

Industrial policy, institutions and industrial financing in South Africa:  
the role of the IDC and DBSA, and lessons from Brazil's BNDES

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## ABSTRACT

Institutions, particularly development finance institutions (DFIs) have been instrumental in economic development and the implementation of industrial policy throughout history. In 2007, the South African government identified the country's DFIs as key to the implementation of its new industrial policy framework with the main objective of job creation. This thesis examines the impact that South Africa's DFIs, particularly the IDC and the DBSA, have had on employment creation from 2010 to 2014. A comparative institutional approach is adopted in a case study analysis examining the role of the state in industrial financing. The financing activities of Brazil's BNDES are explored by comparison to determine if there are possible lessons for South Africa. An analysis of the DFIs' financial and annual reports and government policy documents is conducted. The political settlements framework is used as a basis for understanding the balance of power within the country and the impact this has had on the country's industrial policy and industrial finance.

The thesis finds that the financing activities of South Africa's DFIs, particularly the IDC, have been directed at large scale capital intensive projects, with a large portion of disbursements channelled towards mining and mineral beneficiation. These sectors have also facilitated the most number of jobs. Even though the activities of the country's DFIs are consistent with South Africa's industrial policy and have facilitated job creation, it is evident that these efforts have not been on a scale that is large enough to reduce unemployment. Despite the DFIs' efforts, there has been an increase in the number of unemployed South Africans between 2010 and 2014.

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## ACRONYMS AND ABBREVIATIONS

AAC	Anglo American Corporation
ABDI	Brazilian Industrial Development Agency
AFD	Agence Française de Développement
ANC	African National Congress
ASGISA	Accelerated and Shared Growth Initiative for South Africa
BEE	Black Economic Empowerment
BNDES	Banco Nacional de Desenvolvimento Econômico e Social
BRICS	Brazil Russia India China South Africa
CIA	Comparative Institutional Approach
CTCP	Clothing and Textiles Competitiveness Programme
D.C.	District of Columbia
DBSA	Development Bank of Southern Africa
DCCS	Duty Credit Certificate Scheme
DFIs	Development Finance Institutions
DSP	Developmental State Paradigm
DTI	Department of Trade and Industry
ECIC	Export Credit Insurance Corporation
ECLAC	Economic Commission for Latin America and the Caribbean
EDD	Economic Development Department
EDI	Economic Development Institute
EIB	European Investment Bank
EOI	Export Oriented Industrialisation
FAT	Fundo de Amparo ao Trabalhador (Workers Assistance Fund, Brazil)
FDI	Foreign Direct Investment
FSB	Financial Services Board
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GEAR	Growth Employment and Redistribution (South Africa)
GEIS	General Export Incentive Scheme
GSIs	Global Standard Institutions

GVCs	Global Value Chains
IBRD	International Bank for Reconstruction and Development
ICT	Information and Communications Technology
IDC	Industrial Development Corporation
IFIs	International Financial Institutions
ILO	International Labour Organisation
IMF	International Monetary Fund
IPAP	Industrial Policy Action Plan
ISI	Import Substituting Industrialisation
KfW	Kreditanstalt für Wiederaufbau (Germany)
MCEP	Manufacturing Competitiveness Enhancement Programme
MDIC	Ministry of Development, Industry and Trade (Brazil)
MDS	Ministério do Desenvolvimento Social e do Combate à Fome (Ministry for Social Development and to Combat Hunger, Brazil)
MEC	Minerals Energy Complex
MF	Ministry of Finance
MFIs	Microfinance institutions
MIDP	Motor Industry Development Programme
MITI	Ministry of International Trade and Industry (Japan)
n.d.	No Date
N.W.	North West
NAFINSA	Nacional Financiera, Sociedad Nacional de Crédito, Institución de Banca de Desarrollo
NDP	National Development Plan (South Africa)
NGP	New Growth Path
NICs	Newly Industrialised Countries
NIE	New Institutional Economics
NIPF	National Industrial Policy Framework
NSE	New Structural Economics
OBM	Own Brand Manufacturing
ODM	Own Design Manufacturing
PAC	Programma de Aceleração do Crescimento (Growth Acceleration Programme, Brazil)
PBF	Programma Bolsa Família (Family Allowance Cash-transfer Programme, Brazil)
PBM	Plano Brasil Maior

PDP	Política de Desenvolvimento Produtivo (Productive Development Policy)
PIC	Public Investment Corporation
PICC	Presidential Infrastructure Coordinating Committee
PITCE	Política Industrial, Tecnológica e de Comércio Exterior (Industrial, Technological and Foreign Trade Policy, Brazil)
PT	Partido dos Trabalhadores (the Workers' Party, Brazil)
RDP	Reconstruction and Development Programme (South Africa)
RIDP	Regional Industrial Development Programme
SADC	Southern African Development Community
SAPs	Structural Adjustment Programmes
SEDA	Small Enterprise Development Agency
SIP	Strategic Investment Programme
SMEs	Small and Medium Enterprises
SMMEs	Small, Medium and Micro Enterprises
SPII	Support Programme of Industry Innovation
StatsSA	Statistics South Africa
THRIP	Technology and Human Resources for Industry Programme
UIF	Unemployment Insurance Fund
US	United States
VSI	Vertically Specialised Industrialisation
WTO	World Trade Organisation
WWI	The First World War
WWII	The Second World War

## CHAPTER 1: INTRODUCTION

### 1.1 The state and market debate and the theory of market failure in financial markets

One of the major debates in development economics has been that of the role of the state and the market in industrial development. The success of the East Asian Newly Industrialised Countries (NICs) and the failure of state intervention in other developing countries resulted in a flurry of research, raising questions about the appropriate level and conditions of state intervention (Amsden, 2001; Fine and Rustomjee, 1996; Wade, 2004).

The development economics debate of state and market can be extended to the theory of market failure in financial markets. Stiglitz and Weiss (1981) develop a framework where the market failure of imperfect information results in borrowers being refused loans even if they are willing to pay higher interest rates and put up more collateral. In this model, if lenders were to charge higher interest rates and higher collateral, this would increase the risk of borrowers investing in riskier projects (moral hazard) and discourage safer borrowers (adverse selection). In this instance, lenders opt to restrict credit by reducing the number of loans they make rather than increasing the interest rate or limiting the size of loans. Credit rationing and poor distribution of savings is attributed to market failure (Studart, 2005). This approach justifies government policy intervention in financing projects that might be important for economic growth but would otherwise go unfinanced due to credit rationing. Conventional development finance analysis argues that the state can intervene in cases where markets are unable to intermediate between savers and investors efficiently due to imperfect information (Studart, 2005). State intervention then plays an important role by providing credit to the rationed sectors and bringing profitable prospects to the attention of intermediaries and savers.

Bernanke, Gertler and Gilchrist (1996) show that during times of economic downturn, borrowers facing high agency costs (cost of external finance), such as small firms, are most likely to suffer. These borrowers experience reduced access to credit as there is “flight to

quality” in the credit markets. Large firms with a good track record are likely to do relatively better than small firms without a track record. Established enterprises are favoured more than new or small businesses which might offer uncertain returns or need long-term financing (Studart, 2005: 25). This was evident during the 2008 global economic crisis with repercussions for development finance. There was a more than 40 percent fall in private investment flows to developing countries (Van Waeyenberge, Fine and Bayliss, 2011). In developing economies where innovative companies are introducing new technologies, economies of scale have not yet been established and markets are being found for new products, uncertainties about the future and investment risk tend to be high, especially during times of economic downturn (Studart, 2005). Access to long term financing can be made possible by the existence of appropriate institutions, such as development finance institutions (DFIs) (Studart, 2005).

Even when long-term capital is available, this does not necessarily mean that investment is allocated to sectors that are important for employment creation and accelerating economic growth. The role of state intervention is therefore important in guiding the allocation of investments. Investment could be guided through providing credit directed at specific sectors (Chandrasekhar, 2011). Countries such as South Korea and Taiwan pursued strategic financial policies by providing favourable interest rates on loans to strategic sectors and channelling corporate finance through a regulated banking system (Chandrasekhar, 2011). Loans obtained from development banks were often accompanied by conditions that were designed to discipline business (Amsden, 2001). In South Korea the national capitalists allied themselves with the state in state-led industrialisation and the government was able to build institutions for disciplining capital and successfully steered private investment toward newer high value-added lines and tradable goods. In Latin America, India and parts of the Middle East, countries were unable to achieve the same level of success as the East Asian countries. National capitalists resisted discipline and adherence to the conditions that were stipulated as part of the funding from government. The state also lacked the capacity to steer private investment successfully into productive activities and failed to implement a successful industrial policy.

The concept of “embedded autonomy” is relevant to the discussion above when considering how the state relates to the market and to identified class interests, as it intervenes and implements industrial policy (Evans, 1995: 12; Fine and Rustomjee, 1996: 53). Evans (1995) argues that the developmental state must be entrenched in social ties or relations in order to intervene effectively in industrial development. The ability to avoid capture and “discipline entrepreneurial elites is a defining feature of the ‘embedded autonomy’ of East Asian developmental states” (Evans, 2010: 47). Autonomy is seen as the state’s source of independence and freedom from the interests of any dominant class, or as the country’s institutional arrangements (Fine and Rustomjee, 1996). Embeddedness can be simply defined as the state’s “relationship with non-state actors” (Edigheji, 2010: 1). Evans (1995) asserts that “embedded autonomy” provides the underlying structural foundation for the state to succeed in its involvement in the industrialisation process. Private capture by capital at the expense of national development is a concern in the South African context. Some have argued that the post-apartheid period in South Africa has been the opposite of a developmental state in terms of directing and coupling funds with investment, the embracing of neoliberal economic ideology as well as the inability to persuade private capital to invest in the South African economy to achieve economic growth (Ashman, Fine and Newman, 2010: 11). The extent to which the South African State has been able to avoid capture and the relationship it has with non-state actors, as reflected by the financing activities of the DFIs is explored in the thesis.

## 1.2 Development finance institutions

Different kinds of DFIs exist in order to meet different objectives and developmental goals. DFIs mobilise public and private sector capital to finance projects in the public and private sectors, as well as providing technical advice to recipients of finance. DFIs include national development banks, which can be private or public banks; bilateral, regional and multilateral DFIs which also mobilise public and private investment to fund new and growing businesses that contribute to economic development and benefit the poor. Multilateral and regional DFIs have numerous shareholders from different countries. Many DFIs are owned solely by the state while some are both public and private owned entities.

There are also those that are under private ownership (Kingombe, Massa and te Velde, 2011). Development banks are DFIs which can be “a form of government intervention in the financial system that aims to address market failures in the provision of finance or, more generally, to help achieve socio-economic objectives such as equity or poverty reduction” (Thorne and Du Toit, 2009: 2). Historically, development banks were instrumental in the industrialisation process of Europe and the East Asian countries (Amsden, 2001; De Aghion, 1999).

Even though state-sponsored development banks have been shown to play an important role in the provision of financing for long-term projects, the debate on the role of the state can also be found in the area of development finance. In Nicaragua, Bolivia and Ecuador, state-led banks failed in the 1960s and 1970s due to dysfunctional lending processes, corruption and cumbersome programmes. Microfinance institutions (MFIs) emerged during the time when state banks were failing and were often the only economically viable developmentally focussed alternative to financing. MFIs have been criticised for charging high interest rates, exploiting the poverty-stricken, and taking pro-cyclical measures while also receiving support from the international finance institutions that encouraged deregulation, fiscal austerity measures and trade liberalisation. Brazil on the other hand, had a level of success with this form of development finance. The role played by the MFIs was complementary to the country’s developmental goals (Bédécarrats, Bastiaensen and Doligez, 2012). The Grameen Bank which started as an MFI in Bangladesh forty years ago has been held as a pillar of success in alleviating poverty and has since spread its operations throughout Asia, Latin America, Africa and even the United States of America (Yunus, 2003). This form of finance has however been met with extensive criticism (Bateman, 2014; Ghosh, 2013). Bateman (2014) argues that microfinance institutions channel scarce financial resources towards unproductive informal microenterprises and self-employment ventures and away from the productive and sustainable formal manufacturing-led SMEs that are important for job creation. Ghosh (2013) adds that microfinance has not enabled the creation of productive assets and the growth of productive activities needed for economic growth.

### 1.3 The importance of development finance in South Africa

One of the constraints to South Africa's industrialisation process is the lack of adequate financing. According to the DTI (2013a) the country has been experiencing a slowdown in private sector investment, where investment is concentrated in consumption driven sectors and to a lesser extent capital intensive industries. The private financial sector has not been distributing aggregated savings towards productive fixed investments that are important for economic growth. The country is experiencing what Chandrasekhar (2011: 2) refers to as "short-termism". This describes instances when sectors that are important for long-term economic growth receive inadequate investment. Due to the nature of sources of finance in the private financial sector such as short-term capital inflows and deposits, finance usually goes towards established low risk industries. Private banks are unwilling to channel finance to less established industries and new entrants. The country's public DFIs have been identified as instrumental for channelling public industrial finance to productive fixed investment and strategic value-adding sectors that are also expected to generate opportunities for employment. The country's DFIs, especially the Industrial Development Corporation (IDC), have been called to align their financing activities with the country's industrial policy. In response to the 2008 global economic crisis South Africa's largest DFI, the IDC, was given a mandate to take counter-cyclical measures and help the government in its endeavour to increase industrial financing as the country experienced what Bernanke *et al.*, (1996) refer to as "flight to quality" (IDC, 2013). Three key financing institutions, the Export Credit Insurance Corporation (ECIC), the Development Bank of Southern Africa (DBSA) and the IDC have been identified by the South African government, and are to work closely with the Department of Trade and Industry, securing and channelling finance to productive sectors of the economy (DTI, 2013a). The IDC is to approve financing in sectors that are labour intensive and important for job creation. The DBSA on the other hand administers the government's Green Fund and has administered the financing for sustainable development projects.

The goal of this research is to explore the role of the state in financing economic development and industrial policy. The research examines the function of DFIs,

particularly the IDC and DBSA, as agents of the state in strategically aligning finance with South Africa's industrial policy objectives such as economic growth and the creation of employment opportunities. The research specifically focuses on the two DFIs due to the fact that as the country's largest DFI with the mandate to industrialise South Africa and grow job opportunities, the IDC, has played an integral part in the implementation of the country's industrial policy. The DBSA has been the key implementing agent for the country's Jobs Fund. The following sub-goals of the research are addressed. Firstly, the thesis investigates the contribution the IDC and DBSA have made to employment creation and the financing of projects in strategic sectors that are also important for economic growth. Secondly, the study attempts to identify the limitations of state led industrial financing through the IDC and DBSA. Finally, an investigation of the financing activities of Brazil's Banco Nacional de Desenvolvimento Econômico e Social (BNDES) and the policies that inform them is conducted in order to determine if there are valuable lessons for South Africa's DFIs.

#### 1.4 Methods, procedures and techniques of the research

The research adopts a comparative institutional approach (CIA). This approach entails the use of case studies examining scholarly accounts of the state and state intervention in development finance. A literature study of the theoretical debates is conducted and a comparative case study analysis is undertaken with both a historical and contemporary focus. Empirical evidence is obtained in order to supplement the "secondary evidence" from the literature. A document analysis of annual and financial reports of the DFIs (IDC, DBSA and BNDES) and government documents (the Industrial Policy Action Plan (IPAP) from the DTI) is the source of the empirical evidence. The document analysis provides data on the impact of particular interventions on employment creation, such as the number of jobs created, the amount of financing received by various projects and the scale of such projects. The reports were obtained from the websites of the various institutions. The period studied is from 2010 as this is the year the DTI began publishing the country's industrial policy action plan on a yearly basis. The IPAP has directly informed the financing activities

of the DFIs in South Africa, particularly the IDC. Due to the scope of the research, the study focuses on the IDC and the DBSA.

The CIA recognises that the state is not a reified monolith. States are institutions and “historical products of their societies” which navigate economic and social change as they are moulded by it (Evans, 1995: 18). Economic outcomes are also more than a response to prevailing market conditions, but are the product of social and political institutions. The CIA attempts to take a more holistic approach, aiming to comprehend the variety of outcomes of state intervention and avoids the imposition of different cases into a standard facile mould. The attempt is to go beyond calculations of individuals and also to look at the context within which such calculations are embedded (Evans, 1995).

A positivist view which could have been considered as the alternative approach to conducting the study regards knowledge that is observable and measurable. Deductive reasoning is used to test theory. Positivists are of the view that phenomena can be investigated and findings presented using a single correct set of procedures, based on a scientific research model (Ryan, 2006). The supposed purpose of using scientific method and language in writing about the human experience is to keep research free of the researcher’s ideology, political views and values. Researchers adopting the positivist view believe that a full understanding can be reached founded on experimentation and observation.

However, for the purposes of this study there is a need to move beyond the limitations of positivist ideas about research. The idea that research is solely concerned about the right techniques for information collection and categorisation is inadequate. Institutions in a particular political economy are not discrete, finite actors isolated from broader social and political systems (Ault and Spicer, 2008). Post-positivist approaches such as the CIA are interpretive, putting emphasis on the multiplicity and complexity of meaning and knowledge. The CIA takes a post-positivist stance, suggesting that the aggregation of data cannot lead to one simple overall truth. The research is of an exploratory nature considering theory and practice (Ryan, 2006). The CIA has been used by economic historians including

Polanyi (1957), Hirschman (1966) and Geschenkron (1962), as well as political economists such as Amsden (1989), Evans (1995) and Wade (2004).

## 1.5 Outline of the thesis

Chapter 2 explores the debate on the role of state in economic development. The state versus market debate particularly in the post-war period is explored, starting with the neoclassical economic point of view commonly associated with World Bank ideology. It is argued that the World Bank has occupied a hegemonic position in setting the tone in development economics with respect to the role of the state and market. The Bank has also not been monolithic in its ideology, but its ideas have evolved over the years, shaping development theory while also being shaped by the changing environment and shifts in the economic development debate. The competing arguments in development economics and their impact on industrial policy and financing are also discussed.

Chapter 3 explores the importance of institutions in policy formulation and implementation and the role played by institutions in successful development. The theoretical framework of political settlements is discussed. It is also shown that development finance institutions, in particular, play a pivotal role in channelling and directing resources to selected industries that are important for growth.

In Chapter 4, a case study analysis of two countries, South Africa and Brazil, is introduced, exploring the notion that South Africa should learn some lessons from Brazil, by adopting some of its policies and financing similar activities. A brief overview of the countries' industrial policies and the institutions, particularly DFIs that are involved in its formulation and implementation process, is undertaken. The Chapter also examines the history of the DFIs (IDC, DBSA and BNDES) and the contribution these institutions have made to the countries' industrialisation process.

Chapter 5 explores the financing activities of South Africa's key development finance institutions, the IDC and DBSA, as well as Brazil's BNDES. The focus is on determining the contribution the financing activities of these institutions have made to the South African economy, particularly where job creation is concerned. The balance of power within the country and how it has affected the DFIs' activities are examined. Chapter 6 concludes that the distribution of power amongst the prevailing interest groups in South Africa has impacted the country's industrial policy and industrial financing through the DFIs. This may have posed a limitation to the country's progress where job creation is concerned in spite of the financing activities of South Africa's DFIs. Fundamental to the formulation and implementation of industrial policy are institutions, particularly development finance institutions and the distribution of power in society.

## CHAPTER 2: DEVELOPMENT THEORY AND POLICY: CHANGING VIEWS AND IDEOLOGY

### 2.1 Introduction

Chapter 2 explores the debate surrounding the state and the market in economic development and industrial policy in the post-war period as well as how this has in turn influenced the role of the state in industrial finance. At the heart of this debate is the World Bank that has played an influential role in producing and disseminating international development knowledge. The Bank has occupied a key role in setting the agenda in the development debate regarding the role of the state and industrial policy (Berger and Beeson, 1998; Fine, 2012a; Wade, 2002). This influence has been realised in various ways, such as the following: the use of the Bank's loans and foreign aid to governments around the world, the production of knowledge and research that is made available through different publications, particularly the World Development Reports, as well as the dissemination of policy ideas from the Bank's think-tank, the Economic Development Institute (EDI). The EDI has admitted officials that are responsible for policy-making in their governments and these officials have carried the Bank's ideas back to their own countries to occupy positions of influence (Berger and Beeson, 1998; World Bank Group, n.d.).

In addition to the spread of ideas, the Bank has also shown little tolerance for concepts that are opposed to the prevailing policy agenda coming out of the Bank at a particular time. Wade (2002) gives a detailed account of the events that preceded and followed the sudden resignation of two of the World Bank's prominent staff members, Chief Economist Joseph Stiglitz in 1999 and Staff Director of the 2001 World Development Report, Ravi Kanbur in 2000. Wade's (2002) retelling of the events suggests that the Bank is set on promoting its own development agenda and those that disagree with this set of ideas even from within the Bank have found themselves side-lined. Van Waeyenberge and Fine (2011) also maintain that throughout the 1980s to the 2000s, the World Bank has occupied a hegemonic

position in setting the developmental agenda of market versus state through its own research as it laid its claim as “a knowledge bank”. The following three sections of the chapter explore the changing views that have emerged from the Bank regarding the role of the state in economic development. Section 2.5 explores the contribution of the developmental state paradigm to the debate and criticisms regarding certain views of the World Bank. The new structural economics approach as a more recent contribution from the World Bank is reviewed in Section 2.6. Section 2.7 discusses the structuralist macroeconomic policy framework that emerged in the 1950s and the critique of this approach. In Section 2.8, the impact of the re-organisation of production in global value chains on industrialisation and industrial financing is examined, while the theory of capabilities and learning strategies as part of the industrialisation process is explored in Section 2.9. It is concluded in Section 2.10, that even though lessons can be learned from other countries’ experiences, each country needs to formulate its own industrial policy and finance its industrialisation process according to identified priorities.

## 2.2 The pre-Washington Consensus

Shifts in development theory and policy have coincided with changes in ideology that have emerged from the World Bank Group, particularly where the debate on the role of the state and industrial policy are concerned. Starting from what Fine (2012) refers to as the pre-Washington Consensus after the Second World War, to the McNamara (1968-1981) and Chenery era (1970-1982), the Bank was already expanding its development agenda as it increased its lending efforts and poverty-reduction programmes in developing countries (Van Waeyenberge, 2006; World Bank Group, n.d.). The institution commonly known as the World Bank Group was founded in 1944 at Bretton Woods, New Hampshire in the United States of America, under the Articles of Agreement of the International Bank for Reconstruction and Development (IBRD) and the International Monetary Fund (IMF) (World Bank Group, n.d.). This institution was established with the main aim of rebuilding Europe and providing long term finance for industrialisation and modernisation purposes. In 1946, after the Bank opened its 1818 H Street, N.W. Washington D.C. premises, the press ceased to refer to the institutions as ‘The Bretton Woods Institutions’ and created the

term 'World Bank' (World Bank Group, n.d.: 8). The Bank was intended to function as a type of cooperative, receiving capital support from the United States of America and other economically strong countries and transferring investment capital to poor countries. This financial institution was able to acquire funds at low interest rates from international markets and lend to poorer countries at relatively lower borrowing costs (Griffith-Jones, 2002).

The Bank financed reconstruction and development, supporting productive projects around the world. The decision to expand its technical assistance programmes in 1949 was indicative of the Bank's perception that impediments to economic development could be due to lack of technical skills rather than capital deficiencies (World Bank Group, n.d.). During the pre-Washington Consensus era, the Bank financed infrastructure projects such as hydroelectric plants, the rehabilitation and maintenance of roads, irrigation projects, and modernisation of industries. Financed projects specifically focused on agriculture, infrastructure, and the purchasing of capital goods and equipment (World Bank Group, n.d.). State intervention was tolerated and even supported while emphasis was placed on structural change and industrialisation (Fine, 2006; World Bank Group, n.d.). The state played an active part in financing industrialisation through the use of development banks.

In the McNamara-Chenery era, the World Bank evidently still perceived the state and partly state enterprises as agents of industrialisation. It was believed that the only way to reduce poverty was to increase the productivity of the poor. Population planning, education and agriculture were seen as pillars of economic success, with the World Bank's President Robert McNamara calling for literacy, nutrition and water supply development (World Bank Group, n.d.). There was an identified need for new approaches to development that allowed the benefits of economic growth to reach a wider population in developing countries. Fine (2012) explains that the old development economics that constitutes part of the pre-Washington Consensus, was concerned with a wider variety of socio-economic processes and structural change, emphasising the role of the state as a driving force behind this change.

## 2.3 The Washington Consensus

### 2.3.1 The beginnings of the Washington Consensus: the first shift in development ideology

The shift from the pre-Washington Consensus to the Washington Consensus came with the end of the McNamara era in 1981. McNamara was succeeded by Alden Winship Clausen. The change in the Bank's presidency came with a shift in the way they approached poverty alleviation and development, as a new era of the so-called structural adjustment loan policies took root. The structural adjustment loan was approved for launching in 1980 by the World Bank Board (Easterly, 2005; World Bank Group, n.d.). This change in the Bank's priorities and philosophy is reflected in the insights and prescriptions outlined in the 1981 World Bank publication, a report by Elliot Berg entitled "Accelerated Development in Sub-Saharan Africa: An Agenda for Action". The report entailed a study of the problems of economic development faced by countries in Sub-Saharan Africa, suggesting a reduced role for the state and more reliance on the market as a way to promote economic growth. The World Bank (1981) was also critical of the role of the government in financing investment projects, asserting that the projects were often not properly evaluated, resulting in the overextension of resources.

At the end of the post-war boom there was a change from a tradition that supported state intervention to what became known as the Washington Consensus, mostly promulgated by the International Monetary Fund (IMF) and World Bank (Chang, 2004; Fine, 2012a; Haque, 2007). The following wave of ideology that would end up shaping the economic future of many developing countries began in 1989 when the term "Washington Consensus" first emerged in a background paper by John Williamson for a conference convened by the Institute for International Economics (Williamson, 2004). The conference was aimed at examining development policy in Latin America. In this background paper Williamson (2004: 2) listed ten policy reforms that included "fiscal discipline, reordering public expenditure priorities, tax reform, liberalising interest rates, a competitive exchange rate, trade liberalisation, liberalisation of inward foreign direct investment, privatisation,

deregulation and property rights”. The Washington Consensus entailed a “one-size-fits-all” neoclassical approach to development policy (Fine, 2012a).

The rise of the Washington Consensus mirrored the growing influence of neo-liberalism, where the state was assumed to be ineffective and the source of inefficiency in the economy. This was accompanied by a fundamental trust in the market mechanism, stressing the merits of markets and the shortcomings of the state in promoting economic development (Chang, 2004; Fine, 2006a, 2012; Ocampo, Rada and Taylor, 2009). State intervention was perceived to result in rent-seeking and corruption in developing economies (Fine, 2012a; Krueger, 1974). Fine (2012) argues that as a rhetoric, the Washington Consensus has been about free markets and no state intervention while in scholarship it has been about neoclassical monetarism, and in practice it has entailed state intervention for the purposes of promoting private capital, specifically in finance. Therefore, as far as industrial financing is concerned, the Washington Consensus has been about leaving the financing of projects to the market while in practice, state led DFIs would intervene to promote private capital. This is further explored in Chapter 4 and 5.

### 2.3.2 The rise of the East Asian economies and the ensuing debate regarding state intervention

As some of the Asian economies achieved unprecedented growth, this raised interest as to how these countries were able to obtain such success. This resulted in a number of studies exploring the success of Japan and the East Asian NICs, particularly South Korea, Taiwan, Hong Kong and Singapore. In the 1980s the World Bank accredited the success of the East Asian countries to privatisation and liberalisation, arguing that South Korea, Taiwan, Hong Kong and Singapore had adopted a free-market model (Berger and Beeson, 1998). By contrast, studies by authors such as Johnson (1982), Amsden (1989; 2001), Evans (1995) and Wade (2004) found that government intervention was key to the success of these countries. Amsden (2001) found that the state played a crucial role in late industrialising countries. For example, Thailand’s state led Board of Investment oversaw industrial promotion and targeted industries, specifically manufacturing projects. According to

Amsden (2001), the state was developmental and its activities were centred on development banking; managing local content; establishing national firms and keeping certain markets closed while opening others to foreign transactions. A set of control mechanisms was imposed on firms requiring them to meet certain conditions and performance standards. The mechanisms involved the allocation of subsidies only to profitable manufacturing ventures and recipients that were closely monitored by the government.

Wade (2004) describes the industrial policies, industry performance, institutional and political arrangements in East Asian countries, arguing that state policies in these countries were designed to transfer resources from “unproductive” towards “productive” uses. In a state-led industrialisation process, the Japanese government assumed developmental functions and made use of government-owned DFIs as a tool for implementing industrial policy (Johnson, 1982). Credit concessions were made available under favourable conditions to targeted sectors and firms. In the case of the East Asian Tigers (Hong Kong, Singapore, South Korea and Taiwan), governments mainly used development banks to condition the behaviour of enterprises that received loans and compelled them to fulfil certain requirements (Di Maio, 2009). The government also made use of tax exemptions and subsidies to direct investment to targeted sectors that were strategic to the countries’ industrialisation process. Success was achieved through the government’s effective use of incentives *and* discipline (Amsden, 2001). According to Evans (1995), in order for the state to play this developmental role, it also had to possess “embedded autonomy”, discussed in Chapters 1 and 3. Even though the degree of success or the effectiveness varied across different countries, industrial policy and state DFIs were nevertheless an important tool used by the state for economic development and industrialisation.

### 2.3.3 The East Asian Miracle report and the resulting controversy

The Japanese Ministry of Finance funded “The East Asian Miracle” World Bank report which was published in 1993. This was an attempt by the Japanese government to get the World Bank to change its interpretation of the East Asian success (World Bank, 1987;

Berger and Beeson, 1998). The World Bank later released the “East Asian Miracle” report that adopted a new market-friendly approach to government intervention which mainly just expanded on the neoclassical view of the Washington Consensus (World Bank, 1993). To Japan’s dismay, the report still maintained that the state was only successful in its intervention because the interventions were market-conforming “doing what the market would have done had it been working perfectly” (Fine, 2006: 106). The report also argued that the East Asian policy model (using selective industrial and trade policies) could only succeed if certain institutions were in place and for this reason, the policies could not be transferred to other countries that do not possess the same institutional prerequisites (World Bank, 1993; Chang, 2004). Therefore, developing countries with poor institutions could not successfully replicate the selective trade and industrial policies employed by Japan, South Korea, Taiwan and Hong Kong. It was reasoned that the more suitable role model for developing countries was that of Thailand, Indonesia and Malaysia that achieved growth without much use of selective policies (Chang, 2004). The debate on selective industrial and trade policies bred by the success of the East Asian countries also brought about interest in the institutional prerequisites of policy implementation (Chang, 2004). This debate is further explored in Chapter 3 with particular attention to the role of institutions in financing economic development and industrialisation.

A more nuanced perspective was subsequently adopted by the World Bank regarding the role of the state in development. The 1997 World Bank report “The State in a Changing World” is indicative of such a perspective. The report recognised the value of state intervention and the role played by the government in East Asian development. Even though an effective state was seen as important for accelerating industrial development, “good economic policies” such as macroeconomic stability and openness to the world economy were still noted as important (World Bank, 1997).

#### 2.3.4 Structural adjustment loans and their implications for economic development

In addition to the debate regarding the role of the State in East Asian development, structural adjustment policies coming out of the World Bank and the IMF also raised

competing arguments concerning state intervention. Williams (2014: 6) argues that in the 1980s and 1990s, structural adjustment programmes became the approach of choice, entailing the privatisation of state assets, restricted government spending, market deregulation and dismantling national industrial and social policies. In light of the 1979 oil shock, the structural adjustment instrument was meant to reduce current account deficits in developing countries, strengthening the balance of payments, while maintaining economic growth and development (World Bank, 1981). Easterly (2001) explains that lending was therefore conditional on the recipient country implementing Washington Consensus policy prescriptions. This included shifting away from state planning and import substitution industrialisation policies towards an outward orientation with no state control of interest rates and prices. It later became clear that the structural adjustment packages were bringing about high levels of inequality and economic stagnation to many of the countries that had implemented these policies (Easterly, 2001; 2005; Ocampo *et al.*, 2009; Williams, 2014).

Easterly (2001) determines that the median per capita income growth in developing countries was 0.0 percent during the period of structural adjustment policies in 1980-1998 compared to the 2.5 percent prior to the implementation of these policies in 1960-1979. In another study by Easterly (2005), he investigates the economic performance of 20 countries that received the most structural adjustment loans. Table 2.1 shows the per capita growth rate achieved by these countries and their current account balances. According to Easterly (2001), this stagnation demonstrates the disappointing results of the movement towards the “Washington Consensus” by developing countries. Ocampo *et al.*, (2009) also support this assertion, arguing that the failure of economic growth was due to the shift in development policy to stressing market liberalisation and departure from state intervention. Summers and Pritchett (1993) on the other hand, suggest that middle-income countries benefited more than poor countries from structural adjustment lending. They observe that middle income countries’ growth increased from 2.1 percent to 4.8 percent per annum between 1981-1985 and 1986-1990 but growth only increased from 1.2 to 3.6 percent per annum in low-income countries, indicating stagnant per capita incomes.

Table 2.1: The successes and failures of repeated adjustment lending

<b>Country</b>	<b>Adjustment loans(1980-99)</b>	<b>Per Capita growth rate (%)</b>	<b>Current account Balance/GDP</b>
Argentina	30	1	-2.4
Cote d'Ivoire	26	-1.4	-6.7
Ghana	26	1.2	-4.2
Morocco	22	1.1	-3.3
Senegal	21	0.1	-8.5
Uganda	20	2.3	-7.4
Mexico	20	0.4	-1.9
Pakistan	20	2.7	-3.4
Kenya	19	0.1	-3.5
Philippines	19	0	-2.8
Zambia	18	-2.1	-12.3
Malawi	18	-0.2	-11.1
Jamaica	18	0.4	-5.4
Bangladesh	18	2.4	-2.8
Madagascar	17	-1.8	-7.3
Bolivia	17	-0.4	-6.8
Mauritania	16	0.1	-9.4
Togo	15	-1.6	-6.3
Mali	15	-0.1	-9.9
Niger	14	-2.3	-7.6
<b>AVERAGE</b>		0.3	-6

Source: Modified from Easterly (2005)

## 2.4 The post-Washington Consensus

One of the foremost critics of the Washington Consensus is Nobel Laureate and former World Bank Chief Economist, Joseph Stiglitz (1998) who coined the term “post-Washington Consensus”, arguing that the policies of the Washington Consensus are incomplete and perhaps even misguided. Stiglitz (2004) asserts that during times of changing technology, or other dynamic processes that are part of development, markets do not produce efficient outcomes as alleged by the Washington Consensus and macroeconomic stability or long-term development cannot be achieved solely by the policy recommendations of this Consensus.

It is further argued that benefits of free trade and privatisation that are suggested by the Washington Consensus can only be realised in a competitive market (Stiglitz, 1998). In an uncompetitive market the benefits are lost in rent seeking and not channelled towards wealth creation. Stiglitz (1998) asserts that trade liberalisation may create competition, however this is not automatic. Stiglitz (1998) also notes that the benefits of privatisation may have been overestimated. Even if increased productive efficiency were to be achieved after privatisation, the attainment of broader public objectives may be difficult to ensure, even with regulation. Furthermore, the question of where to draw the boundary or how much should be privatised is not addressed by the Washington Consensus.

The Washington Consensus suggests that reducing the size of the government, budget deficit and the current account deficit are elements of macroeconomic stability. Stiglitz (1998) argues that it is not easy to determine the ideal level of the current account deficit. Current account deficits are neither good nor bad; it depends on the circumstances and purpose for which the funds are being used. Stiglitz (1998) further argues that the state’s efficiency is reduced by too broad a focus and the government should concentrate on the basics such as economic policy, law and order, health, building roads and provision of basic education. Stiglitz (1998) maintains that the question should not be whether or not the state is involved but how it gets involved and the concern should not be the size of the state but the activities and approaches of the state. The post-Washington Consensus’ view is that

government activities should complement the market and these activities should make markets work better and be aimed at correcting market failures.

According to Stiglitz (1998) the state plays a significant role in creating and maintaining a robust financial system and without this system it becomes a challenge to mobilise savings and allocate capital efficiently. In poorly functioning financial systems, capital is often allocated to investments with low productivity. Financial markets also serve other purposes such as risk reduction, transmitting information and increasing liquidity. Stiglitz (1998) argues that left to itself, the financial system cannot perform these functions well. Problems such as incomplete information and incomplete markets arise. According to Stiglitz (1998), transparency and institutions such as an effective legal system and regulations are needed to mitigate imperfect information problems and promote conditions for efficient financial markets. State interventions through DFIs can also provide a way to deal with these market failures (See Sections 1.1 and 3.6).

On the other hand, the post-Washington Consensus has been criticised for its “intellectual narrowness and reductionism” (Fine, 2002: 3). Fine (2002) found Stiglitz’s (1998, 2004) application of an “information-theoretic” approach<sup>1</sup> to understanding better how markets work rather too narrow. He argues that the post-Washington Consensus has used the Washington Consensus as a critical point of departure and has neglected literature that is of great importance (Fine, 2002). According to Fine (2002: 12), “the state versus the market gives way to state and market to overcome market imperfections”. Therefore, the movement to the post-Washington Consensus should be seen as and understood in terms of a shift in policy stances and a more nuanced understanding of state and markets at the World Bank and the IMF but not as a significant departure from orthodoxy (Fine, 2002). According to Fine (2002), the post-Washington Consensus was building on the ideologies that were already present within the World Bank and shared some similarities with the Washington Consensus when it comes to neoliberal ideology.

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<sup>1</sup> That is, information imperfections in developing countries can result in markets that are not clearing, inefficient or absent. This view continues to adhere to a neoclassical approach and the role of the state is that of facilitating the market in case of market failure.

Fine (2002) also observes that proponents of Washington Consensus policies could claim that the reason developing countries were unable to achieve economic success was due to failure in the implementation of the policy reforms of the consensus. The post-Washington Consensus, on the other hand, evidently seeks to dictate what the state should do and how it should do it as government intervention is seen as appropriate in cases of market failure. Government intervention can be viewed as a way for the World Bank and IMF to rationalise intervention in recipient countries (Fine, 2002). Fine's (2002: 12) argument is that the post-Washington Consensus "has proven a convenient veil for extending the scope for discretionary intervention". According to Van Waeyenberge, Fine and Bayliss (2011), while in principle, the post-Washington Consensus attempted to move beyond the reductionist way of explaining the development process as solely dependent on the market, the concept still remained that of promoting the market through state intervention. This concept is further explored in Chapter 5 where the financing activities of South Africa's DFIs are examined, particularly where their support of certain industries and businesses is concerned.

## 2.5 The Developmental State and Beyond

One of the critiques of the Washington Consensus approach has been the developmental state paradigm (DSP) (Fine, 2006). Various definitions of the DSP emphasising the role of the state have been put forward. According to Marais (2011: 339), the developmental state "refers to a model of economic growth and social redistribution in which the state acts, with varying degrees of autonomy, as a major variable promoting that growth, determining its pattern and ensuring social development". In his study of the role played by the Japanese Ministry of International Trade and Industry (MITI), Johnson (1982: 17) argues that "the issue is not one of state intervention in the economy". All states can be found to be intervening in their economies for a variety of reasons. "The question is how the government intervenes and for what purposes" (Johnson, 1982: 18). In countries that were late industrialisers, the state played a pivotal role taking on "*developmental* functions". According to Johnson (1982: 19), the developmental state mainly sets social and economic goals, and "will give greatest precedence to industrial policy, that is, to a concern with the

structure of domestic industry and with promoting the structure that enhances the nation's international competitiveness”.

#### 2.5.1 The economic and political approaches within the DSP

Fine (2006) suggests that the developmental state paradigm can be viewed from two different schools or approaches: the economic and the political school. The economic and the political schools emphasise different explanations of the manner in which successful development has been or might be achieved. The economic school is associated with the work of Amsden (1989) and Wade (2004); while the political school draws from economists such as Johnson (1982) and Evans (1995). The focus of the economic school is on policies that are essential for the achievement of economic development. “The state is required to accrue, for example, the economies of scale and scope, to coordinate investments within and across sectors, to harness positive and eliminate negative externalities, and so on” (Fine, 2013: 4). The economic school's emphasis is on determining the proper policies, with the presupposition that a developmental state will or might be able to employ these policies because they should.

According to Fine (2006), the political school seems detached from considering the economy and the nature of the policies required to bring about development and yet it is complementary to the economic school. The political school focuses “on the political or other conditions that enable appropriate policies to be adopted” (Fine, 2006: 102). The focus is on the state's ability or potential and particularly the independence to adopt the developmental policies that are to be implemented (Fine and Rustomjee, 1996: 57). It could be argued that the two approaches are not as distinct as suggested by Fine (2006, 2013). Some of the works of the economists associated with the approaches overlap both the economic and political schools in their analysis of the developmental state. For instance, Amsden (2001) recognises that in order for the state to implement certain economic policies and incentives it had to possess the ability to enforce such incentives. Wade (2004) also considers that the success of the East Asian economies was very much dependent upon the governments' actions. *Governing the Market* not only explores industrial policies but

it also describes “state capacity in the form of the institutional/political arrangements for public- and private sector interactions” (Wade, 2004: xvii). In other words, economists whose research is identified as falling under the so-called economic approach, do address political issues and the role of the state and the same could be argued for the political school regarding economic policies.

According to Fine (2013), the DSP has had limited influence in development economics and has failed to rise to prominence particularly within the World Bank. Even though the 2008 financial crisis led to state intervention through the dissemination of rescue packages and bank bailouts for private financial institutions, state intervention on a larger scale at the level of the whole economy has been limited (with austerity measures imposed on all except private banks). Fine (2013) maintains that in spite of the need for alternatives, the DSP has not emerged as a serious contender but merely as a ‘buzzword’ while also presenting some limitations. Such limitations arise when attempting to identify the characteristics of a developmental state. Even though the analytical framework for the DSP should be applicable to both cases of success and failure, this however is not the case. The DSP tends to be confined to success cases, such as the “self-limiting” preoccupation with East-Asian NICs (Fine, 2013).

The focus of the DSP is on the developmental state’s freedom from capture by special interest groups, and the ability to implement suitable policies. This emphasis on the state’s autonomy from the market and economic interests has led to little consideration being given to the role of class in the DSP analysis (Fine, 2013). Very little thought is given to whether the policies are supported and who they benefit. The fixation on the nation state’s ability to bring about development has also resulted in little regard for international and/or global factors and how these factors impact on the policies to be implemented (Fine, 2013). Failures have been explained as a result of departure from one or more developmental state models instead of being explained from within the DSP paradigm. The technique of selecting developmental states and explaining success in terms of policies adopted and the state capacity to adopt the policies is often employed. The political school would then probe further into the reasons why specific policies were adopted but this is done without looking

“into the social, political, cultural and ideological circumstances that both create such preconditions and allow them to prevail over other causal factors and interest” (Fine, 2013: 11).

Williams (2014: 7) sums up the twentieth century developmental state as emphasising the following: “development as economic growth placed as the first priority; the existence of an elite state bureaucracy consisting of the best talent using market-conforming methods of state intervention; a political system in which the executive branch can take initiative and operate effectively vis-à-vis the legislative and judiciary branches of the government; a pilot organization within the bureaucracy with leverage to control and command the implementation of industrial policy; ‘embedded autonomy’, or the ability to construct an apparently contradictory combination of Weberian bureaucratic insulation with intense immersion in the surrounding social structure; and a state with enough political will, power and capacity to discipline capital”.

Fine (2006b: 114) suggests that alternative approaches to the DSP can begin by rejecting the state and market dichotomy and take into account that “both market and state are the consequence of or form taken by underlying economic and political relations and interests”. The framework of political settlements explored in the next two chapters provides a way to extend beyond the DSP in the analysis of South Africa’s industrial policy and financing. This is achieved by considering what groups are benefiting from policy and the financing activities of the country’s DFIs, demonstrating that the government has not been free from capture or influence by specific interest groups in implementing its industrial policy, achieving the stipulated policy objectives and financing the industrialisation process.

### 2.5.2 The twenty-first century developmental state

According to Williams (2014), the twenty-first century developmental state will not only consider the above mentioned elements emphasised in the twentieth century developmental state literature, but should add even more elements, keeping in mind the difficulties faced by developing countries. It must do more, such as “investing in education and health and

creating an accountable and representational state... deepening democracy, environmental justice, human development as well as economic growth” (Williams, 2014: 8). It is also argued by Evans (2014) that developing countries will need to make a move towards knowledge and service sectors as there has been a shift in the growth engine of the world economy from manufacturing to these sectors. There are others who would argue that manufacturing still plays a crucial role in economic growth and employment creation in developing countries (particularly in South Africa) as it possesses special ‘growth-pulling’ properties and backward and forward linkages (Tregenna, 2008; Malan, Steenkamp, Rossouw and Viviers, 2014; Zalk, 2014a; 2014b). Williams (2014) maintains that there also needs to be a change in the way development is understood from being viewed as purely economic growth towards a more holistic approach that includes social and human development.

Williams (2014) emphasises that nineteenth and twentieth century developmental states were characterised by a shift from predominantly agricultural to manufacturing economies. Machine production played an important role in economic growth providing the working class with enough structural power to have a political voice and capture a portion of the gains from production. According to Williams (2014) and Evans (2014), since the late twentieth century there has been a shrinkage of the manufacturing sector which has not been able to sustainably provide employment opportunities for the working class.

Williams (2014) observes that the deindustrialisation phenomenon has been occurring globally with manufacturing jobs on the decline even in China and India. Evans (2014) argues that part of the reason for this deindustrialisation is that economic growth is increasingly becoming ‘bit-driven’. This entails value-added activities coming from “new ways of arranging bits of information in formulas, software code and images and less from the physical manipulation of materials to make tangible goods” (Evans, 2014: 222). Therefore, people’s income is being derived more from delivering intangible, often poorly paid services rather than the physical manipulation of materials to deliver tangible goods. For most of the population this entails poor remuneration for services, with the minority being highly rewarded for ‘business services’. Financialisation is an example of “the

economic dominance of transactions that consist of particularly privileged kinds of ‘information’ over the production of tangible goods as the source of economic gain” (Evans, 2014: 222).

It is suggested that economic and social transformation in twenty-first century development will depend on generating intangible assets such as “ideas, skills and networks” instead of increasing investment in machinery and physical assets that are aimed at producing tangible assets (Evans, 2014). The implications for industrial financing would be the channelling of resources from tangible assets to intangible assets. Therefore intervention will require that the state possesses the capacity to collect information, effectively allocate investment and this can be achieved via state-society ties. In this view “the special kind of ‘embeddedness’ or ‘state-society synergy’ that was crucial to twentieth-century industrial transformation - dense networks of ties connecting the state to industrial elites - will have to be replaced by a much broader, much more ‘bottom-up’ set of state-society ties to secure developmental success in the current century” (Evans, 2014: 223). This bottom-up approach is consistent with Bateman’s (2014) argument for a local development state that is embedded in the local community with an in-depth understanding of community needs. The local development state approach has however also been critiqued by some industrial policy practitioners.

## 2.6 The New Structural Economics

A recent contribution to development theory and policy that has emerged out of the World Bank is the New Structural Economics (NSE) put forward by Justin Lin (2012), former chief economist of the Bank. Lin (2012) asserts that the NSE incorporates the insights of structuralism with those of neoclassical economic analysis concerning the process of economic growth and development. It is argued that continuous technological innovation and structural change are the main features of modern economic development. Any economy will be competitive domestically and internationally if the industrial structure is endogenous to its comparative advantage, which is determined by the endowment structure at the time (that is, the country’s “latent” comparative advantage) (Lin, 2012). Economies

that merely add more physical capital and labour into existing industries as a way to achieve economic growth run into diminishing returns and those that attempt to deviate from their comparative advantage are most likely to perform badly. In this view, the main objective of economic policy is to make certain that economic growth takes place in a manner that is consistent with the country's comparative advantage. In other words, countries should industrialise according to their "latent" comparative advantage. This will allow the economy to be competitive, maximise capital accumulation and optimize profits. As countries accumulate capital, the structure of the factor endowments of their economy evolves and this results in a gap between the optimal and current industrial structure. Firms operating in this evolving economy would then need to upgrade their industries and technologies in a way fitting to maintain competitiveness. Lin's NSE view implies that should the state intervene in industrial financing, this should be in support of projects and industries that conform to the country's comparative advantage.

The market is viewed as necessary for effective resource allocation during development and governments are to play a facilitating role to help the economy progress from one level of growth to the next and help overcome information-coordination and externality issues (Lin and Treichel, 2014). The facilitating state is to encourage firms, industries and sectors that will effectively use the country's current comparative advantage once they have been launched. The government can intervene in the following ways in order to allow markets to work properly: firstly, it must provide information about new industries that are in keeping with the country's comparative advantage as they are shaped by the economy's endowment structure. Secondly, as far as industrial financing is concerned, the state should coordinate investments in industries as well as infrastructural improvements that are required. The government must also provide subsidies for activities with externalities. Finally, the government should act as a catalyst when developing new industries, by providing protection, and encouraging foreign direct investment to help reduce constraints such as social capital deficits (Lin and Treichel, 2014).

Although the NSE claims an alliance to Latin American structuralist economics (see Section 2.7), while also making neoclassical propositions, critics have raised issues with

the lack of theoretical depth of this paradigm. Fine and Van Waeyenberge (2013) criticise the flawed nature of the theory of comparative advantage and incoherent application of neoclassical economics in the NSE. Fine and Van Waeyenberge (2013) argue that a very specific set of assumptions is needed for the concept of comparative advantage to hold. This therefore means that the concept of comparative advantage is conceptually and empirically limited and not very useful for policy-making either, especially due to its perfect factor mobility assumption. Chang (2009: 501) adds that neoclassical economics (the basis of Lin's NSE), although possessing some flexibility, is limited in "its ability to analyse uncertain and collective nature of the technological learning process, which is at the heart of economic development" because of its rational-choice and individualistic fundamentals.

Chang (2009) also disagrees with Lin's assertion that countries should industrialise according to their latent comparative advantage. Chang (2009) believes that even though the concept of comparative advantage is important, countries do need to defy their comparative advantage for industrial upgrading. The importance of comparative advantage lies in providing a guideline, indicating how much a country is sacrificing and protecting its infant industries. Chang (2009: 491) acknowledges that "[t]he more you deviate from your comparative advantage, the more you pay in order to acquire capabilities in new industries". However this does not mean that countries should follow their traditional comparative advantage. Chang (2009) adds that countries accumulate most technological capabilities through actual production experiences. Failure can also be minimised by the use of reciprocal control mechanisms.

Chang (2009) is particularly critical of the assumption of perfect factor mobility within a country, meaning that resources employed in one industry can be employed by another industry that has become more profitable in comparison. This is not always the case as factors of production may be fixed in their physical quantities, are not homogeneous and therefore not easily transferrable. Chang (2009) explains that the accumulation of factors is not an abstract process where general capital and labour can be deployed and moved from one industry to another wherever necessary. The acquisition of technological

capabilities is industry specific. A developing country should seek to defy its comparative advantage if it wants to upgrade its industrial structure and enter new industries (Chang, 2009). In this view, countries that want to industrialise should therefore be encouraged to finance new industries that defy comparative advantage.

Lin (2012) introduces a so-called “growth identification and facilitating framework”, based on New Structural Economics. This entails a six-step process. Firstly, a developing country needs to identify tradable goods and services that have experienced dynamic growth for approximately 20 years in fast-growing countries that possess a similar endowment structure and a GDP per capita that is about twice as high as that of the developing country (Lin, 2012). Lin and Treichel (2014) explain that wages tend to increase in fast-growing countries that have been producing certain goods and services for about 20 years. As the wages rise, these countries start to lose their comparative advantage presenting an opportunity for developing countries with lower wages to enter and be competitive in those sectors.

The second step requires that the government prioritises, from the industries identified in step one, those that some domestic private firms have already spontaneously entered. The government’s task will then be to identify impediments that are stopping these firms from advancing the quality of their products or detect barriers of entry to those identified industries by other private firms. Lin (2012) suggests the use of value chain analysis or the Growth Diagnostic Framework as proposed by Hausmann, Rodrik and Velasco (2004). Policies can then be put in place to eliminate the binding constraints and evaluate the impact of such policies. Thirdly, in instances where the identified industries are new to domestic firms, the state is to devise ways to encourage firms in higher-income countries to invest in these industries and take advantage of the lower labour costs. Lin (2012) suggests setting up programmes to nurture and encourage private domestic firms to enter these industries.

The fourth step entails noting successful cases of innovation or “self-discoveries by private enterprises and provide support to scale up these industries” (Lin, 2012: 162). Fifthly, the

government can invest in industrial parks or export processing zones that are specifically tailored towards targeted industries, for the purposes of attracting foreign and domestic private firms if the developing country has poor infrastructure and unfavourable business conditions. The sixth step is the provision of incentives to foreign investors and domestic firms that are pioneering in identified industries “in order to compensate for the non-rival public knowledge created by their investments” (Lin, 2012: 162).

Lin and Treichel (2014) maintain that in order to realise dynamic economic growth countries should develop industries according to their comparative advantage, as determined by their endowment structure, tapping into the ‘potential benefits of backwardness’. In this model, the way to improve living standards and create better jobs is to facilitate industrial upgrading, structural change and diversification to enable “a developing country’s endowment structure to gradually align with that of more developed countries” (Lin and Treichel, 2014: 76). The New Structural Economics and Growth Identification and Facilitation Framework are therefore suggested as a way to assist countries identify sectors that are consistent with their latent comparative advantage, removing constraints that are growth inhibitors and addressing coordination and market failures (Lin and Treichel, 2014).

te Velde (2011) criticises the GIF, particularly the first step of the framework. It is argued that due to changes in circumstances, a comparison with the past is likely to be less informative for current policy decisions. te Velde (2011) notes that the GIF does not take into account the differences in geography, institutions, rise of emerging powers and shifts in demand patterns. Step 2 of the GIF is also criticised as it does not take into consideration that the differing policy instruments used by different countries and the circumstances in which such policies are implemented can determine the outcome.

Wade’s (2011) argument concerns the focus of the framework on FDI. He asserts that the emphasis on foreign investment has led to failure in recognising the advantages of mobilising domestic savings as opposed to relying on foreign financing. Countries can finance new industries through the use of national DFIs. The framework also neglects to

recognise the role of industrial upgrading and diversification (Wade, 2011). Amoako (2011) argues that the GIF does not pay enough attention to the acquisition of new capabilities in technology and learning. A country-specific analysis of capabilities and competencies embedded in these capabilities is needed (Nübler, 2014). The theory of capabilities and learning is further explored in Section 2.9.

## 2.7 A structuralist macroeconomic policy framework

Lin's NSE is distinct from the "old" structuralist development economics in a number of ways. The school of thought that became known as Latin American structuralism emerged out of the United Nations Economic Commission for Latin America and the Caribbean (ECLAC) under the leadership of Raúl Prebisch who was appointed in 1950 as executive secretary (Ocampo, 2014; Saad-Filho, 2007). The basic premise of structuralism was that development did not take place spontaneously and that in order to overcome poverty and underdevelopment, countries needed to industrialise through deliberate state intervention (Prebisch, 1963). The fundamental ideas of structuralism were developed over the course of the following decades, and from these ideas the most attention was given to the role of technological change, and the importance of physical and human capital formation (Ocampo, 2014).

Economic growth is accompanied by changes in the structure of production, GDP composition, employment and international patterns of specialisation (Ocampo, 2014). Furthermore, in developing countries, improvements in productivity through the development process are accompanied by shifts in labour from low- to high-productivity sectors. The structuralist view considers these changes as "actual *engines* of economic growth" and not simple by-products with neutral effects (Ocampo, 2014: 47). Seen from this perspective, development can be equated with an economy's capacity to generate new dynamic production activities.

Structuralism also conceptualises the world economy as divided into industrial centres and peripheral countries producing primary goods, and the resulting income growth differences

as the reason for the uneven technological progress. As technological progress spreads into the periphery and advances into other sectors, this brings about the need for industrialisation (Prebisch, 1959). It is also claimed that the stimulus for growth in peripheral countries is technical progress in export activities. This has since been explored by the works of Hausmann, Hwang and Rodrik (2007) as well as Ocampo *et al.*, (2009) where it is argued that the technological content of exports is an important determinant of growth.

If the process of technological progress spreads “to other primary activities for internal consumption, where productivity is usually very low, and industry is not developed to absorb redundant manpower, then the inevitable outcome will be more disguised unemployment or downright unemployment” (Prebisch, 1959: 252). If the population growth rate is higher in the periphery than in the centre, then industrialisation has to be promoted in order to achieve the same per capita rate of growth in income as the centre. This is necessary if the differences in per capita income of the peripheral and central countries are to be reduced (Prebisch, 1959).

Prebisch (1959) explains that the development process is accompanied by changes in the pattern of employment. A decreasing fraction of an ever growing population is needed as growth takes place in current activities and productivity improves. This means that a proportion of the working population is not needed in existing activities. The redundant workers are to be employed in growing exports, new production activities and in new branches of production industries that are for the purpose of import substitution (Prebisch, 1959). The real results of technological progress and benefits accrue to society only when these workers have been moved to new forms of employment. There is also an expected increase in income associated with the transfer of manpower from low productivity forms of employment to export industries or other industries with higher productivity. In other words, the key to poverty reduction is to grow the purchasing power of the poor and “growth can only address poverty concerns if it generates new jobs to keep pace with a rising labour force” (Ocampo *et al.*, 2009).

The structuralist policy framework has not been without criticism. According to Saad-Filho (2007), critics on the left have raised issues with expecting the urban bourgeoisie to lead the industrialisation process, with the majority of the population only considered as consumers and wage workers, instead of independent political and economic agents. History suggests that the local bourgeoisie depended on their foreign counterparts and were unwilling to engage consistently in a project of national development particularly in Latin America. It also became clear that the benefits from manufacturing were not going to trickle down spontaneously to the poor as the structuralists had predicted. Chibber (2004) explores this phenomenon, referring to “the myth of the national bourgeoisie”. These critics believed that “sustained manufacturing development and distribution of income, wealth and power can be achieved only through popular socialist governments” (Saad-Filho, 2007: 136).

Another critique of the structuralist paradigm comes from the New Structural Economics, arguing that the structuralist paradigm hampered economic growth instead of accelerating it (Lin and Treichel, 2014). The reason given is that, the structuralist paradigm proposed that countries should defy comparative advantage with the result that capital intensive industries were prioritised even though in these countries, capital was limited. This meant that production costs were very high in comparison with countries that developed industries that were consistent with their comparative advantage. Firms faced with high production costs were unable to compete in an open market, unless they were offered protection. In this view, the problem was that the government targeted industries that were thriving in countries with a per capita income much higher than its own. As a result the developing country failed to produce the goods at a cost advantage and were uncompetitive. Salazar-Xirinachs, Nübler and Kozul-Wright (2014), however point out that the NSE fails to recognise that many countries have employed industrial policies that do not conform to comparative advantage and have successfully industrialised<sup>2</sup>. Salazar-Xirinachs *et al.*, (2014) argue that the NSE does not give due consideration to aspects of technological upgrading, learning processes and capabilities but merely focuses on comparative advantage.

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<sup>2</sup> See also the debate between Justin Lin and Ha-Joon Chang (Lin and Chang, 2009).

## 2.8 Industrialisation through Global Value Chains

One of the most significant challenges to the way industrial policy and financing have been organised relates to changes in the way production has been restructured globally. There has been a rapid growth of trade in intermediate rather than final goods and services and consequently an increase in the level of vertical specialisation as the import content of exports has also increased (Milberg, Jian and Gereffi, 2014). These shifts have led to economic development taking place as a process of industrial upgrading within global value chains (GVCs), requiring the transformation of structures of production. According to Sturgeon (2001: 6), GVCs can be defined as “the sequence of productive (i.e. value added) activities leading to and supporting end use”. Milberg, *et al.*, (2014) explain that the role of industrial policies will be different when taking GVCs into consideration, where emphasis is put on the firm rather than the state and that earlier industrial policy strategies, specifically those of import substitution and export orientation, no longer suit the current global economic context.

It is suggested that developing countries can try to capture more value by making more inputs locally rather than importing them, and by moving up the value chain from production into design and branding, called ODM (own design manufacturing) and OBM (own brand manufacturing) in the literature (Gereffi and Frederick 2010). Within the GVC context, economic development has taken the form of upgrading into higher value added activities within a particular chain or new chains that produce more value added. This is referred to as “vertically specialised industrialization”. Vertically specialized industrialization (VSI) emphasises more the linkages to a set of value chain actors and less the national economy (Newman and Takala-Greenish, 2014). Milberg *et al.*, (2014) explain that export oriented industrialisation (EOI) policies differ from vertically specialized industrialisation VSI. EOI entails countries developing export ties with buyers in advanced economies. The focus is on responding to the demands of other economies, moving various consumer goods through GVCs and improving various products, processes and functions along the chain. While the focus of EOI is mainly on exports to Western advanced

economies, VSI relies to a greater extent on extensive ties with the GVC supply base that already exists in developing economies (Milberg, *et al.*, 2014).

Industrial policy under ISI entailed mostly a focus on building national capabilities and EOI focused on exporting final goods. GVC industrialisation on the other hand requires industrial policy focussed on regulating links to the global economy, particularly through trade, exchange rates and foreign direct investment (Newman and Takala-Greenish, 2014). With vertically specialised industrialisation the main focus is on using the trading of intermediate goods to capture greater value in GVCs (Milberg, *et al.*, 2014). Under VSI, export products initially use imported intermediate goods and moving up the GVC implies firstly allowing the required intermediate imports to come into the country while, at the same time, upgrading involves the attempt to spur on the domestic production of these intermediate goods. The production is usually carried out initially by foreign-owned firms and then finally by domestic firms.

In a world with GVCs, exports and imports are intertwined where certain exports have a high import content, and some imports have high export content. Policy design therefore needs to be in such a way as to manage GVCs. Policy no longer entails only a focus on macroeconomics and trade policies but also on industrial organisation. For example, state intervention in some developing countries will entail managing relationships between foreign lead firms and domestic low-value-adding firms as well as encouraging industrial upgrading and capturing more value added in the value chain, rather than liberalisation or trade protection (Milberg, *et al.*, 2014).

According to Newman and Takala-Greenish (2014), GVC analysis and its application to industrial development has resulted in the role of state becoming limited to supporting the private sector in attempts to upgrade and enter global value chains. The role of industrial policy in industrialisation, economic growth and development has become restricted in a number of ways. The focus on vertical specialisation relies upon external market demand with restricted domestic growth pull properties, except in cases of advancing and diversifying upstream production of inputs. Newman and Takala-Greenish (2014: 13)

explain that instead of promoting “the type of interconnected, interdependent, complex industrial structure that Kaldor saw as key to generating reinforcing and exponential growth dynamics, promotion of intra-chain connectedness and vertical specialisation limits the scope for complexity”.

It is further argued that the VSI model has no historical validity as a successful industrialisation process (Newman and Takala-Greenish, 2014). Successful industrialisation has always required considerable state intervention in the development of a diversified and integrated industrial base. The GVC and VSI reduce state intervention to supporting the private sector rather than directing it, as was the case for the East Asian countries and other late industrialising countries. Newman and Takala-Greenish (2014: 26) note that “while GVC development can potentially increase value addition and promote the growth of manufacturing as a share of GDP, and in so doing, create jobs,... it is limited if the aim is to bring about a broad based, diversified and integrated economy that has the capacity not only to absorb labour but to lead to rising wages and demand in a self-reinforcing, cumulative and causal process”.

## 2.9 A Theory of Capabilities and Learning Strategies

The theory of capabilities and learning strategies suggests that the main determinant of the pattern and the process of structural change is collective capabilities. Therefore the catching-up and growth process are determined by the accrual of factors of production, transformation in the structure of factor endowments as well as changes in productive capabilities that are country specific and entrenched in society. Nübler (2014) draws a distinction between productive capacities and capabilities where productive capacities refers to material factors of production such as infrastructure as well as physical and human capital, and productive capabilities reside in the intangible knowledge structure of the economy. These two separate and yet closely interconnected processes are associated with high-performance growth and productive transformation. Building capabilities is achieved through learning and productive capacities are accumulated by investing in human and physical capital. According to Salazar-Xirinachs *et al.*, (2014) countries are only able to

catch up when they obtain the capabilities necessary to assume innovative technologies and move into new industries. This suggests that state financing must therefore be aimed at investing in developing a country's capabilities.

Nübler (2014) asserts that learning to build capabilities for transforming production processes is multifaceted and needs to take place at different levels and in various places such as firms; systems of education and training; social networks such as professional societies; networks of organisations including public–private partnerships and value chains; and institutions where public policy is formulated. Nübler (2014) points out that learning strategies include the following: structures for attaining formal education; industrial policies that support manufacturing and are important for national learning strategies; belief systems as they define choices and behaviour; exporting and value chains as channels for learning; finally, the learning process can be fast-tracked and sustained by learning to learn through the development of high-performing procedures and institutions.

In this view, the role of the government is to formulate policy, support and finance institutions that provide incentives and encourage society to learn through various channels and institutions. Chapter 3 further explores the importance of institutions in the process of catching up and how these institutions are formed.

## 2.10 Conclusion

Hirschmann (1966, 29) noted that “as we have become used to looking at reality through certain theoretical glasses, we may for a long time be unable to see it as it really is”. Hirschman's point should act as a reminder to policy makers that as countries undertake the process of industrialisation they will need to overcome challenges as they arise rather than working with a priori knowledge of required institutions and features of “backwardness” that must be given up. Determination to catch up needs to be combined with perception of what needs to be done. It is argued that theories that utilise high levels of abstraction and appear to be “neutral” between different economic contexts are often relevant for the circumstances in which they were formulated (Hirschman, 1996). If these

theories are to be useful, they will focus on variables that are specific to that particular setting. The more useful they are in one context, the less likely they are to be useful in a different setting.

Therefore, as countries industrialise and formulate policies for implementation, they will be required to consider a number of factors that are country specific, depending on the context, and take into account the frameworks outlined above. For example, as a country builds its productive capacity and capabilities, improving its production structures, it might need to do so while advancing in the GVC. The state might also need to identify certain barriers that could be inhibiting the advancement of certain industries and address those barriers. As new technology is being introduced in society a fast and sustained learning process is needed. The government will need to intervene by investing in education and training schools as a way to accelerate and direct the learning process. Gerschenkron (1965: 6) argues that “No past experience, however rich, and no historical research, however thorough, can save the living generation the creative task of finding their own answers and shaping their own future”. What is evident, however, is the important role played by the state in industrialisation. As the state intervenes it is also important to situate the role of the state and the development process in the context of class interests, the relative power of such groups and conflict, in political and economic terms (Fine, 2006). These are explored in the following Chapters.

## CHAPTER 3: INSTITUTIONS AND THE IMPLEMENTATION OF INDUSTRIAL POLICY

### 3.1 Introduction

The purpose of this chapter is to examine historical evidence and theory that explore the pivotal role institutions play in the process of industrialisation. It has been argued that the type and quality of institutions are important determinants of economic growth and that while some institutions may act as an impediment to growth, others can help improve economic conditions and standards of living (Kasper, Streit and Boettke, 2012). A variety of institutions such as government ministries and departments, and state owned and private financial institutions are required for policy formulation and implementation. Policy success can be determined by asking whether the right institutions are in place for engaging the public with the private sector, and whether these institutions have the capacity to respond accordingly as soon as opportunities have been identified through this public-private sector dialogue (Rodrik, 2008). Sector-targeted and industry-specific plans require the use of institutions to direct industrialisation to achieve national objectives- be they economic growth, job creation or addressing issues of inequality. The direction of causality between economic growth and the development of institutions is also a debated topic (Chang, 2011; Rodrik, 2004).

An analysis of historical evidence reveals that countries that employed apparently similar industrial policies achieved different results with respect to their economic growth. Some of the late industrialising countries not only adopted similar policies but also constructed institutions that were comparable to those in countries that had already achieved economic success. In some cases it is evident that even though the developing countries built institutions that were similar or identical to their already industrialised counterparts, the institutions were not as effective or did not play the same instrumental role in bringing about success. This led to the suggestion that the success or failure of the institution in carrying out the activities for which it was created depends on the context. The context

includes the political factors, class interests, historical factors and constraints that might be binding to the country's economy (Amsden, 2001; Evans, 1995; Khan, 2010; Rodrik, 2004).

In this chapter it is argued that there is a strong theoretical case and historical evidence that supports the need for institutions, particularly industrial financing institutions, in implementing industrial policy. Section 3.2 examines the theoretical underpinnings of arguments for institutions starting from a new institutional economics background and developing a critique of this perspective. Historical evidence derived from late industrialisers and what Amsden (2001) refers to as “the rest” is reviewed in Section 3.3. Section 3.4 explores the debate on institutions as a prerequisite for industrial development and the assumptions behind this assertion. Factors influencing the formation and function of institutions, particularly the role of political settlements are explored in Section 3.5, in order to understand why certain institutions emerge and persist depending on the context. Section 3.6 and 3.7 provided a theoretical and historical case for DFIs demonstrating the important role played by these institutions in industrial development. It is finally concluded that institutions are crucial to implementing industrial policy. However it is also important to be aware of the fact that the nature of these institutions is determined by various factors which are country-specific and dependent on the context.

### 3.2 A theoretical case for institutions

One of the early pioneers of the new institutional economics (NIE), Douglass C. North (1989) examines the interdependence of economic and political institutions suggesting that institutions do matter in economic development. According to North (1990: 3) “institutions are the rules of the game in a society or more formally, are the humanly devised constraints that shape human interaction. In consequence they structure incentives in human exchange, whether political, social, or economic.” North (1989) argues that the neoclassical assumption of zero transaction costs does not hold and that with the existence of transaction costs, institutions play an important role. Transaction costs arise from the process of exchange and these costs are largely ignored by neoclassical economists and deemed unimportant as far as the impact they have on economic development is concerned.

Institutions or rules are therefore necessary to reduce these transaction costs. North (1990) also highlights the importance of enforcing rules. It is therefore important to examine both the rules and the governance capabilities that enable countries to enforce the rules.

The NIE falls under what Khan (2004) refers to as the liberal markets consensus which uses a well-functioning market economy as its benchmark. This consensus is consistent with the post-Washington Consensus view emerging from the World Bank, and asserts that the role of the state is to ensure stable property rights characterised by the enforcement of contracts, low risk of expropriation and low levels of corruption, which are all believed to be important for achieving economic growth (North, 1989; Kasper *et al.*, 2012). The liberal markets consensus maintains that efficient markets are free of rents and have stable property rights. If rents exist in markets this is evidence of restricted competition which is a result of property rights intervention. In this view, rents become damaging and property rights are undermined when there is rent-seeking involved (Krueger, 1974). Amsden (2001: 15) defines rent-seeking as “personal enrichment through a redistribution of existing rents”. According to (North, 1990) when democracy is absent and bureaucracy is weak, rent-seeking continues to persist.

Furthermore, Khan (2004) explains that in the liberal markets view, reference to political reform usually entails a move towards democracy, decentralisation and encouraging the participation of civil society, all with the aim of limiting the state’s liberty to create rents. Institutional reform entails getting the state to a “right-size” where it focuses on activities such as service delivery, hence reducing its institutional capacity for rent creation. The liberal markets model therefore maintains that in order to have an institutional structure that maximises growth it needs to be one that ensures the absence of rents through political and institutional reform. It is also assumed that the way to reduce rent-seeking costs (enforcement costs) is to employ “good governance” and strengthen property rights and anticorruption strategies (Khan, 2004).

Khan (2004) argues for the antithesis of the liberal markets view, asserting that history shows that good governance (less corruption and more democracy and stable property

rights) is a *result* of economic development and not a prerequisite for growth as suggested by the liberal markets view and the NIE. It is rather the commitment to growth and the transfer of property rights in growth-promoting ways that distinguishes high-growth countries and not the stability of property rights. In other words, property rights stability and removal of rents did not precede take-off in high-growth countries. Instead, the state intervened in property rights to speed up the development of a productive capitalist class. For example, Korean and Taiwanese states undertook land reforms between 1949 and 1950 whereby the state forcibly acquired agricultural land that was above a certain landholding ceiling at below market prices and later distributed this land to tenants at prices that were artificially low (Khan, 2004).

Where the issue of rents is concerned, developing countries can have growth-enhancing rents such as rents from natural resources, information rents and Schumpeterian rents as well as growth-reducing rents (for example monopoly rents) that can have damaging effects (Amsden, 1989; Khan, 2004; Fine, 2006). The capacity for the state to manage rents effectively, observe performance and reallocate rents when needed is important. Khan (2004: 179) asserts that high-growth countries are those that are able to “manage growth-enhancing rents and destroy growth-reducing rents”. A set of institutions with the regulatory capacity to distinguish between the different kinds of rents and the political capacity to manage (create and destroy) these rents therefore becomes important. This is necessary as many rents may be useful for technology acquisition and entrepreneurial growth while others may be damaging. Developing countries will vary in the kinds of rents that need managing depending on the different factors such as political settlements, level of development and technologies being used as well as their initial endowment. This means that the political arrangements that allow institutions and rent management institutions to be effective differ significantly across countries. The state therefore plays an active role in creating and managing rents to accelerate the acquisition of technology and promote entrepreneurial capacity. One of the institutions that is key in this regard is the DFI.

According to Khan (2004), an important factor in determining institutional success, is the state’s ability to enforce any institution. In other words, states that fail are those that fail to

enforce growth enhancing institutions. Khan (2004) further asserts that the distribution of power in society determines the state's success in this regard. High-growth economies used political and institutional engineering to enforce decisions that may have been contested by society. Therefore, in order to achieve economic growth, the state needs not only to support institutions that promote capitalist transformation, but also needs to enforce these institutions effectively at enforcement costs that are relatively low (Khan, 2004). The state's ability to enforce property rights and rents is dependent on interests and the organisation of power amongst groups in society and the balance of power between them. It is also argued that the reason states were able to enforce institutions effectively in high-growth economies is that the institutions were compatible with, or could not be opposed by, powerful interests groups within these societies (Khan, 2004). States that have not been able to introduce growth-enhancing strategies are those that have powerful interest groups opposed to change. Inefficient enforcement usually entails the state's inability to suppress or accommodate interest groups opposed to the transformation. Therefore in order to be effective, institutional capacity needs to be compatible with the underlying distribution of power and "institutional capacity building has to proceed in parallel with political interventions that aim to restructure the distribution of political and organizational power" (Khan, 2004: 190).

### 3.3 Historical evidence

Another way to determine the impact institutions have had on economic development is to learn from history. Chang (2005) suggests that developing countries should learn from the past experiences of the now developed countries. History shows that a set of complementary institutions and policies were crucial for continued periods of economic growth (Cimoli, Dosi, Nelson and Stiglitz, 2009). A closer examination of these historical accounts of growth also reveals that countries made use of diverse institutions at different times in their industrialisation process based on what was viewed as essential for economic growth and development at the time (Amsden, 2001).

A wide variety of policies and institutions were responsible for technological learning and the way policies interacted with the behaviour of corporate firms. This was the driving force behind the catching up process of countries such as Korea, Taiwan, China and India (Khan and Blankenburg, 2009). Institutions were used to govern incentive structures and information distribution (Khan and Blankenburg, 2009). Amsden (2001) shows how institutions were important during the rise of “the rest”. Due to a skills shortage, late industrialisers had to employ an “innovative control mechanism” which is described as a “set of institutions that imposes discipline on economic behaviour” (Amsden, 2001: 8). This set of institutions was utilised by “the rest” to enforce discipline on economic behaviour. The control mechanism encompassed the principle of reciprocity that entailed allocating subsidies to increase profitability in the manufacturing industry and to redirect and channel resources from primary product assets to knowledge-based assets (Amsden, 2001: 8). The performance of firms that received subsidies was monitored and had to adhere to “standards that were distributive in nature and results-oriented” (Amsden, 2001: 8).

The existence of pilot agencies that employed elite bureaucrats helped with improving the effectiveness of policies (Amsden, 2001). The purpose of these pilot agencies was to coordinate the activities across different agencies and government ministries while also resolving any conflicts that may arise. Examples of such agencies are: the Economic Planning Board of Korea which was a powerful planning ministry and had the power to over-rule other ministries, the Industrial Development Bureau of Taiwan and the MITI in Japan. An agency needs to have a certain level of power in order to coordinate a diverse range of interests that may emerge both within and outside the government. The pilot agencies also seemed to maintain a level of insulation that was needed in an economic bureaucracy to implement industrial policy (Chang, 2004).

East Asian countries also made use of intermediate institutions known as deliberation councils (Chang, 2004). The purpose of these institutions is to link the government apparatus with firms, making sure that selective industrial and trade policies are successful. Japan made use of deliberation councils which represented both the public and the private

sectors and other third parties such as academics and the press. Korea made use of its monthly export promotion meetings with the government dominating most of the decision-making process. Deliberation councils at the national level decided on policy and these policies were translated into action plans which were then enforced by industry associations (Chang, 2004).

Another instance where institutions were instrumental in industrial development is in Latin America. In the 1940s most Latin American countries created public firms and research institutes which were important for domestic research and development (Di Maio, 2009). In the 1950s public institutions were established with the specific purpose of promoting science and making advances in technology. National Research Councils were created and their mission included the financing of technological development, coordinating research and development and diffusing information technology. Science and Technology programmes were incorporated into national development plans with the objective of coordinating public research, establishing research and development priorities and encouraging cooperation between public and private research institutes. Public research institutes were established to support the accumulation of technology (Di Maio, 2009). Programs for technological development in the 1970s were mostly financed by development banks.

It is thus evident that throughout history institutions have played an important role in the development process of different countries. In most cases the governments of these countries had to create the required institutions to fulfil certain functions that were viewed as important for achieving a particular set of policy objectives. The debate regarding whether or not there are institutional prerequisites for policy implementation is explored below.

### 3.4 Exploring the debate on institutional prerequisites for industrial development

After the success of the East Asian countries the emerging debate focused on institutional preconditions for implementing industrial policy. Chang (2004) explains that the early East

Asian industrial policy debate included those who argued that in order to implement certain policies, specific institutions needed to exist before such interventions could be achievable. The argument went on to explain that the reason policies that worked in one country could not be transferred and implemented in another is due to the differences in the institutional arrangements that are a prerequisite for success. Therefore, the United States (US) could not implement Japanese-style industrial policy as the elite bureaucracy which was viewed as necessary for this particular kind of industrialisation was lacking in the US. Thailand, Indonesia and Malaysia were put forward as “exemplars” for developing countries as these countries were not regarded as having implemented selective industrial and trade policies (World Bank, 1993).

The World Bank (1993) and the IMF often highlighted the need for ‘better’ institutions in order to improve good governance as a set requirement for economic development. Those countries that did not possess these kinds of institutions were portrayed as lacking institutional quality. These institutions were described under the umbrella name of global standard institutions (GSIs) (Chang, 2011). From the 1990s, the view was that the cause of economic problems in developing countries was the poor quality of institutions in these countries. The ‘better’ institutions were those found in Anglo-American countries that were believed to maximise market freedom and protect private property rights (Chang, 2011). It should be pointed out that those who advocate institutional prerequisites do so under the assumption that only selective industrial and trade policies require institutions while other types of policies have no such institutional requirements or, if there are requirements, they can be easily provided (Chang, 2004). Policies that allow market mechanisms to work are believed to need less “props” where institutions are concerned. The assertion is that there are not many institutional requirements for *laissez faire* policies while on the other hand interventionist policies that were employed by East Asian economies require a range of developed institutions in order to succeed. Chang (2004) argues that facts do not clearly indicate that this is indeed the case. In order to function well, markets do require certain institutions including laws, well-functioning court systems, property rights, bureaucratic systems and rules. Free market systems can thus not function without so-called institutional “props”. The institutional requirements may be different to those needed for the

implementation of selective industrial and trade policies but are nevertheless still required. Chang (2004) discredits the assumption that institutions needed for targeted policies are more complicated than those needed for supporting market-oriented policies, arguing that there is no evidence indicating that developing market-oriented institutions is easier than building those that are for selective interventions. According to Chang (2004), developing countries have tried to set up market-oriented institutions, often times with little success and this is a testimony to the difficulties of doing so.

### 3.5 Factors determining the creation and functions of institutions

#### 3.5.1 Colonial history

Even though many economists may agree that differences in income per capita across countries may be attributed to variations in institutions and state policies, there is difference in opinion when it comes to what the determinants of institutional development or institutions are. Acemoglu, Johnson and Robinson (2001) suggest that the reason some developing countries have better institutions than others is related to their colonial history. The argument is that as Europeans colonised countries using various policies, the associated institutions also differed accordingly. Those countries that were difficult to colonise and where Europeans faced high mortality rates, did not develop good institutions. It is further suggested that the early institutions have a direct effect on today's institutions and subsequently current economic performance. In disease ridden countries where Europeans found it difficult to settle, they would only build what is referred to as "extractive states" (Acemoglu *et al.*, 2001). These institutions did not set up protection of property rights or concern themselves with government misuse of resources. Instead, they relocated resources from the colony to the colonisers with as little investment as possible. Those countries that had better institutions were those that were easily colonised without diseases that resulted in high mortality rates of the colonisers. The colonial state and institutions continued after independence and hence determine current economic performance. This view is critiqued by Rodrik (2004) pointing out that countries that have never been colonised are some of the wealthiest and some of the poorest countries in the

world, and that there is little evidence supporting the assertion that there is a link between current economic performance and the institutional structures of colonisation.

### 3.5.2 Political settlements and balance of power

It has been argued that the political economy of the country in which DFIs operate, provides some explanation as to why governments in least developed countries have mostly been unsuccessful in replicating the development banks of Continental Europe and Japan (De Aghion, 1999). Diamond (1957: ix) also points out that “financial institutions reflect their environment and their times; and it is not surprising that, while the bare bones of one development bank may look much like those of another, one may work well and the other not at all, or at least quite differently”. The role of these institutions is determined by the nature of society, the environment and development context in which these institutions operate (Bruck, 1998). De Aghion (1999) explains that designing a successful development bank goes beyond a simple replication of other countries’ institutions. Each country needs to take into consideration the political and institutional constraints such as “legal systems, political regimes, and interest groups” (De Aghion, 1999: 99).

Khan (2010) suggests that varying political contexts in different countries result in institutions functioning differently across countries and understanding the distribution of power in the analysis of institutions is important. Clark (1994: 3) reiterates Khan’s (2010) suggestion, and argues that “as the balance of power within a given society changes, such social and political changes are reflected in changes at these institutions”. In other words, exploring the distribution of power in a society can help to understand how and why institutions, specifically DFIs, emerge, function and persist. Distribution of power is defined as “the relative holding power of different groups and organisations contesting the distribution of resources” (Khan, 2010). Holding power is partially derived from income and wealth but is also based on historically entrenched capabilities of various groups (Khan, 2010). Khan (2010: 1) explains that “[a] political settlement emerges when the distribution of benefits supported by its institutions is consistent with the distribution of power in society, *and* the economic and political outcomes of these institutions are sustainable over

time”. In advanced countries, the distribution of power is mostly determined by the distribution of incomes produced by formal institutions and rights. In developing countries where organisational abilities are based on “non-capitalist sectors”, formal institutions on their own are unable to support distributions of benefits in a way that is consistent with these distributions of power. This therefore leads to an informal adaptation to the ways formal institutions work. The distribution of benefits supported by the institutional structure is then brought into line with the prevailing distribution of power (Khan, 2010).

According to Khan (2010), differences in the political settlement can therefore provide reasons developing countries have institutional structures that are distinct from developed countries and also why similar formal institutions perform differently in various countries. The performance and evolution of institutions across countries can therefore be understood by using the framework provided by political settlements. A loose description of a political settlement is that of a “‘social order’ based on political compromises between powerful groups in society that sets the context for institutional and other policies” (Khan, 2010: 4). A more precise definition is that “a political settlement is a combination of power and institutions that is mutually compatible and also sustainable in terms of economic and political viability” (Khan, 2010: 4). If powerful groups are not receiving the distribution of benefits deemed acceptable from a particular institutional structure, “they will strive to change it”. Therefore, there needs to be compatibility between institutions and the distribution of power. Khan (2010: 4) also adds that the compatibility must also be sustainable as both formal and informal institutions need to “achieve minimum levels of economic performance and political stability that are required for the reproduction of particular societies”. The types of institutions that are able to survive in any specific context are limited, and different institutions will perform differently based on the context.

Political settlements that have institutions generating benefits consistent with the distribution of power, as well as achieving the minimum levels of political stability and economic performance required, reproduce themselves over time. When powerful groups receive a distribution of benefits that is too low given their relative power, they attempt by various means (which include conflict) to change institutions until satisfactory benefits can

be derived or until they give up (Khan, 2010). This conflict can affect the implementation of institutional rules, thereby affecting political stability and economic performance. Khan (2010) explains that incompatibility between power and institutions can lead to an unviable political settlement. There are also instances where a compatible combination of institutions and power can result in poor economic performance and therefore an unviable political settlement. Political settlements are ever changing and structurally different in developing and developed countries.

Wade's (2004) account of late industrialisation also shows that the government had to hold enough power to pursue a targeted promotion of different industries while also controlling market processes that were volatile. Wade (2004: 9) argues that the state "should also undertake direct responsibility both for augmenting the economy's investible resources and for establishing mechanisms to transfer those resources into productive investment." The way in which this can be achieved is through the use of institutions, specifically industrial financing institutions. In order to do this the state needs 'embedded autonomy'. Evans (1995) describes the concept of embedded autonomy as the state's entrenchment in social ties or relations that are needed to intervene effectively in industrial development. The suggestion that the state should be independent and free from interests of any dominant class and the relationship with non-state actors is described as embeddedness (Edigheji, 2010).

It has also been argued that highly effective bureaucracies need to be isolated and protected from political pressures. According to Chang (2004), a bureaucracy needs political autonomy in order to go beyond simply responding to the demands of the private sector. Firms that receive protection and subsidies need to be disciplined or the implemented policies may result in infant industries that do not grow. Political independence is important for the bureaucracy to discipline the recipients of subsidies. It has also been common belief, through observation of Korea and Taiwan, that in order for the bureaucracy to achieve the necessary insulation, an authoritarian political regime is needed. However not all countries with selective industrial policies had authoritarian states. Chang (2004) argues that countries such as Japan and France were far from being considered authoritarian states and

yet they were able to implement these policies. As stated in Section 1.4, states should be understood as institutions that are “a historical product of their societies” that navigate economic and social change as they are moulded by it (Evans, 1995: 18). In other words, “the state always reflects the balance of class forces and not their absence” (Fine 2006: 114). As different countries implement apparently similar policies and build similar institutions, the economic outcomes of such efforts will not only be a response to prevailing market conditions, but will also be a product of social and political institutions and the prevailing interest groups (Evans, 1995).

### 3.5.3 Economic development as a determinant of the creation and evolution institutions

Chang (2011) maintains that the assumption that institutions themselves lead to economic growth may be flawed as this assumption ignores the possibility that economic development changes institutions (See the debate explored in Section 3.4). It is also argued that most of the institutions that are dominant in already advanced countries emerged following economic development and were not prerequisites for economic development. Anglo-American countries for example did not have the institutions that they now consider to be the prerequisite for economic development (Chang, 2011). The view that institutions ultimately determine economic performance is challenged, maintaining that through a number of channels, economic development changes institutions. For example, as a country becomes wealthier, the demand for higher-quality institutions may increase demand for political institutions that are more transparent and can be held accountable. Chang (2011) also explains that economic development can require the creation of “new agents of change”, resulting in the formation of new institutions. For instance, in the 18<sup>th</sup> century as a growing number of industrial capitalists emerged, banking institutions were formed (Chang, 2011).

Amsden’s (2001) account of the “rise of the rest” also provides supporting evidence for Chang’s (2011) assertion. The shortage of skilled labour as “the rest” were undertaking to industrialise resulted in the emergence of ‘new control mechanisms’. Export processing zones (which were free trade areas) were set up where manufacturers could purchase

imported inputs at (duty free) world prices. This emerging institution entailed the provision of preferential treatment coupled with low wages that enabled manufacturers in “the rest” to be profitable at world prices. Prior to getting the prices ‘wrong’, industrialisation was to be achieved by “getting the prices ‘right’” (Amsden 2001: 10). A one hundred percent of the output produced by firms in these export processing zones had to be exported.

Policy planners modified the institution of ‘new control mechanisms’ to accommodate industries that were unable to meet the export targets. It became no longer mandatory for firms to export one hundred percent of their exports. Duty drawbacks were offered on imported inputs that were used in manufacturing exported output. This resulted in a thriving labour-intensive manufacturing sector but with no diversification. As a response, development engineers took a step further by offering even greater subsidies to manufacturers and to the textile industry in a considered attempt to “get the prices ‘wrong’” with the intention of making the manufacturing sector profitable (Amsden 2001: 10). The principle of reciprocity was kept and reinforced as firms that received subsidies were still expected to meet certain performance standards. This account of the industrialisation process of “the rest” shows how institutions or rules that are implemented, develop and evolve as a response to economic development. More careful consideration of causality from economic development to institutions, in addition to Khan’s (2010) framework of political settlements, can provide a better understanding, in comparison to the NIE, of the interaction between economic development, institutions and policy, particularly with respect to explanations of how institutions can change over time.

### 3.6 A theoretical case for DFIs

De Aghion (1999: 1) defines development banks as “government-sponsored financial institutions concerned primarily with the provision of long-term capital to industry”. Thorne and Du Toit (2009: 2) provide a broader definition of development finance “as the provision of finance to those market segments (such as projects, sectors or sections of the population) that are not well served by the financial system”. Diamond (1957) also draws a distinction between a “development bank” and a “finance corporation”. A finance

corporation is defined as “an institution concerned primarily with long-term *loan* capital,” and a development bank as that “which is concerned primarily with *equity* capital and with fostering and managing specific companies as well as providing financial support” (Diamond, 1957: 1). Even though there is an attempt to draw the distinction, in practice, the lines may be blurred and the activities of these institutions may evolve.

The theory of credit rationing discussed in greater detail in Section 1.1 offers an explanation of why DFIs are important institutions. The theory developed by Stiglitz and Weiss (1981) uses perfect-functioning markets as a benchmark, arguing that the market failure of imperfect information leads to lenders rationing credit to avoid moral hazard and adverse selection. In such cases the state may intervene by providing finance to projects that are important for economic growth and employment but would otherwise go unfinanced due to credit rationing. Development banks also play an important role during times of economic downturn when there is reduced access to credit and firms have difficulties in accessing long-term financing (Studart, 2005). Cimoli *et al.*, (2009: 20) however argue that taking ‘market failure’ as a point of departure can be misleading. The reason is that, in order to determine the necessity and the effectiveness of a policy or an institution in this view, one has to measure its performance against ‘a yardstick’ of perfect markets, perfect competition, perfect information and so on. When this standard is used it is apparent that “the world can be seen as a huge market failure” (Cimoli *et al.*, 2009). Hermann (2010) also considers a Keynesian-type approach, maintaining that inherent failures and uncertainties exist and invalidate the efficient-market hypothesis. As a result financial markets do not sufficiently meet the demands of economic growth and development. Hermann (2010) argues that under such conditions state intervention through development banks becomes an effective way of making the financial sector more efficient.

Another important role of DFIs becomes evident when investment risk is high and lenders are unwilling to extend credit. Innovative companies with no credit record may find it challenging to access the required credit. DFIs may be willing to assume the risk and can therefore provide the necessary long-term credit (Studart, 2005). Dewatripont and Maskin (1995) also show that in a decentralised banking system, banks tend to underinvest in long-

term projects due to high sunk costs. Chandrasekhar (2011) explains that most savers view the long lag till the realisation of a return on an investment as too risky. This means that in the financial market, there is likely to be a shortage of long-term financing as savers seek more liquid and less risky investments. DFIs can therefore bridge the gap between the savers need for less risky, liquid, short-term investments and the enterprises' need for long-term financing.

Due to the high risk associated with long-term finance, the cost of capital may be too high for investment in sectors that are crucial for economic growth. The state can then make credit available at lower interest rate. DFIs can obtain low cost capital compared to commercial banks and this allows the bank to charge low interest rates on loans and still make profits through net interest margins (Lazzarini, Musacchio, Bandeira-De-Mello and Marcon, 2011). Affordable credit will facilitate the allocation of investment to different sectors and thereby address investment and growth constraints. However, even when long-term capital is available, this does not necessarily mean that the funds are allocated to sectors that are important for accelerating economic growth. Infrastructure projects with “economy-wide externalities” may not receive enough financing if decisions about investment are left to the private sector (Chandrasekhar, 2011: 2). The role of state-led DFIs is therefore important for guiding the allocation of investments. Investment could be guided through the provision of credit directed at specific sectors, and providing differential interest rates in addition to using taxation to finance public investments (Chandrasekhar, 2011).

Despite the fact that the amount of financing provided by most development banks is arguably small, some countries have managed to direct funds strategically at specific industries and enterprises. De Aghion (1999) explains that when the government provides subsidies to development banks, conditions are usually attached to these funds. Development banks are usually required to direct funds to new industrial sectors that are not receiving investment from private financial intermediaries. An example of a country in which the development bank played an important role in the industrialisation process is South Korea. The Korea Development Bank not only provided long term capital to selected

industries, but it also assessed the profitability of projects, devising mechanisms to monitor the performance target of firms (Amsden, 1989).

### 3.7 Historical evidence demonstrating the role of DFIs in industrial development

Historically, development banks were instrumental in the industrialisation process of Europe and Japan (De Aghion, 1999: 1). State sponsored development banks have been shown to play an important role in the provision of financing for long-term projects. The origins of development banks can be traced back to 19<sup>th</sup> century Continental Europe where large financial institutions emerged in the wake of accelerated industrialisation (De Aghion, 1999). Insufficient provision of long-term finance led to the formation of national government sponsored institutions. Two reasons commercial banks were unable to provide long-term finance include the following: firstly, commercial banks were not willing to carry the risk of financing new business ventures by new enterprises; and secondly, commercial banks did not possess the expertise to handle long-term investments that are likely to carry higher levels of risk, while development banks were able to accumulate this expertise over the years (De Aghion, 1999).

Gerschenkron (1965) shows that after WWII, governments of many developing countries created national development banks with the purpose of providing preferential credit for the domestic manufacturing industry. The development bank acted as an agent of the state, providing long-term financing to private and public industries. The capital raised by the development banks was obtained from both domestic and foreign sources, and loans were extended to targeted domestic firms at interest rates below the prevailing market cost. The criteria for targeting varied across countries but mostly included the following: the existence of backward and forward linkages, high market potential, technology intensive sectors, and high value added (Di Maio, 2009). The local content rule was one of the most frequently used conditions for loans with the aim of inducing domestic firms to develop their own technology and to source local engineering and machinery; assisting the formation and growth of national firms; elevating the technological content of domestic production; as well as saving foreign exchange (Di Maio, 2009).

Post-World War II development banks were also tasked with providing finance to build infrastructure (Amsden, 2001). Post-war infrastructure projects focused on construction of highways, irrigation, hydroelectric plants and airports. In certain cases this required inputs which were mostly produced in the domestic market. For example, Brazil's heavy capital industry mushroomed as a result of public infrastructure projects (Amsden, 2001). Development banks learned techniques on project appraisal and equipment procurement, acquiring expertise that commercial banks did not possess.

DFIs also played the leading role in investing in the industrialisation process of "the rest". According to Amsden (2001), the flagship institution of the developmental states of "the rest" was the developmental finance institution. Development banks were used as agents for financing investment in countries such as India, where the Industrial Development Bank of India financed both public and private ventures (Amsden, 2001). In Mexico, the Nacional Financiera (NAFINSA) provided twice the amount of long-term credit provided by private institutions. In 1957 the Korean Development Bank was responsible for 45 percent of all loans extended to industries. The BNDES became the only source of long-term capital in Brazil. Taiwan inherited a well-functioning commercial banking system from Japan. These banks were owned by the state and later directed by the government to provide special credit facilities for specific industries. From the 1970s, Malaysia also made use of development banks to provide credit concessions to projects that were supported by the government and devoted to the Malay community. Thailand's Board of Investment targeted specific industries, providing support and concessionary credit from the Ministry of Finance (Amsden, 2001). A large proportion of long-term lending after World War II in "the rest" (except for Argentina) was from the development banks or institutions that are equivalent to these banks.

The countries with the worst performance can be explained in terms of failure to develop these industrial finance institutions. Amsden (2001: 290) identifies Argentina as one of the countries within "the rest" that "stumbled back" and had the lowest manufacturing value added, lagging exports and low real wages. This was beside the fact that the country started

with the highest literacy rate and longest experience in manufacturing. No functional control mechanism was ever developed in Argentina. The country did not have a bank comparable to that of Brazil's BNDES or Mexico's NAFINSA. The only development bank in the 1940s was corrupt to the point of dysfunction (Amsden, 2001).

### 3.8 Conclusion

It has been argued that institutions are important in economic development and the implementation of industrial policy. The case for institutions is built by examining theory and historical evidence. Institutions may also emerge depending on what is required for economic development at the time. The debate regarding whether or not institutions are a prerequisite for economic and industrial development is explored, and the argument and supporting evidence that institutions emerge as economies develop is found to be rather convincing. Therefore institutions, specifically where industrial financing is concerned, can be formed as countries develop and industrialise to meet emerging needs, such as the implementation of industrial policy.

It is also important to note that industrial policy is not homogeneous as the institutions implementing it also shape or determine the policy focus. In South Africa the IPAP serves as the country's industrial policy while the implementation of the policy is dependent on a number of institutions other than the DTI including the IDC, DBSA and the National Treasury. For example, financing from the National Treasury is important for the implementation of certain projects. Depending on the prevailing ideology held in the particular institution certain industries could receive more support than others.

Khan's (2010) framework of political settlements sheds some light, providing possible reasons why different institutions may arise, and how the balance of power among competing interest groups may also determine the activities of institutions and specifically who benefits from such activities. This also means that institutions that appear to be similar may in fact behave differently across countries due to differences in these political settlements. Even though economists and policy-makers may study the activities, the

structure and the impact institutions, particularly DFIs, have in society and on the economy, it is important to consider the environment or context in which these institutions operate and the effect of their activities. While it is important to consider the manner in which a DFI operates and the policies informing its decision-making process and financing activities, in order to have a meaningful discussion regarding DFIs, other institutions and factors (such as the political settlement, balance of power and history) that relate to economic development and industrialisation need to be considered as these institutions do not exist in a vacuum. Chapter 4 is an attempt to examine such factors by reviewing South Africa and Brazil's industrial policy, history and other institutions involved in policy formulation.

## CHAPTER 4: INDUSTRIAL POLICY AND INSTITUTIONS: SOUTH AFRICA AND BRAZIL

### 4.1 Introduction

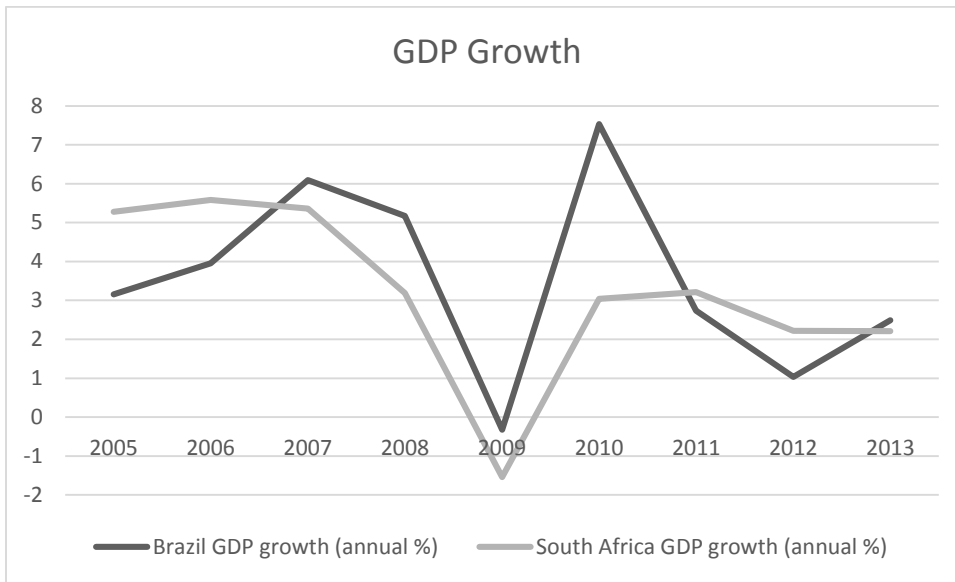
The purpose of this chapter is to examine South Africa and Brazil's industrial policy. It has been argued in previous chapters that industrial policy is important for development and that institutions are at the centre of policy formulation and implementation, particularly industrial finance institutions. This chapter undertakes a comparative analysis of Brazil and South Africa's industrial policies, against the historical backdrop of the two countries as well as the institutions that have played a fundamental role in the countries' development. Section 4.2 explores some of the similarities and differences that have compelled researchers to draw comparisons between the two countries. Sections 4.3 and 4.4 provide a review of South Africa and Brazil's industrial policies and some of the institutions that are key to policy formulation and implementation. Section 4.5 concludes that there are some lessons that can be learned from Brazil's experience.

### 4.2 Reasons for selecting South Africa and Brazil for a case study analysis

There have been discussions on how South Africa can emulate some of the world's successful DFIs including Brazil's BNDES (Gumede, Govender and Motshidi, 2011). Brazil shares certain similar economic and development challenges with South Africa, such as reliance on natural resources, inequality and the impact of trade liberalisation. Even though Brazil's economy in absolute terms is about four times larger than South Africa's, both countries have similar income per capita levels (Maia, Mondini and Roberts, 2005). The two countries have shared similar macroeconomic policies such as inflation targeting even though Brazil's interest rates have been higher than South Africa's. There has been tight fiscal policy in both countries, with weak private investment and concerns with development strategies for sustainable economic growth and the creation of employment opportunities (Maia *et al.*, 2005). Historical data on the economic growth of the two

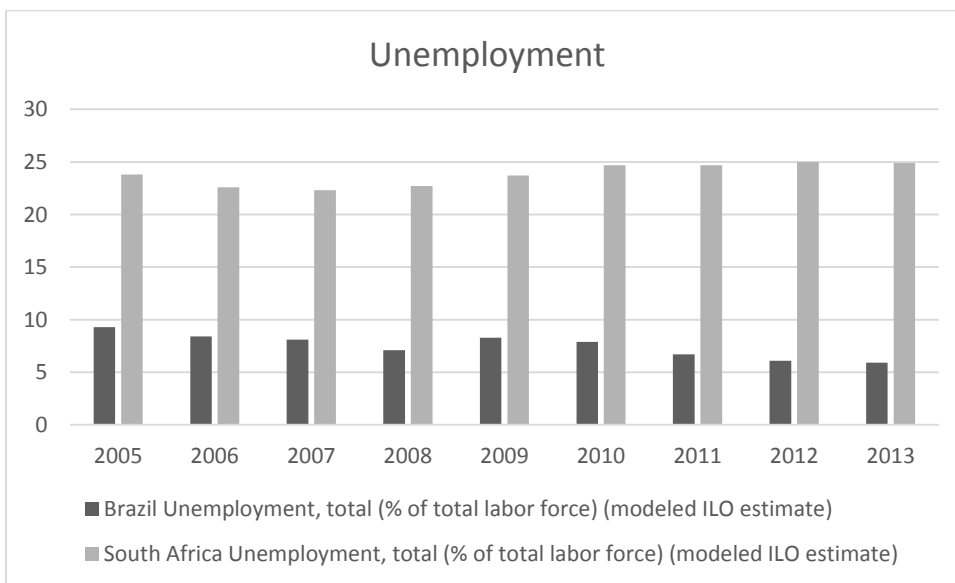
countries and rates of unemployment are reflected in Figures 4.1 and 4.2 respectively. Brazil has on average achieved higher levels of economic growth than South Africa and has also managed to maintain lower rates of unemployment.

Figure 4.1: GDP growth for Brazil and South Africa between 2005 and 2013



Source: Data from the World Bank (2014)

Figure 4.2: Unemployment rate for Brazil and South Africa from 2005 to 2013

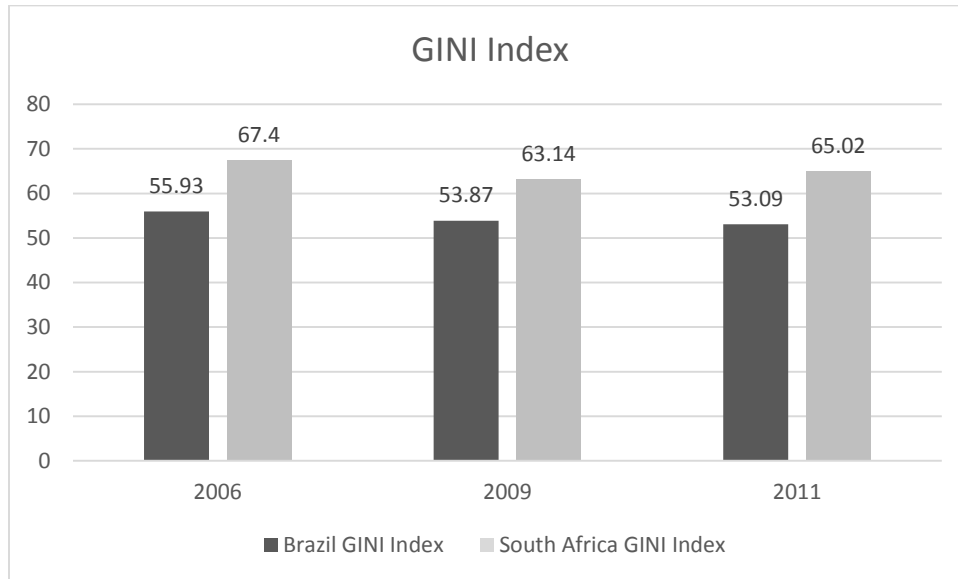


Source: Data from the World Bank (2014)

South Africa has often been compared to Brazil, with the two countries similar in their histories of colonialism and racial inequality with an authoritarian past which was later challenged by the working class in the 1970s and 1980s (Webster, 2014). Both countries had a small elite benefiting from economic growth while the majority, comprised of workers and their families, benefited the least from the countries' wealth. Following years of authoritarian industrialisation, both countries elected their democratic governments in the early 1990s. In South Africa, the African National Congress (ANC) became the ruling party, while Brazil's first victory went to Fernando Henrique Cardoso, then the Worker's Party under Luiz Inácio Lula da Silva.

Both countries benefited from the commodity boom with Brazil achieving economic growth rates as high as 6 percent in 2007 and 7.5 percent in 2010 (World Bank, 2014). Unemployment was reduced to 7.4 percent by 2008 with increased levels of foreign investment. Brazil's growth trajectory has exhibited a move towards social inclusion to address the high levels of inequality. While the country had the highest level of inequality in the world, incomes have risen across the board with the poorest households experiencing the fastest rates of increase. With increased incomes there has been a rise in the demand for locally produced goods. Minimum wages were enforced, government had programmes in place that were designed to lift households out of poverty and credit provision was expanded to households with lower income (Webster, 2014). This has led observers to conclude that lessons could be learned from Brazil's growth path and most importantly an alternative that offers inclusive economic growth. Figure 4.3 shows the GINI coefficient of the two countries and that Brazil has maintained lower levels of inequality compared to South Africa.

Figure 4.3: Gini Index for Brazil and South Africa



Source: Data from the World Bank (2014)

Although there are similarities between South Africa and Brazil, there are also notable differences, such as the rates of employment, economic structure and democratic transition (Schutte, 2014). Both countries rely on commodity exports, however the composition of Brazil's exports has more variation than South Africa's, including a greater variety of agricultural produce, industrial goods and minerals. New employment has been created in the agro-export and biofuels sectors. An increasing number of job opportunities has resulted from these diverse exporting sectors. As incomes have increased with an increase in employment, there has been an increasing demand in Brazil's domestic market. Compared to South Africa, Brazil's market as a source of demand for its domestic goods has been larger.

South Africa on the other hand still relies on mining as the largest contributor to exports, even though growth in mining jobs has been slow. Another difference lies in the fact that when the ANC came into power at the same time as Brazil's Worker's Party, it had no prior experience in policy formulation with very few party leaders that had experience in government (Schutte, 2014). Brazil's Worker's Party had an excess of 20 years of

experience serving in local and provincial governments with policy design and implementation prior to the Lula administration (Schutte, 2014). Despite these noted differences, it is worth exploring the role industrial policies and the institutions involved have played in policy formulation and implementation in the two countries.

### 4.3 The South African Case Study

According to Fine (2008) South Africa's industrialisation and growth path has been dominated by the minerals energy complex (MEC). The MEC was a term first introduced by Fine and Rustomjee (1996: 241), describing the "system of accumulation" specifically characterising the South African economy. The MEC is comprised of core sectors in mining, energy and other related manufacturing sub-sectors and has a history that originates from the rise of South African mining in the 1870s (Fine and Rustomjee, 1996; Fine, 2008). Historically, the MEC has played an integral role in the South African economy and continues to do so. The continued importance of the MEC is evident in the number of policy documents aimed at addressing strategies the country can follow in order to increase growth and employment via minerals beneficiation. The DTI's director general, Lionel October, also stated that the DTI, in 2013 and years to come, will continue to prioritise mining and beneficiation (DTI, 2013b). This has had a direct impact on the financing activities of South Africa's DFIs, particularly the IDC. Isaacs (2014) argues that rather than reorienting the restructuring of South Africa's economy towards employment creation and poverty reduction, the support for established dominant sectors of capital has been reinforced while also including the emerging black bourgeoisie through BEE and the specific financing of BEE projects by the IDC.

In this section, South Africa's industrial policy is briefly examined, dividing the periods into three broad phases identified by Zalk (2014a): from the end of the World War II to 1994, from 1994 to 2007 and from 2007 onwards. Particular focus will be on the third policy phase, as this was the period during which South Africa adopted a formal National Industrial Policy Framework (NIPF) that has formed the basis for South Africa's industrial policy in the past seven years.

#### 4.3.1 South Africa's Industrial Policy and Institutions in the Post WWII to 1994 Period

An examination of South Africa's industrialisation process and adopted policies reveals how the country's institutions, particularly the IDC, are not monolithic in nature, but have rather evolved over the years, responding to industrial needs and the environment in which they operate. The IDC was instrumental in shaping the legacy of apartheid and still remains important in addressing its industrial legacy (Mondi and Roberts, 2005). After WWII, South Africa underwent social and economic transformation and the introduction of a legal system that enforced racial segregation known as apartheid (Clark, 1994). This was a period of active government intervention in economic development through state enterprises. This period of active government participation corresponds with the pre-Washington Consensus era where the state was perceived as an agent of industrialisation and a driving force behind structural change. At this time the largest contributor to the country's GDP was the manufacturing sector (particularly metals production), surpassing mining and agriculture. Clark (1994) explains that the country's economic growth was very much dependent on low-paid black workers. Policies were formulated with the aim of sustaining successful industrial development while also addressing the issue of industries needing to employ cheaper black labour in order to make a profit, rather than hire white South Africans. As black Africans moved to the cities to provide cheap labour, the difficulty was to find a way to protect the benefits of white South Africans. According to Clark (1994), state control over the economy was achieved by gaining control over the state's power apparatus, such as state corporations- the IDC, Iscor and Eskom. As a way to deal with the problem of African urbanisation, the IDC built factories outside urban areas near the so-called 'Native Reserves'. Clark (1994) shows how during this period of South Africa's industrialisation, state corporations enforced policies that maintained the wages of black workers at very low levels as an attempt to keep cost of production low and compete with imports, particularly from Japanese textiles. The IDC however failed to control costs in the labour-intensive textile industry and later supported more capital-intensive industries such as Sasol and Foskor (one of the world's largest producers of phosphate and phosphoric acid) (Fine and Rustomjee, 1996).

Before the 1970s, the country's industrial policy strategy was aimed at encouraging import substitution industrialisation (Edwards, Cassim and van Seventer, 2009). As it became evident that import substitution had a declining contribution towards growth, the focus became export oriented. In 1972 there were first indications that South Africa was making the shift from the traditional strategy of import-substitution industrialisation to that of export-oriented industrialisation (Bell, 1997). In 1972, the Reynders Commission of Inquiry stressed the need for the country to use export-promoting methods and diversify into non-gold exports (Bell, 1997). In the early 1970s, tariffs were substituted for quantitative restrictions leading to a net decline in protection (Edwards *et al.*, 2009). Direct export promotion measures were introduced after a tax allowance was implemented as a way to provide export incentives in 1972 (Bell, 1997). In 1980, the export incentive system was reinforced, while in 1990, the General Export Incentive Scheme (GEIS) was introduced. In the mid-1990s import controls were removed and export subsidies provided under GEIS were also terminated in line with South Africa's Uruguay Round obligations (Edwards *et al.*, 2009). Section 37E of the Income Tax Act was introduced in 1991 in order to accelerate depreciation for export oriented projects (Black and Roberts, 2009). Also during the same year, the Regional Industrial Development Programme (RIDP) was introduced for the purpose of providing grants and incentives for industries expanding to other regions. The Support Programme of Industry Innovation (SPII) and the Technology and Human Resources for Industry Programme (THRIP) were also introduced around this time (Black and Roberts, 2009).

During the apartheid era, the IDC played an important role in the country's development strategy in the MEC, through financing industries such as basic chemicals, metals and fuels and mining (Fine and Rustomjee, 1996). The IDC's lending in the mid-1990s mostly went to financing large-scale, capital intensive projects such as aluminium and stainless steel plants (Black and Roberts, 2009). In the 1990s the IDC focused on industries that were identified as internationally competitive, financing export oriented mega-projects that had close links to natural resource processing (Mondi and Roberts, 2005). The Corporation was pushing for a more export oriented industrial policy arguing that protection tends to breed

inefficient industries (IDC, 1990). Greater export orientation was to expose these industries to competition, forcing them to improve production and performance levels. A progressive reduction of import duties was recommended, indicative of the Corporation's acquiescing to international pressures of the prevailing Washington Consensus ideology at the time (Fine and Rustomjee, 1996).

The IDC also proposed a three-pronged approach; the reduction of tariffs, provision of support for export oriented capital through tax incentives and lastly, targeting sectors that build on static comparative advantage, such as mineral beneficiation (Fine and Rustomjee, 1996). The aim of the approach proposed by the IDC was to provide competitive pressure to coerce firms to perform more efficiently. At the time, poor industrial performance of certain industries, particularly the manufacturing sectors, was attributed to the tariff policies. The logic for export promotion was that protection policy was providing an economic advantage to inefficient industries that would be better off competing globally.

The Development Corporation had schemes such as the Low Interest Finance for Export scheme (between 1991 and 1999) and World Player scheme (between 1995 and 1998) to promote exports. The IDC also conducted research, evaluating and supporting the tariff liberalisation programme the country committed to in 1993 in the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) (Mondi and Roberts, 2005). While carrying out activities that were consistent with the government's economic policy, the IDC adopted an independent and commercial orientation in the later part of the 1990s (Mondi and Roberts, 2005). This included financing BEE acquisitions, diversifying across the provinces and supporting small and medium enterprises, but without providing concessionary interest rates (Mondi and Roberts, 2005).

According to Black and Roberts (2009), even prior to the 1994 democratic elections, South Africa faced numerous challenges in the area of industrial development. The country's capital intensive manufacturing industry was protected and remained uncompetitive and concentrated. South Africa's industrialisation had interventionist policies and the emphasis was on strategic areas identified by the apartheid government, such as industries for the extraction and processing of resources, defence and liquid fuels. Industrial development,

particularly the manufacturing sector, was considered crucial for economic growth, exports and employment creation (Black and Roberts, 2009).

#### 4.3.2 South Africa's Industrial Policy and Institutions from 1994 to 2007

According to Zalk (2014a), between 1994 and 2007, South Africa's economic policy was dominated by orthodox laissez-faire economic reforms. These policy reforms were consistent with the Washington Consensus policy prescriptions emerging from the World Bank. The policy changes were meant to improve fixed investment, stimulate growth and create employment opportunities across the economy, including manufacturing. In 1994 there was a shift in the country's development strategy from that of export orientation with import controls to openness with tariff liberalisation. South Africa also agreed to an ambitious tariff liberalisation programme during the GATT Uruguay Round (Edwards *et al.*, 2009). In addition to this trade reform the country underwent a number of policy changes domestically, including the Growth Employment and Redistribution (GEAR) macroeconomic policies that were aimed at transforming the country's economy into becoming outward oriented and competitive.

##### *The Reconstruction and Development Programme*

The first significant policy document to emerge during this period was the Reconstruction and Development Programme (RDP). The RDP was the policy of the ANC initially formulated in 1990 and later released as the party's 1994 election manifesto (Gelb, 2010). Adelzadeh (1996) points out that the RDP White Paper, released in September 1994 departed from the goals of the initial RDP document. While the initial RDP document articulated economic aspirations such as growth, development, reconstruction and redistribution, job creation and more equitable income and wealth distribution, the RDP White Paper on the other hand, contained policy statements and recommendations that were inspired by neoliberalism and had been offered in various forms, by big business, the international financial institutions (IMF, World Bank) and the apartheid government (Adelzadeh, 1996). In the White Paper, fiscal prudence became the goal of the RDP rather than the means to achieve goals (Adelzadeh, 1996).

The RDP's emphasis on reducing inequality was argued as infeasible in the economic and political circumstances of the new democracy (Hirsch, 2005). Hirsch (2005) asserts that the shortcomings of the RDP included, little consideration on how to improve government revenue, failure to address the shortage of skilled managers in the new government, as well as the lack of proven policy co-ordination and implementation techniques (Hirsch, 2005). According to Gelb (2010), there was growing dissatisfaction and disappointment regarding the limited achievement of the RDP in improving growth and employment, followed by the dissolution of the RDP ministry in early 1996.

#### *Growth Employment and Redistribution*

A new macroeconomic framework, the GEAR strategy was announced in June 1996. The immediate objective of this policy framework “was to stabilise the foreign exchange market and restore capital inflows” (Gelb, 2010: 40). According to GEAR, the way to achieve economic growth was to attract foreign direct investment (FDI) and increase domestic fixed investment by having ‘credible’ macroeconomic policy, which implied tightening fiscal and monetary policy. GEAR policies were consistent with the one-size-fits-all neoclassical ideology emerging out of the IFIs emphasising fiscal discipline, the reorganisation of priorities in public expenditure, liberalisation of inward FDI and trade liberalisation. GEAR was in a way a structural adjustment programme that South Africa imposed on itself based on the Washington Consensus ideology discussed in Section 2.3.

The new government inherited large amounts of debt (47 percent of GDP) in 1994. GEAR stipulated a set of desired objectives that was to be attained in a five-year programme, such as targeted fiscal deficit, average tariff rates, job creation and real export growth. Hirsch (200) argues that in some areas, GEAR exceeded expectations. For example, 2.2 percent of GDP for the fiscal deficit was achieved instead of the targeted 3 percent, government consumption was reduced to 18 percent rather than the 18.1 percent per annum target and inflation was lowered to 5.4 percent instead of the 6 percent per annum goal. The levels of job growth and investment were however disappointing. Between 1995 and 2003 employment grew by 2.9 percent and most of these were in the informal sector (Hirsch,

2005). Private and public investment shrank during the GEAR period and economic growth was an average of 2.6 percent.

The GEAR period, from 1996 to 2000, was meant to improve the management of public finances, and increased investments were expected to lead to economic growth. Only the improvement in public financing was achieved. Hirsch (2005) argues that GEAR was not implemented in a coordinated and consistent manner, particularly in terms of monetary policy, and its performance was rather disappointing. Adelzadeh (1996) is also critical of GEAR on certain matters including the framework's adoption of the policy recommendations of IFIs such as the IMF's structural adjustment programmes in spite of the failure of adjustment programmes in other countries<sup>3</sup>. He is also critical of the fact that the underlying modelling techniques and economic framework used by the South African Reserve Bank was not made public. For example, even though it is stated that econometric analysis showed that exports and investment were key drivers of economic growth, results of these tests were not presented for analysis (Adelzadeh, 1996).

According to Black and Roberts (2009), GEAR strategies cemented the trade liberalisation programme committed to under the Uruguay Round of GATT. Industrial policy became outward oriented where employment creation and growth were expected to follow from having internationally competitive industries. This took place within the prevailing neoclassical and supply side policies. The Industrial Strategy Project (ISP) put forward that South Africa's industrialisation could be stimulated through liberalisation and supply-side incentives (Joffe, Kaplan, Kaplinsky and Lewis, 1995). Black and Roberts (2009: 212) argue that the country's industrial performance after the first democratic elections has characteristically perpetuated "the superior performance of capital-intensive industries, high levels of concentration and weak competitive rivalry". This has also been reflected by the capital-intensive nature of the projects mostly financed by the IDC. The continued support of capital-intensive industries is consistent with the political settlement in South

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<sup>3</sup> See discussion in Section 2.3.4

Africa, where the balance of power is tilted towards certain powerful groups including big business<sup>4</sup>.

#### *Accelerated and Shared Growth Initiative for South Africa*

The GEAR policy was followed by the adoption of Accelerated and Shared Growth Initiative for South Africa (ASGISA) in 2005, which became the policy framework during the last years of the Mbeki presidency (Freund, 2010). ASGISA aimed to half the number of people in poverty by 2014. The targeted areas were infrastructure and skills development. The focus was on identifying microeconomic blockages and there was a restored interest in industrial policy and government intervention. The goal was to increase infrastructure spending to 5 percent of GDP per year until 2010 as well as increasing skills development and education. The tourism sector and outsourcing of business processes were the labour-intensive sectors to be promoted to provide employment opportunities. Gelb (2010) argues that there were difficulties facing ASGISA from the poverty-reduction point of view. The challenges faced by this policy framework included having insufficient resources, particularly where employment creation and poverty targets were concerned.

#### *Industrial support in the 1994-2007 period*

According to Zalk (2014a), even though the government did not have a formal industrial policy during the period 1994 to 2007, assistance was provided successfully to three manufacturing sector groups: motor vehicles; clothing and textiles; and a variety of upstream sectors, specifically steel, petrochemicals and aluminium (Zalk, 2014a). One noteworthy programme, the Motor Industry Development Programme (MIDP) was introduced in 1995 to assist the automotive sector (Black and Roberts, 2009). The MIDP enabled exporters of motor vehicles and components to earn credits in rebates. These credits could then be later used to offset import duties on vehicles and components not produced in South Africa.

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<sup>4</sup> See Section 5.6.3 for a detailed discussion

The clothing and textiles industry was supported under the Duty Credit Certificate Scheme (DCCS), from 1995 to 2009. This entailed a similar support structure to the MIDP, where exporters were allowed to earn import rebate credits depending on export levels. The DCCS provided support for a few exporters but mostly contributed to the rapid increase in imports as China entered the WTO and the Multi-Fibre Agreement came to an end. The Clothing and Textiles Competitiveness Programme (CTCP) was introduced, replacing the DCCS in 2009. Under the CTCP manufacturers are able to earn credits that are based on value added production. The earned credits can be redeemed through investing in activities aimed at improving competitiveness and upgrading activities. The CTCP also managed to keep employment levels in the sector stable by 2011, even though the economy was still recovering from the economic crisis, currency overvaluation and volatility (Zalk, 2014a).

A number of agencies were established for small business support in 1995 and 1996, such as the Centre for Small Business Promotion, Ntsika Enterprise Promotion Agency, the National Small Business Promotion and Khula Enterprise Finance (Black and Roberts, 2009). Other programmes included the Competitiveness Fund aimed at assisting small, medium and micro enterprises to improve their competitiveness. Although these institutions provide financial support to small businesses, further exploration of the agencies other than that in Section 5.5.3 is beyond the scope of this study. Another form of finance for export promotion was Life Scheme, provided by the IDC and making available low-interest financing to export oriented projects. In 1996, the Regional Industrial Development Programme (RIDP) was cancelled and a tax holiday scheme was introduced as well as Spatial Development Initiatives for the coordination of the provision of public infrastructure. The Integrated Manufacturing Strategy was announced in 2002, emphasising knowledge and technology as well as the introduction of the Strategic Investment Programme (SIP) and the Critical Infrastructure programme.

According to Black and Roberts (2009), the government re-focused its attention in the early 2000s from concerns about international competitiveness to improving capabilities in 'knowledge-intensive' activities and advanced technology. This was signified by the release of the National Research and Development Strategy, the Integrated Manufacturing

Strategy and the Advanced Manufacturing Technology Strategy in 2002-2003. Ntsika and the National Manufacturing Advisory Centre merged to form the Small Enterprise Development Agency (SEDA) and the Apex fund was founded to provide loans to micro-businesses in 2006. In 2007 the NIPF and the first Industrial Policy Action Plan (IPAP) were announced.

#### 4.3.3 South Africa's Industrial Policy and Institutions during the 2007 to 2014 period

From 2007 there was a shift in industrial policy commencing with the approval of the NIPF (DTI, 2007a) in January 2007 and followed by the implementation plan, the IPAP (DTI, 2007b) in August 2007. The NIPF and the IPAP were adopted by Cabinet and the strategies in these documents are sector targeted and aim to diversify to industries that are not resource-based (Black and Roberts, 2009). The NIPF aims to set the South African economy on an industrialisation trajectory by achieving the following: shift towards the production of value-added tradable goods and services; diversify away from traditional commodities and non-tradable services; move towards becoming a knowledge economy; and emphasise the promotion of labour absorbing production of tradable goods and services with strong economic linkages (DTI, 2007a). The NIPF also aims to promote an inclusive and broader-based industrialisation characterised by greater participation of historically disadvantaged citizens and economically marginalised regions and also contribute to industrial development in the rest of Africa (DTI, 2007a). The NIPF was influenced by the structuralist development economic theory<sup>5</sup> with an emphasis on the role of the state and industrial policy in economic development as well as the works of Amsden (1989; 2001) and Wade (2004).

The IPAP outlines a 10-year vision on the outcomes desired for the South African economy and is revised annually for a three-year rolling period (DTI, 2010). The IPAP identifies key priority sectors which are identified as important for the South African economy. The highlighted sectors since 2007 are discussed below and listed in Table 4.1.

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<sup>5</sup> See Section 2.7.

Table 4.1: Key priority sectors identified by the IPAP between 2007 and 2014

IPAP August 2007	IPAP (2010/11-2012/13)	IPAP (2011/2012-2013-2014)	IPAP (2012/2013-2014/2015)	IPAP (2013/2014 - 2015/2016)	IPAP (2014/2015 - 2016/2017)
<p><u>NIPF lead sectors</u></p> <ul style="list-style-type: none"> <li>Capital/Transport equipment and metals</li> <li>Automotive assembly and components</li> <li>Chemical, plastic fabrication and pharmaceuticals</li> <li>Forestry, pulp and paper</li> <li>Furniture</li> </ul> <p><u>ASGI-SA Priority sectors</u></p> <ul style="list-style-type: none"> <li>Business process outsourcing and offshoring</li> <li>Tourism</li> <li>Biofuels</li> </ul> <p><u>Other sectors</u></p> <ul style="list-style-type: none"> <li>Clothing and Textiles</li> <li>Diamond beneficiation and jewellery</li> <li>Agro-processing</li> <li>Film and crafts</li> </ul>	<p><u>3 Key sector clusters</u></p> <p><i>Cluster 1:</i></p> <ul style="list-style-type: none"> <li>Metal fabrication</li> <li>'Green' and energy-saving industries</li> <li>Agro-processing</li> </ul> <p><i>Cluster 2:</i></p> <ul style="list-style-type: none"> <li>Automotive components medium and heavy commercial vehicles</li> <li>Plastics, pharmaceutical and chemicals</li> <li>Forestry, paper pulp and furniture</li> <li>Clothing, textiles, footwear and leather</li> <li>Biofuels</li> <li>Strengthening linkages between cultural industries and tourism</li> <li>Business processing services</li> </ul> <p><i>Cluster 3:</i></p> <ul style="list-style-type: none"> <li>Sectors with potential for long-</li> </ul>	<p><u>3 Key sector clusters</u></p> <p><i>Cluster 1:</i></p> <ul style="list-style-type: none"> <li>Metal fabrication</li> <li>Green and energy-saving industries</li> <li>Agro-processing</li> <li>Capital and transport equipment sector</li> <li>Oil and gas</li> <li>Boatbuilding</li> </ul> <p><i>Cluster 2:</i></p> <ul style="list-style-type: none"> <li>Automotive</li> <li>Pharmaceutical and chemicals</li> <li>Forestry, paper, pulp and furniture</li> <li>Clothing, textiles, footwear and leather</li> <li>Biofuels</li> <li>Strengthening of linkages between cultural industries and tourism</li> <li>Business process services</li> </ul> <p><i>Cluster 3:</i></p> <ul style="list-style-type: none"> <li>Sectors with potential for long-term advanced capabilities</li> </ul>	<p><u>3 Key sector clusters</u></p> <p><i>Cluster 1:</i></p> <ul style="list-style-type: none"> <li>Metal fabrication</li> <li>Green industries</li> <li>Agro-processing</li> <li>Capital equipment and transport equipment</li> <li>Upstream oil and gas services and equipment</li> <li>Boatbuilding and associated services industry</li> </ul> <p><i>Cluster 2:</i></p> <ul style="list-style-type: none"> <li>Automotive products components, and medium and heavy commercial vehicles</li> <li>Plastics and pharmaceuticals</li> <li>Forestry, timber, paper and pulp and furniture</li> <li>Clothing, textiles, footwear and leather</li> <li>Biofuels</li> </ul>	<p><u>Sectoral interventions 1</u></p> <ul style="list-style-type: none"> <li>Metal Fabrication, Capital and Rail Transport Equipment</li> <li>Agro-Processing</li> <li>Automotives</li> <li>Plastics, pharmaceuticals, chemicals and cosmetics</li> <li>Forestry, timber, paper, pulp and furniture</li> <li>Clothing, textiles, leather and footwear</li> <li>Biofuels</li> <li>Aquaculture</li> <li>Creative industries: craft, music and film</li> <li>Business process services</li> </ul> <p><u>Sectoral interventions 2</u></p> <ul style="list-style-type: none"> <li>Green industries, renewable energy, energy efficiency</li> <li>Downstream mineral</li> </ul>	<ul style="list-style-type: none"> <li>Metal Fabrication, Capital and Rail Transport Equipment</li> <li>Green Industries</li> <li>Agro-Processing</li> <li>Upstream and midstream oil and gas</li> <li>Boatbuilding and associated services industry</li> <li>Auto motives</li> <li>Plastics, Pharmaceuticals, Chemicals and Cosmetics</li> <li>Forestry, Timber, Paper, Pulp and Furniture</li> <li>Clothing, Textiles, Leather and Footwear</li> <li>Biofuels</li> <li>Cultural and Creative industries</li> <li>Business Process Services</li> <li>Advanced manufacturing</li> <li>Aerospace and Defence</li> </ul>

	<p>term advanced capabilities</p> <ul style="list-style-type: none"> <li>• Nuclear, advanced material and aerospace</li> </ul>	<ul style="list-style-type: none"> <li>• Nuclear, advanced material, and aerospace</li> </ul> <p><u>Other sectors</u></p> <ul style="list-style-type: none"> <li>• Green industries and renewable energy</li> <li>• Mineral beneficiation</li> <li>• Tourism</li> </ul>	<ul style="list-style-type: none"> <li>• Creative industries including crafts and music</li> <li>• The music industry</li> <li>• Business process services</li> </ul> <p><i>Cluster 3:</i></p> <ul style="list-style-type: none"> <li>• Advanced manufacturing</li> <li>• Advanced materials</li> <li>• Aerospace and defence</li> <li>• Nuclear energy</li> <li>• Set-top box</li> <li>• Software industry</li> <li>• Downstream minerals beneficiation</li> </ul>	<p>beneficiation</p> <ul style="list-style-type: none"> <li>• Upstream oil and gas</li> <li>• Boatbuilding and associated services industry</li> </ul> <p><u>Sectoral interventions 3</u></p> <ul style="list-style-type: none"> <li>• Advanced manufacturing</li> <li>• Advanced materials</li> <li>• Aerospace and defence</li> <li>• Nuclear Energy</li> <li>• Software Industry</li> <li>• The Electro-Technical Sector</li> <li>• Electricity Prepayment Meter Manufacturing (EPPMM)</li> </ul>	<ul style="list-style-type: none"> <li>• Nuclear energy</li> <li>• South African software industry</li> <li>• Mineral Beneficiation (upstream and Downstream)</li> <li>• Electronics industry support and White goods</li> <li>• Public Residential Electrification Programme for low cost housing</li> </ul>
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Source: Compiled from DTI (2007- 2014)

#### *IPAP August 2007*

This document outlines the implementation strategy for the NIPF adopted by Cabinet in 2007. The NIPF outlines the government's industrialisation approach in the context of ASGISA, with the aim to cut unemployment and poverty in half by 2014 through increased growth of at least six per cent from 2010. The government's aim is to focus on sectors that have the potential to contribute to economic growth and employment creation, diversify and grow exports as well as the process of research and discovering new opportunities for employment and growth. The industrial policy actions highlighted for immediate implementation are consistent with the NIPF. The identified priority sectors are the same as those highlighted by ASGISA. Policies regarding the development of sectors such as diamond beneficiation and jewellery, agro-processing, film and crafts were to be implemented. It is noted that further work is needed for the development of mining and mineral beneficiation, agriculture/agro-processing, ICT services and products, creative industries and white goods. These sectors highlighted for further development have subsequently been some of the focus areas in later iterations of the IPAP.

The 2007 IPAP identifies industrial financing as an important pillar for the implementation of the NIPF. It is also noted that most of the financing mechanisms designed after 1994 were re-evaluated to determine their effectiveness. Weaknesses within industrial financing that needed to be addressed included "the need for financing at a greater scale and more prioritisation of identified sectors, a greater emphasis on more labour-intensive and value-adding activities and a focus on stimulating new or quantitatively higher levels of economic activity" (IPAP, 2007: 36).

#### *IPAP February 2010 (2010/11- 2012/13)*

This IPAP continues to be guided by the key objectives set out by the NIPF. The 2010/11-2012/13 IPAP reflects on the results achieved by the previous IPAP. These include the implementation of the Competition Act; finalisation of the revisions for the Automotive Production and Development Programme (APDP) set to replace the MIDP after it came to an end in 2012; developing a new programme to support the clothing and textiles industry to upgrade the industry's competitiveness; attracting investments in business processing services; lowering the costs of key manufacturing inputs by removing and lowering tariffs; and supporting the building of energy-efficient standards as a result of the electricity shortage. It is noted that there was a strong growth of the capital- and energy- intensive natural resource-

based sectors and doubling in the size of the automotive industry while the rest of manufacturing mostly stagnated.

Most of the growth in employment was in the services sector, coming primarily from outsourcing of activities such as catering, logistics as well as growth in the private security sector. Persistently high unemployment levels are attributed to low investment growth in the tradable sectors outside mining and agriculture and it is stated that the main problem is the low profitability of manufacturing relative to other sectors such as finance. The key sectors targeted by the IPAP are divided into three clusters: Cluster 1 which are qualitatively new areas of focus; Cluster 2 includes scaling up and broadening of the existing IPAP sectors and Cluster 3 are sectors with potential for long-term advanced capabilities. The sectors are listed in Table 4.1.

This IPAP argues that low profitability of sectors with the potential of high economic returns, especially manufacturing is due to high capital cost and limited availability of financing. The role of state-owned DFIs is to direct capital into productive investments contributing to job creation and value-addition. The IDC is to play a more significant role in financing private investment. The IPAP also identifies the BNDES as an example from which South Africa could learn, particularly where the availability of concessional credit is concerned. The DTI was to convene and identify processes and sources of long-term funding for the IDC to further finance capital at lower cost. Key action programmes were set up firstly to review the IDC's business model and free up resources for labour-intensive and other value-adding sectors identified by the IPAP. Secondly the government had to identify and create long-term sources of concessional funding for the IDC.

#### *IPAP February 2011 (2011/2012-2013/2014)*

The DTI's focus continues to be on job creation, promoting manufacturing and other value-added sectors. Green industries and renewable energy, mineral beneficiation and tourism are also considered to have opportunities for employment creation. It is noted that most of the growth in employment continues to come from the services sector, specifically outsourcing, wholesale and retail employment, but that this kind of employment is regarded as precarious. Manufacturing is believed to provide long-term employment, hence the focus on value-adding sectors. There is also first mention of developing the country's software industry. Key sectors continue to be divided into three cluster areas as in the previous IPAP.

After reviewing its business model, the IDC identified R66 billion to invest in New Growth Path and IPAP 2 sectors in the following five years. A study by the DTI to identify processes and sources of long-term funding for the IDC was conducted and sources of long-term concessional industrial financing were proposed. The IPAP also notes the significant role DFIs, especially the IDC, is to play in financing investments in the real economy after the 2008/09 recession. The key milestone for the 2011/12 was to finalise proposals for the term of the loans and financing packages that are sector specific. The DTI emphasised that the IDC and DBSA must ensure their financing conditionality is for projects that are local and in African countries. The DTI also planned to establish a venture capital programme to be managed by the IDC.

#### *IPAP 2012 (2012/2013-2014/2015)*

The IPAP 2012/2013-2014/2015 aligns industrial policy with the Economic Development Department's New Growth Path (NGP) framework (EDD, 2011). The IDC is called to reorient itself to the long-term strategy and finance activities set out by the IPAP and NGP with R102 billion set aside for the financing of the IPAP and NGP sectors over the following five years. The IDC is to finance particular labour-intensive investment in the agricultural value chain, the 'green economy' and energy efficiency, as well as assistance for firms in distress from the economic crisis.

The role of manufacturing is re-emphasised because of its high growth and employment multipliers. The manufacturing competitiveness enhancement programme (MCEP) was set up for the purposes of upgrading, improving the competitiveness of labour-absorbing and value-adding manufacturing sectors. Sectors specifically mentioned for scaling up are: green industries, agro-processing (with the intention to establish a large-scale biofuels industry, advancing opportunities in export markets in food-importing countries and developing new products), metal fabrication, capital and transport equipment (including large-scale public procurement in electricity and rail and mining capital equipment investment).

The 2012 IPAP emphasises that DFIs are to channel capital into fixed investments, providing long-term financing, longer grace periods, low interest rates and financing for working capital. The IDC expanded its role by creating new financing instruments and dedicated R100 billion towards strategic NGP and IPAP sectors over the following five years.

#### *IPAP 2013 (2013/2014 - 2015/2016)*

This IPAP is informed by the vision of the National Development Plan (NDP) and continues to stress that industrial policy should specifically focus on value-adding sectors that have employment creation potential and growth multipliers (DTI, 2013). Public expenditure on certain infrastructure projects is to be leveraged to improve local production. The key priority areas highlighted in the 2013 IPAP continue to be those emphasised in previous IPAPs, in addition to the production of items required for government infrastructure projects. Renewable energy is highlighted as important, particularly for the manufacturing of components to use as inputs into the country's 17.8 Gigawatts renewable energy-generating programme. Mineral resources are still of importance as the government aims to leverage the country's resource endowments into beneficiation efforts and improve South Africa's manufacturing competitive advantage.

It is noted that industrial financing needs to be tailored towards black entrepreneurs who want to start new manufacturing firms or take over existing ones. The 2013 IPAP maintains that the priority of the DTI is creating jobs by growing upstream and downstream value chains, providing further support for the sectors listed in Table 4.1. The key areas for intervention are: beneficiation, infrastructure development, regional economic development and industrial integration, growing new export markets, particularly value-added agricultural manufacturing into food-importing countries, local procurement and supplier development and import opportunities in the BRICS countries. The IDC continues to re-orient its financing towards IPAP and NGP sectors. The 2013 IPAP also notes that R2 billion was sourced by the Development Corporation from the Unemployment Insurance Fund (UIF).

#### *IPAP 2014 (2014/2015 - 2016/2017)*

The 2014 IPAP also focuses on growing a dynamic and competitive labour absorbing manufacturing sector, particularly traditional and non-traditional tradable and value-adding sectors. The IPAP calls for an intensified focus on growing exports into the rest of the African continent and the country is to develop a nuanced strategy for exports, leveraging its mineral resources and technical capabilities. In addition to the emphasis on exports, domestic aggregate demand is to be enhanced via measures such as local procurement, creating and strengthening linkages between production and service sectors. The central focus continues to be on manufacturing. According to the DTI (2014), through backward linkages, inputs from primary,

services and other manufacturing sectors are ‘pulled through’ and transformed to higher value added products and employment is created along the value chain. The manufacturing sector also contributes to employment creation through forward linkages to ‘downstream’ sectors and drives innovation and productivity (DTI, 2014). Priority sectors identified for upscaling, are the green industries, agro-processing, metal fabrication, capital and rail transport equipment, advanced manufacturing and clothing and textiles and footwear production. The IPAP also calls for the need to address certain market failures, resulting in the IDC making a shift from “acting as a private investment bank to a much greater emphasis on its development bank mandate” (Zalk, 2014a: 343). Improved coherence between the DTI incentives and financing from the IDC and the Export Credit Corporation is required (DTI, 2014). Stronger alignment of industrial financing across all the country’s DFIs and within the IDC itself is emphasised. It is recognised that the IDC has made significant progress in re-orienting and prioritising IPAP and NGP sectors.

The IPAP is still guided by the NIPF, but has also aligned its focus with the broad vision of the NGP and the NDP (DTI, 2014). The 2014 IPAP also aims to align its priorities with those of the National Infrastructure Plan which is currently being implemented under the Presidential Infrastructure Coordinating Committee (PICC) intended to remove bottlenecks hindering industrial development as well as increase domestic demand by sourcing inputs locally.

#### *IPAP 2015 (2015/2016 - 2017/2018)*

The seventh iteration of the IPAP was released in May 2015. The policy document continues to focus on labour absorbing sectors such as the clothing, textiles, leather and footwear sectors. The sectoral interventions still remain the same as those of the previous iteration with the exception of water metering systems included under sectoral intervention 2 in the recent document. The IPAP (2015) emphasises that industrial financing needs to have a strategic impact on manufacturing and the economy. There needs to be an alignment between the activities of the country’s DFIs and incentive packages.

#### *The New Growth Path*

The NGP was released by the government in response to the 2008 economic downturn, as an attempt to increase job creation and economic growth, and reduce poverty. According to Natrass (2011: 1), the NGP “is a vision rather than a plan or a projection”. This framework or

“vision” identifies economic sectors with the potential to create employment. It also provides an analysis of policies and institutions that are vital to take advantage of these opportunities and points to making use of economic policy “to create a favourable overall environment and to support more labour-absorbing activities” (Economic Development Department (EDD), 2011: 18). In the short term, the NGP proposes job creation through direct schemes, targeted subsidies and expansionary economic packages. The support of activities in agricultural value chains, light manufacturing and services sectors are expected to create employment over the short to medium term. Knowledge- and capital-intensive sectors are expected to drive competitiveness in the longer run. The pursuit of export markets is also seen as an opportunity to conduct business with fast-growing economies such as China, India and Brazil.

The NGP proposes the following goals: growing employment, increasing incomes and taking steps to reduce inequality and improve income distribution. The purpose of these strategies is to “*deepen*” the domestic and regional market (EDD, 2011: 21). The second strategy is put emphasis on exports to the region and other fast-growing economies in order to “*widen*” the South African goods and services market. The drivers of job creation are believed to be: public investment in infrastructure, the agricultural and mining value chains, manufacturing and services, knowledge and green economies, rural development and regional integration, tourism and certain high-level services as well as “leveraging social capital in the social economy and public services” (EDD, 2011: 24).

Putting the various policy documents into perspective and starting at a broader level, the National Development Plan (NDP)<sup>6</sup> released in August 2012, can be described as a long-term plan that sets the framework for South Africa to achieve key economic and social objectives by the year 2030. The IPAP is currently informed by South Africa’s long term vision defined by the NDP and the perspectives of the NGP. The main objectives of the IPAP are set out in the NIPF. The NDP combined with the medium-term NGP economic strategy and the three-year rolling IPAP, provide a basis for South Africa’s economic and social transformation objectives (IDC, 2014). These objectives include enhanced economic growth, modernisation, poverty alleviation and reducing inequality.

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<sup>6</sup> There has been much contestation around the NDP, particularly with respect to the lack of concrete plans. A detailed analysis of this debate is beyond the scope of the thesis. See Fine, 2012b; Sender, 2012; Alloggio and Thomas, 2013.

#### 4.3.4 A review of the key institutions in industrial policy

Some of the key institutions involved in the formulation and implementation of industrial policy in South Africa are the Department of Trade and Industry, Economic Development Department (EDD), the National Treasury, DBSA, and the IDC. The EDD was formed after the 2009 elections to strengthen the government's capacity in developing the NGP. The Department was given the mandate to address the country's structural constraints in labour absorption and the creation of decent work. The EDD notes that "rising employment and living standards have positive outcomes and are a vital source of sustainable economic growth" (EDD, 2014: 1). The aim of the EDD (2014) is to "promote economic development through participatory, coherent and coordinated economic policy and planning for the benefit of all South Africans". The function is to coordinate the activities and contributions to economic development of the different government departments, state enterprises and civil society. The EDD is also to ascertain that there is coherence between policy and state entities on the one hand as well as the economic goals and mandate of the government on the other. The responsibility of the National Treasury on the other hand is to coordinate macroeconomic policy as well as promote the country's fiscal policy framework. The Treasury coordinates intergovernmental financial relations, manages the process of budget preparation, and controls annual budget implementation and adjustments (National Treasury, 2016: 1).

The DTI has played the central role in setting the country's development agenda since 2007. This is mostly achieved through the development and implementation of the IPAP. The DTI identified South Africa's DFIs as key for implementing the country's industrial policy. Two of these institutions are the DBSA and the IDC. The DBSA is a South African government owned DFI, established in 1983 for the purpose of performing the economic development functions in the homeland constitutional dispensation at the time. The functions of the development bank included administering loans between the South African government and the homelands. The activities of the DBSA have evolved over time, and have remained consistent with the new constitutional dispensation, promoting socio-economic development and growth in the region of southern Africa (DBSA, 2014). In April 1997, the development bank was reconstituted by Parliament as a development finance institution in terms of the Development Bank of Southern Africa Act No.13 of 1997, with the task of financing infrastructure development and capacity provision to the South African government (DBSA, 2014). In 2014, the DBSA's mandate was

expanded by Parliament to finance projects in other African countries outside the Southern African Development Community (SADC).

The purpose of the Development Bank is to speed up socio-economic development in a sustainable manner, providing financial and non-financial investment in social and economic infrastructure. Social infrastructure provision includes accelerating the delivery of critical social services while economic infrastructure includes attending to constraints and bottlenecks that might hamper economic growth. Qobo and Soko (2015) add that the primary aim of the institution is to promote sustainable economic development and growth, develop human resources and build institutional capacity through the use of public and private resources obtained domestically and abroad. Key areas identified as a priority for the DBSA are water infrastructure projects, the energy sector, transport and ICT (DBSA, 2014). The aim of the DBSA is to provide sustainable finance for infrastructure projects and support selected African markets, economic growth and regional integration (DBSA, 2014). The financing activities of the DBSA are examined further in Chapter 5.

The IDC has arguably occupied a key position in South Africa's development and industrial policy since its formation and with its long history in acting as the government's source of finance. The Corporation is a fully state-owned entity (IDC, 2014). The Industrial Development Corporation of South Africa was incorporated on 1 October 1940, registered in terms of the Industrial Development Act, No.22 of 1940 and established for the purpose of encouraging industrialisation (IDC, 1971). When the Bill reached Parliament critics were concerned that "the Corporation might neglect the rural districts" and possibly interfere with private business (IDC, 1971: 10). The main goals of the Corporation according to the Act are "to facilitate, promote, guide and assist in the undertakings as well as schemes for the expansion, better organization and modernization of existing industries and undertakings in such a manner as to meet the economic needs of the country so that the industrial development of South Africa can be planned, expedited and conducted on sound business principles" (Norval, 1962: 97). The IDC was also empowered to create and manage any industry (IDC, 1971; Norval, 1962).

The Corporation was to consider applications for financial assistance based on "economic merits, irrespective of any other considerations", and was not expected to provide any excessive support for capital in the creation of new industries or companies (Norval, 1962: 98). The contribution to a project was limited to only about a third of the total or fifty percent of the

shareholders' interest. Although consideration was given to all applications, regardless of the scale of the undertaking, relatively secure projects were given preference. The operations of the IDC were that of an industrial bank, providing capital for new firms, starting new projects in partnership with domestic and foreign companies as well as strategically launching new projects (Feinstein, 2005). The early activities of the IDC can be encapsulated in Norval's (1962: 99) statement that "it is not its function to assist undertakings which are financially embarrassed. Its prime function and objective is to assist and encourage private enterprise in the development of industrial activity on sound business principles by way of loans, or preference or ordinary shares which can be liquidated in periods of one or more years". The Corporation was criticised for excessive risk aversion to the extent of neglecting its developmental role and instead being concerned about the bottom line. The risk aversion was evident in the Corporation's holdings of shares in blue-chip industrial companies and the habit of adhering to general investment trends (Joffe, *et al.*, 1995). The IDC's investment strategy has changed over the years and its focus has shifted according to government priorities.

In 1997, the IDC's mandate was expanded by the Industrial Development Act of 1997, enabling the Corporation to enlarge the scope of its financing activities across the country's borders to the rest of Southern Africa and encouraging domestic firms to expand regionally (Qobo and Soko, 2015). The 2001 amendment to the Act allowed the IDC to extend its investment to the rest of the African continent. In the 2013-2014 financial year the Corporation financed R2.3 billion worth of projects in 16 other African countries (IDC, 2014). According to Qobo and Soko (2015), the IDC has received pressure from the government, specifically from the Department of Economic Development with regards to the impact that the financing of projects outside South Africa has on the country's job creation and economic growth. The Corporation's contribution to job creation and the amount of financing to various sectors within the South African economy in the past five years is explored in more detail in Chapter 5.

## 4.4 The Brazilian Case Study

### 4.4.1 Brazil's import substitution industrialisation

According to Kerstenetzky (2014), Brazil has experienced three state-led development models in the past 40 years. Import substitution industrialisation (ISI), with large investments in heavy

industry and consumer durables, was the development model followed in the 1960s and 1970s. ISI emphasised the accumulation of capital through intra-industry demand and consumption of durables while there was very little public policy to improve social standards. During this time, Brazil had an authoritarian political regime that had the support of big businesses, large land owners and the middle class, while also making sure that political resistance from urban and rural workers was neutralised (Kerstenetzky, 2014). The 1970s economic miracle was accompanied by increased inequality in the Brazilian society, with the Gini index increasing from 0.49 in 1960 to 0.565 in 1970 (Kerstenetzky, 2014).

As economic conditions deteriorated internationally, the country went into a debt crisis in the 1980s. There was mounting opposition against the military government as new political forces such as the Workers Party emerged. The new Constitution formed in 1988 emphasised social rights and democratic public policies (Lavinás, 2013; Schutte, 2014). The state was tasked with the responsibility of providing a decent life for its citizens, employment, education, social protection and health. ISI came to an end as the debt crisis and resulting inflation took root and there were high rates of unemployment and slow economic growth.

The next decade was followed by what Kerstenetzky (2014) refers to as ‘governance by the market’ where the state withdrew from many economic activities, accompanied by poor economic growth. Between 1992 and 1994, Itamar Franco and his Minister of Economy Fernando Henrique Cardoso took office, applying a stabilization plan, the Real Plan (*Plano Real*). In 1995, Cardoso won the presidency defeating Luiz Inácio Lula da Silva (Lula) as the Real Plan gained popularity. His presidency lasted from 1995 to 2002, implementing policy measures to stabilise the currency and the balance of payments.

#### 4.4.2 The Cardoso era (1995-2002) and prevailing policies

Cardoso implemented neoliberal reform during his term in office (Seidman, 2014). Direct public intervention was withdrawn from a number of areas, public state enterprises were privatised and trade was deregulated, rapidly opening the Brazilian economy to imports and capital inflows while high interest rates were maintained through monetary policy. The liberalisation of the capital account and high interest rates resulted in an influx of short-term speculative funds into the country (Rocha, 2002; Hermann, 2010). There was also outsourcing

of public services. The downsizing of state activities was meant to crowd in private investment and FDI, improve competition and allow the market to work and generate growth and employment (Kerstenetzky, 2014). By making use the Real Plan, the goal was to curb inflation that had reached 2000 percent in 1994 (Maia *et al.*, 2005; Pons-Vignon, 2011). The Real Plan maintained that the basis for long term economic growth could only be achieved by providing a climate that attracts foreign capital through lowering inflation (Pons-Vignon, 2011; Kerstenetzky, 2014). It was maintained that FDI was important as it would provide financing for the balance of payments deficit, modernisation of the industrial structure, improvements in technology and productivity as well as enhance the competitiveness of Brazil's exports in international markets (Rocha, 2002).

The debt crisis of the 1980s was blamed on state-driven policies. The old ISI model was blamed for poor income distribution, inefficiencies in public services, low productivity in domestic firms and other structural problems in Brazil (Kerstenetzky, 2014). The new agenda was to increase the private sector's competitiveness, allowing the markets to govern the development process. The BNDES also took an active part in a large privatisation programme that was implemented at the time (Pons-Vignon, 2011). However, high interest rates attracted short term speculative capital while FDI did not convert into new business (Pons-Vignon, 2011). Deindustrialisation resulted and there was a decline in employment, particularly in the industrial sector. There were some in government who considered monetary stabilisation as a social policy rather than just an economic policy. It was hoped that eliminating inflation would bring about prosperity, stop inflation-driven mechanisms which diminish the income of the poor who usually did not have bank accounts or access to indexed financial assets.

Kerstenetzky (2014) argues that just like in other parts of the world, Brazil's market-governed development did not achieve economic growth. The 1990s were periods of low or no economic growth, public debt, increased government expenditures and an increased tax burden. Privatisation and productive restructuring resulted in the transfer of assets and loss of productive capacity, instead of new investments that might stimulate growth. The monetary stabilisation policies led to Brazil's interest rates being the highest in the world. This further restricted economic activity, increased the unemployment rate and growth of the informal labour market. According to Kerstenetzky (2014), the Cardoso years were characterised by low rates of economic growth, modest income redistribution and poverty reduction. Structural factors that enforced inequalities such as a dysfunctional labour market, lack of access to

quality education at all levels, insufficient access to credit and capital and concentration of land ownership, persisted throughout the Cardoso years (Kerstenetzky, 2014).

Pons-Vignon (2011) and Coleman (2014) point out that both South Africa and Brazil adopted similar policies; the *Plano Real* was implemented from 1994 in Brazil and South Africa adopted GEAR in 1996. Both policies reflected the belief that liberalisation would lead to economic growth by attracting foreign investment.

#### 4.4.3 The Lula and Dilma administrations

The development path of ‘redistributive growth’ was mostly begun under the presidency of Lula (Kerstenetzky, 2014). The Lula candidacy that grew out of the political left and intentions to move away from the Washington Consensus ‘one-size-fits-all model’ ended up with Lula gaining the presidency. However, when Lula first took office, he did not depart from his predecessor’s conservative macroeconomic policies (Webster, 2014). The first Lula administration between 2003 and 2006 continued some of the Cardoso era economic policies with a focus on fighting inflation. During Lula’s second term (2007-2010), public spending expanded. There was an increase in the number of civil servants and wages (Coleman, 2014). The previous trend of outsourcing public jobs was reversed and civil servants had to take a public examination competing for jobs in tax collection, auditing, higher education and social assistance. According to Kerstenetzky (2014), these measures have contributed to restoration of government capacity, such as having qualified employees in revenue collection. Dilma Rousseff’s term began in 2011. She started a programme to reduce extreme poverty and pledged that her priority would be improving health, education, gender equality as well as political reform (Kerstenetzky, 2014).

The federal cash transfer programmes were expanded and the government showed commitment to social issues. Partial pensions for civil servants were approved. The Ministry for Social Development and to Combat Hunger (*Ministério do Desenvolvimento Social e do Combate à Fome*, MDS) was established. Most of the reforms during Lula’s first term were institutional. Institutions such as the Ministry for Agrarian Development for the purpose of addressing agrarian reform and the Economic and Social Development Council which was to advise the president on policy were established. During Lula’s first year in presidency, unemployment

grew, GDP per capita was negative although there was a reduction in inequality. The economic performance in the years that followed, from 2004 to 2006, improved. However, Kerstenetzky (2014) attributes this improvement in the economy to the favourable global economic climate, particularly due to the commodity boom rather than being solely due to Lula's policies. The funding towards education, health and agrarian development stagnated while housing and sanitation experienced cutbacks (Kerstenetzky, 2014; Lavinias, 2013).

During Lula's first term, the first implementation of the Family Allowance cash-transfer programme (*Programma Bolsa Família*, or PBF) consolidated various cash-transfer programmes to the poor that were administered by the government, increasing benefits and more than doubling the number of Brazilians covered by the programme (Kerstenetzky, 2014; Schutte, 2014). PBF targets poor families with children and is conditional on certain requirements being met, such as school attendance and family visits to health centres (Lavinias, 2013). According to Kerstenetzky (2014), the PBF was responsible for a fifth of the reduction in income inequality between 1995 and 2004 while also contributing to poverty reduction. Pons-Vignon (2011) argues that the poverty reduction achieved through the PBF is an indication that countries can pursue their productive developmental goals while also pursuing poverty reduction. The PBF also enabled a large proportion of the population that had been excluded from the consumer market to contribute to increased domestic demand as they had money to spend.

Brazil has put in place three different industrial policies since 2004. The PITCE (*Política Industrial, Tecnológica e de Comércio Exterior*) between 2004 and 2007 focused on modernising Brazil's institutional basis (Ferraz, Kupfer and Marques, 2014). The PITCE was the initial endeavour to return industrialisation to priority status after years of its absence from the policy agenda. The aim was to focus on innovation activities and strengthening specific sectors that were viewed as important for industrialisation. The sectors include electronics, capital goods, the pharmaceutical sector and software industry (De Castro, 2009; Ferraz *et al.*, 2014). The main objective of the PITCE was to create a new institutional framework that includes as well as create legislation to induce innovation, provide a forum to promote industrial strategies and priorities, and create agencies for industrial development and exports (Pons-Vignon, 2011). The Brazilian Industrial Development Agency (ABDI) was created for the purposes of co-ordinating and implementing the PITCE.

From 2008 to 2010 the PDP (*Política de Desenvolvimento Produtivo*) was focused on promoting investment and this was particularly important when the country was faced with the ramifications of the financial crisis (Ferraz *et al.*, 2014). The PDP, between 2008 and 2010, had 425 policy goals, of which 420 were accomplished and made operational. The effectiveness of the PDP was achieved by giving industrial policy first priority, having ministries committed to its success, especially the Ministries of Trade and Industry, Science and Technology and Finance, and the management system that was set up to ensure that the proposed policy measures were implemented. The Brazilian Agency for Industrial Development (ABDI) developed an online information system for the purpose of reporting on the PDP's progress (Ferraz *et al.*, 2014). The PDP was aimed at promoting investment, maintaining the focus on the growth cycle and emphasising on sectors that were promoted by the PITCE (Pons-Vignon, 2011).

The PBM (*Plano Brasil Maior*) was implemented from 2011 until 2014 and the focus was on accumulating value through innovation (Ferraz *et al.*, 2014). The PBM has put emphasis on building local value added industries and promoting the competitiveness of domestic firms. This has been achieved through the lowering of the cost of labour and capital, encouraging the development of production sectors, improving exports and trade protection (Naidoo, 2014). The policies possess certain features such as continuity and flexibility in promoting innovation and improving competitiveness (Ferraz *et al.*, 2014). Goals were made explicit and there was interaction with the business sector and the labour force. Industrial policies also became integrated and coordinated with other development policies, such as environmental policies, science and technology, education and infrastructure.

Brazil's current industrial policy, the PBM has ten strategic goals, divided into three elements that contribute to the overall goal of sustainable development (Ferraz *et al.*, 2014). The three dimensions are competencies, structural change and efficiency, and market expansion. The competencies dimension entails capacity building goals. Competitive competencies incorporate capacity building objectives, increased fixed investment, research and development and labour skills. The second dimension is structural change and efficiency. This dimension, "includes increasing value added, developing knowledge-intensive sectors, strengthening small and medium-sized companies, and supporting clean production" (Ferraz *et al.*, 2014: 300). Competitiveness is expected to result in market expansion, both domestically and internationally. PBM particularly focuses on industries related to energy. The three

dimensions result in attaining the goal of the PBM which is to; “innovate and invest to increase competitiveness, support growth and improve the quality of life” (Ferraz *et al.*, 2014: 300). Other state agencies’ work programmes and the consensus on priorities among stakeholders is guided by the PBM’s strategic map. Collaboration between the different government agencies, the private sector and other stakeholders is important for the effectiveness of the PBM. The various institutions that are responsible for the implementation of the PBM are “representatives of the President’s Chief of Cabinet, Ministry of Finance, Ministry of Science and Technology, Ministry of Planning and, of course, Ministry of Development, Industry and Trade form PBM’s Executive Committee” (Ferraz *et al.*, 2014: 301).

The Growth Acceleration Programme (PAC) was introduced during Lula’s second term in office. This is an infrastructural plan providing public infrastructure investments, credit and incentives for private investments (Coleman, 2014). This programme is designed to remove bottlenecks in the economy, enhance productivity and reduce social and regional inequalities (Kerstenetzky, 2014). Some of the innovative activities under PAC include the formation of public-private partnerships where the government sets goals and encourages private sector participation through the provision of tax relief and access to credit; considering social infrastructure as part of the infrastructure necessary for development by expanding public services, low-cost housing, transport, sanitation, and access to electricity and water; as well as communicating and sharing the responsibility of the management and plans among the relevant ministries and municipalities (Kerstenetzky, 2014; De Castro, 2009).

#### 4.4.4 The role of the BNDES

The key financial institution in Brazil, the BNDES, was established in 1952 to administer the inflow of loans from the United States of America (Pons-Vignon, 2011). The BNDES became the foundation of Brazil’s industrialisation and development (Sampaio, 2015; Tavares de Araujo, 2013). Hermann (2010) explains that the Brazilian Bank has adapted its activities, changing its emphasis according to the evolving political, economic and financial context. In the 1950s the focus was on infrastructure projects such as energy, transportation and steel-making, while in the 1960s, consumption goods, SMEs and technological development received the bank’s attention. Capital goods, basic industries and import substitution were the areas of focus in the 1970s (Maia, *et al.*, 2005). The development of large domestic industries

during the ISI period was monitored by the BNDES ensuring that protection would not lead to rent creation (Pons-Vignon, 2011).

The BNDES's reliance on borrowing money from international markets meant that the bank was dependent on foreign markets, leading to the end of ISI after the 1980s, after interest rates reached record highs internationally. This brought Brazil's debt-driven industrialisation to an end (Pons-Vignon, 2011). According to Maia *et al.*, (2005), the most significant change in the BNDES's activities was in the 1990s where the bank managed the transfer of public assets to the private sector. Baer and Villela (1980) however, show that in the second half of the 1970s the BNDES had already been given the task by Brazil's policy makers to devise programmes to strengthen the domestic private sector. In the early 2000s, the main focus included the modernisation of industry, exports, SMEs, infrastructure and regional development (Maia *et al.*, 2005).

Since 2003, when Lula became president, the BNDES has changed the orientation of its financing activities as the country placed more importance on South American and South-South integration (Sampaio, 2015). The government, particularly during Lula's term as president, used financing from the bank for regional development. Even though the Brazilian Bank's function of providing long-term credit has not changed, the scope of its activities has broadened and includes the financing of investment projects, acquisition of equipment and the export of both goods and services (Sampaio, 2015). The bank's activities have also extended beyond Brazil's borders, providing financial and technical support to projects that promote the country's economy and social development (Sampaio, 2015). During the 2008-2009 global financial crisis, the Bank took countercyclical measures in its lending and aided Brazil's economy to recover, while also creating and preserving jobs, investing in infrastructure projects and building new industries (Schutte, 2014; Tavares de Araujo, 2013; Gumede *et al.*, 2011).

Brazil has had higher interest rates than South Africa, however, it has managed to maintain better rates of investment, largely owing to the BNDES financing activities (Pons-Vignon, 2011). Due to Brazil's high short-term interest rates, commercial banks have had little incentive to invest in long term fixed capital projects (Schutte, 2014). The BNDES is therefore the major provider of long-term financing in Brazil, providing loans with favourable terms such as lower interest rates and longer terms of repayment (Maia *et al.*, 2005). The Brazilian Bank also created programmes that are connected to the overall economy, for example fixed interests

rates for small to medium businesses and providing loans with low interest rates to projects that are helping to meet employment creation targets. Financing provided by the BNDES is linked to the country's industrial development goals with a focus on building linkages (Maia *et al.*, 2005, Pons-Vignon, 2011). The Brazilian Bank is tasked with gathering detailed information on the state of development in different municipalities and design the proper interventions (Pons-Vignon, 2011).

Funding of the BNDES is partly obtained through treasury bonds which have to be repaid normally or through income from lending activities (Pons-Vignon, 2011). The BNDES is able to offer competitive interest rates that are close to zero in real terms as part of the funds are obtained from the national unemployment fund, *Fundo de Amparo ao Trabalhador* (FAT). Even though the Brazilian Bank is not expected to repay capital, it is expected to pay interest. As the leading provider of long term finance with this source of 'free money', the BNDES has had the ability to influence its clients' behaviour, for example by primarily providing cheap loans to innovative activities (Pons-Vignon, 2011).

One of the approaches that Pons-Vignon (2011) argues is worth emulating is how the Brazilian development bank has managed to build and promote local industry. The foundation of the bank's financing is the connection of its loans to local content. The country has a national supplier database that was developed and is regularly updated by the BNDES (Pons-Vignon, 2011). The database lists national suppliers of products that are at least 60 percent Brazilian and are therefore eligible for low interest rates. The database is available to all industries and public corporations, providing easy access to information on locally manufactured products. Firms also have the option to import inputs if they choose. In combination with this, the BNDES has a credit card facility for SMMEs that is used for purchasing capital goods produced in Brazil and listed on the database. Purchases made from this database receive preferential financing. The BNDES is also involved in policy development that encourages sourcing of local content. For example the Development Bank created a loan that could be divided into parts to which different interest rates are applied depending on whether the money is used to purchase locally sourced or imported goods. This has ensured that the BNDES has a hand in building the local manufacturing industries (Pons-Vignon, 2011).

#### 4.5 Conclusion: Lessons from Brazil

According to Kerstenetzky (2014), Brazil has a set of public policies and state capacities that has enabled the country to advance social development where growth promotion policies have also managed to promote equity. The challenge on the other hand has been the slow amount of progress in the provision of social services (such as health and education) and the selective nature of the transfer programmes that has reinforced the segmentation of social opportunities. The budget has also been limited for the implementation of policies aimed at the poor. Coleman (2014) suggests that the introduction of a national wage was responsible for increased income and equity while the promotion of labour market regulation significantly increased formal employment and reduced poverty. The Brazilian case also brings forth the issue of participation, where members of society are given the opportunity to contribute in policy formulation and the development process. Kerstenetzky (2014) warns that where participation translated to the establishment of institutions, there needs to be careful monitoring of the imbalances in the representation and the voice that emerges from these institutions.

The state has also been able to form links with academia, ensure that institutions are pragmatic to ascertain that policy is implemented successfully and has had highly trained public servants in key institutions and ministries. Brazil's relationship with academic institutions has been vital to policy formulation and implementation. Pons-Vignon (2011) also asserts that state officials that are trained domestically are usually the most effective in policy formulation. There is also a high degree of mobility between leading academic departments and the government as the government often calls on the expertise of academics, domestically, to inform policy decision-making. Government professionals entering junior positions are often recruited from Brazilian universities. Unlike South Africa, there does not appear to be as much competition for skilled human resources in Brazil as skilled labour is more in abundance (Pons-Vignon, 2011). This is due to a well-funded and developed tertiary education system where universities can produce leading economists who either remain in academia or conduct independent research.

Pons-Vignon (2011) attributes the effectiveness of the Brazilian top-down monitoring system to three factors. Firstly, the sound working relationship between staff members occupying high-level positions in the institutions involved and sharing the same motivation and desire to see policy succeed. Secondly, the policy objectives are practical and realistic even though they are ambitious, with intermediate objectives designed to facilitate day-to-day monitoring of

activities. Thirdly, the commitment of political leaders has also played a crucial role Brazil's industrialisation.

South Africa's DFIs could benefit from expanding on some of the Brazilian Bank's activities, such as the provision of loans at favourable interest rates with longer repayment terms. A national supplier database managed by the IDC or DBSA could help strengthen the local industry, promoting the country's manufacturing industry. Linking interest rates on loans to the purchasing of local capital goods is another way South Africa's DFIs could encourage the use of locally produced goods. Financed projects that use locally manufactured goods could receive loans with more favourable terms such as lower interest rates compared to those that source their capital goods from outside the country.

Chang (2011) challenges the view that institutions determine economic performance, asserting that it is rather economic development that changes institutions<sup>7</sup>. This suggests that perhaps as South Africa develops, there will be an increase in the demand for institutions that are not only fulfilling the country's emerging needs, but are also agents of change. In other words, the lessons learned from Brazil will be those that inform the creation of institutions that are required by South Africa's economic development trajectory.

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<sup>7</sup> Refer to section 3.5.3 for a detailed discussion.

## CHAPTER 5: THE ROLE OF THE IDC AND DBSA IN IMPLEMENTING SOUTH AFRICA'S INDUSTRIAL POLICY

### 5.1 Introduction

The NGP was launched in 2010 containing what might be considered ambitious targets, such as the creation of 5 million jobs by 2020. In 2015, at the time of writing, it is therefore worth examining the contribution that South Africa's DFIs have had on the country's economy, particularly job creation, since then. The purpose of this chapter is to examine the activities of the IDC and the DBSA and their contribution in financing the priority sectors that are outlined in the IPAP and the NGP. Chapter 5 examines the role of the IDC and the DBSA to the implementation of South Africa's industrial policy over the past five years. The impact that these institutions have had on employment creation in South Africa is explored. By comparison, the financing activities of the BNDES and the impact the bank has had on job creation in Brazil is examined.

### 5.2 The political economy of South Africa's industrial policy and its impact on South Africa's DFIs particularly the IDC

The theoretical framework of political settlements suggests that different political contexts in various countries result in DFIs functioning differently across countries and that understanding the distribution of power in the analysis of institutions is important (Khan, 2010). In the case of South Africa, this can therefore provide some indication as to why the country's DFIs have supported and continue to support certain industries as well as the reasons why it might be difficult for the country to directly emulate Brazil's BNDES or other DFIs from already industrialised countries. The relative holding power of various interest groups and organisations challenging the distribution of resources in South Africa therefore needs to be examined. Holding power is partly derived from the income and wealth of the different groups and is also a consequence of the historically entrenched capabilities of these groups (Khan, 2010). Chibber (2014) explains that in capitalist settings industrialists hold significant power. Without a steady stream of revenue from industrialists in the form of taxes and wealth, a political regime may find it difficult to undertake its programmes. In the event that industrialists feel that their profits are undermined by state policies, they can withhold investment,

threatening state revenue. It therefore becomes the state's priority "... to monitor and nurture a friendly business climate...constantly fret [ting] about the sentiments and the preferences of their industrialists...for fear of triggering a downturn in business confidence" (Chibber, 2014: 50). It could be argued that this has been the case in South Africa.

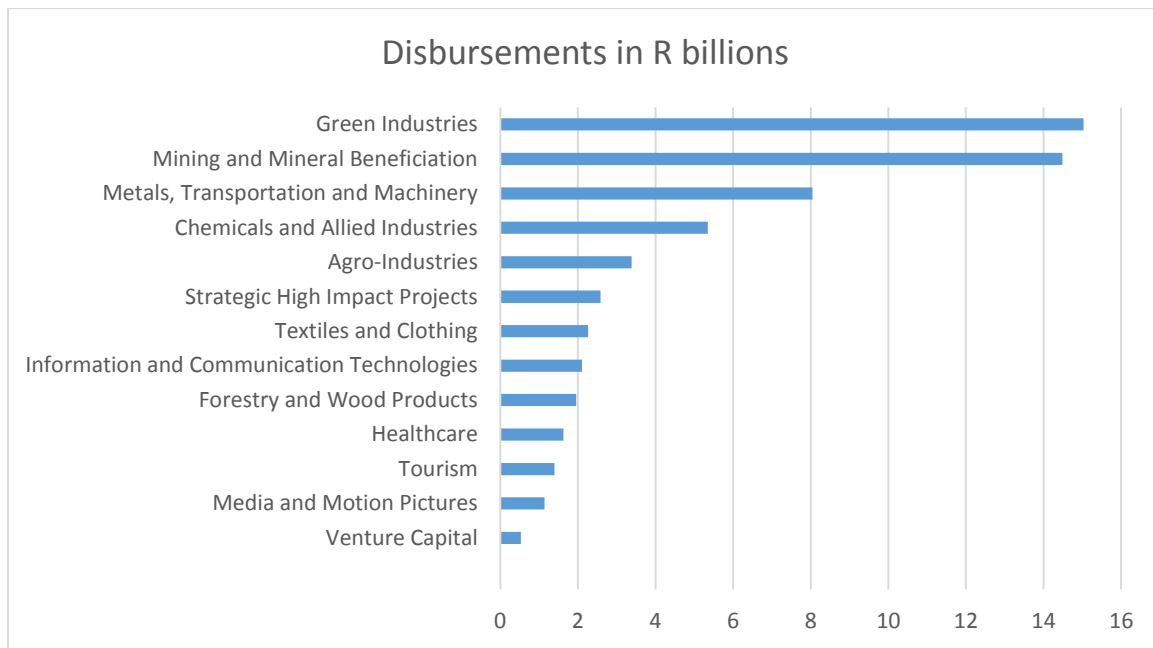
Chabane, Goldstein and Roberts (2006) argue that South Africa's economy has been characterised by the dominance of a small number of conglomerates that have substantial economic power and have exploited their position by lobbying for the "wrong" policies. Conglomerates, such as Anglo American Corporation (AAC) and Rembrandt have had a major influence on policy-related matters under the ANC government especially in areas of tariff and exchange control liberalisation, privatisation and black economic empowerment (BEE). Chabane *et al.* (2006) also suggest that the state in some industrialising countries disciplined big business, influenced the organisation of production and encouraged dynamic efficiencies while in South Africa the situation has been the other way round, where big business influences the policy agenda. It is further argued that big business' influence, especially in the mining and industrial sectors, has entrenched itself in policy making and that these large corporations have contributed to public policy interventions (Chabane *et al.*, 2006). BEE has received attention from the IDC, but it is argued that BEE has been in support of a few black elites and has not accomplished much in terms of providing jobs for the millions of unemployed South Africans and addressing inequality. Chang (2004) argues that a bureaucracy needs political autonomy in order to go beyond simply responding to the demands of the private sector. This means that the South African government would need to achieve a level of autonomy, if it were to go beyond responding to the demands of the large conglomerates.

Black (2012) lends support to the assertion of Chabane *et al.* (2006), arguing that large upstream producers in sectors such as steel and chemicals have disadvantaged downstream labour-intensive sectors. Even though the IDC (2014) states that its current strategy is to support industrial capacity in line with the country's industrial policy and priority sectors as set out by the goals of the NGP and the IPAP, state support has mostly directly and indirectly benefited heavy industry. Black (2012: 3) argues that "while the clearly stated objective of current industrial policy is to restructure the economy to promote growth and jobs, some of the very substantial support programmes provided by government have reinforced rather than altered the industrial development path". Isaacs (2014) adds that the mantra that the country's policies are in support of the needs of the poverty stricken majority is a fallacy. Policy

documents have been mostly underpinned by specific ideologies resulting in a combination of inconsistent approaches while policy practice often differs from that which is on paper. Some of the ways the state has supported large-scale, capital and energy intensive projects include: tax relief for large capital intensive projects between 2002 and 2005, mainly in the steel, basic chemicals, aluminium and ferro-alloys sectors; Columbus Stainless Steel and Saldanha Steel receiving an accelerated depreciation allowance in the 1990s; and the financing of mega projects, industrial development zones, infrastructure support, industrial subsidies and the preferential electricity tariff (Black, 2012).

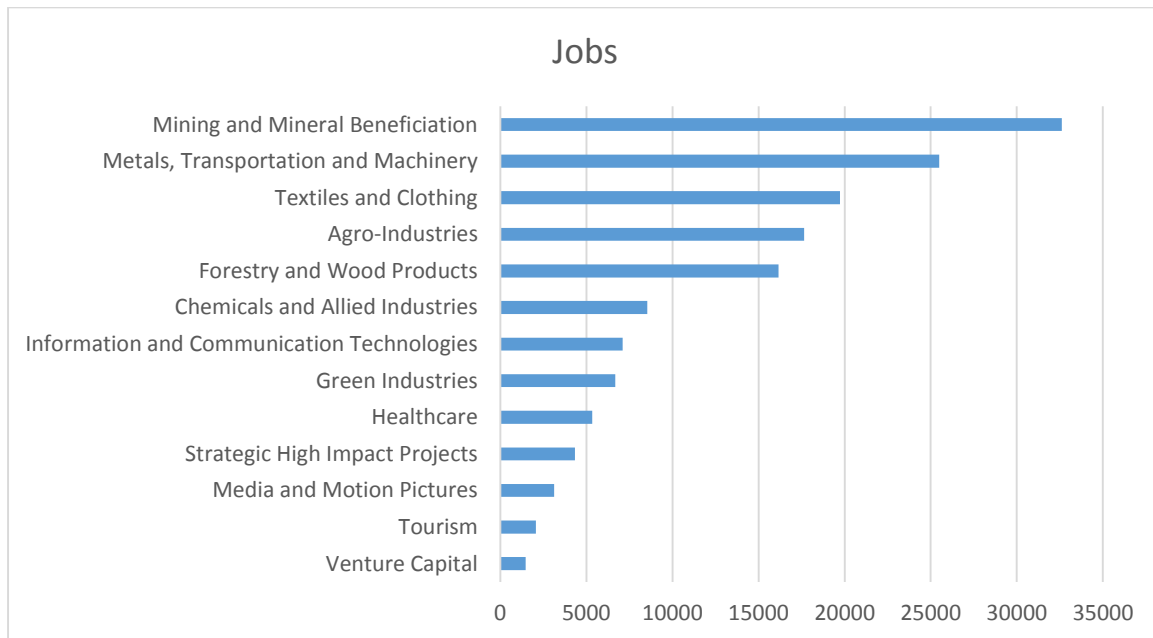
Black (2012) asserts that the IDC has been instrumental in providing direct support for heavy industry and the corporation has played an important role in meeting the government's strategic objectives. The IDC has historically supported large-scale mineral beneficiation projects and continues to do so. Figure 5.1 shows that between 2010 and 2014 mineral beneficiation and mining projects received the bulk of the financing (only surpassed by green industries). Most of the jobs facilitated by the IDC in the last five years were also in the mining and minerals beneficiation sectors (Figure 5.2). This suggests that these capital intensive projects are also absorbing labour. The financing of the mining and mineral beneficiation sectors is consistent with the IPAP's aim of supporting the manufacturing sector and the NGP's prioritisation of the mining value chain. Since the launch of the Green Fund in 2012, green industries received the highest amount of disbursements of almost R5.5 billion. However jobs facilitated by the green industries have not been forthcoming as yet. This could be due to the fact that the disbursements have been going towards set-up costs as this is a newer industry to be financed by the IDC. The least number of jobs facilitated has been in the services industry.

Figure 5.1: IDC disbursements to different sectors from 2010 to 2014



Source: IDC (2010-2014) annual reports

Figure 5.2: Jobs created and saved from projects financed by the IDC in different sectors from 2010 to 2014



Source: IDC (2010-2014) annual reports

### 5.3 The financing activities of the IDC and the DBSA

The DTI (2014) has highlighted the importance of industrial financing as the cost, duration and availability of finance still remain key determinants of manufacturing investment. Some of the challenges facing South Africa when it comes to industrial financing are as follows: the cost of capital is too high and the loan term is too short when compared to the country's major trading partners and other middle-income countries; the extension of private credit has been mainly towards debt-driven consumption and fuelled the demand for imports; credit extended by private financial institutions for investment has been mostly directed toward consumption-driven sectors, and less toward capital- and energy- intensive industries; and new entrants also need a longer grace period before they can repay capital (DTI, 2014). The financing instruments needed by the manufacturing sector are "longer financing terms, grace period allowance, lower interest rates, and effective mechanisms to fund working capital" (DTI, 2014: 46). DFIs, especially the IDC, have been called on to ensure that their activities are in alignment with the job-creating, equitable green growth promoting strategies (EDD, 2011). The IPAP aligns industrial policy with the Economic Development Department's New Growth Path (NGP) framework (EDD, 2011). In 2012, R102 billion was set aside for the financing of the IPAP and NGP sectors over the following five years (DTI, 2012). The role of the IDC is to act as the key agent in providing finance focusing on interventions that run across different sectors that have been targeted as a priority by the IPAP.

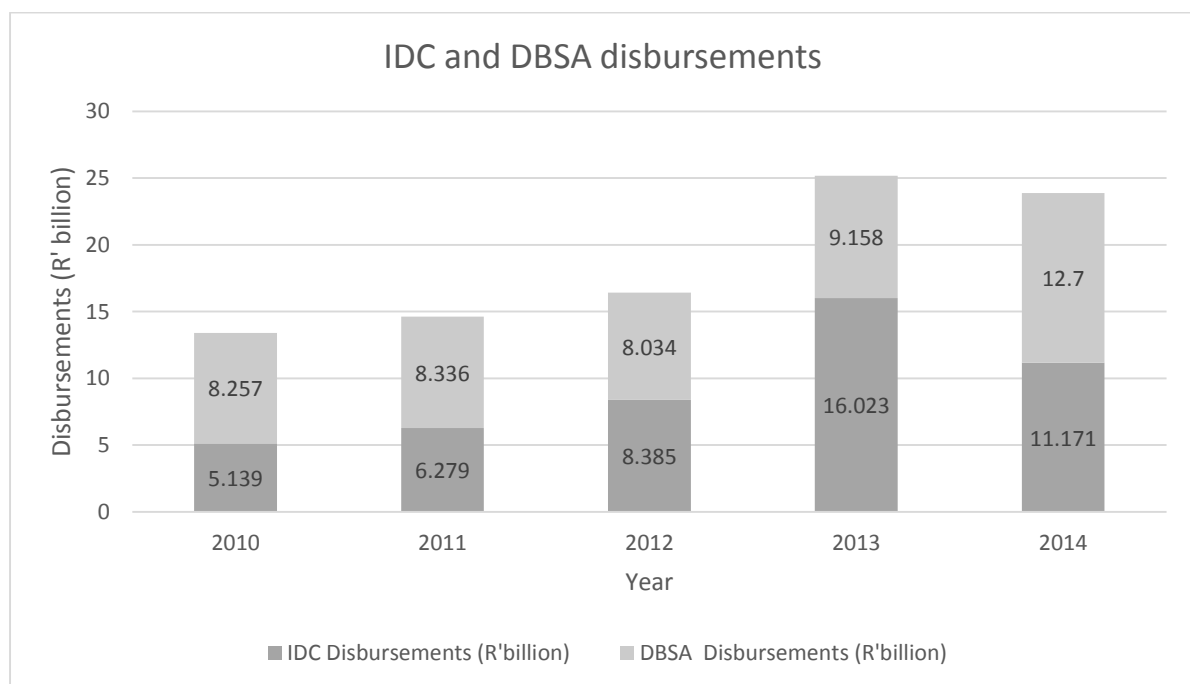
Traditionally, most of the IDC's funding has been from commercial facilities through commercial banks as well as international DFIs such as Kreditanstalt für Wiederaufbau (KfW), African Development Bank (AfDB), Agence Française de Développement (AFD), Proparco (a subsidiary of the AFD), the European Investment Bank (EIB) and the China Development Bank, among others. In 2013 the IDC's main source of income was from dividends (41%) from both listed and unlisted shares with a major part of the balance sheet being comprised of listed investments and implying dependency on market sentiments. In order to fund its activities, the corporation also relies on funds generated from loan and equity investments, and exits from mature investments. Although, historically, loan funding requirements have been sourced from international development agencies and commercial facilities from commercial banks, the Unemployment Insurance Fund (UIF) has become a significant lender to the IDC and the Public Investment Corporation (PIC) is expecting to increase levels of funding (IDC, 2013). In

2014, 60 percent of the funding was sourced from the debt capital market in comparison to 72 percent in the previous year.

Between 2010 and 2014, the IDC’s disbursements have shown a steady increase, from R5.14 billion to R16.02 billion in 2013 which then dropped to R11.17 billion in 2014, with a total of R47 billion in disbursements over the past five years (Figure 5.3). Only R8.3 billion of the total disbursements in the last five years went to small and medium enterprises while the rest of the financing supported larger projects (IDC, 2014). The justification is that large enterprises stimulate economic activity and create demand for goods and services produced by the SMEs (IDC, 2014). During this period the Corporation has facilitated the creation of 108 375 jobs and saved 36 434 (Table 5.1). The breakdown of the financed sectors and jobs facilitated is shown in tabular form in Table 5.2. It is noteworthy that so little support is given to the ICT sector.

The DBSA sourced 60 percent of funding from the debt capital market in 2014, in comparison to 72 percent in the previous year. Funds generated from operations and funds raised from local financial markets and foreign sources are used to finance loan commitments. The annual borrowing programme approved by the National Treasury was R10 billion in 2014.

Figure 5.3: Disbursements of the IDC and DBSA between 2010 and 2014



Source: Data from IDC and DBSA (2010-2014) annual reports

Table 5.1: Disbursements of the IDC and DBSA (in billions of Rands) per year and number of jobs (in thousands) created and saved

Year	2010	2011	2012	2013	2014	Total
<b>IDC Disbursements (R'billion)</b>	5.14	6.28	8.39	16.02	11.17	47.00
<b>Total number of Jobs facilitated by the IDC</b>	25 072	39 447	45 956	22 872	22 962	156 309
New Jobs	16 781	19 660	34 788	18 922	18 224	108 375
Saved Jobs	8 291	11 656	11 168	3 950	1 369	36 434
Jobs through linkages to informal economy	0	8 131	0	0	3 369	11 500
<b>DBSA Disbursements (R'billion)</b>	8.26	8.34	8.03	9.16	12.70	46.49
<b>Potential impact on employment by the DBSA</b>	31 600	22 200	21 200	22 100	21 149	118 249

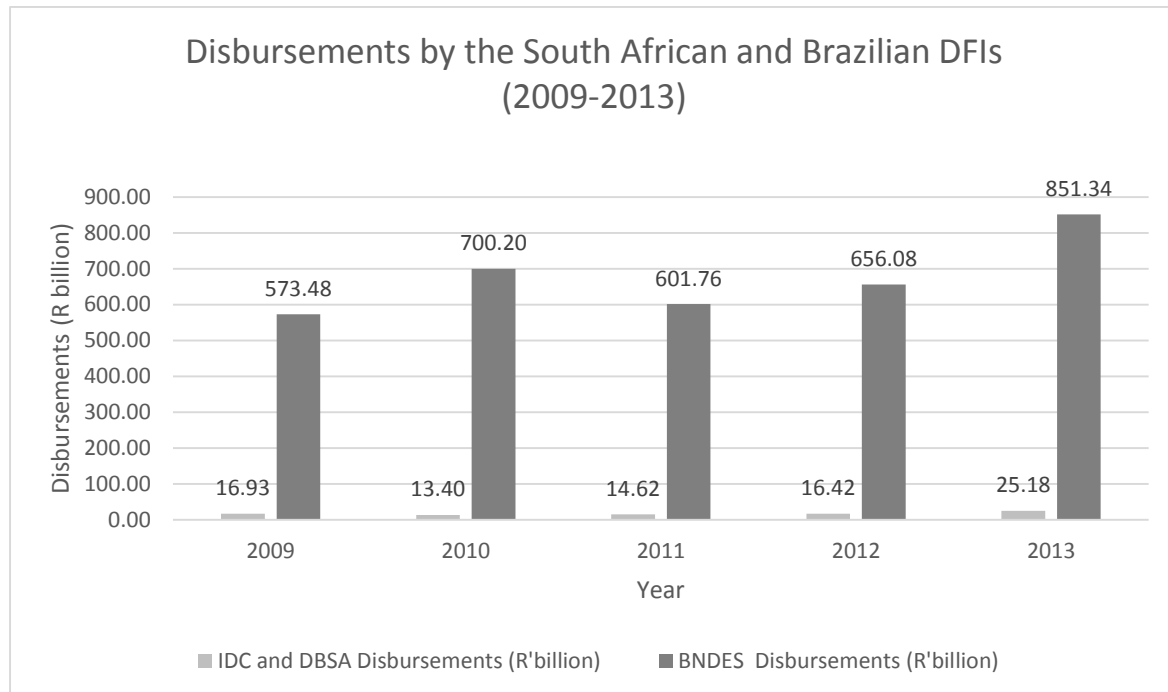
Source: Data from IDC and DBSA (2010-2014) annual reports

The DBSA's disbursements totalled R46.49 billion and its activities have had an impact of 118 249 jobs created between 2010 and 2014 (Table 5.1). In 2012, the DBSA reviewed its organisational processes to focus investment on infrastructure development (DBSA, 2015). A R7.9 billion capital injection over a period of three years was approved by the National Treasury to support the Bank's infrastructure funding (DBSA, 2015). The Development Bank of Southern Africa Amendment Bill of 2013 expanded the Bank's mandate beyond the SADC region into other African countries. Considering the number of unemployed South Africans and the ambitious target set by the NGP of creating 5 million jobs by 2020, the number of jobs created from the projects financed by the IDC and DBSA have been very minimal.

The financing activities and the impact South African DFIs (IDC and DBSA) have had on employment creation pales in comparison to Brazil's BNDES (Figure 5.4). Between 2009 and 2013, Brazil's disbursements were almost R3.4 trillion while South Africa's were mere R110.4 billion between 2009 and 2014. The total impact of the IDC and DBSA financed projects on

employment was 332 519 in the past six years while that of the BNDES was 24.7 million jobs between 2009 and 2013.

Figure 5. 4: IDC and DBSA disbursements compared to the BNDES



Source: Data from IDC, DBSA and BNDES (2009-2013) annual reports

Note: The average of the daily exchange rate for each year of the disbursements was used to convert Brazilian real to South African rands

#### 5.4 The activities of the BNDES

The breakdown of disbursements per sector of the BNDES in 2013 were as follows: 33 percent went to infrastructure, 27 percent financed the trade and services sector, agriculture and cattle-raising received 10 percent, while 30 percent was allocated to industry (BNDES, 2014). The BNDES’ resources mainly come from returns on its operations (77.4 percent of cash flow), while 8.3 percent of cash flow comes from the National Treasury, 8.4 percent from monetization of assets, 2.8 percent from the national unemployment fund and 3.1 percent from other sources (BNDES, 2014). Industry and infrastructure projects consistently received most of the financing in the 5 year period depicted in Table 5.3. Most of the infrastructure projects were in the energy sector and logistics sector. The chemical and petro-chemical, transport material as well as foodstuffs and beverages sectors are some of the financed sectors in industry.

Exports that received financial support were vehicles and trailers, construction, transport equipment, and machinery and equipment.

Table 5. 2: Financing according to the IDC'S Strategic Business Units (R billions - R'b)

Year	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
	R'b	R'b	R'b	R'b	R'b	Jobs	Jobs	Jobs	Jobs	Jobs
<b>Agro and New Industries</b>										
Agro-Industries	0.770	0.937	0.765	0.738	0.175	3 133	4 198	5 057	3 952	1 304
Green Industries	-	-	5.485	3.827	5.722	-	-	2 689	2 031	1 966
Strategic High Impact Projects			1.561	0.192	0.832			2 670	627	1 044
Venture Capital	0.068	0.051	0.187	0.074	0.151	104	267	697	146	263
<b>Mining and Manufacturing Industries</b>										
Chemicals and Allied Industries	1.555	0.541	0.714	0.671	1.863	1 059	1 703	3 283	1 029	1 463
Metals, Transportation and Machinery	0.714	2.104	1.700	1.721	1.809	2 690	6 050	6 861	5 638	4 260
Mining and Mineral Beneficiation	3.143	0.737	3.551	5.342	1.715	8 744	3 613	12 110	166	7 972
Textiles and Clothing	0.292	0.539	0.501	0.426	0.504	2 187	10 158	2 420	4 020	940
Forestry and Wood Products	0.279	0.273	0.363	0.397	0.647	2 662	889	6 551	4 646	1 414
<b>Services Industries</b>										
Healthcare	0.178	0.264	0.170	0.302	0.713	-160	1 606	1 626	910	1 209
Media and Motion Pictures	0.296	0.164	0.429	0.192	0.060	-141	898	1 400	745	78
Information and Communication Technologies	0.183	0.410	0.532	1.045	-0.064	3 000	2 131	1766	211	-1 013
Tourism	0.324	0.134	0.233	0.273	0.429	489	276	447	838	15

Source: IDC (2010-2014) annual reports

Table 5.3: Breakdown of the BNDES' Disbursements (R billions)

<b>BREAKDOWN OF THE DISBURSEMENTS</b>	2009	2010	2011	2012	2013
Infrastructure	205.36	217.88	242.87	222.48	278.12
Trade and Services	72.95	112.68	126.41	185.05	229.86
Agriculture and Cattle-raising	29.10	42.00	42.43	47.94	85.13
Green Economy	83.91	74.84	80.09	87.48	109.10
Innovation	2.53	5.82	11.69	13.88	23.25
Industry	267.76	327.64	189.62	200.61	259.34
Social development	36.26	44.07	33.33	71.92	87.19
Exports	69.96	82.73	48.64	45.19	68.51

Source: BNDES annual reports (2009-2013)

## 5.5 Analysis of the financing activities of the IDC, DBSA and BNDES

### 5.5.1 Growing unemployment and the South African economy

The NGP recognises that there needs to be economic growth in order to meet its 5 million job target, and that the employment intensity of this growth is important. Nattrass (2011) raises some questions about the feasibility of the goals of the NGP given South Africa's economic position, arguing that in order to achieve the lofty goal of 5 million jobs by 2020, South Africa would need real economic growth of over 6 percent per annum. The NGP however notes that in spite of the relatively strong economic growth experienced in most of the 2000s, South Africa still remained one of the most inequitable countries in the world (EDD, 2011). There were also not enough jobs being created to absorb the large number of new entrants into the labour market (EDD, 2011). According to the NGP, the South African economy has not created enough opportunities for employment in the past three decades. Statistics South Africa (StatsSA) (2015) confirms that unemployment rates have remained high between 2008 and 2014. Even though 568 000 individuals gained employment during this time, 852 000 people became unemployed, resulting in a 2.6 percent increase in unemployment. Furthermore, during the 2008-2014 period, the increase in employment has not been sufficient to keep pace with the growing working age population. Table 4 shows that there has rather been an increase in the number of unemployed individuals since the inception of the NGP, from 4.655 million in 2010 to 5.151 million in 2014. This is despite the efforts of South Africa's DFIs. The extent to which the IDC and the DBSA impacted employment creation in comparison to other DFIs may be difficult to determine, due to the lack of accurate and comprehensive data from some of the

country's DFIs. Considering that the Jobs Fund was launched with R9 billion seeking to create a mere 150 000 jobs, in order to create the 5 million jobs envisaged by the NGP, a fund of at least R300 billion would be needed to achieve the desired employment creation.

Table 5.4: Number of unemployed people in South Africa between 2010 and 2014 in millions

Year	2010	2011	2012	2013	2014
<b>Unemployed People</b>	4.655	4.699	4.901	4.880	5.151

Source: StatsSA (2015)

The expectation that economic growth will automatically lead to increased opportunities for employment may need to be revisited in the South African context. Barker (2015: 45), argues that there has been a decline in the number of jobs created in South Africa and employment seems to have become less responsive to economic growth. According to Barker (2015), the sensitivity of employment to economic growth, measured by the employment coefficient, or employment elasticity of economic growth, seems to be relatively low in the South African economy.

Tregenna's (2008) research can perhaps shed some light as to why this might be the case in South Africa. Research shows that manufacturing sectors tend to have "special 'growth-pulling' or 'growth-enhancing' properties" (Tregenna, 2008: 1). Even though this is the case, it has been observed that the manufacturing sector as a share of GDP has fallen over the years in South Africa, while that of the services sector has grown. Black (2012) also supports this assertion, suggesting that South Africa's unemployment problem has been mainly due to the poor performance of the manufacturing sector. The manufacturing sector has also become more capital intensive. This is because the performance of labour-intensive sectors has become poor relative to the capital-intensive sectors (Black, 2012). While there has been a growth in exports it has been in capital-intensive products and labour-intensive sectors have not been able to compete with imports (Black, 2012).

Barker (2015) adds that the reason for the country's low labour-absorption could be attributed to the fact that most of the demand for labour has been mainly for skilled labour and that there has been low demand for semi-skilled or unskilled labour. In labour-intensive sectors such as agriculture and construction, a decline in employment elasticity can be ascribed to employers shifting towards automated ways of production and employing reduced numbers of skilled

workers (Barker, 2015). The financial sector and other sectors requiring highly-skilled labour have grown more rapidly than those that employ unskilled and semi-skilled labour (Barker, 2015). Fedderke (2006) suggests that the reason that South Africa's growth path has not been able to absorb labour and sustainably decrease the high unemployment rate can be partly attributed to the quality and not simply the quantity of investment in human capital. It is further argued that schools and universities have failed to produce the quality of educational output that is required for long-term economic growth. There has in fact been a decline in the contribution of human capital to growth and decline in the quality of education (Fedderke, 2006). This therefore means that in addition to focusing on sectors that provide job opportunities for unskilled and semi-skilled labour, there needs to be a concerted effort to improve the skills base of the South African labour force.

One of the ways in which the BNDES has contributed to improving the skills base in Brazil is through supporting various research projects conducted by universities in the country. The BNDES has contributed to the quality of education in Brazil while gaining from the research conducted at universities by working closely with these institutions. For example, the BNDES gives awards to the best Doctoral and Master's thesis from different universities in Brazil (BNDES, 2013). The Brazilian development bank also works closely with universities researching innovative ways to improve its knowledge and understanding of Brazilian firms (BNDES, 2011). The bank has financed studies that contribute to policy improvement such as investigating the impact of adopting low carbon technologies on the Brazilian economic structure (BNDES, 2011).

#### 5.5.2 The Structuralist approach and the role of exports

Structuralist analysis suggests that a by-product of technical progress in a dynamic economy is the redundant manpower as the development process is accompanied by changes in the patterns of employment (see, for example, Prebisch, 1959). Growing exports, new production activities and new import substitution industries may absorb redundant workers. One of South Africa's DFIs that could be key in growing exports and therefore employment opportunities is the Export Credit Insurance Corporation of South Africa (ECIC). The ECIC is a state owned entity, established in 2001 under the (amended) Export Credit and Foreign Investments Insurance Act, 1957. The purpose of this entity is to provide political and commercial risk insurance to South

African exporters of capital goods and other related services. The corporation is a registered financial services provider, under the regulation of the Financial Services Board (FSB). The DTI is the sole shareholder of the ECIC. The Corporation underwrites export credit loans and investments outside South Africa in order to facilitate export trade. The underwritten loans are medium to long term loans including equity investments. The ECIC has provided R20 billion worth of export credit and investment insurance cover, supporting R10.9 billion worth of the country's capital and contributing an estimated R39.2 billion to South Africa's GDP since its inception in 2001. In 14 years, the ECIC has created and sustained 144 000 jobs facilitated through exports and investments (ECIC, 2014).

The ECIC's exposure is as follows: mining (46%), infrastructure (21%), telecommunications (10%), agro industries (5%), accommodation and catering (4%), electricity (4%) and rail transport (3%). The financing activities of South Africa's three major DFIs are indicative of the fact that South Africa is still heavily reliant on mining and dominated by Minerals Energy Complex (MEC) sectors. The MEC was a term first introduced by Fine and Rustomjee (1996: 241), describing the "system of accumulation" specifically characterising the South African economy. The MEC is comprised of core sectors in mining, energy and other related manufacturing sub-sectors and has a history that originates from the rise of South African mining in the 1870s (Fine and Rustomjee, 1996; Fine, 2008). The focus of the ECIC is on increasing the value-added content of South Africa's exports to improve economic growth and job creation. However, the number of jobs that have been facilitated by this institution has not been substantial, considering the number of unemployed South Africans. Malan *et al.*, (2014) argue that South Africa can grow exports in manufacturing sectors with the most potential to create employment and grow the economy. Suggested sectors include basic metal products, transport equipment, machinery, electrical machinery and chemicals. These sectors are consistent with sectors financed by the IDC and listed as priority sectors by the DTI. However, Malan *et al.*, (2014) note that an export-led strategy in these specific sectors may benefit skilled labour rather than generating more broad-based employment.

### 5.5.3 Political settlements and the implications for job creation

As the South African government attempts to navigate social and economic change it is also moulded by it. Therefore as the country considers learning from other countries' DFIs,

particularly Brazil's BNDES, it is important to remain cognisant of the fact that the economic outcomes of such efforts will depend on prevailing market conditions and most importantly be the product of social and political institutions. Political compromises between powerful groups in South Africa has set the context for policy formulation, and the financing pursuits of the IDC and other DFIs. The political settlement in South Africa has been that of a 'social order' based on political compromises between powerful groups such as big business, the ANC-led government, trade unions as well as the black elite, with the unemployed holding very little power.

The analysis of the political settlement in South Africa here and in Section 5.2 as well as the historical review of the IDC's activities in Chapter 4, suggests that the country's DFIs have supported the distribution of benefits that is consistent with the distribution of power in society, and that the economic and political results obtained from these institutions have been sustainable over time. The political settlement supported by the country's DFIs that has remained consistent over time is that of big business, and the black elite, holding power and influencing industrial policy. It could be argued that the IDC has supported the distribution of benefits that is consistent with big business' relative power. Even though South Africa's current policy document, the IPAP, highlights employment creation as being at the forefront of its objectives, the financing activities of the DFIs to whom the DTI gives the mandate for financing the policy implementation, has consistently financed capital-intensive projects in support of big business.

The establishment of the Small Enterprise Finance Agency (SEFA) in 2012 and the Department of Small Business Development (DSBD) in 2015 could be a significant step towards filling the gap in financing, ensuring that not only big corporations are receiving assistance from the state, but that small, medium and micro businesses are also supported. The DSBD has various incentive programmes such as the Black Business Supplier Development Programme which is a cost-sharing grant aimed at assisting black-owned enterprises to improve their competitiveness and sustainability. There is also the Co-operative Incentive Scheme, providing a 100 percent grant for registered primary co-operatives with a bias towards businesses own by women, the youth and people with disabilities. SEFA on the other hand provides wholesale and direct lending, providing credit guarantees to small, medium and micro businesses (SEFA, 2016).

Pons-Vignon and Segatti (2013) argue that there needs to be drastic macro-economic policy changes and a transformation of the role of finance. However these changes have not been forthcoming. Instead, the interests of big conglomerates and finance have been advanced in post-apartheid South Africa through policy and state restructuring while there has been a tolerance for high and rising levels of inequality and unemployment. In other words, even though the post-apartheid government has declared its commitment to addressing poverty, this has taken place within the limits of an orthodox macro-economic framework supporting big businesses (Pons-Vignon and Segatti, 2013). Considering the high levels of inequality characterising South Africa, Pons-Vignon and Segatti (2013) note that there should have been more resistance from organised labour, intellectuals and other progressive social groups.

The lack of resistance is attributed partly to social policy which has been a necessity in ensuring the adoption of neoliberal policies. The co-existence of Mbeki's (2003) 'two-economies' was maintained by having social policies that did not interfere with what was perceived as the driver of growth, the first economy, which also needed orthodox macro-economic policies for support (Segatti and Pons-Vignon, 2013). According to Segatti and Pons-Vignon (2013: 513) "by placing macro policy outside of the realm of debate, its available development options have been technicised and depoliticised".

Khan (2010) adds that in instances where a compatible combination of institutions and power results in poor economic performance, the political settlement becomes unsustainable. It could be argued that South Africa is such a case where a compatible combination of power and institutions is resulting in poor economic performance with high levels of unemployment and therefore an unviable political settlement. Even though South Africa's political settlement might be considered as unviable, Khan (2010) explains that political settlements that have institutions generating benefits consistent with the distribution of power, as well as achieving the minimum levels of political stability and economic performance required, reproduce themselves over time. Currently, as there seems to be compatibility between institutions and the distribution of power in the country, South Africa is likely to continue reproducing the same level of job creation and maintaining the support of the same capital-intensive sectors, while plagued by high levels of unemployment. This is likely to continue as long as the institutions involved achieve the same minimum levels of economic performance and political stability required to reproduce a particular society. Therefore South Africa's DFIs are distributing

benefits through their financing activities that are deemed acceptable and consistent with the power held by interest groups in the country.

A particular institutional structure (such as South Africa's DFIs) will only be changed if powerful groups start receiving a distribution of benefits that is deemed unacceptable (Khan, 2010). When powerful groups receive a distribution of benefits that is too low given their relative power, they attempt by various means (which may include conflict) to change the institutions until satisfactory benefits can be derived or until they give up (Khan, 2010). This conflict can affect the implementation of institutional rules, thereby affecting political stability and economic performance. This suggests that until the unemployed become a powerful interest group and the benefits received from the country's DFIs are considered unacceptable, the financial institutions will continue to support and distribute benefits that support big business and the black elite. This implies that unemployed people in South Africa would need to gain power through, for example, organising themselves in a way similar to that of organised labour, and emerge as a powerful group. In such an instance, with the distribution of benefits from the IDC and other South African DFIs too low given their relative power, they would then attempt to change this distribution by various means, including conflict.

It has been argued that along with big business, South Africa's trade unions have also emerged as a powerful interest group. Banerjee, Galiani, Levisohn, McLaren and Woolard (2008) assert that unions have become a powerful economic and political force in South Africa and that persistent union wage differentials have been beneficial for employed union members. Iheduru (2002) adds that labour unions aligned themselves with capital, embracing BEE and established union investment companies and other profit ventures in the late 1990s. This was encouraged and even facilitated by the South African government and segments of capital and big business (Iheduru, 2002). On the other hand, a growing number of social movements are emerging which may become a force that could challenge the current political settlement in the country. Ballard, Habib, Valodia and Zuern (2005: 617) describe social movements as "politically and/or socially directed collectives, often involving multiple organizations and networks, focused on changing one or more elements of the social, political and economic system within which they are located". Ballard *et al.* (2008: 617) further explain that a social movement "...challenges power holders in the name of a social category that lacks an established political position". One of the ways such a social movement could be formed is through millions of

jobless South Africans becoming a powerful group by forming an alliance with the labour movement, for example the National Union of Metalworkers of South Africa (NUMSA).

In February 2016 the Minister of Trade and Industry, Rob Davies announced that the country was ready to roll out the Black Industrialist Programme (BIP) (Mgudlwa, 2016). The launch of the Black Industrialist Programme is indicative of a recognition in government of the need to have a more inclusive industrialisation and financing process. The programme aims to shift the demographic composition of South Africa's industrial sector to include more black industrialists by providing black industrialists with access to capital, contracts and markets. Coordinated and explicit guidelines for the long-term development and promotion of black industrialists is to be provided (DTI, n.d.).

Considering that not all South Africans can be an industrialist or entrepreneur, the Brazilian case brings forth the issue of participation, where members of society are given the opportunity to contribute in policy formulation and the development process. Kerstenetzky (2014) warns that where participation translates into the establishment of institutions, there needs to be careful monitoring of the imbalances in the representation and the voice that emerges from these institutions. However, these institutions could provide a network of ties connecting the state to society forming a much broader, much more 'bottom-up' set of state-society ties to secure developmental success (Evans, 2014). Further research in this area that is beyond the scope of this paper could provide some alternatives.

One way of assessing the impact of the IDC and South Africa's DFIs is suggested by Mondli and Roberts (2005). They suggest going beyond the description of the financing patterns of the DFI and rather asking what the case would be in its absence. Mondli and Roberts (2005) explain that if most of the activities financed by the IDC could be supported by other institutions on terms similar to those of the Corporation then the impact would not be very large, irrespective of the total value of financing. If however, most of the activities would have gone without obtaining finance from private financial institutions on the same terms, then the impact of the IDC could be seen as significant.

Mondli and Roberts (2005) explain that the concern with the capital intensity of the mega-projects receiving finance from the IDC is not the same as being opposed to such project financing per se. Each firm needs to have its role critically assessed to understand its

contribution to the economy. The linkages such as downstream linkages that a firm has with other industries may mean that particular firms will contribute significantly to the economy. Maia (2014: 10) shows that the mining sector, for example, has both forward and backward linkages (benefiting the manufacturing and services sectors) that contribute to employment and that “a greater interface between mining and manufacturing would not only benefit the two individual sectors but the economy at large”. The IDC can therefore play an important role by financing projects with economic linkages. It is also important to note that some manufacturing sectors may have qualities that are conducive to high growth, but not necessarily conducive to employment creation. This means that sectors that are important for growth and those important for employment may not be the same (Tregenna, 2008). South Africa’s DFIs therefore also need to adopt a more nuanced and detailed investigation across the different sectors, specifically targeting sectors and subsectors that contribute to job creation if the country is to address the problem of increasing unemployment.

## 5.6 Conclusion

Projects financed by South Africa’s DFIs have been consistent with the priorities of the country’s industrial policy. However, the impact of the financed projects on creating employment has been very marginal considering the millions of unemployed South Africans. Instead of increased employment, there has been an increase of almost half a million unemployed people since the release of the NGP. Brazil’s BNDES on the other hand, disbursed more than thirty times the amount of the IDC and DBSA combined. The number of jobs the BNDES was able to facilitate in a five year period between 2009 and 2013 was 24.7 million. Not only does the BNDES have greater resources than South Africa’s DFIs, but it has also managed to make a significant impact in facilitating the creation of jobs. A sector and subsector analysis may be needed in order to identify projects that will create job opportunities for the country’s unskilled and semiskilled labour. The DFI’s financing efforts would then need to be focused in these job creating sectors. There is also the need to improve the skills of the labour force, by improving the quality of education.

The IDC’s financing activities have always been influenced by the prevailing balance of power. During apartheid it was instrumental for financing Afrikaner capital. With the new government it started off financing BEE projects. Although DFIs have been identified as important in the

industrialisation process of East Asian countries and other developed countries, the role of South Africa's DFIs, their impact on industrialisation, economic growth and job creation, will not be the same as that of other countries. Even though South Africa may attempt to emulate Brazil's BNDES, the prevailing political settlement and balance of power within the countries remains unique. Therefore although the two countries have similarities, there are differences that may mean that some of the policy interventions that inform BNDES' financing activities cannot be easily adopted in South Africa.

## CHAPTER 6: CONCLUSION

A review of development theory since the end of WWII reveals that research has had an impact on industrial policy and the financing activities of countries. The international financial institutions, particularly the World Bank have had an important role in not only shaping development theory but have also influenced the development trajectory of countries, including South Africa. Ideology emerging from the World Bank has not been static, but it has evolved with the debate regarding the role of the state in economic development. In Chapter 2 such competing arguments were explored and it was found that there is compelling evidence supporting the importance of state intervention in bringing about economic development and spurring industrialisation. A historical review shows that the state used industrial policies which in turn influenced the government's financing strategies, determining which sectors, industries and projects were targeted by the countries' DFIs.

Debates regarding the importance of institutions, and whether institutions lead to successful development or development leads to successful institutions are examined in Chapter 3. It was found that throughout history as countries developed and industrialised, the necessary institutions were established. Chang's (2004; 2011) historical account brings into question the assertion of *laissez faire* alternatives not requiring complex institutional "props" and shows that a different but not necessarily more complex set of institutions is needed for policy implementation. Khan (2004) also brings to light the effect of historical, social and political contexts on institutions. He proposes the framework of political settlements as a way to understand how institutions are formed, shaped and evolve based on the balance of power in society. This framework becomes a useful analytical tool for examining South Africa's DFIs and the projects they have financed over the years.

Chapter 4 examines the activities of South Africa's DFIs, particularly the IDC, and reveals that the financing priorities of these institutions have changed over the years. They have responded to the demands of the state and have also changed their activities in response to the economic, political and global environment. In the past seven years, the DFIs have responded to the government's mandate communicated through the country's industrial policy (IPAP). The DFIs have been called to align their financing activities with the policy objectives of the state, one of which is employment creation.

In examining projects and sectors supported by the country's DFIs, particularly the IDC, it is found that the sectors that are financed are consistent with those emphasised by the IPAP. It is however noticeable that the impact the financed sectors have had on job creation is very minimal considering the high and rising level of unemployment in the country. South Africa's economic and political history as well as the system of accumulation, the MEC, have contributed in shaping policy and the financing decisions of the DFIs, particularly the focus on capital intensive MEC related industries. Chapter 5 examines the political settlement in South Africa and how it continues to influence policy making and the DFIs' activities. It is determined that the balance of power has been tipped towards big businesses and that although South Africa's industrial policy claims to be focused on job creation, this has not translated to reducing the country's unemployment levels. Instead, the number of unemployed South Africans has increased over the last five years despite the billions of Rands disbursed by the DFIs to various projects. It is therefore concluded that an important limiting factor to translating what is articulated as a priority in the policy documents into practice and channelling financial resources to reducing unemployment, is the relative power of different interest groups.

The country's industrial policy has continued orienting the economy towards a reliance on minerals, energy and related sectors. Rather than restructuring South Africa's economy towards employment creation and poverty reduction, the support for established dominant sectors of capital has been reinforced while including the emerging black bourgeoisie. Policy documents have been underpinned different ideologies resulting in inconsistent approaches while policy practice often differs from that which is on paper. Industrial policy in South Africa has also not been homogeneous as the institutions implementing policy have shaped or determined the policy focus. In South Africa the IPAP released by the DTI serves as the country's industrial policy while the implementation of the policy is dependent on a number of institutions including the National Treasury. A "conservative consensus" on macroeconomic policy emerging between key policy makers such as the National Treasury, with influences from international organisations and orthodox economic theory, has facilitated an environment where dominant interests have been able to consolidate their power and continue benefitting from the country's DFIs.

As the relative power of various groups contributes to the environment or the context in which South African policy-makers are operating, it also determines the extent to which South Africa can learn and implement policy strategies from other countries, particularly Brazil's BNDES.

Although the two countries have similarities (explored in Chapter 4) and Brazil has achieved a level of success in certain areas, such as keeping unemployment and inequality at levels lower than South Africa, it is unlikely that the country can emulate the same policy measures and obtain the same economic results achieved in Brazil. Chapter 5 also shows that the scale at which the BNDES is financing industrial projects was over thirty times larger in disbursements than South Africa in 2013. Perhaps one of the ways in which South Africa can learn from Brazil is by expanding the availability of affordable credit.

It is therefore important to note that as each country industrialises, although certain lessons can be learned from other countries, its own economic, social, political, and global context will have an impact on how policies are formulated and implemented. The role of institutions will also differ, and evolve, depending on the context. One such example of a changing economic and global context in which South Africa's DFIs will have to operate in, is integrating their activities with those of the recently established BRICS New Development Bank (NDB). The focus of this institution is financing infrastructure projects across developing countries, aiming to bring about structural change. According to Qobo and Soko (2015) the DBSA is likely to position itself to benefit from the activities of the NDB in Africa and perhaps this will be in a manner that is beneficial to the South African economy.

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