embarked upon a project to expand its capacity further at a cost R3 million financed from internal resources and short-term borrowing (IDC, 1964). Just as the plant reached full capacity at 420 000 tonnes demand was already outstripping supply leading to plans to expand the plant further at a cost of R3 million. The IDC in conjunction with Federale Volksbeleggings funded the investment of a phosphoric plant Bosveld Kunsmis to the tune of R7 million (IDC, 1964). In 1964/5 import substitution was complete as South Africa's dependence on imported phosphate was overcome thanks to FOSKOR (IDC, 1965:10).

By 1965 the Phalaborwa complex, as the IDC referred to FOSKOR, Phalaborwa Mining Company (PMC) and Bosveld Kunsmis, had been growing solidly. FOSKOR was contemplating further expansions while the Bosveld Kunsmis had just reached full production and PMC had just announced plans to establish a copper refinery (IDC, 1966:16). By 1969 the IDC was pivotal in consolidating its fertiliser interests displaying emphatic nationalistic fervour. The ownership would be firmly South African under S.A. Fertilizer Investment and

S.A. Fertilizer Federation bringing together investment in Fisons, Optichem and Bosveld Fertilizers as full subsidiaries of S.A. Fertilizers (IDC, 1969:16).

In 1974 FOSKOR initiated a project to more than double its capacity outstripping domestic demand which was partly motivated by the desire to penetrate the export market (IDC, 1974:18). FOSKOR's planned new capacity was to increase to 2.75 million tons annually at an estimated total cost of R40 million on completion in 1976. However, the prevailing uncertainties in the world market for phosphate saw the company shelve the expansion programme (IDC, 1976:14).

5.5 Conclusion

In conclusion, the centrality of state intervention in the creation of the SASOL project and subsequently a dynamic chemical industry is undeniable. From the beginning the private sector proved incapable of taking forward and financing the oil-from-coal project without direct state involvement. The more developmentally-inclined Department of Economic Development prevailed over free market orthodoxy associated with the Treasury to ensure that the state provided tariff protection and finance for the project. SASOL was a strategic project industry targeted by the state and fitted the bill of an industry that would typically be financed by development banks. Private sector finance's inability to get the project off the ground was an indication of market failure because the project carried high levels of risks enough to deter any private funders. However, the SASOL project was critical to unlocking the growth of other branches of the chemical industry. It was for these reasons that the state opted to use its emergent development bank, the IDC.

The funding in the SASOL project was long term in nature but with a slight variation from many development bank models elsewhere in that financing the project assumed the shape of shareholder capital. Similar to IDC's approach to the textile industry, shareholding in the firms invested in gave the IDC the right to have more influence in the running of the firms through the directors it appointed on the boards. Moreover, recipient firms were not burdened with repayments of loans. In the case of SASOL, loan finance, even if it was long-term, proved unsuitable as it was soon settled by the state and replaced by shareholding.

The second phase of the SASOL project development, from the early 1960s to the first half of the 1970s, saw the IDC play an even more important part in funding the expansion of the chemical industry. Almost invariably in partnership with the IDC, SASOL diversified into downstream industries in the chemical industry playing a fundamental role in the rapid growth and development of the South African chemical industry defining its character in the process. Despite SASOL becoming profitable, state funding canalised through the IDC and conception of new projects remained the engine of this phase. In particular the creation of a new economic power base centred around the state and bourgeoning Afrikaner industrial capital to rival English and mining capital dominance of the chemical industry received a major boost during this phase. This diversification of the chemical industry, emblematic of the second phase continued into the 1990s, the detour of security-inspired SASOL II and III notwithstanding, represents the most developmental phase led by a partnership between the state, the IDC and SASOL.

Major technical problems encountered also encouraged SASOL to rely on its staff and local partners to resolve the challenges. Today SASOL is a leading source of patents registered from South Africa although the quality lags those of global competitors in the petrochemical industry and even South African mining machinery sector (Kaplan, 2011). Equally important, SASOL played a key role in the growth of the chemical industry as a supplier of key inputs and an investor in new firms in a variety of segments of the industry. Retained earnings of SASOL and IDC development finance sourced primarily from the state were key in this phase of the development of the chemical industry. The IDC also took the opportunity to contribute to the development of the chemical industry through consolidation of its interests with partners including SASOL itself.

In the 1970s and 1980s SASOL and the IDC moved even closer to each other particularly in the massive expansion of the SASOL project under the rubrics of SASOL II and SASOL III. The IDC was an important facilitator and originator of the financing framework of the projects. By the mid-1970s the IDC had developed strong project management and financial structuring capabilities that the state relied heavily on the corporation to plan and execute the financing the colossal strategic projects of SASOL II and III stature. Project management skills associated with financing certain sectors possessed by some IDC staff to this day are hard to come by even in major South African banks. The bulk of the financing emanated from new taxes imposed on fuels while the state also made contributions that were recovered from the project a few years later. With the privatisation of SASOL in 1979 the state also raised capital to fund the SASOL II and III projects while permitting large conglomerates secure large stakes in a highly profitable low risk company that SASOL had become. The IDC benefited immensely from SASOL's sizeable and consistent profits which it used to fund the industrial decentralisation programme of the state in the 1960s and 1970s and after 1980 for general industrial finance. However, with the shift to a more market dominated economic ideology in the late 1970s, much of the financial benefits from SASOL II and III were clawed back from the IDC by the state.

FOSKOR was yet another new venture with doubtful deposits initially and fraught with numerous technical challenges that placed the commercial viability of the project in doubt making it ideal for development finance. Despite attempts by the state to secure IDC financial support from internally generated resources, the corporation was not suited to providing patient capital of the magnitude required by the FOSKOR project resulting in it putting up fierce resistance until the state committed its own capital. The developmental nature of the project was also felt especially in agriculture where phosphate became a key input in poor quality South African soils. FOSKOR was essentially a security driven import substitution project but it was within those limits successful and also generated by the state rather than the sceptical IDC. Both FOSKOR and SASOL projects demonstrate a case where the state used the IDC as partner in the developmental project that spanned the 1950s to the mid-1970s.

As a key investor in upstream and downstream branches of the chemical industry the IDC could have ensured that SASOL priced its inputs competitively ensuring that chemical industry diversified further and was better positioned to penetrate export markets (see Freund, 2019:120). In this regard the absence of a reciprocity mechanism described in Chapter Two in IDC funding model constituted a significant shortcoming in creating a dynamic industrial base for South Africa. Although the original synthetic oil plant did not yield expected outcomes partly because the oil price remained low and enormous SASOL II and III plants produced doubtful gains for the economy due to their high cost and security consideration, overall the impact especially in the chemicals industry was worthwhile. In the current world filled with multiplicity of technologies and potential for revolutionary new industries it is conceivable for the state and the IDC to deploy development finance in spite of the inherent risks to back projects in this sphere drawing on IDC expertise and experience.

Chapter Six

Industrial Decentralisation and the IDC, 1960-1990: A Detour from Developmentalism

6.1 Introduction

Beginning in the early 1960s, the policy of 'border industries', later renamed industrial decentralisation increasingly became a key part of industrial policy in South Africa until the demise of apartheid in 1994. As a policy and practice, starting in 1960, industrial decentralisation is a well-researched subject by the state and its agencies, intellectuals and journalists among others. In the 1970s and 1980s researchers from opposing ideological persuasions engaged in illuminating debates on the reasons and merits of the policy. The astonishing omission has been the role played by the state in financing the programme through its key agency in industrial development, the IDC. Yet virtually all of the funding received by firms from the state, construction and financing of houses for white employees plus the construction of factory buildings in 'border areas' were channelled through the corporation. With advent of democracy in 1994, the dismantling of key apartheid policies related to urbanisation and the full integration of Bantustans into the new democratic state, much of the attention shifted towards formulating industrial policy. The focus on industrial decentralisation in this study of the IDC is motivated by the centrality of the policy in the activities of the corporation for over three decades of the programme.

The principal aim of this chapter is to highlight the importance of IDC financing in the industrial decentralisation programme. In the context of heated debates on the underlying causes of the programme in the 1980s, this study points to financing as the missing piece of the puzzle. It begins by tracing the origins of the policy underlining the centrality of apartheid in the formulation of the policy in the late 1950s. The approach taken in this chapter is to view the programme in three distinct phases to gain the full picture. The chapter will show that the IDC was pivotal in the first phase of the programme which could be deemed as the most successful in keeping on the developmental track while meeting the interests of white workers and capital.

The chapter closely examines the financing of firms by the state through the IDC, the key driver of the programme. It also analyses how the IDC as development finance provider used concessionary funding to help speed up the programme in support of apartheid-inspired outcomes. Beyond the use of instruments that are conventionally associated with development banks, the chapter disentangles the part played by the IDC to shed more light on other tools the IDC used to support the industrialisation of South Africa's periphery. The IDC was well-positioned as part of Permanent Committee to influence policy direction when the need arose.

In keeping with the phased approach to analysing industrial decentralisation the implementation of the Physical Planning Act in 1968 signalled a key shift in the policy and marked an important turning point particularly when it related to developmentalism. The third phase began in 1982 with the implementation of the Good Hope Plan marking a period that incentives became the key driver of the policy but in no way reducing the part played by the IDC.

6.2 Border Industries Policy and Practice

From the time when the 'border industries' policy was unveiled, the IDC was chosen to be the vehicle through which the state would finance white industrialists investing in 'border areas'. The industrial decentralisation policy also placed the IDC at the centre of its implementation through provision of infrastructure and concessional financing. Apartheid was a key consideration when the policy was conceived which makes the IDC an important agency in implementing this political and economic programme as the state sought to reverse the inflow of African proletarians into South Africa's major cities. According to Freund (2013), Bantustans alongside racial classification of the populace were an integral part of the developmental project in the early phases which generated problems later on. The importance and urgency with which the South African government attached to the industrial decentralisation programme was underpinned by the resources it committed towards implementing the programme. Excluding SASOL, industrial decentralisation absorbed the largest percentage of the IDC's budget from its formation in 1940 to 1990. Just like the SASOL and FOSKOR projects, industrial decentralisation was strategic, conceived and funded by the state through the IDC.

In formulating and implementing the industrial decentralisation policy in the late 1950s to mid-1960s the state was careful not to undermine the industrialisation momentum situated in established cities in what we regard as the first phase of the industrial decentralisation programme. Partly motivated by the desire to protect the interests of the white working class and capital, the state managed to keep on the developmental path during this period. The second phase and the turning point where the political programme of apartheid began to exhibit increased influence over developmentalism began in 1967. With African urbanisation continuing to create anxiety for the state, strengthening the economic viability of Bantustans became a key consideration. The adoption of a more draconian approach to shifting the location of firms to the periphery culminated in the enactment of the Physical Planning Act of 1967 although some key concessions were made during the course of its implementation to accommodate the interests of industrial capital. The third phase of industrial decentralisation was the implementation of the Good Hope incentives in 1982 which placed industrialisation of Bantustans at the centre of the policy. During this phase, the policy attracted local and foreign firms to South Africa's periphery generating unprecedented levels of employment in the programme's history aided in large part by generous incentives.

6.2.1 The Origins of Industrial Decentralisation Policy

Before delving into the activities of the IDC in relation to the industrial decentralisation programme, it is imperative to gain a historical perspective of the origins of the phenomenon. Although matters related to the location of industries were considered by the state as far back as the 1930s they did not occupy centre stage in economic policy formulation until the late 1950s. The concern prior to the rise to power of the National Party in 1948 was more about the economic impact of outward migration on small towns and rural areas. The period following the adoption of import substitution industrialisation policies led to a change in the structure of the manufacturing sector accompanied by locational shift driven by the desire to site production in the proximity of major markets or closest to imported raw materials in coastal towns and cities. During the period the state was not involved in directly attempting to influence the location of industry.

The first time the South African government examined issues related to industries located outside the major centres was in the late 1930s when it set up the Rural Industries Commission which reported its findings in 1940.[132] In 1936 the Board of Trade and Industries produced a report for the Department of Native Affairs on the establishment of industries in the 'reserves'. In May of the same year a unanimous motion adopted by the House of Assembly expressed concern over the decline of small towns and rural South Africa and urged the state to intervene to reverse the trend and set in motion efforts to revive the fortunes of such areas. In response in August 1937 the state appointed a commission of enquiry whose mandate was 'to make a survey of industrial possibilities of the Rural Areas in the Union and to secure information in regard to the establishment of industries in those areas'.[133] It also requested the commission to identify and publicise the potential benefits available to would-be investors in the areas.

Of concern at the time was the migration to the cities of whites, in particular white youths, pushed by the paucity of economic opportunities in rural towns and farm areas and pulled by 'the lure of the cities'. Indeed the white urban population had been expanding rapidly, rising from 51% in 1911 to 59.6% in 1921 to 68.8% of the total white population in 1936 (Derived from Bureau of Census and Statistics, 1960). The African population had remained predominantly rural with an urban population of 12.6%, 14.0% and 18.4% over the period above. In 1921 agriculture employed 170 394 white workers rising to 181 409 in 1936, a 6.5% jump over the period. Although from a relatively lower base, the manufacturing and mining sectors recorded 108% and 40% increases, respectively, in the number of white workers over the same period (Derived from Bureau of Census and Statistics, 1960).

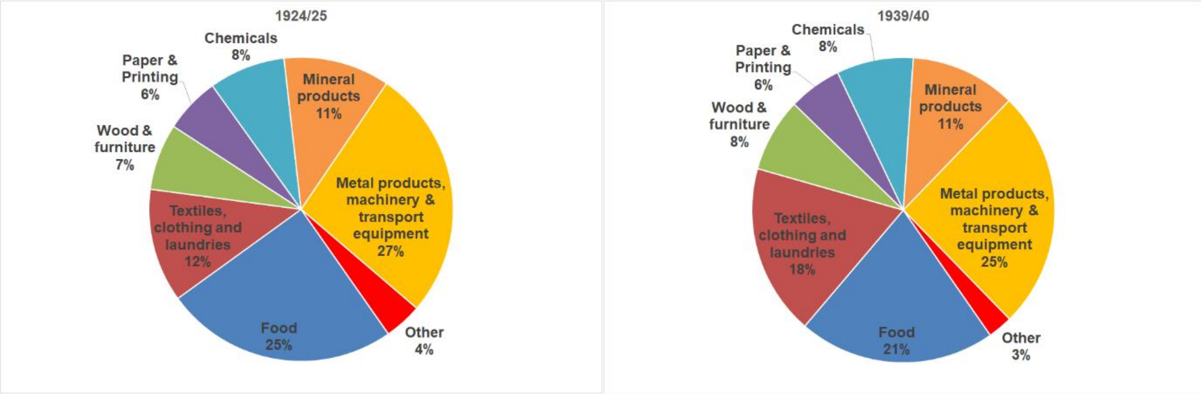
The commission found that industries that predominated in rural areas and small towns were agriculture raw material-dependent, specifically perishables requiring location close to raw materials. Partly determined by the early stage of import substitution industrialisation that drove the South African economy in the late 1930s, the manufacturing sector was still characterised by the significance of firms with strong reliance on agricultural inputs. Of the 1 798 raw material-dependent industries in agriculture whose location information was available, 62.5% were based in rural towns.[134]

When the Pact government opted to construct tariff walls in the mid-1920s as part of a larger plan to industrialise South Africa, the food, beverages and tobacco industries accounted for 46.1% and 32.4% of gross and net manufacturing output respectively (Feinstein, 2005:116). Other firms outside of the agriculture-based manufacturing were largely dependent upon imported inputs and tended to gravitate towards profitable locations around coastal areas and in the proximity of major markets. As the state pursued import substitution policies with added vigour, the structure of the manufacturing sector and indeed its location altered as newly protected industries outpaced established food, beverages and tobacco industries.

Figure 34. Share of Various Industries Manufacturing net Output to the Total

Source: Bureau of Census and Statistics, 1960

Figure 35. Share of Employment in the Manufacturing Sector by Industry



Source: Bureau of Census and Statistics, 1960

The conclusion of the Rural Commission was that industries locate where they generate the largest profit. The commission went further to express the view that this was a desirable outcome for the country's economic development which should be welcomed. It also found that most firms located in major centres did so to maximise their profits through closeness to the markets. Other factors examined by the commission include the role of railway rates which were found to have limited influence on the location of firms. The commission further recommended that the determination of wages should be based on the cost of living and that Industrial Council authority in determining wages in rural areas be moved to the Wage Board. It proposed the investigation of the creation of new industries including oil-from-coal, fishing, woollen and cotton textiles. The shortage of vocational schools was also cited in the report as a constraint to the proliferation of career opportunities for young white rural dwellers. The commission's proposed remedy was the establishment of more trades and vocational schools. In 1942 the government established the Social and Economic Planning Council to plan economic development in the midst of the Second World War. It produced its report in 1946 which supported the development of industries in the reserves (Glaser, 1988:30) but in this regard the state did not follow up the recommendations with any concrete actions.

6.2.2 Tomlinson Commission and the White Paper of 1956

Unlike white South Africans who had the freedom to move to the cities from rural parts of the country, Africans were as a matter of policy supposed to be temporary sojourners in what was defined as white South Africa. A combination of Pass Laws, Land Acts, influx control measures and other policies designed to keep Africans in the Bantustans and white farms left millions of black South Africans unable to relocate to the cities and towns. The conditions in the 'reserves' where they were supposed to be resident when rendered superfluous to the needs of capital in white South Africa, soon deteriorated leaving millions living in penury and in desperate conditions (Hirsch, 1991). With conditions worsening due to population expansion and limited access to land, the pressure on residents of ‘reserves’ to relocate to towns and cities became even more intense. From 1921 to 1951 population density (per square mile) of Africans in rural South Africa increased by 54% while in urban areas it swelled by 82.9% (Bureau of Census and Statistics, 1960).

Prior to the National Party taking the reins of power in 1948, the state made an attempt to accelerate industrialisation of South Africa’s periphery. As indicated in Chapter Four the IDC did not only conduct research on the subject of decentralisation of industry long before the state paid sufficient attention to it but its investments in the textile industry tended to gravitate towards South Africa’s periphery. The establishment of the Good Hope Textile Corporation in Zwelitsha also discussed in detail in Chapter Four was part of an attempt by the UP government to marry segregation and development. The expectation was that factories like Good Hope would assist in keeping Africans from migrating to urban centres. Under National Party rule the attention had shifted increasingly towards the increased movement of African workers from rural areas to urban centres.

The Tomlinson Commission was set up to investigate living conditions in what became ‘reserves’ (later Bantustans) from 1953 to the close of 1955. It was headed by an academic from an English-speaking university written by and large in the spirit of the UP. In its final report, the commission recommended, among others, the creation of industries inside the ‘reserves’ as part of a strategy to alleviate very high levels of poverty and generally deteriorating socio-economic conditions. The commission also recommended that land be made available for small scale agriculture in the reserves large enough to give sustenance to rural families and thus replace communal land tenure. Those families not absorbed in agriculture, the commission further recommended, should move to urban areas within the reserves to be employed in industry and the tertiary sector (cited in Hirsch, 1984:12). For the objective of apartheid of containing Africans in the reserves to be accomplished, the commission concluded, 20 000 jobs would have to be created in the manufacturing sector in the reserves annually. The commission’s view on decentralisation was that the role of the state should ‘not be to force industrialists but to attract them there voluntarily’ (cited in Netshitomboni, 1996:64).

The government’s rejection of the key recommendation of the report on the establishment of industries by white industrialists in ‘Bantu areas’[135] and other recommendations were contained in the 1956 White Paper which laid the foundation for the first time of a formal adoption of ‘border industry’ policies. Consequently, several studies were commissioned involving various government departments, the IDC and South African Railways and Harbours, among others. Some 19 reports were generated examining the underdevelopment of the reserves and the constraints to industrialisation in 60 towns in the border areas.[136]

In the lead up to the official adoption of the border industries policy in 1960, the White Paper of 1956[137] became the key reference point for many of internal state policy proposals. The state's answer lay in 'border industries' as captured in the White Paper,

> The Government regards the development of industries owned by Europeans but requiring large numbers of native labourers in suitable European areas near Bantu territory *as of the utmost importance for the socio-economic development of the Bantu areas* (italics in original)

The establishment of white-owned firms in Bantustans, the state argued, would compete directly with firms owned by African industrialists in the areas and should be rejected. Also rejected was the Tomlinson commission's recommendation that £25 million be devoted, over five years, to support the white-owned industries channelled through a development corporation.

The Council for Natural Resources Development was established in 1947 to offer advice to the South African government on water research and industrial decentralisation (Glaser, 1988:30). Beginning in mid-1957 under the auspices of and in conjunction with the Department of Bantu Administration and Development and the Department of Commerce and Industries, a committee was created to conduct surveys over 18 months.[138] The primary aim of the studies was to come to terms with the factors determining the location of firms in 'border areas'. The processes culminated in a conference held on 21 September 1959 organised by the Department of Economic Affairs involving experts from various fields to debate the potential development of areas near Bantustans and growing levels of urbanisation.

The upshot of the CNRD-sponsored study was that without state intervention industrial development would remain concentrated in existing urban centres.[139] A significant part of the objectives of apartheid was to minimise the inflow of Africans into South African major urban areas. For the fulfilment of the objectives of apartheid, 'border areas' would have to capture a much larger share of industrialisation. Natal, outside of Greater Durban, was singled out in the report as possessing the greatest potential to industrialise. The committee also studied 10 industries that were thought to possess the greatest potential to support industrial decentralisation because they were African labour intensive. Many of these industries were found to be mature and unlikely to grow strongly on the back of the expanding domestic market and therefore make a significant impact in 'border areas'. It was also recognised by the committee that clustering of industries characterised much of industrial development episodes across the globe and that it would be a critical factor in growing the markets of 'border areas'. The committee further asserted that such phenomena take extended periods of time before the markets become large enough to yield tangible outcomes.

A number of steps meant to offset the disadvantages for industrialists locating in 'border areas' including provision of water, electricity and housing were recommended. In addition, the CNRD alongside the Department of Bantu Administration and Development produced eight reports designed to promote to investors the available facilities in 'border areas'.[140] Publicising the findings to potential investors was part of a bigger strategy enunciated in the 1956 White Paper when the state committed itself to turning the edges of reserves into attractive areas for industrial investment.

6.2.3 Apartheid and the Adoption of the Border Industries Policy

The period leading to the adoption of a formal 'border industries' policy was characterised by research, wide consultations and engagements. The importance of industrial decentralisation as a policy of the state was underpinned by the vast amount of research and a large body of policy documents produced within and shared among various state departments involved. Alongside this was further research conducted by a number of state institutions engaged in its design and implementation. Outside of government a wide array of institutions including labour unions and business organisations also made their inputs. Emphasis was made by various institutions when making inputs into the industrial decentralisation that the policy should not stymie the development of established urban centres.

While the apartheid policy was taken for granted, ensuring that its co-existence with capital accumulation was the primary goal of those in power when fashioning the border industry policy. The policy making process for much of the late 1950s and early 1960s was characterised by widespread consultation of business organisations and other interest groups. Modifications to the initial proposed policy were made as a direct result of engagements with representatives of capital, labour, and other interested parties.

In November 1956, as a representative body of the manufacturing sector, the Federated Chamber of Industries expressed its views on the proposed plans by the government to develop industries in and around the reserves in a memorandum sent to the Minister of Bantu Administration and Development H F Verwoerd and copied to all Cabinet Ministers.[141] Among the issues raised were unfair competition that would originate from favoured firms in and near the reserves, the high cost of ensuring that the areas are attractive to industrialists through the provision of infrastructure and other incentives to be indirectly partly borne by industries in established centres. Rather than promote the development of reserves, the state was advised to view the South African economy as a single unit. On migrant labour the chamber called for its abandonment in favour of labour rooted in family living. It further argued that this was desirable for boosting skills development and increased productivity which had become a necessity for modern industry to prosper.[142]

In January 1959 the Afrikaanse Handelsinstituut (AHI) produced a memorandum requesting clarity on the intended level of development of the 'border areas'.[143] The AHI was concerned that high levels of development in 'border areas' carried the potential to become magnets for African workers and thus overwhelm whites in those areas leading to the integration of races. It was also concerned about the likely shortages of African labour in the established urban centres as a possible outcome of 'border area' development.

The Trade Union Council wrote in June 1959 to the Minister of Economic Affairs Nico Diederichs expressing its rejection of moves by the state to shift the garment industry and others from the major centres to decentralised areas. The union federation's principal concern was the likely negative effect of low wages in decentralised areas on wages of its (white) members in major centres.[144] Being a union with membership in excess of 150 000, as the letter reminded the Minister, its views had to be taken seriously.

The studies and discussions involving various state bodies culminated in a statement issued by Prime Minister H F Verwoerd[145] for consideration by the Economic Advisory Council. Its maiden meeting was held on 26 and 27 July 1960 to debate the merits of the proposals of the government. The council had members drawn from the civil service, state agencies, academia, business and (white) trade unions among others. Contrary to the liberal view of industrial decentralisation as merely a tool to maintain apartheid disregarding the interests of capital, the views of business were not only sought but taken into account in the final policy. Such views were quite critical of the proposals and went on to suggest modifications. Among the issues where the Economic Advisory Council differed with the state were the maintenance of job reservation in 'border areas' and the denial of trade union membership for African workers in 'border areas'. Among the strong views expressed in the Economic Advisory Council was the need to have a limited number of areas targeted for support. As will be demonstrated later, this found expression in the first phase of the 'border areas' policy.

The official definition of a 'border area' was '[a]n approved industrial district within close proximity (preferably walking or cycling distance) of a proclaimed Bantu homeland – normally an area economically underdeveloped with a surplus of unskilled labour.' (IDC Papers, n.d.) Some eight areas defined as 'border areas' were earmarked for state support for development under the incipient decentralisation policy. Central Natal Area, Natal Coastal Area, The Eastern Transvaal Lowveld Area, Pretoria North Western Area, Northern Transvaal Area, Ciskei Area, Western Areas and lastly the Transkei Southern Natal and Eastern Orange Free State Areas. The apartheid state had hoped that the many natural resources related to mining and agriculture would attract industries to these 'border areas'. In addition, the state would make available information on existing infrastructure such as rail, roads and electricity in the eight identified areas.[146] The availability of African labour was a key common consideration in the identification of such areas which would be invariably drawn from the Bantustans.

The long-term survival of the apartheid system depended partly on the success of industrial decentralisation. This was also the upshot of the 1959 conference which held that should the recommendations be implemented; industrial decentralisation would contribute to the achievement of the objectives of apartheid policies. The success of industrial decentralisation policies in turn, as envisaged by the participants of the conference, depended on the maintenance of lower wages in border areas relative to major centres.[147] Discussions between the AHI and some government ministers confirmed that border industry policy was less about decentralising industry and more about apartheid.[148]

The primary concern of the South African state towards at the end of the 1950s remained the inflow of Africans from the 'reserves' and rural South Africa into the major urban centres. The conclusion of the studies conducted in the late 1950s was that the accomplishment of the objectives of apartheid policies would receive a boost from industrial development in the border areas.[149] The studies also warned that without state intervention the location of industry would continue to be concentrated in existing industrial centres with some industrial decentralisation but insufficient to make an impact on urbanisation trends. In 1954/5 four-fifths of white industrial workers were concentrated in the four major industrial areas while the corresponding figure for African workers was 73%.[150]

Simultaneously, the CNRD-led committee was careful to recommend industrial decentralisation policies that would not upset industrial development in South Africa. The reassurances given to the Economic Advisory Committee by its Chairman D H Steyn who also doubled as Prime Minister Verwoerd's economic adviser were that '[t]he objective is not to disrupt existing industrial centres but merely that a greater share of industry expansion in future should accrue to the border areas'.[151] The 1956 White Paper also emphasised that the interests of capital and white labour in urban centres would not be adversely affected by the new policy and that the state would forge a co-operative working relationship with organisations concerned.[152] It is these contradictions that ensured that industrial decentralisation in much of the 1960s did not become a distraction from the developmental thrust in overall economic policy.

The major concern of the apartheid state towards the close of the 1950s was rapid urbanisation at the expense of rural areas and small towns due to concentration of economic activities in major metropolitan centres. As Prime Minister H F Verwoerd put it, 'The complications caused by the accumulation in our cities of a rapidly increasing European and especially non-European population, make such a policy of industrial decentralisation especially urgent.'[153] This must be viewed against the backdrop of politicised unionism in the 1950s as part of the Congress Alliance who actively resisted apartheid alongside struggles for higher wages and better working conditions (Lodge, 1983). Political imperatives desirous of ensuring that the National Party's support base among farmers continued to have constant supply of labour, in the context of agriculture that was labour intensive in the 1940s (Hirsch, 1991) also lay behind the concern with African migration to the cities.

The threat, in the long term, of large concentrations of African proletarians in the cities was no doubt also a major political consideration. The Viljoen Commission viewed them as a group 'who consequently fall prey to immorality and political subversion, represent[ing] the social cost of industrialisation'.[154] The effect of urbanisation in leading to the breakdown of the traditional communal family structure was viewed as an undesirable phenomenon by industrial decentralisation policy architects and the apartheid state. As the IDC put it, 'the scheme was conceived primarily to counter the threatened social disintegration of the structure of Bantu family life' (IDC, 1966:14). Just as important, the survival of apartheid would come under the threat of a large African urban working class with little or no connection to the reserves. In the mid-1950s over three-quarters of South Africa's industrial workforce was concentrated in the four major centres, Southern Transvaal, Western Cape, Durban Pinetown and Port Elizabeth (see also Table 9).[155] The rapid inflow particularly of African workers into metropolitan cities was described by Verwoerd in 1960 as needing to be dealt with urgently.

Table 9. Geographical Distribution of Private Industrial Establishments in the Union in 1956/7

Area	No. of factories	% of Union total	No. of employees ('000)	% of Union total	Gross value of production £ million	% of Union total
Western Cape	1 294	13.4	96.8	15.4	175.1	15.6
Port Elizabeth	415	4.3	32.9	5.2	54.7	4.9
Durban Pinetown	930	9.6	76.6	12.2	172.7	15.3
Southern Transvaal	4 077	42.0	290.2	46.0	511.3	45.5
Total 4 areas	6 716	69.3	496.5	78.8	913.8	81.3
Union total	**9 687**	**100**	**630.4**	**100**	**1 124.0**	**100**

Source: Bureau of Statistics[156]

Developmentalism was thus still a key consideration when designing industrial decentralisation. As one policy document succinctly put it,

> The policy of industrial development will always be conducted with due regard for the interests of established industries and employees in white areas, and for this reason its application will be in close cooperation with the relevant institutions.[157](Google translation)

Verwoerd was only too keen to have the inputs of the Economic Advisory Committee prior to the finalisation of the industrial decentralisation policy. Hirsch (1991:14) hit the nail on the head when stated that,

> The underlying theme that ran through the process from the beginning was the desire of those in government to reconcile the interests of capitalist accumulation in general, with the political programme of apartheid,

Without the co-operation of private capital, grudgingly or not, the industrial decentralisation programme was unlikely to reach its goals and eventually the objectives of apartheid of keeping as many Africans as possible in the Bantustans. As shown earlier there were industries operating in remote areas even before the 1940s when the IDC began to play a role in the industrial decentralisation phenomenon.

Beginning as Minister of Bantu Administration and Development (1952-1958) in the mid to late 1950s to his days as Prime Minister (1958-1966), Verwoerd had been an important figure in the conception and implementation of industrial decentralisation. The Tomlinson Commission reported to his department. He appeared to have worked closely and in harmony with the IDC. In eulogising Verwoerd following his assassination in September 1966, the IDC through van Eck said, 'So much of the Corporation's work was intimately associated with the implementation of policies of which the Prime Minister had been the architect.' (IDC, 1966:5).

Without a doubt as the leading implementing agency of industrial decentralisation of the state, the IDC interacted with Verwoerd at various levels.

The debate that raged in the 1980s about whether the policy of industrial decentralisation was purely about promoting the objectives of apartheid at the expense of the interests of capital or that the apartheid state was merely advancing the interests of capital offering access to inexpensive labour contained some flaws. Both sides of the debate implicitly tended to take for granted that the intentions of the state remained unchanging over a period lasting more than three decades. The approach adopted in this study finds periodisation of the state's policies to industrial decentralisation more enlightening. While continuity from one period to another is undeniable, major shifts in the policy were the result of changing conditions and objectives.

With the state initially reticent to inject significant sums of capital into the reserves the policy was, from the beginning, unlikely to make an impact of the scale needed to reverse the growing urbanisation of the African population. The programme as a result failed to make the required impact in the short term as was needed. That is why it had to enhance incentives in 1964 offered to investors in border areas. The Tomlinson Commission had recommended that £25 million be set aside over five years for the development of industries in the reserves. The state would not entertain the recommendation on the grounds that the amount became superfluous once the recommendation that white industrialists be permitted to invest in the reserves was rejected. In the 1956 White Paper it expected the bulk of the financing to originate from 'self-aid by the mobilization of Bantu capital in Bantu areas'.

Urbanisation of Africans continued in spite of draconian laws designed to slow down the relocation of Africans to urban centres and promotion of border industries. From about equal numbers of African urban dwellers and their white peers in 1946, by 1970 there were five million Africans resident in urban areas, outstripping the white population by over 50% (Feinstein, 2005:156-157). Moreover, about a third of the African population was regarded as urban. Considering that the number of urban Africans was notoriously underestimated, the policies had clearly been a failure when judged by their intentions.

6.2.4 Wage Differentiation and Job Reservation

The development of border industries was expected to grow on the back of lower wages relative to other parts of the country. The CNRD-led committee recommended that wage rates in border areas needed to be lower than in major centres to guarantee attractiveness of the areas for firms to relocate there.[158] The strongest attraction to border areas, the committee emphasised, remained lower wage costs. It further recommended that the maintenance of lower wage rates was a necessity for the areas to remain attractive.

The approach to wages in decentralised areas went against some of the advice rendered by business through the Economic Advisory Council. The feeling among its members was that the wages of African workers in South Africa needed to be higher to increase their buying power thus expand the local market for goods and services, the bulk of which were produced in South Africa. R F Budd of the South African Trade Union Council who was concerned with white wages being undercut argued that the solution to the problem lay in setting a national minimum wage while regional differentiation should be the outcome of negotiations.[159]

In February 1962 the IDC sent a memorandum to the Permanent Committee requesting clarity on the policy of wage differentiation to help create certainty for potential investors without stating its own preference. African workers were paid abysmally low wages which even the capital found to constitute a barrier to long term economic growth because it undermined their purchasing power. Yet in border areas wages of African workers were set at even lower rates than those that prevailed in major centres. The IDC viewed low cost labour as a necessity in decentralised areas and justified it partly on the lower living costs in Bantustans (IDC, 1964:14). And this was a key part of the policy that was accentuated in the promotional material of the programme. 'Employees commute daily from their homes to their work and they are experiencing a prosperity undreamed of six years ago' (IDC, 1966:14). Yet the IDC (1966:18) decried high levels of labour turnover in decentralised areas ascribing it to the dearth of social services, hardly a phenomenon associated with labour that was content with its working conditions.

The apartheid state envisioned 'border areas' and Bantustans as places where African workers would prosper despite lower wages. It was even prepared to forego job reservation in pursuit of making these areas attractive to African workers in an attempt to limit the inflow of African workers to major centres. Job reservation was to be relaxed in border areas and training of African workers more co-ordinated. Regulation of wages in border areas, it was suggested, could not fall under the authority of Industrial Councils but the Wage Board. As part of the apartheid ideology of 'separate development' African labour in 'border areas' was comparable to migrant labour except that labour commuted to their workplaces on a daily basis and had continuous contact with their traditional roots.

Job reservation in border areas proved a contentious subject within the state itself. D H Steyn's firm opinions on job reservation were that it should not be practised in the border areas and that black workers should have the opportunity to rise up the skill hierarchy in the workplace without hindrance.[160] He went as far as arguing that the whole of Natal outside of Durban-Pinetown was a 'border area'. The Minister of Labour, Jan de Klerk, wanted some exclusions where job reservation for Coloureds and Indians in the alcohol industry would be imposed. In a letter to Verwoerd in 1961 de Klerk wanted the Prime Minister to give guidance but was referred to Steyn for a definite answer. The views of the Minister were echoed by white trade unions which sought to have job reservation relaxed but with conditions.[161] Job reservation was viewed as an important shield to protect white workers from losing their positions to black workers.

6.3 Change in Industrial Decentralisation Policy and Practice in the Late 1960s and the 1980s

Having failed to yield appreciable results in the early to late 1960s, the enhancement of incentives in 1964 notwithstanding, the state was compelled to rethink its approach to industrial decentralisation. The manufacturing sector continued to attract Africans into urban areas increasing employment from 641 753 workers of all races in 1960 to over one million in 1968. In addition, the concentration of industrial jobs increased in the four major centres to the detriment of the rest of the country indicating the ineffectiveness of the 'border areas' policy over the period. Between 1960 and 1970 the apartheid government managed to cram millions of Africans into the Bantustans while the African urban population also expanded by 800 000 people (Hirsch, 1991:151). The state was faced with twin problems of Bantustan population bursting at the seams with very limited opportunities for earning an income and a ballooning urban African population attracted and sustained by opportunities for industrial employment.

The enactment of the Physical Planning Act of 1967 which took effect the following year marked a turning point and the beginning of a second phase in the state's approach to industrial decentralisation characterised by stringent restrictions on firm growth in established centres. The state abandoned the earlier approach that sought to pursue industrial decentralisation without harming existing centres in favour of strengthening the Bantustans project at all costs. The third and final phase was the introduction of the Good Hope incentives. The state had shifted its focus to making industrial decentralisation a success through generous incentives repealing Section 3 of the Physical Planning Act that was at the centre of objections from industrialists.

6.3.1 Physical Planning and Utilisation of Resources Act

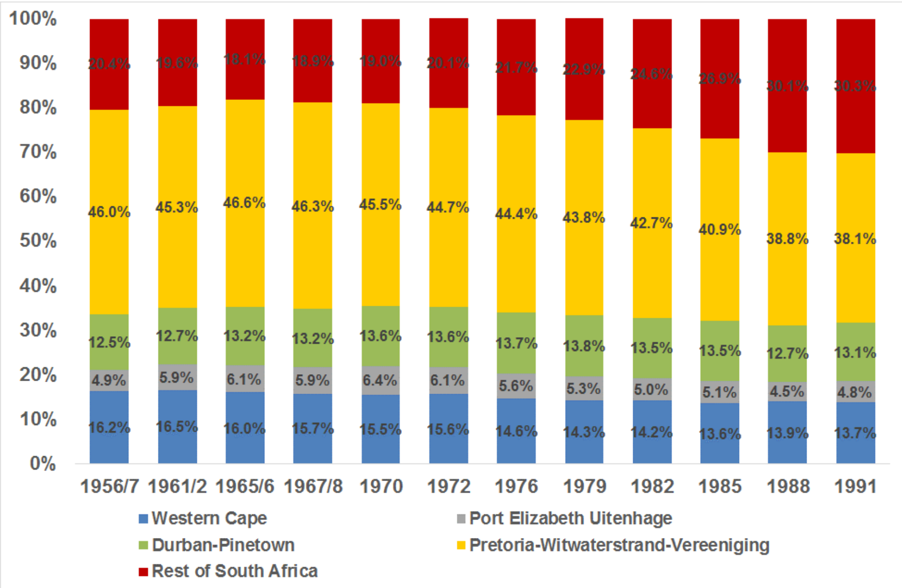
The enactment of the Physical Planning and Resources Act of 1967[162] marked a watershed moment in the South African developmental trajectory that moulded economic policy in the preceding decades. This phase also signalled the shift of industrial decentralisation to the centre of economic policy. Overall, it represented not only a lost opportunity to intensify industrialisation and help narrow the gulf between South Africa and forerunners but also the beginning of phase where the state became a hindrance to fast-paced of industrialisation. Efforts to restrict the expansion of industries in major centres was not offset by the industrialisation of South Africa’s periphery for almost a decade and a half after the act’s enactment. Although the developmental state of Japan pursued policies to encourage its variant of industrial decentralisation, it was motivated by the desire to minimise the diseconomies of agglomeration in Tokyo unlike in South Africa where the politics of apartheid had assumed pre-eminence.

Having failed to meet the set targets for its border industries policy, despite what was thought to be generous enough incentives to attract many firms away from the major cities to border areas, in the mid-1960s the state fundamentally altered its approach. The formation of the Department of Planning in 1964 to co-ordinate all activities surrounding border industries was the first major step. The period after 1967 marked the beginning of a hard-line approach to border industries policy which generated great anxiety in the business community. Its immediate impact manifested itself in loss of faith on the part of investors. Having initially painted a glowing picture of industrial decentralisation, IDC Chairman George Kuschke conceded that the act was deleterious to fixed investment in the manufacturing sector (Kuschke, 1971:107).

The Physical Planning and Resources Act sought to restrict the growth of industry in targeted metropolitan cities largely motivated by the inefficacy of the border industries policy up to that point. Figures published by Bell (1983:9) show that in spite of all the efforts to promote industrialisation outside of the four major centres, their share of total manufacturing employment from 1961/2 to 1965/6 actually increased from 80.4% to 81.9%, a gain of 1.5%. Under the act, before any zoning, subdivision of land for industrial purpose or extension of the factory building could be made, the approval of the Minister of Planning had to be sought. Similarly, before the establishment of a new or extension of an existing factory structure, ministerial authorisation was mandatory. Included in the definition of ‘factory extension’ was the employment of African workers implying that before hiring additional African workers a firm had to obtain the Minister’s consent. Those who were found to be in breach of the act faced the prospect of a fine and/or imprisonment.

Therefore, the Physical Planning and Utilisation of Resources Act of 1967 was designed to limit the growth of established metropolitan areas in the hope that the industrial decentralisation would receive a boost, thus obviate the need for Africans to move out of the Bantustans into the major centres. As illustrated in Figure 36 there was a slight increase in the percentage of manufacturing employment outside of the major centres, particularly after 1967/8 at the expense of the Pretoria Witwatersrand Vaal (PWV) area and Western Cape, a trend that continued into the 1980s. However, the shift was rather too limited to make the impact that apartheid planners had envisioned when crafting border industries policies.

Figure 36. Distribution of Manufacturing Employment in South Africa, 1956/7-1991



Source: Bell, 1983; derived from CSS (various years)

Bell (1988) denies the primacy of state intervention in the decentralisation of industry in South Africa instead ascribes it to changing ‘market forces’. When the ‘border industries’ policy was unveiled some 1 274 firms employing 76 000 workers were already located in places that were declared ‘border areas’ (Best, 1971:332). In 1975 the Decentralisation Board counted 550 firms in peripheral areas that were not supported by the state. Yet it is clear that from the figures Bell provides that the rise in the share of manufacturing employment in areas outside of the four major centres coincides with the implementation of the Physical Planning Act. This trend continued well into the early 1990s as shown in Figure 36. South Africa’s industrial heartland the PWV region, where the act was stringently applied, lost a substantial share of its manufacturing jobs to peripheral regions and other centres. Other major centres also recorded a decrease in their contribution to total manufacturing employment. State intervention in promoting industrial decentralisation in the late 1960s and thereafter should be credited in large part for the steady shift of manufacturing employment to South Africa's periphery.

In about three decades fundamental shifts occurred in the location of manufacturing production and jobs in South Africa, a result of state intervention in the economy influenced largely by the desire to preserve the apartheid system. In 1970 areas outside of the four metropolitan centres contributed 16.9% of South Africa's manufacturing output while at the close of the 1980s the figure had risen to 29.4%. Considering that from 1980 the so-called TBVC (Transkei, Bophuthatswana, Venda and Ciskei) states were not included in the official statistics implies that the significance of the shift of manufacturing employment to the periphery is somewhat underestimated after that date. In the mid-1980s Ciskei alone had in the region of 20 000 industrial workers (Hirsch, 1986:187) while Venda had about 3 000 (Netshitomboni, 1993:38). In 1985 Transkei recorded 30 766 manufacturing employees while Bophuthatswana's equivalent figure stood at over 20 000. Based on these figures estimates here suggest that by the late 1980s about 35% (or over 550 000) of South African industrial workers were located outside of the four major centres.

In pursuit of industrial decentralisation after 1968 the state began to undermine the developmental thrust that had been the dominant theme of economic policy in previous decades. This manifested itself in lost manufacturing production, investment and employment. Estimates of the jobs destroyed by the Act ranged from 100 000 to as many as 220 000. While Bell (1983) argues that the roots of the shift away from the PWV area of particularly labour-intensive industry lay in the 1960s, there is no denying that the Physical Planning Act accelerated the process. It is no coincidence that in 1968 when the act took effect the PWV hosted the largest clothing industry in South Africa which fell to third position after the Western Cape and Durban-Pinetown-Inanda in a little over a decade (Netshitomboni, 1996:66). Moreover, in the early 1970s reports of acute shortage of employees resulting from the act were numerous in the PWV area. By the mid-1970s well over 60% of garment manufacturing firms in the PWV area had indeed contravened the act.

Broad statistics tended to conceal a key phenomenon in the 1960s driven by the diseconomies of agglomeration. Glaser (1988:35-36) observed a growing tendency on the part of firms to avoid rising costs of rent, congestion, through 'suburbanisation' resulting in them locating in the fringes of major metropolitan areas. Places including Isando in the East Rand, Bellville near Cape Town and Pinetown outside Durban recorded increased manufacturing firms due to this phenomenon.

The passage of the Physical Planning and Resource Act was followed by the Promotion of Economic Development of the Bantu Homelands Act which marked a reversal of the earlier policies that restricted the entry of white capital into the Bantustans. Although certain conditions were imposed like on ownership of land and white businesses being passed on to African capitalists after 15 years, the desire to modernise Bantustan economic and political systems was growing. Reliance on chiefly authority and preservation of traditional way of life was being abandoned in favour of purportedly elected political authority along the lines of Western democracies. The passage of the Bantu Homelands Citizenship Act in 1970 plus the Bantu Homelands and Constitution Act in 1971 solidified these ambitions and moves towards granting a larger degree of autonomy to Bantustan authorities (Hirsch, 1991:156).

6.3.2 Inter-Departmental Committee on Decentralisation

Following a period of great trepidation on the part of capital generated by the implementation of the Physical Planning and Resources Act coupled with less than expected growth of industry in decentralised areas, in 1970 the Interdepartmental Committee on Decentralisation was established to examine the causes thereof. Its work culminated in a White Paper which by and large relaxed some of the stringent requirements contained in the Act. The White Paper ushered in major revisions including easing stringent conditions on hiring African labour in major centres excluding the PWV area. In addition, white firms could invest in the Bantustans directly and were no longer required to sell their businesses to Bantustan residents after 15 years.

Among the major recommendations published in the White Paper were that industrial decentralisation should be an integral part of industrialisation of the country as a whole. It called for improved concessions to offset cost disadvantages for locating in decentralised areas. The White Paper also called for the efficient utilisation of labour while the state should improve the quality of services to match those in major towns. One of the functions of the Board for the Decentralisation of Industry was to verify the cost disadvantages as presented by the investor before deciding on the form of compensation to be offered. This could take the form of interest subsidy, tax concession or cash payments (IDC, 1971:14).

6.3.3 The Reform Era and the Good Hope Plan

The Kleu study group which was appointed in 1977 had come out against rigid control of industrial expansion of the metropolitan areas under the Physical Planning Act, recommending instead the reduction of subsidies on government services offered to industries in major centres (Kleu, 1984:21). It also recommended the creation of a development bank to promote regional development and that incentives from Pretoria to homelands be conditional upon the reduction of the number of decentralised areas. South Africa was divided into nine regions which by and large resembled current provincial borders with some exceptions. Some key outcomes of the new policy include the abolition of the notorious Section 3 of the Physical Planning Act an outcome of a shift towards market centred economic policies where the state adopted indirect means to altering location of firms (DBSA 1988:8).

The ascension to power in 1978 of Prime Minister P.W. Botha marked an important shift in the implementation of apartheid policy as it sought to adapt to changing political and economic developments. Botha was described as a reformist and on 22 November 1979 in a speech delivered a speech to a gathering of business leaders in Johannesburg he called for rationalisation of development finance institutions including the IDC (1980:3). He further announced plans to create a development bank for southern Africa and the establishment of a Panel for Economic Co-operation and Strategy chaired by long-time government economic adviser S S Brand.

The period after 1982, signalling the third phase of the industrial decentralisation programme, placed Bantustans at its core and was driven predominantly by very attractive incentives. In 1981 at the Good Hope exhibition complex P W Botha inaugurated a new strategy for industrial decentralisation which took effect in April of 1982. This was apparently a culmination meaningful consultation of Bantustans and the private sector on the formulation of the new policy (DBSA, 1988). The incentive package introduced by the plan was the most generous ever characterised by short term incentives, among others cash subsidies on wages, interest rate subsidy, relocation subsidy and long-term incentives that included transport, electricity and housing subsidies among others. As Hirsch (1991:161) has shown, the cost of the new scheme quadrupled within three years of its introduction. When considered from an opportunity cost perspective the Good Hope incentives could have been used elsewhere to make potentially stronger impact. As discussed in Chapter Eight, deserving projects like the promotion of manufactured exports failed partly because of the dearth of state funding. By contrast developmental states used generous subsidies to manufacturers to engender an export culture in the economy. Incentives were the key driver of the decentralisation policy characterised by 185 ‘growth points’, unlike the first phase of the project which focused on three ‘border areas’. Although the IDC was no longer the most important driver of the phenomenon it continued provide substantially increased levels of financing to firms under the programme.

The overall impact of the new plan manifested itself in unprecedented rates of industrialisation of the Bantustans and many decentralised areas. While the Physical Planning Act triggered the phenomenon that led to increased percentage of employment in decentralised areas, the Good Hope Plan accelerated it. Projects approved in the first five years of the new programme yielded 192 000 jobs from investment totalling R3.8 billion (DBSA, 1989:67) resulting in the industrial employment located outside of the major centres growing from 25% of the country's total in 1982 to 30%. The main attraction to decentralised areas remained incentives and low-cost labour while firms in metropolitan centres ranked stable labour force and availability of skilled labour as the two top reasons behind their decision to locate there. The wage rates in decentralised areas went as low as 14% of the South African average (DBSA, 1989:75).

The Good Hope Plan was the state's final push to make the policy of industrial decentralisation a success. The introduction of the concomitant incentives in 1982 was undoubtedly the reason behind the sudden jump in manufacturing employment in decentralised areas and the accompanying decline in the four major centres. There is little dispute that industrialisation of the periphery of South Africa grew at high rates in the wake of the Good Hope Plan. A state-sponsored survey of decentralised areas in 1987/8 disclosed that three-quarters of firms there were established after the introduction of the Good Hope Plan (DBSA, 1989:70). Yet the 'Panel of Experts' report as it was known doubted the viability of the vast majority of the firms in decentralised areas after the expiry of the incentives. Indeed in the early to mid-1990s as incentives expired or were withdrawn the bulk of firms in decentralised areas responded by shutting their doors.

6.4 IDC Funding of Industrial Decentralisation

At this point we turn to the role of the IDC which was a major force in implementing industrial decentralisation policy. The implementation of industrial decentralisation fell on no less than five government departments including Departments of Economic Affairs, Commerce and Industries, Finance, Bantu Administration and Labour. The many players that would implement the policy made it unwieldy leading to the creation of a committee to co-ordinate the policy. The Permanent Committee for the Location of Industry was established under the chairmanship of a Cabinet nominee, D H Steyn, and included the five government departments' representatives and the South African Railways and Harbours Administration in conjunction with the IDC.[163] The IDC was initially represented by its General Manager at the time G S J Kuschke, a rising star who joined the corporation in 1943 and became its Managing Director in April 1963. But he died in 1971, just over a year after taking over from van Eck as Chairman to be replaced by J J Kitshoff his successor at the IDC.

6.4.1 Permanent Committee for the Location of Industry and the Decentralisation Board

The Permanent Committee for Location of Industry was central to the implementation of the border industries policy for many reasons. For an industrialist wishing to locate a factory in a 'border area' in need of finance made available through the IDC, it was a pre-requisite for him/her to have the approval of the committee prior to the IDC considering the application.

The powers of the committee were also up for consideration by the Economic Advisory Council when the border policy was proposed. They included,

- The granting of assistance with the establishment of basic services such as power, water and transport.
- The provision of housing for 'European' workers.
- The granting of higher depreciation allowances in respect of factory buildings and plant.

In February 1962 the committee considered intensifying the provision of incentives for industrialists wishing to invest in 'border areas.[164] This was an admission that up to that point the efficacy of industrial decentralisation policy was yet to materialise. Indeed in 1964 incentives available to industrialists were given a boost.

The Permanent Committee was central in identifying problems in 'border areas' and coming up with solutions. The committee was in close contact with the Cabinet and referred many matters to the latter. In May 1967 the Deputy Minister of Economic Affairs was in attendance of the 50th meeting of the committee held in East London. Some 12 applications had earlier been referred to the IDC with some being scrapped while others were still under consideration.

The committee played a co-ordinating role referring constraints to the relevant government departments for resolution and simultaneously made policy recommendations to Cabinet. Infrastructure bottleneck areas were targeted and it promoted training and provision of social infrastructure. If the committee deemed the location chosen by a firm was less than ideal it made recommendations on alternative location for the firm to consider. It made approvals on the size of tax concessions allowable and on proposals presented for its consideration.

The release of the White Paper on Decentralisation in 1970 saw the replacement of the Permanent Committee with the Board for the Decentralisation of Industry. The IDC formed part of the executive committee of the board. The board managed the programme on behalf of the state establishing factory flats (defined as ‘standard general purpose factory buildings for leasing by industrialists’), financing infrastructure, processing applications for funding and rendering policy advice on decentralisation to the state. As the board stated, ‘The Industrial Development Corporation acts as the Board’s financial institution in cases where financial assistance is granted to industrialists for establishing or expanding in non-homeland areas’ (Decentralisation Board, 1975:17). The IDC was the key funding agency of the Decentralisation Board during the 1970s and 1980s. Other agencies channelling the financing, although contributing significantly lesser amounts than the IDC, were the Coloured Development Corporation, the Bantu Investment Corporation and the Indian Industrial Development Corporation.

The major flaw in the existing debate on industrial decentralisation remained the silence on a key dimension of the policy, financing of firms locating their industries in decentralised areas. Ignoring this key aspect is surprising considering that detailed information on financing activities was publicly available. Financing of industrial decentralisation was an indispensable catalyst without which the accomplishments of the policy would have been even more modest than they were. Funding obtained through the IDC covered machinery and equipment and working capital (IDC, 1963). Contrary to Hirsch’s (1991:152) claim that ‘the IDC’s contribution to decentralisation was intermittent and arbitrary’, the corporation was an integral part of the implementation and formulation of the policy.

Stemming from the 1956 White Paper the state committed to providing assistance to firms investing in ‘border areas’ and flowing from that decision, the IDC was tasked with investigating the shape and form of such assistance. The industrial decentralisation policy placed the IDC at the centre of its implementation and as a conduit through which the bulk of state financing of the programme was channelled and managed. The entry of the IDC into decentralisation phenomenon in the 1940s marked the beginning of a major shift in the promotion of industrial decentralisation phenomenon as the initiatives were taken to a higher level (Glaser, 1988:29). In the early 1940s van Eck oversaw the preparation of a report entitled ‘Decentralisation of Industrial Undertakings in South Africa’ (Rosenthal, 1958:13) which guided the IDC and influenced future state policy.

In the 1940s and 1950s IDC-initiated industries gravitated towards areas outside the major urban areas attracted there by the proximity of raw materials, access to African labour and the nearness of the ports among others. This phenomenon was not accidental but a deliberate attempt to promote industrial development of South Africa’s periphery. In the case of Good Hope Textiles, long-time Chairman and co-founder of the IDC, H J van Eck, (1967) disclosed that ‘social considerations figured largely in the decision to site the Good Hope mill in the Ciskei’. He also conceded that this was also an experiment that due to its sheer size could not fail and that it constituted a ‘blueprint for Border Area Development’. The investment decisions and location of such investments by the IDC particularly of the textile industry were primarily influenced by its support for keeping African labour from relocating to the major centres.

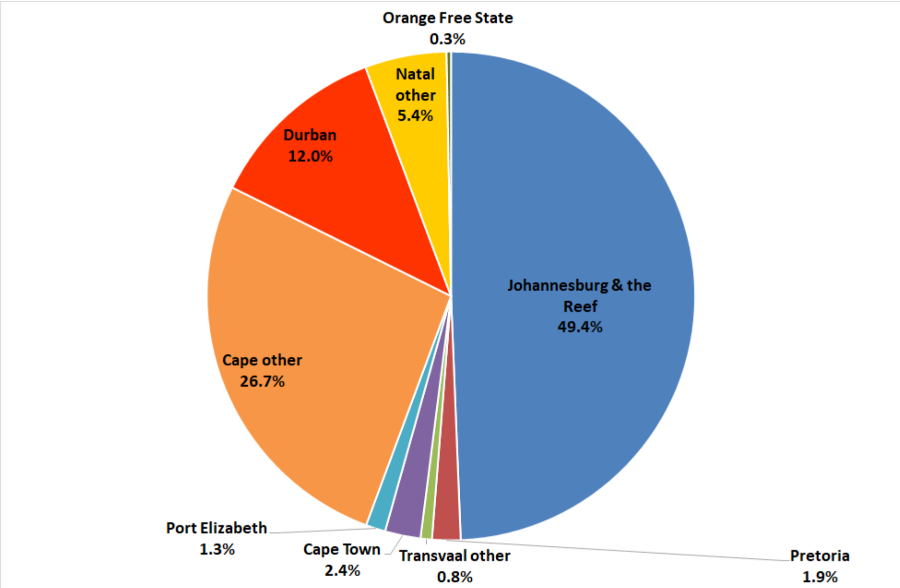
The IDC had many roles to play in the promotion of industrial decentralisation. These included construction of industrial estates, making capital available for the building of leasehold factories and factory structures, funding for working capital and capital equipment plus the provision of housing for white staff among others (IDC, 1967:18). Housing was identified by the 1959 conference on development of industries near Bantustans as a key requirement for the creation of a stable workforce.[165] The IDC played a major role in the provision of housing in border areas as evidenced by the corporation’s construction of about 4 600 houses for white workers relocating to decentralised areas from 1965 to 1979 (*Finance Week*, 22-28.05.1980). Moreover, the corporation offered mortgages to those who needed financing to access and take possession of the houses at subsidised rates (2.5% less than the prevailing building society rate over 20 years or less), contributing to making border areas attractive for white workers (IDC, 1971:14). The IDC continued to play this role until 1988 when it sold its housing division to the private sector (IDC, 1989:8).

The IDC contributed to making border areas attractive through lending to firms operating in the area ‘on special terms’. A 1.5% interest rate discount was set for the corporation when lending to firms in border areas relative to its financing elsewhere in the country. Firms purchasing or renting space from the IDC could claim up to 20% discount. The IDC enthusiastically embraced the policy it helped design as evidenced by repeated statements in support of the programme. Experience gained by the IDC in the two decades of investing in areas near the Bantustans prior to the introduction of the border industries policy proved useful as its investments were also partly designed to overcome constraints already encountered.

6.4.2 Location of IDC Financing

Figure 37 below illustrates the distribution of IDC funding in the early years by region clearly showing that about half of its disbursements went to Johannesburg and the Reef totalling £7.4 million with the Cape Province excluding Cape Town being the second largest (IDC, 1950:5). Durban was the third largest beneficiary of IDC investment receiving 12% of the total. The dominance of Johannesburg and the Reef is not surprising as this was the hub of South Africa’s secondary industry and growing solidly in the post Second World War era. However, the significance of the Cape Province is reflective of the IDC's support for industrial decentralisation spearheaded by the textile industry, the dominant recipient of IDC capital in the early years. The bulk of the investment (74.3%) comprised large investments in excess of £100 000 each indicative of the corporation's appetite for large projects. For instance, the IDC formed Fine Wool Products capitalised to the tune of £650 000 and injected £500 000 into Good Hope Textiles (Cartwright, 1971).

Figure 37. The Distribution of IDC Funding Approvals by Geographic Region 1941-1950



Source: IDC, 1950

Van Eck when choosing Uitenhage and Zwelitsha made it clear that the intention was to generate economic opportunities in areas near or in the reserves to discourage Africans from moving to (white) urban areas. Van Eck expressed his preferences on urbanisation of Africans in an interview when he said, 'I always felt that the productivity of the Native should be improved in his own reserve' (*South African Textiles*, August 1952). It can be argued therefore that the IDC pioneered industrial decentralisation when it was not yet an official policy of the state in the 1940s motivated by precisely the same reasons as the apartheid state later on, that of keeping Africans in the reserves. Even more significant is the fact that, unlike the cases of SASOL and FOSKOR, the financing activities of the IDC prior to the official adoption of the policy were initiated by the corporation itself. Of course, this does not deny the existence of other factors like the presence of supporting industries and a humid climate that were key in textile production. IDC activities had the full backing of the Native Affairs Department which, in the case of the corporation's investment in Fine Wool, invested £25 000 in a dam needed for the operation of the firm.

Although the IDC expressed concern over the high wages paid to skilled workers and low pay for unskilled workers which rendered them unable to afford many products in the early days (IDC, 1941:2), in the 1950s it was adamant that low wages in decentralised areas were essential for the industries there to remain viable. According to Glaser (1988:30), IDC investments in ‘border areas’ were excluded from the Industrial Council and Wage Board regulations which included the setting of wage rates in their areas of jurisdiction. In early 1955 the corporation sought the involvement of the Ministers of Labour and Economic Affairs when the Textile Workers Industrial Union wished to have wages negotiated for the country as a whole.[166] Two years later the IDC declared in its Annual Report that ‘the acceptance of a policy of wage differentiation between urban and rural areas was fundamental if decentralisation is to be achieved’ (IDC, 1956:9). The corporation justified this on the grounds that firms in such areas had to bear additional costs related to lack of infrastructure.

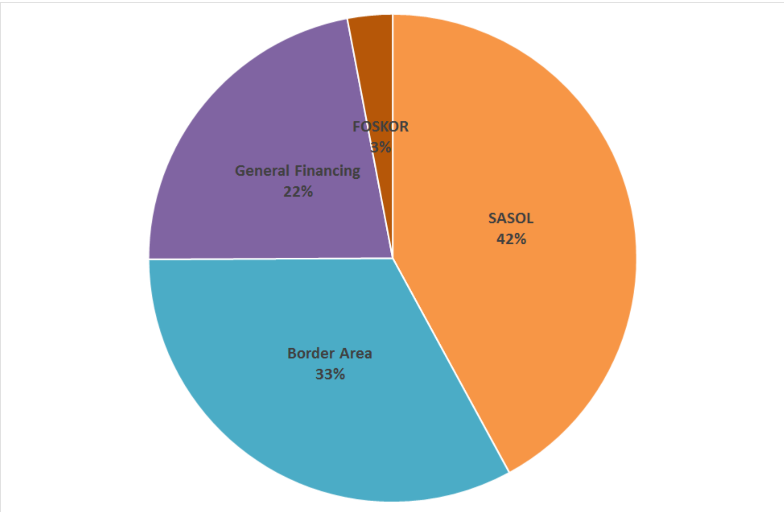
The IDC’s view of industry location, as expressed in its publications, was that it was not pre-determined by the corporation but an outcome of market forces as it only financed enterprises based on the economic merit of the application. This explains the predominance of firms located in the southern Transvaal as shown Figure 37. Although at times the IDC suggested suitable locations to applicants, it did not compel any of its clients to locate their industry in a particular area (IDC, 1948:2). In the case of textile firms it initiated, however, the IDC displayed an affinity to locate such firms in decentralised areas. By mid-1948 investment outside of the main centres accounted for 29% of the IDC total investment by value. The investments in such areas went beyond the corporation’s interests in textiles as it included firms like Masonite, a hardboard firm in Estcourt.

By the mid-1980s IDC financing by value was biased in favour of non-metropolitan areas. In 1984 the corporation’s financing for non-metropolitan areas was 82% (R1.37 billion) (IDC, 1984:16). This was the result of the rising significance of industrial decentralisation in the financing activities of the IDC and in particular the coming into effect of the Good Hope incentives. This also marked a significant break from past practices by the corporation which saw financing reflect spatial pattern of the location of industries dominated by the traditional centres of PWV, Durban-Pinetown, Western Cape and Port Elizabeth-Uitenhage.

6.4.3 Financing Border Industries

Following the adoption of the industrial decentralisation policy in 1960, the role played by the IDC altered significantly. Similar to the SASOL story, the pace of industrial decentralisation was hastened through the use of the IDC as the conduit of state finance. From 1961 to 1970 the border industries programme absorbed R85.7 million, an amount that exceeded all of IDC financing received from Parliament since the organisation's inception for general financing to the manufacturing sector and special projects of R57.6 million outside of SASOL and FOSKOR. The financial commitment to border industries underpinned the importance the apartheid state attached to the programme which as illustrated in Figure 38 was second only to SASOL. The only project to eclipse border industries' financing remained SASOL which received R109.75 million from 1952 to 1966 (IDC, 1970:8).

Figure 38. IDC Funding Received from Parliament According to Major Project



*Sasol: 1956-1962, Border Area: 1961-1970, General Financing: 1941-1970, FOSKOR: 1952-1962

Source: IDC, 1970

By ignoring financing of industries (channelled through the IDC) in, and relocating to, decentralised areas, Bell (1988) was misled into believing that the growth industries in decentralised areas was a consequence of 'market forces'. His conclusion that financial incentives played an insignificant role in industrial decentralisation, while correct insofar as his sources went, was reached because he was barking up the wrong tree. Granted, incentives were enhanced several times in the 1960s and 1970s, indeed an indication of their limited efficacy during the period. However, when combined with direct funding of firms, construction of housing, financing of mortgages of white employees plus the construction of factory space, the role of the state was the key factor in accelerating industrial decentralisation in its first two decades of the policy and more so after 1982. As pointed out in Chapter Three, access to finance for manufacturers, moreover, remained a challenge (see also Dickman, 1973) and funding for decentralisation, which absorbed a large proportion of IDC disbursements, constituted an easier channel through which firms could access finance. The IDC, in addition, offered concessionary loans to firms in decentralised areas.

The debate in the 1980s concentrated on whether or not tax concessions, financial incentives and transport rebates as part of state policy to encourage industrial decentralisation constituted the driver of the phenomenon to the neglect of over 80% of state funding captured as financial assistance. Table 10 shows the breakdown of state funding for industrialisation that was dominated by loans extended to firms via the IDC. It should therefore not come as a surprise that more firms located in 'border areas' with state financial assistance than without during the first phase of the programme with employment rising by 90% (Best, 1971:332). Furthermore, construction of infrastructure by the state and other assistance related to town development indirectly helped make 'border areas' attractive for firms that located in the areas without direct state assistance.

Table 10. State Assistance to Individual Industries and Local Authorities, June 1960 to December 1968

	1960-68	**1968**
Financial Assistance[a]	R 66 000 000	R 14 800 000
Tax concessions[b]	R 9 300 000	R 4 200 000
Housing Facilities	R 3 000 000	R 726 000
Assistance to Local Authorities	R 420 000	R 35 000
Transport Rebates[c]	R 1 015 000	R 256 000
Total	R 79 735 000	R 20 170 000

a Loans, capital and factory buildings

b Excluding concessions for housing for whites

c For the provision of essential rail facilities in industrial sites

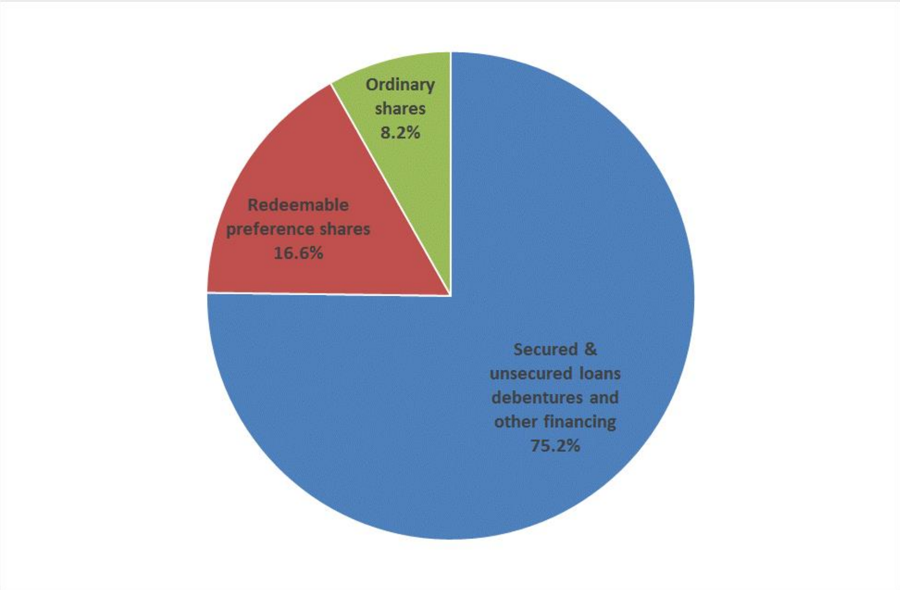
Source: Best, 1971

Although the state made incentives available to firms in other border areas, the thrust of the first phase of the implementation of the 'border industries' policy prior to 1968 focused on three towns, Hammarsdale, Pietermaritzburg and Rosslyn (Best, 1971:333). The approach adopted by the state used Rosslyn as the model for the policy and the IDC was a key investor in the industrial town from its creation in 1963. The IDC went on to create its maiden factory flats which hosted the first industrialists in Rosslyn 20 km north-west of Pretoria. Rosslyn grew rapidly hosting two motor assembly plants by the mid-1970s and numerous other factories. Similar to Hammarsdale, the proximity of a large urban centre made it easier for the state to provide infrastructure, if it did not exist already, and access to skilled workers was not a constraint due to the nearness of a metropolitan centre. The benefits of positive externalities associated with agglomeration of firms are easier to establish in the proximity of a large metropolitan conurbation.

In the case of Rosslyn large pools of African labour were uprooted from parts of Pretoria and other rural parts of the nearby 'reserve' to establish Ga-Rankuwa while Hammarsdale sourced its labour from Umlaas 'reserve'. Within six years of its establishment Rosslyn had 64 factories employing nearly 9 000 workers while Hammarsdale employed 6 532 workers by 1970. The IDC spent the bulk of its finance in Rosslyn on factory buildings but also extending financing individual firms, housing and town development (IDC, 1969). By 1970 the corporation announced that the three towns could be weaned off incentives and continue to grow independently. This approach to industrial decentralisation by the IDC in partnership with the Permanent Committee for the Location of Industry managed to meet twin objectives of safeguarding the interests of white labour against potential job losses in major centres and helping keep African labour in the 'reserves' commuting to work but remaining resident in the 'reserves' in concert with apartheid dimension of the policy. This was in keeping with developmentalism but also accommodating the demands of the apartheid system, a key consideration when the policy was designed in the 1950s.

IDC investments in companies based in border areas were skewed in favour of loans, debentures and other financing which accounted for three-quarters of total investment in value terms by 1965 as illustrated in Figure 39. This compares unfavourably with investments in SASOL and FOSKOR which were overwhelmingly (90%) preference and ordinary shares. Moreover, the corporation's investments in the 'other industries' category consisted of 61% loans and debentures and other financing (IDC, 1965:5). Investments based on loans suggest less intimate involvement by the corporation in the running of recipients' businesses because the IDC did not have the right to appoint directors to the boards of the companies it funded nor possess any voting rights. Unlike earlier investments in remote areas where the IDC took an active interest in the running of firms that it financed as a shareholder, the new approach appears to underline the view that the corporation was designated as a mere conduit for state financing of the programme. As was shown above the Permanent Committee, which the IDC was an integral part of, screened applications for finance and once it was satisfied they met all its requirements, referred them to the IDC for funding. The IDC, in processing the application for the financing, would ostensibly apply 'economic merit' condition before agreeing to finance the applicant.

Figure 39. IDC Border Area Investment as at 30 June 1965



Source: IDC, 1965

An important deterrent to investing in 'border areas' was the poor infrastructure and after the adoption of a policy framework by the government in 1960, the IDC set out to alter the prevailing state of affairs. In March 1961 the corporation created Elangeni Estates, a company designed to manage its industrial estate in Hammarsdale near the Umlaas 'reserve'. Moreover, its siting near major centres was advantageous as it was about equidistant from Durban and Pietermaritzburg.

So successful was the Rosslyn factory flats approach in the eyes of the corporation that it proceeded to create another set of factory flats in Pietersburg at a cost of R230 000 (Brayshaw, 1966). In the late 1950s the provision of services in Pietersburg was met with a positive response by investors.[167] Also, an innovative approach to providing factory space assumed the form of industrial flats which proved popular among industrialists. By the mid-1970s in excess of 160 factory flats had been constructed by the corporation (IDC, 1974:13). With this level of subsidisation capital was only too keen to establish a presence in border areas as evidenced by the enthusiasm displayed in the take up of IDC-sponsored factory space in Rosslyn and Elangeni. The IDC was central to the development of the Hammersdale industrial area from when it was established. Textile firms were not only prominent in the early stages of the Elangeni estates but were predominant in the rest of Hammarsdale where IDC funding played a major role. Key attractions for the garment industry were significantly low wage rates plus various incentives for industrialists establishing in Hammarsdale. Overall, the first phase of the industrial decentralisation policy failed to grow the share of border industries to total industrial jobs in South Africa. Although three major centres also recorded declines in shares of total South African industrial employment from 1961/2 to 1967/8, only Durban Pinetown managed to raise its percentage of manufacturing workers.

A rapidly expanding decentralised area in the 1970s reliant on Coloured labour was Atlantis in the Cape. The IDC was at the head of developing the town through its provision of industrial flats which led to the maiden factory opening its doors in August 1975. Additional factory space totalling over 14 500 m^2 was added shortly thereafter including the factory to host key investment in Atlantis Diesel Engines (see Chapter Seven). By August 1981 ADE employed 1 200 people producing tractor and truck engines in a partnership involving the IDC, Daimler Benz of Germany and the UK's Perkins Engines (IDC, 1981:9-10). The IDC's investment in ADE was R128 million out of a total of R400 million.

In the early 1970s, the development of two areas, Babelegi near Hammanskraal and Danskraal near Ladysmith in Natal, was placed on the IDC's shoulders. With the co-operation of the Department of Bantu Affairs, which took up the responsibility of building the town of eZakheni for Africans, constructing 1 500 houses in the process (IDC, 1971:18). A total of 270 ha of industrial land was developed to house many small and medium-sized firms and the huge Dunlop factory. On completion some 2 000 African workers were employed in the project. The construction of houses in Mandini near Isithebe which involved 100 stands for white workers was the direct responsibility of the IDC, another example of IDC involvement in support of industrial decentralisation. There is little doubt that without state cum IDC involvement industrialisation of many such areas would have taken a lot longer, if at all. In the first decade of border industries policy the IDC injected R138 million in 240 firms which was matched by R233 million from industrialists themselves and other funders, a ratio of 1:1.7 (IDC, 1971:15). As will be shown later, by the end of the 1970s the ratio of IDC contribution had decreased, suggesting the importance of state funding early on to get the programme off the ground.

6.4.4 The IDC, Bantustan Financing and Employment Creation

Although the apartheid state envisioned the proliferation of industries in border areas and in the Bantustans themselves, financial commitment was not in the initial stages large enough to be efficacious. The studies of the CNRD deferred to the state the decision on how the programme would be funded and the source of such funds. The creation of the Bantu Investment Corporation in 1959, covering all Bantustans whose mandate was outlined as follows,

> In addition to funding, the Corporation also provides the functions of providing technical and other assistance, guidance and advice to encourage innovation, financial and other businesses, the encouragement of the Bantu of savings and a sense of self-help in the economy.

The corporation was given an initial capital of only £½ million casting a shadow of doubt on the commitment of the state to industrial decentralisation inside the Bantustans in the early years of the programme.

The IDC confined its investments to border areas steering clear of firms inside the Bantustans. In the mid-1970s the corporation was unequivocal when it stated '[t]he financing of industrial undertakings in the homelands is the function of the Bantu Investment Corporation and various National Corporations for Blacks and not the IDC' (IDC Papers, n.d.). This approach only changed in April 1984 when legislation governing the IDC was amended to permit the corporation to fund industrialists in 'independent' Bantustans of Transkei, Bophuthatswana, Venda and Ciskei. Indeed, in the first phase of the industrial decentralisation policy Bantustans hardly featured in the implementation of the policy dominated by a focus on 'border areas'.

Following the implementation of the Physical Planning and Utilisation of Resources Act in 1968, the IDC almost doubled its financing of firms in border areas to R15.1 million in the same year. In 1969 and 1970 the corporation reported record disbursements in financing firms in decentralised areas (IDC, 1970:14), a reflection of the state's commitment to the programme through financing coupled with demand from firms that were forced or opted to relocate. A total of 86 clients were funded for R24.4 million in the 1970 financial year. The IDC also continued its role of constructing houses for white personnel in decentralised areas totalling 211 units in the same year to the tune of R2.65 million. This was necessary for the attraction of skilled white workers to such areas. Houses for African workers were the responsibility of the Department of Native Affairs and Development.

As Table 11 below shows state financing channelled through the IDC was an indispensable part of industrial decentralisation. With almost one-third of the value of total investment originating from the state, in addition to laws and incentives favouring the areas, the general reluctance to fully commit resources on the part of capital was by and large overcome. In 1980 IDC Chairman, A J van den Berg, also declared that investments in decentralised areas were not particularly profitable. Although funding leveraged from the private sector amounted to R2 for every R1 invested by the IDC, the state offered other concessions like tax rebates, railway rebates and rentals and interest rate subsidies among others. In a way the IDC could afford to overlook its 'economic merits' principle in favour of promotion of industrialisation of South Africa's periphery in support of apartheid.

Table 11. Industrial Decentralisation Financing to 31 December 1979 (R million)

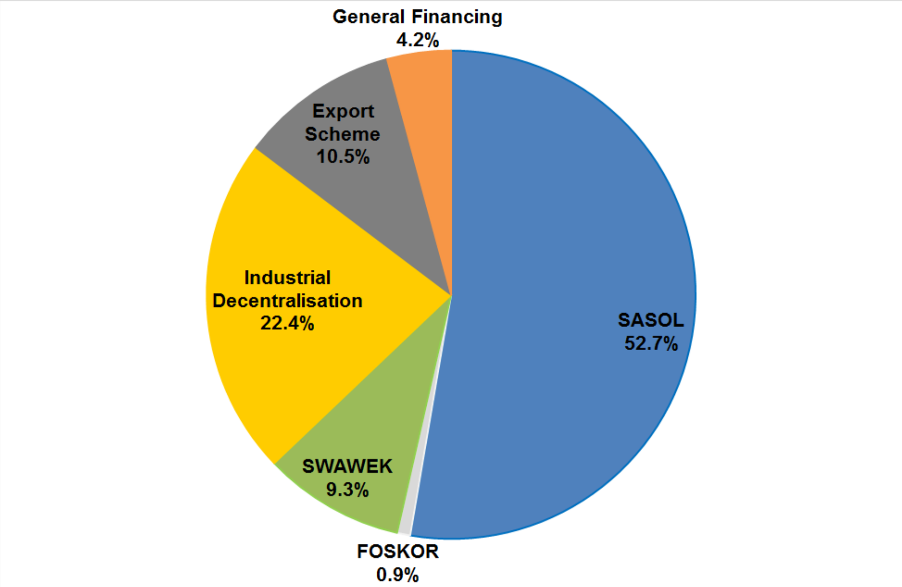
	Rosslyn, Hammarsdale, Pietermaritzburg	Growth points*	Rural towns**	Total
No. of factories	149	339	159	647
IDC finance	53.7	276.9	64.8	395.5
Other finance	142.3	408.0	248.3	798.7
Total investment	196.0	685.0	313.1	1 194.2
IDC as % of total investment	27.4%	40.4%	20.7%	33.1%

Source: Finance Week
*Atlantis, Darling, Berlin, Brits, East London, Kimberley, King William's Town, Ladysmith, Newcastle, Phalaborwa, Pietersburg, Potgietersrus, Richards Bay, Rustenburg, Tzaneen.
** Some 40 localities including Bloemfontein, Heilbron, Upington, George, Bethlehem, Harrismith, Louis Trichardt, Nelspruit, Queenstown and Stutterheim.

Funding for general industries, an area which the IDC had more latitude on what and where to invest, dried up as early as 1954. Yet the corporation boasted over the years that it never turned away any request for finance on the grounds that it had insufficient funds. Figure 40 shows the division of finance from the state to the IDC from its formation to 1981. Decentralisation occupied a large part of funding from the state that at one time in the 1970s unseated SASOL as the largest recipient. The state and the IDC had a long-standing understanding until its amendment in 1979 that the dividends earned from SASOL would be funnelled to funding industrial decentralisation.[168]

By and large Prior to the creation of SASOL and the adoption of industrial decentralisation, IDC investment by value tended to reflect the spatial distribution of the manufacturing sector. The effect of SASOL and decentralisation investment saw the corporation's investment in 1984 in non-metropolitan areas exceed 80% by value (IDC, 1984:16). Equally important as shown in Figure 40, over three-quarters of IDC investment by value was absorbed by SASOL and industrial decentralisation both state-conceived and managed project with the IDC acting as a conduit. Projects initiated by the IDC and applications that were financed by the corporation only received 4.2% of total disbursements over four decades.

Figure 40. Government Financing of Various Programmes Through the IDC 1941-1981



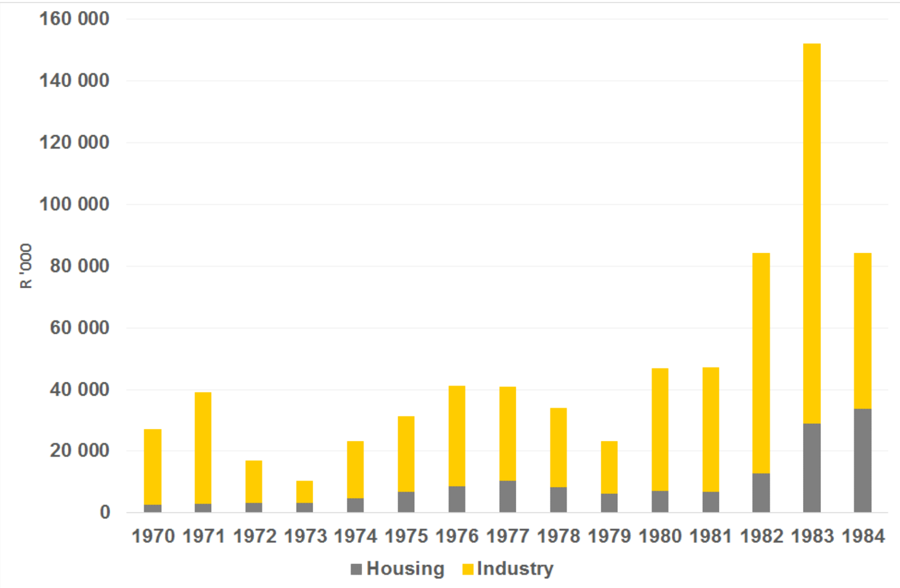
Source: IDC, 1981

The IDC derived major benefits from all major programmes of the state where it acted as conduit. Although it did not charge the state for managing the financing, the corporation received interest payment and dividends which were not transferred back to the state. The bulk of the money was used to build reserves and finance internally initiated investments. In 1980 the IDC received R14.6 million from its financing of industrial decentralisation about R450 000 more than it collected from other industries (IDC, 1980:24). By the mid to late 1970s government financing of industrial decentralisation in this way was being phased down and the IDC was already forecasting that by 1983 it would finance the programme without needing state funding (*Finance Week*, 22-28.05.80). In 1978 the IDC (1978:9) announced that industrial decentralisation was at a stage where it could finance new applications through repayments and from reserves. Yet during the same year R18 million was authorised by the state for the programme followed by R21 million a year later.

The coming into force of the Physical and Environment Planning Act in 1968 saw authorisation for funding nearly double in relation to the year prior to reach R15.1 million and a new peak of R27.1 million in 1971 (IDC, 1971:15). The years immediately after the adoption of the Riekert recommendations which reversed the stringent application of parts of the act following a deluge of complaints from businesses in affected areas led to a precipitous decline in authorisations and actual advances for decentralisation in subsequent years. This was caused largely by the oil crisis-induced recession. Following the revision of incentives and continued application of the Physical Planning Act in the PWV area, funding authorisations jumped to high levels in 1977 and 1980 registering advances of R40.6 million and R46.8 million, respectively.

Following the implementation of the Good Hope incentives the IDC registered both record disbursements for industrial decentralisation and financing of housing for white staff as illustrated in Figure 41. As a direct result of growing interest by capital in relocating to decentralised areas the IDC approved many funding requests. In 1983/84 about 70% of total IDC authorised capital was absorbed by financing for industrial decentralisation in addition to R48m for housing for 'key personnel' in the areas (IDC, 1984:7). The corporation also intensified the construction of factory flats and provision of other infrastructure as well as establish training centres for industrial workers in some decentralised areas. The interest subsidy from the state formed an important part of financing after the introduction of the Good Hope proposals. With the budget for financial incentives more than tripling in real terms over four years, the interest subsidy grew from R4.7 million in 1982/3 to R131.7 million in 1985/6 in real terms (DBSA, 1989:84).

Figure 41. IDC Actual Advances to Industrial Decentralisation



Source: IDC, (various years)

Since job creation in South Africa's periphery was the primary function of the industrial decentralisation, it placed the IDC at the core of the programme. In 1968 the IDC believed that the border industries programme needed to generate 23 500 jobs for Africans annually, 11 000 of which resulting from IDC financing, for it to meet its goals. In its 1970 financing of the programme the corporation expected to create 9 770 jobs for blacks which it viewed as most encouraging in its quest to reach the target of 11 000 (IDC, 1970:14). Ultimately the success of the industrial decentralisation policy in the eyes of apartheid planners rested on the level of employment it created. In a revealing statement in 1980, IDC Senior Manager Jan de Bruyn said, ‘If you want to measure the success of decentralisation in terms of job opportunities to meet population growth, it’s not a success’ (*Finance Week*, 22-28.05.80). The 112 780 jobs created by the decentralisation programme, as shown in Table 12 more than one-tenth of which were held by whites, fell far short of 20 000 per annum requirement calculated a generation earlier by the Tomlinson Commission as a requirement to improve socio-economic conditions in the Bantustans and keep African urbanisation to a minimum despite the deceptively encouraging figures given above.

Table 12. Employment in Decentralisation Areas to 31 December 1979

	Rosslyn, Hammarsdale, Pietermaritzburg	Growth points*	Rural towns**	Total
Whites	5 825	6 355	2 516	14 696
Africans	19 804	39 395	18 438	77 637
Other	2 704	9 158	8 585	20 447
Total	**28 333**	**54 980**	**29 539**	**112 780**

Source: Finance Week, 1980

*Atlantis, Darling, Berlin, Brits, East London, Kimberley, King William’s Town, Ladysmith, Newcastle, Phalaborwa, Pietersburg, Potgietersrus, Richards Bay, Rustenburg, Tzaneen.
** Some 40 localities including Bloemfontein, Heilbron, Upington, George, Bethlehem, Harrismith, Louis Trichardt, Nelspruit, Queenstown and Stutterheim.

The IDC claimed that from 1940 to 1982 it had a hand in the creation approximately 300 000 of the 1 500 000 jobs in the manufacturing sector through its financing activities. The corporation further stated that 118 000 (39.3%) out of the 300 000 jobs were linked to the industrial decentralisation programme from 1961 to 1982 (IDC, 1982:7). In the long run the bulk of the jobs created after 1982 were fleeting.

Outside of decentralisation and SASOL, the IDC continued to initiate and support import substitution in and diversification of the manufacturing sector. It was assisted by strong demand for finance against the backdrop of a rapidly industrialising economy. Its finances were stronger than ever buoyed by the low default rate and the high rate of inflow of repayments. The key example was the tea industry which also carried the potential to generate thousands of new jobs at lower rates of capital investment.

Having undertaken a study into the possibility of replacing tea imports with the assistance of tea experts from Kenya, the IDC concluded that import substitution was the route to take. The corporation registered a tea company, Sapekoe, to spearhead the tea project. By 1963 South

Africa was importing 35 million pounds (15 875 tons) of tea worth R15 million on average annually (Brayshaw, 1966). The tea project played twin roles of import substitution and industrial decentralisation as its plantations were located in and around Bantustans with the added benefit of creating numerous jobs at a lower cost (IDC, 1984:9). The key method of funding employed by the IDC in this project was through shareholder capital injection to the corporation's subsidiaries which is not generally associated with development finance models. The cost of creating jobs in this industry was quite low at about R3 700 of investment per job which was very labour intensive making it ideal for achieving the goals of the decentralisation programme. Sapekoe established and operated tea plantations and accompanying processing plants in Richmond (Natal), Ngome near Vryheid and in the Northern Transvaal in Tzaneen and the Venda homeland. The tea was sold principally to existing tea blenders with only a limited amount sold under the Sapekoe brand (IDC, 1971:24).

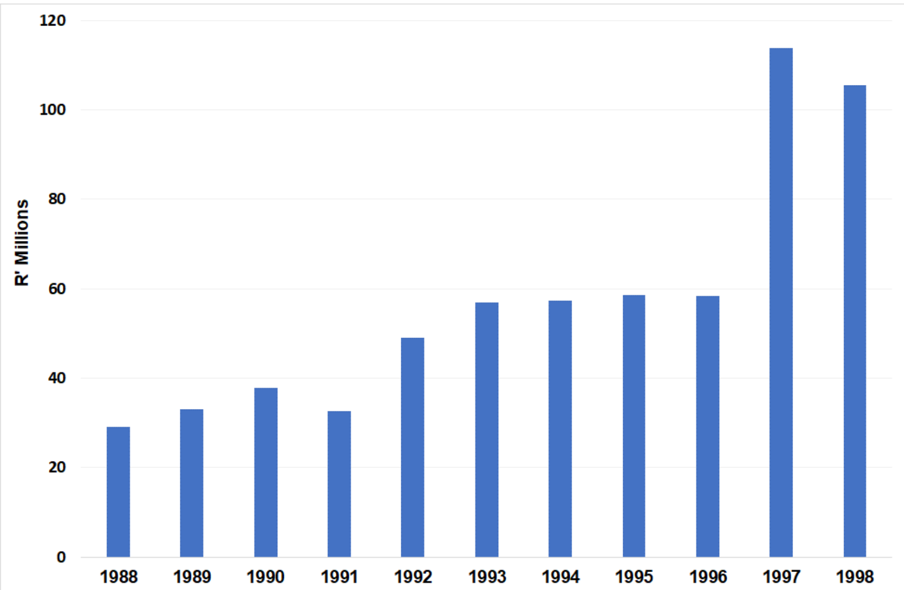
By the mid-1970s the IDC expected Sapekoe capture one-tenth of the South African tea market (IDC, 1976:13) but this target was exceeded. In 1984 about 30% of the South African tea market was in the hands of Sapekoe. IDC investment, albeit indirectly, had reached a Bantustan when it entered Venda in 1971 as a minority shareholder in a partnership with the Bantustan's authorities. Venda had its legislative assembly in 1971 and became a self-governing homeland in 1973 which perhaps made IDC investment there more acceptable. By 1981 Sapekoe employed between 10 000 and 13 000 workers fluctuating on the basis of seasonality of the work (IDC, 1982:11). By the close of the 1980s some 20 000 workers were employed in the tea industry in South Africa. The IDC undertook a study that it presented to the Department of Trade and Industry which saw the potential to grow the sector to 70 000 jobs (IDC, 1985:9).

By the early 1980s Sapekoe had diversified into other agro-processing ventures including coffee and macadamia nuts. This also marked another IDC's entry point into more Bantustans as the coffee project was to be established in Venda, Lebowa and Kwazulu with Cabinet's blessing. By 1989 the IDC had identified essential oils and ole-resins as an import substitution supporting project (IDC, 1989:14). A wide array of crops was needed to produce raw materials for the toiletries, flavourings and pharmaceutical products whose imports at the time totalled R100 million.

The success of agro-industry in the Bantustans in terms of employment was not however matched by commercial success and good product quality. In 1987 the IDC presented a report to the Department of Trade and Industry (DTI) recommending the phasing out of protection for the tea industry. The final decision was taken by the DTI in consultation with tea packers and Sapekoe to eliminate import protection and the dropping of all price preferences that the local industry enjoyed triggering restructuring of the industry (IDC, 1989:14). In addition, the IDC halted any new investment into the industry until it could prove that it was able to withstand the cold winds of international competition. The tea industry which had not been particularly lucrative for the IDC was susceptible to droughts and foreign competition. As will be demonstrated in Chapter Eight, by 1990 the IDC was a leading proponent of import tariff liberalisation as the basis for trade and industrial policy and was at the forefront of the process. Yet despite a clear shift in IDC policy towards neo-liberal economics Sapekoe was not earmarked as a candidate for privatisation because it was a vehicle for developing agro-industries by the corporation (IDC, 1989:15). This poorly conceived liberalisation of the tea market coupled with the halting of IDC financial support led to the industry's catastrophic decimation in the 1990s.

The exposure to international competition saw tea imports rise rapidly leading to the displacement of domestic production. Thousands of jobs were lost in the tea industry as imports rose steadily before a massive jump in 1997 as illustrated in Figure 42. The IDC ultimately exited the industry in the mid-2000s citing unstainable losses incurred. The lack of support to the tea industry through investment in up to date equipment, skills development and rationalising processes ensured that the industry was not prepared to meet foreign competition head on. Instead the IDC and the state believed that import competition on its own was sufficient to transform the tea industry into a globally competitive industry. The potential to sustain thousands of jobs was lost as a direct result of the shift in the thinking to free market orthodoxy.

Figure 42. South African Tea Imports, 1988-1998



Source: Quantec

6.5 Conclusion

The relentless pursuit of industrial decentralisation by the South African government from the 1960s to the late 1980s that was underpinned by an increasingly large budget channelled predominantly through the IDC is testimony to its significance to the political economy of the country during the period. The perennial debate in the 1980s about whether industrial decentralisation in South Africa was the outcome of state intervention which manifested itself especially in financial incentives and other policies or a result of voluntary shift by firms seeking low labour costs neglected the role of development finance. Although firms would have continued to mushroom in or relocated to decentralised areas without state incentives and legislative compulsion, the pace of the phenomenon would undoubtedly have been significantly slower. Ignoring the role of concessionary finance extended to firms by the state via the IDC and the concomitant provision of infrastructure by the corporation in particular factory flats, housing for skilled staff obscured the key driver of the phenomenon. The IDC and the state helped speed up substantially the process of firm location in and relocation to 'border areas' creating rapidly expanding industrial centres in the periphery.

In shoring up industrial decentralisation policies, the nature and character of IDC funding bore some hallmarks of developmental finance used in many economies around the globe. Over and above what development banks elsewhere typically engaged in, the IDC constructed and funded infrastructure that was vital for the success of new industrial centres. The construction of factory flats and houses for new firms and skilled workers respectively by the corporation were critical to the success of the programme. The IDC's proximity to the state and especially through its role in the Permanent Committee for Location of Industry later renamed the Decentralisation Board, enabled the corporation to help co-ordinate other infrastructure development and revision of policies that hindered growth in the areas.

It was very clear when the border policy was formulated in the late 1950s that apartheid was the dominant consideration. The success of the programme in the eyes of apartheid planners lay in the programme's ability to keep millions of Africans in the Bantustans away from the major centres. In the first phase of the industrial decentralisation policy, the developmental agenda overrode any concerns associated with urbanisation subordinating the policy to developmentalism. Until the late-1960s care was taken not to upset the growth momentum in major centres when designing policies to minimise migration of Africans to urban centres partly influenced by the desire to safeguard the interests of the white working class and capital.

Rosslyn especially remains a success story hosting for several decades two key anchor firms BMW and Nissan motor vehicle assembly plants, the largest brewery in the southern hemisphere and Nampak's enormous food cans manufacturer, among others. Hammarsdale remains an important industrial centre in the Kwazulu Natal province although it has also been adversely affected by the countrywide decimation of the textile and clothing industries that has been linked to poorly managed exposure to foreign competition. While the model adopted in the 1960s produced strong industrial centres, it did not generate sufficient jobs commensurate with the expectations of apartheid planners to make an impact on the concentration of employment in established centres.

When the state adopted the Physical Planning Act in 1967 in the second phase of the industrial decentralisation programme, it endeavoured to forsake its developmental approach in favour of the preservation of apartheid through containing black opposition in the Bantustans under chiefly authority. The damaging effects of the Physical Planning Act ended up being confined to the PWV area – South Africa's largest industrial hub by far – as the state sought to accommodate fierce opposition to the act by industrial capital through relaxing its application in other centres. Throughout this phase the IDC continued to finance the industrial decentralisation programme as mandated by the state. The IDC was also instrumental in the implementation of the programme through continued provision of factory space and construction of houses for (skilled) white workers. Directly, the South African government too played a supportive role through the provision of other infrastructure, transport rebates, incentives and tax concessions among others. It was during this phase that the number of targeted rural towns and growth points which were often in distant locations without easy access to skilled labour, markets or raw materials increased dramatically. The longevity of such firms in the absence of subsidies and incentives was bound to be limited.

The third phase which began in 1982 represented a watershed period as state policy moved decisively away from developmentalism. The Good Hope proposals marked a key shift in the policy as the apartheid state made a desperate attempt to make a success out of the policy using unprecedentedly generous incentives to prop up the Bantustan system through industrial development. Motivated by the desire to rectify the failure of the decentralisation project to keep the required number of blacks in the Bantustans ultimately to preserve apartheid, Bantustans were the main target of the policy. The IDC, through this and other phases, remained an obedient agency of the state channelling state finance to propping up industrial decentralisation which increased appreciably after 1982. Despite questionable sustainability of firms in the multiplicity of 'growth points' located primarily in the Bantustans in the absence of incentives, IDC finance was concentrated in these areas after 1982 reaching as high as 70% of total funding extended to industries. Clearly, more sustainable projects elsewhere in the country that could have benefited from concessionary finance from the IDC did not benefit because of their location. The new approach led to the attraction of local and international firms creating unprecedented amounts of industrial jobs in South Africa's Bantustans especially. The principal attraction was access to large pools of cheap labour and various generous incentives made available by the state. However, the bulk of the investment was fleeting and firms closed down as soon as the incentives expired.

Even during this phase firms that were located in Bantustans but in the proximity of major metropolitan areas like Babelegi and Isithebe fared better than those in remote areas. Many large industrial areas established in remote parts of the country by the industrial decentralisation policy simply decayed and there is little hope of ever reviving them. Today the IDC allocates sizeable amounts of capital annually for investment in less developed areas while uncoordinated efforts by national and some provincial governments to redevelop some industrial centres in the country's periphery are under consideration. Leaving aside the desirability of reviving decayed industrial centres formed under industrial decentralisation, this is unlikely to lead to the re-emergence of industrialisation of South Africa's periphery of the scale witnessed in the 1980s in the absence of concessionary finance and a suite of generous subsidies.

Chapter Seven

From Developmentalism to Defence: The IDC, Apartheid and the Emergence of the Armaments Industry

7.1 Introduction

The existence of a large body of detailed information on the South African armaments industry during apartheid in the 1970s and 1980s is surprising because information on its activities was not only cloaked in secrecy, but any journalistic reportage, possession or any dissemination of such information was criminalised. Paradoxically, much of the literature on the subject rested heavily on print media reports and to a lesser extent on published official reports. On the eve of the installation of a democratic government in May 1994 intelligence officers torched some 44 tons of official documents deemed to contain information related to state security over and above systematic destruction of official records which began in the early 1980s (Africa, 2002:71). The militarisation of South African society in the 1970s and 1980s permeated the economy in ways that today, nearly three decades after the process to dismantle apartheid began in earnest, appears illusory in the minds of many. Little is known about the IDC's involvement as an agency of the state in the murky world of armaments production and trade through facilitating state-initiated projects, creating supplier firms and making available finance tailor-made to support private sector firms that supplied key inputs to the armaments industry.

This chapter seeks to bring to attention the role played by the IDC in promoting industrialisation governed by the logic of state security through the provision of finance, project management expertise and overall co-ordination of all required role players. It focuses on the interplay between the state, the IDC and capital in the construction of the armaments industry in South Africa. Security of the state is an important tenet of the developmental state model that is key in impelling governments to establish and operate institutions to ensure that rapid economic growth. The chapter analyses how IDC development finance was leveraged to construct anchor firms and clusters of key suppliers to steer industrial development that will serve to shore up the survival of the apartheid state when threats from internal resistance and external antagonism intensified. This chapter hopes to shed more light on the activities of the armaments industry from the 1960s to the 1980s through the lens of the IDC. It also analyses the underlying processes that helped propel the South African armaments industry to become the lynchpin of the manufacturing sector for over a decade thus it means to contribute to the lifting of the veil of secrecy over the industry for many years. It focuses on the interplay between the state, the IDC and capital in the construction of the armaments industry in South Africa.

The chapter begins by what seems to be a diversion from the main enquiry but is a vital background to the underlying causes behind the South African state abandoning a largely developmental path to industrialisation in favour of defence of apartheid. Although the South African state faced similar internal and external threats that drove developmentalism elsewhere, due to the political system founded on the exclusion of the majority of the population, it opted for repressive measures rather than 'side payments'. As such the chapter begins by outlining international embargoes directed at the apartheid state and how they influenced its reaction to international pressure and shaped its policies in dealing with crises generated by opposition to apartheid. It also considers the role played by capital and its relationship with the state in reaction to a significantly changed environment for industrial capital accumulation defined increasingly by the logic of militarisation of the economy and society.

The spotlight will shift to the part played by the IDC in the creation of Atlas Aircraft Corporation and Atlantis Diesel Engines to manufacture aircraft and diesel engines for the military as ordered by the state and how this impacted on the rest of the economy with a particular focus on the truck industry. The role played by the IDC in supporting the emergence of industries that aided the militarisation cause in the context of arms embargoes will also be examined. In closing, I provide an analysis of the transition to a changed operating environment for the armaments industry as the process to end apartheid got underway.

7.2 International Arms Embargoes and their Impact on South Africa

A battery of UN-sponsored arms embargoes from the 1960s to the 1970s coupled with economic sanctions in the 1980s on the one side and the military offensive of the apartheid state in neighbouring countries and inside the country on the other, combined to activate the rise of what became one of the largest armaments industries in the developing world. As Phillips (1988) observed, in seeking to supress the struggle against apartheid the state turned the South African Defence Force (SADF) into the driving force in the design and implementation of state policies making South Africa a militarised society for much of the 1970s and 1980s. Military officers assumed key positions in state institutions including the State Security Council and the National Security Management System accentuating military solutions to South Africa's political, economic and social crises.

When faced with the threat of sanctions and insurrection by liberation movements based in neighbouring countries that carried the threat of ultimately toppling the apartheid state, the South African government also turned to the IDC to help reorient the economy in support of its militarisation project. In this case the state used the IDC for an alternative role of supporting apartheid-inspired projects. The IDC assumed its role of a state agency that aided the apartheid political project to shore up the apartheid state's defences at the expense of development. Although the military has played a key role in the development of important industries in some economies, in South Africa with the demise of apartheid imminent, the state played only a limited part in aiding firms' transition to the civilian market.

7.2.1 Apartheid South Africa and the International Community

The brutal nature of the apartheid system in the 1960s precipitated moves to isolate the South African government by the international community. In the context of decolonisation and the growing influence of post-colonial African states in world politics coupled with events like the Sharpeville massacre of unarmed black protesters by the police served to encourage the intensification international opposition to apartheid. South Africa was increasingly presented as a threat to global peace and security. At the United Nations, beginning in the early 1960s, resolutions aimed at limiting the apartheid government's access to arms and ammunition gained momentum over and above the condemnation of its racist policies (Open Secrets, 2018).

The first arms embargo against South Africa by the United Nations Security Council in 1963 was not mandatory on member states and two members of the council the United States and the United Kingdom abstained from voting but agreed to abide by the resolution. UN member states were called upon to refrain from selling military vehicles, aircraft, arms and ammunition to South Africa. However, South Africa was able to access armaments from several countries including France, Italy and Belgium (Cobbett, 1989). In 1970 France joined the UK and the US in abstaining from voting for the Security Council Resolution 282 that was designed to give the arms embargo further impetus (Cobbett, 1989:234). The abstention of the US and the UK was perhaps influenced by the fact that South Africa joined the Second World War in 1939 on the side of Allied Forces. Moreover, after the end of the war a deal concluded in secret between Prime Minister Jan Smuts and the two countries ensured that the US and the UK received virtually all their uranium requirements from South Africa earning the country considerable sums of money (Fig, 1998:165). The two resolutions failed to limit South Africa's access to armaments as numerous UN member countries continued to supply Pretoria with military hardware.

The UN Security Council Resolution in 1970 prohibited any form of co-operation with South Africa in the military sphere including trade in arms and ammunition and licensing of military products, among others. The 1976 student-led rebellion that began in Soweto left more people dead at the hands of state security forces. In the aftermath of the Soweto revolt and the killing in September 1977 in police custody of Black Consciousness leader Steve Biko, the UN Security Council Resolution on the arms embargo was adopted in November 1977 and was mandatory and binding on all members. Its adoption was a watershed moment for the South African state pregnant with implications for Pretoria and its reliance on the military to solving political problems. The sympathies that the apartheid government had left among some key members of the UN Security Council dissipated after 1976.

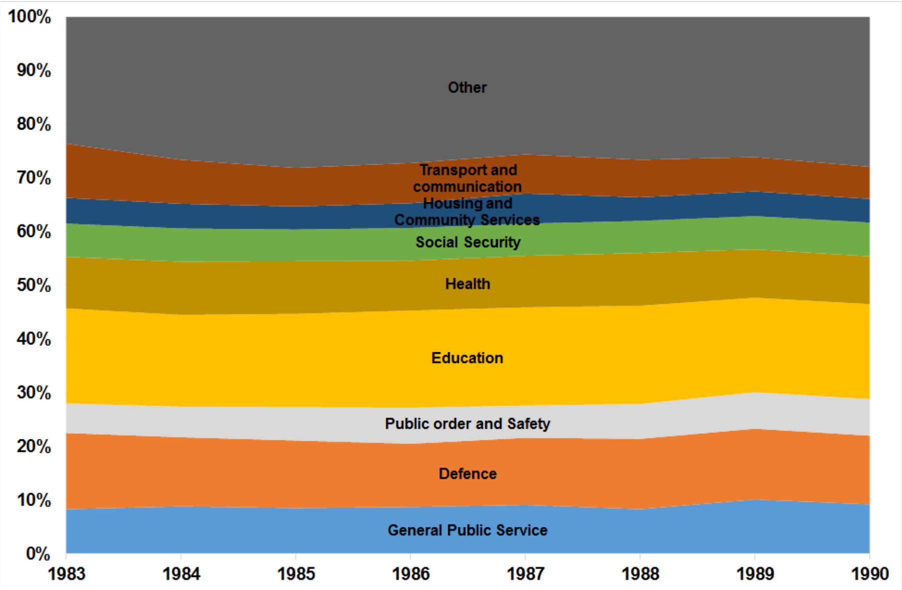
7.2.2 Apartheid State's Response to the Arms Embargo

The South African government's response to the arms embargo since the first one was adopted in 1963 was multi-pronged. Firstly, it sought to circumvent the embargo through forging relationships with states that were keen to trade arms with the South African state, disguising military hardware as civilian goods and importing military products using third countries. The South African government not only engaged in many clandestine activities meant to undermine the efficacy of the arms embargo, it blew its own horn following successful sanctions-busting activities. Government officials spoke with pride about circumventing the arms embargo even though purchases made often came at a price premium. Secondly, the state resorted to legislation that gave it power not only to compel firms in South Africa to produce required military products as directed but also to cover up activities related to the militarisation of the economy. Thirdly, new relationships were forged with domestic and foreign firms enticed to supply the state with various military products and inputs sourced domestically and abroad. Fourthly, the procurement budget of the Department of Defence was increased appreciably over a few years creating a massive and expanding market for armaments. Linked to this, plans to create a large domestic armaments industry were speeded up.

'South Africa was (has) thus not been deprived of its basic tools of military power, although its access to many sophisticated weapon systems has been limited by the embargo' (Landgren, 1989:11). Although the South African government managed to undermine the effectiveness of the arms embargo to a significant extent, it failed to gain easy access to most up to date technology which resulted in major setbacks suffered by its military in Angola that precipitated its withdrawal. The SADF could not match technologically advanced Russian MiG 23s and radar systems (Cobbett, 1989:242) and avoided providing air support to its ground forces for fear of suffering catastrophic defeats in key battles.

By the early 1980s well over a quarter of the national budget was devoted to defence. Military expenditure was shrouded in secrecy beyond even the purview of oversight institutions like the Auditor General (Open Secrets, 2018). Although in Figure 43 the ratio of the defence budget to the total national budget fluctuated between 11.8% and 14.2%, Archer (1989:248-249) calculated that defence expenditure jumped from 19% in 1985 to 26% in 1988. He took into account the shares of the Police, Secret Service and Public Works budgets that were earmarked for defence related activities to reach these totals. Defence budgets of Namibia and 'independent' Bantustans were also included but he left out other defence related expenditure at the level of local government. Defence spending was also found in the budgets of the Department of Health which underwrote part of military health costs, the Department of Community which provided housing for soldiers and military research done by the Council for Science and Industrial Research (CSIR) (Cawthra, 1986:82). This indicates the extent of militarisation of the economy as viewed through the expenditure of the state. No doubt South Africa committed an unduly large amount of resources to defence that could have been employed elsewhere in productive sectors.

Figure 43. Consolidated Government Expenditure by Functional Classification



Source: SARB

7.2.3 South Africa at War with its Neighbours and Own Citizens

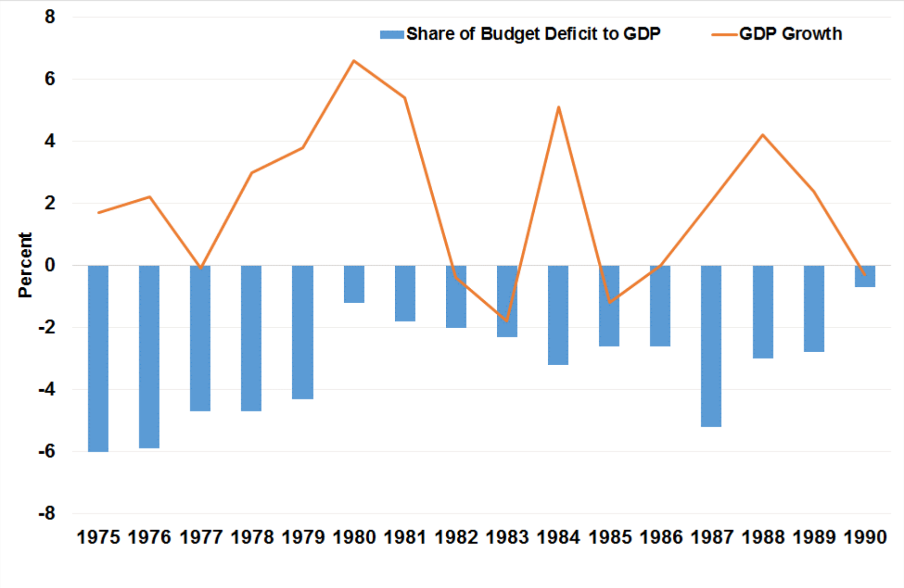
The South African government was a destabilising force in the southern African region in the 1980s as its military made intermittent attacks against ANC members in countries including Zambia, Swaziland and Lesotho. The SADF fought against the post-colonial government in Angola in support of the UNITA rebel movement first in 1975 in an attempt to derail the ascension to power of a leftist government led by the MPLA and in Namibia against opponents of South African rule led by SWAPO. In addition, the South African government clandestinely sponsored a pernicious rebel movement, RENAMO, in Mozambique. The sheer brutality of RENAMO on civilians and its destruction of key infrastructure attracted negative publicity for South Africa in Europe. As a result, pressure was exerted on the country to sever ties with the rebel movement (Davies, 1989).

At first, Pretoria's access to technologically advanced armaments had also enhanced the appeal of a military solution to South Africa in Angola. With time though, the impact of arms embargoes served to reduce the attractiveness of the military solution to political problems faced by Pretoria and compelled it to consider alternatives. This realisation took many years and was preceded by a long-term military build-up. The invasion of Angola in time failed to fulfil its goal of derailing the MPLA government's ascension to power and continued rule has been ascribed to Pretoria's lack of access to superior weapons, specifically long-range artillery (Landgren, 1989:31).

In the mid-1980s the South African military became an integral part of the state's attempts to quell heightened resistance to apartheid in black townships. The formation of the United Democratic Front to actively oppose the tri-cameral system of government, underground activities of the ANC alongside workplace struggles led by the Congress of South African Trade Unions (COSATU) saw the intensification of internal opposition to apartheid (Seekings, 2000). A rising tide of opposition to apartheid policies in black townships posed a threat to the long-term survival of the apartheid system which increasingly viewed the military as its last line of defence. A police state that symbolised apartheid since 1948 had been transformed in the 1980s into a military one (Phillips, 1988). No less significant was the rise to power in 1978 of the Minister of Defence P W Botha to the Prime Ministerial position.

By the mid-1980s continued state-sponsored violence against anti-apartheid activists in South Africa and the accompanying military activities in neighbouring states earned Pretoria a pariah state status. It is against the backdrop of an increasingly hostile global community towards apartheid that the South African state sought to reinforce its military might. In the context of the arms embargo, creating new capacity to produce military equipment and ammunition became an integral part of the apartheid state's militarisation programme. At the heart of this was state-owned arms manufacturing company ARMSCOR with other state agencies like the IDC and CSIR playing a supportive role when needed.

Figure 44. South Africa's GDP Growth and Budget Deficit to GDP, 1975-1990



Source: SARB

The dissemination of information relating to the 'composition, movements or disposition' of the SADF was prohibited by Section 110 of the Defence Act of 1957. In the 1970s and 1980s a series of acts were passed meant to prevent the flow of information about what the state deemed security matters. In 1980 the Key Points Act was passed; the Protection of Information Act became law in 1982 while in the same year the Internal Security Act was enacted. According to the Protection of Information Act, 'Any person who approaches, inspects, passes over, is in the neighbourhood of or enters any prohibited place for any purpose prejudicial to security or interests of the Republic, shall be guilty of an offence and liable on conviction to imprisonment for a period not exceeding 20 years.'

All these laws were passed to prevent the flow of information to the public about activities of the security apparatus of the state. The laws were used by the state to prosecute and imprison anti-apartheid activists and journalists who were found on the wrong side of these laws. In addition, the declaration of states of emergency in the mid-1980s conferred extraordinary powers to the military and the police and imposed further restrictions on the media from publishing information relating to the activities of the army and barred journalists from reporting about the protests in the townships. The state also had an elaborate propaganda machinery meant to project a softer image of its relationship with its black citizens while discrediting leaders of anti-apartheid organisations.

7.3 The State, Capital and the Creation of the Armaments Industry

The rise of the armaments industry and its access to state largesse which permitted R&D expenditure beyond levels that even the largest corporations could expend can lead to the growth of civilian industries. In the 1960s the US defence expenditure constituted the cornerstone of its prosperous semi-conductor industry concentrated in California's Silicon Valley initially as a large market and major source of R&D spending (Gordon, 1994). Out of the ashes of its munitions industry that was ruined by the Second World War the Japanese managed to construct their machinery and equipment industry which went on to become not only the backbone of its manufacturing sector but by far the dominant export industry (Sumiya, 2000). But, more often than not armaments industries serve to distract from many social and developmental imperatives through taking much-needed resources away from more deserving projects.

In South Africa the industry grew in response to UN arms embargoes beginning in 1963 in a way making it an import substitution programme imposed by external factors. The state found an important ally in the form of capital which co-operated with the state to benefit from a changed environment characterised by the dominance of the military agenda. The relative neglect of the navy in the production of armaments was an indication of the focus of military action on internal conflict with the black-led rebellion and liberation movements on the one side and inland neighbouring countries on the other.

7.3.1 The Origins of the South African Armaments Industry

During the Second World War the arms industry was important both in size and prioritisation but following the cessation of hostilities it soon faded into insignificance. The IDC was formed during the war and played a part in supporting South Africa and allied forces through financing industries which produced arms and related parts. However, the IDC (1941:2) stated in its Annual Report that 'It is not part of the functions of your Corporation to provide money for industries that are only necessary for war purposes.' The corporation viewed firms in the armaments industry as carrying the potential to form a foundation for a post war industrialisation project. The Chairman of the IDC, H J van der Bijl, was also the Director General of War Supplies chaired by Smuts. IDC Managing Director H J van Eck served as van der Bijl's adviser while other board members served in various capacities in the committee (Rosenthal, 1958). When Smuts declared war on Germany in 1939 the country's armoured vehicles and tanks numbered less than 100. By the end of the war South Africa had produced no less than 30 000 military vehicles and armoured vehicles amounting to 5 770 (Department of Defence, 1999). Dorman Long, which later merged with engineering firm Vanderbijl Engineering Corporation (Vecor) in 1973 to become Dorbyl, located in the East Rand town of Germiston, designed and produced the country's armoured vehicles (*Engineering News* 10.10.08). Dorman Long in South Africa was an extension of its British parent company.

The creation of the CSIR in 1945 which was mandated among others to conduct R&D in military equipment alongside the existence of large steel, mining explosives, electric based industries and electricity helped pave the way for South Africa to embark upon military-based industrialisation (Landgren, 1989:38-39). During the Second World War Iscor, the state steel making firm, was the supplier of armoured plates which were welded together into bodies of armoured vehicles for final assembly into armoured vehicles by Dorman Long (*Engineering News* 10.10.2008).

In the period leading to the 1960s South Africa depended on imports to meet its military requirements largely from Britain. Prior to its abandonment of the Commonwealth in 1960, the establishment of the armaments industry was not yet high on Pretoria's agenda. Growing international opposition to apartheid from the 1960s to the 1980s had a lasting effect in determining the pathway to industrial development chosen by South Africa. The first UN embargo in 1963 triggered major changes in the approach of the state to arms procurement. The Munitions and Production Act No. 87 of 1964 was passed to 'provide for control of the manufacture and supply of munitions and to that end establish a Munitions Production Board'. Van Eck was appointed Chairman of the Arms Production Board in June 1964 and another IDC co-founder F Meyer as the Vice Chairman. The production of armaments was hived off from the Department of Defence to fall under a new institution set for formal launch in December 1964, the Munitions Production Board.[169] The South African Mint which had an ammunitions division and the department co-ordinated with the new board on matters related to the Munitions Factory and the Ammunition Factory located in Pretoria West.

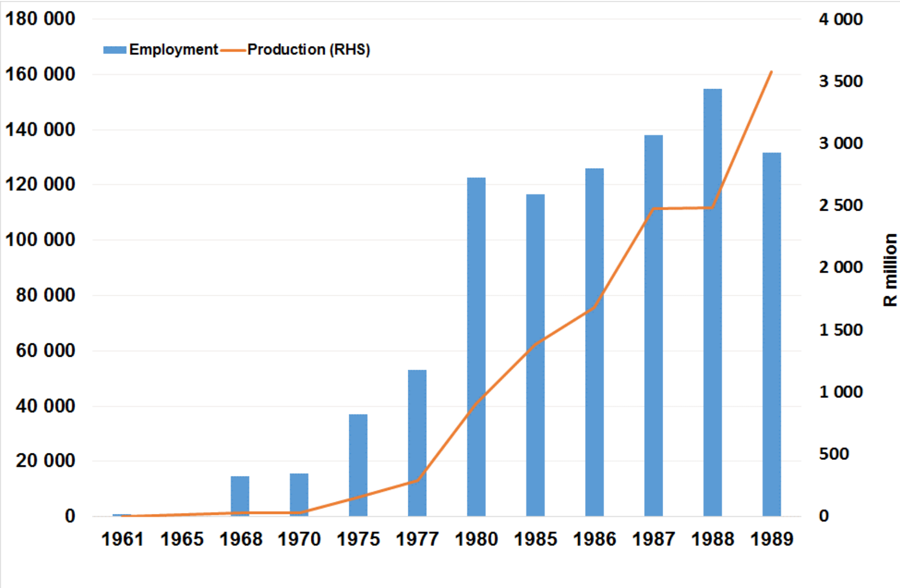
Arms production was the responsibility of the Arms Production Office under the Defence Secretariat. Its functions were 'to manufacture equipment, weapons and ammunition, as required by the military, in the Republic at the fastest pace and at the most cost-effective terms' (own translation).[170] Being part of the public service generated numerous bureaucratic problems in the efficient running of the office.[171] The appointment of technical staff and remunerating them had to be done within the confines of the rules of the public service which proved a constraint due to competition for their skills from the private sector. Processing tenders was also characterised by long delays that were ascribed to public sector processes. J P Coetzee, the director of the Arms Production Office, recommended to the Minister of Defence that a parastatal be created divorced from public service rules led by a qualified engineer with private sector experience.

The Armaments Corporation of South Africa (ARMSCOR) was created under the Armaments Production and Development Act, Act No 57 of 1968, as part of the state's ongoing response to the embargo. The IDC had a hand in ARMSCOR's creation (Batchelor and Willet, 1998:29) and the two institutions worked hand in glove for decades to follow. As part of blanketing military activities in secrecy, ARMSCOR did not provide parliament with an Annual Report while the identity of its board members remained a well-kept secret. As militarisation of the economy intensified, ARMSCOR increasingly became the central relevant agency of the state.

In 1964 employment in the munitions industry more than tripled relative to 1963, a reflection of the low base from which the industry emerged, and the higher pace in the production of armaments. Employment in the industry continued to grow steadily into the mid-1970s (Batchelor, 1998:101) and peaked in the 1980s. From 1963 to 1977 after each embargo the growth of the armaments industry was clearly discernible in the jump in employment figures. Employment in the armaments industry rose markedly from the onset of the 1977 embargo into the 1980s (see Figure 45). From 40 000 workers in 1976 the armaments industry employed 130 000 people in 1981 rising to over 150 000 in 1989 (Batchelor, 1998:101).

By 1982 sales were no longer growing and the government came in for some criticism due to the massive defence budget. By 1984 ARMSCOR had reduced its staff complement by 7 000 and its finances came under the close scrutiny of a committee set up by the Defence Minister (Landgren, 1989:57). In addition to becoming one of the most important employers in the manufacturing sector in the 1980s, armaments manufacture was capital- and skill-intensive taking away from the rest of the economy skilled workers (Batchelor, 1998:102).

Figure 45. Arms Industry Employment and Production at Current Prices, 1961-1989



Source: Batchelor and Willet

According to Feinstein (2005:184), the South African government relied on private sector firms for the supply of necessary products but also manufactured its own armaments where the private sector was unable to produce requisite products. Inexperience and lack of necessary technical know-how showed among suppliers in 1965 when only one out of twelve companies supplied the required products with no rejections and no financial losses.[172] The state was willing to bend over backwards and compensate the firms for the losses as part of its contribution to nurture the rise of the arms industry in the context of the arms embargo. The firms had underestimated the costs and made no provision for rejections which eroded their profits due to very high specifications required by the military.

ARMSCOR's approach to private sector co-operation involved sourcing products from private firms where possible rather than produce them in-house (Landgren, 1989:49). The state amended the National Supplies Procurement Act of 1970 in 1979 conferring to the Minister of Defence the power to compel any firm to manufacture or supply products required by the defence force (Simpson, 1988:225). By the 1980s the arms industry occupied centre stage as reflected in ARMSCOR's relationship with industry which had spawned suppliers ranging from 1 500 to 2 000. Thus, most arms production activity and employment were outside ARMSCOR activity and figures. The private sector also took the opportunity to profit from the militarisation of the economy programme.

7.3.2 The Armaments Industry After the 1977 Embargo

Political developments inside South Africa, where a disenfranchised black majority actively opposed reforms of apartheid as insufficient in meeting their demands for a democratic society, generated great consternation. Moreover, in the context of a hostile environment in world politics towards apartheid which culminated in the 1977 mandatory arms embargo, the South African government was impelled to develop a large domestic arms industry. A new impetus to develop industries anchored in the arms industry assumed centre stage. The IDC was increasingly brought in by the state to play an integral part in ensuring that its resources were also utilised to promote industrialisation governed by the new logic of state security. The Departments of Economic Affairs and Defence with the support of the Prime Minister played a leading role in driving the project forward. Among state agencies ARMSCOR and the IDC became key tools in implementing state policies in this regard.

South Africa was also assisted in developing its armaments industry in spite of the embargo by the availability of a wide array of minerals from its mining industry. Vanadium, chrome, platinum and gold all find application in the manufacture of arms and ammunition (Landgren, 1989:22). By the mid-1980s ARMSCOR had helped South Africa accomplish near self-sufficiency in many branches of the armaments industry, albeit based on imported technologies and other inputs. ARMSCOR believed that the arms embargo implied that South Africa was no longer obligated to pay licence fees and was free to use foreign technology it already possessed as it wished (Landgren, 1989:43). In 1982 ARMSCOR embarked upon an export campaign that saw armaments exports rising ten-fold in real terms catapulting the armaments industry to export leader status in the manufacturing sector (Batchelor, 1998:103). The UN Security Council in 1984 sought to discourage UN member states from sourcing armaments from South Africa when it adopted Resolution 558. It did not seem to have had much of an impact as the country's arms exports reached their zenith of R454 million in 1987 (Skosana, 2002:3).

In the mid-1980s the Vaal Triangle was one of the areas characterised by fierce battles between security forces and anti-apartheid activists. Perhaps lesser known was that the area hosted key suppliers of armaments inputs. The factories located in the Vaal Triangle were an important part in the production of weaponry in South Africa (Fourie, 2002). Steel giant Iscor produced armoured plates and barrel steel while USCO and Dorbyl supplied parts for the G-5 and G-6 rifles. In addition, the region hosted several other manufacturers of a wide range of products for the armaments industry including ammunition, machine guns, infantry grenade launchers and components for the Rooivalk helicopter (Fourie, 2002:301).

Although the South African government invested large resources in circumventing the arms embargo and with much success, the embargo managed to deny Pretoria access most up to date technologies from abroad. The much vaunted and ostensibly technologically advanced local armaments industry relied heavily on imported technology sourced via private capital under licence or illegally (Cobbett, 1989:235). A wide array of weapons produced by ARMSCOR while bearing local names were not home grown but copied from other countries (Cobbett, 1989:237-238). South African expenditure on defence R&D in proportionate terms was comparable to many developed countries but was largely focused on altering armaments designed elsewhere for its military (Landgren, 1989:51).

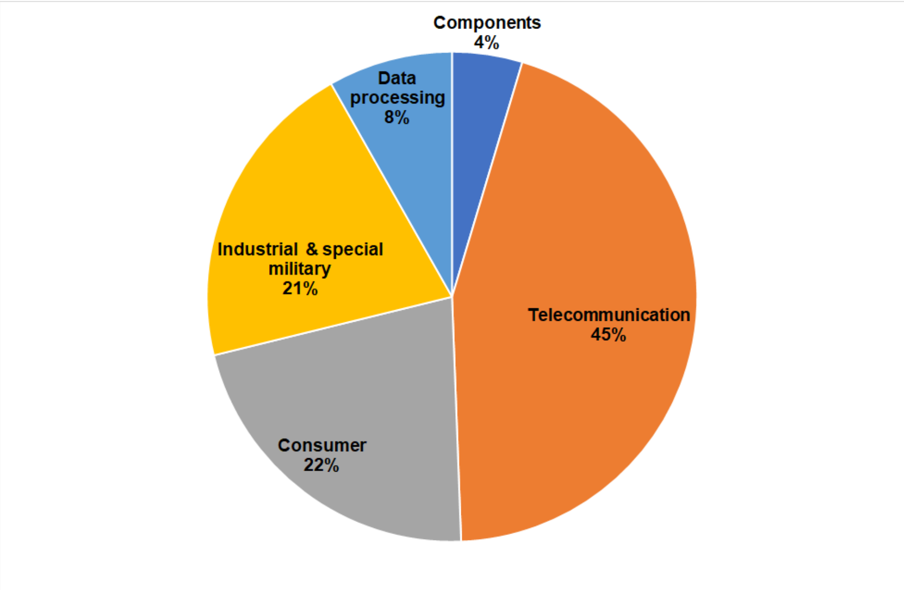
Although dependence on foreign designs was prevalent, the exception was the production of mine protected and ambush protected vehicles. Home-grown technology was the only answer to the pervasive problem of landmine use in Southern African conflict zones from the 1960s to the 1980s (*Engineering News* 10.10.2008). Experimenting with sandbags and water-filled tyres in the initial phases of the research project only minimised injury and lowered casualties. CSIR's Defence Research Unit designed the Buffel, an open top V-shape hull armoured vehicle which went into commercial production in 1978. Numerous companies continued to develop their own variations of the mine protected vehicles simultaneously. Following the transition to democracy, mine protected vehicle production became the success story of military industrialisation as they were produced in large numbers for export particularly to the US. Moreover, they also found civilian application in demining activities in the Southern African region and elsewhere in the world in post-conflict countries.

The microelectronics revolution in the 1970s transformed fundamentally the manner in which warfare in modern times is conducted to the extent that, for an army without electronics, defeat is almost certain. Radio communication enables co-ordination with delivery aircraft, tanks are now capable of firing over long distances while in motion enabled by cannon stabilisation, distance and other sensors alongside integrated fire control systems.[173] Field controllers extend the mobility and efficacy of artillery systems while the effectiveness of air force weaponry flying at high speeds derives from laser distance meters, infrared microwave and search radars.

In the mid-1980s South Africa was reliant on imports of electronic goods to satisfy domestic demand. The dearth of requisite skills in South Africa saw the country lag behind in the growth and development of the electronics industry. The modest size and fragmentation of the market further constrained the industry's growth. Combining and standardising of equipment among major users like the Post Office, Railways and the South African Police had the potential to obviate the market constraint. The Post Office was responsible for telecommunications equipment industry's dominance of the electronics industry in South Africa when it opted to adopt digitalisation in the mid-1970s ahead of many countries and engaging in long-term deals with suppliers (Kaplan, 1991).

By 1980 South Africa produced military tactical radio and communications systems like microwave or radio devices for mobile and stationary applications.[174] The country was distinctly lacking in the production of radar equipment due to their high technology status and accompanying complexity in their production further constrained by the modest size of the local market. Instead ARMSCOR's focus was on developing, maintenance and upgrading capabilities. In hindsight, ARMSCOR had impressive prescience back in the 1980s with regard to the future development of electronics and was keen to see it develop in South Africa with the aid of state funding and policy support. ARMSCOR was also an important market for electronics for local manufacturers (Leonard, 1983:143) and as shown in Figure 46 over a fifth of production in South Africa was devoted to industrial and military electronics.

Figure 46. Share of Total Production of Electronic Goods by Sub-Sector, 1984



Source: BTI (1986)

In the mid-1980s the military was the next largest market after the Post Office and the two together accounted for 70% of the electronics market, the fastest growing segment of the electronics market was the special military electronics products (BTI 1986:14). Over 20% of the electronics industry production originated from the military electronics sub-sector. The manufacture of military electronic products 'was undoubtedly the most advanced in regard to the local development of unique and sophisticated electronic products' (BTI, 1986:16). The

R&D of the electronics industry was concentrated in the military segment of the industry and managed to produce commercial products like frequency hopping radios and guided missiles.

The IDC in conjunction with Siemens and CSIR created the South African Microelectronic Systems (SAMES) located in Pretoria. SAMES was the first and only manufacturer of the integrated circuit board and emerged as a result of the Post Office demanding higher local content levels from its suppliers (BTI, 1986:16). The Post Office underwrote any losses suffered by SAMES. After all, SAMES was created because of the Post Office's decision to migrate to a digital system. Although the Post Office absorbed the lion's share of SAMES's sales, about 30% of sales went to other branches of the industry as input (BTI, 1986:20).

It was the IDC through its research and policy advocacy that got the state interested in promoting the development of the electronics industry. The corporation shared some of its research with the state prompting the setting up of a committee in 1983 led by the IDC Managing Director Marius de Waal to investigate the potential to utilise state procurement to develop the electronics industry in South Africa (IDC, 1984:5). A standing committee was appointed the following year by Cabinet headed by an IDC official to manage the state and state bodies' sourcing of electronic goods to support the emergence of the electronics industry with a higher local content and design. The state used its procurement muscle to uplift local electronics companies through preferential pricing for locally manufactured and/or designed goods. The public sector accounted for 40% of the electronics market.

The military in the late 1980s was the second largest market for professional (it excluded consumer electronics and the Post Office) electronics after components. Defence budgetary limitations imposed manifested themselves in the over 130% diminution of the military market in real terms over the period 1988 to 1992 (derived from de Goode, 1995:17). Overall the professional market shrank consistently from 1989 to 1992 by about 35%.

7.3.3 The State, Capital and the Militarisation of the Economy

The relationship between the state and capital regarding its military policies generated conflict and co-operation between them. Created in 1966, the Defence Council comprised a forum in which state institutions, among them the IDC, CSIR and the State Tender Board counselled the Minister of Defence on the arms industry (Batchelor and Willet, 1998:29-30). The Minister of Defence was empowered by the 1970 National Supplies Procurement Act, if he so wished in the name of security, to compel a private sector company to produce and supply goods and services to the defence force (Cawthra, 1986:98).

Starting in 1975 the conscription of white men between the ages of 18 and 55 meant that many enterprises were denied the labour of their employees for certain periods of the year. Most firms continued to either pay the difference in the salaries they paid their employees and the low salaries they received from the SADF or paid the full salaries in spite of their absence thus subsidising the defence force (Cawthra, 1986:84). The absence of employees during army camps was most undesirable for capital and indeed the economy. In 1975 P W Botha as the Defence Minister set up the Defence Advisory Council as a forum for business and government to manage the tensions of state security programme and capital accumulation. The Integrated Circuit Design Centre (ICDC) was particularly negatively affected by the loss for two years of young graduates in possession of much-needed skills. In a letter to the IDC which chaired the Standing Committee for Electronics, the ICDC requested that 'qualified electronic engineers who work in designated critical electronic industries to either be exempt from national service or to allow employment in one of these designated industries in lieu of national service.'[175] The ICDC was an outgrowth of an IDC-sponsored study into industrial design competencies.

Private capital including large corporations played a key role in undermining the effectiveness of the embargo. ARMSCOR reported that 70% of its defence production was attributable to the private sector while the balance of 30% originated from its subsidiaries (Batchelor and Willet, 1998:38). Key corporations in South Africa among them Anglo American, Barlow Rand, Barclays, Tongaat and South African Breweries formed part of the Defence Advisory Council which managed the interaction between the state and private sector in producing armaments (Batchelor, 1998:98).

Barlow Rand, in particular, positioned itself to profit from a rapidly expanding market for defence-related products. The company restructured itself acquiring and establishing new firms supplying the military with products including electronics, radios, radar and communication equipment (Simpson, 1988:226-228). The Barlow Rand experience exemplified the nature of arms embargo circumvention through sourcing components from overseas assembling them in South Africa for military purposes.

As a means to conceal the source of funding for the 'sensitive' projects, the board of the Central Energy Fund (CEF) opted to use the Public Investment Commissioners (PIC) as a conduit for channelling such funds. In 1985 following the approval of the Minister of Minerals and Energy Affairs of a R300 million loan to Armscor, the CEF resolved to marshal 'sensitive' funds through the PIC.[176] The IDC's financing arm of SASOL, Konoil partnered with CEF to channel state funding of SASOL II and SASOL III. Finance to the Atomic Energy Corporation was also channelled via the PIC. It was also recommended that the CEF take over the investments of the corporation.

7.3.4 Atlas Aircraft Corporation and the IDC

So far we have looked at the huge arms build-up involving the military, the ARMSCOR agency and the South African heavy industry. The focus now shifts to the IDC per se. In reaction to the arms embargo of 1963 the state invited the IDC in late 1964 to spearhead the formation of Atlas Aircraft Corporation located in the East Rand town of Kempton Park which, like SASOL, was to be funded by the state through the IDC. Atlas Aircraft Corporation, which eventually became a subsidiary of ARMSCOR in 1968, was created to produce jet trainers, motors for the air force and aircraft maintenance services (IDC, 1965:9). The total amount required for investment was estimated at R50 million of which R14.2 million was equity capital which had been fully paid for by 1966 (IDC, 1966:14). A housing project to accommodate employees of Atlas Aircraft Corporation consisting of 1 400 units in addition to other facilities was an integral part of the project (IDC, 1967:28-29).

Foreign input was particularly significant in the establishment of Atlas. A French company drew up the plans for the plant and the licence for the first aircraft was sourced from Italy. In addition, numerous French, British and Italian consultants, engineers and technicians were brought in to construct the production line for the Impala counter insurgency fighter (Landgren, 1989:65). The company cast its net far and wide recruiting about 800 (50% of the company's total workforce) skilled workers from over 20 countries. Lack of requisite skills in sufficient numbers in South Africa was the primary reason behind Atlas seeking employees overseas (Landgren, 1989:65). Atlas grew rapidly as mirrored in its workforce which jumped to 4 200 by 1971 and 6 100 in the mid-1980s. The foreign element in the staff complement, although declining over the years, remained at 10% in the late 1980s.

The Atlas Aircraft Corporation was a key part of the emergence of the munitions industry whose take off was very discernible in 1964 albeit from very low levels. Atlas was essentially an assembler of modified and renamed foreign military aircrafts under licence reliant on imported kits obtained from Italy and France. The Impala was an Italian jet trainer Aermacchi while the Bosbok was a Lockheed light military aircraft (Cawthra, 1986:98). Although the state claimed 95% self-sufficiency in armaments by the mid-1980s, the effects of the embargo had begun to have a marked effect. Atlas, starved of critical imported kits, was forced to scale down its operations and could only manufacture light aircraft and not the Mirage (Cawthra, 1986:100). More importantly this extended to the battlefield and Pretoria had to make hard choices when the possibility of losing key battles heightened.

7.4 The Role of the State, the IDC and ADE in the Rise of the Armaments Industry

The 1977 arms embargo proved a watershed moment in the South African policy towards the armaments industry impacting fundamentally on the activities of the IDC for much of the 1980s. The state moved swiftly to lay the foundation of what came to be dubbed the 'military industrial complex' or 'the militarisation of the economy'. From 1978 until the beginning of the negotiations in 1990 which led to the demise of apartheid, the state constructed and maintained a large and rapidly expanding arms industry in South Africa. Through legislation and large budgetary commitments the munitions industry grew solidly in size and level of sophistication. As an important agency of the state in financing industrial development, the IDC was also increasingly drawn into the militarisation of the economy project to contribute to the expansion of the military industrial complex in various capacities.

7.4.1 The IDC and Creation of Atlantis Diesel Engines

In April 1973 following consultations between the IDC and ARMSCOR on the possibility of producing rear axles and gear boxes, the corporation rejected a proposal from the arms company to financially support the manufacture of Büssing diesel engines in South Africa.[177] The IDC, after studying the potential of such production, replied that it could not be supported due to the limited market size which undermined the commercial viability of such a project. This was another perfect example of the IDC adhering to the principle of supporting projects that it deemed possessed economic merit. The requirements of the SADF alone were insufficient to sustain production on a commercial basis, the IDC concluded.

In the wake of the 1977 UN arms embargo in May 1978 the Minister of Economic Affairs Chris Heunis and the Minister of Defence P W Botha asked the IDC to urgently undertake a study into the feasibility of the production of diesel engines. The government was ready to impose an effective import ban on diesel engines should the IDC report indicate that the production was viable.[178] Consequently, on 21 September the IDC made proposals that were accepted by a Cabinet committee consisting of Botha, Heunis and the Minister of Agriculture Hendrik Schoeman. In September 1978 the Senior General Manager of the IDC Marius de Waal was summoned to a meeting with Ministers Botha and Heunis called by the latter.[179] The purpose of the meeting was to discuss a proposal addressed to the Prime Minister on the manufacture of diesel engines in South Africa by ARMSCOR. The meeting decided to support the production of commercial and tractor diesel engines in Atlantis, a decision later endorsed by

ARMSCOR Chief Executive L W Dekker.[180] The IDC was tasked with further investigating the costs associated with various engines from engine manufacturers.

The meeting reaffirmed the commitment to the Atlantis Diesel Engines (ADE) project and the choice of Mercedes Benz for trucks, buses and industrial windings while Perkins was selected for light commercial vehicles. The IDC was mandated to drive the project aimed at ensuring that 100% local content was accomplished. This undoubtedly was part of the desire to accomplish self-sufficiency for the South African state in the context of the tightening arms embargo.

Despite the initial unwillingness on the part of the IDC to support an ARMSCOR-sponsored gearbox and axles project a few years earlier, in establishing a diesel engine plant the corporation became an integral part in laying the groundwork for its creation. The IDC's vast experience in conducting feasibility studies and initiating large projects was indispensable. Heunis requested the IDC to investigate urgently the possibility of manufacturing diesel engines in South Africa and make recommendations based on its findings.[181] The investigation was to determine which engine brand had the widest application in industrial, agricultural, commercial, military and naval spheres. The corporation went on to invite seven manufacturers namely Fiat, Ford, Perkins, Cummins, Mercedes Benz, Leyland and Deutz to submit their bids by mid-July 1978. The justification of the project to the public leaned heavily on the findings of the study conducted by the IDC which established its viability. Heunis announced that the diesel engine project was an addition to new technology which would save South Africa R130 million without mentioning the military dimension of the project (*Cape Times* 10.11.78).

The establishment of ADE was occasioned by the 1977 arms embargo and was indubitably a military project first and foremost. At a meeting held in the evening of the 19th of October 1978 the Minister of Economic Affairs Chris Heunis made it clear that firstly, the strategic needs of the military would take precedence over everything else when the factory was established.[182] Five years earlier the IDC could afford to reject a manufacturing project proposal on the grounds that it did not possess 'economic merit' but the environment in world politics had altered fundamentally necessitating the diesel engines project to become an urgent priority of the apartheid regime. Secondly, the military engines, with the concurrence of the IDC, would be made available to the private sector for industrial and stationary applications as a means to disguise the actual figures sold to the military. As the Managing Director of ARMSCOR put it, 'the reason for the request is to provide political cover and ensure large stabilisation of the numbers' (own translation).[183] The IDC reminded the Secretary of Trade and Industry that 'the

IDC's diesel engine manufacturing project is being executed for strategic reasons'.[184] It was emphasised in other meetings and reports that should word come out that ADE was a military project it could become an intractable and controversial issue to manage politically.[185] Thirdly, ADE would ensure that in the pricing of commercial engines the latter should subsidise military engines to offset the effects of very high local content levels.

The Board of Trade and Industries (BTI) was reluctant to provide import protection for diesel engines, prompting a meeting called by the Heunis including the chairman of the IDC, chairman of the BTI and the Chief Executive of ARMSCOR among others.[186] Heunis met the full board of the BTI on the 19th of October 1978 to inform its members that the diesel engines project was strategic and gave them until the end of January 1979 to finalise the provision of protection for the industry.[187] The BTI took its time going through the processes of investigation and no finalisation of the requested protective measures was forthcoming nearly five months after the deadline for submitting objections and representations set for the end of February in the Government Gazette[188] to the IDC's irritation. Eventually import tariffs of as high as 40% were imposed described in some circles as constituting an effective ban on imports of diesel engines. The idea, as the IDC put it, was 'to ensure that all trucks use only ADE in their vehicles from mid-1981'.[189]

The IDC continued to play a pivotal role in the ADE project providing not only finance but its project management staff. The Pietermaritzburg Deutz plant which produced diesel engines prior to the advent of ADE would be permitted to continue to operate at full capacity but starved of investment to hasten its closure. The plant would then move to Atlantis, a town established as an apartheid project for Coloureds in the Cape. ADE preferred Coloured workers avoiding African workers who could not be fully trusted. Daimler-Benz was chosen for commercial vehicles engines while Perkins was selected for tractor engines with the two companies' engines being the preferred bidders for light commercial vehicles (IDC, 1979).

The IDC committed R128 million in initial capital from its coffers as shareholder contribution to the R300 million estimated for the project. This approach differed from other state-initiated projects like SASOL and FOSKOR with the IDC relying not on the state but its own resources to support the ADE project. Despite IDC efforts to court institutional and private investors to invest in ADE, they shunned the project ostensibly because they adopted a wait and see approach. In the early 1980s ADE became the largest project in the IDC's books (IDC, 1982). In addition, the corporation supported the creation of industries to help meet the estimated 65% local content in the shape of components for engines, axles, gearboxes and castings for the engine project (IDC, 1979).

7.4.2 The Performance of ADE and its Impact on the Truck Industry

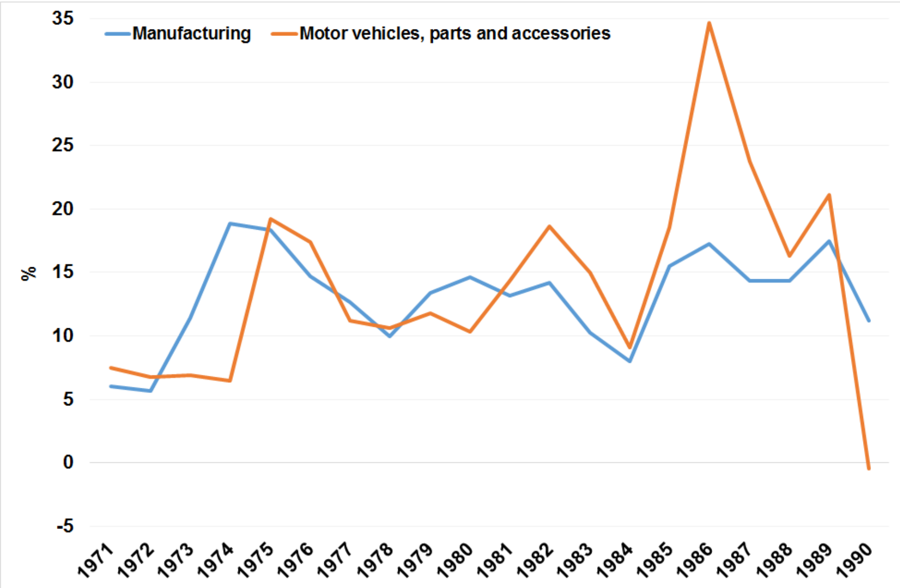
By August 1981 engine production was well under way and on schedule. Initially ADE relied on imported components to get the project off the ground but by mid-1982 over 90% of components were sourced from South African suppliers (IDC, 1982:9). The mid-1980s was a period characterised by instability in the South African economy and the motor vehicle industry was particularly adversely affected. Dwindling sales, political pressure on foreign manufacturers to disinvest from South Africa, large scale employment shedding and uncertain policy environment typified the industry. In the meantime, the BTI proposed the removal of tariff protection on diesel engines and substituting it with local content requirements of 50% measured by weight (*Financial Mail* 7.3.86). A new scheme was proposed by the board to replace tariff protection with rebates on excise duties (*Financial Mail* 6.6.86) which manufacturers had for a long time complained about bitterly.

The ADE project was to prove an onerous burden to the truck manufacturing industry due to the very high cost of its engines. ADE was a perfect example of the armaments industry as not only having a high opportunity cost but imposing damaging costs to the rest of the economy. As Archer (1989:244) on defence expenditure put it, 'it uses resources that might alternatively be employed in satisfying consumer demand, either directly through the provision of goods and services, or indirectly through the creation of new productive capacity for such provision in the future.' Trucks constitute the backbone of the transport industry, itself a key input for many sectors of the economy and substantially raising their cost was a recipe for higher inflation and served to undermine overall cost competitiveness of many sectors of the economy. The industry and indeed the economy were required to make expensive adjustments for engines that were primarily destined for military vehicles, among them the Casspir, a military vehicle developed by the CSIR for the South African Police which gained notoriety in the townships at the height of state repression in the mid- to late-1980s.

Although suppliers to the arms industry across the globe generally inflate prices (Simpson, 1988:219) the South African state in the case of ADE opted to pass on the burden of higher prices to the civilian economy. Truck manufacturers represented by the National Association of Automobile Manufacturers of South Africa (NAAMSA) met with the IDC as they were concerned about the dearth of information regarding the type of engine ADE was going to manufacture.[190] Detailed information was necessary to ensure that truck makers made the necessary adjustments to accommodate the new engines. Adapting their trucks to accommodate ADE engines was also a cost-raising exercise for truck manufacturers

(*Business Day* 23.7.86). Motor industry executives were alarmed by the requirement to adopt ADE engines and Genmin gear boxes and publicly condemned the local content programme. In early 1981 a survey conducted by NAAMSA disclosed that the price raising effect of adopting ADE engines would amount to a 50% jump in truck prices and 20% in the prices of tractors (*Financial Mail* 23.1.81). Indeed as shown in Figure 47 prices of products in the motor vehicle and parts industry rose rapidly in the early and mid-1980s outstripping the manufacturing sector as a whole. The motor industry expressed outrage over having to absorb expensive engines from ADE which they believed was established primarily for military requirements.

Figure 47. Change in Producer Price Index for Manufacturing vs Motor Vehicles Parts and Accessories 2010=100



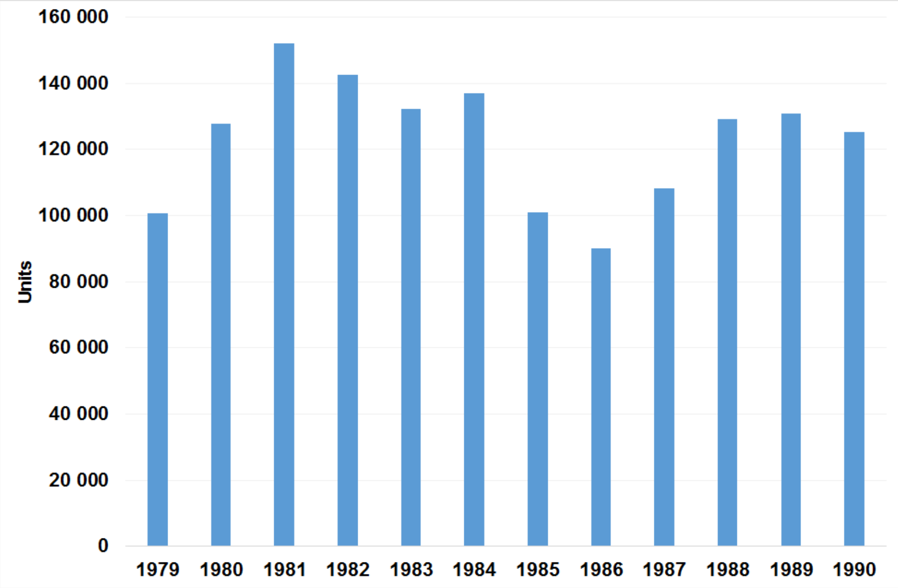
Source: Quantec

ADE couched its response in efficiency gains to be had from standardisation and economies of scale benefits but was silent on the military aspect of the project (*Cape Times* 25.3.81). The Minister of Commerce, Industries and Tourism Dawie de Villiers insisted that ADE was formed to ensure that South Africa became ‘self-sufficient’ in transport and food production hence the production of engines for tractors (*Rand Daily Mail* 27.3.81). Self-sufficiency meant that local content in military related projects had to be 100% or as high as possible in order to undermine the impact of the arms embargo and limit the dependence on imports.

The situation for truck manufacturers was exacerbated by the fact that the deletion allowance, compensation to local manufacturers for the removal of engines from the imported completely knocked down (CKD) kits, was significantly less than its actual cost. In general a local manufacturer of a replacement component was confronted with a lower than world price when competing to substitute a product in the CKD kit. The reaction of ADE to complaints was that local manufacturers would be compelled by circumstances to negotiate with their foreign suppliers for higher deletion allowances to offset the cost of ADE engines (*Rand Daily Mail,* 27.3.81). The IDC (1982:11) blamed the depreciation of the Rand as the primary cause for the price increases in truck and tractor prices denying that ADE had anything to do with it.

Although South Africa sold the highest number of motor vehicles in 1981, breaking all previous records, ADE performed poorly in the 1982/3 financial year. The IDC (1983:11) ascribed the less than satisfactory sales performance which led to the plant operating at 50% capacity to stockpiling by truck manufacturers in anticipation of the ADE project coming on stream and the drought which impacted negatively on demand for tractors. By mid-1984 ADE had not yet recorded a profit as expected when the project was launched. Sales of heavy trucks fell by 26% from 1983 to 1985 due to a combination of factors including low rates of investment in the economy, high inflation, exchange rate depreciation and high interest rates (*Business Day* 14.2.86). The heavy truck manufacturing was also characterised by too many manufacturers (up to 14) and a modest market of between 796 and 1 781 units annually over the period. In the motor industry where success is often associated with economies of scale and this state of affairs was clearly not conducive to sustaining a strong truck manufacturing industry. The tractor market was larger; said to average between 12-15 000 but peaked at 24 862 in 1981 before falling to as low as 7 061 in 1985 (*Business Day* 25.7.86). In the late 1980s the tractor engines market remained in the doldrums as demand remained depressed (IDC, 1988:14) although the commercial vehicle engines division benefited from the rebound in the motor vehicle industry which necessitated a doubling of shifts by ADE.

Figure 48. Commercial Vehicles Sales in South Africa, 1979-1990



Source: NAAMSA 1999

Sales of commercial vehicles (shown in Figure 48) give an indication of the size of the market. However, sales were dominated by light commercial vehicles, not the target market for ADE. In 1990 medium and heavy commercial vehicles combined accounted for a little over 10% of the market amounting to 12 655 units. From 1981 to 1991 ADE reported average yearly sales of 15 000 to 20 000 heavy truck engines sales and 5 000 to 6 000 medium truck engines sales (*Business Day* 1.4.92). What the figures above suggest (assuming they are accurate) is that the bulk of its production was destined for the military and corroborate the view that the project was indeed a military project using a civilian industry as camouflage. In 1991 ADE recovered briefly assisted by foreign demand which saw the company hire more workers (*Business Day* 28.11.91). ADE's new markets included Malawi, Botswana and Namibia absorbing its industrial engines.

In 1990 ADE blamed developments in the truck manufacturing industry and weather patterns for the precipitous fall in sales even though the real reason lay in the deep budgetary cuts of the defence budget. The unbanning of outlawed political formations in February 1990 and the freeing of jailed leaders of anti-apartheid organisations in preparation for a negotiated political settlement marked a turning point in the state's approach to defence spending. The bulk of the defence budget, 58.5% in 1989, was earmarked for procurement with staff and operations accounting for the balance. With P W Botha no longer President, under F W de Klerk the state effected deep cuts in the defence budget impacting predominantly on the procurement portion (Batchelor, 1998:104-105). By and large, supplier firms to the military were left to fend for themselves as the state made no effort to assist them adjust to drastically reduced demand from the defence force (Batchelor and Willet, 1998:105). In 1990/91 ARMSCOR approached the state with a request to turn its manufacturing capacity for the civilian market and subsequent negotiations led to the birth of Denel in 1992 (Department of Defence, 1999). ARMSCOR was left to focus on arms procurement for the SADF while Denel took over the manufacturing of assets previously under ARMSCOR to become a commercial institution under the Department of Public Enterprises.

The introduction of the General Export Incentive Scheme (GEIS) by the Department of Trade and Industry in 1990 assisted firms that were part of the military industrial complex adjust to the precipitous fall in demand from the military through exporting. GEIS was a generous scheme which manufacturers took full advantage of to the extent that in 1994 its claims reached R2 billion. The extent of benefits under GEIS was up to 25% of the value of the product exported. To maximise the benefits firms needed local content levels of 75% which favoured those that supplied the military because as part of seeking self-sufficiency and undermining arms embargoes firms had high local content levels. Moreover, the IDC assisted firms in the military economy that were associated with it adjust through the provision of export finance (the subject of Chapter Eight) and funding for acquisition of new machinery during the transition.

In the early 1990s ADE undertook restructuring which included among others reducing its salaried staff by almost 50% to 485 (*Business Day* 14.9.92). The recession of 1989 to 1992 coupled with the drought of 1992 also aggravated the dire situation for ADE as demand for diesel engines went into a slump. Like other firms in the defence industry, ADE became export-oriented in the 1990s and also focused on the civilian market as a means to remain afloat in a changed environment characterised by substantially reduced demand from the military. It diversified into assembly of Massey Ferguson tractors, pipe manipulation, and distribution of engines to regain profitability. ADE's licensing conditions with Daimler Benz prohibited it from exporting which led the company to focus its energies on exporting engine parts. In the mid-1990s it became a financially successful civilian-orientated company with the IDC as an vital constant partner from the time of its formation. The IDC continued to inject hefty sums of capital in ADE for expansion and export finance unlike other firms in the military industrial complex that were not supported in the transition to civilian market

7.4.3 The Establishment of Support Industries and the Role of the IDC

As with the ADE project the 1977 UN Security Council Resolution 418 constituted the background against which the creation of industries to produce gear boxes and axles was conceived. Similar to ADE, the military market was the primary consideration but was insufficient to warrant the investment and thus it needed the truck manufacturing sub-sector of the motor vehicle industry as its principal market. By contrast private domestic and foreign capital played a leading role in the establishment of the firms in co-operation and with the full backing of the state. The IDC became a natural partner based on its experience in developing key projects and in particular its creation of ADE.

General Mining Finance Corporation, an important mining house which was in the hands of an affiliate of Afrikaner financial giant SANLAM acquired from Anglo American in 1963, was at the head of the gear box and axle manufacturing project. General Mining's interest in the project derived from the involvement of its subsidiary Sandock-Austral in the Eland armoured and Ratel infantry combat vehicles for 14 years.[191] It approached the IDC with a proposal that the corporation take 24% shareholding in the project before engaging Heunis with IDC's blessing armed with a detailed proposal. The IDC and Sandock-Austral jointly produced a feasibility study into the manufacture of gear boxes. The corporation was the link between ADE and General Mining whereby as the latter declared, 'the Industrial Development Corporation has been invited to participate in the project to ensure the closest co-operation with Atlantis Diesel Engines so that complementary product ranges will be available to local vehicle manufacturers.'[192]

NAAMSA was anxious about the impact of the project and met with the IDC to discuss the implications of substituting imports of gear boxes and axles with locally produced ones. The IDC, in the wake of a meeting with the association, hastened to distance itself from the proposal made by NAAMSA that a five-year moratorium on the implementation of the project be made, clearly implying that the IDC was an integral part of it.[193] The corporation reminded the Secretary of Trade and Industry that this was above all an urgent project of the military that could not be delayed.

General Mining proposed the involvement of German companies Daimler Benz and M.A.N in the project as partners providing designs and licences. Compatibility of Mercedes axles and gear boxes was assisted by the fact that ADE was to produce engines based on the German company's designs. The German company engaged in gearbox manufacturing Zahnfabrik Friedrichshafen (ZF), which already had a technology agreement with Sandock-Austral, committed to taking a stake in the new company.[194] Due to the fact that demand from the military was insufficient to justify production in South Africa, it was imperative to include the civilian market through the construction of high tariff walls. Although Fuller, a manufacturer of gearboxes, was at an advanced stage of planning the establishment of a gearbox factory at

Isithebe in the Kwazulu Bantustan, Sandock Austral called for the project to be abandoned ostensibly because the market could only support one manufacturer. However, Heunis was not convinced and advised that the extension of the gearbox project to include passenger vehicles could enlarge the market to accommodate two manufacturers. Earlier the IDC had advised the Secretary of Trade and Industry that the gearbox market was capable of sustaining two manufacturers especially if one of them also would undertake the smaller-sized gearboxes.[195]

General Mining recommended to the state high import tariffs ranging from 23% to 52% for gear boxes to ensure protection from competing products from overseas.[196] In addition, local content requirements were deemed necessary to ensure that import competition was kept at bay. Moreover, high local content which received emphasis during the conception of the establishment of military-related firms, served to undermine the arms embargo because South Africa would reduce its reliance on imports to a bare minimum while retaining access to armaments from local sources. The Department of Trade, Industry and Tourism would consult the BTI to conduct investigation and final recommendations for legislation after accepting the recommendation. In this way industrial and trade policy were subordinated to the military industrial complex. In August 1979 the BTI was not keen to allow General Mining to dictate terms and would not even begin to conduct market study without the availability of all the information required.[197] The BTI was a rare hold-out but in the end its scepticism did not prevail.

ADE also attracted M.A.N which had been collaborating with Daimler Benz in Germany in axle research and production. Its feasibility study which involved M.A.N. Germany, the IDC and General Mining confirmed that the production of axles in South Africa was commercially viable.[198] Daimler Benz (Germany) in a memorandum to Sandock-Austral stated that it wished 'to make an offer for a licen(s)ing agreement in respect of the manufacture, in South Africa, of the Mercedes Benz gearbox and rear axle systems.'[199] In June 1979 Daimler Benz and ZF met in Zurich to hammer out an agreement that saw ZF enter into a partnership with General Mining to produce the balance of gearboxes for the ADE project. Sandock-Austral offered to manufacture Mercedes Benz gearboxes through its subsidiary A.S. Transmissions and Steerings.[200]

Sandock-Austral, an affiliate of Genmin, was a heavy engineering and shipbuilding company whose activities associated with the military were not generally publicised. Its production of military vehicles and intimate relationship with ARMSCOR, its conduit to the export markets, were generally kept secret (*Financial Mail* 20.3.87). It secured a contract to construct a shipyard in Chile for the navy in partnership with a Chilean ship repair company. Sandock-Austral produced hulls for Ratel armoured vehicles on an integrated body and frame basis at its Durban dockyard which were transported to Boksburg on the East Rand for final assembly (*Engineering News* 10.10.2008).

As the demand from the military fell sharply in the early 1990s firms reliant on the demand from the defence force increasingly relied on exports and manufactured products for the civilian market. The introduction of GEIS in 1990 by the Department of Trade and Industry proved a major boon for ARMSCOR and other large exporters as they found exporting profitable due to the generous subsidy associated with the scheme. Consolidation among firms became another option for continued survival. Sandock-Austral was taken over by Barloworld's subsidiary Reunert (*Business Day* 22.6.90). A few years earlier the two firms had co-operated in R&D ventures.

The IDC was instrumental in ensuring that the ADE project was a success through the creation of key supplier industries. Following studies into the automotive industry in the 1960s the IDC set about to acquire and consolidate foundries because it deemed the vehicle-based foundry industry as needing rationalisation (IDC, 1969:16). It was out of these efforts that Ferrovorm was born merging three companies in the foundry industry producing engine blocks and precision castings. The timing was ideal because South Africa had adopted a local content programme for its motor industry based on weight which at the time was in its third phase requiring over half of inputs to be sourced in the country (Black 1991:166). In 1980 ADE, in preparation for the opening of its factory, entered into an agreement with Ferrovorm for the latter to establish a foundry to supply ADE with castings.[201] The factory, Atlantis Foundries, was to be located in Atlantis in close proximity to the ADE plant with a capacity to produce castings for 49 000 engines. This was a factory designed to supply ADE as a priority although it was permitted to supply other clients, ADE requirements took precedence over all the others. This was a clear indication of the priority of military imperatives impacting suppliers directly and indirectly on not just first tier suppliers but those in the second tier as well.

Atlantis Foundries began production in 1982 and supplied cylinder blocks for diesel and petrol engines and gearbox housings (Castingssa, 2018). Profits that were derived from the sale of 'other castings' were shared equally between Ferrovorm and ADE. Atlantis Foundries, employing about 600 workers, grew strongly exporting to several countries. ADE took over its ownership in 1982 as it changed hands several times in the 1980s and 1990s. Its intimate association with ADE lasted until the latter's demise in the early 2000s. Alongside ADE, Atlantis Foundries managed to wean itself from its dependence on the military after the collapse of this market which began in 1989. It also managed to transition to the civilian production successfully. Today it has become a world-class and export-oriented plant owned by a German multinational company exporting virtually all its castings to China, Germany and the US (Africa Outlook 2018).

The early relationships established with German companies Daimler Benz and M.A.N proved useful not only in areas of technology and know-how transfer but in opening foreign markets as well. Furthermore, Daimler Benz eventually took shareholding in ADE and Atlantis Forges. The company also helped transform firms established for the military market into automotive components manufacturers for the civilian market.

Dorbyl, a behemoth in heavy engineering with a long history of production of goods for the military, was part of an increasing number of firms that positioned themselves to profit from a supply relationship with ADE. Part-owned by two powerful conglomerates, the Rembrandt group and Anglo American, Dorbyl was an important subsidiary for the conglomerates to own judging by the substantial shareholding they possessed in the company. In 1984 Dorbyl created a firm in Atlantis named Atlantis Forge to meet the forgings needs of ADE (IDC, 1982:11). Atlantis Forge managed to transform itself into a key manufacturer of automotive components for the civilian market in the aftermath of the demise of the militarisation project in the 1990s to a manufacturer of high quality forged and fully mechanised engine crankshaft for the export market.[202]

7.5 Conclusion

From the mid-1960s to the late 1980s the South African variant of import substitution underwent a phase in which the creation of a military industrial complex increasingly assumed centre stage. This was an outcome of a changing international attitude towards apartheid which had become increasingly violent in nature characterised by wars with neighbouring countries and attacks on black citizens who dared to oppose the policies of the state. In contrast to the developmental state model where growing insecurity spurred states to promote rapid economic expansion and redistributive policies, the apartheid state opted to strengthen its military might instead. With a disenfranchised black majority the apartheid state's survival was tied to the wishes of white voters and could crush militarily black opposition without fearing a backlash at the polls. By this period the state had already taken its eye off the developmental agenda focusing instead on the defence of the apartheid state. The focus had shifted from accelerating growth to repression.

ARMSCOR became the dominant firm in the manufacturing sector becoming export oriented towards the end of the militarisation phase. Domestic and international capital played a key role in supporting the project to construct the armaments industry in return for handsome profits. Although local content programmes are often associated with import substitution, in the late 1970s and 1980s the South African automotive components firms established by the state were the outcome of the desire for self-sufficiency and efforts to nullify the arms embargo. As the domestic market for armaments shrank in size many of the firms sought outlets for their products in foreign markets. Exports form an important part of the armaments industry to this day with R7 billion worth of export contracts approved in the first three months of 2020 (*DefenceWeb* 26.6.20). However, further expansion has been constrained by the intense scrutiny that South Africa comes under should such munitions end up in the hands of states that do not observe human rights or rebel movements with heinous records. Legislation that requires the state to approve exports and the pressure from civil society bodies in conjunction with competition from dominant arms manufacturing nations like the US , the EU and China make it challenging for the South African industry to expand further on the back of exports.

While the creation of the military industrial complex imposed some damaging costs to the economy, some firms managed to transform themselves and thrive in the environment after 1989 which was characterised by drastically reduced domestic demand. Development finance from the IDC coupled with the infusion of foreign expertise yielded firms that have withstood foreign competition in the domestic market and abroad. Aerosud is an ideal example of an export-oriented firm that emerged in 1990 established by erstwhile Atlas Aircraft Corporation employees which supplies an array of high-quality products to Airbus and Boeing and, in recent years, a recipient of IDC long term funding in the form of shareholding. In alliance with CSIR and Airbus, Aerosud is engaged in R&D involving the manufacture of products in the additive manufacturing realm, an area that South African research has been gaining international recognition.

The armaments industry became enormous and influential in the economy but it relied on foreign designs, making adaptations and renaming its products. Copying ideas from elsewhere and ignoring intellectual property rights has been a feature of developmental states especially in the early phases of industrialisation. The most prominent success was in the manufacture of mine resistant vehicles, a product of home-grown research. Inability to access certain military electronic products saw the rise of strong segments of the electronics industry oriented towards the military. However, the absence of a coherent strategy to use military research and industry to develop civilian industry failed to aid the developmental cause that was increasingly confined to the side-lines during this period.

The IDC has a long history of involvement with the military dating back to the Second World War. However, its direct involvement in the armaments industry goes back to the mid-1960s when the state sought to revive the industry in the light of an increasingly hostile international environment towards apartheid. The corporation's experience in managing big projects was called upon by the state to help form Atlas Aircraft Corporation. As a conduit for funding the project, the IDC was key in laying the foundation for the project ahead of handing it over to ARMSCOR.

The IDC was at the centre of the Atlantis Diesel Engines project from conception in the late 1970s to its decline in the late 1990s. The IDC was such a central agency of the state from conception to execution of the project. Its financial muscle, experience in project management, co-ordination with other state agencies and abilities to draw in key support industries proved indispensable in the ADE project. Similar to the SASOL project, the IDC forsook its normal requirement of economic viability and focused on delivering on a new mandate, that of militarisation of the economy imposed by its principals in Pretoria. The corporation discharged its duties diligently laying the groundwork for the emergence of a group of firms in support of the militarisation of the South Africa economy. In many ways the IDC contributed significantly to the growth and development of a large, vibrant and export-oriented armaments industry that it had become by the mid-1980s. Moreover, the IDC was instrumental in the establishment of supplier firms that were able to reinvent themselves in the civilian and export markets when demand from the military collapsed.

The introduction of the generous subsidy for manufactured exports GEIS, fortuitously, proved beneficial for some manufacturers in the armaments industry prominent among them ARMSCOR. The IDC assisted its clients find new markets among them ADE with export finance, upgrading of plants and acquisition of new technologies. Several firms associated with the IDC managed to transition to the civilian market seamlessly with the support of the corporation

Whilst the IDC in early phases was relatively conservative and took applications on merit, Good Hope and then on a grand scale SASOL demonstrated a process where state priorities determined IDC activity albeit with economic outcomes still critical in consideration. With homeland industry the economics takes a less clear and questionable role and with military manufacture, the IDC becomes almost anti-economic, big backing for projects that made little economic sense to please the fortress state. In the 1970s and 1980s the militarisation of the economy project coupled with industrial decentralisation marked a period when the apartheid state altered its dominant logic from development to defence. The defence of apartheid trumped the developmental project pursued since the 1940s with the IDC as a loyal agency and partner.

Chapter Eight

The IDC, Export Development and Financing: Transition to Export Orientation?

8.1 Introduction

Industrial exports, which formed an important theme of Chapter Two, have been widely credited for the sterling performance of East Asian Newly Industrialising Economies in breaking the fetters of underdevelopment in the half-century after the Second World War. South African exports for the most part of the 20th century were dominated by gold and to a lesser extent other minerals. The import substitution industrialisation programme, whose origins lay in the mid-1920s, did not transition to export-led growth in later decades even after the programme appeared to have reached its limits. Freund (2013) has argued that in the absence of sizeable industrial exports, the economic model adopted by South Africa resembled a typical import substitution industrialisation model whose success soon reaches its limits. For much of the 1970s and 1980s the South African government was preoccupied with efforts to maintain or resume growth rates recorded in the preceding decades. In the early 1970s concerted attempts by the South African government to grasp the underlying causes behind the apparent inability of the manufacturing sector to become export-oriented led to the formulation and adoption of policies to promote exports of industrial goods. These efforts culminated in the creation in 1990 of the generous General Export Incentive Scheme (GEIS) which was soon scrapped by the post-apartheid government in favour of trade liberalisation.

The IDC ought to have been a key agency in such a transition. As this chapter will show, while policy recommendations increasingly favoured industrial exports and financial assistance to this end was recognised as important, IDC efforts in this regard were limited and halting and initiatives did not lead to major changes. Yet this chapter considers the Export Credit Finance Scheme of 1962 and its successors through to GEIS as they absorbed considerable IDC funding.

Trade finance is an essential part of international trade that has largely been overlooked in the literature on South African industrialisation in the 20th century. In the late 1950s South Africa joined a growing list of nations that established export credit agencies and partnered with the Credit Guarantee and Investment Corporation to support exports. This marked the first time that the state became interested in exports as part of economic policy agenda. In the 1960s through the 1980s the IDC and the state in partnership with commercial banks disbursed substantial sums of funds in an attempt to convert import substitution industrialisation into manufacturing export-led growth.

This chapter explores the South African government's approach to exports with a particular focus on the contribution made by the IDC. It hopes to begin to shed light on some of the underlying reasons behind the South African manufacturing sector's failure to become export-oriented. The chapter examines the changing state policy in the promotion of exports as espoused in key policy reports on the subject. Beyond this, the state created institutional support for exporters of manufactured goods which will also be scrutinised in the chapter. Additionally, the composition and destination of South African exports will be analysed to determine their impact on the overall performance of manufactured exports.

The various export programmes in which the IDC was integrally involved will form the focus area of the chapter. It will closely examine key state subsidies which were administered by the corporation namely the Exports Credit Finance Scheme and the Exports Capacity Scheme. In developmental states subsidies were key policy instruments used to drive export expansion and the analysis of the South African experience will seek to establish whether the country measured up to the developmental state model. The chapter will also focus on events leading to the shift in export policy which occurred in the mid-1980s. In the lead up to conclusion of this thesis, it focuses on the changing approach to trade policy which laid the foundation for trade liberalisation in the 1990s.

8.2 State Export Policy and Ineffective Support Measures

For about a quarter of a century after the Second World War South Africa was reliant on foreign capital inflow to keep its balance of payments in equilibrium. The manufacturing sector was for the most part responsible for the trade deficit that typified the period. While industrialisation after the war was the engine powering the South African economy, the manufacturing sector remained inward-looking in character. The post-war golden age in South Africa, although led in some key respects by the manufacturing sector, was not predicated upon exports. In 1968 manufactured exports accounted for 28.6% of total merchandise exports (Derived from Reynders, 1972:246). Moreover, the dominant manufacturing product was foodstuffs followed by basic iron and steel in an otherwise highly diversified export product range.

Robust investment growth in the economy was inevitably accompanied by rising imported capital goods due to the underdevelopment of the domestic capital goods industry. The current account of the balance of payments remained for the most part in deficit which widened in the late 1960s culminating in the imposition of import controls and exchange rate devaluation in 1971 (Reynders, 1972:x). As the Reynders (1972:7) Commission observed, exports (excluding gold) played a lesser role in the post-war expansion of the South African economy with the local market playing a central role in the import substitution industrialisation programme. In the early stages of industrialisation in South Africa growing industrial exports did not seem to feature in the minds of key planners who remained focused on entrenching import substitution industrialisation. As IDC Chairman Hendrik van Eck told the council of the Institute of Race Relations in 1951,

> The present industrial development in South Africa is designed largely to satisfy our own requirements. While there may be opportunities in certain selected lines for export to other parts of Africa, I feel that our industry in South Africa should be devoted largely to the satisfaction of the wants of its own people.[203]

Beginning with the Export and Credit Reinsurance Act of 1957 exports steadily became a feature of state policy albeit on the fringes. For much of the 1960s policies to promote exports remained limited and underdeveloped. Stemming from the maiden Economic Development Programme in 1964, targets set for export under the aegis of the Department of Commerce and Industries were however not accomplished (Reynders, 1972:102-3).

Unlike in East Asian newly industrialising economies where manufactured exports propelled the economies forward underpinned by massive subsidies, South Africa adopted a variety of export promotion schemes that failed to make export lucrative enough to drive economic expansion. In addition, South Africa only began to consider industrial export promotion in the early 1970s and only later adopted export schemes that were poorly funded and lacked efficacy overall. Import substitution model inherently makes the domestic market more profitable because it is shielded from imports through price-raising import tariffs. As the experience of other late industrialisers has shown, import substitution and export orientation are not mutually exclusive. When the South African government began its attempt to transform its industries to become export-oriented the gap between profitability in the domestic and foreign markets had to be narrowed using a variety of instruments. The instruments adopted in South Africa were not dissimilar to those in East Asian NIEs but tended to be poorly designed, short-lived and insufficiently funded.

Equally important the South African government in the 1970s and 1980s was preoccupied with key security projects, the militarisation of the economy, described in the previous chapter and the SASOL projects (Chapter Five). In addition, the industrial decentralisation project was another key priority of the state which was similar to the two mentioned above, absorbed a large portion of the national budget. Compared to these programmes export promotion schemes which poorly financed not well supported by the state. Overall the state displayed a lack of commitment to export promotion of industrial goods. Although the IDC played a role as an agency of the state, the developmental attributes of the export promotion projects were limited with the exception perhaps of GEIS which was soon abandoned by the post-apartheid government. Moreover, in 1990 the IDC had already kick-started a process to chart a future liberalisation programme which included scrapping GEIS.

8.2.1 Changing Approach to and the Nature of South African Exports

The Export Promotion Council was a platform that the state and its agencies engaged with business to discuss matters that relate to the promotion of exports in the South African economy. The Minister of Economic Affairs S L Muller chaired the council. In 1970 he emphasised the need for more manufacturers to penetrate export markets on a permanent basis. In his words,

> We are now entering an era in the country's export trade – an era in which the expansion of this trade will have to be accepted as a responsibility of national importance and in the fulfilment of which every producer, manufacturer and exporter in South Africa will have to play his proper role. Our future performances in export markets will depend heavily on the willingness of our business leaders to co-operate with the Government in the attainment of substantially higher levels of export earnings.[204]

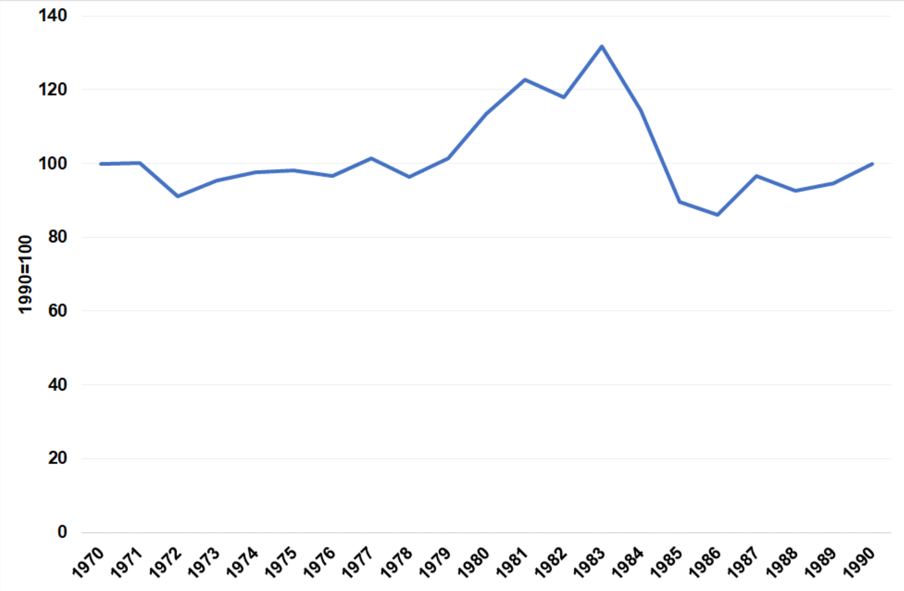
The destination and composition of South African manufactured exports constituted a key constraint to their dynamic expansion. South Africa tended to export its manufactured goods to other developing countries (Reynders, 1972:218) specifically in Africa which contributed to poor performance due to the modest size of their markets and slower than developed markets' growth. The regional market was a 'natural market' for South African firms due to its proximity, easier access by road or rail and limited competition from distant suppliers. The southern African market remained too miniscule to confer to South African manufacturers opportunity to reap the benefits of economies of scale. To this day Africa, in particular southern Africa, remains the single biggest destination of South African exports of manufactured goods minus motor vehicles.

Lack of exposure to competitive and sophisticated markets denied exporters of manufactures the opportunity to produce high quality products and invest in cutting edge technologies in seeking to grow or retain export market share. Moreover, the import markets of developed countries were expanding faster than those of developing nations as mirrored in the former's rising proportion of world imports. The ratio of developed countries' imports to world imports rose from 75.5% in 1970 to 77.6% in 1990 (Derived from IMF, 2018).

Moreover, exports of manufactured goods were dominated by material intensive and semi-processed products and a tiny proportion of finished products (BTI, 1988b:16). The dependence on exports of raw material intensive manufactures rather than finished products also undermined the performance of South African exports of manufactured goods due to the dynamic expansion of the latter (BTI, 1988b:30). Base metals were the dominant export product category raising their percentage of total exports from 7.8% in 1980 to 11.4% in 1986 (BTI, 1988b:11). Exports of basic iron and steel alongside non-ferrous metals in the period 1967-69 accounted for about one-third of total manufactured exports and increased to as high as 53.2% in 1985-87 before falling to 41.1% in 1988-90 (Feinstein, 2005:217). Exports of more finished products of metal products, machinery, motor vehicles and other transport equipment decreased from 12.4% to 8.5% before recovering to 11.7% over the same period.

From the 1970s to the mid-1980s the South African economy was afflicted by the 'Dutch Disease'. The concept of the 'Dutch Disease' relates to the explosion of natural resource exports leading to real exchange rate appreciation which in turn erodes a country's price competitiveness in other sectors particularly manufacturing undermining overall performance of exports (Corden, 1984). From 1972 to 1983 South Africa experienced a period of real effective exchange rate appreciation which was underpinned by a commodities boom including the flagship export earner, gold. Although between 1983 and 1986 rapid real exchange rate depreciation was recorded, its appreciation thereafter was restored to the 1970 level by 1990. As depicted in Figure 49 the real effective exchange rate fell precipitously from 1983 to 1986 supporting the growth of exports of manufactured goods. The authorities in permitting the depreciation of the exchange rate had to contend with higher price levels in the economy occasioned by imported inflation itself carrying the potential to offset or erode competitive gains wrought by depreciation.

Figure 49. Real Effective Exchange Rate 1970-1990



Source: SARB

8.2.2 Credit Guarantee and Investment Corporation and Export Promotion

International trade and its financing are often fraught with high levels of risks due to factors such as long distances that goods travel, different legal jurisdictions and varying political institutions. Finance is often the indispensable ingredient that determines a successful bid in large projects in foreign markets. In 1943 the IDC engaged the Minister of Economic Development suggesting the creation of a South African Reinsurance Corporation. Further discussions would later take place with the Treasury.[205] The Credit Guarantee Insurance Corporation (CGIC) was formed in 1956 to provide commercial risk insurance to South African exporters. The CGIC was owned by numerous shareholders, among them the four major banks Barclays, Standard Bank, Volkskas and Nedbank, domestic and foreign insurance companies and two financial services companies.

In 1957 the CGIC approached the Ministers of Economic Affairs and of Finance with a proposal to offer export insurance. It argued that such a move would support the export promotion efforts of the government.

> State collaboration with private enterprise in such a venture appears to offer two main advantages. Firstly it offers a concrete and positive contribution by the State to the encouragement of our export trade which is of particular importance to our further economic development, which contribution is not confined merely to the insurance service itself, but extends materially into the whole field of export promotion policy.[206]

The partnership between the state and the CGIC is widely considered to be the first effort to promote exports involving the state. In addition, in concert with international practice, political risk cover was offered by the state while the CGIC provided the concomitant administrative support to the state for a fee.[207] The cost to the state of claims was expected to be covered through premium income kept in the Reserve Fund run by the state, with the surplus invested with the Public Debt Commissioners.

As part of considering the request of the CGIC the state studied similar acts in Canada and Australia which influenced the drafting of the South African version of the act. In July 1957 the Export Credit Re-insurance Act No. 78 of 1957 came into force to provide credit insurance cover for a premium against political risk. The political risk was defined to include the passage of laws by a foreign government that hindered the flow of funds from an importer to a South African exporter. Cover also included events such as 'civil war, rebellion, revolution, insurrection or other disturbances'. The passage of the Act marked the beginning of the adoption of policies directed at promoting South African exports. Although the act was a key support measure to the expansion of South African exports, on its own it was unlikely to transform import substitution as the engine of growth to manufactured export-led model.

The Department of Commerce provided administrative support to the Export Credit Reinsurance Committee which considered and recommended for approval applications for credit insurance. The committee included the Reserve Bank, the Finance Department, the Department of Commerce and the CGIC. The final approval of the application for export insurance for exporters applying for funding under the scheme lay with the Ministers of Economic Affairs and Finance following recommendations made by the Export Credit Reinsurance Committee (Reynders, 1972:456).

Partly because many capital projects required vast amounts of capital the IDC entered into partnership with commercial banks and the CGIC to mitigate risk. The IDC worked hand in glove with the CGIC in supporting the export of South African capital goods. The availability of IDC financing for export was contingent upon CGIC providing the exporter with cover and cession of policy to the IDC (Reynders, 1972:454). The CGIC predates the Export Finance Scheme (discussed below) and provided exporters with political and commercial risk insurance for years before the scheme came into being.

Exports insured by the CGIC primarily reflected the composition of overall South African exports. In the 1960s the bulk of the exports insured were primary products destined for countries outside of Africa while the continent took most of manufactured exports. When economic sanctions became a factor, the CGIC would not provide cover for exports to countries that made the boycott of South Africa official policy (Reynders, 1972:466). However, cover was available when the sanctions were unrelated to official policy of a foreign state, such as the case of members of a trade union refusing to offload South African goods.

According to the BTI (1987), the services of the CGIC were highly regarded by South African exporters. The Reinsurance Fund showed healthy surpluses in the mid-1990s with the Department of Trade and Industry ascribing this to its conservative approach to financing exports and foreign investment (DTI, 1997:90). Considering that for over a decade world export credit insurance schemes combined recorded large and consistent deficits from the early 1980s to the mid-1990s, the South African scheme appeared too risk averse.

The Export Credit Insurance and Foreign Investments Act was amended in the early 1980s firstly to shield exporters from foreign exchange fluctuations through insurance. Secondly, the act was amended to provide insurance for investments by South African firms in foreign markets that were deemed to contain an export component (BTI, 1987:97). In 1986 the act was also amended to cover exporters against non-payment of foreign exchange.

8.2.3 Reynders Commission Export Policy Development and the State

Having pursued import substitution industrialisation for nearly half a century, the establishment of the Reynders Commission signalled the first serious attempt at formulating a coherent and comprehensive export policy for the country. The Reynders Commission was appointed to investigate the underlying causes behind the lack of export-orientation and competitiveness in the manufacturing sector. It was increasingly recognised that the reliance on gold as a wasting asset for export earnings would not be sustainable in the long term and that diversification of exports had become a necessity. The commission noted that ‘a high and sustained rate of growth will in future become increasingly dependent upon the country’s ability to export goods and services (other than gold)’ (Reynders, 1972:22). It further stated that,

> While import replacement was the most important growth vehicle after the Second World War, it is not expected to supply the same stimulus to economic growth during the next phase. *An enhanced export effort should, therefore, be regarded as an inherent part of the stage of economic development into which South Africa is now progressing*. (Italics in original) (Reynders, 1972:57).

The Reynders committee concluded that South African export subsidies lagged behind those offered by other foreign governments. The committee went on to recommend the introduction of more targeted subsidies that would be eclectic in nature targeting certain selected industries to remedy the absence of export orientation in the manufacturing sector (Reynders, 1972:276).

The South African Reserve Bank sought to keep inflation in check in the late 1960s through limiting credit extension by local banks and imposing credit ceilings on accessing foreign credit adversely affected exporters (Reynders, 1972). In an endorsement of the policy the commission argued that, ‘[i]n an inflationary setting exports cannot flourish’ (Reynders, 1972:116). High interest rates prevalent at the time further disadvantaged South African exporters against competitors from countries with substantially lower rates (Reynders, 1972:469). In its recommendations the Reynders Commission made several appeals to the Reserve Bank to permit exporters to gain easier access to credit even if it meant breaching the credit ceiling that was set by the bank or allow them to go offshore for funding.

In 1977 the Minister of Economic Affairs Chris Heunis appointed a Study Group chaired by J van Huyssteen to examine export subsidies in South Africa. After reporting to the minister and due to the fundamental nature of the group’s recommendations, a committee was appointed chaired by H J J Reynders to investigate the feasibility of implementing the van Huyssteen recommendations (Reynders, 1978:1-2). The van Huyssteen report was not made public in its entirety.

The van Huyssteen recommendations comprised three categories of export subsidies. Firstly, Category A Compensation which provided compensation to all exporters for higher than world price cost for intermediate materials. By and large, the aim of Category A was to ensure that South African exporters’ access to inputs placed them in a position to compete on the basis of price against foreign competitors (Reynders, 1978:29). Secondly, Category B Compensation proposals included the granting of financial benefits to exporters based on value addition made to the products. Similar to Category A, Category B was meant to reduce the cost-raising effects of protection (Reynders, 1978:30). Category C was created in case the first two failed to achieve their goals and, based on the discretion of the authorities, additional financial support could be extended to an exporter. In 1980 the state officially introduced Category A and Category B incentives. Under category A an exporter could receive half the cost of protection afforded to an input. Category A offered exporters one-tenth of value addition on sales abroad (GATT, 1993:85). Contrary to developmental states, these incentives were available to all industries with no set targets for beneficiary firms and therefore no penalties for failure to meet the targets.

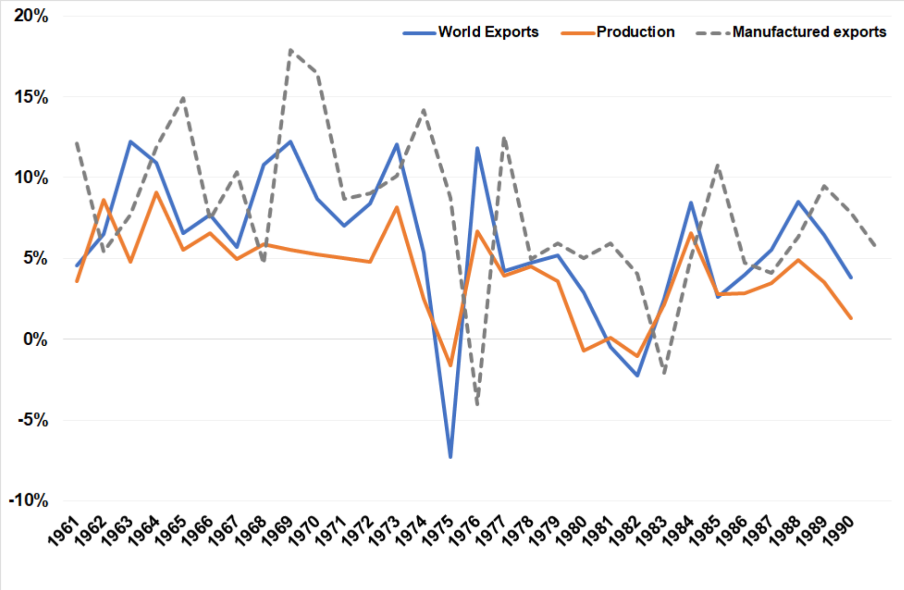
In June 1977 the South African government set up the Kleu Study Group to formulate a new industrial strategy. The report noted the dependence of the manufacturing sector on imported capital and intermediate goods which made the sector the largest foreign exchange user in the economy. It recommended the adoption of measures to boost exports of manufactured goods (Kleu, 1983:4-5).

After more than half a century of import substitution industrialisation characterised by import quotas, tariff protection and exchange controls, the Kleu Study Group argued that this cocktail of policies generated an inherent bias against exports. Stemming from this it was recommended that export subsidies needed to be made available to nullify the anti-export bias, a product of tariff protection. Import substitution, the committee further recommended, needed to be intensified but levels of protection had to be moderated but not eliminated to support export growth. Overall the committee expressed eagerness to see exports play a large part in the manufacturing sector. Despite trade sanctions and embargos, the Kleu Study Group was adamant that South Africa's economic development was inextricably bound up with international trade and that 'exports will have to be strengthened if South Africa wants to achieve its economic objectives.'

According to Feinstein (2005:214), the 1970s was not the ideal period to launch a programme to transform the manufacturing sector from import substitution to export orientation. South Africa's efforts to promote exports in the 1970s and the first half of the 1980s were torpedoed by twin problems of declining world trade and an appreciating exchange rate. However, as was shown in Chapter Two, East Asian Tigers dynamically expanded their exports during the period in spite of the constraints above. In the 1970s the collapse of the Bretton Woods system of fixed exchange rate and the adoption of the floating exchange rate saw the Reserve Bank policy vacillate from pegging the Rand to the dollar or the pound to free floating. Kahn (1987:24) asserts that the performance of the Rand was largely determined by the price of gold and politics.

The rise in the oil price in 1973 and 1979 depressed world output and global trade for most of the 1970s. Both world trade and production slowed down to a lower and volatile growth plane in the 1970s. Growth in world trade decelerated from 9.0% in the 1960s on average to 6.0% in the 1970s to 3.8% in the 1980s. Global trade in manufactures fared better registering retardation in growth rates of 10.9%, 7.5% and 5.6%, over the same period (see also Figure 50). The latter two decades were precisely the period that South Africa was seeking to maintain the growth momentum of the 1960s through boosting the performance of manufactured exports.

Figure 50. Global Production, World and Manufactured Exports Growth 1960-1990

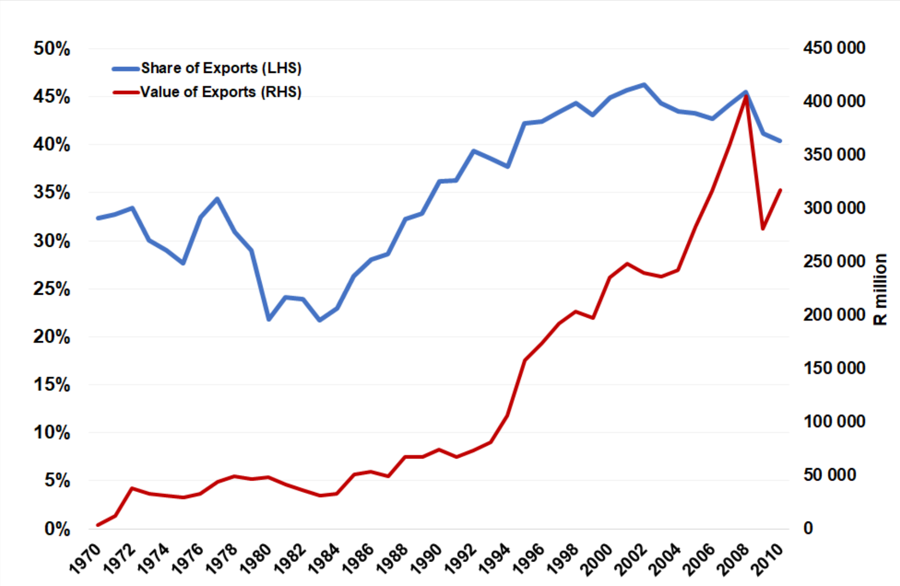


Source: WTO

The upshot of the BTI (1987:23) survey of developing countries' economies was 'that a strong association exists between the growth of the GDP and the growth of total exports as well as a significant positive association between GDP growth and the growth of manufactured exports.' The report further noted the significance of subsidies in the export performance of Asian Newly Industrialising Economies. The BTI (1987:27) also recommended the importance of exports for the South African economy to return to higher rates of growth in the light of diminishing scope for further import substitution. The growing list of countries imposing sanctions on South Africa provided additional reason for the need to intensify the export promotion.

From the 1970s to the mid-1980s industrial exports performed poorly relative to the total exports as illustrated in Figure 51. This is also reflective of the deficiency of policy instruments designed to drive industrial exports. As was shown in Chapter Two economies with higher shares of manufactured exports to GDP, in particular industrial exports, to total exports tended to record impressive GDP per capita growth from the 1960s to 2000. The growing significance of manufactured exports from the mid-1980s coincided with the real effective exchange rate depreciation with a year's lag. However, the lower gold price after the mid-1980s saw its contribution to total exports wane permitting the manufacturing sector to capture a larger portion of total exports. Moreover, the rise in importance of manufactured exports in the latter half 1980s was ably assisted by the militarisation project which saw munitions exports assume centre stage, as argued in Chapter Seven.

Figure 51. Value of Manufacturing Exports and as a Share of Total Exports at Constant 2010 Prices



Source: IDC Research and Information Department

The Minister of Trade and Industry requested the BTI to investigate and report on state-sponsored export incentive programmes. It recommended the removal of the anti-export bias that had been generated by import protection yielded by the import substitution industrialisation programme (BTI, 1987:32). However, it did not call for total removal of import protection but the retention of 'moderate protection' in concert with the notion that import substitution and export promotion could co-exist. Coincidentally, the Kleu and Reynders commissions' recommendations made similar observations.

South African exporters benefited from a myriad of state-sponsored incentives such as railway rate concession, sales duty and turnover tax, cash payments for export marketing and forward exchange cover (Reynders, 1978:74-75). In addition, the private sector administered its own incentives. Thus the iron and steel industry offered a rebate on the cost of steel used for export and a discount on ocean freight charges to exporters among others (but much of steel manufacture was from ISCOR still under national control). Timberit Woodboard, an export-oriented[208] hardboard manufacturer based in Durban epitomised some of the challenges faced by South African manufacturers in distant markets. Its foreign competitors enjoyed discounted freight rates and lower interest rates than those prevailing in South Africa. The company recorded losses in its export part of the business but needed it to meet minimum production levels to ensure economic viability of the business.

In 1987 the BTI (1988a:1) was tasked by the state yet again with the responsibility to investigate 'and report upon the rationalisation and financing of the South African export trade promotion function'. The investigation was part of the drive to expand exports which had become a key priority of the state at the time.

8.3 The IDC and the Role of Export Subsidies

In order to transition from import substitution industrialisation Hirschman (1968:28) maintained that 'only a cohesive, vocal, and highly influential national bourgeoisie is likely to carry industrialisation beyond the relatively safe import substitution to the risky export oriented stage.' As Hirschman (1968:28) further observed in Latin America where state policies were arbitrary and acting above the interests of industrial groups, they discouraged investments necessary for a successful export drive.

The IDC recognised the importance of manufactured exports to the growth and development of the South African economy as far back as the 1960s. This signalled a radical departure from its initial stance in the early 1950s which regarded industrial exports as unimportant and import substitution as an end in itself. In the mid-1960s the corporation explained that,

> The export of manufactured goods is the lifeblood of any modern economy. Although an outlet for crude materials in foreign markets may bring immediate financial advantages, these are short-term. The primary producer is always in a vulnerable position and a prey to the wide fluctuations which are a feature of world commodity prices. The maximum degree of beneficiation of local raw materials before export should, therefore be our target. (IDC, 1965:5).

The corporation later declared that, '[e]xports are of cardinal importance to our country and the Corporation regards the financing of industry in the export field as one of its major tasks' (IDC, 1970:19). In the 1960s the IDC expressed its desire to contribute to the growth of South African manufactured exports. It recognised that export markets are competitive and required South African producers to be efficient and adherent to strict deadlines for them to succeed. Yet they also needed to possess the necessary plasticity to react speedily to altering market signals (IDC, 1966:9-10). In late 1969 IDC Managing Director George Kuschke in Durban called for South African manufacturers to become export-oriented and 'take practical steps' towards achieving that goal.[209]

It was shown in Chapter Three that South African industrialists were largely reliant on overdrafts to finance working capital. This state of affairs extended to funding for exports as well (Reynders, 1972:461). In establishing various export finance schemes, although shouldering much of the financing burden, the government made concerted attempts to ensure that the IDC contributed a significant portion of its funds to the schemes. Importantly, this was a reflection of the half-hearted nature of the state's approach to industrial export expansion. Overall the export finance schemes focused on lowering the costs associated with import substitution and that of high interest rates. In its assessment of export subsidies available to manufacturers in the 1970s and 1980s the BTI (1988b:44) noted the limited size of the benefit and hence their limited impact.

The mere fact that the schemes administered by the IDC offered loans over short periods meant that the corporation's influence on the running of recipient firms was limited because it did not entitle the IDC to appoint members on their boards. There is little evidence of close monitoring in order to determine whether the intended targets set by recipient manufacturers were achieved. Any manufacturer who met the set criteria could qualify to receive funding under the Export Finance Charges Scheme or the Export Capacity Scheme. A more selective approach to industries deserving support not only to export but meet other requirements could have had a better chance of success. Providing incentives for acquisition of up to date technologies, state support for skills development and subsidies on R&D are some of the examples of benefits that could have been made available to targeted firms or industries. The selective approach was made the more important in the context of a limited budget or reluctance to expend large amounts of resources as was the case with the schemes under IDC management.

8.3.1 Export Credit Finance Scheme

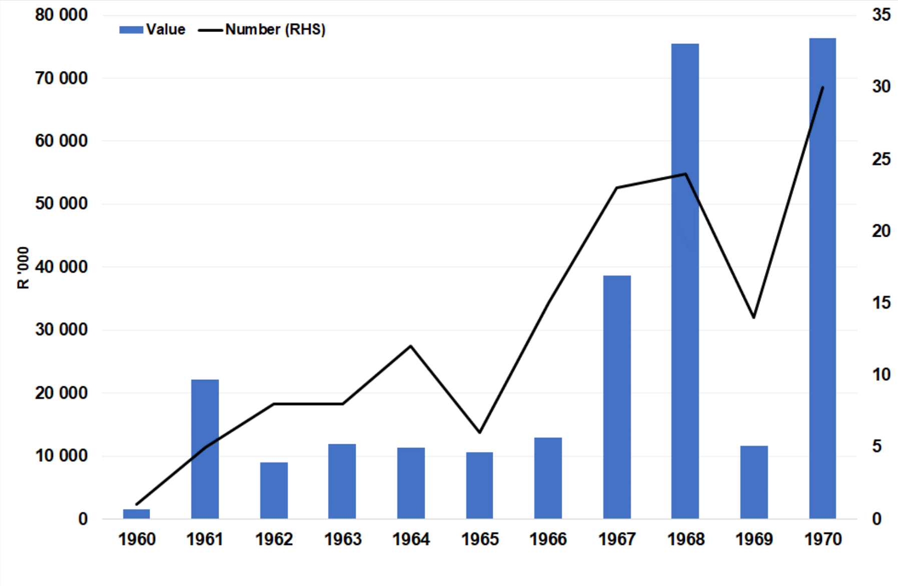
In 1962 the IDC relaunched the Export Credit Finance Scheme which was designed to support capital goods exports to give it greater impetus following the initial launch in 1959. The scheme was backed by state funding whose idea it was to create a scheme of that nature. The Export Credit Finance Scheme grew in importance in the early to mid-1960s leading to the realisation that it could open more export opportunities if adequately funded. In 1966 the state got involved and approved lines of credit for several countries with the IDC acting as a conduit (Reynders, 1972:455). Initially the scheme catered for post shipment finance and firms needing pre-shipment finance were advised to 'arrange for loan or overdraft facilities from the normal commercial bank' (Reynders, 1972:456). Exporters expressed dissatisfaction with the financial services available for expansion related to investment in new machinery (Reynders, 1972:485).

The IDC received permission from the Reserve Bank to issue short-term promissory notes in the financial markets to raise capital to fund exports exclusively under the Export Credit Finance Scheme. The export notes issued by the IDC were held by the banks as liquid assets as approved by the central bank. The state provided guarantee for the scheme as legislated in October 1969 exonerating the IDC from any risks associated with the scheme. The notes became an important source of finance to re-lend to exporters. By 1974 they constituted the second biggest source of the corporation's funding accounting for 22.8% and second only to repayments and sale of investments category (IDC, 1974:4). In 1976 export notes were the single largest source of funds comprising 28.5% of total IDC funding sources (or R77.4 million) on a net basis. During the same year outstanding export finance notes totalled R190.3 million (IDC, 1976:5). The export notes contributed to the proliferation of financial instruments further entrenching the dominance of the financial sector in the South African economy and aiding the financialisation cause. In July 1985 the Bank Act was amended taking away the liquid status of credit notes due to the adoption of a cash reserve monetary system (BTI, 1987:93).

To qualify for IDC support, a capital goods export project needed to have 70% local content or higher unless the Reinsurance Committee gave a derogation. The scheme offered two kinds of credit facilities. First, financial credit which was extended to a state agency in a foreign country made it possible for the purchaser of South African goods and services to pay the full amount to the seller. The repayment period to the IDC was per six-months usually over 10 years. Second, suppliers' credit which the IDC extended to a South African exporter who re-lent to a client who in turn repaid the loan over a year to five years, was also available (IDC, 1968:8).

In one case the IDC made available financial credit totalling R11 million for a project in Malawi for a railway line and rolling stock project (IDC, 1968:8). It was a large cross-border project connecting a railway line from Liwonde, Malawi to Nova Freixo in Mozambique. Outside of Africa export credit finance was made available for a cement plant in Korea, a water plant in Peru for a combined total of R16 million (IDC, 1969:10) and export of railway wagons to Taiwan. Other projects financed by the scheme included abattoirs, sugar milling machinery, mining machinery and equipment, bakery equipment and construction.

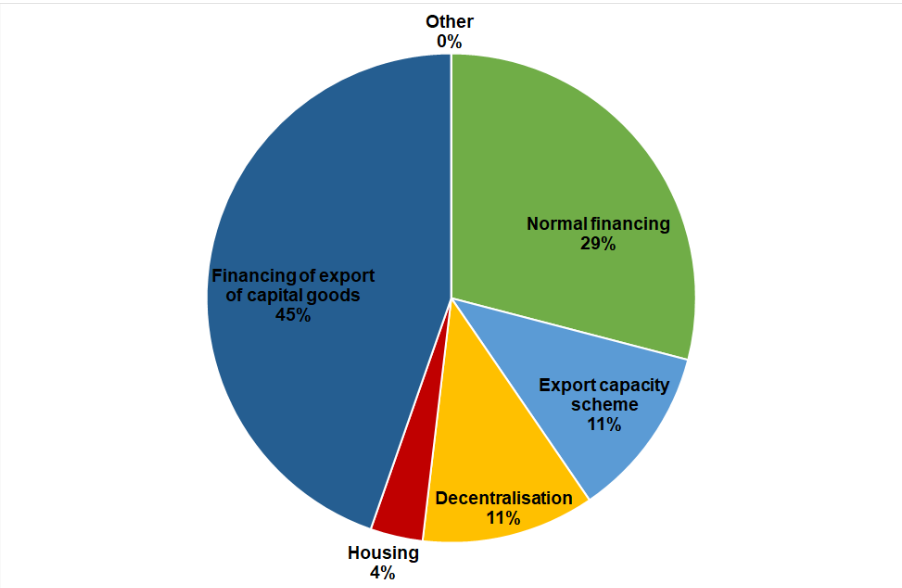
Figure 52. Export Credit Finance Authorisations 1960-1970



Source: IDC, (various years)

The growing importance of exports in the economic policy of South Africa in the 1970s was mirrored in its dominance of IDC financing. The export finance scheme grew in significance to become the largest recipient of IDC funding in the intervening years in the mid-1970s taking over from the SASOL I project before being overshadowed by SASOL II and III. It lost its lead in the late 1970s and early 1980s to the expansion of the capital-hungry SASOL project.

Figure 53. The Structure IDC Financing Authorisations, 1976



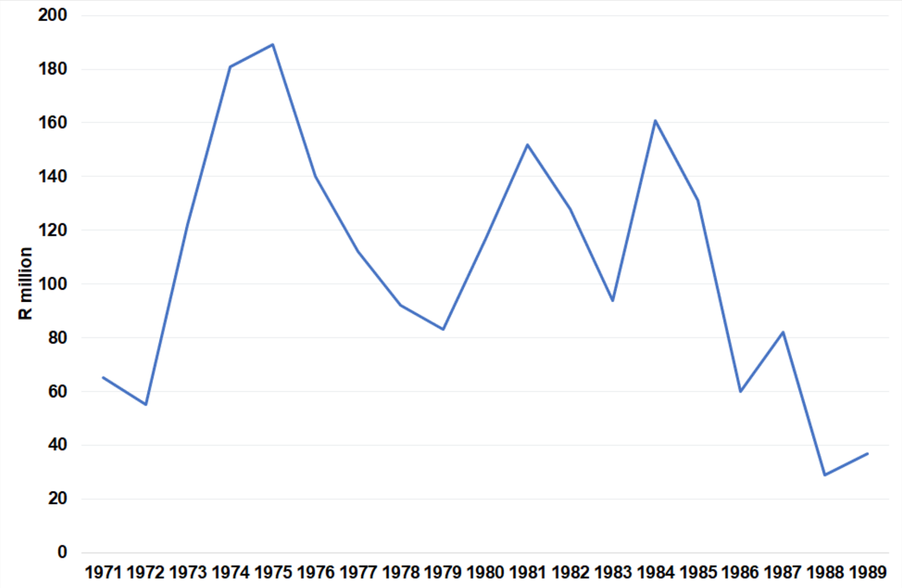
Source: IDC, 1977

Anglo American subsidiary Union Acceptances entered the financing of capital goods exports sphere in 1972 and through a new enterprise UAL Export Finance Company and soon captured in excess of 50% of the South African market two years later (Innes, 1984:206). However, the Export Credit Finance Scheme continued to perform well financially prompting the IDC to declare in 1978 that the scheme was ready to be self-funding rendering state support redundant unless a surge in demand was experienced. As trade and financial sanctions intensified in the 1980s overall gross fixed capital formation performed poorly in the South African economy. Political instability also eroded confidence in the economic prospects of the country. In the early 1980s interest in the Export Credit Finance Scheme began to wane as reflected in the pronounced decline in funds devoted to the scheme. The IDC ascribed this to the South African capital goods exports' reliance on developing countries as the main markets, particularly South America which was in the grip of a debt crisis at the time (IDC, 1983:9).

In 1981 the IDC made funding denominated in American dollars available to exporters under the scheme for contracts denominated in that currency (BTI, 1987:92). The state had earlier approved the extension of foreign exchange cover to participating exporters in the scheme. The IDC recommended to the state in 1983 that offshore funding be utilised to augment the local sources in financing the scheme. By mid-1985 half the total book worth R500 million was funded by offshore debt (BTI, 1987:93). The 1985 debt crisis also discussed in Chapter Two put an end to the practice of offshore debt funding for the scheme.

IDC finance for exports continued to diminish in both absolute and relative terms in the 1980s. This is significant considering that overall funding by the IDC was also on the decline for most of the period. Having accounted for 45% of total IDC funding commitments in the mid-1970s, the Export Credit Finance Scheme had dwindled to just over 10% by the close of the 1980s. In the mid-1980s banks were keen to enter this market with some requesting the DTI to give them permission to play a similar role to that of the IDC. Commercial and merchant banks also made finance available to foreign importers of South African produced goods aided by full insurance from the CGIC. The involvement of private financial capital driven by the profit motive served to further undermine the developmental objective led by the state.

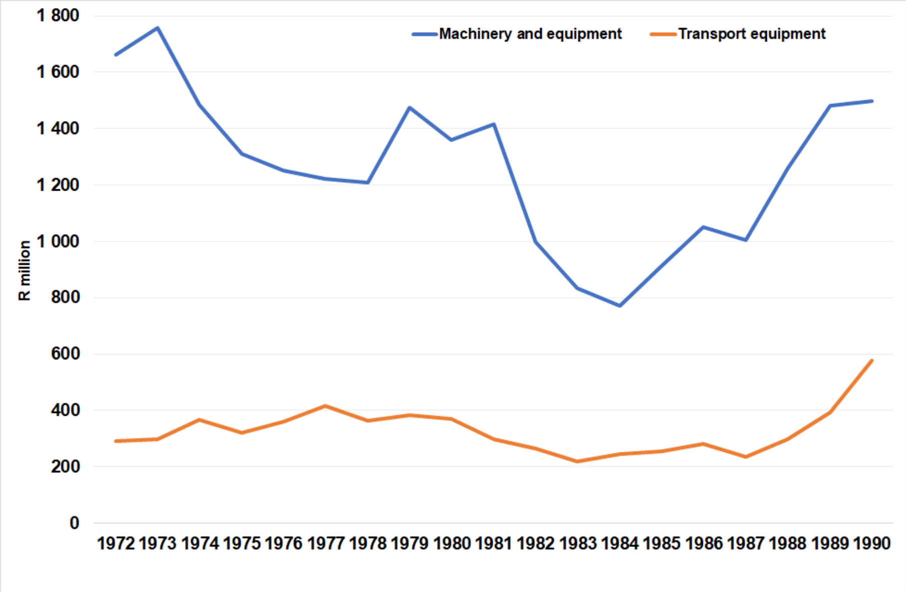
Figure 54. IDC Funding Authorisation under the Export Finance Scheme for Capital Goods



Source: IDC, (various years)

According to Kaplan (1991), the dearth of state support coupled with the reliance on the southern African market lay behind the poor performance of South African capital goods exports. In addition, restrictive licensing agreements on subsidiaries of foreign manufacturers and their licensees limited exports to the southern African region. The overall impact of the Export Credit Finance Scheme appears to have been minimal on the export industries it targeted. As shown in Figure 55 during the heydays of the scheme exports of machinery and equipment declined and recovered strongly just as the interest in the scheme waned in the mid to late 1980s. Similarly exports as a proportion of production decreased from the mid-1970s to reach their lowest ebb (almost 5%) in the mid-1980s.

Figure 55. Exports of Machinery and Equipment and Transport Equipment at Constant 1993 Prices



Source: IDC, 1995

8.3.2 The Finance Charges Aid Scheme for Exporters

In 1970 when the Finance Charges Aid Scheme for Exporters was inaugurated, interest rates were high. The scheme was viewed as a panacea for exporters' lack of competitiveness in foreign markets.[210] The Export Promotion Council discussed the need for affordable export finance for manufacturers which led the Department of Commerce to present the matter to the Franzsen Commission. The scheme as approved by the Minister of Finance offered exporters of industrial goods a 25% rebate on interest rates 'on the financing of new and expanded exports of manufactured goods.'[211] The scheme fell under the Minister of Economic Affairs with the support of the Minister of Finance and the Reserve Bank.

Overall exporters expressed satisfaction with the Finance Charges Aid Scheme. The scheme offered to exporters a 25% reduction in prevailing interest in the shape of a tax-free allowance (BTI, 1987:94). It only covered products in the manufacturing sector with a 25% or above value added in South Africa. It was withdrawn in 1982 due to its General Agreement on Tariffs and Trade (GATT) incompatibility. The GATT Subsidies Code prohibited signatories from subsidising directly or indirectly production or export of goods. Failure to comply would have exposed South Africa to countervailing duties (BTI 1987:3). Moreover, the country was intent on becoming a signatory of the code and the request to the BTI to investigate the matter was meant to ensure that South Africa was compliant before becoming a signatory.

Exporters complained that they were facing countervailing duties in certain markets due to export subsidies they received in South Africa. In addition, state-sponsored export subsidies were watched closely by trading partners compelling the state to reconsider their design and structure.[212] As far back as 1972 South Africa's historic key trading partner Britain joined forces with the Organisation of Economic Co-operation and Development (OECD) to scrutinise and push for the withdrawal of export subsidies contained in credit arrangements that were aiding firms capture foreign contracts.[213] The group of countries, among them Japan, United States and European Economic Commission member states, wished to access information on credit arrangements including interest rates and guarantees. The American authorities were not keen to support the British approach of complete transparency fearing resistance from their own business community.

In April 1982 when the state suddenly withdrew the Finance Charges Aid Scheme citing GATT incompatibility, it faced a backlash from exporters who relied on the scheme. The Private Sector Export Advisory Committee met with the Minister of Industries, Commerce and Tourism and of Finance to protest the planned removal of the concessionary rail rates, Finance Charges Aid Scheme and the Export Capacity Scheme[214] (discussed below). Although the state made concessions to retain benefits on contracts entered into before the announcement, the committee demanded the continuation of incentives until a new export policy was adopted.

Category A and B incentives were created to make up for the loss of benefits under the Finance Charges Scheme and reduced railway charges (BTI, 1988a:20). The aim of the incentives was to nullify the anti-export bias which was generated by higher input costs manufacturers incurred because of tariff protection afforded to upstream suppliers. After a comparative analysis of countries including East Asian newly industrialising economies, the BTI (1988a:93) concluded that 'South African economic policy has not been significantly export-oriented and the role of exports has by and large not received the requisite attention and priority it deserves.' Admiration of the East Asian experience influenced the BTI (1988a:94) greatly which noted that 'it can be generally stated that countries with a history of export successes are characterised by their large-scale (and massively funded) export promotion activities.' However, this admission did not appear to alter state approaches to export subsidies in favour of significantly increased funding.

8.3.3 Export Capacity Scheme and the IDC

The Export Capacity Scheme was the brainchild of the IDC with the support of the state which subsidised interest rates for finance disbursed for the expansion of production capacity by manufacturers. The scheme was unveiled in May 1973 and grew to absorb a substantial slice of IDC funding authorisations. Like many major projects in which the IDC was involved, the state provided the bulk of the finance for the scheme. The Export Capacity Scheme was the answer to complaints made to the Reynders Commission about the paucity of funding dedicated to the creation of new, or expansion of, export capacity. The scheme was predicated upon the provision of lower than prevailing interest rates as its principal attraction. In September 1974 a meeting between the IDC and officials from the Department of Finance agreed that the state would transfer money to the corporation at a lower rate. For the first year the state provided capital of up to 75% of the required amount to a maximum of R25 million.[215]

The state was unwilling to increase the amount devoted to the scheme and expected the IDC to raise the remaining R8 million in the markets. The IDC could claim back from the state interest rate differential despite attempts by the IDC to secure state commitment beyond the R25 million.[216] With security-related projects like SASOL about to be expanded and growing militarisation as discussed in previous chapters the state was unwilling to commit additional resources to exports. In addition, another key programme for the apartheid state, industrial decentralisation, absorbed a significant proportion of the budget of the Department of Commerce and Industries. The export promotion efforts of the state as viewed through the Export Capacity Scheme window was a project lower down the list of priorities. Moreover, the developmental trajectory in relation to export promotion was losing its momentum.

In its first year of introduction the scheme proved popular far exceeding the amounts budgeted by the IDC and the state.[217] The state urged the IDC to rely on internally generated sources of funding, domestic and foreign debt, to meet increased demand for capital. Increasingly the approach of the state to funding the scheme had been shifting towards nudging the IDC to rely on its non-state sources of finance to support state-initiated projects. Yet the IDC was adamant that the corporation's finances would come under threat from increasing guarantees which stood at R70 million in 1973 over and above R338 million in commitments.[218] The overall impact of such actions, the corporation insisted, would erode its ability to raise funding abroad among other problems.

The Export Capacity Scheme was designed partly to assist exporters of manufactured goods access finance at a lower interest rate relative to the prevailing rate in the market. Once production started in the new or expanded capacity the interest rate benefit fell away and the recipient paid the normal interest from then on.[219] This limited the benefits to the exporting firm to the short-term interest rate bringing into question the efficacy of the scheme in terms of driving export growth in the long term.

When considering the application under the scheme the IDC looked at various factors. Firstly, the share of exports outside the common monetary area (South Africa, Swaziland, Lesotho and Namibia) was taken up. South African exports to these countries within the Southern African Customs Union did not receive the benefit of subsidies but benefited from duty-free access by virtue of being part of the customs union. Secondly, the development of long-term export markets was considered. Thirdly, the local content levels and fourthly, the extent of value addition were discussed. In addition, the proportion of exports to turnover was noted. This determined the interest rate charged which ranged from 6.5% on over 70% to 10% on lower than 30% of turnover exported.[220]

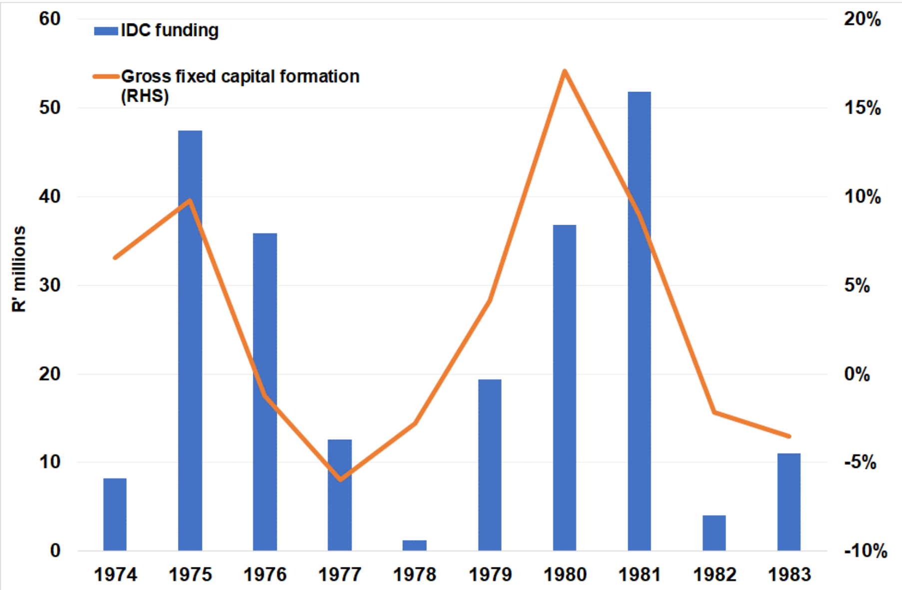
In the mid-1970s funding the Export Credit Scheme became an area of contestation between the IDC and the state. Initially the state was only willing to extend loans to the IDC at lower rates of interest with the corporation raising the balance from other sources. The Treasury cited many demands on the state budget for the remainder of the 1970s as reason for its inability to increase funding for the scheme.[221] In 1975/76 three large projects, two concerned only with beneficiation, absorbed R14 million leaving the scheme unable to meet many other requests for funding under the scheme.[222] The IDC also feared that its ability to fund other projects outside of the Export Capacity Finance Scheme could soon be upended due to shortage of capital. The state had also wished to see the IDC use its profits (from SASOL) to fund the scheme despite having earlier agreed that such funds would finance the industrial decentralisation programme. In 1976 the state remained steadfast that its contribution would remain at R25 million although the Department of Industries backed the IDC's request to convert all its loans under the scheme provided by the state into share capital.[223] An agreement was eventually reached with the state allowing the IDC not to raise debt to fund the scheme from the 1977/78 financial year.[224]

As was argued in Chapter Two, Korean exports in the 1970s and 1980s, as long as they met policy requirements expanded on the back of generous state subsidies. The reluctance in South Africa to increase state expenditure on exports differs markedly with the South Korean case where state largesse was so important that even otherwise unprofitable exports became profitable due to subsidies.

In 1981 when the IDC's interest rates stood at 14% those for the Export Capacity Scheme could go as low as 7% (IDC, 1981:7). The interest rate charged was lower if the expansion had a higher export component. Put differently, the higher the percentage of exports, the lower the rate of interest. Furthermore, as a way of encouraging exporters lower their dependence on the regional market export, capacity expansion targeting markets outside of Africa also attracted a slightly lower interest rate. In 1976 11% of the IDC's funding authorisations was committed to the scheme. To qualify for funding a minimum of 40% of the capacity expansion funded by the IDC had to be for export production (*Finance Week*, 22-28.5.1980). From 1974 to 1982 the state committed over R107 million to the scheme channelled through the IDC in the form of share capital (IDC, 1981:17). This made export capacity scheme the third highest recipient of state funding through the IDC by 1979 after SASOL and the industrial decentralisation programme.

The demand for finance under the Export Finance Scheme was largely a function of total South African investment expenditure. In the aftermath of the 1976 uprisings which saw the dissipation of faith in the ability of the state to ensure capital accumulation within the apartheid framework, demand for export capacity funding declined sharply (IDC, 1977:10). Authorisations fell by 65% in 1977 relative to the previous years to R12.5 million (IDC, 1978:8) and to R1.3 million in 1978. Similar to the Export Credit Finance Scheme, in the 1980s the export capacity scheme continued to attract diminishing interest from industrialists as reflected in the downward trend in the amounts committed to the scheme.

Figure 56. IDC Funding Authorisations for the Export Capacity Scheme vs Gross Fixed Capital Formation, 1974-1983



Source: IDC, (various years)

The IDC came under pressure to rethink its strategy towards the export capacity scheme against the background of fading interest in the scheme on the part of exporters (IDC, 1984:11). In 1984 the scheme was, like the Export Credit Finance Scheme, cancelled partly because it failed to comply with the GATT subsidies code (BTI, 1987:95). Commitment to exports by South African manufacturers appeared to be a function of the performance of the local market. In general exports tended to rise when demand domestically was weak declining when the local market displayed signs of expansion (BTI, 1988b).

Moreover, in 1967 78% of export finance from the IDC was devoted to projects in the southern African region. By 1983 the IDC bemoaned the inability of South African exporters of manufactured goods to diversify exports outside of the region which absorbed four-fifths in value of the country's industrial exports. Overall the Export Capacity Scheme's main attraction was the lower than prevailing interest rate. The scheme's limited impact could be attributed to the narrow focus on export capacity and interest rates. Other areas that contribute to export success including productivity, skilled labour and competitively priced costs of inputs were not addressed by the scheme. Just like the Export Finance Charges Scheme, the Export Capacity Scheme was scrapped in 1984 as part of compliance to the GATT subsidies code. Moreover, the state's commitment to the scheme remained ambivalent due to its apparent unwillingness to increase the funding when demand for finance under the scheme rose.

8.4 Export Expansion Drive in the 1980s and the IDC

In the aftermath of the debt crisis of 1985 the IDC was asked by the state to engage in studies into the constraints to manufactured exports growth and propose solutions (IDC, 1985:9). The deteriorating capital account implied that South Africa needed to run a current account surplus to avoid balance of payments difficulties (Kahn, 1987). Reliance on gold, the dominant export revenue earner, was not ideal as its price oscillated frequently. The manufacturing sector was the largest net foreign exchange user but accounted for a smaller share of exports. Renewed focus on the manufacturing sector saw the state establish commissions of inquiry and committees to examine various aspects of trade and industrial policies. South Africa did not have access to foreign exchange limitations which goes against one of the three constituents of Doner et al (2005) 'systemic vulnerability' model that underlie the emergence of a developmental state. Minerals, and gold especially, represented a dependable source of foreign exchange permitting the state to neglect the pursuit of exports in its industrial sector.

8.4.1 The IDC and Export Policies in the late 1980s

The IDC was an important contributor to export policy formulation and producer of reports for the state on various subjects related to the manufacturing sector and exports. In addition, efforts to reinvigorate import substitution were intensified as the two were not regarded as mutually exclusive. The improved incentives in the shape of maximum interest rate benefit for markets outside the region proved a blunt instrument in encouraging exports destined for overseas markets.

In February 1988 the IDC (1988) set aside R300 million for a new low interest rate scheme designed to promote investment in expansion for export or import substitution. Earlier, in conjunction with the BTI, the IDC published a report titled *Manufacture South African* giving manufacturers a list of products that were imported but carrying the potential for import substitution (IDC, 1987). Applicants with a higher export orientation (60% or higher) received a 9% discount in interest rates charged. The enthusiasm with which exporters received the scheme gave the IDC reason to be optimistic about its performance in the future.

8.4.2 GEIS and Trade Liberalisation

After about 65 years of import substitution the South African government made a key decision when it asked the IDC on 1 March 1990 to investigate and report within three months in consultation with the BTI the efficacy of import tariffs and trade policy in general. At this point, just after the legalisation of the ANC and other banned political formations, virtually no import tariffs had been lowered in South Africa (IDC, 1990:5). Similar to other developmental countries South Africa did not liberalise its trade and attempted to become export oriented in the 1970s and 1980s in this dual trade policy. The outcome of the investigation marked a watershed moment in the history of South African trade and industrial policy. The report recommended that substantial reforms in trade policy including considerable reductions in import tariffs be enacted. It marked the beginning of an important shift in the thinking on trade policy as the principles of the recommendations were endorsed by both the BTI and the state (GATT, 1993:37). Export growth, the report maintained, would issue from import liberalisation. Overall the corporation's policy prescriptions on trade reform would engender much desired yet elusive export orientation in the manufacturing sector. A five-year programme of tariff phase down was recommended with a temporary support programmes to aid industry needing to sharpen their competitiveness.

The exposure to international competition through import tariff lowering, the IDC (1990:10) reasoned, would compel firms to produce internationally competitive products in terms of price. Conservative macroeconomic policy characterised by a weak exchange rate was also a key recommendation for export orientation to be accomplished. The IDC was mandated to research and make recommendations on South African trade policy a month before GEIS was inaugurated. In its report released in June 1990 the corporation recommended that GEIS be reviewed with a view to scrapping it (IDC, 1990:24).

The many reports of the BTI and commissions of enquiry were consistent in their conclusion that the subsidies and export promotion measures lacked efficacy. The GATT Subsidies Code which was a key consideration when terminating export schemes that were inconsistent with it was ignored when GEIS was introduced. The scheme replaced Category A and B incentives. GEIS had also been designed to favour the expansion of finished products which comprised the least share of manufactured exports based on a hierarchy of transformation. Primary products were excluded from GEIS benefits while beneficiated primary products received 7.5% of the value of exports, material intensive products got 12.5% with finished products benefiting to the value of 25% (GATT, 1993:87). Other considerations included the exchange rate and local content which was set at a minimum of 35%. The Structural Adjustment Programme recommended by the BTI (Hirsch, 2005:132) opted for an industry specific subsidy scheme which was not taken on board when GEIS was established.

Compared to the various export promotion schemes discussed earlier, GEIS was the most developmental of them all making exporting attractive relative to domestic sales bearing the hallmarks of export subsidies in other developmental economies. According to Joffe et al (1995:57), GEIS proved an effective instrument in raising exports of manufactured goods. Unlike other schemes, GEIS managed to make South African exports lucrative for many firms encouraging them to invest significant resources in exports. Moreover, exports of manufactures rose rapidly from 1990 onwards both in value terms and as a proportion of total exports (see Figure 51). A common criticism of GEIS was that it supported exports that would have occurred anyway in its absence. A critical shortcoming from a developmental perspective was the absence of targets and penalties for firms that fail to meet targets.

Yet GEIS can be judged as having succeeded to raise industrial exports effectively more than the previous export schemes put together but it was not acceptable in the Western-dominated global trading system to which South Africa wished to adhere. By the mid-1990s the newly elected democratic government opted to phase out GEIS partly to comply with GATT. The budget devoted to GEIS had been open-ended, determined by the size of applications from exporters. By 1997/98 GEIS had absorbed R9.7 billion of state funds in total. The high cost of the scheme at a time when fiscal austerity measures which manifested themselves in deep cuts in the budget of the Department of Trade and Industry led to its termination. GEIS was too broad and not tied to industrial policy, did not target specific industries and no reciprocity was built into it.

8.5 Conclusion

The pursuit of import substitution industrialisation to the exclusion of export orientation for nearly half a century after the adoption of the policy in the mid-1920s lay at the heart of poor performance of industrial exports. By the early 1970s there was widespread recognition that import substitution industrialisation no longer possessed the same potency to drive the economy forward and that exports needed to assume a more central role. The apartheid state vigorously sought to transform the South African economy from an import substitution industrialisation paradigm to an export-propelled expansion model. However, this did not imply that import substitution industrialisation would be abandoned in favour of the export-led model but the two models were viewed as symbiotic. From the early 1960s the IDC played its part in promoting South African exports through committing large shares of its budget to supporting the growth of manufactured exports.

The Reynders Commission marked the first time the state genuinely sought solutions to the lack of growth and diversification of manufactured exports. A confluence of forces conspired to undermine export policies adopted in the 1970s and 1980s to expand and diversify South African exports through increased share of manufactured exports. These included retarding growth in world trade, the oil crisis, appreciating exchange rate, high interest rates and economic sanctions. To a large extent, South African manufactured exports were destined primarily to other developing countries in particular the southern African region, a small market, unlike developmental states in East Asia where the regional market was large enough to absorb significant shares of their exports. In addition, the country's manufactured exports were dominated by beneficiated products or semi-manufactures rather than finished products. Prior to this in the 1950s the state joined forces with the CGIC to provide political risk cover, a necessary but by no means sufficient condition for robust export expansion.

By the time the state made attempts to grow industrial exports, the developmental thrust that existed prior was on the wane increasingly subordinated under programmes designed to support or defend apartheid in the form of military-industrial complex, industrial decentralisation and the massive expansion of the SASOL project. The Reynders Commission correctly underscored the modest size of export subsidies available to exporters in the years leading to 1970. In the mid-1970s the van Huyssteen Commission recommended categories of subsidies for exporters to boost the expansion of exports. Developmental states like Japan and Korea ensured, through massive subsidies that were contingent on performance targets set by the state, firms were given strong incentives to export. In South Africa the availability of export subsidies to all exporters in the manufacturing sector coupled with their low value served to undermine their efficacy as developmental instruments. The dearth of other support measures to support export measures and sustain the exporting firms further contributed to less than satisfactory export growth. The IDC played a key role in this through disbursing large sums. A key constraint that became a common thread in the various bodies established to investigate export performance was the anti-export bias generated by protection of inputs despite the much wished for harmonisation of import substitution industrialisation and export orientation.

The policy instruments adopted to promote manufactured exports were not sustained and lacked the efficacy that transformed export trade for manufacturers in developmental states into an attractive proposition. The apparent lack of commitment to export promotion was reflected in the reluctance to commit state funds over an extended period in the 1980s is also indicative of a state that had lost its developmental vision focused more on the defence of apartheid. The IDC appeared to face major problems in attempting to secure financial commitment from the state large enough to support significant manufactured export growth. The Export Capacity Scheme and the Export Finance Charges Scheme were terminated a little over a decade after coming into effect leaving South African exporters to compete against foreign suppliers with far superior forms of state support. The abandonment of the two export schemes administered by the IDC in the early to mid-1980s was in preparation for South Africa becoming a signatory of GATT Subsidies Code. Due to political upheavals in the mid-1980s and the growing isolation of South Africa internationally, the signing was delayed until South Africa endorsed the Marrakech Agreement in April 1994 on the eve of the first democratic elections.

Only after the democratisation processes of South Africa began in 1990 accompanied by the demise of the militarisation of the economy, the fundamental change to regional development policies and with SASOL privatisation approaching the end could the state commit large subsidies to exporters in the form of GEIS. Simultaneously the IDC made a grand entrance into the policy making sphere recommending a profound shift in the approach to export expansion predicated on trade liberalisation essentially signing the death warrant for the only developmental export programme just as it was being introduced, GEIS. This laid the foundation for trade liberalisation in the 1990s under the aegis of the WTO.

Chapter 9

Conclusion

The IDC was a tool of the South African state used to support twin policies of industrial development and, in later years increasingly, apartheid. The best way to comprehend the role of the IDC is to delineate its financing activities into three parts. In the beginning, the first and more important relate to major projects the corporation undertook in close partnership with the state. In these investments the IDC displayed many developmental attributes associated with development bank ideal types. In financing the belated rise of the textile industry using funding sourced from the state and deploying it as long-term finance which principally took the form of shareholding the IDC assumed the role of a prototypical development bank. Similarly acting as a conduit for financing the SASOL project and especially driving the diversification and expansion of the chemical industry after 1960, the IDC was not only supportive of the developmental impulse that remained dominant until the second half of the 1970s but applied development finance to deliver many developmental outcomes.

Secondly, the IDC joined the state when preserving apartheid became a priority that encroached the economic policy sphere manifesting itself in the industrial decentralisation policies and militarisation of the economy. As the inflow of Africans into the cities continued apace internal and external threat to apartheid heightened, with various instruments including industrial decentralisation and draconian measures designed to curb urbanisation proving ineffective, preserving apartheid assumed precedence. The economic policy adopted in post second world war South Africa was blemished by the failure to grow industrial exports beyond the southern African region. Belated attempts by the state and the IDC to expand exports of manufactures were stillborn because of limited resources committed by the state to this programme especially relative to priority apartheid and/or state security projects. The third element relates to the IDC's original mandate to promote industrial development that was subordinated to the logic of supporting projects that exhibited 'economic merit' taking away some of the developmental financier features particularly in comparison with models found in developmental states in East Asia.

A key constraint to the IDC making a bigger impact was the limited size of the budget the state made available to the corporation for initiating and supporting industrial development projects. Consequently, the IDC was compelled to rely on internally generated income plus private sector sources of finance industrial development further subordinating the corporation to market forces. Its primary focus remained the maintenance of a solid balance sheet through ensuring that default rates were kept to a minimum in stark contrast to some developmental states' experience. In spite of the constraints imposed on the IDC overall it played a supportive role to the developmental project that constituted the principal thrust of economic policy.

Over the decades the IDC assumed a somewhat different role from that which it was founded to become. By the mid-1970s as the developmental impetus driven by the state prevalent since the 1940s petered out, the IDC was drawn into projects of the state that were designed to fortify the security of the apartheid state to the detriment of developmentalism. From 1968 the industrial decentralisation programme was characterised by the draconian application of laws intended to force firms to locate in or near the Bantustans. A decade later when the South African government was confronted with sanctions it looked to the IDC to help establish a large military industrial complex. By the late 1970s the marriage between English and Afrikaner capital had become more intimate, the state was increasingly seduced by non-interventionist economic policies which saw the developmental thrust fade significantly.

Effective banking was a key catalyst of industrialisation of Western Europe and other nations that industrialised in the footsteps of England. As countries sought to catch up with England banks tended to have intimate relationships with their industrial clients in search of increased pace of industrialisation. In East Asian countries the state was central in ensuring the flow of credit to industries was sustained. In Japan the state also featured prominently channelling finance to investment in capital equipment. The Bank of Japan intervened through buying securities of the Reconstruction Finance Bank whose primary function was to fund industry. Finance to industry was targeted to specific industries and favoured investment in capital equipment. The Korean state turned the financial sector models adopted by other late industrialisers on their heads placing the state at the centre of credit allocation. Using 'policy loans' to accomplish economic goals the Korean state went as far as backing unprofitable exports, having negative real interest rates for long periods and permitting high levels of indebtedness of *chaebols* which had become 'too big to fail'.

The analysis of the history of the banking sector in South Africa provides the context within which the IDC was established. The banking system was tied to the British system as mirrored in the dominance of two imperial banks, Standard Bank and Barclays. Despite the adoption of an import substitution industrialisation programme in the mid-1920s the banking system remained conservative, eschewing the long-term lending market instead focusing on traditional short-term facilities like credit card debt and overdrafts. The absence of dedicated industrial finance houses left firms in the manufacturing sector reliant on short term finance for expansion and investment. The establishment of the IDC was meant to fill the void left by commercial banks in promoting industrial development.

The IDC contributed to the deepening of financial services which took the form of the creation of a merchant bank further transforming the banking system to become more national in character. It was in the mid-1950s and 1960s that the seeds financialisation of the South African economy that we witness today were planted. The dominance of finance in the economy has implications for investment in the productive sectors of the economy. Even in the presence of development banks, their ability to play a counter cyclical role is undermined by the multiplicity of low risk profitable financial instruments. In South Africa despite large pools of savings even to this day much-needed investment in the productive sectors is deterred by the presence of attractive returns offered by numerous financial instruments. In developmental states, by contrast, the development of consumer credit was stunted allowing the states to promote savings and leverage them for productive investment.

In supporting the emergence of the textile industry, the IDC lived up to its mandate of promoting industrial development. Under pressure from industrial capital to provide funding for the rise of the textile industry, the state delegated to the IDC this function leaving the corporation to research and establish factories with minimal state interference. The state could not act above class interests or display its autonomy but was compelled by a class of industrial capitalists into adopting developmental tools like tariff protection and provision of concessionary finance. In supporting the textile industry the state gave the IDC a broad mandate to develop the textile industry and transferred funds to the corporation to deliver on the directive. Although this seemed to set the tone for the way the IDC was going to function also line with the founding act, the direction of the corporation was to alter fundamentally. IDC funding was to be dominated by strategic projects conceived and financed by the state while funding requests and internally initiated projects played a minor role.

The delayed emergence of the textile industry revealed the importance of import tariffs in the industrialisation of South Africa. Only the segment that received high levels of protection developed prior to the Second World War while the rest of the parts of the industry grew with the aid of import tariffs and development finance after the war. Despite retaining import tariffs the textile industry was decimated by imports from globally competitive suppliers. Recent plans by the government to revive the industry under the ‘Masterplan’ series that seek to extend the automotive industry model to other industries do not appear to accord development financing and exports greater prominence. In textiles the focus on exports will target other parts of Africa to take advantage of the African Continental Free Trade Area even though the size of the market is limited and much of it flooded with cheap imports from the East. Failure to include reciprocity especially in the form of export targets contributed to the industry’s inability to withstand foreign competition when protection was reduced. Through exports many faults like higher than international price of inputs would have revealed themselves forcefully a lot earlier compelling policy makers to address them in good time. The revival of the textile industry, if it is to succeed, will require substantial investment in new machinery and equipment led by the state in conjunction with the IDC finance and expertise.

The year 1950 marked the beginning of IDC involvement in large state-sponsored projects. The IDC's role was largely that of a conduit of state funding to the project and representation on the SASOL board. The formation of FOSKOR in 1950 was a major import substitution project which the state was not keen to finance but expected the IDC to back it. The IDC's conservative approach to financing conflicted with the demands of the state while the state itself was selective in supporting projects financially. FOSKOR was also a strategic industry that needed development finance and attempts by the state to use IDC internally generated funding was bound to generate many problems for the project.

Although the first SASOL plant was largely experimental and not very successful in the liquid fuels market, it constituted a strategic industry that the state in partnership with the IDC invested in. In this project the state created a strategic industry from which a much larger chemicals industry could be developed. Development finance need not be massive to have an impact because of the catalytic role that it can play in strategic industries. The involvement of the IDC in the project falls within this category. Similarly, the SASOL II and III projects were caused by the need to counter the growing insecurity of the apartheid state but helped drive fixed investment higher during a period when levels of investor distrust were high. As a result of the dearth of sufficient numbers of white workers, the state was also compelled to train numerous African workers for skilled positions even though legislation forbade it. The experience of SASOL points to the importance of large scale state-led projects including development finance that despite certain shortcomings could still yield many developmental outcomes even today.

Chapter Six focused on a lesser known dimension of the industrial decentralisation programme. The IDC was a key part of the financing of the industrial decentralisation programme, a role that is not well recognised in the otherwise rich literature on the subject. The political reasons behind the adoption of the policy were the high rate of urbanisation of Africans as seen by the authorities and the politicised unionism in the 1950s on the part of SACTU, the trade union arm of the Congress Alliance who actively resisted apartheid. Although development finance was deployed to drive the programme of industrial decentralisation, this aspect of developmentalism revealed the limits to the effectiveness of development finance. After the first phase of the programme which was implemented within the developmental framework, the South African government in the second and third phases of the programme prioritised the survival of apartheid to the detriment of developmentalism. The IDC committed massive amounts of concessionary finance to support industrialisation in remote areas that could not sustain many firms that they hosted. Most targeted industrial areas under the programme lacked proximity to markets, inputs and skilled workers which served to undermine the long term growth of the areas.

Although the IDC engaged in support activities not conventionally associated with development banking like infrastructure development, training of employees and provision of housing for skilled labour, during the last two phases of the programme they failed to yield desired outcomes due to the apartheid motive underlying the policy of decentralisation. The introduction of the most generous incentives in 1982 which led to a palpable shift away from major centres by manufacturers to decentralised areas, also saw the IDC raise its level of finance for the programme. The period after 1982 saw the state with IDC connivance stray further away from the developmental imperative in support of the political programme of apartheid. With the demise of apartheid imminent, the programme was revised in the late 1980s assuming the role of regional development signalling its effective abandonment by the time the democratic government assumed power. Recent ideas from some provincial governments to revive some of the industrial centres established under the decentralisation programme like Dimbaza in the Eastern do not seem to carry much weight. Supporting such moves through state funding is unlikely to drive industrialisation to levels that were seen in the 1980s in remote areas let alone contribute to any new developmental impulse.

In Chapter Seven we focused on yet another programme closely tied with apartheid, the militarisation of the economy. Unlike in developmental states where internal and external security concerns impelled states to establish institutions supportive of faster economic growth, a racially exclusive democracy and dependable sources of foreign exchange permitted the apartheid state to construct large military hardware industry. Internal threat to apartheid posed by anti-apartheid activism inside South Africa in the 1980s and external threat of military insurgency from neighbouring countries were countered to a large extent through the creation of a militarised society an integral part of which was the armaments industry. The IDC became a key instrument used to construct the armaments industry. Development finance and experience in supporting industrial development especially project development was leveraged by the state. The IDC also supported the creation of other supplier industries in the military-industrial-complex. The IDC's project management skills and financial muscle were key in making the ADE project a success. While in some countries the military contributed to the developmental thrust through support for R&D, transforming military products into civilian ones and adding to a pool of scientists, in South Africa's case these benefits were a mixed bag.

The rise to power of F. W. de Klerk in 1989, and subsequent granting of independence to Namibia alongside the lifting of bans on South African liberation movements were accompanied by the abandonment of the militarisation of the economy project. The state left numerous firms that relied on the military to their own devices as the slashing of the budget devoted to sourcing hardware left them with significantly reduced demand. It was left to the IDC to assist its existing clients and other firms adapt to supplying the civilian and export markets. However, South Africa has managed to retain a large export-oriented arms industry which needs to navigate human rights requirements among other challenges to thrive. Domestic demand remains subdued and unlikely to be a key source of growth in the future. Some successes of firms established by ex-employees of firms that supplied military hardware exist to this day like Aerosud while others such as Antlantis Foundries have transformed themselves into world class operation in the civilian market.

Chapter Eight highlighted the significance of exports in the industrialisation of Asian NIEs while South Africa largely ignored the promotion of industrial exports for nearly half a century after the adoption of the import substitution industrial programme in the mid-1920s. This constituted a critical shortcoming of the economic model adopted by South Africa even in the period where the developmental attributes were most discernible. South Africa had gold as a dependable source of foreign exchange and could afford to neglect the promotion of industrial exports. Exports did not feature in IDC financing as a condition for receiving benefits unlike in development banks in East Asia and Brazil. Beginning in the early 1970s the state set up several commissions and committees to investigate constraints to industrial export growth as it attempted to formulate and implement export-oriented policies. The promotion of exports was thwarted by the appreciation of the currency from the early 1970s to the mid-1980s. It was also argued that the composition of South African industrial exports was dominated by semi-processed products like basic iron and steel products. The reliance of South African exporters of manufactures on the regional market also served to undermine their growth due to the smallness of the market.

In 1990 a landmark report by the IDC advocated for trade liberalisation which opened the way for the state to initiate substantial import tariff reform in the 1990s and the 2000s. South African firms were not ready to face foreign competition coming out of low levels of investment in the 1980s, and the perception that import competition was sufficient to sharpen their competitiveness with minimal or no state intervention was deeply flawed. This partly explains the inability of many firms to survive exposure to unmitigated foreign competition in the 1990s and beyond. eliminate

This thesis has underscored the centrality of the state in driving the industrialisation of South Africa. The IDC was an important agency that the state relied on when financing strategic projects. Although the post-apartheid state adopted fiscal orthodoxy shortly after assuming power citing unsustainably high debt incurred by the apartheid government, even after major strides were made by the early to mid-2000s to fix state finances, it remained reticent to deviate from that path. Post-apartheid South Africa has major social and economic problems that require bold moves by the state to tackle them. Rather than view direct state intervention in the economy as an anachronism, the South African state could still assume leadership of strategic projects invoking IDC financial structuring expertise, project development skills and policymaking capabilities to help drive it. As with SASOL, South Africa thought at the time that it was setting a benchmark for the world but ended up reaping rewards outside of the core project in the downstream chemical industry. An industry like a large state-led renewable energy project is a possibility which could provide a solution to debilitating electricity supply constraints. Another area where South Africa has gained some ground in research is the cross-cutting additive manufacturing which has several branches that could be targeted. Even if the technology does not become dominant in the future, support industries created, skills developed, and experience gained should contribute to the economic development of South Africa.

The developmental state model has attracted the attention of post-apartheid governments but is yet to be implemented in any significant way. President Thabo Mbeki referred to the adoption of a democratic variant of a developmental state in South Africa while President Jacob Zuma in his first term in office expressed willingness to seriously consider implementing the developmental state model. During Zuma's term the IDC raised its disbursements massively from a yearly figure of R5.1 billion in 2009/10 peaking at R16 billion in 2012/13 and remained well above R10 billion annually to this day. In spite of all the efforts gross value added in the manufacturing sector grew by 0.3% on average from 2009 to 2018 the year Zuma left office while the country's GDP registered the average annual growth rate of 1.5% compared to 4.1% in the preceding decade. It remains to be seen whether the current South African leader President Cyril Ramaphosa will be able to drive the economy to higher growth planes through what he called, in his address to Parliament following his election as president in May 2019, 'a capable, ethical and developmental state'.

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Supplement to the 1970 Annual Report.

South African Coal, Oil and Gas Corporation Limited and Subsidiary Companies

SASOL PRODUCTS AND THEIR APPLICATIONS

HYDROCARBON OILS

KOGASIN III

As Pyrethrum carrier in the manufacture of insecticides.

DDB RAW MATERIAL (OLEFINIC)

In the manufacture of biodegradable (soft) detergents.

WAXY OILS

WAKSOL A (ARGE GATSCH)

In emulsions for the waterproofing of chipboard.
As extender for petroleum jelly in certain types of hair, face and hand creams.
As a constituent of hand cleaners.
In the chlorinated form, as a constituent of certain types of heavy duty lubricating oils.
For the treatment of paper matches.
For the impregnation of leather.
In lubrication and corrosion protection agents.
As a constituent of milking salves.
In emulsion form, as a mould release agent.
In the chlorinated form, as a plasticiser for PVC.
For waterproofing of paper.

WAKSOL K (KELLOGG WAXY OIL)

As mould release agent for concrete, etc.
As a component of creosote blends for wood preservation.
As a constituent of tick salves for cattle.
As a waterproofing agent for wood and paper.
As a constituent of coal tar fuel and heavy furnace oil.

WAXES

LOW CONGEALING POINT PARAFFIN WAXES

Sasolwaks L1 (Congealing point 36-42°C)
As a constituent of hand cleaners.
In emulsion form, for the waterproofing of chipboard.
As a constituent of hair, face and hand creams.
As a constituent of wax blends for cheese rind.
In the chlorinated form, as plasticiser for PVC.

Sasolwaks L2 (Congealing point 44-47°C)
In the manufacture of matches.
As a constituent of paint removers.
In the chlorinated form, as plasticiser for PVC.
As a constituent of hair, face and hand creams.
In emulsion form, as lubricant for cotton thread in the textile industry.
As constituent in wax blends for cheese rind.

MEDIUM CONGEALING POINT PARAFFIN WAXES

Sasolwaks M1 and Sasolwaks M2 (Congealing point 57-60°C and 60-63°C)
For the manufacture of candles.
As a constituent of hot melt coatings and hot melt adhesives in paper conversion.
As the main constituent of wax blends in polish manufacturing.
For the waterproofing and treatment of tarpaulins, leather, paper, etc.
For the impregnation of textiles.
As a constituent of crayons.
As a rubber blooming agent.
As a constituent of hair, face and hand creams.
For paper impregnation in the manufacture of explosives.
As a constituent of wax blends for cheese rind.
In carbon paper manufacturing.
In wax blends for jewellery casting.
As a constituent of paint removers.
As a constituent of milking salves.

HIGH CONGEALING POINT PARAFFIN WAXES

Sasolwaks H1 (Congealing point 94.5°C Min.)
In polish manufacturing.
In the plastics industry for blending with polyethylene, polystyrene, PVC, etc.
As a hardening and finishing agent in candle manufacturing.
As a constituent of insulating compounds for, inter alia, electric cables.
In carbon paper manufacturing.
As a lubricant for ironing machines to eliminate friction with synthetic materials.
As a constituent of printing inks.
As a constituent of crayons.
As a constituent of hot melt coatings and hot melt adhesives for paper conversion.
As a constituent of chewing gum bases.
As a lubricant and mould release agent in the moulding and extrusion of plastics.
As a rubber lubricant.

HIGH CONGEALING POINT OXIDISED WAXES

Sasolwaks A1, A2, A3, A4, A5 and A14
As constituents of polishes.

FRACTIONATED WAXES

Sasolwaks F3
In candle manufacturing.
For the impregnation of tarpaulins, leather, paper, etc.
As a rubber blooming agent.
In jewellery casting wax blends.
As a rubber lubricant.
As a constituent of wax plugs for the sealing of blasting holes.

SOLVENTS

ALCOHOLS

Ethylol (Ethyl Alcohol)
As a constituent of methylated spirits.
As a solvent in paints and printing inks.

Propylol (Normal Propyl Alcohol)
As a latent solvent in lacquer thinners.
As a solvent for printing inks.
As a solvent for mould pastes in foundries.
As a constituent of solid and liquid disinfectants.
As a constituent of hand cleaners.
As a solvent for the de-oiling of paraffin waxes.
As a constituent of degreasing and rust removing agents.
As a constituent of hydraulic fluid.
As a carrier for insecticides.
As a solvent for diphenyl in the impregnation of packing paper for citrus fruit.
As a solvent in grinding media for glass forming.
For the surface treatment of golf balls prior to the application of polyurethane paint.
As a cleaning agent in lithographic processes.
As a solvent in the manufacturing of hair lacquers.

Sabutol (Normal/Iso Butyl Alcohol)
As a latent solvent in lacquer thinners.
As raw material for the manufacture of butyl acetate.
As a solvent for resorcinol, dyes, paint primers, etc.

Pentylol (Mixture of Amyl Alcohol Isomers)
As raw material for the manufacture of insecticides.
As raw material for xanthate manufacturing.
As a latent solvent in lacquer thinners.
As a constituent of hydraulic fluid.

KETONES

Sasetone (Acetone)
As a solvent in paint, varnish and nail polish removers.
As a solvent for acetylene in the filling of cylinders.
As an active solvent in lacquer thinners.
As a constituent of bituminous paints.

In the refining of petroleum products.
As a solvent for polyester resins.
As a raw material for the manufacture of methyl iso-butyl ketone, di-acetone alcohol and hexylene glycol.

Meketone and M.E.K. (Solvent Grade) (Methyl Ethyl Ketone)
As an active solvent in lacquer thinners.
As a solvent for natural and synthetic resins, gums and rubbers.
As a solvent in paint and varnish removers.
As a solvent for nitrocellulose and dyes.
As a cleaning agent for metal surfaces.
In the refining and dewaxing of mineral and lubricating oils.

AROMATIC/ALIPHATIC SOLVENTS

Solumix
As a diluent (main ingredient) in lacquer thinners.
As a thinner for baked enamel paints.
As a degreasing agent.
As a thinner for dip coating paints.
As a cleaning agent for moulds in foundries.
As a solvent for tar paints.

Polyethyl Benzene
As a solvent for chlorinated, industrial enamel and motor car finishing paints.

COAL TAR PRODUCTS

SAKRESOTE K, 100 AND 70 (CREOSOTE)
As wood preservatives.

KRESIDE (CRESYLIC CREOSOTE)
As a raw material for the manufacture of black disinfectants.

ROAD TAR PRIME
For road building.
As a constituent of epoxy resin paints.

COAL TAR PITCH
As a constituent of epoxy resin paints.
As a constituent of waterproofing and sealing media.
In the manufacture of cellulose fibre pipes.
As an extender for rubber.

TAR ACIDS
As a raw material in the manufacture of phenol formaldehyde resins.

ASH

GASIFIER ASH
As the main constituent of building bricks.
As base for road building purposes.

FLY ASH
As the main constituent of fly ash bricks.
As an extender for putty.
As a filler in rubber manufacturing.
As a filler for fertilizers.
As a constituent of cement.
As a constituent of metallurigical flux.

NITROGENOUS PRODUCTS

AMMONIUM SULPHATE
As a straight fertilizer and in fertilizer manufacturing.
To promote fermentation processes.
In the tanning industry.

ANHYDROUS AMMONIA
As a straight fertilizer and in fertilizer manufacturing.
As a raw material for nitric acid and ammonium nitrate manufacturing.

NITRIC ACID
In fertilizer manufacturing.
As a raw material for ammonium nitrate manufacturing.

LIMESTONE AMMONIUM NITRATE
As a fertilizer.

AMMONIUM NITRATE SOLUTION
In fertilizer manufacturing.
As the main ingredient in the manufacture of slurry explosives.
As a raw material for the manufacture of limestone ammonium nitrate.

SODIUM NITRATE
In explosives manufacturing.
In glass manufacturing.

OTHER CHEMICAL RAW MATERIALS

METHANE/ETHANE
As a fuel.
As a raw material for sodium cyanide manufacturing.

ETHYLENE
As a raw material for polyethylene and P.V.C.
For the ripening of bananas.

PROPYLENE
As a raw material for chlorinated and fluorinated hydrocarbons

BUTADIENE
As a raw material for synthetic rubber.

STYRENE
As a raw material for polystyrene, polyester resins and styrenated alkyd resins.
As a raw material for synthetic rubber.

NITROGEN (LIQUID AND GAS)
For the creation of inert atmospheres, e.g. in the chemical industry and for fruit preservation.
As quick-freezing agents, e.g. for food.
In metal degassing.
In the cryogenic preservation of sperm for the artificial insemination of cattle.

LIQUID OXYGEN
To support combustion, e.g. in steel manufacturing, metal welding and cutting and for medical applications.

LIQUID ARGON
In special welding techniques to provide an inert atmosphere.
In metal degassing.
In laboratories for analytical work, e.g. spectography.

LIQUID CARBON DIOXIDE
In mineral water manufacturing.
In core hardening of moulds in foundries.
As freezing agent (dry ice).
In special welding techniques.

FUELS

SASOL 6000 HIGHVELD PREMIUM.
PROPANE.
LIQUEFIED PETROLEUM GAS.
LIGHT FURNACE OIL.
HEAVY FURNACE OIL.
DIESEL FUEL.
COAL TAR FUEL.
PIPELINE INDUSTRIAL GAS.

Chapter Two

[1] 'The rest' as defined by Amsden (2001) comprises China, India, Indonesia, South Korea, Malaysia, Taiwan, and Thailand in Asia; Argentina, Brazil, Chile, and Mexico in Latin America; and Turkey in the Middle East.

Chapter Three

[2] For Epstein (2005:3) financialisation 'means the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of domestic and international economies.' Across the world financial assets and income derived from financial assets as a proportion of GDP has grown markedly.
[3] National Archives AMPT PUBS File No 6/423 Registrar of Banks Annual Report.
[4] ibid
[5] National Archives TES 2611 File 9/2466 Vol 2 Finance: National Finance Corporation of SA *Rand Daily Mail* 20.7.1949
[6] National Archives TES 2611 File 9/2466 Vol 2 Finance: National Finance Corporation of SA, *The Star* 11.10.1949.
[7] National Archives TES 2611 File 9/2466 Vol 2 Finance: National Finance Corporation of SA *The Star* 26.8.1949
[8] National Archives TES 2611 File 9/2466 Vol 2 Finance: National Finance Corporation of SA Broadcast Talk by Dr E H D Arndt 26.7.49.
[9] National Archives TES 2611 File 9/2466 Vol 2 Finance: National Finance Corporation of SA National Finance Corporation of South Africa *Report of the Third Ordinary General Meeting of Stockholders* 1952.
[10] National Archives TES 2611 File 9/2466 Vol 2 Finance: National Finance Corporation of SA National Finance Corporation of South Africa *Report of the Board of Directors of the National Finance Corporation of South Africa to be presented to Stockholders at the Fifteenth Ordinary General Meeting to be held in Pretoria on Tuesday, 3rd November 1964.*
[11] National Archives TES 2611 File 9/2466 Vol 2 Finance: National Finance Corporation of SA National Finance Corporation of South Africa *Report of the Board of Directors of the National Finance Corporation of South Africa* to be presented to Stockholders at the Fifteenth Ordinary General Meeting to be held in Pretoria on Tuesday, 3rd November 1964.
[12] National Archives Reference 53/371 Vol.2 Monetary Policy of the SA Reserve Bank
[13] Anglo American was the biggest and most influential company in South Africa said to control over 60% shares listed on the Johannesburg Stock Exchange in the mid-1980s.
[14] IDC Minutes of a Meeting of the Board of Directors held on 05.08.1995.
[15] National Archives TES 4228 File 20/1073 Reference 20/591 Miscellaneous Industrial Finance Corporation Draft Statement for Minister: The Industrial Finance Corporation.
[16] National Archives TES 4228 File 20/1073 Reference 20/591 Miscellaneous Industrial Finance Corporation Need for Mobilisation of Capital for Industry in Union.
[17] National Archives RB 137 Reference 8/8/1/82 National Discount House of South Africa.
[18] National Archives TES 4228 File 20/1073 Reference 20/591 Miscellaneous Industrial Finance Corporation Draft Statement for Minister: The industrial Finance Corporation.
[19] National Archives TES 4228 File 20/1073 Reference 20/591 Miscellaneous Industrial Finance Corporation Draft Statement for Minister: The Industrial Finance Corporation.
[20] The exception would be SASOL and the IDC did not initiate its establishment.
[21] National Archives TES 2611 File 9/2466 Vol 2 Finance: National Finance Corporation of SA, *National Finance Corporation of South Africa Explanatory Memorandum on Proposed Amendments of National Finance Corporation Act, 1949.*
[22] IDC Papers Reference NOK 8750 Letter addressed to the ministers of Industries and Minerals and Energy form K L Kingma.

Chapter Four

[23] National Archives HEN 846 File No. 123/2/5 Vol. 1 Department of Commerce and Industries Establishment of Industry Woo(l)len Textile Industry. Letter from D G Shuttleworth Procter International Research Laboratory, University of Leeds 01 July 1939.
[24] National Archives HEN 846 File No. 123/2/5 Vol. 1 Department of Commerce and Industries Establishment of Industry Woo(l)len Textile Industry. Letter from the Commissioner of Customs and Excise to the Secretary for Commerce and Industries 25 April 1941.

[25] National Archives HEN 846 File No. 123/2/5 Vol. 1 Department of Commerce and Industries Establishment of Industry Woo(l)len Textile Industry.
[26] National Archives HEN 846 File No. 123/2/5 Vol. 1 Department of Commerce and Industries Establishment of Industry Woo(l)len Textile Industry. Letter to the Minister of Labour from the Minister of Commerce and Industry 23 January 1940.
[27] National Archives HEN 846 File No. 123/2/5 Vol. 1 Textile Industry: Establishment of Industry: Woo(l)len Textile Industry.
[28] National Archives HEN 846 File No. 123/2/5 Vol. 1 Textile Industry: Establishment of Industry: Woo(l)len Textile Industry Memo 20.6.38.
[29] National Archives HEN 846 File No. 123/2/5 Vol. 1 Department of Commerce and Industries Establishment of Industry Woo(l)len Textile Industry. Letter to the Honourable Prime Minister and Minister of External Affairs from J B M Hertzog 08 July 1938.
[30] National Archives HEN 846 File No. 123/2/5 Vol. 1 Department of Commerce and Industries Establishment of Industry Woo(l)len Textile Industry. Australian Woollen Textile Industry – Request for Information by Minister of External Affairs Union of South Africa.
[31] National Archives HEN 846 File No. 123/2/5 Vol. 1 Department of Commerce and Industries Establishment of Industry Woo(l)len Textile Industry. Establishing Woollen Textile Industry in the Union. Notes on South African Merino Wool and its processing in the Union to the top stage By V Bosman and S D Rossouw, Wool Research Laboratories, Onderspoort.
[32] National Archives HEN 846 File No. 123/2/5 Vol. 1 Department of Commerce and Industries Establishment of Industry Woo(l)len Textile Industry. A letter from Dr S G Shuttleworth to Dr de Villiers, Technical Adviser Department of Commerce and Industries 01 July 1939.
[33] National Archives HEN File No. 506/1/5 IDC Minutes of meetings. Board meeting No.10/1944 3-4 October 1944. Minutes of Board meeting No.11/1944 02 November 1944.
[34] National Archives HEN 846 File No. 123/2/5 Vol. 1 Department of Commerce and Industries Establishment of Industry Woo(l)len Textile Industry. Establishing Woollen Textile Industry in the Union. *Friend* 23.9.1940.
[35] National Archives HEN 846 File No. 123/2/5 Vol. 1 Department of Commerce and Industries Establishment of Industry Woo(l)len Textile Industry. Establishing Woo(l)len Textile Industry in the Union. *Friend* 28.10.1940.
[36] National Archives HEN 846 File No. 123/2/5 Vol. 1 Department of Commerce and Industries Establishment of Industry Woo(l)len Textile Industry. Letter from the Secretary of Industries to the South African Agricultural Union 01.01.1941.
[37] National Archives RHN 1635 Reference 600/330-332 Vol 1. File No. 600/331 Vol. 1 Board of Trade Report. Board of Trade and Industries Report 331 Protection for the Worsted Textile Industry.
[38] National Archives RHN 1641 Reference 600/331 Vol. 1Board of Trade Industries Report 331 Protection for the Worsted Textile Industry.
[39] National Archives HEN 123 Reference 842 Vol. II Textile Industry General Weaving Schools (Hand Spinning). Letter to the Minister of Economic Affairs Dr N Diederichs 12. May 1959.
[40] National Archives RHN 1635 Reference 600/330-332 Vol 1. File No. 600/331 Vol. 1 Board of Trade Report. Board of Trade and Industries Report 331 Protection for the Worsted Textile Industry.
[41] National Archives RHN 1641 Reference 600/346-349 Memorandum from the South African Cotton Manufacturers’ Association to the Minister of Economic Affairs Dr A van Rhyn 14 January 1955.
[42] National Archives RHN 1635 Reference 600/330-332 Vol 1. File No. 600/331 Vol. 1 Board of Trade Report. Board of Trade and Industries Report 331 Protection for the Worsted Textile Industry.
[43] National Archives RHN 1635 Reference 600/330-332 Vol 1. File No. 600/331 Vol. 1 Board of Trade Report. Board of Trade and Industries Report 331 Protection for the Worsted Textile Industry.
[44] National Archives RHN 1641 Reference 600/346 Board of Trade and Industries Report No. 346 Increased Protection for the Cotton Textile Industry Producing Calico and Drill, Twill and Sateen.
[45] National Archives RHN 1641 Reference 600/346 Board of Trade and Industries Report No. 346 Increased Protection for the Cotton Textile Industry Producing Calico, and Drill, Twill and Sateen.
[46] Ibid Board meeting 12/1944 07 December 1944.
[47] National Archives HEN 846 File No. 123/2/5 Vol. 1 Department of Commerce and Industries Establishment of Industry Woo(l)len Textile Industry. Memorandum on meeting held in the Pretoria Chamber of Commerce Board Room on the 6th December 1939.
[48] National Archives HEN 846 File No. 123/2/5 Vol. 1 Department of Commerce and Industries Establishment of Industry Woo(l)len Textile Industry. Establishing Wool(l)en Textile Industry in the Union. *Friend* 23.9.1940?
[49] National Archives SEC 2 Reference 105 File No. SEC 508/1 Location of the Cotton and Wool Spinning Plant 14.07.1942.

[50] National Archives HEN File No. 506/1/5 IDC Minutes of meetings. Board meeting No.10/1944 3-4 October 1944.
[51] National Archives HEN File No. 506/1/5 IDC Minutes of meetings. Board meeting No.10/1944 3-4 October 1944. Minutes of Board meeting No.11/1944 02 November 1944.
[52] National Archives HEN File No. 506/1/5 IDC Minutes of meetings. Board meeting No.10/1944 3-4 October 1944. Minutes of Board meeting No.11/1944 02 November 1944.
[53] National Archives HEN 3360 Reference 506/1/4/3 Vol 2 506/1/5 Vol 2 Minutes of Board Meeting No.2/1944 held on 03.02.1944.
[54]National Archives HEN 3360 Reference 506/1/4/3 Vol 2 506/1/5 Vol 2 Minutes of Board Meeting No.7/1943 held on 01.09.1943.
[55] National Archives HEN 3360 Reference 506/1/4/3 Vol 2 506/1/5 Vol 2 Minutes of Board Meeting resumed on 06.01.1944.
[56] IDC Papers Speech delivered by Dr H J van Eck to the Council of the South African Institute of Race Relations in Cape Town on 16.01.1951 as the Hornie Memorial Lecture.
[57] National Archives SEC 2 Reference 105 File No. SEC 508/1 Location of the Cotton and Wool Spinning Plant 14.07.1942.
[58] National Archives SEC 2 Reference 105 File No. SEC 508/1 Location of the Cotton and Wool Spinning Plant 14.07.1942.
[59] National Archives NTA Reference 359/332 and 375/332
[60] National Archives HEN 842 Reference 123 Vol. 11 Confidential document titled Asiatic and Communist disruption July 1958.
[61] National Archive RHN 1641 Reference 600/346 Vol. 1 BTI Report No. 346 Increased protection for the Cotton Textile Industry Producing Calico, Drill Twill and Sateen.
[62] National Archives HEN 123 Reference 842 Vol. II Textile Industry General Weaving schools (Hand Spinning).
[63] National Archives HKE 150 Reference H7/109-H7117 Address by the honourable Dr N. Diederichs, Minister of Economic Affairs, on the Occasion of the Laying of the Foundation Stone of the Factory of Cyril Lord (SA) (PTY) Limited at Arnoldton, near East London, on Friday the 4th October, 1963.
[64] IDC Papers File: Sale of da Gama Preference Shares 23.10.1986 Letter from Tootal Group to the IDC 16.04.1985
[65] IDC Papers File: Sale of da Gama Preference Shares 23.10.1986 Agreement between Tootal Group and the IDC and da Gama Textile Company IDC 13.10.1986.

Chapter Five

[66] The quote is from an objection by the IDC in a letter to the Ministers of Trade and Industry and Minerals Energy Affairs to a section of a Cabinet Memorandum. IDC Papers Cabinet Memorandum - SEF / Konoil Interests in Sasol 3 Reference 972 04.12.85.
[67] The Afrikaans name behind the acronym is Suid-Afrikaanse Steenkool, Olie en Gaskorporasie Beperk.
[68] Broederbond was a clandestine Afrikaner organisation formed in 1918 to promote the interests of Afrikaners in post Anglo-Boer war period. It became very influential politically after National Party's ascension to power in 1948 and boasted all the Prime Ministers and the vast majority of Cabinet Ministers as its members.
[69] National Archives TES 8276 Liquid Fuel Act 1947 Memorandum titled Proposal to establish a local oil from coal industry attached to a letter to the Minister of Finance J H Hofmeyr.
[70] National Archives TES 8276 Liquid Fuel Act 1947 A handwritten note for the Minister is response to Memo attached to Minister S F Waterson letter 04.03.1946.
[71] National Archives TES 8276 File124/84 Letter to Private Secretary of the Rt. Hon. the Minister of Finance 09.12.1946.
[72] National Archives TES 8276 File124/84 Memorandum attached to the letter to Private Secretary of The Rt. Hon. the Minister of Finance 09.12.1946. Memorandum of Proposed legislation to Control the Establishment of a Liquid Fuel from Coal Industry p3.
[73] National Archives TES 8276 File124/84 Letter to F J Du Toit, Adviser to the Minister of Economic Affairs from Anglovaal 03.01.1950
[74] National Archives TES 8276 File124/84 Confidential letter addressed to Mr Menel of Anglovaal dated 01 April 1950.
[75] National Archives TES 8276 File 124/84 Memorandum on Coal from Oil Project 30 March 1950 from Chairman H J van Eck to Board Members of the IDC.
[76] ibid

[77] National Archives TES 8276 File 124/84 Factors to be considered in comparing the M.W. Kellogg and Ruhrchemie proposals and recommendations. 26 January 1951.
[78] National Archives TES 8276 File 124/84 Liquid Fuel Act Memorandum on oil from coal project from Chairman to al Board Members.
[79] National Archives TES 8276 File 124/84 Vorm en Finansiering Van Oilie-Uit-Steenkool Maatskappy addressed to the Minister from the Professional adviser F J Du Toit 17 November 1951.
[80] National Archives MES 219 H4/7/2 Volume 1 Statement by the Union Government of South Africa in its Prospectus issued in the United States of America for raising funds in connection with the External Loan Bonds of 1st December 1955.
[81] National Archives Hen 3353 File 506/1/4 Vol. 2 Notes for Minister on Establishment and Financing of SASOL – Necessitating Present Amendment of the IDC Act.
[82] National Archives TES 8276 File 124/84 Memorandum on Coal from Oil Project 30 March 1950 from Chairman H J van Eck to Board Members of the IDC.
[83] National Archives TES 8276 File 124/84 Vorm en Finansiering Van Oilie-Uit-Steenkool Maatskappy. A letter addressed to the Minister from the Professional adviser F J Du Toit 17 November 1951.
[84] National Archives TES 8276 File 124/84 Volume 1 Letter from the Acting Secretary of Commerce and Industry to Secretary for Finance 3 January 1953.
[85] National Archives HEN 744 96/1/15 Vol. 1 Letter from Secretary of Commerce to the Secretary of the IDC 19 October 1951.
[86] National Archives TES 8276 File 124/84 Letter to the Secretary for Commerce and Industries from Secretary for Finance D H Steyn 14 December 1951.
[87] National Archives TES 8276 File 124/84 Vol. 2 Letter from N C Havenga to Minister of Economic Affairs E H Louw 30 January 1953.
[88] National Archives TES 8276 File 124/84 Letter to the Secretary for Commerce and Industries from Secretary for Finance D H Steyn 14 December 1951.
[89]National Archives TES 8276 File 124/84 Volume 1 Letter from Eric Louw to F J Du Toit 13 January 1953.
[90] National Archives TES 8276 File 124/84 Volume 1 Letter from N C Havenga to E H Louw 30 January 1953.
[91] National Archives File A1/7/1 Department of Customs and Excise No. 8. Budget Speech particulars: A statistical information supplied to the Commission. Budget Statements 1950-51.
[92] National Archives Department of Customs and Excise File A1/7/1 *Cape Times* 14.4.1951.
[93] National Archives TES 8276 File 124/84 Vol. 2 IDC letter to the Secretary of Commerce and Industries 06.08.1956
[94] National Archives TES 8276 File 124/84 Factors to be considered in comparing the M.W. Kellogg and Ruhrchemie proposals and recommendations. 26 January 1951.
[95] National Archives HKE 99 T64/5 T65/4 Letter to the Consul General in Hamburg from the Commercial Secretary in Hamburg 25.02.1957.
[96] National Archives NTS 7692 File 396/332 Native Unrest
[97] National Archives MES 219 H4/7/1 Letter from Etienne Rousseau to the Minister of Economic Affairs 19 March 1963.
[98] IDC Papers Shareholders Agreement IDC, SASOL ONE, Konchem Südechemi 28.8.79.
[99] National Archives HEN 3361 File No. 506/1/5 Vol 2 Minutes of meetings. Board Meeting No. 1/1955 24 January 1955.
[100] National Archives File EAE 125 EA 2/1/30 Address delivered by Mr, G.J.J.F. Steyn, Secretary for Commerce and Controller of Petroleum Products, at a meeting of the South African Road Federation, Durban, 17th February 1975.
[101] IDC Papers SASOL II Projek: Maatskappyestruktuur Letter from SASOL to the IDC 11 July 1975.
[102]
[103] IDC Papers SASOL II Projek: Maatskappyestruktuur Letter from SASOL to the IDC 11 July 1975.
[104] IDC Papers Reference NOK 8750 KONOIL Letter addressed to the Ministers of Industries and Minerals and Energy form K L Kingma.
[105] IDC Papers Reference NOK 8750 KONOIL Letter addressed to the Ministers of Industries and Minerals and Energy form K L Kingma.
[106] IDC Papers Executive Management Industrial Development Corporation, Konoil/SOF 15.2.85.
[107] IDC Papers Konoil Letter from Louis Kingma Reference No. 500 26.02.85.
[108] IDC Papers SASOL II Projek: Maatskappyestruktuur Letter from SASOL to the IDC 11 July 1975.
[109] IDC Papers Konoil Reference 888 To Dr Louis Net Department of Trade and Industry from K L Kingma 03.04.85.

[110] IDC Papers Ref. No. 580 Letter to Mr S J P du Plessis Department of Trade and Industry from M T de Waal Management Director IDC 06/03/85.
[111] IDC Papers A letter to the Minister from M T de Waal Konoil Reference NOK 8750.
[112] IDC Papers Letter from the IDc to mr G P Croeser of the Department of Finance Reference NOK/1428.
[113] IDC Papers Ref. No. 972 Letter to Mr S J du Plessis Dept of Trade and Industry Cape Town
and Mr P Jacobs Dept. Mineral and Energy Affairs Cape Town From: K L Kingma *IDC Cabinet Memorandum - SEF / Konoil Interests in Sasol 3* 04/12/85.
[114] IDC Papers SASOL I – U opdrag van 14.10.1988 Letter from Chief Director: Budgets 15.12.88.
[115] IDC Papers Letter from the Chief Director of Budgets SASOL I – U opdrag van 14.10.1988
[116] IDC Papers From Department of Finance to the DG of Trade and Industry Reference TZ 2/9/4-88 11.01.89
[117] The Afrikaans name behind the acronym is Fosfaat-ontginningskorporasie Beperk.
[118] National Archives HEN 744 96/1/15 Vol. 1 Development of Phosphate deposits in the Northern Transvaal
[119] Ibid.
[120] Ibid Letter to Minister of Economic Affairs from AE&CI Managing Director A M Hagart.
[121] National Archives MES 221 H4/7/2 Vol 2 Chairman's Address deliver by F J du Toit 14-11-1958.
[122] National Archives HEN 744 96/1/15 Vol. 1 Letter from the IDC to Secretary of Commerce and Industries 09 November 1951.
[123] National Archives TES 8276 124/84 Letter to the Secretary for Commerce and Industries from Secretary for Finance D H Steyn 14 December 1951
[124] Ibid Letter from the IDC to the Secretary of Commerce and Industries 04 January 1952.
[125] Ibid.
[126] Ibid Letter from the IDC to the Secretary of Commerce and Industries 21 March 1952.
[127] National Archives HEN 744 96/1/15 Vol. 2
[128] National Archives MES 221 H4/7/2 Vol 2 Chairman's Address deliver by F J du Toit 14 November 1958.
[129] National Archives HEN 3362 506/1/5 Vol. 4 IDC Minutes of Board Meeting No. 4 1946, 08 May 1946.
[130] National Archives HEN 744 96/1/15 Vol. 1 Letter from the IDC to the Secretary of Commerce and Industries 04 January 1952.
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Chapter Six

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