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Critical Perspectives on the Motor Industry Development Programme as a Post-Apartheid Industrial Policy Instrument

By

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DECLARATION

I declare that the work submitted is my own unaided work. This research work has not been submitted anywhere else for any degree and all sources have been acknowledged.

Name:

Signature:

Date:

ABSTRACT

The South African automotive industry, which for a long period was inward-looking and isolated from the global environment, is now fully integrated into the global automotive industry. Between 1995 and 2012, the government subsidised the South African automotive industry with the aim of building its global competitiveness through the Motor Industry Development Programme (MIDP). The Purpose of this study was to critically evaluate the MIDP as an industrial policy instrument to enhance the global competiveness of the South African automotive industry. A knowledge base in the form of a theoretical framework was created, focusing on the neoclassical vis-à-vis the structuralist understanding of industrial policy and the role of the state in development. This was followed by a literature review which problematized the industrial and economic policies that have shaped the path of industrialisation in South Africa, as well as their subtle influences on the automotive industry policy. An overview of the MIDP and its instruments as well as the critical evaluation of the performance of MIDP against its objectives was done.

The study shows the results have been particularly disappointing with respect to employment, the development of domestic supplier industries and the attraction of manufacturing capabilities and competencies linked to learning. The findings suggest that limitations of government enforcement of reciprocal control mechanisms (RCMs) on original equipment manufacturers (OEMs); the state-labour-industry institutional arrangements in the policy process; as well as the subtle influences of neoliberal policies and weak governmental capacities at the Department of Trade and Industry, explain the disappointing results of the MIDP.

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ACRONYMS AND ABBREVIATIONS

ANC	African National Congress
APDP	Automotive Production Development Programme
AsgiSA	Accelerated and Shared Growth Initiative for South Africa
BEE	Black Economic Empowerment
BOI	Board of Investments
CBU	Completely Built-Up
CCIG	Catalytic Convertor Interest Group
COSATU	Confederation of South African Trade Unions
DFA	Duty Free Allowance
DTI	Department of Trade and Industry
DS	Developmental State
EOI	Export-Oriented Strategy
FDI	Foreign Direct Investment
GATT	General Agreements on Tariffs and Trade
GCIS	Government Communication and Information System
GDP	Gross Domestic Product
GEAR	Growth Employment and Redistribution
HPEAs	High Performance Asian Economies
IDB	Industrial Development Bureau
IEC	Import-Export Complementation
IPAP	Industrial Policy Action Plan
IRCCs	Import Rebate Certificates
ISI	Import Substitution Industrialisation
ISP	Industrial Strategy Project

ITAC	Industrial Trade Administration
MEC	Minerals-Energy Completed
MIDC	Motor Industry Development Council
MIDP	Motor Industry Development Programme
NBF	National Bargaining Forum
NAACAM	National Association of Components and Allied Manufactures
NAAMSA	National Association of Automobile Manufactures of South Africa
NBF	National Bargaining Forum
NICs	Newly Industrialising Countries
NIPF	National Industrial Policy Framework
NUMSA	National Union of Metal Workers in South Africa
NSE	New Structural Economics
OEMs	Original Equipment Manufactures
PAA	Productive Asset Allowance
PGMS	Platinum Group Metals
PWC	Post-Washington Consensus
R&D	Research and Development
RCMs	Reciprocal Control Mechanisms
RDP	Reconstruction and Development Programme
RMI	Retail Motor Industry
SACU	Southern African Customs Union
SATMC	South African Tyre Manufacturing Conference
SARS	South African Revenue Service
SMEDP	Small and Medium Enterprise Development Programme
SPII	Support Programme for Industrial Innovation

SPF	Sector Partnership Fund
SSD	Supply Side Document
SVI	Small Vehicle Incentive
WB	World Bank
WC	Washington Consensus
WTO	World Trade Organisation

CHAPTER 1

Introduction

Chapter 1: Introduction

1.1 Background

The history of the South African automotive industry begins in the 1920s, with the government of the time implementing high tariffs and local content requirements to protect the domestic automotive sector (Black, 2001). This import substitution type of strategy resulted in an inwardly-oriented motor industry with a wide range of models and small volumes of production and low economies of scale (Black and Mitchell, 2002). This continued up until 1961 when a more focused strategy of intervention was introduced with a series of local content programmes which would run up-until 1995. These interventions failed to improve economies of scale and to streamline production towards fewer models (Bronkhorst, Steyn and Stiglingh 2013). The shift towards an export-oriented strategy for the automotive industry started in 1989 but became more pronounced in 1995 with the introduction of the Motor Industry Development Programme (MIDP) (Black, 2001). The MIDP was introduced at a time where South Africa had embraced Washington Consensus type policies and was moving in the direction of trade-liberalisation through the promotion of exports and relaxation of key industrial policy instruments such as tariffs in its economic sectors, including the automotive industry (Edwards, 2005). The government was faced with the challenge of striking a balance between maintaining support towards this industry so that it would achieve global competitiveness, whilst at the same time complying with the General Agreements on Tariffs and Trade (GATT) and World Trade Organisation rules (Damoense and Simon, 2004). The government opted to reduce MIDP tariffs more aggressively than WTO requirements (Kaggwa, Pouris and Steyn, 2007).

The objectives of the MIDP were to promote competiveness, encourage exports, improve the trade balance for the automotive industry, stabilise employment and ensure vehicle affordability (DTI, 2003). The MIDP was initially planned to last till 2002, but was twice extended, firstly till 2007 and the second time till 2012 when the programme came to an end (Black, 2002; Black, 2003; Barnes and Morris, 2008). The success of the MIDP in achieving growth in exports is uncontested (Black, 2002; AIEC, 2013) however, other objectives there is much debate on whether the MIDP has been successful in meeting other key objectives (Flatters, 2005; Bronkhorst, Steyn and Stiglingh 2013).The Automotive Production Development Programme was introduced in 2013 as an extension to MIDP (Bronkhorst, Steyn and Stiglingh, 2013). The intention of the APDP is to promote production instead of

being an incentive that promotes exports as this is inconsistent with the WTO, as well as to align the support for this sector to the structural analysis of the economy and objectives of the National Industrial Policy Framework (NIPF) (Creamer, 2008).

The questionable success story of the South African automotive industry and its previous policy the MIDP unfolds against the successful state intervention and industrial policy in the East Asian newly industrialising countries (NICs), which open a window of insight to the critical success factors that differentiate their outstanding performance of their automotive industries (Jenkins, 1995).

1.2 Problem Statement

Despite being subsidized for a number of years, the South African automotive industy has fared badly in comparison to other developing country industries such as India and China (Bronkhorst, Steyn and Stiglingh, 2013). Subsidisation of the automotive industry in South Africa has remained a controversial matter. Several studies (Black, 2001; Black, 2002; Flatters, 2005; Barnes, et al., 2003; Black & Bhanisi, 2007; Flatters & Netshitomboni, 2006) have been done of the performance of the MIDP. However, they all reach different conclusions on the extent that MIDP has been successful in achieving its objectives. The Government Communication and Information System (GCIS, 2008 in Bronkhorst, Steyn and Stiglingh, 2013) reported that it would be difficult for the South African automotive industry to survive in the midst of global pressures without the MIDP. Lamprecht (2006 in Bronkhorst, Steyn and Stiglingh, 2013) in his study which weighed the perceptions of industry stakeholders showed that the common view is that automotive manufactures in this industry would not be able to compete globally without the MIDP. Flatters (2002; 2005) has been critical of the incentives given to the automotive industry, arguing that the MIDP has entrenched an infant industry that will not reach maturity. Should Rodrik (2004) be correct in saying that industrial policy is not so much about 'picking' winners, but is more about identifying and jettisoning 'losers', then the argument of Flatters (2002; 2005) of the South African automotive industry might have some legitimacy. With competing interests for resources towards the delivery of public goods to the poor in South Africa, one can raise the question of: "…[W]hat opportunities will be best to us as a result of the decision to opt for the subsidisation of car manufacturing rather than, say, cheaper education/" (Business Day, 2008 in Bronkhorst, 2010)

There is a paradoxical twist to the problem of the automotive industry, because although heavy criticisms has been levelled against the MIDP policy which guided the automotive industry from 1995 to 2013, the automotive industry remains an important manufacturing sector in South Africa for a number of reasons. The automotive industry is the leader in manufacturing, and one of the largest contributors to the Gross Domestic Product (GDP) in the South African economy (Kaggwa, 2007; Bronkhorst, Steyn and Stiglingh, 2013). In 2011, the industry contributed to 6.5% of GDP. The industry is the largest producer of vehicles on the African continent with 87% of Africa's share of automotive vehicle production attributable to South Africa (Kaggwa, 2008).

There exists a knowledge gap with respect to studies on the MIDP. They do not offer an understanding of the importance of reciprocal control mechanisms (RCMs) in achieving the goals of industrial policy. Black (2002; 2007; 2010) gives a sympathetic view of the MIDP, and suggests that it has been an exceptional success and could be a useful model for other sectors and countries. Flatters (2002; 2005) on the other hand gives a pessimistic view of the MIDP and sceptical view of state intervention based on neoclassical recommendations that resources will be allocated to their most efficient use by free markets if state support is removed from the automotive industry. However, no study has been done to understand the shortcomings of the MIDP from a strucuralist perspective of industrial policy. Lee (2013:65) argues that the mistake when, when reviewing industrial policy performance is that "outcomes are often seen in aggregate industrial figures such as production or exports; these are however not a sufficient indicator for success". The question of industrial policy is not properly grounded if the effectiveness of industrial policy is evaluated by indicators such as production or exports. A more compelling way of understanding the success of industrial policy, which is mediated by the theoretical framework of this study, is that successful industrial policy must be applied to a learning process. No particular study has asked the question of whether the MIDP has been able reshape the economic and political economy relations that exist in this sector towards learning. The alternative perspective adopted in this study aims to build a theoretical and empirical case for the way in which state intervention can reshape the political economy relations in the automotive industry towards the goal of learning; allocate economic rents through a set of reciprocal control mechanisms, and build its capacity to enforce the instruments that govern the functioning of policy.

The overall research question is: Was the MIDP successful in reshaping the different prevailing interest of the different economic and political economy actors towards learning? This research question is guided by three ancillary questions, which are:

- What form did the cooperation between the state, industry and labour take and what implications did this have on the governance of the MIDP?
- Did the MIDP have reciprocal control mechanisms with the aim of developing a globally competitive automotive industry?
- Did the capability and capacity of the staff tasked with the management and implementation of the MIDP match the required industrial policies?

1.3 Hypothesis

The shortcomings of the MIDP in achieving its objectives is fundamentally, but not exclusively, rooted in the limited conceptualisation and inability to meaningfully attach the support to industry to reciprocal conditionalities. The lack of enforcement of reciprocal control mechanisms has undermined the prospects of a sustainable and internationally competitive industry.

1.4 Research Aims and Objectives

- To set up a theoretical framework that advances the understanding of the structuralist approach to state intervention and industrial policy vis-à-vis the neoclassical theory approach.
- To critically evaluate South African industrial policy, through the lens of the Motor Industry Development Programme (MIDP), as an instrument to enhance the global competitiveness of the South African automotive industry.
- To identify the presence of reciprocal control mechanisms in the MIDP and critically engaging the extent that these mechanisms aided the achievement of MIDP objectives

1.5 Methodology

This research applies a mix of quantitative and qualitative instruments. Secondary data was collected and found in reports, newspaper sources, published academic journals, and public and industry association pages, internet pages of government agencies. The secondary data was useful in the literature review and theoretical framework, summarising the industrial policy instruments of the MIDP as well as making an assessment on the performance and

results of the different industry variables as well as in the presentation of up to date statistics, tables and recent developments in the automotive industry.

Chapter 2 set the theoretical framework and the literature review of this study. The different approaches to understanding industrial policy, namely the neoclassical approach and structural approach were important for interpreting the type of influences that have shaped the general economic and industrial policies as well as the ideology, theory and practice that influenced the development of MIDP policy for the South African Automotive Industry. Alice Amsden's theory on industrial policy; Mushtaq Khan's understanding of learning and rents; and Robert Wade's insights on state capacity in the East Asian countries was used to mirror and interpret the results from the empirical study. The interviews with leaders and staff from government, industry association representatives and labour in order to understand from their perspective how they interpret the meaning of the performance of the MIDP.

The interview questions were developed around the theoretical constructs of the literature. Interviews were done with the following people:

The Department of trade and Industry: Mr Mkululi Mlota (Chief Director automotive sector) and Dr Zavareh Rustomjee - former Director-General (1996-1999) and co-author of the book: The Political Economy of South Africa: From Minerals- Energy Complex to Industrialisation (1996).

Policy Expert: Dr Sydney Mufamadi, who did his PhD on state intervention in the automotive industries in East Asia and South Africa, Former twice appointed as Minister of Local Government, Former Minister for Safety and Security and Founding Member of the Confederation of South African Trade Unions (COSATU).

Industry Representative: Mr Robert Houdet, Executive Director at the National Association of Automotive Components and Allied Manufactures (NAACAM).

Labour: I could not gain access into NUMSA.

1.6 Outline of the Study

Chapter 2 of this study sets the theoretical framework, making a distinction between neoclassical and structural approaches to development. The structural approach is chosen as the most compelling way of understanding the role of the state and industrial policy in development. The literature on South Africa's industrial policy and industrialisation path is explored. The automotive industry of South Africa is briefly compared to that of the Newly

Industrialising Countries (NICs) in East Asia. Chapter 3 takes a look at the global as well as the domestic automotive industries. The MIDP and its instruments are presented in detail. Chapter 4 presents the findings on the performance of key industry variables under the MIDP. This is followed by a discussion and analysis of the empirical study on the governance of the MIDP, RCMs of the MIDP as well as issues of state capacity. Chapter 5 provides a conclusion and Recommendations.

CHAPTER 2

Theoretical Framework and Literature Review: Industrial Policy

Chapter 2: Industrial Policy

2.1 Introduction

The subject of much debate within development economics literature remains the question of whether or not there is a place for industrial policy in industrialisation and economic development. There are tensions within the literature, as the different perspectives are informed by differences in ideology and theory as well as interpretation of evidence of the importance of manufacturing and industry in economic growth and change, the role of the market and the state, and other key debates. If international trade is seen as an end in and of itself and as an objective of global integration, as in the neoclassical approach, then industrial policy becomes irrelevant. However, if development is the main and ultimate objective to be gained from engaging in international trade, what then becomes irrelevant is not industrial policy, but the prevailing prescriptions which advocate free trade for all countries.

2.2 Theoretical Perspectives on Industrial Policy

2.2.1 Neoclassical Theory

The neoclassical model of perfect competition holds the belief that Pareto optimal allocation of resources will be achieved through efficient market mechanisms and therefore, government intervention distorts resource allocation away from market determined comparative advantages. Lal (1984) and Krueger (1998) argue that the government should not meddle in trying to allocate activities because there is pervasive government failure. In neoclassical theory, the operation of market forces alone is enough to lead to development, industrialisation and the growth of any economy. No particular importance is attached to the relevance and special role played by manufacturing in industrialisation (Shafaeddin, 2006).

One reason for neoclassical theory not to find industrial policy compelling enough is because this theory does not acknowledge any critical differences between sectors in driving development. For Little and Mirrless (1974), Lal (1984), Kreuger (1988) and Lucas (1988) all economic activities and sectors are productive with no qualitative differences between activities and sectors, and therefore multipliers and linkages between sectors are not considered significant. Therefore, manufacturing matters as any other sector, so long as the line of development of manufacturing is in line with comparative advantages. The starting point is an economy's capital, labour and natural resource endowments. The key to industrial

and developmental success is to allow the structure of production to move in conformity to comparative advantage. If a country's comparative advantages are in agriculture, primary commodities and labour, then that particular country should focus on the production of those commodities and should not try to venture into manufacturing. The reverse is true for countries which hold comparative advantages in technology and capital (Shafaeddin, 2006).

In the 1980's the rise of the Washington Consensus (WC) which was shaped by neoclassical underpinnings, put an emphasis on the power of the free market over state intervention as well as encouraged mass privatization and macroeconomic stabilization. The Washington Consensus was marked by an explicit rejection and in fact an opposition to industrial policy and state intervention as an impediment to the operation of the market (Fine, 2001). However, free trade policy, which became the end of development in and of itself, embraced all sectors in the economy and was seen as a silver bullet to development. In this neoliberal theory "industrial policy has no place in economic development" (Shafaeddin, 2006:11). The rhetoric and scholarship was one of commitment to free market forces, and practice too was shaped by the structural adjustment programmes which sought after privatisation, liberalisation, and deregulation and essentially to promote the interests of private capital (Fine and Wiesenberger, 2013).

Anne Krueger (1986), World Bank Chief Economist from 1982 to 1986 argued of how government policies and regulations were often influenced by corruption and vested interests. The World Bank (1993) "East Asian miracle" report makes an argument that the success of the high performance Asian economies (HPAEs) is attributable to maintaining macroeconomic stability by "getting the fundamentals right", improving resource allocation and increasing productivity growth. The World Bank (1993) contends that "the promotion of specific individual industries made relatively little difference to the HPAEs success. Export orientation rather than industrial policy was mainly responsible for improving productivity growth in the economies". Hence the World Bank underplayed the role of industrial policy in the most salient case of industrial policy success.

Economists such as Joseph Stiglitz (1996) under the dispensation of the Post-Washington Consensus acknowledged the need for government intervention. The PWC acknowledges the problems of information failure and uncertainty which are inherent within market dynamics and therefore making the market prone to failure. Information failures and transaction costs may require the state to step in and correct these market imperfections. The state, must limit

itself to the provision of infrastructure, conducive conditions for business and investment, maintain peace and order, to fight corruption, and the transmission of technology (Fine and Waeyenberge (2013), Lin (2011), Krugman (ed.) 1995, Rodrik 2000, Teal 1999, Stiglitz 1996 and 1998). With respect to the question of government failure, the PWC acknowledges ways to enhance the performance of government as a ways to improve markets (Stiglitz, 1996). An improvement in good governance and promoting democracy in market economies is seen as the silver bullet to the problems of underdevelopment (Rodriguez 2011).

There has been a departure from the mainstream orthodox theories and the rise of revised versions of neoclassical economic approaches to development such as the new structural economics (NSE) and the like. From the entry point of market imperfections and information asymmetries, Rodrik (2011) argues that market failures call for industrial policy. Lin's new structural economics is another framework in which the government has a key role to play in industrial policy (Lin, 2011). The central focal point of Lin's analysis is based on the notion of comparative advantage (Fine and Waeyenberge, 2013). The emphasis is that the state should support the firms and industries that can exploit a country's area of latent comparative advantage. In the simplest terms, "latent" comparative advantage is taken to mean that "countries should prepare themselves for market participation in what will be appropriate sectors in a decade or so in the future" (Fine, 2013). The market is embedded in non-market institutions such as property rights, regulatory institutions, institutions for macroeconomic stabilization and for social insurance and conflict management, and these institutions need to function in such a way as to serve the needs of the market (Rodrik, 2000). The government should play a facilitating role in improving the provision of hard infrastructure such as telecommunications roads and transport as well as soft infrastructure such as regulating the financial system, institutions, and improving the education system. In doing so, the state must be careful not to descend into rent-seeking by overextending itself into picking and creating winners because it cannot do so.

2.2.2 Structuralist Theory and the Need for Strategic Industrial Policy

The structuralist approach to industrial policy has its roots in Latin America. Scholars such as Raoul Prebisch, Hans Singer, Celso Furtado, and Oswaldo Sunkel argued in favour of the transformation of the industrial structures of developing countries from the primary production of raw materials and natural resources towards value addition, manufacturing and industrial goods (Hunt, 1989; Amsden, 1997). This approach to development can simply be

characterised as an inductive approach where general conclusions are drawn from specific empirical observations by looking at the rapid industrialisation of concrete experiences of the early developing countries as well as the East Asian newly industrialising countries (Amsden, 2001). By looking at these observations, there emerges a set of principles by which essential foundations of industrial dynamics are induced that can be tested and refined against specific national, sectorial and industry case studies (Amsden, 2001). This type of theorising has resulted in a diversity of approaches in the study of industrial policy that seeks not to apply a "one-size-fits-all" model but one which is context specific and tries to find decisive factors that affect performance for any one nation, sector or industry (Fine, 2013). Structualist scholars challenge the notion that the market is fundamental and a superior mechanism for resource allocation. The world is one that operates under uncertainty, imperfect competition and information. Instruments such as subsidies, tariffs, exchange rates which may be used in a discretionary manner by the government contribute to major market distortions. Development is informed by the need to "learn by doing" and capacity building. Structuralist theories of industrial development are rooted in empirical evidence which shows that periods of high and sustained growth were led by manufacturing accompanied by state led industrial policy (Amsden, 1997; 2001).

Unlike neoclassical economists, Kaldor (1967) argues that the manufacturing industry is unlike any other industry in the sense that it is the only that yields dynamic increasing returns and has important multipliers and linkages with other sectors in the economy. In order to develop an economy, any country ought to develop a competitive manufacturing sector. There are six defining characteristics of dynamic increasing returns in manufacturing:

- There are increasing and irreversible gains in productivity of capital and labour.
- Manufacturing determines the productivity of the economy as a whole.
- Manufacturing sector creates dynamic linkages between productivity gains in manufacturing and the economy as a whole.
- Manufacturing draws surplus labour from the agricultural and services sectors.
- The expansion of the manufacturing activities helps reduce balance of payment problems.
- The manufacturing sector is the most dynamic source of income, savings, demand and foreign exchange that are important for development of the whole economy.

Structuralst literature opposes the view that "East Asian economies succeeded mainly because their governments followed economic policies which did not obstruct the natural growth-inducing processes of capitalist market economies" (Wade, 1995:116). Wade (1990), Gore (1996), Amsden (1997), Chang (1996, 1997) argue that East Asian countries reflect success cases of a strong state-led approach to development that was marked by the state's power and autonomy to formulate and create policy together with capitalist forces. Countries such as South Korea, Hong Kong, Taiwan and Indonesia are amongst others countries seen as modern cases of developmental states. The notion of a developmental state emerged within a framework that might be called the old development economics. The developmental state (DS) was developed in opposition to the prescriptions and analysis of the WC in the 1980's. The DS argues that substantial state intervention was present to obstruct what would ordinarily happen under the market mechanism. The key feature of the DS was its deliberate aim of "getting the prices wrong (Amsden, 1997) and "governing the market" (Wade, 1990) and therefore not conforming to the dictates of the market.

2.3 A Structuralist Case for Industrial Policy

2.3.1 Introduction

Industrial policy remains contested and there prevail diverse theoretical fronts within the economic literature. Amongst those who define industrial policy, there is no uniform definition and scope of functions concerned. Pinder (1982) adopts a broad definition of industrial policy that includes policies designed to support industry, including fiscal and monetary incentives for investment, direct public investment and public procurement programs, incentives for research and development, major programs for the creation of "national champions" in strategic sectors and policies for support of small and medium enterprises. Peres and Primi (2008:14) argue that the disadvantage of broad definitions of industrial policy like these is the difficulty associated with analysing why and how to design, implement and assess policy at the national level.

Johnson (1984) in Chang (1996) on the other hand adopts narrow definitions of industrial policy. Johnson (1984) in Chang (1996:111) takes the view that industrial policy is "a summary term for the activities of governments that are intended to develop or retrench various industries in a national economy in order to maintain global competitiveness". Chang (1996:111) proposes "to define industrial policy as a policy aimed at particular industries (and

firms as their components), to achieve the outcomes that are perceived by the state to be efficient for the economy as a whole. This definition is close to what is usually called selective industrial policy".

Fine and Rustomjee (1996:16) suggest that "industrial policy should not be generally defined, no matter whether on a broad or narrow canvas of issues and/or policy instruments. Rather it should be drawn from the conditions specifically governing the economic (and political) formulation under consideration". Different economic dynamics of capital accumulation and economic, social and political structures and interests influence policy-making. Therefore the use of strategies and industrial policy instruments requires an assessment of the broader economy and different industries within it.

This research paper uses the key structuralist insights to analyse industrial policy, and its challenges, because it adequately addresses our understanding of the role of the state in development. The context specific exercise advocated for by Fine and Rustomjee (1996:16) allows the economy itself; its nature and character to define for us what the industrial policy should be. The structuralist school of thought has a body of literature that is rooted in concrete conditions underscored by development theories and empirical engagement. One of the key characteristics of structuralist theory is the recognition that emulation of what worked in other countries is critical (Amsden, 2001). However, political economy considerations; namely the interests of different classes and how they are mediated by the state, are also important in informing the context specificity of policy (Fine, 2011; 2013), Fine and Rustomjee (1996), Khan (1995) and Kim (1997) argue that policy involves a negotiation process where different prevailing political and economic interests influence certain decisions about rents allocation and policy direction. The state and the market as integrally related, especially in the context of development. Exploring the underlying factors that allow for the productive synergies between the state and the market and how such factors come together in place should really be the basis of our analysis. Both the state and the market, and their interaction, are themselves determined by the economic, political and ideological interests which they represent

Unlike the structuralist approach to industrial policy, neoclassical economics lacks the understanding of the specific dynamics of industrial policy which requires us to delve into the factors that drive any specific economy and how specific sectors fit together with the underlying combination of economic and political interests and changing external market

conditions. There is an understatement of specific political economy considerations as well as a denial to the importance of pro-active industrial policy. Neoclassical theory has had the effect of narrowing down how industrial policy is conceived and more so standing in opposition to industrial policy. Government policies addressing market failures are necessary only in so far as they improve markets to function better. Neoclassical economic theory of development appears to be unimpressive in an economic environment where industrial policy has to be strong.

2.3.2 Infant industry protection

The role of protection in early industrialization in Western Europe has been well documented by authors such as Chang (2002). In addition, empirical studies of the East Asian newly industrialising countries have documented the role of strategic trade interventions in promoting manufacturing growth, technology upgrading and industrial deepening (Peres and Primi, 2008). Contrary to the neoclassical perception that now-developed countries have become rich by pursuing free trade policies, Chang (2002) indicates that countries like Germany, Britain, United States of America, and France, did have an industrial policy that intervened in markets through the usage of tariffs to protect infant industries. Deraniyagala (2001) argue that the mainstream account of free trade as the only winning model of trade is a myth. It overlooks the historical experiences of industrialised countries which depended on varying degrees of selective protection in conjunction with other factors and industrial policies (Peres and Primi, 2008).

Structuralists argue that it is useful to point out that protection should be confined to the manufacturing industry which has high technological and production linkages unlike agriculture (Shaffadien, 2000; Peres and Primi, 2008). List (1856) further emphasised that in order to avoid the danger of monopoly power and inefficient use of protection by domestic firms, protection should not be given for prolonged periods of time and at unnecessary high levels.

It is essential to understand the infant industry argument in the context of emulation and catch up strategies; as a way of catching up with early industrializing countries in the development and industrialization process which are way ahead of other newly industrializing countries (Chang, 2002).The reasoning behind the argument is that industries in developing countries have difficulty competing with established competitive firms in developed countries and so protection should provide them with enough time to develop until they can compete

internationally (Shafaeddin, 2000). It is only after reaching a certain level of maturity and achieving the gains of learning-by doing that domestic firms can engage in competition with their international competitors and trade liberalization can be gradually restored (Peres and Primi, 2008).

2.3.3 Learning Rents

Temporary protection is a rent that is transferred to the protected infant industries and therefore needs to be managed. In conventional economic terms, rents refer to excess incomes which, in neoclassical economic models should not exist in efficient markets. The concept of an economic rent can be originally found in Ricardo's theory of rent where landowners appropriated and captured an economic profit from the peasants who farmed on their land (Khan, 2000).

Khan (2009) acknowledges the need to create rents that allow for the learning process to occur for domestic industry. Khan's (2009:1) perspective is that "development is fundamentally about learning to use modern technologies to create jobs and prosperity in poor countries". Technological upgrading is not a passive and automatic process. It involves a learning process which requires time and experience and it is often costly and risky. Learning plays an important in industrialisation and takes various forms which include: learning by using, imitating and adapting; learning by studying and training; learning by experience; learning by doing and learning by trial and error. Selective and targeted interventions are required on part of the government to promote learning at industry level (Shafaeddin, 2006). Developing countries face the problem of catching up with developed countries. The problem of catching up, according to Khan (2009), can be defined as:

- Achieving the minimum quality that allows entry into globally competitive production for a variety of products
- Spreading these basic manufacturing and productive capabilities across the working population, and
- Systematically moving up the quality ladder across product categories

This problem can be overcome through the process of learning how to use new technologies in different sectors (Khan, 2009). This requires the artificial creation of learning rents to accelerate learning in infant industries (Khan, 2000).

In the neoclassical literature all rents are inefficient, and their removal is the desirable way for the competitive market to achieve greater efficiency and better economic outcomes. Structuralists such as Khan (2000) and List (1856) on the other hand do agree that rents can be bad, however, this is the very reason they need to be managed through industrial policy. There is scope for certain kinds of rents to play an essential role in development. The acceleration of industrial and technological learning requires the granting and enforcement of conditional policy-induced rents to allow producers in the learning sectors to catch up and become globally competitive (Khan, 2000).

2.3.4 Reciprocal Control Mechanisms and Industrial Policy

The function of industrial policy then becomes to give and to manage rents. Appropriate institutions and conditions need to exist such that appropriate rents and management systems can ensure technological progress (Khan, 2009). However, there are many challenges and uninsurable risks in industrial policy. There are two main arguments that mainstream economists often make against industrial policy. The first argument is that governments are in no way better suited than markets to make economically rational decisions about the kind of sectors that are most likely to be successful. In other words, they are not good at "picking winners". Moreover, protected industries never come to maturity or grow up, but they remain in perpetual need of government support (Rodrik, 2004). The second argument has to do with the political economy of industrial policy. The objection is that there is a high risk of political capture by special interest groups, particularly companies who devote their energies to "rent-seeking" instead of competing on the market.

It is against this background that development theory scholars argue that in order to circumvent such problems, governments need to design industrial policies where the state is "embedded" – in the terminology of Evans (1995) – with the private sector while maintaining "autonomy" from elites who seek to elicit rents from the state. Amsden makes her case for industrial policy and government intervention, in the face of fierce criticism by observing that reciprocal control mechanisms (RCMs) were used in successful cases of industrial policy. RCMs, through their internal functioning, are required to enable learning, generate enough productivity and to tackle and minimise corruption and unproductive rents which were "the scourge of late industrialization" (Amsden, 2001:11).

At the heart of these issues is the relationship between the state and business. Reflecting back on the different approaches to development and industrial policy across different theories, most literature, such as that on the DS fails to provide an adequate understanding of development because of the incorrect dichotomy between the state and the market. Rather than reducing the state to an entity which is in direct opposition to the market, Fine (1996, 2013) rejects this as an analytical starting point and argues that the state and the market are more often than not, integrally related. In the context of development, developmental projects depend on the relative interaction of the state and market, as determined by the economic, political and ideological interests they represent. The significance of RCMs becomes more visible, because they act as the key contact point between business and the state where policy is made. Kapadia (2012:7) argues that "Alice shows us what is at stake is not states nor markets per se but something more general, *control".* Industrial policy works best when there is discipline on capital where the state monitors its instrument-target relationships and engages in the effective management of economic rents by minimizing the abuse of economic rents and fending off demands for uncompensated rents by the private sector (Amsden, 2001). For Amsden "the reciprocal control mechanism enables learning in all contexts" (Kapadia, 2012: 19).

Amsden (2007:7) argues that the key principle behind their success in the use of RCMs was the reciprocity principle they enforced. *Reciprocity disciplined subsidy recipients and thereby minimized government failures. Subsidies were allocated to make manufacturing profitable – to convert money lender to financiers and importers to industrialists – but did not become giveaways. Recipients of subsidies were subjected to monitorable performance standards that were redistributive in nature and results-oriented. The reciprocal control mechanism thus transformed the inefficiency and veniality associated with government intervention into collective good (2000:7).*

In the newly industrialising countries, success in manufacturing, product diversification and upgrading had much to do with governments' use of RCMs. Firms received support, favours and benefits from the state only of they met certain performance requirements such as targets in exporting, local content requirements, product specifications, management techniques and as well as employment codes. When these targets and performance requirements are not met, this lead to the termination of supporting benefits by the government. A key to success was the ability to abandon those projects that were not performing, whereas on the other hand,

those economies that became captured by business interests who became too dependent on the state were not as successful (Amsden, 2001; Shafaeddin, 2006; Wade, 2010).

2.3.5 State capacity and industrial policy

Reciprocal control mechanisms need strong state capacity to manage and execute. The RCMs highlighted above within the small-scale industrial policy spectrum have received little attention in the existing literature of industrial policy. The focus of the East Asian policy has rather focused on the high-tech and big scale end of the industrial policy spectrum such as picking winners. The strong administrative skills and expertise in countries such as Taiwan and Thailand to name a few ensured that the RCMs were effectively implemented.

In Taiwan, state officials in an industrial extension service called the industrial development bureau (IDB) which comprised of a professional cadre of roughly 180 economic engineers with an understanding of the need to transform the industrial structure of the economy. The core function of these IDB officials, who were meritoriously selected by expertise profile and through formal examination, was to go out to monitor factories around the country for several days per month. These officials with strong negotiation skills used their administrative discretion to "nudge" and push factory owners to upgrade, improve factory layout and production, introduce new tools, diversify their products and encourage new ways to promote competitiveness and force alliances between foreign subsidiaries and domestic suppliers. The IDB officials used a range of industrial policy instruments to incrementally pull, push and steer the incentive environment of firms week after week, year after year and decade after decade. These "street-level" officials had a strong monitoring function (Wade, 2009:385).

One of the IDB core functions was to maintain a close watch on the productive capabilities of Taiwanese firms and to seek out ways in enhancing these capabilities. The IDB officials were monitoring imports and what was happening on factory floors to see whether there was space for replacing imports with Taiwan manufactured goods. This nudging and the alertness to developments in the private sector ensured that projects that were successful were further assisted and those that did not improve competitiveness were cut off from protection and concessional finance. An agency called the Investment commission specially *"scrutinized"* foreign direct investment (FDI) proposals to from the point of view of making sure they

benefited Taiwan" (Wade, 2009:358).[1] Similarly, Thailand's RCMs was managed by very well educated and experienced economic engineers who in most cases, government were better educated than private business men giving them a negotiation edge. These government officials' job was to make manufacturing competitive as well as circumvent difficulties posed to industrialization (Amsden, 2001:9; 23). These cases highlight the importance of the role of building state capacity for the success of RCMs is crucial.

2.4 A problematization of the industrial and economic policy context of South Africa

The industrial and economic policy in South Africa has undergone a number of changes under three distinct phases. The first phase began in the year 1948 when the apartheid government took office up until the end of the apartheid system. The second phase began in 1994 with the National African Congress (ANC) taking office under the dispensation of a democratic South Africa. The year 2007 was also marked by a new era with the adoption of the National Industrial Policy Framework. This section discusses and builds in the critical discussions of the South African economic and industrial policy in general, and the automotive policy strategy in particular within these three distinct periods.

2.4.1 Apartheid Industrialisation

Fine and Rustomjee (1996) argue that the apartheid regime failed to develop coherent policies for industrialisation. The present realities of unemployment, abject poverty and inequality cannot be analysed without understanding the South African system of accumulation which

[1] "The IDB officials used their influence over important licenses to get multinational firms to operate in Taiwan to switch from imported inputs to domestically produced inputs" (Wade, 2009:358). One case in point is the glass-making industry in Taiwan, where the IDB officials suggested that Philips strike a long-term supply contract and offer technical help to two or three local firms, however Philips refused, saying it was happy with the import arrangements it had in place. What the IDB official did was to effect mysterious delays in the authorization of Philips' glass imports, which had previously been automatically granted. Philips laid a complaint to the Minister of Economic Affairs who lengthened the delays. Philips eventually got the message and entered into an agreement with domestic suppliers.

characterises the South African industrial structure and can be termed the 'minerals-energy complex' (MEC) (Fine and Rustomjee, 1996). The MEC can be defined as the inherited minerals and energy intensive path-dependent structure which was a means of integrating British and Afrikaner capitalists and consists of a synergy between the mining industry and fossil fuel energy system that sustains it (Fine and Rustomjee, 1996).

This complex system would later have ramifications for the post-apartheid period where the economy became increasingly financialized. This dominance of mineral capital accumulation and bias towards mining led to the limited development of globally competitive manufacturing industries (Fine and Rustomjee, 1996). Unlike the East Asian NICs which had dedicated policies towards import substitution industrialisation (ISI) together with export-oriented industrialisation (EOI), the policies in South Africa were fragmented and incoherent and not dedicated specifically to industrialisation during the apartheid period. However, what happened is that the creation of state owned enterprises led to a rise in the number of energy dependant industries all of which were important for the extraction, processing and transportation of upstream minerals in accordance with the structure of the economy (Fine and Rustomjee, 1996).

Although the apartheid government did implement industrial support by protecting certain targeted industries such as motor vehicles through subsidies and tariffs, it created inwardly-oriented, overly fragmented and inefficient manufacturing with low volume output, and associated high unit costs (Black, 2001). South Korea, "whose per capita manufacturing value added in 1961 was 1/7 that of South Africa and whose car production was 1/6 that of South Africa as late as 1980 is now a major independent player in the world auto industry, with almost complete localisation of parts (95 per cent by 1988, when it was 55 per cent in South Africa), whereas South Africa still basically remains a typical Third World producer assembling too many models at high costs under foreign licensing" (Chang, 1998:56). The ineffective policies under the apartheid regime reflect the failures of the apartheid government to develop coherent policies for building a successful automotive manufacturing industry. The subsequent export-oriented MIDP, which would later be introduced in the post-apartheid period as an accompaniment to liberalization, could not build on these policies at all. On the other hand, drawing on Amsden (2001), the case of the East Asian NICs informs us that successful export-oriented industrialisation (EOI) in often cases must build on import substitution industrialisation (ISI), lest all that a country does is low skill manufacturing in export processing zones a la Maquiladoras in Mexico.

2.4.2 Key Post-Apartheid Policies and Industrialisation

Attempts by the government in the early 1990's to find an industrial policy framework resulted in a document called the Support Measures for the Enhancement of the International Competitiveness of South Africa's Industrial Sector which later became widely known as the 'supply-side' document (SSD). Another piece of work which was influenced by the thinking behind the SSD was the Industrial Strategy Project (ISP) study called Improving Manufacturing Performance in South Africa (Chang, 1998). These documents placed emphasis on the reorientation of South Africa's industrial promotion from 'demand-side' measures such as the pro-active use of tariffs, quotas and other policy measures to 'supply-side' measures such as investment incentives, development of human resources, research and development (R&D) support, accessibility to information on production methods, and creating favourable international market conditions (Chang, 1998). Chang (1998:56) suggests that these policies under the ISP did not measure up to the enormous scale of industrial restructuring that was required for South Africa. The industrial restructuring required for South Africa "is of a scale comparable to, or even greater than, that achieved by even the fastest growing East Asian economies". The MIDP, along with policies for the clothing and textiles sector were for a while a lone example of sectorial policy after the end of apartheid. Fine (1995) argues that The ISP was inspired by the flexible-specialisation (flec-spec) approach to policy in the early 1990's. The issues covered in the flec-spec approach, which is mediated by an understanding of flexibility within labour markets include: changes in technology and the organisation of production; subcontracting; skills and training; and consumer tastes for niche markets. This approach is marked by a number of shortcomings in that it advances an argument to limit state intervention and the need for labour to reach compromises with capital based on flexible production (Fine, 1995). For Fine (1995) the flec-spec approach fails to address unemployment on a significant scale, but it is also based on an ill-founded misunderstanding of the South African economic structure, corporate power and class interests which are in reality underpinned by the MEC. The involvement of Anthony Black (1994), the academic advisor to the motor industry task group (MITG) as well as a key player in the automotive industry policy process, in the ISP resulted in the adoption of the strategy for the automotive industry which influenced the MIDP policy (Desai and Habib, 1997).

The post-apartheid period's economic structure and policy choices, particularly between 1994 and 2006, reflect continuity in the dominance of the MEC (Fine, 2008). The orthodox

economic policies reflect the prevailing economic views of Washington Consensus type policies. The main elements of these policies include pro-market policies, trade and financial liberalisation, labour market reforms, fiscal austerity, tight fiscal policy, inflation targeting and the adoption of a wide range of supply-side economic policies (Fine, 2009). The period between 1994 and 2006 was marked by the policies such as the Reconstruction and Development Programme (RDP), the Growth Employment and Redistribution as well as the Accelerated and Shared Growth Initiative for South Africa (AsgiSA) (Newman, 2011). GEAR in particular shifted away from demand side measure such as the use of trade policy instruments and focused on supply-side measures which were supposed to lower the costs of doing business (Newman, 2011). These policies have been criticised by Newman (2011) as not having a focus on transforming the industrial structure of the economy. They however focused on increasing investments and the growth rate which was believed will resolve the high inequality and income disparities that exist between certain classes and races in South Africa. Manufacturing, investment, employment and growth levels have not been significantly improved. Attempts at economic transformation through policy strategies such AsgiSA promoted black economic empowerment (BEE), which has resulted in the emergence of a black capitalist class without addressing transformative development (Newman, 2011). McKenzie and Pons-Vignon (2012) argue that the South African economy is increasingly financialised thus promoting particularly short term investments into the unproductive finance sector at the expense of investment into the real economy. This financialisation is consistent with the needs of the big and profitable MEC associated sectors and conglomerates in the post-apartheid South Africa (McKenzie and Pons-Vignon, 2012).

2.4.3 The National Industrial Policy Framework and the Industrial Action Policy Plan

Up until 2007 when the National Industrial Policy Framework (NIPF) and the Industrial Policy Action Plan (IPAP, 2007) were introduced, there had been no formal and coherent industrial policy. Almost all industrial policy interventions after 1994 were still within the MEC and its associated interests. The NIPF and the IPAP are rooted in structural analysis of the economy in general and addressing the key constraints to industrialisation in particular (DTI, 2007). The NIPF's vision for South Africa's industrialisation path can be summarised as follows (DTI, 2007):

- The facilitation of diversification beyond the traditional sectors of the economy
- The promotion of a more labour-absorbing industrialisation path

- The promotion of a broader-based industrialisation path
- Contribution into the industrial development on the African continent

The IPAP 2007 and its subsequent iterations targets value-added sectors with high employment and growth multipliers. The automotive industry has been target as one of the key manufacturing sectors. The Automotive Production Development Programme (APDP) which was introduced in 2013 is the new policy that governs the South African automotive industry. The APDP remains similar to the MIDP in that it shares a similar implementation structure. Continuities with previous policies looms large in South Africa and therefore further research is needed to assess the extent to which strong-holds of neoliberal policy still influence policy pertaining to the automotive industry. Pitot (2013) argues that valuable lessons from MIDP were not acted upon in implementing the APDP. The APDP is not the focus of this research; however, the findings on MIDP will have value for the APDP & policy in South Africa more broadly.

2.5 Theoretical Considerations of Industrial Policy in the Automotive Industries of Newly Industrialising Countries vis-à-vis the Industrial Policy in South Africa

The development of the auto industry in various part of the world, and particularly in the latecomers also known as the newly industrializing countries (NICs) has provided general theoretical points and discussions of industrial policy with specific reference to the auto industry. By situating the study of the South African automotive industry and orientation of economic policies in South Africa vis-à-vis these NICs we can make recommendations for the need for a more structuralist industrial policy stance in South Africa.

According to Jenkins (1995) the effectiveness of state intervention in the East Asian NICs was attributable to the factors which emerged in 2.3 above as the key structuralist insights with which to analyse industrial policy and its challenges. The effectiveness of industrial policy in countries such as South Korea entailed the protection of infant industries; the removal of privileges from particular firms; and the implementation of appropriate policy instruments at the states disposal. Further, a good capacity of the state to formulate and to implement policies effectively; a degree of autonomy of the state from the dominant class or class fractions which enabled the state to pursue goals that do not reflect the short-term interests of these groups; ensuring congruence between the objectives of the state and those of

leading actors within the sector; and the creation and management of rents by the state to encourage productive led to the creation of successful automotive industries (Jenkins, 1995).

By contrast, when bringing to bear the problem for the South African industrial and economic policy it is clear that there is a lack of a vision for a coherent and concrete industrial policy (Chang, 1998). This lack of vision during and after the apartheid period has resulted in lost opportunities to restructure the South African automotive industry at a pace and scale that is comparable to East Asian NICs such as South Korea (Chang, 1998). The general direction which industrial polices in South Africa have taken is one that is typified by Washington Consensus policies. It appears unimpressive when stacked up against the structuralist-type policies that existed in the NICs.

CHAPTER 3

The Global and the South African Automotive Industries

3.1 An Overview of the Global Automotive Industry

The global auto industry can be divided into 3 broad sectors. The first sector comprises of original component manufacturers (OEMs) which manufacture the final product vehicles immediately before they are released into the market for sale. The second sector comprises of component manufacturers which produce automotive parts and accessories which go into the manufacturing of vehicles. The third sector is the aftermarket or the motor trade sector which consists of independent component and accessory dealers and repair shops (Barnes & Morris, 2008). The automotive industry is the most globally integrated industry with a highly concentrated firm structure in which a few large leading firms dominate and exercise control over their global supply chains (Barnes & Morris, 2008; Gastrow, 2012). Manufacturing value is significantly derived from the activities of component suppliers as opposed to vehicle assembly. Yet, the character of the producer driven value chain in the global automotive industry gives OEMs the pre-eminence to govern the global value chain by determining the scale and scope of the automotive component supplier activities (Barnes & Morris, 2008).

In the global arena, automotive production is spread across six regions, namely Western Europe, North America, Japan, South America, Asia-Pacific and Eastern Europe (AIEC, 2013). Table 3.1 below gives a summary of vehicle production in the top 10 countries as well as South Africa. In 2009 China ranked first in vehicle production with a global share of 22.5%, displacing the USA which in previous years was in the lead. South Africa is a small player in the global automotive market with only 0.6 % of the market. South Africa's internal market is small, which means that expanding and exporting to global markets is necessary for international competitiveness. In 2005, the key vehicle export destinations of South Africa were China, Zimbabwe and Malawi. However in 2012 South Africa had expanded its market and was exporting to countries such as the USA, UK, Japan, China, Algeria and Germany (AIEC, 2011; 2013).

Trade and investment liberalisation has facilitated the movement easy movement of foreign direct investment (FDI), cross-border trade and globalisation of production (Gastrow, 2012). Large emerging economies such as China, India and Brazil have become booming production sites with advantages of large domestic markets and large reserves of low cost labour. Vehicle production not consumed in the local market is often exported back to developed countries (Gastrow, 2012). Factors such as vehicle customization, export and transportation costs, stable political environments and geographical proximity to markets have to be taken into

account by OEMs in deciding where to locate production. Furthermore, regional, national and local conditions remain important aspects in the determination of production sites. Local conditions such as labour market regulations, purchasing power, consumer tastes, standards and industry regulations, innovation propensities, as well as public policies such as tariffs, incentives, taxation and other instruments of industrial policy are also taken into account by OEMs in the decisions they make (Gastrow, 2012).

The 2008/2009 global financial crises had a severe impact on the global automotive industry, most particularly for developed nations as sites of production (Gastrow, 2012). With the exception of South Africa, Mexico and Thailand, most developing countries were less affected by the crisis in comparison to developed countries (Gastrow, 2012). The reason for South Africa, Mexico and Thailand being hard hit amongst the developing countries is due to their heavily export-based industries. The response by many OEMs during the crises was to act in a defensive manner by downsizing capacity, cutting costs, restructuring and increasing retail prices (Gastrow, 2012). These measures had a ripple effect and negative impacts on the lower tiers of the supply chain (Gastrow 2012). Table 3.2 below shows that vehicle production was affected in significantly negative way. The South African share in global production fell from 0.80% in 2008 to 0.61% in 2009 and remained stable, without full recovery afterwards. The governments of many countries such as the U.S and France stepped in and intervened to extend a life line to their auto industry companies by bailing them out (AIEC, 2010).

Table 3.1: World Rankings – Vehicle Production 2013

Rank	1	2	3	4	5	6	7	8	9	10	25
Country	China	USA	Japan	Germany	South Korea	India	Brazil	Mexico	Thailand	Canada	South Africa
% of global production	25	12	11	6.5	5.1	4.4	4.2	3.4	2.9	2.8	0.06

Source: OICA, 2014

Table 3.2 Global production of vehicles

Global Production (Millions)

	2005	2006	2007	2008	2009	2009	2010	2011	2012
Global Production (Millions)	66.55	69.33	73.12	70.52	70.52	61.7	77.62	79.88	84.14
SA Production (Millions)	0.525	0.588	0.535	0.535	0.563	0.374	0.472	0.533	0.539
SA Share in Global Production (%)	0.79%	0.85%	0.73%	0.80%	0.61%	0.61%	0.61%	0.67%	0.64%

Source: NAAMSA, 2013

The South African Automotive Industry

3.2A Historical Overview

The first developments in automotive production in the South African automotive industry began with the entrance of Ford and General Motors in the 1920's as manufactures for the domestic market (Black, 2001). The industry witnessed rapid expansion for the first four decades with the entrance of many other car manufacturers. By 1960, the auto industry which was characterised by an import substitution type strategy, very high protective tariffs, small plants and the production of many models in small volumes had in total produced 87 000 vehicles by the 8 manufacturers present at that time. This put South Africa on the map as the largest vehicle manufacturer amongst the developing countries (Black, 2001). However, the level of local content remained low at only 20%, which prompted the introduction of the first of a series of targeted industrial policies, which entailed local content programmes which would run from 1961 until 1995. From the first phase up until phase five, local content increased up to 66% for all light vehicles, and the local content was measured by mass/weight. Political developments such as the sanctions against South Africa meant that an inward-looking strategy had to be strengthened. The aim of the local content programmes was to protect the local market from vehicle and component imports (Altman and Mayer, 2003). The first five of these local content programmes ran from 1961 to 1987. The last phase (VI), which was marked by a substantial change of direction, was the first attempt to rectify the

problems of an inward-looking, overly fragmented, low volume output and associated high unit costs, was introduced in 1989 up till 1995.This last phase was marked by the need for government to protect the market in an efficient way, reduce the industry's net foreign exchange usage and substitute for imports (Black and Bhanisi, 2007).The measurement of local content under this phase was not by mass or weight, but rather by value, and the requirement was lowered from the previous phases down to 50% (Black, 2001, Black and Bhanisi, 2007). Phase VI came under heavy criticism for having the reverse of the impact that it was intended for, which was the proliferation of makes and models, improving economies of scale and encouraging specialisation (Black, 2001).

3.3THE MIDP

By the early 1990's it had become clear that the focus on the domestic market was not going to be a long-run sustainable strategy considering the small market of South Africa. The industry had to find another way of being competitive, and venturing into export markets seemed to be the only sensible decision. Furthermore, the industry faced pressures to comply with the General Agreement on Tariffs and Trade (GATT) as well as World Trade Organisation (WTO) rules. The need to promote and sustain the industry in a less protected manner was identified (Damoense and Simon, 2004).

In 1992 the Motor Industry Task Group, comprising of industry experts and academics such as Anthony Black (Desai and Habib, 1997), was appointed by the South African government to advise the government on long-term and short term strategies for the direction to which the South African automotive industry would take (AEIC, 2013). The local content requirements implemented during the apartheid regime were proving to be a challenge and limitation as a policy tool for sustaining the growth and development of the local automotive industry in light of the global development in the auto industry (Kaggwa, Pouris and Steyn, 2007). The initial recommendations of the MITG were not supported by the major stakeholders of the automotive industry. The National Association of Automobile Manufacturing of South Africa (NAAMSA), the National Association of Automotive Component and Allied Manufactures (NAACAM), the National Union of Metal Workers of South Africa (NUMSA) and other stakeholders held different views than those recommended by the MITG especially with regards to aspects such as rationalisation, the affordability of vehicles, duties and the Import-Export facility (Kaggwa, Pouris and Steyn, 2007). One can draw an inference that the reason for the divergence of views with regards to the recommendations of the MITG, which were

evidently influenced by the strategy adopted from the Industrial Strategy Support (ISP) document, is that although this 'most important industrial policy document' advocated for the need to 'improve manufacturing performance' – as the title of the document suggests- in actual fact the ISP in a subtle manner dissociated itself from the right kind and degree of targeting required, given the necessary industrial restructuring needed for South Africa (Chang, 1998:57). The Board of Tariffs and Trade was subsequently tasked with the formulation and revision of the customs dispensation programme for the auto industry and to put into reconsideration the initial recommendations of the MITG and provide feedback accordingly. The Motor Industry Development Programme (MIDP), which is the seventh iteration of automotive industry policy was adopted and implemented as from the 1 September 1995 as the national auto industry policy (Kaggwa, Pouris and Steyn, 2007).

The South African MIDP took a similar structure to the Australian export facilitation scheme (Flatters, 2004). The primary goal and reasoning behind the creation of the MIDP was to develop a globally integrated and competitive local motor vehicles and components auto industry through the promotion of exports (Black and Bhanisi, 2007; Damoense and Simon, 2004; DTI, 2003). The other goals of the MIDP according to DTI (2004) and AIEC (2013), which were to support the competiveness of the auto industry included:

- The stability of long-term employment
- Improving the quality and affordability of vehicles
- The improvement of the industry's balance of payments, which was to be achieved through an increase in exports
- Rationalisation of domestic car production
- Attract foreign investments
- Make greater contribution to the economic growth of the country by increasing production

What the orientation of these objectives reveals about the strategy for developing the South African automotive industry is subject to interpretation, however this encouragement of investments, improved balance of payments, rationalisation etc. is subordinate to the industrial policy weight required for the transformed needs of the South African economy. Local content policies, diversification of the components basket, prioritisation of creating a 'national' industry, joint-venture participation by local capital and pro-active employment

creation instead of stability were crucial objectives that were not kept in sight by the MIDP policy (Barchiesi, 1997).

3.3.1 The Instruments of MIDP

The objectives of MIDP were to be achieved through a number of policy instruments. These included: a duty/tariff phase down; a Productive Asset Allowance (PAA) and an Import-Export complementation scheme and a Duty Free Allowance (DFA) all to be discussed in detail below. These instruments replaced the local content requirements which were in effect before the MIDP. They operated in different ways to encourage an increase in exports, local content or foreign investments.

Table 3.3 Key policy instruments of MIDP-APDP

Period	Policy	Key Policy Instruments
September 1995-June 2000	MIDP Phase 1	• Local content regulations abolished. Tariff phase-down for imported vehicles. Continuation of IEC Scheme. • Export credits increased. • Implementation of Duty Free Allowance (DFA) and small vehicle incentive (SVI)
July 2000 -December 2012	MIDP Phase 2	• Tariff phase down until 2012 when tariffs reached 25% for vehicles and 20% for components. • SVI phased down and eventually discontinued by 2003. • Introduction of new production-based DFA. IEC phase-down from 2003. • Introduction of productive asset allowance (PAA) in 2000.

Source: Damoense & Simon, 2004

3.3.1.1 Import duty rates

The Duty/tariff phase down consisted of the gradual reduction and continuous phase down of tariffs for built-up vehicles and components, falling from as high as 65 per cent in the year

1995 to 34 per cent by 2005 for built-up vehicles and falling from as high as 49 per cent in 1995 to 27 per cent for imported components. By 2012, the tariff rate was a mere 25 per cent for completely built up units and 20 per cent for components. Table 3.5 below shows the rate of phase-down in import tariffs (Flatters and Netshitomboni, 2006).

Table 3.4 MIDP Tariff Rates (%)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Cars	65	61	57.5	54	50.5	47	43.5	40	38	36	34	32	30	29	28	27	26	25
Part	49	46	43	40	37.5	35	32.5	30	29	28	27	26	25	24	23	22	21	20

Source: Flatters and Netshitomboni, 2006

3.3.1.2 The Duty Free Allowance

The duty free allowance provides import duty reduction in respect of production for the domestic and Southern African Customs Union (SACU) market. Under this instrument, a duty free allowance was given to original equipment manufacturers (OEMs) on imported components or completely built up (CBU) vehicles of 27% of the value of the value of imports produced for the domestic market. The cost-raising effect of import duties on components was offset. The vehicle values for the purpose of the duty free allowance (DFA) are based on company specific adjustment factors of produced vehicles (Flatters and Netshitomboni, 2006).

Table 3.5 The Duty Free Allowance

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
DFA (%):	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27

Source: Flatters (2005)

To illustrate how the DFA works, suppose an OEM sells 100 vehicles at a wholesale price of 0f R35 000 each. When applying the DFA of 27%, our calculation becomes: DFA: (100*R35000 = R3500000) * 27% = R945000. This means that the OEM may import components worth R945000 duty free (Flatters, 2005).

3.3.1.3 Small Vehicle Incentive (SVI)

The Small Vehicle Incentive (SVI) provided higher duty to manufacturers of vehicles with lower selling prices. The SVI operated through a duty drawback mechanism, with the value

of the duty rebates linked to the affordability of the vehicle (Pitot, 2013). For every R1 000 below a wholesale vehicle price of R40 000 the SVI made a provision of 3 per cent to a vehicle manufacturer. The aim was to promote the production of much smaller, cheaper and more fuel-efficient cars (Damoense, 2004).

The SVI was phased out in 2002 because of unanticipated result of encouraging few locally assembled small cars with very little local content. NACAAM did not support the phasing out of the SVI. Instead it advocated for the continuation of this instrument, however, with local content requirements, but the authorities disagreed (Pitot, 2013).

3.3.1.4 Import-Export Complementation Scheme

This mechanism aims to achieve export expansion into international markets as well as to increase volumes of production. Import rebates could be earned for all the exports into international markets, which could be used to reduce customs duties of imported vehicles and components (Black and Mitchell, 2003). The Import Rebates Credit Certificates were an attempt to promote the local content through exports. The way in which the IEC scheme works is to provide vehicle and OEM component exporters the privilege of importing at reduced duties. Under this incentive, a vehicle manufacturer exporting vehicles with a local content of about R100 million, in the year 2012 for instance, would have the privilege to import the same value of vehicles or components duty-free (Flatters, 2002). With a 25% (the 2012 import duty rate on components) duty on imported vehicles, this would provide a duty reduction of R25 million on imported vehicles. This is 25 per cent of the value of the domestic content of exports that generated that duty credit. If the exporter were to use the credits to import components, the duty reductions amount to 20% (the 2012 import duty rate on components) of the value of the domestic content of the exports generating the credit (Flatters, 2002).

3.3.1.5 The Productive Asset Allowance (PAA)

The Productive Asset Allowance was introduced in 2000 as a fiscal incentive, with the aim to support investment in state of the art productive assets. These productive assets may take the form of land and buildings, machinery and tooling, plant or capitalised research and development (Kaggwa, 2008). The PAA was aimed at contributing towards the goal of global competitiveness for the auto sector. This was envisaged to be achieved through the rationalisation of vehicle production, and so manufacturers who wanted to benefit from PAA

incentives had to effectively reduce the number of models they produce domestically. This support instrument encouraged light motor vehicles to import low volume niche products instead of producing these models domestically. This would in turn reduce average production costs and thereby enhance global competitiveness (Kaggwa, 2008).

Vehicle manufacturers, both OEMs and component manufacturers who are contracted to supply their components to OEMs, had to register with the Department of Trade and Industry (Kaggwa, 2008). However, the application, administration, adjudication and rewards under the PAA were managed by the International Trade and Administration Commission (ITAC). OEMs in the SACU region were given 20% of the value of the investment they made into new productive assets, spread over a five year period (Kaggwa, 2008). Component manufacturers too, via consenting client OEMs, who were investing in the SACU region were provided with 16% for the value of the capitalised productive investment they made. For instance, if a vehicle manufacturer was investing R100 million in productive assets, the manufacturer would qualify for Import Rebate Certificates (IRCCs) worth R20 million (Kaggwa, 2008). The import rebates would be spread into equal portions of R4 million each year for a five year period. If a component manufacturer made the same amount of investment, the component manufacturer would qualify to receive IRCCs worth R20 Million through a consenting OEM, which would then be obliged to pass on import rebates at least worth R16 Million spread over a five year period (Kaggwa, 2008).

CHAPTER 4

Empirical Study- Results and Discussion

Chapter 4: Empirical Study - Results and Discussion

4.1 Introduction

This chapter firstly evaluates the performance of the MIDP within the parameters of employment; investment; trade balance; rationalisation, and vehicle affordability against the objectives of the MIDP policy which were highlighted in section 3.3 of chapter 3. The discussion then proceeds by following up on the ancillary questions to the research problem which are based on Amsdens' claim that reciprocal control mechanisms (RCMs) strategically deployed by the state are the key to successful industrialisation (Amsden, 2001). These questions are by and large informed by the critical structuralist insights that emerged in the theoretical framework. The ancillary questions are as follows:

• What form did the cooperation between the state, industry and labour take and what implications did this have on the governance of the MIDP?

• Did the MIDP have reciprocal control mechanisms with the aim of developing a globally competitive automotive industry?

• Did the capability and capacity of the staff tasked with the management and implementation of the MIDP match the required industrial policies?

4.2 Performance Trends of Key Industry Variables under the MIDP

The MIDP is has been quoted in the National Industrial Policy Framework by the Department of Trade and Industry (2007) as an example of a successful industrial policy which carries valuable lessons for other industries in South Africa and other developing countries (DTI, 2007). An unqualified statement on whether or not the MIDP has been successful cannot be made without considering the objectives such as employment, investment, rationalisation, improvement of the trade balance as well as vehicle affordability which the MIDP set for itself.

4.2.1 Employment

Employment creation is an important industry variable, particularly in a developing country such as South Africa with high unemployment and inequality. Table 4.1 indicates the employment trends in the South African auto industry from 1990 to 2012. This includes employment figures from the vehicle assembly sector, the components sector and the tyre sector. The tyre sector has witnessed significant employment reductions over the period in

question. Employment levels in the vehicle assembly sector have remained stagnant between 1990 and 2012.

NUMSA (2013) holds the view that the MIDP has not had good results in achieving employment growth. Instead, the initial objective of employment creation was toned down to become a defensive policy with the aim of sustaining employment levels. Despite employment levels falling from 38 600 to 32 300 in the OEM sector and from 47 000 to 38 500 in the components sector, after the first 5 years of the MIDP, Barnes and Black (2003) gave a sympathetic interpretation of the employment levels in the auto industry. Flatters (2005), on the other hand, has offered a different interpretation by arguing that the alleged benefits of the MIDP in terms of employment have been overstated. Flatters (2002) has taken the view that the direct cost per job created in the auto industry is very high and has been a hindrance to the creation of employment in the vehicle sales, service and maintenance sector which has far more capacity for employment creation, but receives no subsidies. On the final scorecard of NAACAM (Pitot, 2013) on the MIDP in which the performance of employment is stacked up against the objectives of MIDP, the NAACAM renders the MIDP a 'failure' because of the decline in employment since 1995. The withdrawal of the SVI incentive had negative consequences on employment (Pitot, 2013). Despite the disappointing levels of employment remaining stagnant during the period of the MIDP, labour productivity in this industry has increased from an average of 10 vehicles per worker in 1995 to 18.5 vehicles per worker in 2012 (NUMSA, 2013). It is evident that the failure of the MIDP to create employment does not reflect the urgency to fight poverty by creating more jobs in this industry.

4.2.2 Investment

There are presently seven OEMs with operations in South Africa, namely Toyota, Nissan, BMW, Ford, General Motors, Mercedes and Volkswagen. All of these OEMs produce vehicles for the local as well as the international market (AIEC, 2013). Table 4.2 shows that for the 5 year period 1990 to 1995, before the implementation of the MIDP, the auto industry's capital expenditure by OEMs moved in a downward direction. In 1994, new investments by OEMs had decreased by more than 25% from the 1990 investment levels. Within a year after the introduction of MIDP, OEM capital expenditure expanded from R847 Million in 1995 to R1.171 Million in 1996. From 1995 to the year 2000, the first five years of MIDP, there was a steady rise in investments. Upon the introduction of the PAA in the year

2000, the auto industry has witnessed an acceleration of an upward trend in investments. By 2006, within 6 years of the PAA, investments had increased triple fold. The capital expenditure decline during 2009 is in part attributable to the global financial and economic crisis and the associated instability of various investment projects (NAAMSA, 2010). By 2010, investments had risen again to 3.99 billion and 4.6 billion in 2012. Table 4.2 shows that there have been significant improvements in investment by OEMs suggesting success, however, the critical discussion in section 4.3 brings to bear the paradoxical success of the MIDP in attracting investments.

4.2.3 Rationalisation

In the year 2009, the number of light motor vehicles produced in South Africa was 17 models, a sharp decline from the 42 model platforms that were in operation in 1995 at the beginning of the MIDP (Kaggwa, Pouris and Steyn, 2007). Reducing the number of models reduces the average costs of production, thus contributing to industry competitiveness (Kaggwa, Pouris and Steyn, 2007). The logic the Duty Free Allowance instrument was to enable manufacturers to import at reduced tariffs. This would then allow manufacturers to focus and specialise on manufacturing selected models and importing the remainder, thus the objective of rationalisation could be achieved. The PAA also played a role in supporting the objective of rationalisation (Kaggwa, Pouris and Steyn, 2007). Applicants for the PAA incentive had to present a business plan which outlines how they plan to contribute to rationalisation. Since the introduction of the PAA, the number of platforms decreased from 31 platforms with an average annual volume of 9500 vehicles per platform down to 18 platforms with an average annual volume of 24 500 vehicles per platform in 2004 (Kaggwa, Pouris and Steyn, 2007).

Nevertheless, the increase in vehicle production and a reduction in average costs of production have been accompanied by a flood of imports. Black (2002) and Black and Bhanisi (2007) in Bronkhorst, Steyn and Stiglingh (2013) highlight some criticism against the structure of the MIDP for having made it much easier to obtain duty rebates to import vehicles than to facilitate rationalisation. Kaggwa, Pouris and Steyn (2007) argue that this phenomenon leads raises questions as to whether the realisation of the objective of rationalisation can truly translate into industry competitiveness. Employees in the automotive industry have had to bear the brunt of the reorganisation and rationalisation of the industry. Decreasing the number of models and production platforms results in job losses, and is one of

the more significant factors in explaining the poor employment levels (NUMSA, 2012; Barchiesi, 1997).

4.2.4 Trade balance

The IEC scheme which functioned as an export subsidy through both imports and exports was the main instrument under the MIDP aimed at improving the auto industry trade balance (Bronkhorst Steyn and Stiglingh, 2013). In 2012, the total value of exports was R86.8 billion; more than twenty fold from the R4.2 billion at the inception of MIDP in 1995. However, on the other hand, the total value of imports escalated from R16.4 billion in 1995 to R136 billion in 2012. Table 4.3 shows that the trade balance has been in deficit for the whole duration of MIDP, starting at R12.2 billion in 1995 and increasing to 49.2 Billion in 2012 (Bronkhorst, Steyn and Stiglingh 2013; AIEC, 2013). According to Pitot (2013) the disappearance of locally produced small cars, which was a result of the withdrawal of the SVI incentive, led to these cars being replaced by a high volume of low-cost imported vehicles. This had a negative consequence on the industry's trade balance. The net effect of the MIDP in general and the IEC scheme in particular has been dismal at achieving the objective of improving the industry's trade balance. The overall picture with respect to the auto industry trade balance seems to be that, the MIDP has done particularly well in promoting exports, but has also done well at encouraging a high volume of imports, an unintended consequence, of which it seemed the DTI did not have any mechanisms to control.

4.2.5 Vehicle affordability

Kaplan (2005) argues that the link between MIDP and vehicle prices in South Africa must not be ignored because they have important implications for the poor. According to Pitot (2013) the SVI mechanism led to the reduction of small car prices in 1995/1996. In 2003 Barnes, Kaplinsky and Morris (2003) found that there was absolutely no evidence to make a conclusion that MIDP had resulted in price increases. However, two years later, the findings of the earlier study were challenged by a study by Barnes et al (2005) who reached the conclusion that prices of vehicles on the low end of the market were considerably higher than in the United Kingdom. Further, a study by the Competition Commission validated these results by reporting that South African vehicle prices were 14% higher on average than the prices of similar vehicles in the European Union (Flatters and Netshitomboni, 2006). Surprisingly subsidies to car manufacturers are not borne by taxpayers through the government budget, but by vehicle consumers through premium vehicle prices. Flatters and

Netshitomboni (2006) argued that cost of the 20% PAA subsidy to car manufacturers is borne by local vehicle consumers (Flatters and Netshitomboni, 2006). The IRCC scheme also contributed to the high prices of vehicles because vehicle manufacturers are have the privilege of importing duty-free and selling at duty-inclusive domestic prices (Flatters and Netshitomboni, 2006). The complexity of the manner in which incentives under MIDP were given is as such that they make it difficult to see that the subsidies are financed by vehicle consumers (Flatters and Netshitomboni, 2006). According to Flatters and Netshitomboni (2006) high vehicle prices is a constraint to the already limited domestic market in South Africa. They also mean that the social cost to the poor is much higher since the bulk of the expenditure of the poor goes into transportation and the high costs of transportation are passed on the poor passengers.

Table 4.1 Employment trends in the South African Automotive Industry: 1990-2012

YEAR	ASSEMBLY	COMPONENTS	TYRE
1990	37 845	69 000	N/A
1991	36 895	65 000	N/A
1992	38 731	N/A	N/A
1993	37 160	N/A	N/A
1994	37 600	N/A	N/A
1995	38 600	N/A	N/A
1996	38 600	65 000	11 000
1997	37 100	69 100	10 000
1998	33 700	69 700	9 100
1999	32 000	67 200	6 670
2000	32 300	69 500	6 575
2001	32 700	72 100	6 300
2002	32 370	74 100	6 000
2003	31 700	75 000	7 200
2004	31 800	74 500	7 200
2005	34 300	78 000	6 800
2006	37 900	78 000	6 500
2007	38 400	81 000	6 900
2008	36 000	81 500	7 000
2009	30 100	61 000	6200
2010	28 128	65 000	6 600
2011	29000	68000	6500
2012	30 159	70 000	6700

Sources: Automotive Year Book, 2009; Stats SA - Motor trade industry 2009; AIEC, 2010; 2011 and 2013

Table 4.2 New Investment/Capital Expenditure 2000-2012

	Millions													
Capital Expenditure	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013 Projection
Product/Local Content/Export Investment/Production Facilities	1311.2	1800.1	2311.4	1989.4	1816.3	2805.3	5058.1	2458.7	2807.7	2215.9	3351.1	3522.7	3837.2	4525.5
Land and Buildings	109.7	33.3	152	141.5	129.6	512.1	758	382.4	329.1	178.7	441.2	176.4	431.9	301
Support Infrastructure: IT, R&D, Technical	140.6	244.9	262.4	193.9	273.7	258.7	398.8	254.4	153.1	74.1	202.4	203.6	409.2	393.1
Total	1561.5	2078.3	2725.8	2324.8	2219.6	3576.1	6214.9	3095.5	3289.9	2468.7	3994.7	3902.7	4678.3	5219.6

Source: NAAMSA, 2011; 2013

Table 4.3 Automotive Industry Trade Balance 1995-2012

Year	Total Exports (R Billion)	Total Imports (R Billion)	Trade Balance (R Billion)
1995	4.2	16.4	-12.4
1996	5.1	19.2	-14.1
1997	6.6	17.2	-10.6
1998	10.1	19.9	-9.8
1999	14.8	22.8	-8
2000	20	29.7	-9.8
2001	30	38	-8
2002	40	50.2	-10.1
2003	40.7	49.8	-9.1
2004	39.2	58	-18.8
2005	45.3	72.5	-27.2
2006	54.7	88.5	-33.8
2007	67.6	102.2	-34.6
2008	94.2	108.9	-14.7
2009	61	79.9	-18.9
2010	69.5	100.2	-30.7
2011	82.2	120.8	-38.6
2012	86.9	136.1	-49.2

Source: AIEC, 2013

4.3 THE GOVERNANCE OF THE MIDP

The institutional makeup and configuration of the policy process

The development of policies for the automotive industry has been forged through a process that brings the private sector, labour and the government into dialogue through the motor industry development council (MIDC). The MIDC is a platform in which the government, business and labour representatives exchange ideas and also serves as a platform for negotiation (Hirschsohn, Godrey & Maree, 2000). The major players which influence what happens in the automotive industry are NAACAM and NAAMSA, the two motor industry associations; NUMSA, the industry trade union; the Retail Motor Industry (RMI) organisation, the South African Tyre Manufacturers Conference (SATMC), the Catalytic Converter Interest Group (CCIG) and the Department of Trade and Industry (DTI). The meetings of this council are held every six to eight weeks (Galant, 2005; Hirschsohn, Godrey & Maree, 2000). The council also makes recommendations on issues of manufacturing and trade legislation, policies governing the local industry, strategies of implementation of policy as well as the function of reviewing and commissioning industry relevant research (Hirschsohn, Godfrey and Maree, 2000; Galant, 2005). With the help of customs officials at the industrial trade administration commission (ITAC) and the South African revenue service (SARS), the DTI administered and coordinated the motor industry development programme (MIDP) and also made the ultimate decisions pertaining to the direction of industrial policy (interview with Mkululi Mlota). In summary, the intention of how the MIDC was supposed to function in this inclusive and structured process the distribution of responsibilities for solutions, facilitate the process where the public and private sector learn from each other, the facilitation of negotiations and the evaluation of outcomes with respect to the instruments of the MIDP. However, this institutional arrangement proved to be a great challenge since the underlying policies such as the Growth, Employment and Redistribution (GEAR) programme, the Reconstruction and Development Programme as well as the Industrial Strategy Project (ISP) considerably weakened the legitimacy of the state to enforce reciprocal control mechanisms on industry which enjoyed subsidisation and protection without having a serious intention to develop a vibrant domestic automotive industry with significant propensities for employment.

OEMs in the driver's seat: the pre-eminence of OEMs in governing policy direction

The initial intention of the MIDP was to develop a vibrant domestic components value chain, because that was the sector that the DTI had identified as having the potential for the increase in employment and creation of new jobs. To do this, the policy had to find a way to work with original equipment manufacturers (OEMs), who had and still continue to maintain considerable power in the value chain. The more important but challenging task was to graft in the domestic component suppliers, which have always been in a much weaker position, into the supply-demand relationship with OEMs (Zavareh Rustomjee, interview). The relations that exist in the South African automotive industry are tricky and not easy to manage as there is often a divergence of views with respect to the policies and strategies to be adopted. However, the direction of policy is focused around the plans and ambitions of OEMs, and other stakeholders follow suit. Consequently, OEMs have enjoyed more privileges and transfers of rents in their direction (Robert, Houdet, interview). The components sector, on the other hand, where much of the critically important learning-by-doing which is needed for acquiring tacit knowledge, as Khan (2009) argues, has been relatively neglected and not received the kind of support that would that would substantially improve its competitiveness. The detrimental effects of this unequal treatment have been felt downstream in the lower tiers of the components sector which consist of emerging suppliers. Although the components sector has experienced growth, it has come under pressure with the catalytic converter sector being one of the key sectors facing an uncertain future, despite the protection is has received (Robert Houdet, interview).

Wrong gear start in moving towards learning: The South African components sector

At the time of the inception of the MIDP, the nature of the components was relatively unsophisticated with catalytic converters and leather seats being the main focus. The catalytic converter sector was not the most viable of components to incentivise at such high levels in the first place because what goes into the catalytic converter is mostly platinum. There is only so much value that can be added in the production of a catalytic converter besides the substrate manufacturing. With catalytic converters, industry is exporting platinum that would have been exported in any case. Instead, higher value-added activities in sustainable value chains such as engine production ought to have been invested into because experience has proven that competitiveness really lies is in the more sophisticated components (Zavareh Rustomjee, interview). Robert Houdet in Venter (2014) suggests that the solution for raising

the global competitiveness of the catalytic convertor sector lies in the introduction of a production tax on all platinum group metals (PGMs) produced in the country as this measure would serve as an incentive to manufacture catalytic converters in South Africa. From this it is evident that there is no way that the competitiveness of the catalytic converter sector (and other raw material sectors such as leather and tyres) can be improved without the perpetual support of government subsidies. In the mid-term review of the MIDP in 1999 the DTI contemplated on whether to target more sophisticated components such as engine fittings for export or to stick to the subsidisation of catalytic converters and leather. The decision, which was influenced by the then Minister of Trade and Industry Alec Erwin, was to take a more "careful approach" rather than to push OEMs and component manufacturers into deepening their value chain involvement into higher value-added activities (Zavareh, Rustomjee, interview). This "careful approach" strategy adopted by Alec Erwin, of following competitive advantages instead of defying them and building new competitive advantages, is an example of the neoliberal economic policy strategies of the Washington Consensus adopted in South Africa in the 1990's. The lack of a vision by the government resulted in it being influenced by the preferences of industry at the expense of industrial policies that are geared towards learning.

The power of foreign automotive firms over the state and organised labour

In section 4.2.1 it was shown that the employment levels particularly in the assembly sector have shown no improvement in the 17 years of the existence of MIDP. This shortcoming suggests that the MIDP was not sensitive to employment outcomes. The MIDP did not condition support on employment creation to beneficiaries of government support were not tied to conditional support relating to economic development and in such a way as to generate the desired results in accordance to the governments set policy objectives (Sydney Mufamadi, interview). The potential for conflict between NUMSA and business meant that the negotiation and bargaining around labour issues did not take place at MIDC. In the process of developing an institutional design that satisfies OEMs, labour issues did not form part of MIDC negotiations (Hirschonson, Godfrey and Marre, 2000). This negation of wage and employment negotiations in MIDC meant that there was less risk of the framework collapsing because of the potential conflict between unions and industry (Hirschsohn, Godfrey and Maree, 2000). However, as argued and shown in table 4.1, the retreat of policy from an objective of creating employment to a defensive position of ensuring employment stability has meant that developmental and social objectives have not been met. The institutional

configuration gave OEMs the upper hand in bargaining and negotiation power vis-à-vis organised labour, government and suppliers. The demands of OEMs which rule out any progressive reforms in labour policies have been prioritized and met. However, organised labour has been limited in the articulation of labour policies that promote job creation and protect workers. The political strength of South African trade unions and their ability to weight the countries job creation choices have been unengaged (Sydney Mufamadi, interview).

The legitimisation of neo-liberal policies in the automotive industry

NUMSA, through the National Bargaining Forum (NBF) was responsible for providing a vision and strategy of the assembly sector's human resource strategy, monitoring training implementation, pushing for massive investment in training required for global competitiveness and the promotion of learning so that workers can keep up with technological change (Hirschsohn, Godfrey and Maree, 2000). NUMSA put in place stringent requirements and thus had the enormous task of monitoring training implementation. Hirschsohn, Godfrey and Maree (2000) argue that industry and labour often reached consensus on the demands of NUMSA and on performance benchmarks for OEMs to developing human resources. However, it is also true that at times NUMSA failed to secure precise financial commitments from auto industry firms as there was often a divergence and tensions with respect to the strategic choices of the two parties with regards to the direction which learning should take (Hirschsohn, Godfrey and Maree, 2000).

Hirschsohn, Godfrey and Maree (2000) also argue that much which stood to be gained from the organisational power of labour was lost from the beginning because "the social partners (NUMSA) were neither "social" nor "partners" in their modus operandi. Hirschsohn, Godfrey and Maree (2000) argue that "instead of wielding power against the state and employers from outside, the Confederation of South African Trade Unions (COSATU) and (NUMSA) shifted strategy and pursued its ambitious agenda for social and economic transformation by demanding and securing an institutional role in tripartite policy-making to exercise influence from within the power structure". This move towards corporatism, as Desai and Habib (argue) in the South African automotive has resulted in NUMSA being given the opportunity to participate in a limited way in shaping policies of the MIDP in the MIDC in exchange for restricting its demands and operating within agreed parameters (Desai and Habib, 1997). The Industrial Strategy Project and its flexible-specification (flec-spec) approach which

influenced the automotive industry policy is an expression of these corporatist strategies (Desai and Habib, 1997; Fine, 1995). The Corporatism in the automotive industry in South Africa reflects the interests of OEMs and does not seek to address and promote labour interests (Desai and Habib, 1997; Fine, 1995). The neo-liberal policies embraced by the ANC government have circumscribed the political power of NUMSA, and NUMSA has entered into compromises with OEMs at the level of national agreements that are decidedly in favour of OEMs at the expense of learning at the plant level (Desai and Habib, 1997).

Synthesis

It turns out that the real question is not whether the MIDP has been a success, rather the question should be: for whom has it been a success? The mere fact that employment has decreased or somewhat remained static over the life of MIDP is a testament to the fact that there has been little gain for labour. However, one must by counterfactual reasoning pose the question of whether South Africa would be having the same levels of employment that exist today without MIDP. Those sympathetic of the MIDP have argued that such levels of employment might not have been sustained without the MIDP (Black, 2002). However, that being said, based on the structural approach outlined in the theoretical framework, one would expect that an increase in production and exports would correlate with an increase in employment. This has not been the case. Increases in exports and production which are unaccompanied by improvements in employment and increased local content of domestically produced surely do not constitute success in the context of development. What is true is that as shown in table 4.1 , between 1990 and 2012, employment has on the average decreased in the assembly and tyre sector (between 1996 and 2012) whilst in the components sector it has been stagnant. Black and Mitchel (2003) argue that there are significant rents transferred to the automotive industry, however they are silent on whether these rents are productive or unproductive. This tells us that the rents towards the automotive industry have been generally unproductive in achieving employment creation, not to mention the stated goal of maintaining employment. The limited extent to which the benefits are socialised, the lack of diversification, the unsatisfactory job creation and the non-competitiveness enhancing nature of investments made by OEMs and the limited extent with which they have facilitated the competitiveness of the component manufactures competitive do not arguably warrant the generous incentives, subsidies and biased support towards their demands over and above the crucial domestic components sector. The MIDP arrangement was managed in a way that was too controlled by OEMs and not enough by government. All this gave OEMs enough room to

secure their demands, but limited NUMSA in the ability to negotiate and leverage state power in favour of labour. It is clear that the mechanisms used in MIDP are not appropriate to improve the bargaining strength of trade unions. What is critically important is that the both the state and organised labour have a shared understanding that they are locked into a relationship of collaboration with the private sector and their manoeuvres and mechanisms used must compatibly fit into a strategic mosaic which will maximise developmental benefits in their favour. The balance of power can only be shifted through functional reciprocal control mechanisms which enforce certain conditions so that OEMs can make progressive compromises towards development.

4.4 RECIPROCAL CONTROL MECHANISMS IN THE MIDP

Introduction

In a section of the National Industrial Policy Framework (2007:54), which is dedicated to the appraisal of South Africa's post-apartheid industrial policies, the MIDP is highlighted as one of the key successes. It is noted that "although the MIDP, is not directly replicable to other sectors, *the principle of the reciprocal control mechanism* (emphasis added) through which it worked does have lessons for other interventions". In chapter 4, the discussion in part focused on the number of incentives under the MIDP. However given its objectives, which at face value could typically be subject to an RCM, the PAA has been identified in this study as a key instrument to validate the presence of RCMs. The other reason for focusing on the PAA scheme is because a similar scheme exists under the APDP, the Automotive Investment Scheme. The implications arising from the analysis of the PAA has useful insights for specific policy levers that could be utilised to direct state support towards long-term industry competitiveness.

The Reciprocal Control Mechanism of the PAA Scheme

Applicants, under the PAA had to show that their investment in productive assets would contribute towards promoting MIDP objectives. Applicants had to submit a five-year business plan which outlines an investment schedule, employment, marketing, supplier and production plans as well as financial projections. Manufacturers who submitted applications with inadequate projected performance were turned down by ITAC upon evaluation. For an application to be successful, it had to have an unqualified external auditors' report on the investment and an engineers' report that ascertained that the investment had indeed taken

place before certificates are issued to him. If it is found that there are significant performance deviations (more than 10%) from the initial application submission then the subsequent issuing of import rebates was terminated (Kaggwa, Pouris and Steyn, 2007).

In the analysis of the PAA we need to pay close attention to the type and nature of investments attracted under MIDP because they have a significant bearing on the trajectory of learning and industry competitiveness. The nature of the automotive industry in South Africa is one that largely depends on the foreign investments made by OEMs and therefore it is fair to make the case that the competitiveness of this industry, to a large degree, rests on these foreign direct investments. However, what is more important, according to Khan (2009), is that OEM investments transfer learning capacity to the local economy. If we place a quantitative measure on OEM investments in South Africa, we see an impressive upward trend as evidenced by the more than twofold expansion of investments within just 4 years of the introduction of the PAA. However, upon further probing, it becomes evident that the types of investments which correspond to developing national capabilities at critical levels of the value-chain have been minimal (Mkululi Mlota, interview). The bulk of investments have been concentrated towards plant, machinery, tooling, land and buildings accounting for more than 90% of the total annual investments of OEMs. Investment in R&D emanating from PAA was less than 10% of total investment expenditure (Table 4.2). The problem that might arise in such a situation, as Khan (2009) has argued is that if OEMs receive rents like they already do, but do not invest in improving domestic manufacturing capabilities and competencies, they might relocate in the future to locations where there are high level technological operations.

Principal Factors Underpinning the Gaps: Lack of Monitoring and Enforcement

There are a number of factors that limit the range of instruments that are available to the state to impose performance requirements and targets on OEMs. An empirical vindication, through interviews, has given to a better understanding of why, in spite of the presence of formal RCMs, there was in fact a lack of monitoring and enforcement.

What is critically important in the design of industrial policy is that it should embody structural monitoring and feedback mechanisms (Kaplan, 2007). However, very few industrial policy programmes in South Africa have made for provision for monitoring and evaluation (Kaplan, 2007). Despite elements of monitoring in the MIDP, the incentives provided, however, are not as rigorously monitored and managed in comparison to other

incentives programmes such as the Small and Medium Enterprise Development Programme (SMEDP), the Support Programme for Industrial Innovation (SPII) and the Sector Partnership Fund (SPF) (Rustomjee & Hanival, 2010:52). The MIDP does not have the specific cost-benefit tracking systems that allow the state to effectively manage the rents in accordance with the structuralist conception of state intervention. This is possibly why the data on the quantum of financial resources that were allocated to incentive recipients under MIDP is not easily available. This, as will be argued in section 4.5 below, raises doubts and questions on the capacity and capability of the responsible agents who managed MIDP instruments.

Kaggwa (2008:87) argues that "the offer of investment incentives to the South African automotive industry…is a feedback problem". The largely unaccounted for feedback mechanisms have contributed to the unintended and unsatisfactory consequences such as the deterioration of trade balance, an escalation of imports, static employment, decline in local content etc. as was shown in the presentation of the performance of key industry variables in section 4.2. The feedback mechanisms that Amsden was so well aware of were not a reality in the MIDP. For Amsden, "feedback" was very central and critical to her conception of control (Kapadia, 2012).[2] The government simply did not "watch and see" (Kaggwa, 2008) whether the investments where improving the manufacturing competencies and capabilities for learning in the automotive industry. The impropriety in the direction of policy, in the words of Amsden, was not "sensed and assessed" and therefore could not be fed-back into policy reorientation.

The OEMs effectively made their own investment, export, local content, and employment target choices (Rustomjee and Hanival, 2010). However, the scope of investments that could benefit under the PAA scheme for instance, was so wide that all sorts of investments were welcomed as contributing to industry competitiveness as well as improving domestic manufacturing capabilities and competencies. This meant that investor firms could decide on their own accord which investments and what form they could undertake. The PAA was badly targeted to the extent that firms dedicated a significant portion to less technological investments that yield quicker short-term returns and forsook R&D activities which yield long term competitiveness (Kaggwa, 2008). The formulation of the MIDP, despite being a consultative process between the government, industry and labour put less emphasis on how incentives were to lead to industry competitiveness in the long term. As a result, monitoring,

[2] Amsden's own definition of a control mechanism is "a set of institutions that discipline economic behaviour based on a *feedback* of information that has been sensed and assessed" (Amsden, 2005:27).

feedback, control and the principle of reciprocity within the industry have received little attention in the management and implementation of the programme. These factors, however, are critical in understanding industry performance. The government's reciprocal control mechanisms were not robust enough to get the job done of developing and deepening developmental relationship with OEMs. This reflects the hands-off approach by government and its inability to impose conditionalities on OEMs' investment decisions towards learning and competitiveness.

Centralisation of R&D Activities

It is clear that under the PAA the attraction of investments was not geared towards the promotion of learning through research and development activities which bears the fruits of innovation and technological upgrading and ultimately the realisation of global competitiveness objective. Much of the valuable activities for learning and transfer of manufacturing competencies are not taking place at a desirable pace in South Africa. The R&D elements which involve high skilled employment and require a fairly decent amount of training happen at parent OEM countries. For instance, although American original equipment manufacturing companies have a few satellite facilities in other parts of the world, they are generally adamant that most of their R&D is done and remains in America. At most the DTI almost always only has influence at assembly level, except for when R&D generally takes place in South Africa because some of the components and technologies need to be adapted to suit local conditions. There are a few cases where some small modifications in terms of heat testing takes place around Upington. The Ford Bantam, for instance, is a Bakkie customised from a passenger vehicle. The local Ford plant was involved in adapting and homo locating it as a Bakkie because of the popularity of this type of vehicle in South Africa. So then, from time to time you find that such kinds of R&D activities occurred, but not the sort of original R&D that promotes learning-by-doing and that would really give South Africa a cutting-edge competitiveness.

The views expressed by Mkululi Mlota (interview) are in conformity with Gastrow, Kruss, Muller & Roodt (2011: 97) who argue that the German MNEs are more or less reluctant to move R&D activities out of their country. The "skills availability in the home country is sufficient to support the core R&D functions of the firm, usually located in proximity to headquarters" (Gastrow et al, 2011: 98). In the case of South Africa, the strategic reasons for retaining R&D in Germany (centralized control, proximity to customers, lower co-ordination

costs) outweigh the benefits of allocating R&D to the subsidiary (lower labour costs, adaptation capabilities for local markets) – with some exceptions. This leaves limited process innovation and niche areas of product innovation for local market design and adaptation in the hands of the South African subsidiaries (Gatrow et al, 2011: 100).

Resource Constraints: The Contested Terrain for R&D Investments amongst Host Countries

The other limitation on attracting R&D investments with high propensity for innovation, technological upgrading and competitiveness is a function of limited resources for the South African government. Host manufacturing countries are in the competitive race to attract such investments. There are huge sums of money poured in attracting auto manufacturing investment everywhere around the globe because of the prestige and the privileges this industry has to bring (Mkululi Mlota, interview). The competition amongst countries is quite a contested terrain[3]. Limited resources for allocation towards industrial policy have meant that South Africa has performed dismally in this regard, whilst countries such as Brazil and India have been able to acquire and build technological and innovative capabilities through various government incentives to promote the localisation and enlarging of R&D mandates (Quadros and Consoni, 2009). For instance Gastrow et al (2011: 100) argues that "the Indian market offers sufficient incentives to MNCs for them to allocate R&D activities to their subsidiaries in the country: a plentiful supply of skills and a large and growing market". This has resulted in an unprecedented learning process for these countries; amongst these developing countries. It is clear that in the contested and competitive terrain where countries are in the race to attract investments to their shores, the incentives under the MIDP have not been an adequate "sweetener" to induce OEMS to in R&D activities. This is despite the fact that critics such as Flatters (2002) and (2003) have argued that the net costs of MIDP, which have far outstripped the benefits, have accrued as super-profits to OEMs.

Synthesis

A similar form of criticism that Amsden (2001:27) points out against the Board of Investments in Thailand, can be levelled against the DTI's PAA scheme. Like the BOI, the DTI was "too generous in allocating benefits". Like the BOI, it can also be argued that the DTI "has been extremely promiscuous in giving away promotion credits" which are

[3] For instance, the UK has recently come up with a new scheme to encourage R&D in Britain wherein they say, for every pound invested by industry, a pound will reward back to industry in the form of a cash grant (Mkululi Mlota, interview)

equivalent to the duty credits in the MIDP. The DTI has never seriously asked the question: what type of investments and manufacturing capabilities are we really targeting. As Amsden (2001:27) points out in the case of the Thailand BOI, so too can it be argued for the DTI that "like a woman out on a shopping spree….it issued out promotion certificates (duty credits in the case of MIDP)…regardless of the actual intentions of those who asked for and got promotion certificates "(MIDP duty credits). It is worth noting however, the factors such as the centralisation of R&D activities in developed countries as well as the contested terrain for the attraction of investments by countries that host manufacturing operations has had an influence of the ability to deploy RCMs.

4.5 STATE CAPACITY AND THE MIDP

Introduction

This section in part aims to show how the challenges highlighted above could be overcome with a strong state capacity which is underpinned by a structuralist understanding of industrial policy rather than the neo-liberal policies which have proved ineffective for the South African economy. Poon (2009) argues that the instruments in China were not perfectly designed as other East Asian countries; however what was critically important was an equipped cadre of civil servants whose understanding was consistent with industrialisation. The manner in which these tools were implemented and monitored in tuning state support, demonstrated economic performance and development (poon, 2009). The question for the South African automotive industry whether the custodians of industrial policy, the DTI has an understanding of the type of industrial policy which is consistent with the state intervention measures and policies of the East Asian newly industrialising countries which are worth emulation.

Neo-liberal strategies of development

With the new ANC government in power in the 1990's, the Department of trade and Industry inherited the deficiencies of the apartheid regime where it was not structured as a think-tank to develop industrial polices and the civil servants within the sector directorates were inexperienced in developing industrial policies (Hirschsohn, Godfrey and Maree, 2000). As a result the absence of a strong in-house research unit limited the DTI in clearly articulating an industrial policy (Rahad, 2007). This led to the former Minister of Trade, Alec Erwin to bring together economists from the Economic Trends research group as well as the Industrial Strategy project to provide policy advice and formulate strategies for industrial development

(Padayachee and Sherbut, 2007). These economists were aware of the difficulties in developing a radical and viable agenda for the midst of globalisation and free-market hegemony (Desai and Habib, 1997). However, they embraced the neo-liberal economic philosophy of the ANC-led government as well as policy options advanced by the World Bank (Padayachee and Sherbut, 2007). In formulation of its industrial policy in general and that for the automotive industry in particular, the DTI was seduced by the ISP's narrowly conceived flexible-specification (flec-spec) strategies, which have already been discussed in the theoretical framework as inappropriate for the South African economy. This has resulted in the adoption of policies that have been influenced by narrowly focused neoclassical theories and Washington Consensus and Post-Washington Consensus strategies. This dominance of neo-liberal thinking goes a long way in explaining the entrenched weaknesses of policies such as the MIDP which have been primarily influenced by the Industrial Strategy Project.

Although the DTI has had progressive economists such as Zavareh Rustomjee[4], the challenges still remain. Rashad (2007) argues that the ability of the DTI to sustain capacity in making strategic decisions is hampered by a high staff turnover as well as the inability to attract civil servants with an understanding which is consistent with structuralist approaches to industrialisation. Rustomjee and Hanival (2010:53) argue that "in the case of MIDP, the only levers that allow industrial policy targets are in the tariff phase down rates". The MIDP was voluntary and therefore was "self-managed in a sense" (Zavareh Rustomjee, interview). So what this means generally is that with a higher local content and higher volume and value of exports firms get a better value and reward. The DTI had hoped that OEMs would behave in a manner that would increase local content (Mkululi Mlota, interview). The pro-active choice of South Africa to follow WTO rules meant that local content targets were not specified. However, despite the WTO being an impediment to national developmental strategies countries such as Brazil carry on to impose local content targets However, the rejection of local content polices which would assist in building the components reflects a light touch state intervention approach in the MIDP which is not robust enough to raise the competitiveness of the automotive industry.

[4] Who at one point attempted to influence the strategy of the automotive industry towards building new competitive advantages, but the neo-liberal polices favoured by Alec Erwin prevailed (Zavareh Rustomjee, interview)

Stunted Government Learning

The monitoring of the implementation MIDP was assigned to consultants such as Anthony Black. This meant that internal staff at the DTI was not exposed to the "monitoring and evaluation with the objective of learning from experience, an integral part to enabling governmental capacities to grow with experience – a version of learning-by-doing" Kaplan (2007:108). This internal function allows the staff within to enhance and develop and put the government in a better position to advance more effective and adventurous industrial policies. The limited capacity of the DTI is also implied by the fact that previous employees in the automotive sector directorate, who possibly had left with their expertise, on a number of occasions had to be invited to monitor and evaluate the progress and performance of the outcomes against the objectives of the policy (Interview with Mlota). Mkululi Mlota (interview) concedes that "so whether we had adequate capacity internally, in terms of numbers one would say we did not have adequate capacity and hence the appointment of such consultants assisted with these huge tasks and projects". However, the DTI capacity was not only limited in numbers but also in its inability to take implement the kind of policies required for an industrial policy comparable to East Asia.

Governmental capture is more prone when government capacities are weak. According to Mkululi Mlota (Interview), independent consultants would be appointed facilitate the monitoring process with the idea that the process would be objective and would encourage free participation by all involved without any kind of uneasiness with regards to information that would be shared. Flatters (2005) argues that the current and the MIDP reviews have been conducted by persons who have been closely connected with the industry and/or the management of the program at the DTI. While this experience provides the consultants with considerable inside knowledge of the program and the industry, it also raises questions about their independence and their own interests in the outcome of the reviews and posed serious threats to the autonomy of the state. The DTI does not seem to understand that consultants are not colleagues. The problem with this is that these consultants were also at the same time consulting for the private sector. The DTI seems to have been under the overwhelming pressure of OEMs which led them to give into the demands of these OEMs. The cosy relationship cultivated with the OEMs and the industry associations resulted in some degree of governmental capture, rent seeking and the creation of non-developmental learning rents as already alluded to in Chapter 2.

A Limited Understanding of Power Relations

The threat of disinvestment by OEMs is a serious risk which is confirmed by threat made by BMW in 2013 to pull the plug of their investments and engagements from South African shores. Practitioners of state craft in the field of industrial policy and development ought to know that there are sunk costs which make it difficult for an investor to leave (Sydney Mufadi, interview). Notwithstanding this, OEMs might wield more power at one moment than at another. What dictates the amount of power is a matter of how the political economic environment evolves. The balance of power is not static; it shifts depending on movements of many factors at any given point in time. Mostly, state officials are unable to read the political economy moments and tactically manoeuvre and negotiate on behalf of the state. There are times when it becomes possible for the state (or trade unions) to demand BMW to pay a training levy to train workers, but there are times when can BMW refuse to enter into compromises with the state or organised labour. A fixed and blanket approach framework such as the MIDP and APDP locks out corruption for the most part. However, it does not allow the officials who implement and manage the policy to monitor and to 'read the moment' and therefore respond by using its discretion to implement measures such as that of the industrial development bureau (IDB). This means that part of necessary feedback into policy reorientation and the swift discretion to effectively draw on a range of industrial policy levers at the state's disposal, like the sharp IDB economic engineers in Taiwan, is quickly closed.

Synthesis

In the final analysis, the nature of neo-liberal polices which have in fact influenced the policy of the South African automotive industry have promoted strategies which are aligned with South Africa's natural competitive advantages such as catalytic converters and leather seat kits, which have not demonstrated a move towards international competitiveness. The MIDP has failed to build new competitive advantages in more sophisticated components with a sustainable value-chain. All of the interviewed agree on the fact that there is no doubt that OEMs wield a lot of power in the automotive value chain, both globally and in South Africa. Their voice seems to have weight more than the suppliers, trade unions and even the state. State officials (and trade unionists) are well equipped to negotiate on an equal footing with OEMs at a strategic level. The improvement in state capacity with an understanding of the allocation of rents with the growth of jobs, learning and development in mind in the areas of industrial policy is important for industrial development.

CHAPTER 5

Conclusions and Recommendations

Chapter 6: Conclusion and Recommendations

This chapter concludes the investigation and reflects on how this study has been empirically vindicated through interviews. The recommendations for future research as well as the policy implications of this study are also given. A review of the industrial policy framework has set the scene for this research by primarily highlighting the differences in economic and development literature on their position and approach in the study of industrial policy. However, it also served to show how unimpressive neoclassical orthodox approaches to industrial policy when stacked up against the structuralist approach to industrial policy. The structuralist stance, on which the hypothesis of this study is premised upon, was advanced to show that industrial policy, with a strong state intervention in the economy, can be used as a mechanism for systemic industrialisation and development. Infant industries in developing countries need to be protected until such time that they are mature and globally competitive (List, 1856). In the meanwhile, the creation and transfer of learning rents accelerates learning-by-doing in these infant industries (Khan, 2009). However, because of the inherent dangers of bad unproductive rents, these rents need to be managed through a set of reciprocal control mechanisms (RCMs) (Amsden, 2001). In turn, the effective management and enforcement of RCMs requires strong state capacities to do so (Wade, 2010).

Industrialisation in South Africa, as it was shown in chapter 2, can be understood in the context if three distinct phases. The first phase under the apartheid regime was characterised by a 'minerals-energy complex' system of accumulation which failed to develop coherent polices for industrialisation (Fine and Rustomjee, 1996). The automotive industrial policies created an inward-oriented, fragmented and inefficient automotive industry (Black, 2001). The position of South Africa ahead of its East Asian counterparts such as South Korea in terms of automotive vehicle production was reversed and countries like South Korea took a giant leap with their impressive structuralist industrial policies and became world leaders in the global automotive industry (Chang, 1998). Under the post-apartheid era, which was swept by the neoliberal embrace of Washington Consensus-type policies, the influence of neoclassical thinking on the automotive industrial polices was pronounced with the adoption of supply-side measures, rejection of demand-side measure and the adoption of flexible specialisation and corporatism in the automotive industry (Fine, 1995; Desai and Habib, 1997). In 2007, the National Industrial Policy Framework (NIPF) and the introduction of the Industrial Policy Action Plan, 2007 were introduced on the mediated need for a structural analysis of the South African economy and industrialisation, and therefore one can only hope

that the direction of industrial policy will shift towards the direction of a structuralist understanding of industrialisation as per the importance of this approach in the theoretical framework.

Although the South African automotive industry is engaged with a negligible automotive production in comparison to other countries, there is no doubt about the importance of this industry for the South African economy. However, it remains under pressure with the challenge of having to keep up with global competitiveness as the globally integrated nature of this industry, which is dominated by few Original Equipment Manufacturers. The MIDP was introduced in 1995. With the objective of achieving global competitiveness, stabilising employment, increase exports, attracting foreign direct investments, rationalisation of vehicle production and improving the automotive industry trade balance. Instruments such as the duty free allowance, small vehicle incentive, import-export complementation scheme and production asset allowance were deployed to achieve this. However, these instruments were skewed in favour of supporting original equipment manufacturers and certain tools were not made available to the components manufacturing industry which is crucial for building a domestic automotive industry. The rejection of prescribed minimum local content programmes, which are still being engaged by countries such as Brazil (Mkululi Mlota, interview) and the complete shift in ownership of the industry to foreign OEMs has made it difficult for the domestic components industry (Poon, 2009).

The principal question that this study has attempted to answer is: was the MIDP successful in reshaping the different prevailing interest of the different economic and political economy actors towards learning? In assessing the MIDP on this basis, can we say that it makes a successful economic development policy? Firstly, this research has shown that if we assess the success of the MIDP on the basis of its objectives, the policy has not been successful. The MIDP has facilitated an impressive growth in exports, production, investments and profitability in the automotive sector. However, even this apparent 'success' has come at high levels of subsidisation of OEMs with limited reciprocal commitments from their side. A dismal performance has been witnessed in the areas of job creation, industry trade balance, vehicle affordability and investments that promote learning. The research has succeeded to answer the research question, and has met the objectives of this study. The findings, which are consistent with the hypothesis, help to explain the disappointing results with respect to employment creation, development of a domestic components supplier industry as well as the

attraction of competiveness-enhancing projects and R&D investments which lead to industry competitiveness and learning.

The findings are can be summarised as follows:

Firstly, the state-labour-industry institutional arrangement, which is underpinned by the shift to a corporatist settlement at the time of implementation of the MIDP and influences of the flexible speculation (flec-spec) theory have entrenched the considerable power of OEMs in the South African automotive value chain, whilst the political power of NUMSA has been circumscribed. This resulted in NUMSA entering into agreements with OEMs that are decidedly in favour of OEMs at the expense of learning-by-doing at the firm and plant level. OEMs demands for rationalisation of production, which have resulted in mass retrenchments in the assembly sector, have been prioritised at the expense and marginalisation of employment creation.

Secondly, in spite of the presence of reciprocal control mechanisms in instruments such as the Productive Asset Allowance (PAA), there was in fact a lack of monitoring of performance and enforcement of RCMs. OEMs found ways to manoeuvre around the policy so that they could make less technological investments that yield short-term returns at the expense of the sorts of investments that would improve domestic manufacturing capabilities and competencies. The centralisation of learning takes place at the countries of origin of the OEMs. The MIDP policy did not have robust policy levers such as in India and Brazil to attract the type of manufacturing technologies that contribute the most to improving competitiveness. The DTI did not ask the question: what type of investments and manufacturing competencies are we really targeting?

Thirdly and finally, the DTI adopted ‘careful approaches’ to developing domestic component suppliers by following natural comparative advantages instead of building new competitive advantages that are consistent with the competitiveness pressures of the global automotive environment. These ‘careful approach’ strategies of former Minister Alec Erwin find their expression in the neo-liberal economic and industrial policy approaches that prevailed at the time. The DTI did not have the type of state capacity that is consistent with the state intervention measures and policies that were deployed by the East Asian newly industrialising countries. The dominance of neo-liberal thinking, such as the government lowering the tariffs schedule of the MIDP more aggressively than what was required by the WTO reflects the absence of the muscle and will to deploy these instruments. The outsourcing of monitoring to

private consultants did not enable governmental capacities to grow with experience, which is a version of learning-by-doing.

There are a number of policy recommendations that arise from this study. For the APDP, the successor of the MIDP, a higher impact industrial policy which creates developmental alliances between the state, labour and industry; that is underpinned by reciprocal control mechanisms, and a strong state capacity that understands the need to subsidies industry to promote exports, enhance local content, improve efficiency, production and profitability, whilst at the same time subjecting the automotive industry to discipline and effective monitoring is needed. The creation and allocation of productive rents that accelerate industrial and technological learning is possible with a better equipped bureaucracy with more funds could perhaps install a more robustly 'nuanced' set of support measures. The government must be able to subsidise firms and not only those that have the guarantee to succeed. However, it cannot do so unconditionally. The state must set and enforce targets to be met. The idea that subsidies and incentives coming out of national income can be taken for granted or become give-aways should be eliminated through discipline.

The structuralist approach to state intervention, it has been argued offers an adequate understanding to the analysis of industrial policy. Recommendations for future research would include an investigation on the extent to which the APDP is aligned to the structural analysis of the economy and the objectives of the National Industrial Policy Framework (NIPF).

Bibliography

AIEC (2009). Automotive Export Manual 2010. Tshwane: AIEC.

AIEC (2010). Automotive Export Manual 2010. Tshwane: AIEC.

AIEC (2013). Automotive Export Manual 2013. Tshwane: AIEC.

Altman, M. & Mayer, M. 2003. Overview of industrial policy. *Human Resources Development Review 2013: Education, Employment and Skills in South Africa*. Cape Town: HSRC.

Amsden A. 1989.*Asia's Next Giant: South Korea and Late Industrialisation*. Oxford: Oxford University Press.

Amsden, A. 1997. Bringing production back in -understanding government's economic role in late industrialization, *World Development* 25(4), pp. 469-480.

Amsden, A. H. (2001). *The Rise of the rest: challenges to the west from late industrialization economies*. Oxford: Oxford University Press.

Barchiesi, F. 1997. Flexibility and changes in forms of workplace subjectivity: A case study of the South African automobile assembly industry, unpublished MA thesis, Dept. of Sociology, Johannesburg: University of the Witwatersrand.

Barnes, J & Black, A. 2004. *A strategic assessment of the South African motor vehicle, parts and accessories sector*. Trade and Industrial Policy Strategies (TIPS): Pretoria.

Barnes, J. and Morris, M. 2008. Staying alive in the global automotive industry: what can developing economies learn from South Africa about linking into global automotive value chains? *The European Journal of Development Research* 20(1), pp. 31-55.

Barnes, J., Kaplinsky, R. and Morris, M. 2004. Industrial policy in developing economies: developing dynamic comparative advantage in the South African automobile sector. *Competition & Change* 8(2), pp. 153–172.

Barnes, J., Kaplinsky, R. and Morris, M. 2005. SA car prices compare favourably [Online]. Available at: http://qed.econ.queensu.ca/faculty/flatters/writings/BKM_car_prices_busrpt_050927.pdf [Accessed: 16 November 2013].

Black, A. 1994. *An industrial strategy for the motor vehicle and component Sector*. Cape Town: University of Cape Town Press

Black, A. 2001. Globalisation and restructuring in the South African automotive industry. *Journal of International Development* 13(6) pp. 779-796.

Black, A. 2002. The export "success" of the motor industry development programme and the implications for trade and industrial policy. [Online]. Available at: http://www.commerce.uct.ac.za/economics/postgrad/masters/trp/research/black export success.pdf [Accessed: 17 August 2013].

Black, A. 2003. *Case studies of foreign direct investment in the South African automotive component sector*. Braamfontien: The Edge Institute.

Black, A. 2010. 'The automotive industry: seeking a new road', In S. Jones and R.W. Vivian (eds.) *South African Economy and Policy, 1990-2000. An Economy in Transition*, pp. 125-142. Manchester, UK: Manchester University Press.

Black, A. 2007. Policy and industry structure in the South African automotive sector: from import substitution to extreme export orientation, *Journal of Development Perspectives* 3(1).

Black, A. and Bhanisi, S. 2007. The South African automotive industry in a globalising world: What has happened to imports? *Trade and Industry Monitor* 38, pp. 165-186.

Black, A. 2007. Automotive policy and the restructuring of the South African industry: 1990 - 2005. Cape Town: UCT Press.

Bronkhorst, E. 2010. *A review of the Motor Industry Programme.* MA Dissertation, University of Pretoria.

Bronkhorst, E. Steyn, J. Stiglingh, M. 2013. The automotive production and development programme: An analysis of the opinions of South African stakeholders. *Journal of Applied Business Research 29(5), pp. 1281-1300.*

Cassim, R. 2007. *Mainstreaming trade into South Africa's national development strategy,* African Trade Policy Research Centre Working Paper 51, United Nations Economic Commission for Africa.

Damoense, M.Y. & Simon, A. 2004. An analysis of the impact of the first phase of South Africa's Motor Industry Development programme (MIDP), 1995-2000. *Development Southern Africa*, 21(2), pp. 251-269.

Deraniyagala, S. 2001. 'From washington to Post-Washington. Does it matter for industrial policy?' In Fine, B. and Lapavitsas, C. and Pincus, J., (eds.), *Development Policy in the Twenty-First Century. Beyond the Post-Washington Consensus*, pp. 80-98. London: Routledge.

Desai, A. and Habib, A. 1997. Labour relations in transition: the rise of corporatism in South Africa's Automobile Industry. *The Journal of Modern African Studies* 35(3) pp. 495-514.

DTI - South Africa. Department of Trade and Industry. 2003. Current developments in the automotive industry [Online]. Available at: http://www.dti.gov.za/publications/automotiveindustry.pdf [Accessed: 18 January 2014].

DTI, 2007. National Industrial Policy Framework, the Government of South Africa, Pretoria.

Chang, H-J. 1997. *Evaluating the Current Industrial Policy of South Africa*, Faculty of Economics and Polities, University of Cambridge

Chang, H-J. 2002. *Kicking away the ladder – development strategy in historical perspective*. London: Anthem Press.

Creamer, T. 2008. Industry welcomes new cabinet-endorsed auto support scheme. *Engineering News*, 4 September. [Online]. Available at: http://www.engineeringnews.co.za/article/industry-welcomes-new-cabinetendorsed-auto-support-scheme-2008-09-04 [Accessed: 13 December 2013].

Damoense, M.Y. and Simon, A., 2004. An analysis of the impact of the first phase of South Africa's MIDP, 1995 - 2000. *Development Southern Africa* 21(2), pp. 251-269.

Edwards, L. 2005. Has South Africa liberalised its trade? *South African Journal of Economics* 73(4), pp. 754–75.

Evans P. 1995. *Embedded Autonomy: States and Industrial Transformation*, New Jersey: Princeton University Press.

Fine, B. 1995. Flexible production and flexible theory: the case of South Africa. *Geoforum* 26(2), pp. 107-119.

Fine, B and Rustomjee, Z. 1996. The Political Economy of South Africa: From Minerals-Energy Complex to Industrialisation, London: Westview Press.

Fine B. 2001.'Niether the Washington nor the post-Washington Consensus: an introduction, In Fine B., C. Lapavitsas and J. Pincus (eds.), *Development Policy in the Twenty-First Century. Beyond the Post-Washington Consensus, pp.* 80-98. *London: Routledge*.

Fine, B. 2008. The Minerals-Energy Complex is dead: long live the MEC?. *Development Southern Africa* 14 (4), pp. 591–613

Fine, B. 2011. *Towards a History of Development Economics*, in African Programme on Rethinking Development Economics (APORDE) Handbook.

Fine, B. 2011. Locating the Developmental State and Industrial and Social Policy after the Crisis, UNCTAD, The Least Developed Countries Report 2011**:** The Potential Role of South-South Cooperation for Inclusive and Sustainable Development, Background Paper, no.3.

Fine, B. 2013. 'Beyond the Developmental State: An Introduction'. In B. Fine, J. Saraswati, D. Tavasci, eds. *Beyond the developmental state. Industrial policy for the 21st century*. Pluto Press, London.

Fine, B. and Waeyenberge (2013), A paradigm shift that never will be?: Justin Lin's new structural economics, No. 179, SOAS Department of Economics Working Paper Series.

Gastrow, G ., Kruss, H., Muller, L. and Roodt, J. 2011. '*Synthesis report on fragmentation of GINs and capability building in the automotive, ICT and agro-processing industries'*, in D6.1: Research papers on Fragmentation of GINs and capability building in the automotive, ICT and agro-processing industries, INGINEUS, 2012. [Online] Available at: http://www.ingineus.eu/UserFiles/INGINEUS_D6.1%281%29%282%29.pdf [Accessed: 15 January 2014].

Krueger, A. 2011. 'Comments' in J. Y. Lin. 2011. *New Structural Economics: A Framework for Rethinking Development*. Washington: World Bank.

Flatters, F. 2003. Is the MIDP a Model for Selective Industrial Policies? Available at

http://qed.econ.queensu.ca/faculty/flatters/main/writings.html

Flatters, F. 2002. From import substitution to export promotion: driving the South African motor industry. Paper for the on-going USAID-funded project with the service group, SADC secretariat on trade and investment policies.

Flatters F. 2005. *The Economics of MIDP and the South African Motor Industry*. Kingston, Ontario: Queen's University.

Flaters F. & Netshitomboni N. 2006. Trade and poverty in South Africa: Motor industry case study. University of Cape Town's Southern Africa Labour and development Research Unit Trade and Poverty Project.

Galant, J. 2005. *The role of intermediary organisations in the utilisation of research*. Cape Town: Sun Press.

Gastrow, M. 2012. A review of trends in the global automotive manufacturing industry and implications for developing countries. *African Journal of Business Management* 6(19), pp. 5895-5905.

Hausmann, R., Rodrik, D. and Sabel, C. 2007. *Reconfiguring industrial*

policy: a framework with an application to South Africa, typescript, Kennedy School of Government, Harvard University, 31 August.

Hirschsohn, S., Godfrey, S. & Maree, J. 2000 Industrial policy-making in the auto, textile and clothing sectors: labour's strategic ambivalence. *Transformation: Critical Perspectives on Southern Africa* 41, pp. 55–88.

Hunt, D. 1989. *Economic Theories of Development: An analysis of Competing Paradigms*. London: Harvester Wheatsheaf.

Jenkins R. 1995. The political economy of industrial policy: automobile manufacture in the newly industrializing countries. *Cambridge Journal of Economics* 19 pp. 625-645.

Johnson, C.1984. *The industrial policy debate*, San Francisco Institute for Contemporary Studies.

Kaggwa, M., Pouris, A. & Steyn, J.L. 2007. South Africa government's support of the automotive industry: Prospects of the productive asset allowance. *Development Southern Africa*, 24(5) pp. 681-691.

Kaggwa M. 2008. Modelling South Africa's incentives under the motor industry development programme. PhD thesis, University of Pretoria.

Kaldor, N. 1967. Strategic factors in economic development. New York: Cornell University.

Kapadia, A. 2012. Mechanism and context: on economic recipes. IGLP Working Paper Series 2013 No. 2.

Kaplan, D., 2004. Manufacturing in South Africa over the last decade: A review of industrial performance and policy. *Development Southern Africa* 21 (4), pp. 623-644.

Kaplan, D. 2005 .MIDP link to car prices must not be ignored. Business Report October 19 Statistics South Africa 2002 Income and Expenditure Survey of Households, 2000.

Kaplan. D. 2007. The constraints and institutional challenges facing industrial policy in South Africa: a way forward. *Trasnformation* 64, pp. 91-111.

Khan, M.H. 2000. 'Rents, effecciency and growth', in Khan, M.H and Jomo. K.S (eds.) *Rents, Rent-Seeking and Economic Development:Theory and Evidence in Asia (eds.).* Cambridge: Cambridge University Press.

Khan, M. H. 2009. Learning, technology acquisition and governance challenges in developing countries. *Research Paper Series on Governance for Growth*. School of Oriental and African Studies, University of London: London. [Online] 6. Available at: http://mercury.soas.ac.uk/users/mk17/Docs/Learning%20and%20Technology%20Acquisition%20internet.pdf [Accessed: 14 June 2013].

Kim, E.M.1997. Big business, strong state: collusion and conflict in South Korean development, 1960-1990. Albany State: University of New York Press.

Krueger, A. 1998. Why trade liberalisation is good for growth? *The Economics Journal* 108, pp. 1513-22.

Krueger, A, O. (1986), Changing perspectives on development economics and world bank research, *Development Policy Review* 4(3), pp. 195-210.

Krugman, P. and A. Smith (eds.). 1994. *Empirical Studies of Strategic Trade Policy*. Chicago: The University of Chicago Press.

Krugman, P. (ed.). 1995. *Strategic Trade Policy and the New International Economics*. Cambridge: The MIT Press.

Lal, D. 1984. *The Poverty of Development Economics*. Hobart Paperback 16. London.
Little, I and J. Mirrless. 1974. *Project Appraisal and Planning for Developing Countries*. Gower: Brookfield.

Lall, S. 1999. *Promoting industrial competitiveness in developing countries: lessons from Asia*. Economic Paper 39. Commonwealth Secretariat: London

Lee, K-H, "An alternative perspective on industrial policy: the case of the South Korean car industry", in In B. Fine, J. Saraswati, D. Tavasci, eds. *Beyond the developmental state. Industrial policy for the 21st century*. Pluto Press, London.

Lin, J. Y. 2011. New Structural Economics: A Framework for Rethinking Development, in World *Bank Policy Research Working Paper*, No. 5197. Washington: World Bank.
List, F. 1856. *The national system of political economy*.

Lucas, R. 1988. On the mechanics of economic development. *Journal of Monetary Economics* 22, pp. 3-42.

McKenzie, R A and Pons-Vignon, N. 2012. Volatile capital flows and a route to financial crisis in South Africa. AUGUR Working Paper, February 2012 (WP2).

NAAMSA, 2011. *Quarterly review of business conditions: motor vehicle manufacturing industry: 1st Quarter 2011* [Online]. Available at: http://www.naamsa.co.za/papers/2011_1stquarter/NAAMSA%20QUARTERLY%20REVIEW%20%20-%20%201ST%20QUARTER%202011.pdf [Accessed: 24 January 2014].

NAAMSA, 2013. Quarterly review of business conditions: motor vehicle manufacturing industry: 2nd Quarter 2013 [Online]. Available at: *http://www.naamsa.co.za/papers/2013_2ndquarter/index.html* [Accessed: 24 January 2014]

Newman, S. 2011. A new growth path for South African industrialisation: An input-output analysis, 2010 Unpublished CSID Document.

NUMSA, 2013. Open letter by NUMSA Deputy General Secretary Comrade Karl Cloete - A factual response to BMW crying wolf [Online]. Available at: *http://www.cosatu.org.za/docs/letters/2013/lett1010.html* [Accessed: 8 December 2013].

OICA, 2014. 2013 production statistics. [Online]. Available at: http://www.oica.net/category/production-statistics/ [Accessed: 24 January 2014].

Padayachee, V. and Sherbut, G. 2007. *Ideas and power: academic economists and the making of economic policy: the South African experience in comparative*. School of Development Studies Working Paper 43, University of KwaZulu-Natal.

Peres, W. & Primi, A. 2008. Theory and practice of industrial policy. Evidence from the Latin American Experience [Online]. Available at: http://www.eclac.cl/ddpe/noticias/paginas/9/23739/Theory-PracticeofIndustrialPolicyver.pdf [Accessed: 13 April 2014].

Pinder, J. 1982. 'Causes and kinds of industrial policy, in J. Pinder (ed.), 1982. *National Industrial Strategies and the World Economy*. London: Croom Helm.

Pitot, R. 2013. The end of MIDP [Online]. Available at: http://naacamdirectory.webhouse.co.za/pages/33000 [Accessed: 25 November 2013].

Poon, D. 2009. China's evolving industrial policy strategies for instruments: lessons for development. TIPS Working Paper Series 2009-02 [Online]. Available at: http://www.tips.org.za/files/Chinas_Evolving_IP_Dec_11_2009_final_version_SBM_april_2010.pdf [Accessed: 15 December, 2013].

Quadros, R. and Consoni, F. 2009. Innovation capabilities in the Brazilian automobile industry: A study of vehicle assemblers' technological strategies and policy

recommendations. *International Journal of Technological Learning, Innovation and Development* 2(2), pp. 53–75.

Rodriguez, C.A. 2011. From Washington Consensus to post-Washington Consensus: consequences in transition economies. *Journal on European Perspectives of the Western Balkans* 3(1).

Rodrik, D. 2000. *Institutions for high-quality growth: what they are and how to acquire them?* NBER Working Paper 7540 (February) (National Bureau of Economic Research).

Rodrik, D. 2004. *Industrial policies for the twenty-first century*. Cambridge: Harvard University.

Rodrik, D.2007. *One Economics-- Many Recipes: Globalization, Institutions, and Economic Growth*. Princeton and Oxford: Princeton University Press.

Rodrik, D. 2011. "Comments," in J. Y. Lin. 2011. New Structural Economics: A Framework for Rethinking Development. Washington: World Bank.

Rostow, W.W. 1960. *The Stages of Economic Growth: Non-Communist Manifesto*. Cambridge: Cambridge University Press.

Rustomjee, Z and Hanival, S. 2008. *A review of industry policy, instruments and support programmes: 1994-2008*. Unpublished paper commissioned for the Fifteen Year Review.

Shafaeddin, M. 2000. "What did Frederick List Actually Say?", UNCTAD, *Discussion Paper No. 1*.

Shafaeddin, M. 2006. Is *the Industrial Policy Relevant in the 21st Century?* A paper prepared as a key note speech to be presented to the International Conference on New Approaches to Design of Development Policies, Organized by the Arab Planning Institute, Beirut, 20-21 March 2006.

Shapiro, H. (2007), *Industrial Policy and Growth*, DESA Working Paper No. 53

Stiglitz, J. 1996. *Some lessons from the East Asian miracle.* The World Bank Research Observer 11(2), pp. 151-77.

Stiglitz, J. 1998. *More instruments and broader goals: moving towards the post-Washington Consensus.* The 1998 WIDER Annual Lecture, Helsinki, 7 January.

Teal, F. 1999. Why can Mauritius export manufactures and Ghana not? *The World Economy* 22(7), pp. 981-93.

Venter, I. 2014. Catalytic convertor industry 'dying', platinum tax possible saviour, Engineering News, 17 February, 2014.

Wade, R. 2009. Rethinking industrial policy for low income countries. *African Development Review* 21(2), pp. 352 -366.

Wade, R. 2010. After the crisis: industrial policy and the developmental state in low-income countries, *Global Policy* 1(2), pp. 150-161.

World Bank, 1993. *The East Asian Miracle: Economic Growth and Public Policy*. Oxford University Press: Oxford and Washington.