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THE ECONOMICS OF ISOLATION, TRADE AND INVESTMENT

Case studies from Taiwan & apartheid South Africa

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Declaration of Authorship

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Abstract

This dissertation studies the economic history of South Africa's industrial decentralisation policies, which led to greater trade and foreign investment with Taiwan during the closing phases of apartheid. These large industrial schemes sought to increase exports of finished goods, diversify manufacturing from urban centres, and develop the African homelands, while continuing the status quo of racial segregation. In examining **(1)** bilateral trade, **(2)** foreign investment and **(3)** business network agglomeration, I illustrate the role Taiwanese firms played in fulfilling important aims of the industrial decentralisation policy. The three interrelated topics explain how the diplomatic relationship developed, the effects to bilateral trade, and why Taiwanese investors came to be the largest group of industrialists in the apartheid-era homelands. However, the research agenda presented in this thesis is not merely a narrow analysis of trade and investment. It also provides a broader perspective of key questions in South Africa's economic history: specifically, the rise and fall of apartheid, the contradictory forces of regional industrial decentralisation, which shaped Africa's most industrialised economy, and the roots of persistent inequality stemming from the homeland system. The period between 1975 and 1994 was turbulent with both countries facing different degrees of political and economic isolation. Prior scholarship has focused on the diplomatic relationship between the two countries, as international sanctions made quantitative data difficult to access. The introduction of new qualitative and quantitive data on the apartheid economy highlights the economic motives for this large wave of Asian foreign investment, especially those in the rural African homelands. Moreover, it draws lessons from the historical patterns of apartheid industrial and spatial development, which are analogous to current African special economic zone policies.

Terminology

Racial terminology in South Africa is a complicated matter. As with other recent economic history scholarship, I have reserved the term 'African' for the indigenous dark skinned, Bantu-speaking inhabitants of South Africa. The word 'Bantu', which has subsequently been interpreted as derogatory, having widespread currency as an apartheid term, used to refer to African or Black people. Derivatives of the term include Bantustan or Bantu Reserves; land set aside for the exclusive use by Africans after the 1913 Native Land Act. The term Bantustan subsequently fell out of favour and was replaced by the term Homeland in the 1970s, though they were often used interchangeably. 'White' is adopted as the generic term for those who came to South Africa from Europe, with 'Afrikaners' used to refer to the Afrikaans-speaking descendants of those that came from Holland, France and Germany, and 'English' for those from Britain. The group referred to as 'Coloured' include the descendants of the slaves, native Khoisan, and children of interracial marriages, while the Asian population was created by the decision to bring indentured labourers from India to work in the sugar plantations in Natal. The Chinese, whose ancestors came to South Africa throughout the early 20th century, were a distinct group, until Chinese immigration was banned under the Chinese Exclusion Act of 1904. Occupying a unique cultural space in South Africa, Taiwanese immigrants were racially referred to as Chinese, but cultural and legal distinctions were made between the groups. The terms 'Republic of China' (ROC) and 'Taiwan' are used interchangeably to describe their country of origin.

Abbreviations

Abbreviation	***Description***
AHI	Afrikaanse Handelsinstituut or Afrikaans Trade Institute
BDC	Bantu Investment Corporation
BDI	Board for the Decentralisation of Industry
BENSO	Bureau for Economic Research, Co-operation and Development
BER	Bureau for Economic Research, Stellenbosch
BITT	Bilateral Investment and Trade Treaty
BOT	Bank of Taiwan
CBOCT	Central Bank of China on Taiwan (Reserve Bank of Taiwan)
DBSA	Development Bank of Southern African
DC & D	Department of Co-operation and Development (RSA)
DOC	Department of Commerce (RSA pre 1994)
DOTS	Direction of Trade Database (Compiled by the IMF)
DP	De-concentration Point
DTI	Department of Trade and Industry (RSA post 1994)
FDI	Foreign Direct Investment
FIC	Free State (Vrystaat) Investment Corporation
GIS	Geographic Information System
GSB	Graduate School of Business, UCT, South Africa
IDC	Industrial Development Corporation
IDP	Industrial Decentralisation Point
ILO	International Labor Organization
IMF	International Monetary Fund
KFC	KwaZulu Finance Corporation
KZN	KwaZulu-Natal Archive, Pietermaritzburg, South Africa
NAK	National Archive, Kew, United Kingdom
NAP	National Archive, Pretoria, South Africa
NLC	National Library Cape Town
NLJ	National Library Johannesburg
NLP	National Library Pretoria

Abbreviation	*Description*
NP	National Party
PWV	Pretoria-Witwatersrand-Vereeniging
RIDP	Regional Industrial Development Programme
ROC	Republic of China on Taiwan
RSA	Republic of South Africa
SADC	Southern African Development Community
SAR & H	South African Railways and Harbours pre-1978
SARB	South African Reserve Bank
SARS	South African Revenue Service
Spoornet	South African Railways post-1978
STATSA	Statistics South Africa
StDP	Standard Base Rate without incentives
SU	Pre-Republic South African Union, 1910 -1961
TDC	Transkei Development Corporation
TLO	Taipei Liaison Office
Transnet	South African Railways post-1994
TVL	Transvaal Archive, Pretoria, South Africa
UCT	University of Cape Town, South Africa
WITS	University of the Witwatersrand, Johannesburg, South Africa
ZAR.C	South African Commercial Rand
ZAR.F	South African Financial Rand
ZAR	South African Rand

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Edward Kerby,
London
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Post Viva Comments

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March 2017

Chapter 1

INTRODUCTION

This thesis examines South African industrial policy under apartheid between 1950 and 1994. In particular, it studies the role these policies played in attracting Taiwanese foreign investment to rural African homelands, increasing exports to Asia during sanctions, and fulfilling the aims of a failing industrial programme by generating firm clustering. Previous scholarship has focused on diplomatic motives for co-operation between South Africa and Taiwan, neglecting the economic incentives. However, investment flows reveal that diplomatic agreements coincided with Taiwanese offshore expansion and South African industrial decentralisation. These, in turn, contributed to an increase in the scale and diversification between these two regions. Moreover, Taiwanese investment in African homelands was also shaped by economic geography and global business networks. My study advances three research fields: the economic history of South Africa's industrial decentralisation policies, the economic geography of apartheid, and the history of Asian business networks in South Africa. I have utilised both quantitative and qualitative sources assembled from previously inaccessible archives in South Africa, Britain, United States and Taiwan.[1]

For the last 30 years, politicians, historians and economists have viewed relations between South Africa and Taiwan through a narrow lens, focusing on this episode as merely the collaboration of isolated pariah states. However, the role of ethnicity as a determinant of trade, investment and therefore a firm's performance have become central to major debates in apartheid economic and business history. In my thesis I therefore assemble new data and methods in the analysis of trade and investment. This allows me to challenge the conventional assessment of Taiwanese investment as a result of state-led diplomatic agreements, lucrative incentives, and cheap labour.

[1] In Section 1.3, on page 12 I provide a complete overview of the data, sources and methods used to examine each dimension of trade, migration and investment. For a bibliographical catalogue of Archival Sources refer to page 275 of the Bibliography.

Following chronologically through each chapter, my thesis makes the following contributions: ***(A)*** First I have reconstructed three phases of apartheid industrial policy in Chapter 2, examining the regional development outcomes. This provides context to my thesis, showing how South Africa undertook one of the largest Regional Industrial Development Programmes (RIDP) on the continent, building special economic zones over 40 years, which subsequently gave rise to Taiwanese labour-intensive manufacturing.[2]

(B) Second I discuss the economic motives for cooperation between Taiwan and South Africa during a turbulent period in both countries' histories. In Chapter 3 I first contextualise the political landscape following the rise of apartheid in the 1950s while making special reference to the concurrent economic and diplomatic changes in both countries. Assessing South African Reserve Bank data, I then discuss how economic factors prompted Taiwanese investors to hold long-term South African assets which challenges existing literature on the period. My findings argue that enhanced diplomatic protection, reduced trade quotas, globalisation of labour-intensive manufacturing and lower domestic investment yields may have accounted for greater Taiwanese engagement. Expanding on this in Chapter 4 I then collate new trade, migration and investment data showing that the volume of Taiwanese trade swelled as western partners abandoned South Africa. This dissertation is one of the first works to bring together comprehensive trade data for this period; as a result of international sanctions, South African data on trade and migration was often embargoed by public institutions, constraining scholarship during the apartheid period.[3] Using my new data I find that the share of South African exports to Taiwan was both greater, but importantly, more diversified in the sectors in which migrants invested. Known as the 'migrant-trade effect', the results suggest that Taiwanese entrepreneurs may have increased trade by forming business networks and supply chains, linking them to Asian markets. For scholars and policy makers interested in these topics, South Africa is probably one of the most compelling examples contemporary history can provide for the migrant-trade effect in an African context.[4]

(C) Finally, very little is known about the spatial distribution of the Taiwanese firms across South Africa. In Chapter 5 I ask why Taiwanese investors clustered in only a few locations. Using a location choice methodology to disentangle the agglomeration process, I demonstrate that existing production linkages interacted with firm-specific (i.e. assembly networks) and location-specific factors (i.e. economic geography & market access). By constructing a new data set and using archival accounts, I challenge historical and development scholarship by showing that both economic geography and co-ethnic production networks played an important role in attracting foreign investment.

[2] Although a large body of literature on the efficacy of this apartheid programme exists, these have tended to neglect the long-run view of state-led planning. These prior studies will be explored in greater detail throughout Chapter 5, but notable authors include Addleson and Tomlinson (1986), Bell (1973*a*,*b*, 1987), Houghton (1956), Wellings and Black (1986*a*,*b*).

[3] The only meaningful contribution to trade statistics during sanctions came from Garner (1994).

[4] This contributes to the historical literature such as Rauch (2001), Greif (2006) and Gould (1994) to mention only a select range which has shown how co-ethnic networks increase trade across borders.

1.1 MOTIVATION

This thesis uses the case study of economic relationships between South Africa and Taiwan to address broader themes of trade diversification, economic geography and industrial policy in apartheid South Africa. Earlier efforts to look beyond international diplomacy were hindered by inaccessible statistics on trade, investment and migration, which were kept secret because of UN trade sanctions. As a result, no in-depth studies have been produced from South Africa's official RIDP records and governmental trade archives. However some notable scholars have touched on different themes, either directly or indirectly, providing a foundational departure point to studying apartheid economic geography, co-ethnic trade and investment. For example Hart (2002*a*) was the first to recognise Taiwanese kinship networks in KwaZulu Natal. Pickles and Woods (1989) & Geldenhuys (1991) studied the international relations of political isolation questioning whether it would have an impact on the patterns of trade and investment. Later, Garner (1994) embarked on a study of trade during sanctions but was limited by a lack of data, and therefore unable to ascertain whether the change was linked to Taiwanese activities. Examining foreign investment, Rogerson (1987) was the first to document the location of Asian multinational firms in South Africa's industrial decentralisation programme, but stopped short of investigating the possibility of agglomeration dynamics. Naudé and Krugell (2006) finally examined the spatial elements of poverty and inequality stemming from the homelands and industrial policies of apartheid.

Expanding on these studies, my thesis assembles novel data and uses new methods in the analysis of ROC - RSA trade and investment. In doing so, I also contribute to an international body of scholarship on migration, trade, investment and agglomeration. For example, Rauch and Casella (2001) found that ethnic Asian business networks had a significant impact on the volume of trade across borders. By enabling traders to overcome informational trade barriers, these migrant networks matched opportunities in international markets. However, very little is known about how Taiwanese investment may have had an impact on South Africa's exports, and to what degree diversification was driven by migration. In addition, a vast empirical literature shows the contribution of export diversification to economic growth, which is especially beneficial to developing countries in Africa. Gutiérrez de Piñeres and Ferrantino (1997) explain that the progression from 'traditional' to 'non-traditional' exports is an important component of export-led growth.[5] A varied export production structure which includes new, but also higher value products enables positive manufacturing spillovers, making countries less susceptible to commodity shocks.[6] However South Africa struggled to develop export-led

[5]South Africa, and Africa in general terms export commodities. As such, Gutiérrez de Piñeres and Ferrantino (1997, p. 376) note that 'non-traditional' industries are presumed to be in manufacturing.

[6]Reis and Farole (2012, p. 11 - 28)

manufacturing with commodities crowding out consumer goods and the continued failure of import substitution.[7] The migration of Taiwanese firms to South Africa provides a rare historical opportunity to examine empirically how foreign manufacturing investment may have increased and diversified trade with Asia when import substitution incentives had failed.

Historically, business networks have been fundamental in the development of trade. Notable authors such as Greif (1994) and Gould (1994) have shown that informal and formal business networks play an increasing role in economic activities, providing alternatives to organised markets. Buyers and sellers establish personal links, and conduct trade on a bilateral basis, expanding international trade through a greater knowledge of local market preferences and ensuring contract enforcement. This has been a growing topic in economic history with Weidenbaum and Hughes (1996) showing how expatriate Chinese entrepreneurs, using the 'bamboo network', created a trade superpower in Asia.[8] These connections improved communication, knowledge, and the transfer of capital, especially in regions where the businesses may be in the minority and rule of law remain undeveloped, such as apartheid South Africa. More recently Vézina and Parsons (2016) used the the Vietnamese boat people in the United States as a natural experiment, showing how these immigrants fostered international trade between the US and Asia by reducing trade costs and increasing exports. However Bräutigam (2003) notes that very limited research has been done on [co-ethnic] Chinese business networks in Africa. As such, my case studies of Taiwanese migration and the growth in trade with Asia are the first examples of 'bamboo shoots' which have established trade networks in South Africa.

Finally, a growing body of literature has examined the role of industrial agglomeration in economic growth. Famously Marshall (1920) suggested that sharing of inputs, labour market pooling, and the spillovers in knowledge account for agglomeration and the subsequent economic gains. Evidence from Krugman (1991) or Porter (1990), to mention only two, supports the presence of all three of these forces. Furthermore, significant research from Head, Ries and Swenson (1995) examined the role of ethnicity on co-location of firms, with informal networks explaining their spatial agglomeration. As such, unique Taiwanese production networks provide an additional variable in studying the economic geography of South Africa, its special economic zones and the subsequent rise of Taiwanese manufacturing agglomeration.

[7] Moll (1991, p. 283) explains that the export of mining machinery did not take place. Dietz (1992, p. 236) noted that the inability to develop a capital goods sector meant that once mining declined and sanctions took hold very little new investment occurred in South African manufacturing.

[8] The bamboo network is traced to the 16th century, and can be thought of as a Chinese Commonwealth. The concept has been used to describe how businesses which are operated by overseas Chinese act as conduits for trade which are then guided by family ties and personal relationships as opposed to formal relationships.

1.2 CONTEXT

Economically, the ROC - RSA co-operation was curious for several reasons. Prior to the late apartheid period, neither country had trade treaties in place, while Asians had been prohibited from owning land or businesses in South Africa. In the province of the Orange Free State they couldn't even traverse the territory without legal authorisation.[9] Some 20 years later 50,000 Taiwanese entrepreneurs and their families had migrated between the two countries bringing capital, business networks and market knowledge.[10] By the end of the Regional Industrial Development Programme (RIDP) in 1996, designed to generate economic clustering within African homelands, more than 600 Taiwanese firms were operating across South Africa.[11] Emblematic of this odd, newfound relationship, was the establishment of the largest Buddhist temple in Africa.[12] Aptly named *'Cultura Park'* it was situated on the outskirts of the capital city Pretoria, known to be Calvinist and conservative, yet allowed its construction.

FIGURE 1.1: Nan Hua Chinese Buddhist cultural and educational centre (Cultura Park). The largest such complex in the southern hemisphere, located near Pretoria (Bronkhorstspruit).
Source: *Nan Hua Website.*

[9] Van der Watt and Visser (2008, p. 17) explain how people of Asian descent were forbidden from entering the colony of the Orange Free State in terms of *Section XXXIII of 1891*. The restrictive legislation had persisted after the Union of South Africa was formed, and into the apartheid period.
[10] The estimation of migratory flows between ROC & RSA is discussed in Chapter 4 on pg. 101.
[11] The clustering of these firms is a unique contribution discussed in Chapter 5 on pg. 123
[12] Fo Guang Shan order (南華寺) situated in Cultura Park, a suburb of Bronkhorstspruit established by Afrikaans-speaking white settlers in 1858.

I will discuss how the Taiwanese firms that migrated to the rural homelands benefited from the networks in which they were embedded in Taiwan, forming closely linked supply-chain clusters. Socially connected, and willing to take risks, these new migrants to South Africa were at the vanguard of an international production diaspora spreading out from Taiwan. As a result, bilateral trade also rapidly intensified, reaching R 3 billion per annum, surpassing South Africa's traditional western trade partners. Although "Isolated State Geo-Politics"[13] cannot be discounted in the transformation of trade-flows away from the West towards the East, it is not the only explanation for these persistent shifts. Given the intensity of migration and diversity of firm investment by Taiwanese in South Africa, very little is known about the political economy under which it was directed.[14]

However, the research agenda presented in my thesis is not merely a narrow view of migration, trade and investment, but requires a broader perspective of South Africa's economic history. Thus two fundamental themes require contextualisation and periodisation. The first concerns the historical role foreign investment played in developing a modern mining and manufacturing economy between the late 19th and 20th century. This had been critical in South Africa's balance-of-payments (B.o.P) and therefore the subsequent constraint sanctions placed on the country.[15] The second concerns African segregation and land dispossession during the industrialisation of South Africa which came to shape the economic geography during apartheid. Land dispossessions of the colonial and apartheid eras formed the foundation for the complexities of a 40-year industrial-decentralisation programme. Originally conceived in the 1950s to industrialise rural reserve areas, it was intended to employ Africans trapped in the homelands by the brutally coercive apartheid legislation.[16] The confluence of these constraints and policies is discussed next.

1.2.1 Economic Development in South Africa, 1867 - 1996

South Africa's modern economy depended on access to foreign trade and capital.[17] A period of significant inflows of capital, migrants and increasing foreign trade ensued following the discovery of diamonds (1867) and gold (1884). Gold became South Africa's export staple, which shackled the economy to the vicissitudes of international finance and global business cycles.[18] However, Nattrass and Seekings (2011) explain that, "if gold mining was the engine of the economy, it was an engine that required constant assistance

[13] Geldenhuys (1991) uses this phrase as the title of his book *"Isolated States: a comparative analysis"* in which he compares the trade and geo-political strategies of ROC, RSA, Chile & Israel in the 1980s.

[14] Lin (2001, p. 47) believes the secretive nature of ROC - RSA military and nuclear cooperation programmes is to account for this.

[15] Historically, South Africa required foreign investment to develop mines, the main source of exports. Sanctions restricted investment and therefore exacerbated the B.o.P deficit when mineral markets were weak in the 1980s. The finer details of this are discussed in Chapter 4 on pg. 101.

[16] Industrial decentralisation policies have received almost no research attention since the 1980s. As such, Chapter 2 on pg. 33 is dedicated to chronologically examining this interesting historical episode.

[17] South Africa received in excess of 60 per cent of Africa's total capital inflows between 1900 & 1930.

[18] Roux (2005, p. 32) explains that the fortunes of the South Africa economy were beyond its control. Fluctuations in mineral prices, droughts and international economic trends had an impact on the open economy.

from the state."[19] Extracting the ore required substantial long-term investment and risk to both capital and labour, making the economy vulnerable to external forces.[20] The only cost component that could be controlled was unskilled black labour. To guarantee continued investment, the state intervened in many aspects of this early industry, but notably in the suppression of African wages.[21] Denoon (1980) then Feinstein (2005) highlight how doubling the very low African wages would have decimated dividends and taxes by two thirds. Investors would not have invested in South African gold mining if profitability had not been underpinned by an implicit government commitment to control costs. It is therefore important to note the relationship between foreign investment returns and the effects on the demand for unskilled African labour which remained pivotal for Taiwanese investment a century later. High wages for both black and white workers were simply incompatible with profitability, resulting in coercive labour practices and capital-intensive mining.

Moreover, the British origins of South Africa's gold mining capital are also worth mentioning in the context of future investment flows. As a result of inherent risks, large mining-finance houses that could raise the massive capital necessary for commissioning and operating these deep level mines prevailed.[22] Six mining and finance houses dominated the industry with no reason to compete given the fixed price of the precious metal.[23] These firms were intrinsically linked to British investment and manufacturing. As such, later periods of trade and investment came to reflect South Africa's colonial and historic relations with the west, making Taiwan an outlier in the 1970s and 1980s when sanctions reorientated both trade and investment diversification.

A desire to reduce South Africa's dependence on the west was not unique to the apartheid-era decentralisation programme. For example Paul Kruger, who had led the Transvaal in the late nineteenth century, granted monopoly concessions to industrialists. Early state interventions included a dynamite monopoly, while later examples are especially evident in the large number of parastatals, or state corporations.[24] However the companies that held the financial risk on the Transvaal mines and in South Africa's broader economy were mainly controlled abroad and heavily dependent on foreign capital.[25]

Before 1920, manufacturing had been largely limited to light industry and a growing chemical industry supplying the mines. Subsequently, the state moved towards more

[19] Nattrass and Seekings (2011, p. 522)

[20] For a history of early development and mineral wealth see Lipton (1986), Frankel (1935), Richardson and van Helten (1984), Smith (1996), and Thompson (2001).

[21] This will be dealt with in greater deals in Chapter 2.2 on pg. 37 and again in Chapter 5.3 on pg. 130.

[22] Nattrass and Seekings (2011, p. 523) note that the distinctive economics of gold mining and price setting, encouraged the emergence of large mining-finance houses that could raise the massive capital.

[23] Cecil John Rhodes established Consolidated Gold Fields. The Albu family controlled General Mining, Eckstein managed Rand Mines, Wernher and Beit grew into Central Mining, Goerz became the Union Corporation, and Barnato established Johannesburg Consolidated Investments.

[24] Among the first such enterprises were the Electricity Supply Commission (ESCOM) and the South African Iron and Steel Corporation (ISCOR), both founded in the 1920s to support mining.

[25] For further details on the rise of gold mining conglomerates in the Transvaal see Richardson and van Helten (1984). For a history of capitalism in gold mining in the Transvaal see Denoon (1980).

interventionist import substitution policies. Nattrass and Seekings (2011) note how a "desire to develop domestic industry would reduce dependence on Britain, demonstrate that South Africa was as modern as the other British dominions and promote and protect employment and high wages for white workers."[26] The linkages between mining and the manufacturing sector were an important constituent of economic growth. As gold declined and mineral demand vacillated, the role of manufacturing consumer goods for both domestic and export markets had grown in importance. Moreover, manufacturing had become central in attracting foreign investment and generating foreign exchange earnings during mineral downturns and was therefore severely affected by sanctions.[27]

However, even after decades of policy shifts designed to spur development and diversification, South Africa's economy in the 1970s still relied primarily on the gold mining industry and exports to the west.[28] This left the country exposed to fluctuations in demand for gold and other mineral commodities.[29] Importing capital and equipment, while relying on minerals resulted in a number of short-term cyclical crises, but also a long-term structural disequilibrium.[30] The failure to create a domestic export-led economy meant that South Africa experienced a persistent and growing balance-of-payments deficit as import demand outstripped exports.[31] Under United Nations sanctions, South Africa could no longer compensate for these structural imbalances by attracting either private or official capital from overseas. Starting in the 1970s, a period of economic desperation ensued. It was under these conditions that Taiwanese investment could substitute for dwindling western capital inflows.[32] In a purely economic context, Taiwan and South Africa's national interests coincided at this point.[33] Taiwan could provide foreign investment and South Africa could provide cheap homeland labour, industrial incentives in the RIDP, and export capacity to sunset industries.[34] Gary Lin (2001), a former Taiwanese diplomat to South Africa confirms this view, noting that the two economies were basically complementary, leading each country to pursue common economic and strategic interests.[35]

[26] Nattrass and Seekings (2011, p. 524)

[27] Schneider (2000, p. 414)

[28] Freund (2011) noted that South African dependence on Britain as its export market increased again very substantially to reach almost 80 per cent in 1933.

[29] Bell and Cattaneo (1997) measure how manufacturing had been determined largely by variations in the price and volume of these mining exports.

[30] Saul and Gelb (1986). The crises followed the Sharpeville massacre when foreign capital streamed out the country from 1960 to 1963. The second major crisis started in 1976 with the Soweto uprising. From 1977 to 1980, despite a rising gold price, there was a net outflow of capital, culminating in the final debt crisis of 1985.

[31] The importance and interaction of these factors is the focus of Chapter 4.

[32] Although a small component of trade and investment, ROC came to represent a much larger share as the relationship developed. This transition from a small peripheral trade partner to 5th the largest one by 1996 is the core theme of Chapter 4.

[33] The history, chronology and trade costs of these sanctions are discussed in Chapter 3 starting on p. 76.

[34] Following withdrawal of state support for specific industries and the imposition of the MFA, Taiwan no longer based its economy on labour-intensive exporting in low-cost, low value-added consumer goods.

[35] Lin (2001, p. 78) explains that "South Africa is rich in natural resources, but its manufacturing sector was not as competitive as that of the ROC. The ROC needed access to South Africa's markets as

1.2.2 Economic Geography

From the very first days of the Dutch VOC in the 1660s until the end of Apartheid in 1994, Africans were subjected to treaties, concessions and forced to cede land in a process that would shape the outcome of the country today. This process of dispossession continued across the colonies, not as a single, act but as a gradual process, which accelerated after the 1870s. The most potent and persistent source of conflict was the new settlers' desire for pasture land and arable farming. Once diamonds were discovered, and then gold, fierce commercial interests fuelled this competitive pursuit to acquire land for speculation.[36] This process is demonstrated in Appendix A, Figure A.2 showing how African land tenure was reduced as mining and agriculture expanded. Squeezed into smaller reserves, these areas would later become formalised as Bantustans and the domicile for 80 % of Africans on only 13 % of the land.[37]

A second dimension to land dispossession is less well understood. It arose from the relative abundance of land and a scarcity of labour, specifically for the labour intensification of deep-level mining. Under the well-known Domar thesis[38], as long as free land existed elsewhere, hired labour would be unwilling or unavailable to enter the labour market. Independent African peasants on free land would have little incentive, because the minimum wage was lower than the "reservation wage"[39] generated from the land at their disposal. The more land that European settlers could alienate and bring under their dominion, the greater the African deprivation. This in turn drove Africans into the labour markets as arable land diminished, facing no choice other than the sale of their labour to white farmers and later mining capitalists.

Settler alienation of land was not unique to South Africa. Colonial governments across Africa alienated land for the sole use of Europeans, a process that would become a distinctive feature of settler economies. For example, Mosley (1983) showed how very little attractive land within the European areas in Kenya remained unalienated. While in Southern Rhodesia two-thirds of the land was alienated to Europeans. Across the continent, legislation for African reserves was established along ancestral and tribal lineage. The same was true in South Africa where the Department of Native Affairs "took it for granted that, [...] the ideal to be arrived at is the territorial separation of the races."[40] An accelerating process of land dispossession ensured a steady flow of African labour to the mines, with wage remittance supporting the swelling reserves.

well as its maize, wood pulp, coal, gold, basic metals and minerals, including uranium, to develop the ROC's economy. On the other hand, the RSA needed the capital, expertise, and investments from the ROC, in particular its extensive and diversified manufacturing industries, to create jobs for its massive unemployed black population."

[36] Denoon (1980, p. 327)

[37] See the historic concentration of the African population in Figure 6.1 on pg. 186.

[38] Domar (1957) used this proposition to explain the introduction of slavery or serfdom with particular reference to serfs in Russia

[39] This refers to both the wage earned in the homeland, i.e. 'African reservation' but also the labour economics definition, i.e. The lowest wage at which a worker would be willing to accept a particular job.

[40] Davenport (1991, p. 3)

However the 1913 Land Act is widely held as the catalyst for legislated racial segregation which provided the foundation for the subsequent Group Areas Act. Promulgated in 1950 under the Apartheid government, it was the forerunner of the Bantustan homeland areas. Historically black South Africans were members of Bantu-speaking tribes, which had customary geographic and language affiliations highlighted in Figure 1.2. The acts assigned racial groups to different residential and business areas in a system of "separate development through an attempt at carving out ethnically homogenous areas."[41] Formalising tribal homelands, (or Bantustans) the act divided the population into ethnic groupings. For example, native Zulu speakers were assigned to KwaZulu, Xhosa speakers to the Ciskei and Transkei, IsiVenda to Venda while the IsiTswana speakers to the northern regions of Bophuthatswana. Legislating racial separation through a self-governed Bantustan system would require the industrialisation of the homelands to reduce African migration into the Republic, thus impacting the long-run economic geography of South Africa.

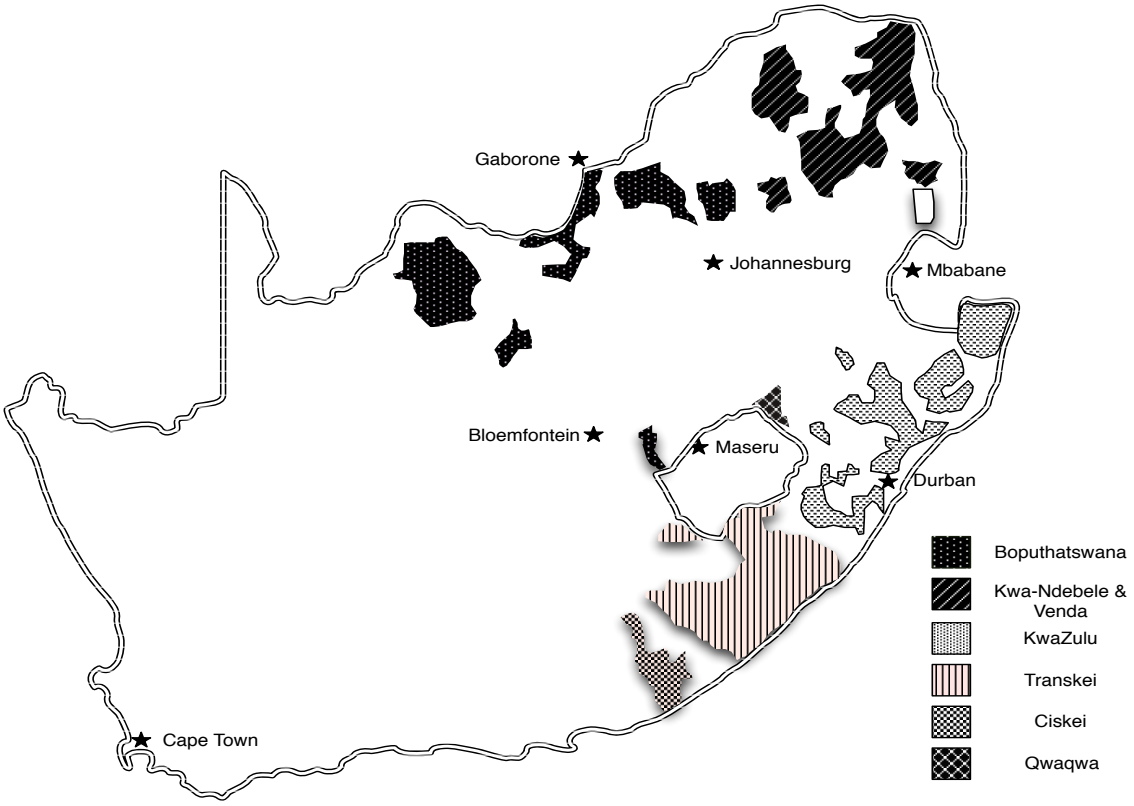


FIGURE 1.2: South Africa circa 1955, indicating the creation of 'ethnolinguistic' Bantustans.

Source: *Digitised by the author, applying the 1976 boundary definitions extracted from archival maps, with Bantu Investment Corporation (1975) and Bureau for Economic Research (1976).*
Note: Certain homelands were expanded in subsequent periods, e.g. Botshabelo in the 1970s.

[41] Suzman (1948, p. 18)

After coming to power in the late 1940s, the apartheid state set about reconfiguring the economic geography of South Africa through industrial decentralisation policies designed to direct manufacturing enterprises to the labour-abundant homelands.[42] Due to the sheer scale of the task, this was a remarkable period in South Africa's business history, however the Regional Industrial Development Programme (RIDP) occupied fewer than three lines in the recent economic history literature.[43] In Chapter 2, these policies are reframed against three distinct apartheid episodes of rapid growth (1960), industrial development (1970) and subsequent stagnation (1980). In the final period, when facing declining unskilled employment and exacerbated by increasing capital intensification, South Africa aggressively attempted to attract manufacturing employment to the homelands using tax incentives, transport infrastructure and the promise of cheap labour.[44]

Traditionally, research from the period was divided on the impact of regional industrial policies. Framed by the *"Liberal versus Radical"* debates on apartheid as a method for development, the industrial decentralisation research was often contentious.[45] The *Liberals* contended that the apartheid regime's systematic racial discrimination had a retarding effect on the development of capitalism. While the *Radicals* maintained that by forcibly creating a suppressed, cheap labour supply, apartheid served the benefits of capitalism in South Africa. On the one hand, the liberal debate focused on the narrow political motives of industrial decentralisation intended to reverse the flow of Africans to the 'White' metropolitan areas.[46] While others, forming a more radical view, held that decentralisation's economic goals were aimed at allowing South African industries to compete more effectively with those in the low-wage, newly industrialised countries.[47] Some truth resides on both sides of the divide and is exposed by the inflow of ROC citizens and investment. Delving into the chronological changes to the RIDP provides long-run context for the policies and incentive used to *"Push and Pull"*[48] Taiwanese investment to specific homelands in the 1980s. Moreover, economic geography, incentives and networks generated the first foreign agglomeration in labour-intensive manufacturing, and the lessons they provide to current African industrial policy have not been examined.

[42] The basis of Chapter 2 is a chronological study of these policies ending with the influx of Taiwanese entrepreneurs.

[43] The outstanding economic history of South Africa by Feinstein (2005) only briefly mentions the decentralisation regime, designed to "anchor blacks on the rural homelands."

[44] For seminal work on South African labour see Mariotti (2012) or Seekings and Nattrass (2005). See Van Onselen (1996), De Klerk (1984) and Lewis (1984) for further details on farm mechanisation and the process of change in the structure of agriculture in Southern Africa, and Marcus (1989) on labour-intensive forms of production and the consequent dependence on African labour in mining and agriculture.

[45] For a synopsis on the relationship between apartheid and capitalism see three detailed summaries by Lipton (1985, 2007) and Nattrass (1991).

[46] See publications by Dewar, Todes and Watson (1984), Wellings and Black (1986*a*,*b*) and Zille (1983) which viewed the programme as a means to maintain the apartheid political status quo of urban Whites and rural Africans, thus continuing the migrant labour system.

[47] On the other side of the debate were scholars such as Bell (1986, 1987) and later Hart (1996), who had pragmatic views that came to be known as "spontaneous decentralisation" based on better location-specific factors in the African homelands with lower-cost production and division of labour.

[48] The legal and financial dimensions of these are discussed in Chapter 2, starting on p. 37.

1.3 ARCHIVAL SOURCES & DATA

As I previously highlighted, inaccessible or embargoed archival sources have limited South African economic history research.[49] The sheer scale of apartheid bureaucracy and the ensuing secrecy during sanctions have been blamed for this.[50] This was further compounded by the fragmentation of African homelands into unitary nation states with a proto-bureaucracy, requiring me to consult multiple archives in South Africa and its former homelands. In this section I therefore provide an overview of the data used in each of the analytical chapters. My intention is to familiarise readers with how and why archival data were assimilated and then summarise each source.

1.3.1 Regional Industrial Decentralisation Data

Beginning with Chapter 2, I examine the chronological evolution of the Regional Industrial Development Programme (RIDP). Over the course of forty years, sixty-three industrial estates, which were also known as RIDP zones were constructed in South Africa. The distribution of these estates is shown in Figure 1.3 below.

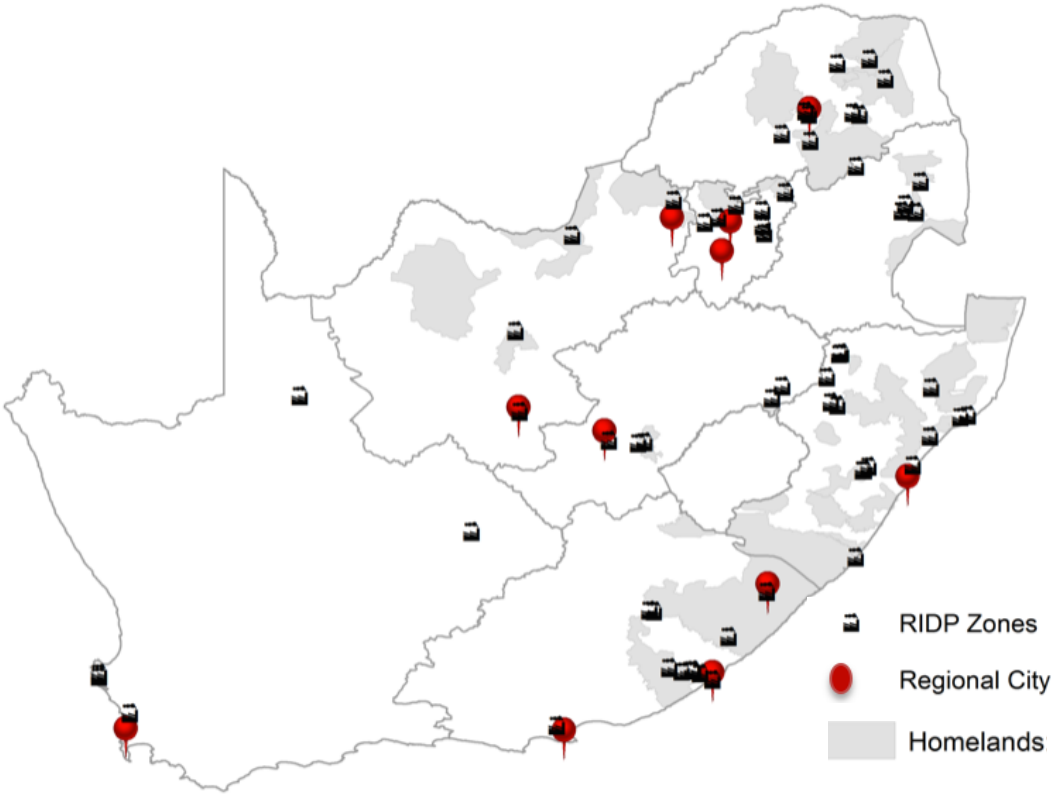


FIGURE 1.3: Geographic distribution of the sixty three RIDP zones

[49] The preservation of South Africa's homeland archives has become a research topic in its own right. This will be discussed in the following subsections (1.3.1, 1.3.2, 1.3.3 and 1.3.4) of this chapter.

[50] Fourie and Schirmer (2012, p. 3) noted how "a large part of the South African twentieth century economic history remains terra incognita."

In providing context to this category of data, it is important to note how the creation of an African bureaucracy and industrial decentralisation were closely linked as a means to give the homelands legitimacy. Evans (1997) discusses how F.R. Tomlinson, the visionary behind industrial decentralisation, proposed to justify the homelands by means of a "native administration".[51] Large administrative boards provided a political structure and sense of economic autonomy, but also created disparate data sources that have not been exploited in prior studies. Furthermore, one possible explanation for the scarcity of data has been the lack of record keeping or academic interest in these historical themes after the fall of the apartheid government. Ally (2014) comments on how the "Archive of Bantustan rule"[52] has hindered research into the role of homeland bureaucracies and by association, the RIDP due to poor archival management in the former homelands.

As a result of this bureaucratic and administrative fragmentation, I faced complex challenges in gathering data for each of the RIDP zones. This stemmed from the growth of state departments which administered the project over its forty-year evolution. In his study, Evans (1997) explains how the enlargement of existing bureaucracies and the creation of new ones were indicative of the state's growing reach into all economic spheres.[53] During the apartheid period, the industrial transformation of South Africa's homelands was conducted through centralisation of industrial policy at the political core in Pretoria, but in turn was implemented by a multitude of regional boards, development companies or finance corporations. Produced by the 14 organs of state, the industrial decentralisation policies were therefore devised and administered by a number of different bodies. Each of these was then responsible for a different homeland, geographic area or industry, making the collecting of data more challenging.

Successive industrial decentralisation programmes relied on an increasingly intricate bureaucracy. As a result. regional development of the homelands now spanned multiple state departments and is best demonstrated by a schematic diagram in Figure 1.4 on the following page, showing the complex bureaucracy which oversaw the final Regional Industrial Development Programme. By the 1980s when industrial incentives were escalating, the number of oversight and interrelated departments was perplexing. To this end Posel (2011) noted how "South Africa's apartheid [RIDP] system was enormously costly and ultimately collapsed because of the inefficiencies created by apartheid policies, which escalated as the economy changed."[54]

[51] Evans (1997, p. 237)

[52] Ally (2014) uses this as the title of a paper in which the decay of the homeland archives is documented. The archives were a vestige of apartheid state control and Bantustan formality, yet in democratic South Africa they have been forgotten or neglected.

[53] Evans (1997, p. 56)

[54] Posel (2011, p. 432)

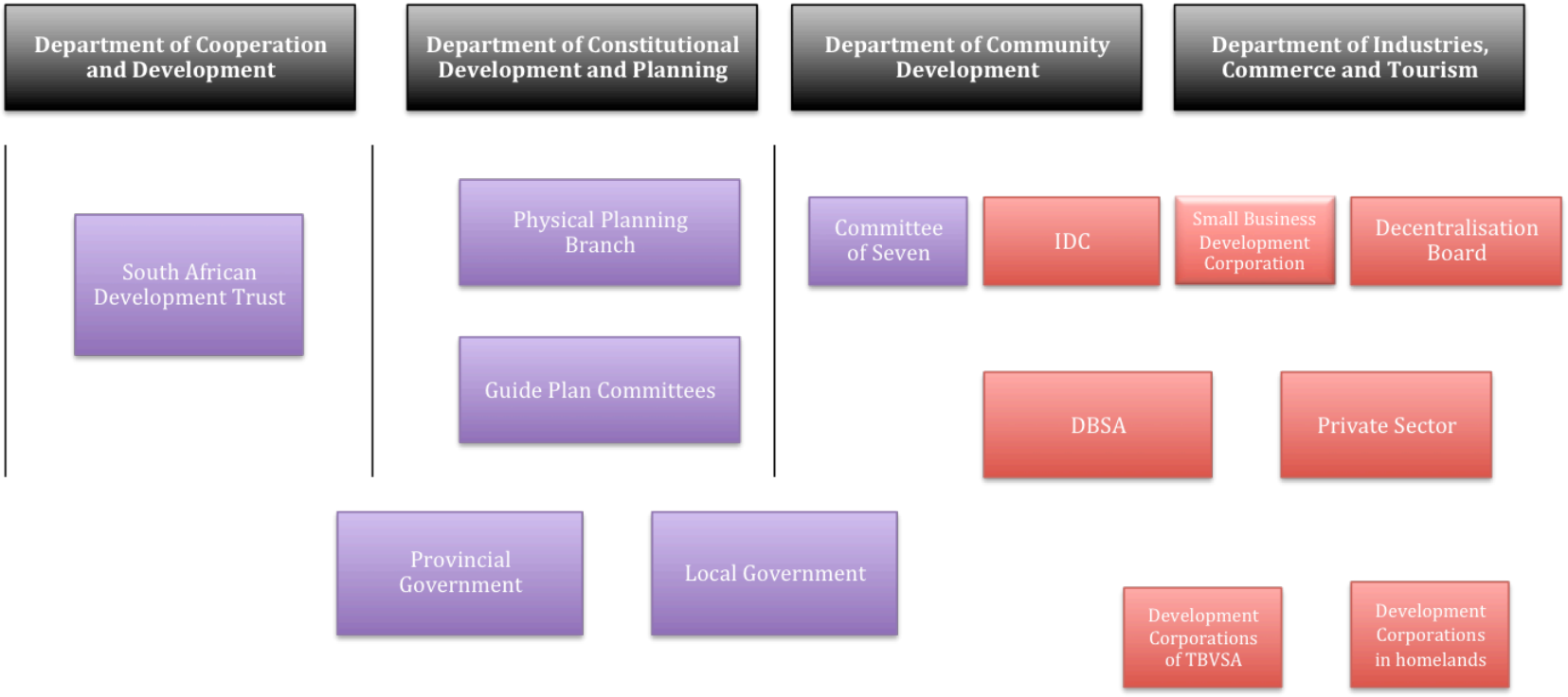


FIGURE 1.4: A graphic representation of the Government Departments, Ministries and implementation bodies responsible for the design and application of RIDP incentives from 1980.

KEY: *Black segments denote the government Ministries. Secondary policy contributors in purple and operational implementers are represented in red.*

Referring to Figure 1.4, at the highest level, four organs of state intervened in industrial decentralisation policy; namely the ***(1)*** Department of Co-operation and Development, ***(2)*** Department of Constitutional Development and Planning, ***(3)*** Department of Community Development, ***(4)*** Department of Industries, Commerce and Tourism. Declassified archival records from these four bodies have been consulted in piecing together the transition of decentralisation during apartheid. The Department of Co-operation and Development and the Department of Industries, Commerce and Tourism contained the more useful sources, all of which are housed at the Library of Parliament in Cape Town.

Conceptually, the Department of Co-operation and Development was the main protagonist in policy formulation, with a substantial archive of policy documents detailing the introduction of the RIDP in 1980 identified as the Good Hope Plan. Below this were three functional arms of policy administration and co-ordination. The Industrial Development Corporation had oversight and financed large-scale investment within the borders of South Africa, thus excluding capital allocation to the homeland development zones.

The Board for the Decentralisation of Industry (BDI) had primary oversight of the implementation of decentralisation policies from 1972 through until 1992. The archival sources for this institution have resided in multiple locations, with the principal collection recently declassified by the National Archive in Pretoria. Supplementary sources of data pertaining to the BDI, such as annual reports and policy documents have been collected from the Government Publications Library at the University of Cape Town and The Cullan Library at the University of the Witwatersrand. Under the BDI, two financing divisions existed, namely the Small Business Development Corporation (SBDC) which had a mandate of less than R800,000 - while the larger and more ubiquitous were the eight Homeland Development Corporations (formerly the single Bantu Investment Corporation, then the TDC, XDC, CNDC, KFC, QDF and CED). These Corporations administered the funding, application and regulation of decentralised (domestic and Taiwanese) manufacturing firms within the Bantustans. In this regard, archival sources from former apartheid homeland archives were consulted. These included the Orange Free State Development Corporation (QDF at QwaQwa), The Transkei Development Corporation (TDC at Mthatha) and the KwaZulu Finance Corporation (KFC at Pietermaritzburg).

Data from the RIDP sources is widely used across my thesis, forming the core of Chapter 2 and Chapter 5. In Chapter 2, I use chronological financial data from the RIDP to quantify how the homeland policies changed in South Africa as different political and funding pressures came to bear down on fiscal spending. This data includes the quantity of infrastructure spending over forty years, the number of employment opportunities created by investment subsidies and the total number of firms operating in the homelands. This data is important to our understanding of how the policies were implemented and presents financial evidence as opposed to the published political rhetoric of the apartheid state.

The RIDP data in Chapter 5 focuses mainly on the category, quantity and geographic variation of subsidies used to attracted foreign investment to South Africa and its homelands during the period of diplomatic isolation and trade sanctions. A summary of the incentive schedule across all zones is highlighted in Table F.1 of Data Appendix F. Using financial disbursements data assembled into a time series allowed me to argue whether it was incentives, economic geography or ethnic networks that may have accounted for the Taiwanese agglomeration effect during apartheid. The RIDP data is not in itself sufficient to provide the evidence for a variation in incentives. This was therefore combined with wage data, demographic data, and firm level data which I discuss next.

1.3.2 Homeland Wage Data

In Chapter 5, I propose that Taiwanese firms were relocating to the lowest-wage destination with the greatest level of RIDP subsidies. Using new data from the annual reports of the RIDP, I am able to estimate the level of subsidies, but not the level of wage disparity between Zones. African manufacturing wages during the apartheid period have been contentious, and one of the most challenging data series to construct. The secondary literature ostensibly agreed on the importance of low wages to manufacturing firms in South Africa, but there was limited data. For example, Hofmeyr (1995) conceded that South African economists and economic historians have found themselves at a disadvantage in regional wage comparisons to their counterparts in major industrialised countries. With Fourie and Schirmer (2012) highlighting how "there is at present only sparse information on African wages during apartheid."[55] Industrial agreements between industries and white trade unions neglected to record the wages paid to African workers, and the 1970 census did not record African salaries despite recording those of Whites, Coloureds and Indians.[56] Homeland manufacturing wages were also outside of any bargaining agreements, and statistical agency sources prove even sparser.[57] As such, wage data from the former homelands and peripheral South African industrial zones was inadequately collected in the national censuses. The consequence of this is that the policy-maker often had to work largely in the dark, without an adequate empirical basis for comprehending the labour market implications.[58] These challenges have required a degree of innovation in the methods and sources of data collection. For this reason, the formulation of wage estimates for the rural homelands makes a contribution not only to Taiwanese firm agglomeration, but to future research on wages and the persistence of inequality resulting from apartheid policies. A point also acknowledged by Fourie and Schirmer (2012) explaining how this "can provide a start to the creation of an African wage series - an ambitious project, but probably the most important future contribution of work on the post Second World War South African economy."[59]

[55] Fourie and Schirmer (2012, p. 5)
[56] For further examples see Banerjee et al. (2008).
[57] For further examples see Bhorat (2004).
[58] Hofmeyr (1995, p. 547)
[59] Fourie and Schirmer (2012, p. 4)

Wage data constraints are evident in the existing labour market literature. A notable study of apartheid-era labour markets by Mariotti (2012) used official census data to examine the changes to occupational attainment in the labour markets rather than being restricted by inconsistent wage data. Focusing on the racial change in composition of the formal urban sectors, Mariotti noted that the lack of African wage data is not an overriding constraint in her study. She goes on to explain that "the 1970 census does not contain any data on African earnings, but since the study focuses on occupational attainment rather than wages the lack of African income data is not a constraint."[60] The second important study by Leibbrandt (2011) dealt with the restructuring of the labour market in the 1980s. Facing similar data challenges, he noted that "there [was] no national data series which adequately [covered] all of the homelands [...]."[61] To overcome these challenges, Leibbrandt selected two area case studies. These provided adequate migration and wage labour data. Emphasising the restrictions placed by a lack of wage sources, he goes on to note how it was a "pity that data stretching further into the 1980s is not available [...] for Natal's Durban/Pinetown metropolitan complex [...] South Africa's fastest growing metropolitan area in the 1980s both in terms of population and in terms of economic activity."[62] Finally, using formal wage statistics in South Africa, Hofmeyr (1995) noted how officially reported data have been particularly inconsistent. The most comprehensive sources of wage data have been the population censuses between 1970 and 1985 however they contained "patchy African manufacturing and wage data."[63]

Over and above these challenges catalogued above, the 1970 census omitted a number of African commuter townships previously enumerated in prior historical censuses. Lipton (1972) highlights how these areas were simply reclassified and counted as part of the homelands, neglecting to capture further demographic data on the impact of the apartheid states. What's more, Mariotti (2012) explains that manufacturing labour statistics for unskilled Africans during the period had predominately been sourced from the mining or manufacturing sector in the major metropolitan areas, thus restricting our understanding to these urban regions.[64] These wage source difficulties were further compounded with changes to data collection as the mining industry ceased to provide a breakdown of wages according to racial classification from 1985. Labour statistics compiled after 1979 by the newly established Manpower Commission omitted the Transkei, Venda, Ciskei and BOP states.[65] These homelands were granted 'independence' and therefore became statistically semi-autonomous creating further challenges in data assimilation and collation. In 1980,

[60] Mariotti (2012, p. 1110)
[61] Leibbrandt (2011, p. 106)
[62] Leibbrandt (2011, p. 108). Interestingly this area became a focused location for Taiwanese investment and thus further contributes to the body of literature on wages.
[63] Hofmeyr (1995, p. 551)
[64] Appendix E Figure E.2 demonstrates how census data was restricted to the 27 enumeration areas around the metropolitan centres, thus excluding the homelands.
[65] Kooy (1979). After the Wiehahn Commission the apartheid government started recognising African trade unions in 1979. In the same year, the National Manpower Commission was established with representatives from labour, business, and government, to advise policy makers on labor issues. This agency collected data on the labour market in South Africa from 1980.

the four 'independent states' conducted their own censuses, while five separate homeland censuses were conducted in 1985. Leibbrandt (2011) also explains that the homelands census in turn did not capture adequate wage information with a high percentage of the recorded labour force working in the newly formed African bureaucracy skewing data collection. Alternative sources such as the regional manufacturing census contain wages, but this data is restricted by a lack of racial classifications. This research thus avoids making assumptions based on highly inaccurate ratios of African workers to other workers in each region.[66]

The limitations discussed above required a degree of innovation in the methods and sources of wage data collected for the agglomeration analysis. The following section discusses these sources and methods for the compilation of African wages in the homeland RIDP zones. It reports interregional manufacturing wages within the 63 homeland RIDP zones.[67] This extends the number of census enumeration areas from the 27 highlighted in the Data Appendix F Figure F.1, thus increasing the wage data to a further 52 areas. Importantly, these now include both the peri-urban and rural periphery.

This additional data was collected through the triangulation of a variety of sources. By combing a range of historical sources, both official and anecdotal, a broader overview of manufacturing wages in the homeland RIDP and South Africa can be gleaned. The categories are composed as follows: **(i)** Published newspaper sources, **(ii)** RIDP almanac and RIDP Trade publications, **(iii)** Officially sanctioned wages estimates from the Carnegie Commission on poverty and Government published reports. Each of these sources is discussed next.

(i) Published Newspaper Sources: The inconsistency of census data and scarcity of reported African wage data required the utilisation of previously unexploited 'publicly cited' sources. Archived newspapers have proven to be a valuable alternative measure of interregional wage estimates with a breadth of regional data pertaining to African wages. Due to the scale of the RIDP programme during the 1970s and 1980s, archival newspaper clippings and financial periodical clippings have produced a wealth of alternative wage data within the homelands.[68] Over a 25-year period, clippings from a number of major English-language newspapers were categorised in the archive.[69] Prior research from Wood (2000) also notes the importance of the clippings archive and its breadth of data.[70] Using this source, a broad collection of primary and publicly reported wage estimates have been categorised per development region. Where possible they have been recorded at the lowest disaggregated geographical level, industry, gender, skill grade and year. These data have then been compiled into a series for each of the eight development regions.

[66] Email from Martine Mariotti, November 2013.

[67] A map of the 63 Zones can be seen in Appendix E, Figure E.1

[68] The Southern Africa Labour and Development Research Unit (SALDRU) at the University of Cape Town has yielded much of this data.

[69] The collection has grown to over a million clippings.

[70] Wood (2000) cited in the SALDRU Archive explains how the archive represents "an astonishing data set" and has been "consulted on a regular basis by scholars in various disciplines from all over the world."

Although not exhaustive, 57 out of the 63 development sites have unskilled wages cited in articles or advertised in a financial publication.

(ii) RIDP Almanac and Secondary Reports: To test the wage estimates cited above and substitute for missing data, a second category of published archival data has been compiled. This includes homeland trade periodicals, the RIDP almanac, and secondary homeland literature sources. The trade periodicals were published in magazine format and distributed to diplomatic missions as an advertisement for zones incentives. In essence they were an apartheid propaganda instrument to attract manufacturing firms to the homelands. Printed between 1978 and 1994, the Transkei (Zone D) and KwaZulu (Zone E) were leading proponents of these trade publications.[71] Released quarterly, they were brimming with politically motivated 'advertorials' offering a wealth of quantitative wage data but also qualitative accounts of Taiwanese firms that had invested in these zones.[72] However all these sources need to be treated with caution. The development magazines in particular, had a very clear agenda. There is a distinct apartheid-era aesthetic to their marketing, economic agenda and factual presentation. For example Appendix E, Figure E.3 provides an example of one such publication, in which the Transkei Development Corporation advertised the construction of the world's largest chopstick factory.

To test the external validity of the archival data, the unofficial estimates are corroborated with official wage estimates and a well-cited body of secondary academic sources. The most notable example of this literature stems from Tomlinson and Krige (1997). They use both wage and subsidy data, collected while assessing the social and economic consequence of apartheid forced removals.[73] Referring to the abuse of the incentive payments allocated for the employment of unskilled labourers, they explain that Taiwanese investors were paid "quarterly tax-free grants per worker equal to R110 per month" while citing reports that "male workers earn R 55 while female works R 45 per month."[74] This data can be traced to a single example in Addleson, Pretorius and Tomlinson (1985) and is thus an example of how wage labour data has suffered from a scarcity of sources. Another example in the secondary literature is cited by Hirsch (1986). He quotes the financial director of a Taiwanese footwear factory in Dimbaza (Zone D) as "paying an average wage of R0.50 per hour."[75] However wage ranges vary widely between zones when these examples are corroborated with the new data in both the SALDRU and RIDP archive. The lowest of the zones reported R 25 per month for female unskilled labour and R 65 per month for unskilled male labour. This is further evident in the 1985 Transkei Development almanacs that note that trade unions are outlawed resulting in "unofficial

[71] Zone D was titled "Transkei Topics" while KwaZulu's publication was simply called "Development".

[72] Specific reference is made of Taiwan and Hong Kong in their distribution. Preaching the benefits and endowments of their RIDP zones these publications provided both images and incentive information distributed in an attempt to attract future would-be investors.

[73] As discussed in Chapter 2, from 1960 to 1983, the apartheid government forcibly moved millions of black South Africans to implement the Group Areas Act.

[74] Tomlinson and Krige (1997, p. 694)

[75] Hirsch (1986, p. 191)

de facto minimum wage is roughly R0.35 per hours in 1985."[76] This would have equated to R 56 per month, consistent with wage estimates by Pickles and Woods (1989). As such, the secondary and primary sources provide sufficient evidence of regional wages, but need to be carefully considered in conjunction with further evidence from formal sources.

(iii) Formally Authorised Sources: Officially sanctioned data is used to further test the validity of the sources in the unofficial wage category and those reported in homeland trade periodicals and the RIDP almanac. The first source is from an archival report prepared by the Bureau for Economic Research: Bantu Development (1976). The second is from a regional series compiled by Gottschalk (1977), the first author to survey wages in these zones. This data is then combined with a third source: officially sanctioned studies of five homelands obtained from The Second Carnegie Report on poverty in South Africa compiled by Wilson and Ramphele (1989). Merging this data with the first two categories *(i & ii)* achieves two aims. Firstly, it provides wage data estimates for RIDP zones that have been neglected in the unofficial sources. Secondly, it establishes which zones were officially reported by the government or development corporations as offering the lowest unskilled rural wages.

The first official wage data source is an archival report from The Bureau for Economic Research.[77] The report contains minimum and maximum unskilled male and female wages from 1971 through to 1975 in peri-urban areas as a proxy for RIDP zones. To corroborate these estimates they are then combined with Gottschalk (1977) who surveyed wages in eighteen RIDP zones and peri-urban growth points between 1974 and 1975. These are finally collated with the officially sanctioned reports archived at SALDRU and produced for the Carnegie Report on poverty in South Africa.

The Carnegie Commission conducted field and survey research in the early 1980s. Three hundred researchers presented findings at Cape Town in 1984, which were finally published in 1989.[78] However the resulting commission produced a number of primary working reports from the fieldwork. Five of these archive reports are used in the compilation of the wage estimates for the early 1980s. Namely Thomas (1984) who focused on the Eastern Cape region (Zone D) and Abedian (1983) who illustrated problems with official data in the same region. This is complemented by Ardington (1984) who focused on KwaZulu (Zone E) region while Bank (1984) examined QwaQwa (Zone C). Finally McCarthy (1984) aggregated the potential employment effects across all RIDP regions. The benefit of using these unpublished reports is that they include both the autonomous TBVC (Transkei, Bophuthatswana, Venda, and Ciskei) and non-independent homelands.

[76] Transkei Development Corporation, April 1985. Mthatha Archive.
[77] Bureau for Economic Research: Bantu Development (1976)
[78] Wilson and Ramphele (1989) summarised the results in "Uprooting Poverty: The South African Challenge."

Impartially funded, the working papers "published a good deal of information about poverty during the 1980s [...]. Indeed a number of Carnegie working papers attempted to examine issues of poverty within these four TBVC homelands areas as well as in the rest of South Africa."[79]

The three categories are combined in Table F.2 of the Data Appendix F and the aggregate wages (all years) are visualised in Figure 1.5 below. This represents the most recent and complete attempt to provide an overview of the homeland wages during Taiwanese investment. The results illustrate that wages were higher in the RIDP zones closer to the urban areas in Zone H (i.e. PWV) and Zone A (i.e. Western Cape). While zones along the coast (i.e. Port Elizabeth and East London) have lower aggregate wages, they are still higher than those in northern parts of the country. These inter-zone wages will be used in Chapter 5 to analyse how the average homeland wages differed to the wage incentives, and thus contributed to Taiwanese agglomeration.

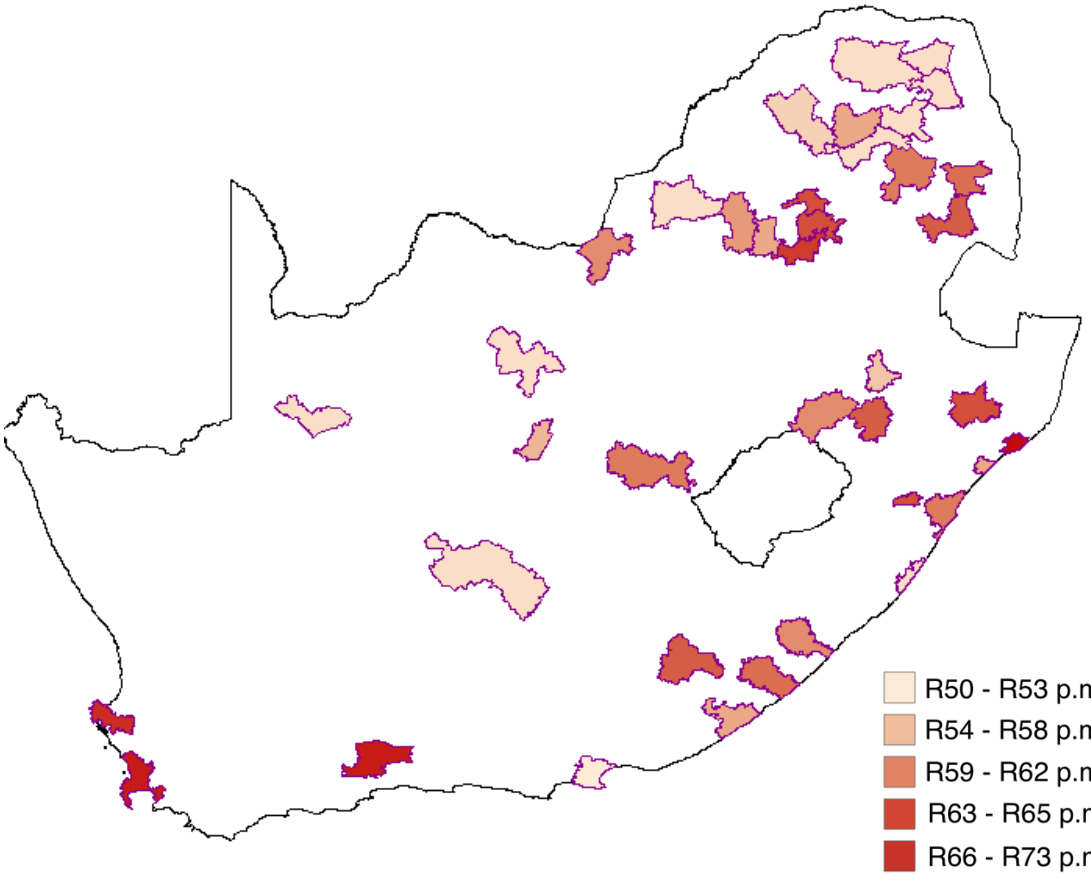


FIGURE 1.5: Aggregate monthly wages in sixty-three of South Africa's RIDP zones, (1978 - 1992).
Source: *Assembled from Table F.2 of the Data Appendix F*

[79] Feinstein (2005, p. 67)

1.3.3 Demographic Data

Building on the new homeland wage data for Chapter 5, I also needed to consider whether a demographic imbalance across the homeland RIDP zones may have had an impact on the patterns of homeland industrialisation and agglomeration. The homelands of South Africa were constituted by a high percentage of working-age African females because of historical migrant labour demands from the mining industries and agriculture.[80] Although these apartheid demographic trends have been well documented, insufficient empirical evidence has been forthcoming to compare the inter-homeland (RIDP Zone) labour imbalances. For similar reasons to those cited in the wage data section (1.3.2), census data has been insufficient to examine the demographic variation across homelands.

(i) Labour Pool: As a result of this scarcity, the labour pool data set has been constructed from the concatenation of multiple-census sources. Censuses counting the homelands were conducted in 1951; 1960; 1970; 1980; 1985. However, data collected in the apartheid era was generally unreliable and skewed official statistics, underestimating the number of black Africans in rural areas.[81]

To overcome these challenges, I firstly assembled the enumeration areas from the 1980 South African census for each of the RIDP zones that was adjacent to a homeland. Second, I was forced to used additional statistical sources because the 1980 national census excluded two of the four independent homelands.[82] Combining these regional census data with the BENSO Economic Review reports thus allowed me to substitute demographic data for the homelands that were excluded from the national census.[83] Third, the RIDP zone enumeration areas from the 1980 five percentage African census that included the non-independent homelands were selected and combined into a single dataset for each RIDP zone. Finally, for the purpose of demographic comparison the enumeration areas from each of the three data sources were merged and then GIS matched to their respective development zone (A-H). Using a more complete data set thus enables a demographic estimation between RIDP Zones.

The results show a high prevalence of immobile female labour, which may have been attractive to labour-intensive industrialists. To demonstrate this, the aggregate gender imbalance of female labour across all homelands RIDP zones is represented in Figure 1.6. Extrapolating the labour pool data set further, Figure 1.7 disaggregates the RIDP zones area into four age-cohort bands which represent the ILO (International Labour Organization) labour force participation scale to highlight the prevalence of working-age female labour: **(1)** 13 to 18 years as a youth baseline, **(2)** 19 to 29 years, **(3)** 30 to 39 and **(4)** 40 to 59.[84]

[80] This will be discussed in Chapter 2 but is well documented by Bonner (2011, p. 457).
[81] Especially with regards to the African population residing in the independent homelands.
[82] Areas of the Transkei and Bophuthatswana were excluded.
[83] *'Transkei Development and Independence Report'*, African population statistics table, page 136 - 178. (TAB-8768/02) and Bophuthatswana BENSO Man Power study (TAB 4568-876.)
[84] Data Appendix F, Figure F.2 extrapolates all ILO labour force participation age cohorts, providing a demographic baseline for later analysis of trends in demographic imbalances between homelands.

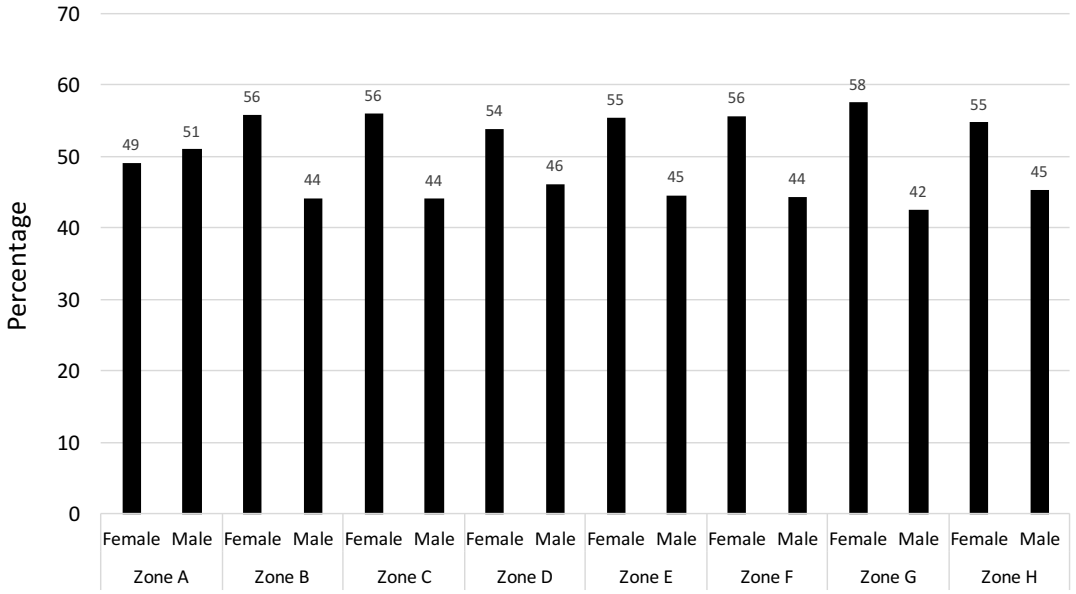


FIGURE 1.6: Percentage gender imbalances between homeland RIDP zones across all age bands.

Source: *The 1980 census and 1980 five per cent African census, and the BENSO man power study of the BOP. 1980 & 1985 compiled by Statistics South Africa and digitised by the South African Data Archive (SADA), Central Statistics Service Report No. 02-80-02. 1980. Population Census, 1980. Pretoria. BENSO manpower study, National Archive, Pretoria, TAB 4568-876.*

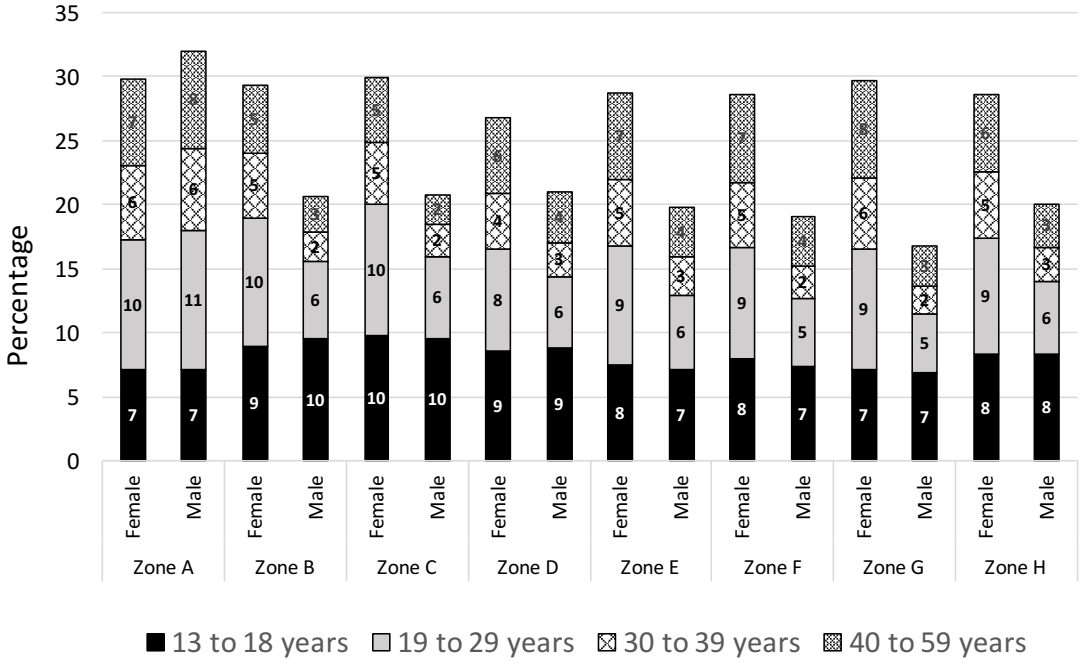


FIGURE 1.7: Gender imbalances between homeland RIDP zones disaggregated into the main ILO working age band: **(1)** 13 to 18 years, **(2)** 19 to 29 years, **(3)** 30 to 39 years and**(4)** 40 to 59.

Source: *Same as Figure 1.6 above.*

The graphs demonstrate two significant findings. Firstly that the working age female population materially exceeded that of men in the RIDP zones (Figure 1.6.) except the Western Cape (Zone A). Given the mining labour migration regime for the remainder of the country, this is to be expected. However, the magnitude is noteworthy, with female labour exceeding males by to up 50 % in 'Band 2'. Secondly, there are variations in the gender imbalances between homeland RIDP zones with the gender disequilibrium of men to women declining further in the prime employment working age 'Band 2' and 'Band 3' (Figure 1.7). This data will therefore be used in Chapter 5 to analyse the possible impact of female labour participation on Taiwanese firm clustering.

1.3.4 Trade and Migration Data

Chapter 4 examines the links between trade flows and Taiwanese migration in South Africa from 1975 to 1995. During sanctions, access to classified trade statistics were restricted, forcing a reliance on estimates or interpolation. In order to question the possibility of a link between migration and trade required me to construct a new bilateral trade series with unclassified data. In addition, estimates for the number of Taiwanese migrants to South Africa was also a challenge and is detailed in this section.

(i) Trade Data: The bulk of the new data (1984 - 1992) was manually digitised and transcribed from new archival sources. This is a first in the construction of a continuous series in South African bilateral trade. For this reason the analysis uses a country sample selection based on two factors: firstly, South Africa conducted a large proportion of its bilateral trade with OECD countries (mainly Western Europe, North America and Japan, as demonstrated in Data Appendix F, Table F.3). Take 1979 as an example: five major trading countries accounted for 64% of South African total trade - Germany (16%), US (13.5%), UK (13.4%), Japan (10.6%) and Switzerland (10.5%).[85] Distinguishing between exports and imports further reduces the sample when gold is removed, as Switzerland was the largest buyer of the precious metal and thus France enters the sample of countries at number five with 9% of exports. Secondly, access to original data and the volume of archival sources was prohibitive. Transcribing all bilateral trading countries would have yielded marginal additional information and consumed considerable resources. As such, a selected sample of South Africa's five leading trade partners in 1975 with the addition of Taiwan and Hong Kong. Garner (1994) speculated that trade may have been redirected from Japan.[86] Hong Kong is therefore selected as a proxy for this possibility of growing Asian trade, but also because archival evidence suggests that Taiwanese business interests in South Africa extended to the territory.[87]

[85] Similar results are found in Geldenhuys (1991) when comparing South Africa's isolation in the early 1980s which provides external validity for the accuracy of the underlying data.

[86] Garner (1994, p. ii) claims that they "were unable to ascertain whether the change [in bilateral trade] reflected the activity of Taiwanese-owned firms or switching activity from other trade partners, specifically Japan."

[87] Hart (1998, p. 347) found that in the mid-1980s, established connections in Asia (mainly Taiwan and Hong Kong) lured approximately 65 industrialists and their families to South Africa.

From 1975 until 1985 the bilateral data is compiled using the official international trade statistics series.[88] These official records captured trade between South Africa and all its trading partners. The trade data was segmented according the Sections of the Harmonised System for 23 product categories.[89] Between 1986 and 1992 the Department of Trade stopped publishing trade statistics at the country level altogether. Garner (1994) noted that researchers had to turn to other sources as a result of a data embargo, and doubted the accuracy of any publicly available data. This limitation has had an impact on migration and trade research, as it was during these rigid years of sanctions that growth in Taiwanese trade could have accounted for the reorientation. To estimate the years 1986 - 1992, Garner used an alternative series. These sources included revised estimates from the UN, IMF and OECD adjusting it with data in the Sanction Report produced by Hanlon and Omond (1987). However Garner noted that the IMF Direction of Trade Statistics were "a misleading set of figures on partner countries with South Africa. [...] They were calculated by scaling up or down figures from the base year in 1985 across all countries by a uniform percentage"[90] Nonetheless, the IMF's interpolated Direction of Trade Statistics database was useful as it recorded aggregate regional data from where a baseline for the new data could be established and contrasted.

To overcome the access limitations and data constraints imposed during the years of sanctions, I have recreated the bilateral trade series with additional, declassified trade statistics from the Department of Trade and Industry. These were reported in annual returns held at the Parliamentary Library in Cape Town. Although these statistics should therefore have created a complete series, I nevertheless found it necessary to validate their accuracy. As such these are further supplemented with regional and national estimates reported in Garner to compare the official reports with IMF partner country data and South African data. Trade data from 1992 until 1995 was obtained from the South African Revenue Services (SARS) balance of trade database.[91] This contained monthly and annual trade flows with all South Africa's trading partners. 1995 is chosen as the end date for the study, as it is four years after the US Comprehensive Anti-Apartheid Act[92] was repealed and EU Sanctions[93] were lifted. This provides sufficient post-sanctions data to examine whether the Taiwanese diversification in exports was merely a reaction to isolationism or a permanent feature of the export trade partnership.

[88] Hardcopy trade statistics were digitised from original archival records held at the National Treasury, the National Archive in Pretoria and the University of Cape Town government publications library.

[89] The Standard Industrial Classification (SIC) is a system for classifying industries by a four-digit code. South Africa used this system until 1988, after which it shifted to the Harmonised Commodity Description and Coding System, also known as the Harmonised System (HS) of tariff nomenclature developed and maintained by the World Customs Organisation (WCO). SIC codes have been mapped to HS codes using the standard four-digit methodology to keep consistency across all years.

[90] Garner (1994, p. ii)

[91] Head of Data Archives, Annemarie van der Walt, SARS email

[92] 1st of July, 1991

[93] 15th of April, 1991

The sample of bilateral trade data is visualised in Figure 1.8 below, and represents 68% of South Africa's total 1975 bilateral trade. By 1995 the selected countries had declined to 59% of South Africa's total foreign trade,but still represents a significant sample over the 20 years of analysis and is therefore sufficient for purpose of my trade and migration study.

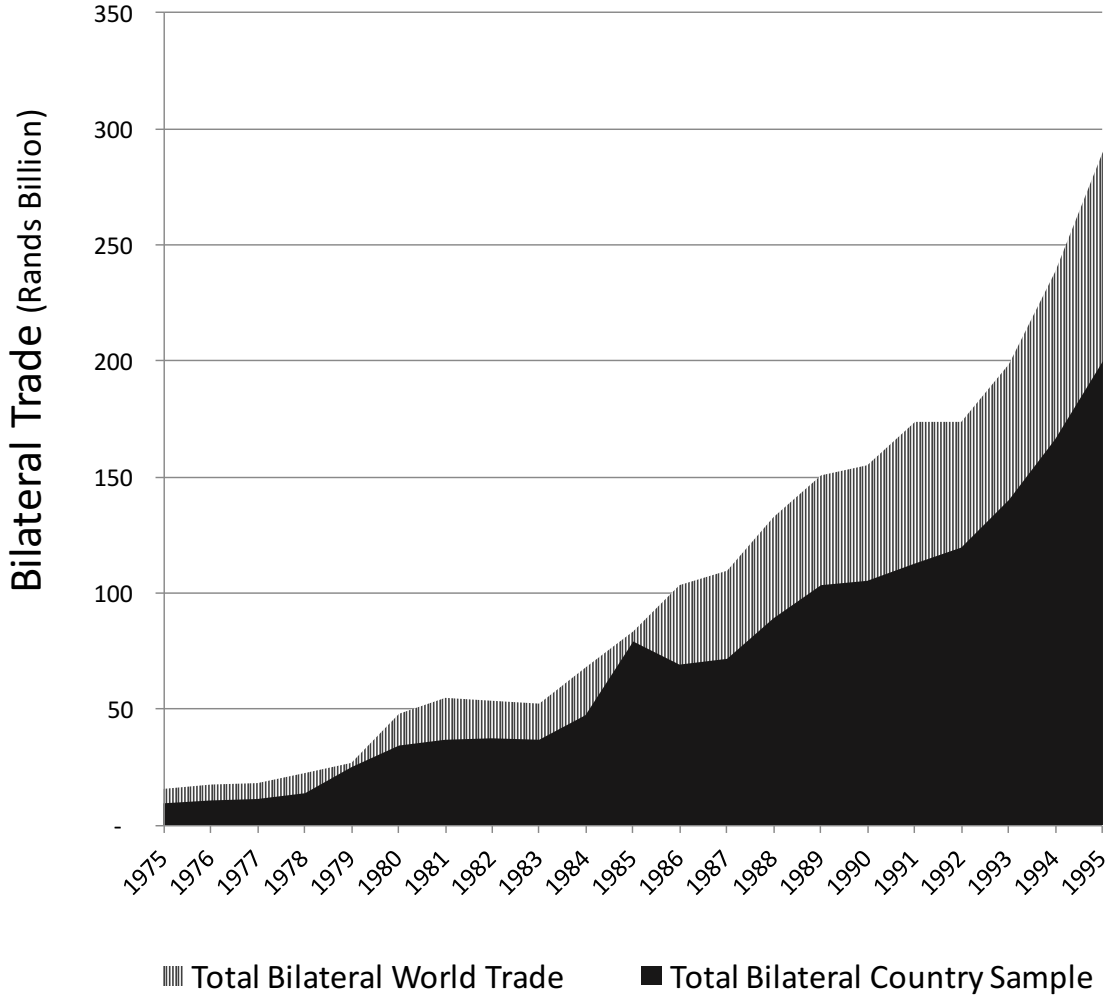


FIGURE 1.8: Total Bilateral World Trade (all country pairs) versus Sample country bilateral trade (1975 - 1995)

Source: *Foreign Trade statistical series assembled from Foreign Trade Statistics 1975 - 1985, with supplementary statistics from the Department of Trade and Industry, Garner (1994) and IMF (DOTS) direction of trade statistics (1986 - 1990). South African Revenue Services using HS codes provided the years 1991 - 1995.*

(ii) Migration Data: The exact quantum of Taiwanese citizens residing in South Africa is difficult to gauge and remains contentious. A conservative estimate of Taiwanese migration and population series was assembled from the Board for the Decentralisation of Industry's business license applications almanac.[94] Using the business license applications, Table 1.1 below shows the total number of immigrants in each of the years.

Examination of official emigration and immigration statistics is challenging as the South African government only recorded race "Asian" for all immigrants from Asia between 1950 and 1990. A total of 100,000 Taiwanese individuals were estimated to have immigrated and emigrated between the two countries. However Grimm et al. (2014) noted that at the height of this relationship, 50,000 Taiwanese people resided permanently in South Africa. This estimation proves the most accurate and is corroborated by similar accounts as no official RSA statistics have been located on the full extent of Taiwanese migration.

The upper bound of Taiwanese immigration estimated by Grimm et al. is useful, however an annual migration series is required for this study. To gain a measure of the annual inbound flow of Taiwanese immigrants I therefore had to turn to the Board for the Decentralisation of Industries (BDI) as a proxy, which granted business license applications. Administering the eight development regions, the BDI was the overarching statutory body.[95] The BDI recorded the country of origin and the number of immigrants that were accompanying the business licence applications. These are tabulated below (1.1) and visualised in Chapter 4, Figure 4.2 on page 108.

Between 1980 and 1991, a total of 11,036 business licenses were granted across all eight of the development zones. From the BDI records, it appears that only 37 % of those licenses were actually taken-up. However examining the ROC company records, it appears that the conversion ratio was significantly higher for this migrant cohort, with an average take-up of 77.48 %. The earlier period (1979 - 1981) had a lower conversion rate of 42 %. Therefore an annual aggregate estimate of Taiwanese entrepreneurs across both African homelands and South African metropoles could be established. These represent the official residence permits issued to ROC nationals, and is lower than either the ROC directorate[96] or Grimm et al.. However I believe it is more prudent to use business license applications as they could be converted into South African citizenship after five years and thus represent permanent immigration. Further contextualising the Taiwanese immigration, I have also collected the total European immigration statistics from South Africa's former colonial and OECD partners as a benchmark.[97] Data Appendix F, Figure

[94] National Archive, Pretoria, RSA. 1,036 business licenses were granted to ROC companies over the period, however it appears that only 30% of those licenses were taken-up. This is consistent with the totals found by Pickles and Wood (1989) for the earlier period where they found only 91 of the 300 business licenses were taken up.

[95] Board for the Decentralisation and its operational methods are discussed in Chapter 2.

[96] ROC Embassy Estimates.

[97] Although these are not necessary to the analysis, they are useful to contextualise the long-term effect of trade networks, market preferences and migration in South Africa. Figure 3.1 on page 78 of Chapter 3 shows annual European flows and will be discussed in that analysis.

F.4 tabulates total European immigration as a proxy for OECD trade ties against which to measure the Taiwanese case study.[98]

Business License Applications

Business Licenses	Total Approved	Established Nº	Established %	ROC Approved	Established Nº	Established %	Residence Permits
1980	680	247	36%	27	11	40%	1,387
1981	798	355	44%	31	14	45%	4,067
1982/1983	777	384	49%	27	20	74%	1,890
1983/1984	1,190	578	48%	17	14	82%	3,876
1984/1985	1,216	452	37%	29	21	72%	278
1985/1986	1,243	NA	0	27	22	81%	490
1986/1987	1,027	NA	0	51	42	82%	7,907
1987/1988	1,080	NA	0	55	51	92%	900
1988/1989	1,042	NA	0	78	63	80%	876
1989/1990	893	NA	0	31	24	77%	20
1990/1991	1,090	470	43%	19	14	73%	657
TOTAL	**1,1036**	**4,181**	**37%**	**382**	**296**	**78%**	**23,137**

TABLE 1.1: RIDP Business License Application (1980 - 1991) for the whole RIDP project (RHD) and the total number Taiwanese applicants (LHS). The results show the difference between approved and established.

Source: *Board for the Decentralisation, business license applications (National Archive, Pretoria, RSA).*

1.3.5 Taiwanese Firm Level Data

The final variable assembled for this thesis is Taiwanese firm level data. This data is used extensively in Chapter 5 which investigates firm agglomeration in the RIDP zones because of integrated business networks. As such the following new firm level data was assembled: **(1)** Geocoded location of Taiwanese firms across all the RIDP zones to firstly quantify the degree of agglomeration. **(2)** Secondly, the industrial sectors in which the Taiwanese cohort invested is categorised using the business almanac. Finally, **(3)** the chronological pattern of investment is examined to test for period specific increases of Taiwanese FDI to the RIDP zones.

[98] In contrast to the Asian population, African migration was transitory, travelling back and forth between urban centres and their rural homes in search of employment and higher wages. As such, these are excluded from the study.

The data employed in this section was sourced from declassified reports pertaining to the Board for the Decentralisation of Industry *(BDI)*, and is supplemented with the African Taiwanese Chamber of Commerce almanac *(ATCC)*.[99] These records capture the geographic location (telephone prefix), year of RIDP application and commencement, in addition to the industry sector. The variable used to test Taiwanese agglomeration is the total number of firms in all sectors and RIDP zones in 1992, which was the final year of the Good Hope RIDP incentive programme. By this year, 306 Taiwanese firms were operating across South Africa and its African homelands. The Taiwanese cohort represented approximately 10 % of all manufacturing firms (both international and domestic) operating under the revised RIDP regime. This is a meaningful sample, as the policy of decentralisation had been in place from the 1960s, while the Taiwanese cohort of firms established operations from 1979. Thus, in the space of 13 years, one in 10 firms operating in South Africa's decentralisation programme were of Taiwanese origin.[100]

(1) Taiwanese Agglomeration Data: The geocoded location of all Taiwanese firms are assembled to establish the degree of firm agglomeration. This variable is summarised in Figure 1.9 which shows the aggregate of all Taiwanese firms by development zone.

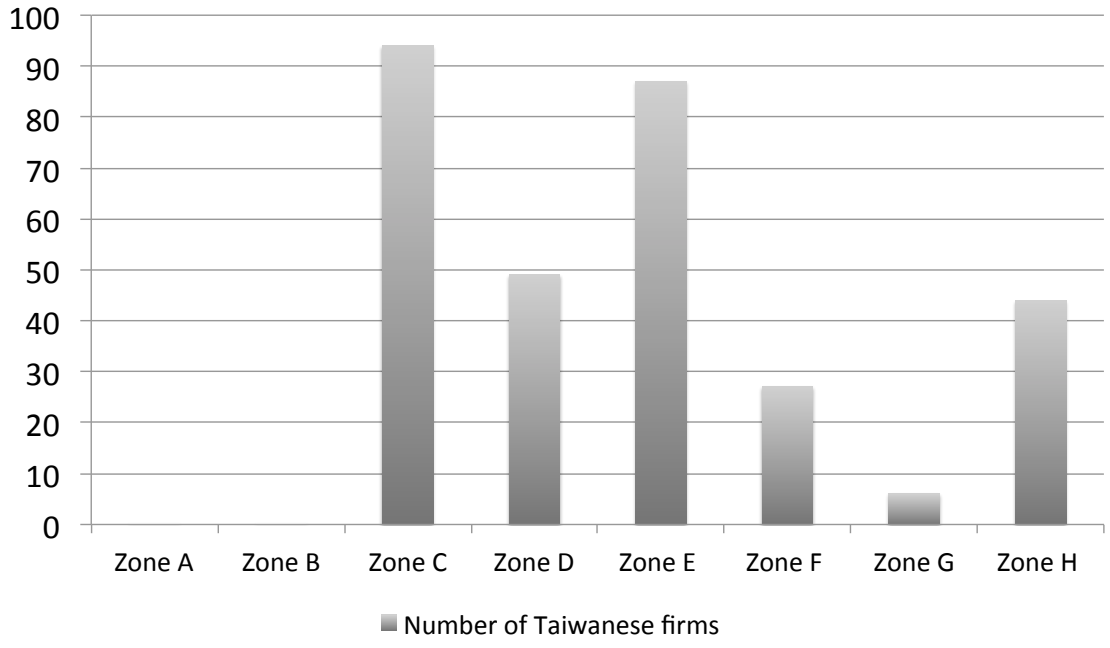


FIGURE 1.9: Aggregated Taiwanese firms by development Zone, (1992).
Note: Taiwanese firms operated in Zone A and Zone B, but ceased RIDP incentives in 1985.

Source: *ATCC & BDI archival sources as cited above, or see Appendix F, Table F.3.*

[99] ATCC annual reports for the year 1986, 1987, 1988, 1989, 1990. Provided by the Taiwanese Representative Office Archive, Hyde Park, Johannesburg, South Africa.
[100] Data Appendix F, Table F.3 summarises the zone distribution Taiwanese and domestic South African investment in 1992.

(2) Industrial Sector Data: Exploring the possibility of industrial complexes, the industrial sector variable measures the extent to which Taiwanese firms in the same industry or supporting industry's may have clustered in each of the RIDP zones. This variable is summarised in Figure 1.10 which shows the aggregated of all Taiwanese firms by industry type.

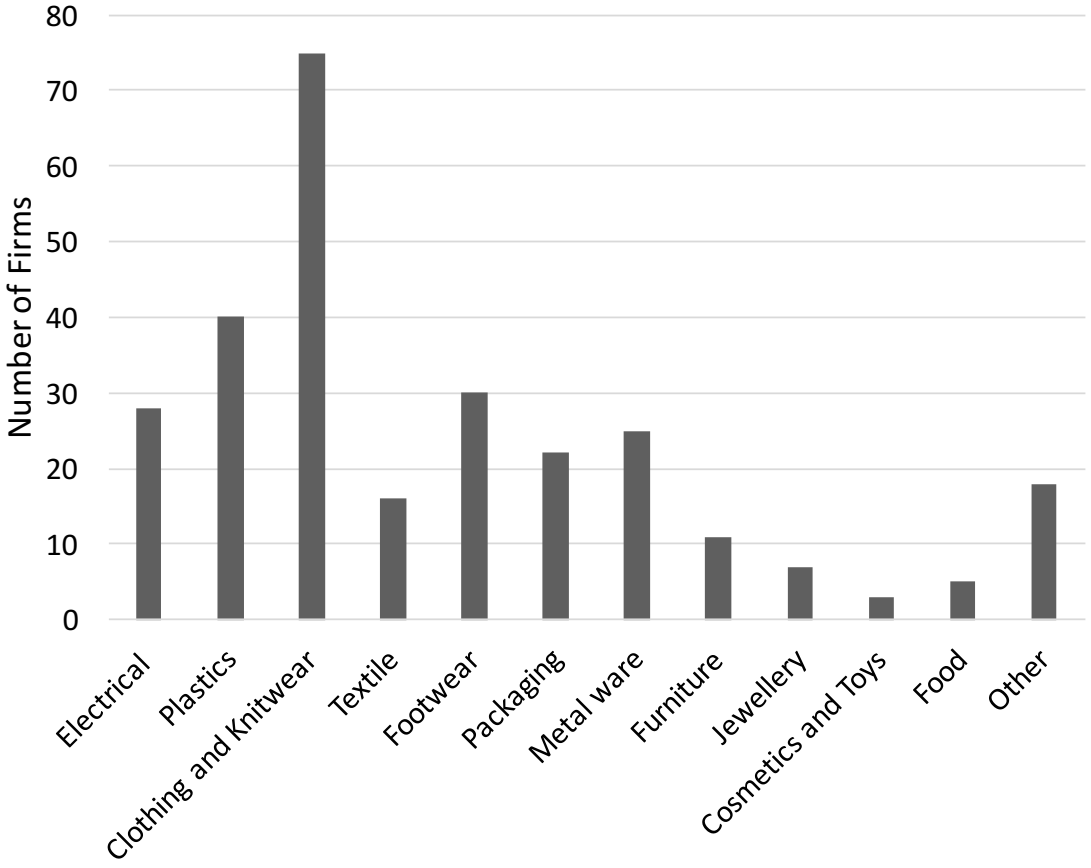


FIGURE 1.10: Summary of Taiwanese firms in South Africa by industry sector.

Source: *Board for the Decentralisation of Industry (BDI), National Archives, Pretoria, South Africa, TAB 9879/987. The African Taiwanese Chamber of Commerce almanac (ATCC), Taipei Liaison Office, (formerly the Taiwan Representative Embassy) Archive, Johannesburg, RSA.*

(3) Chronological Pattern of Investment Agglomeration: The chronological start date of each firm investment is assembled from the BDI investment application data. The purpose of this is two-fold. Firstly to quantify whether there were specific time periods of intensified Taiwanese firm formation. Secondly, to test whether zones in which Taiwanese firms invested first, then later attracted greater numbers of supporting Taiwanese firms. Thus the earlier Taiwanese firms (i.e. first- mover Taiwanese production networks) would have made it more attractive to relocate in subsequent periods, achieving a lasting competitive advantage. This self-reinforcing agglomeration effect may have important implications for the choice of RIDP zones around which Taiwanese investors later clustered. To investigate this proposition, Table 1.2 below demonstrates the chronological investment flow for each of the RIDP zones.

CHRONOLOGICAL INVESTMENT FLOWS

Development Zone	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Zone A	0	1	2	0	0	0	0	0	0	0	0	0	0	0
Cumulative	0	1	3	3	3	3	3	3	3	3	3	3	3	3
Zone B	0	0	0	2	0	2	0	2	3	3	2	0	0	0
Cumulative	0	0	0	2	2	4	4	6	9	12	14	14	14	14
Zone C	0	0	2	2	2	3	9	11	14	19	8	9	4	11
Cumulative	0	0	2	4	6	9	28	39	53	72	80	89	93	104
Zone D	1	0	1	9	4	4	4	8	7	5	3	1	1	1
Cumulative	1	1	2	11	15	19	23	31	38	53	56	57	58	59
Zone E	1	2	1	4	3	8	7	13	17	22	7	2	2	9
Cumulative	1	3	4	8	11	19	26	39	56	78	85	87	89	98
Zone F	1	2	0	1	2	1	0	6	6	4	2	1	0	1
Cumulative	1	3	3	4	6	7	7	13	19	23	25	26	26	27
Zone G	0	0	1	0	1	2	1	1	0	0	0	0	0	0
Cumulative	0	0	1	1	2	4	5	6	6	6	6	6	6	6
Zone H	6	6	7	2	2	1	1	1	4	10	2	1	0	1
Cumulative	6	12	19	21	23	24	25	26	30	40	42	43	43	44
TOTAL	**9**	**11**	**14**	**20**	**14**	**21**	**22**	**42**	**51**	**63**	**24**	**14**	**7**	**23**

TABLE 1.2: Number of Taiwanese firms beginning operation in each of the years 1979 - 1992 per RIDP Zone.

1.4 OUTLINE

This thesis consists of four closely linked, but self-contained chapters followed by concluding remarks. Following this ***Introduction (1)***, ***Chapter 2*** catalogues the origin and evolution of regional industrial development through three phases of growth, stagnation and decline of the apartheid economy. In my assessment of the financial costs and outcomes of industrial decentralisation, I demonstrate how the policies shaped apartheid economic geography, and evolved into special economic zones which then attracted Taiwanese investment.

In ***Chapter 3*** I examine the international relations of isolation and how this had an impact on each country's growth and investment during the late-apartheid period. By reassessing the political economy of Taiwanese - South African relations, I demonstrate that the alliance was not solely driven by diplomatic necessity, but by complementary shifts in the underlying structure of both economies. Challenging prior research, my findings suggest that Taiwanese investors may have had greater risk tolerance as measured by the class of assets held in South Africa. From this I conclude that implicit and explicit protection of property rights, contract enforcement and investment promotion may help account for greater investment inflows.

Chapter 4 quantifies the changes to South Africa's international trade flows during sanctions. The 1980s witnessed South Africa entering into a crisis as its traditional trade and capital partners withdrew, yet exports to Taiwan were growing. I argue that as a result of the industrial decentralisation programme, Taiwanese entrepreneurs increased trade by forming business networks and supply chains linking them to Asian markets. Known as the *migrant trade effect*, my analysis provides cogent evidence of how the migration may have altered the intensive (volume) and extensive (complexity) margins of trade.

Using an economic geography and business history approach ***Chapter 5*** assesses the spatial distribution and agglomeration of Taiwanese foreign direct investment in the homeland zones. Employing a location choice framework it examines the factors that may have contributed to Taiwanese manufacturing firms selecting specific homelands. Challenging prior research, I conclude that a variation in regional incentives and economic geography interacted with co-ethnicity to generate the agglomeration.

Chapter 6 concludes by highlighting the major findings, future research and contemporary significance of these apartheid case studies.

Chapter 2

FIELDS INTO FACTORIES

"Regional industrialisation [...] is the beginning of a scheme of social engineering of Russian proportions. It is designed to keep the population of the independent Black states anchored where they are [...]. It will depend on the decentralisation of industry to take the jobs to the people and not vice versa."[1]

Dr. Pieter (Piet) Koornhof,
Minister of Co-operation and Development,
1978 - 1984

2.1 INTRODUCTION

The rise in manufactured exports to Taiwan can be seen as part of a larger, internal reorganisation of the South African economy to decentralise and then attract foreign labour-intensive manufacturing to the black homelands. The creation of decentralised industrial zones evolved over 40 years into the Regional Industrial Decentralisation Programme (RIDP). Delving into these chronological changes will allow me to provide long-run context for the industrial policies and incentive used to "Push and Pull"[2] Taiwanese investment to specific homelands.

What has struck me, is how remarkable this period was for both the scale of the project to industrialise the homelands, but also the divisiveness under which it was implemented. To emphasise the transformation, the chapter title is derived from a 1975 apartheid-era advertisement that exclaimed how the rural areas were turned from "Veld [fields] into factories within two short years".[3] Demonstrating the extent of rural infrastructure construction, Figure 2.1 on the following page shows QwaQwa, a Sesotho homeland, where fields were turned into RIDP factories.

[1] South African Parliamentary Hansard, April 13th 1978, pg. 1785. Library of Parliament, Cape Town.

[2] Bell (1997, p. 14 - 15) explained that "financial incentives may have pushed the process of industrial dispersal" while "the attractive pull of low-wage sites" and infrastructure also had an impact on RIDP industries.

[3] Government RIDP almanac advertorial in Appendix B, Figure B.1

FIGURE 2.1: RIDP Zone at QwaQwa in Zone C, *circa* 1975. Standardised factories were built in a uniform layout within close proximity to large urbanising homeland townships with railways through the centre of the zone. e.g. See the town planning schematic in Appendix B, Figure B.4.

Source: *Free State Development Corporation, QwaQwa Archive, Puthadajchaba, South Africa.*

In this chapter I make three contributions: Principally I focus on the origin and evolution of decentralisation. Subdividing the programme into three distinct time periods allows me to examine new archival data on incentives, employment, wages and infrastructure from the programme's inception (1952) through to its termination (1992). In doing so, I demonstrate how industrial incentives, infrastructure and legislation were constantly revised as the programme encountered political and economic challenges. Because of data scarcity, this chapter is the first attempt to holistically quantify the financial costs, and estimate the employment outcomes of the decentralisation programme over the long run.[4] This allows me to demonstrate how the historical roots of decentralisation and the chronological changes were essential for Taiwanese foreign investment in the final phase (1979 - 1992), when political isolation spurred economic desperation.[5] As such, Taiwanese investment during the third and final phase of decentralisation cannot be observed in isolation of earlier planning and political policies employed to industrialise the homelands.

[4] Bell (1986, p. 277) examined the first twenty years of the RIDP noting "a remarkable paucity of comprehensive data on trends in the past quarter century".

[5] Jones (2002, p. 12 -14) used the term 'economic desperation' to summarise the 1980s.

Secondly, the chapter contributes to the historical debate on industrialising "Open Fields"[6] by revising earlier conclusions about the ideological motivation and demographic impact of decentralisation. The repercussions are still visible, and can be seen in the long-term persistent inequality of the homelands, which continues to affect the labour mobility of South Africa's population today.[7] Addressing South Africa's economic geography, it finally makes a policy contribution to the current use of growth poles. For example, Special Economic Zones, similar to those created by the decentralisation policies are being proposed as a solution to underdeveloped and former homeland areas. However, no contemporary research has examined the policies that established the original RIDP zones, how they changed during apartheid, or why Taiwanese firms dominated them in the 1980s.

2.1.1 Periodisation of Decentralisation

At the core of this chapter is a new periodisation of apartheid, in which I examine the different phases of the RIDP. From the 1950s, until the late 1970s, the apartheid state set about reconfiguring and partitioning South Africa.[8] Regional decentralisation of industry from urban centres to peripheral homelands was a key policy in the economic reconfiguration. As the opening Hansard quote succinctly summarises: regional development was designed to anchor the blacks and take industry to the homelands. By promoting the relocation of industrial plants to the homeland and border areas, the RIDP tried to separate black people and disperse industrial activity to maintain the economic and political status quo. The programme's intentions were thus to reduce African influx to white cities by creating wage labour employment in the homelands, once subsistence agriculture and migrant labour reached saturation.

To undertake this project of decentralisation, large industrial estates in isolated African homelands were systematically constructed.[9] Although they had an abundance of trapped, unskilled labour, these African homeland zones lacked any natural industrial agglomeration that would have attracted private investment. As political and economic conditions changed, so did the apartheid policies towards these zones. Three discrete phases of apartheid regional policies can be distilled from the industrial decentralisation historiography. Posel (2011) also noted that "the development of apartheid cannot be read teleologically [...] rather, apartheid evolved through three distinct phases, marked by successive efforts to manage its internal contradictions and the effects of external pressures."[10] These are traced out against the per capita GDP in Figure 2.2 and will be analysed in Section 2.4.

[6] Page (1966, p. 3) first wrote about this industrial transformation in the Transvaal bushveld.

[7] King and McCusker (2007) discuss the geographic costs, while Ramutsindela (2001, p. 175) examines the "bitter harvest" which "[...] left imprints that cannot be wished away."

[8] Louw (2004, p. 49) summarises the four key policies of racial partition as: (1) Self-governing Homelands, (2) Migration control, (3) Decentralisation, and (4) Urbanisation.

[9] Figure 2.1 was representative of the very large standardised industrial zones, starkly contrasted against the open bushveld savannah.

[10] Posel (2011, p. 320)

Using GDP as a representative proxy for the chronological progression of these 'contradictions and pressures', the graph highlights the industrial development programmes' links to the broader political economy and the business cycles of South Africa. The intensity and ambition of apartheid regional development can therefore be interpreted and linked to both internal and external factors which are summarised next.

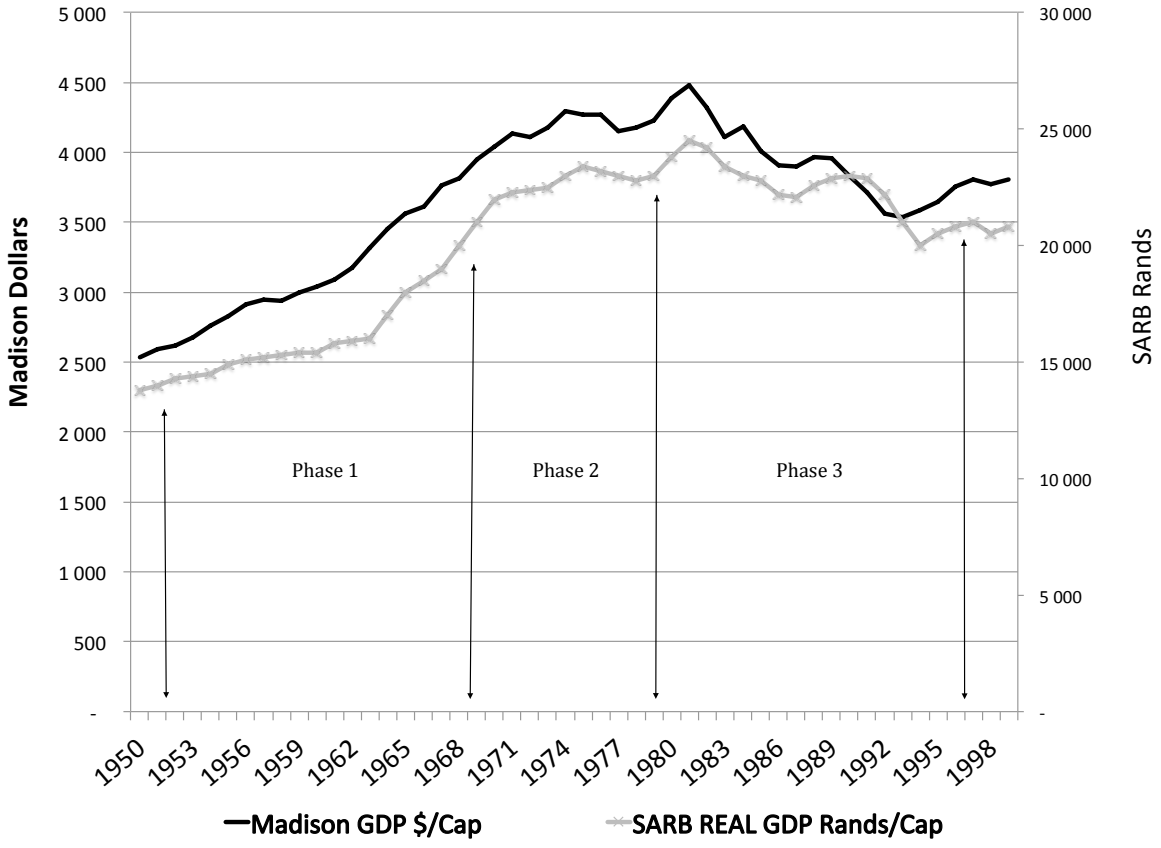


FIGURE 2.2: Three phases of the decentralisation programmes transposed over per capita GDP in 2000 Rands and Madison Dollars (1990 Int. GK$)

Source: *South African Reserve Bank, The Madison Project, and Seekings and Nattrass (2005).*

Phase one has been dubbed *'Grand Apartheid'*, which runs from 1952 until 1969 and was characterised by the formalisation of the homelands and grand schemes of apartheid social and spatial engineering. The second phase has been described as *'Benevolence and Growth'*, ending in 1979, discernible by more pragmatic policies during the upward industrial and mining output of the period.[11] The final phase has been labelled *'Desperation'*, and is a new interpretation enhancing the existing historical nomenclature. This period begins with the 1979 oil crisis, which is prolonged by United Nations sanctions during the 1980s. It finally ends in 1996 with the termination of the Regional Industrial Development Programme and political integration of the homelands.

[11] See Chapter 3, page 87 where I discuss the vacillation of mining output and gold price increases which offset external crises.

Examining the phases of industrial decentralisation, the following chapter is framed within four sections. Beginning with the late colonial period, Section 2.2 is a contextual overview of industrial and land use policies. Section 2.3 summarises the existing historiography and provides an overview of the archival sources. Section 2.4 presents an empirical analysis from the three periods of homeland industrial incentive policies. The chapter concludes with Section 2.5 which discusses the long-term outcomes of decentralisation.

2.2 HISTORICAL CONTEXT

The phases of industrial decentralisation are closely linked with South Africa's long-run economic history. While apartheid is often made the culprit when explaining an unequal distribution of economic activity, the colonial period created all the elements required for territorial separation, and its division came into sharp focus at the turn of the 20th century.[12] The starting point for this form of social engineering using spatial policies was the Lagden Commission.[13] This commission recommended the enactment of the Native Reserve Locations Act in the Cape (1902), The Native Locations Act in Natal (1904) and the Orange Free State Municipal Ordinance (1903). These acts were imposed before Union in 1910 as the government tightened urban segregation, giving "the native location [homeland] regular status on the South African landscape."[14] However, the most infamous legislative innovation of the new Union government was the Land Act of 1913.[15] The Act is placed in its historical importance with a quote from the black intellectual Sol Plaatje:

> *"[...] awakening on Friday morning, June 20th, 1913, the South African Native found himself, not actually a slave, but a pariah in the land of his birth."*[16]

The 1913 Land Act is widely held as the catalyst for racial segregation in the towns and native reserves of South Africa, and therefore fundamental to the policy analysis of regional development during apartheid. It designated exclusive usage to white Europeans, while the systematic imposition of influx controls was deployed to administer the numbers of black Africans in the cities. By preventing natural migration, the native reserves swelled beyond their capacity for agricultural subsistence provoking politicians into tighter controls or reforms to the Land Act.[17]

[12] Parliament of South Africa (2013, p. 2) explains how colonial policies were the cornerstone.
[13] Freund (2011, p. 241)
[14] Davenport (1991, p. 2) notes that this commission formalised the African reserves before apartheid.
[15] Prohibiting Africans from buying or hiring land in 93 % of South Africa.
[16] Solomon Tshekisho Plaatje, (9 October 1876 -19 June 1932). Cited in Tatz (1962)
[17] Butler, Rotberg and Adams (1977, p. 122)

Growing urbanisation and industrial concentration required a solution following World War II. On the eve of the Nationalists coming to power in 1948, another government commission, the Fagan Commission, found that "large-scale urbanisation of black South Africans was an irreversible social phenomenon."[18] This conclusion was however contested by the National Party in the subsequent Sauer Commission which favoured even stricter segregation laws. Prime Minister D.F. Malan maintained that territorial and racial segregation was necessary, and this resulted in the policies of Grand Apartheid.

However, population growth and declining homeland agriculture meant that the government needed to find alternative means of employment for Africans in the homelands if policies of segregation were to be sustained. This would involve the "comprehensive reorganisation of rural society [homelands], [...] significant reductions of stock, the fencing of lands [...] and concentrated settlements."[19] As discussed in Chapter 1, the Group Areas Act would be the legislative tool to bring about this reorganisation.

An important tenet of the new African resettlement policies was the proposal to shift industry from the metropolitan areas to locations on the urban periphery, or to less developed regions, using industrial decentralisation. This task was approached from two angles, through both push-and-pull factors which changed over time. The first was to restructure the existing urban labour market in accordance with an "urban labour preference principle."[20] These formed the *Push Factors* that restricted urban employers' access to black labour recruited from rural areas, giving preference to an existing 'detribalised' urban African population, which could not be relocated to the homelands.[21] The second measure involved creating growth poles by means of industrial decentralisation and deconcentration zones.[22] The *Pull Factors* included broad- ranging incentives to ameliorate for the lack of agglomeration and localisation economies by attracting industries to the homelands.

These Push-and-Pull policies, then combined with rigid labour mobility laws, created a unique spatial distribution, trapping much of the African population behind economically artificial homeland borders. To demonstrate this, the demographic map in Figure 6.1 on page 186 shows population density within the former homeland borders in 2001. As a result of colonial, post-colonial and apartheid-era economic geography, spatial inequality persists in South Africa, and can be better understood through the historical analysis of decentralisation with the long-term consequences discussed in Chapter 6.

[18] Suzman (1948, p. 18). Cited in a digest of the native laws (Fagan) Commission.
[19] Verwoerd cited in Nugent (2012, p. 135)
[20] Dubow (2000, p. 128 - 129)
[21] By limiting African recruitment, the Physical Planning and Utilisation of Resources Act (1967) limited employment access in certain industries and areas.
[22] The latter were located within homelands or their border areas, while the former were located on the urban or industrial periphery, representing a compromise between business and government.

2.3 LITERATURE & ARCHIVAL DATA

The historiography of industrial decentralisation in South Africa reflects wider disagreements about apartheid-era policies. The policy's importance to the apartheid project was well documented,[23] with both scholars and politicians broadly agreeing that it was intended to increase the proportion of Africans resident in the homeland areas.[24] Yet divisions within both groups meant that there has been little agreement on the outcomes or the consequences.[25] This has resulted in a large, but fragmented body of literature, making the forthcoming review challenging.

On the one hand this was due to the political climate influencing the research agenda. Posel (2011) explains that "the historiography of apartheid has tended to be rather more insular and inward-looking in the past, particularly in the thick of the anti-apartheid struggle, when the specificities of the South African experience dominated both the analytical and the political agenda of debate."[26] This was compounded by limitations in the available archival evidence, especially evident during the later phases of political isolation and sanctions. During my research I encountered, and overcame, similar data challenges which were discussed in the data section (1.3.1) of Chapter 1. Trevor Bell (1986) also notes this obstacle, commenting, "there has been a remarkable paucity of comprehensive data on these trends [...] which are essential to our understanding of the decentralisation policies."[27] For example, records in the national archives were often restricted by closed period files or incomplete data series. This required application for special-access permission previously not available to scholars, and then a triangulation of multiple sources to verify the accuracy of data, which had often been exaggerated by apartheid propaganda. As such, the new data series which I've assembled for this chapter contributes to both the historical consequences of separate development, and also to the current debates on industrial policy and special economic zones.

Before beginning with the chronological analysis, the existing literature and archival sources are briefly summarised. Broadly grouped, the first category of scholarship pertained to the wider political rationale of decentralisation within the context of apartheid statecraft and was mostly critical of "the state as drivers of large-scale social and economic change."[28] Best (1971) notes how "South Africa [...] combined many of the elements of regional planning of Britain and Russia, but [was] done so within a framework of separate development [apartheid]."[29]

[23] Louw (2004, p. 49) notes that it was a central pillar in partitioning South Africa.

[24] Dr Simon Brand (former Economic Adviser to the Prime Minister) demonstrates this political and academic agreement, stating in an interview with Zille (1983, p. 175): *"[the purpose of decentralisation was to] give sufficient economic content to the policy of homeland development so that the governments which are created are not simply fictitious governments, but that they have an economic base to create their own sources of tax revenue".*

[25] Reference to the *Liberal vs. Radical* debates on apartheid in Chapter 1 on page 11.

[26] Posel (2011, p. 319)

[27] Bell (1986, p. 276)

[28] Posel (2011, p. 330)

[29] Best (1971, p. 329)

The second body of literature is more applicable and was thematically focused. These studies examined specific policy applications, regions or industries. However a weakness was that they rarely intersected between the three time periods of the programme. The earliest empirical studies on the industrial rationale began with Houghton (1956) who summarised the Tomlinson Commission's findings. In a follow-up analysis, Houghton (1972) then questioned how *Grand Apartheid's* "idealism versus the economic reality would unfold in an effort to industrialise the homelands."[30] Bell (1973*a*), the most prolific of the decentralisation scholars, picked up from Houghton with his treatise titled "Industrial Decentralisation in South Africa" that examined the outcomes from the 1955 - 1970 period. This work providing the only in-depth account, using industrial census data during the earlier parts of the second phase of *Growth and Benevolence*. Wellings and Black (1986*a*,*b*) deal with the later parts of the decentralisation programme in more general terms. Their chronological and geographic surveys both agreed that the policy was an overall failure during the final *Desperation* phase. However there was little consensus on industrial decentralisation, and the empirical outcomes were widely contested. In fact Bell (1986) later became an advocate of the policy, arguing that Wellings and Black "displays a curious ambivalence on the central issue of whether [...] a spontaneous tendency towards a geographical decentralisation of industry in South Africa, [...] was a result of international competitiveness."[31] At the close of apartheid Addleson, Pretorius and Tomlinson (1985) concluded that "industrial decentralisation policy may have had serious economic consequences [...] but may nevertheless have a continued role to play in the ongoing political development of the country."[32]

The 1990s witnessed a trend toward regionally based field research to establish the effects of decentralisation. Black (1990) critiques decentralisation in the Ciskei; Luiz and Waal (1997) use case studies from Brits and Nkowankowa; while Phalatse (2000) examines Mogwase in the North West province of South Africa. However Scott (2003) has disputed these prior analyses and called for a "re-examination of the growth and development of South Africa through an engagement with international theoretical debates."[33] She explained that decentralisation had been dominated by ideological apartheid discourse "where race is applied as the key explanatory variable."[34] A possible cause for this was the political climate at the start of democracy, but also a lack of available archival data pertaining to the RIDP. Rare exceptions were Fairhurst and Phalatse (1999) or Hart and Todes (1997) who critiqued the "neo-liberal collusions of

[30] Houghton (1972, p. 2)
[31] Bell (1986, p. 1291)
[32] Addleson, Pretorius and Tomlinson (1985, p. 37)
[33] Scott (2003, p. 235)
[34] Scott (2003, p. 236)

[RIDP] failure as unfounded"[35], making an important contribution after the programme ended. Nevertheless, it is surprising how limited the archival evidence on the extent and effectiveness of the incentives has been in prior scholarship. A further cause for the scarcity was political sanctions and data secrecy.[36] This was especially apparent during the late 1970s and early 1980s, which Bell (1986) notes, "resulted in an introspective analysis of decentralisation"[37]. As such, the following chronological analysis is a new contribution to the historiography of apartheid.

2.4 CHRONOLOGICAL ANALYSIS

The chronological analysis begins in 1948 when South Africa officially ushered in the political period of apartheid under a Nationalist Government. As political and economic conditions changed, so did the decentralisation policies. Addressing the data challenges and literature shortfalls, the next section disentangles the racial, industrial and policy complexities over the full 40 years of the programme.

2.4.1 PHASE 1: Grand Apartheid (1948 - 1969)

Distinctive to the 1950s and 1960s, the term *Grand Apartheid* became synonymous with nationalist ambitions, such as the removal of African people from white areas and the creation of African homelands. Posel (2011) notes how from the beginning, the project was "animated by a hankering for rigorous and uncompromising social, economic and political order, which entailed a process of institutional refashioning."[38] Given the ambitious objective of the first Nationalist period, the following section examines the initial intentions and subsequent outcomes from the first phase of decentralisation. Grand Apartheid is thus the stylised title attributed to the period but also a form of comprehensive racial segregation which accompanied industrial decentralisation.

The Origin of Decentralisation

The first phase of decentralisation had a substantive, long-lasting effect on South Africa's economic structures. It is therefore necessary to examine the political ethos of the period, and also the individuals who conceived of the initial programme.[39] The first decentralisation programme revealed the new government's obsession with "commission

[35] Hart and Todes (1997, p. 33) conducted field research in KwaZulu Natal, while Fairhurst and Phalatse (1999) did the same in Ga-Rankuwa, in the former homeland of Bophuthatswana.

[36] Pickles and Woods (1989) and Rogerson (1987) have highlighted this in their work. They use this fact to explain how "Taiwanese investment in South Africa during the late apartheid period was veiled in secrecy, resulting in a paucity of data and research."

[37] Bell (1986, p. 176)

[38] Posel (2011, p. 346)

[39] It created the homeland industrial policy, while subsequent phases cemented the path dependent spatial distribution over the course of 40 years.

expertise".[40] For example D.F. Malan, the first nationalist Prime Minister established 17 special commissions when first coming to office.[41]

In 1950, the government appointed the largest of the commissions by sheer volume of archival documents, named 'The Commission for the Socio-Economic Development of the Bantu Areas within the Union of South Africa'.[42] Eponymously referred to as the Tomlinson Commission after its Chairman, Professor F.R. Tomlinson, who was a Stellenbosch agricultural economist, and an acquaintance of D.F. Malan.[43] Tomlinson and Malan had briefly known each other when attending Stellenbosch University, however Tomlinson went on to complete his PhD at Cornell (1933) in the United States. It was here that his vision of "grand planning through modern demographics and statistics was influenced by the Great Depression and subsequent New Deal programmes from 1933 - 1935".[44] Tomlinson, when approached by the newly elected National Party, eagerly accepted the appointment and proposed permanent members to the commission.[45] In a letter to his department, he proudly advertised that he was to conduct "the most comprehensive factual survey ever undertaken on rural conditions, farming systems and practices and financial results in these resource-poor and densely populated areas of South Africa."[46] It is this initial "factual survey" that the Nationalists would exploit, justifying the economic creation of homelands based on industrial decentralisation.

Tomlinson had an ambitious, yet pragmatic approach, and believed that only with substantial investments in schools, irrigation, agriculture and hospitals would the industrialisation of the homelands be possible.[47] As such, the nominations for the committee reflected both his scientific and ideological desire.[48] These objectives appear to be tightly intertwined when the resumés and portfolios of the nominees are examined in detail. The panel consisted of five carefully selected academics, albeit with a significant complement of state functionaries.[49]

Three of the men held professorships at Stellenbosch University and were closely affiliated

[40] Nattrass and Seekings (2011, p. 526) explained how "the obsession with expertise extended to the appointment of commissions of enquiry into economic matters (as the British state had long been doing)."

[41] National Archive Catalogue, Pretoria, RSA.

[42] National Archive Catalogue, Pretoria, RSA. Records contain approximately 27,000 artefacts.

[43] An image of Tomlinson can still be seen hanging at the University of Pretoria and is shown in Appendix B, Figure B.2. Koorts (2014, p. 118).

[44] Lyne (2014, p. 2) considered Tomlinson as the father of agricultural economics in South Africa.

[45] Letter cited in Pretorius (1986, p. 37)

[46] Excerpted from Tomlinson, Frederick Rothman. *"Die denke agter die verslag van die Tomlinson kommissie."* Acta Academica, Series B, no. 12 (1979): 5-13.

[47] This was revealed by Harter (2012, p. 38) who details private conversations in his biography.

[48] Tomlinson 1979, 6; DT 25/11/50 cited in Pretorius (1986, p. 13).

[49] Pretorius (1986, p. 25) explains how a twenty-member panel was selected, of which only five academics were permanent appointees.

with the South African Bureau for Racial Affairs (SABRA), an initiative of the Afrikaner-Broederbond[50] formed to provide an alternative to the liberal South African Institute of Race Relations (SAIRR). During the 1950s, SABRA had an influential impact on the development of National Party policy of which the Tomlinson Commission was its largest undertaking.[51]

Of specific interest was C.H. Badenhorst, selected to enumerate the mission stations under the broad ambit of education and health. The wide-ranging enumeration of missionary education and missionary competence was central to the Commission's concept of "a Christian coalition of paternal elites."[52] Badenhorst was a fervent supporter of missions and the deployment of mission institutions for the development of the African homelands.[53] Tomlinson himself was convinced that Afrikaners were "in Africa for God's purpose. [...] that we have important missionary work to do."[54] Badenhorst later recalled, "I saw the Commission Report as part of my work, as part of my Christian duty."[55] From the commission report, it is interesting to note the the vast underpinning of missionary institutions within the homelands.[56] For example, the commission recorded 13,655 missionaries teaching in 2,499 homeland schools. However, the Bantu Education Act (1953) severely undermined the provision of education.[57] This may have come as a warning to Tomlinson, that his grand plan for the homelands would be compromised for ideological reasons.[58]

Charged with an agricultural census was F.X. Laubscher, a renowned agronomist and geneticist.[59] With a high profile career in the Nationalist Government, Laubscher was also responsible for the maize board, and was also a pivotal researcher in designing the statistical data methods of African agriculture.[60] The third influential member of the Commission was J.H. Bisschop, a veterinary specialist who in 1936 was appointed as Professor of Zootechnics at Onderstepoort, a leading institute, known for tropical disease research. Involved in many advisory activities, including secondments to Swaziland, Kenya, Uganda and Bechuanaland (Botswana), Bisschop was selected for his experience in "Black Africa and skills in assessing the disease burden and carrying capacity of

[50] Afrikaner Calvinist organisation dedicated to the advancement of Afrikaner interests.
[51] Pretorius (1986, p. 13)
[52] Elphick (2012, p. 121) uses this term to describe the religious ideology of the committee.
[53] Pretorius (1986, p. 27)
[54] Pretorius (1986, p. 28)
[55] Elphick (2012, p. 304)
[56] For sheer interest, these are highlighted in Appendix B, Table B.2
[57] Christopher (1994: 150) explains that funding and administration of 'Native' education was transferred from mission schools to the state since the missions were "fostering ideas, such as equality, which could not be encouraged".
[58] Beinart (1994, p. 156) noted that in Nationalist eyes, mission schools had an academic training with too much emphasis on English and "dangerous liberal ideas".
[59] He held a doctoral degree in agriculture and later agricultural genetics from Stellenbosch. (Click here for online access to reference source.)
[60] Tomlinson (1979, p. 3)

pastoral lands within the Bantustans."[61] Importantly for the international recognition of the Commission, he was a world recognised expert on the indigenous cattle breeds of Africa and their resistance to tropical diseases. The final academic assignment was given to J.H. Moolman who would become the Chairman of the South African Geographical Journal, and later the president of the Soil Science Society of South Africa. The final report presented in 1954, covered 18 volumes over 51 chapters. Comprising 3755 pages, it was the origin for all future industrial decentralisation in South Africa.

The Grand Plan

Although not adopted in its entirety, the Tomlinson Commission created the framework for regional industrial policy that would come to shape the apartheid incentive hierarchy between private capital and homeland industrialisation. Broadly framed, the commission was composed of five parts, which are summarised in the Appendix B Figure B.3. For the purpose of this chapter I will focus on *Part 3: The Recommendations*, which summarised the findings.

The first recommendation stated, "[that] the people of South Africa will have to make a clear and definite choice between the alternatives of the complete integration or their separate development." Regrettably the report found "that [the] middle course is unlikely to be satisfactory" referring to industrial integration and suggested after "careful consideration [...] separate development be adopted [...] as the only possible solution."[62] This recommendation set the policy agenda for industrial decentralisation as opposed to natural migration and industrial agglomeration in urban areas at the core.

The second recommendation was a development strategy for the homelands by means of "a fully diversified economy promising primary, secondary and tertiary economic activities." The industrial incentives aimed at achieving this included the formation of a "true Bantu farming class [...] large enough to ensure a fair living from the land." The post facto development method proposed in the fourth recommendation came to represent industrial decentralisation by "removing those who cannot obtain subsistence on the land into a true urban population." This final recommendation was intended to create "large-scale urban developments [...] on sound economic foundations [...] to absorb both surplus agricultural population within the Bantu areas and a part of the natural increase domiciled in the European areas."[63]

The commission proposed "a grand project, of which no other independent African country has undertaken".[64] It required tremendous capital from both the state and privately directed industrial investments. The commission forecasted "costs of £ 104,000,000,

[61] National Department of Agriculture. (Click here for online access to reference source.)
[62] Commission for the Socio-Economic Development of the Bantu Areas (1955, p. 120)
[63] Commission for the Socio-Economic Development of the Bantu Areas (1955, p. 125)
[64] Tomlinson (1979, p. 3)

of which £ 55,000,000 is of a private nature and £ 49,000,000 is of a social-economic nature."[65] Because of the scale, Tomlinson had proposed the investments be rolled out over 12 years. However, the nationalist government "rejected the [proposed] white capital and control within Bantu areas, and adopted instead the policy of industrialisation at selected white areas that strategically bordered the homelands."[66] The programme fell far short, receiving only £ 48,000,000, or an equivalent R 79,735,000 of the £ 104,000,000, none of which came from the private the sector.[67] A financial analysis is summarised in Table 2.1 from annual Permanent Committee reports. The financial shortfall had a long-lasting impact, which is explored next.

STATE ASSISTANCE TO INDUSTRIES AND LOCAL AUTHORITIES (1960 – 1968)

	1960 - 1968 Converted into Rands	**1968** Converted into Rands
Financial Assistance [a]	66,000,000	14,900,000
Tax Concessions [b]	9,300,000	4,200,000
House Facilities	3,000,000	726,000
Assistance to Local Authorities [c]	420,000	35,000
Transport Rebates	1,015,000	256,000
Total	**79,735,00**	**20,017,00**

[a] Loans, share capital and factory building

[b] Excludes concessions for white housing

[c] Provision of essential railway facilities in industrial sites

TABLE 2.1: Financial consolidation of state assistance to individual industries and local authorities in the homelands (1960 - 1968).

Source: *Permanent Committee for the Location of Industry (1969, p. 4 - 6). The National Archive, Pretoria, RSA, TAB 62657 - ZA87.*

Tomlinson appeared to have been deeply offended by the lack of implementation. This was not entirely unexpected as the recommendations created ideological dissent amongst the commission members and Nationalist party loyalists.[68] Surprisingly Tomlinson revealed to John Harter, a former CIA agent and US diplomat to Pretoria, that Africans could

[65] Commission for the Socio-Economic Development of the Bantu Areas (1955, p. 129)

[66] Government of South Africa: Decisions on the Socio-Economic Development of the Bantu Areas within the Union of South Africa (1956, p. 154)

[67] South Africa decimalised from Pounds into Rands in 1961 and hence previous estimates had been calculated in Pounds. Two Rand = 1 Pound 10 shillings.

[68] Lazar (1960) cited in Elphick (2012, p. 319) found antagonism between the visionaries [Tomlinson Commission] and the Verwoerdians [Nationalist Party members in favour of total apartheid] was endemic. Evans (1997, p. 239) noted that "Verwoerd intensely disliked Tomlinson."

never be completely removed from urban areas. He explained that the South African government couldn't tax its voters sufficiently to justify the costs of implementing the full plan.[69]

When allocating the development funding to industries applying for relocation, the programme appeared to "have limited concern or desire of private capital."[70] The homeland poles were selected for political reasons, on the basis for their African labour potential in "the immediate vicinity and also the prospect of attracting industrialists with due regard to the economic and social aspects."[71] Bell (1973*b*) explains this outcome, noting that the "primary objective of government policy in South Africa is to increase the proportion of the African population resident in the Bantu areas."[72]

An analysis of annual financial reports from the Permanent Committee for the Location of Industry (1969) shows how the majority of deployed funds (R 49,298,000) found their way to new peri-urban peripheral areas (i.e. later called de-concentration points) with significant funding directed to the expansion of state-owned monopolies.[73] As such, manufacturing organically grew alongside large state monopoly industries and not the rural homeland zones. A later Permanent Committee report in 1971 used this rapid growth to justify the the lack of homeland investment.

> *"[...] growth was concentrated in manufacturing and therefore benefited from state spending in peripheral towns such as Vereeniging. Why would we then direct our financial assistance to the homelands where capital returns would be lower?"*[74]

Noting this weakness, Bell (1973*a*) concluded that this had had an impact on the programme's effectiveness by crowding out private capital destined for the homelands. This was also evident in the Permanent Committee reports, which detailed how the state was subsidising large industries such as ESKOM, the electricity monopoly and synthetic fuel and chemical producer SASOL rather than new industries in the homelands.[75] As such, the African private sector never received any of the financial assistance subsidies budgeted for the homelands. Interestingly, the Permanent Committee for the Location of Industry (1969) showed dissatisfaction with the lack of investment, explaining how

[69] Harter (2012, p. 38 - 39) noted "the costs would be humongous!" and "Parliament only approved one-twentieth of the minimum investment Tomlinson deemed necessary to accomplish that end."
[70] Bell (1973*b*, p. 187)
[71] Government of South Africa: Decisions on the Socio-Economic Development of the Bantu Areas within the Union of South Africa (1956, p. 176)
[72] Bell (1973*b*, p. 188)
[73] Permanent Committee for the Location of Industry (1969, p. 7)
[74] Permanent Committee for the Location of Industry (1971, p. 11). The National Archive, Pretoria, RSA, TAB 62657 - ZA87.
[75] Nattrass and Seekings (2011, p. 546) also note that "generous investment subsidies and tax breaks and [...] State investment in large-scale capital-intensive projects such as the South African Coal, Oil and Gas Corporation (SASOL) energy parastatal exacerbated this trend."

private enterprises received only 30 % or £ 16 million of the designated financial aid for "rural development while the state monopolies received £ 32 million in 1968."[76]

Paradoxically, a challenge in implementing the Tomlinson programme appears to have been rapid economic growth in the 1960s. As a result, African employment rose by 75% between 1958 and 1968. This negated the government's urgent need for homeland development as urban remittances rose, which in turn supported a decline in homeland subsistence agriculture.[77] South Africa's economy (Figure 2.2) had been growing by more than 5 % a year during this phase. Private capital to the homeland zones was deterred by any financial or operational need to decentralise in pursuit of lower costs, subsidies or labour. Instead, manufacturing had been shielded by import protection, which compounded the problems of the Tomlinson programme. For example, Best (1971) explained that a doubling of foreign direct investment through the 1960s was partly to blame for the lack of homeland investment.[78]

As such, the rapid growth in the 1960s had an unintended consequence. This came in the form of "much-feared black influx displaced to huge African dormitory towns near the historical urban centres".[79] The influx from African homelands was the primary socio-political concern which the RIDP was designed to prevent.[80]

Bell (1973*a*) notes that this was an inevitable symptom with little industrial growth in the homelands, and compounded by slowing economic growth in the latter parts of the 1960s. Addressing this rising trend, the first hint of apprehension became perceptible in 1969 when the government allowed white industrialists the first opportunity to move directly into the homelands on an agency basis.[81] This was against the recommendations of the Tomlinson Commission which contested that only African industrialists, in conjunction with homeland development boards be allowed to operate in the homelands.[82] This however did not materialise, and homeland investors had lacked financial support or the foreign investment seen in the Republic. Even after the Economic Development Board and The Bantu Investment Corporation (BIC) were established in 1959, little financial assistance was available for the homelands. In 1960, the BIC was limited to R 1 million in share capital.[83] Furthermore, the functions of the BIC were initially restricted to

[76] Permanent Committee for the Location of Industry (1969, p. 376)

[77] Nattrass, May and Peters (1987, p.245) note that circulating rural-urban migration has both positive and negative effects. A direct increase in living standards resulted from remittances in cash by the migrants, however agricultural output fell at a critical moment.

[78] Best (1971, p. 343) explains that the "geographer will find the analysis of these and future patterns [of decentralisation] particularly difficult since the government is the principal factor affecting the extent of investment."

[79] Lodge (2011, p. 411)

[80] Sauer Commission (1948) upon which decentralisation was originally proposed stated that "migration into and from the cities should be controlled by the state which will enlist the cooperation of municipal bodies."

[81] In a publication by the Bantu Investment Corporation (1975, p. 5), the directors acknowledged a shortage of capital invested in the homeland zones and that in the initial plan, Tomlinson had granted permission to white industrialists.

[82] Commission for the Socio-Economic Development of the Bantu Areas (1955, p. 125)

[83] Bantu Investment Corporation (1975, p. 5)

"financial assistance to African entrepreneurs and to the mobilisation of capital".[84] Best (1971) noted that this policy had been discredited by the state planners. Following this, from 1969 white entrepreneurs were permitted to "assist in the development of national states by erecting factories at selected growth points."[85]

A financial analysis of the Economic Development Board and The Bantu Investment Corporation supports the claim by Best (1971), recording how these state bodies began administering financial and regulatory concessions granted to white industrialists.[86] Bantu Investment Corporation (1975) archives show that a "total 127 factories at a cost of more than R59 million had been established on an agency basis. Of this, R30 million was contributed by the private sector."[87] This coincided with increased capitalisation of both organisations, further demonstrating a sense of homeland urgency, and it also represented the transition to the second phase of decentralisation policy.

Outcomes from Phase 1

The results from the first concerted phase of industrial decentralisation are difficult to measure in aggregate terms. Records from the financing agencies listed above suggest that during this phase decentralisation created 107,404 permanent jobs in which 85,554 Bantu and 11,203 Asiatic or Coloureds were permanently employed.[88] Subsequent analysis from new archival records provides further evidence of the volume and scope of the early decentralisation schemes. In 1969, the Permanent Committee for the Location of Industry recorded that the number of industries was approximately 769 within the African homelands.[89] Lodge (2011) noted how most of these small-scale entrepreneurs had no government assistance and employed only 76,000 African labourers.

However of significance is the expansion from a low industrial employment base. The Permanent Committee minutes and archival records reflect a slow but upward trajectory in employment levels to 117,000 by 1968.[90] This represented an annual increase of 5,400 additional unskilled employment opportunities per year. This was well below Tomlinson's projected growth rate of 9,000 unskilled jobs needed to absorb the population growth in the homelands.[91] In response, Simon S. Brand, the Economic Adviser to the Prime Minister, defended the government's position, explaining that "the performance of the

[84] Bantu Investment Corporation (1975, p. 5)
[85] Bantu Investment Corporation (1975, p. 5)
[86] Bantu Investment Corporation (1975, p. 5) notes that share capital of the BIC and development boards was increased from R1 million in 1960 to R32.5 million in 1970 and finally R123 million in 1974 demonstrating a swift, desperate change in policy.
[87] Bantu Investment Corporation (1975, p. 6)
[88] Bantu Investment Corporation (1975, p. 11)
[89] Permanent Committee for the Location of Industry (1969, p. 74)
[90] Permanent Committee for the Location of Industry (1969, p. 76)
[91] Commission for the Socio-Economic Development of the Bantu Areas (1955, p. 112). An important caveat to these totals is that they only captured the results from four growth points.

decentralisation policy during the 1960s was clearly a disappointing one, even if ample allowance is made for such teething problems as inevitable delays in providing the physical infrastructure, [...] and the understandable reluctance of most industrialists to pioneer such a new concept as decentralisation. [...] Without wishing to indulge in wishful thinking, there would appear to be some reason to expect the decentralisation policy to have a more significant impact in the 1970s than in the 1960s. "[92] Whether this was to be believed is examined in the next phase.

In summary, Phase 1 of the decentralisation project resulted in very little industrial growth or employment within the homelands. This was because of a number of factors, but principally a dislike for the policies, and growth in the economy making the incentives undesirable. Yet, on the eve of 1970, the growth pole programme was expanded to the remainder of the country and the decentralisation base extended from four to a further twenty-three locations with the expansion of infrastructure.[93] The impact of this will be examined next.

2.4.2 PHASE 2: Growth and Benevolence (1970 - 1979)

The period of *Growth and Benevolence* sees "a somewhat more pragmatic and cautious approach to racial social and economic engineering."[94] To this end, the Bantu Investment Corporation explained how the 1970s was a challenging decade for industrial decentralisation, introducing "coercive legislation in several ways besides relocation incentives."[95]A change in tone from the Board of Decentralisation hints at how a "structural revision of the state's involvement in the process of decentralisation needs to evolve from grandiose schemes to the reality of business needs and political necessity."[96] However an archival report in the national accounts of the Bantu Homeland Development Corporation summarises the nexus of challenges faced by the government in the 1970s.

> *"Eleven million of the fifteen million Africans resided in homelands, while the urbanisation of African dormitory towns on the industrial periphery continued unabated."*[97]

This rapid influx was counter to the primary intentions of the decentralisation programme, but were overlooked due to the economic growth experienced in the previous decade.[98]

[92] S.S. Brand cited in Bell (1973*a*, p. 218)
[93] Board for the Decentralisation of Industry, Annual Reports (1971). National Archive, Pretoria, RSA. TAB - 8769N.
[94] Posel (2011, p. 320)
[95] Bantu Investment Corporation (1975, p. 11)
[96] Introductory remarks from the Chairman of the BDI, 1971. National Archives, Pretoria, RSA.
[97] South African Bureau of Statistics (1969, p. xxi)
[98] See Appendix B, Table B.1 which shows the African Homeland and Urban Population trend.

Forced industrial decentralisation could not be mandatory without threatening urban manufacturing firms whose output had risen to 24 % of GDP.[99]

Following the strong manufacturing growth in the first period of decentralisation (1955 - 1969), symptoms of significant cyclical and structural weaknesses appeared.[100] From the 1970s there was a "drastic deterioration in [economic] performance."[101] These are discussed in Chapter 3 on page 86, but of specific relevance was an appreciable slowing of new foreign investments. Only 15 % of foreign investments were directed towards mining by the early 1970s. Other sectors, such as manufacturing or financial and business services, increased their share, and received 40 % and 25 % of the FDI stock respectively.[102] This had implications for the oscillating migration patterns which had evolved around growing mineral output. Mining was the main source of migrant employment for homeland residents, however urban Africans increasingly undertook relatively skilled work. Urban manufacturers were demanding more skilled African labourers than could be supplied by the existing dormitory system without an increase in decentralisation.[103]

However, during Phase 1 the main policy lever was a system of incentives to pull industries towards various declared growth points. With the failure to stem African urban influx, we observe the introduction of coercive, "push"-styled employment legislation. Maasdorp (1990) notes how "a stick was added to the carrot, when in 1968 the Physical Planning and Utilisation of Resources Act was passed."[104] This coercive legislation forced industries to decentralise by limiting manufacturing firms from expanding their operations in the existing urban industrial core, in the hope of driving future expansion to the homeland periphery. Section III of the Physical Planning Act reduced the "allowable Bantu-White ratio in the controlled areas to 2:1."[105] Davenport (1987, p. 525) notes that this combined the earlier positive incentives such as tax holidays, tariff rebates and the prospect of cheaper labour with negative constraints, such as the ban on the enlargement of black labour forces if they elected to remain in the existing areas of industrial concentration.

In 1975, an amended Physical Planning and Utilisation of Resources Act severely limited any additional employment of Africans in manufacturing in three of the four metropolitan regions, i.e. Pretoria-Witwatersrand-Vaal Triangle (PWV) region the Western Cape, Port Elizabeth-Uitenhage region - only Durban-Pinetown escaped unscathed. Wellings and

[99] Schneider (2000, p. 419) notes that after 1970, South African manufacturing did not increase its share of GDP, indicating a failure to continue the remarkable development seen in the prior two decades.

[100] Gelb and Black (2007, p. 177) explain that "there was a shift in the composition of international capital flows from direct to portfolio investment, but more importantly, foreign investors in South Africa were increasingly subject to political pressures in their home countries by the growing international campaign against apartheid."

[101] Feinstein (2005, p. 143)

[102] Statistics South Africa (1975)

[103] Crankshaw (2002, p. 48 - 98) notes that skilled job reservation for whites and the exclusion of blacks from apprenticeships severely affected the availability of labour in manufacturing.

[104] Maasdorp (1990, p. 128)

[105] Physical Planning and Utilisation of Resources Act (1968): Pretoria-Witwatersrand-Vaal Triangle (PWV) region, the Western Cape, Port Elizabeth-Uitenhage

Black (1986*a*) noted that reactions were characterised by "consternation, confusion and protest"[106] as the legislation prevented labour-intensive industrialists from expanding existing operations. Archival reports from the industry groupings such as the South African Federated Chamber of Industries (FCI) exemplify this sentiment:

> *"The Federated Chamber is concerned about the government's policy of industrial decentralisation: The cost of government intervention in industrial location to the industrial sector as a whole may exceed its benefits to the individual industries, or to the industrial sector as a whole through its effect on the allocation of resources. Industrial concentration results from the working market forces'; industries concentrate in specific areas because of the multiplier effect of investment and the attraction of agglomeration economies. [...] Only voluntary decentralisation should be considered."*[107]

In addressing these concerns the concept of 'Benevolence' and 'Growth' is illustrated by government policies and tax laws. The government demonstrated benevolence by means of the privileges extended to manufacturing firms in the RIDP. These included incentives for de-concentration zones near existing industrial areas, while still allowing further growth in the decentralisation programme which also extended tax concessions. The FCI highlighted in an archival report how "much of the costs in decentralisation were misleading, because most incentives were in the form of tax concessions."[108] This result is borne out by a financial analysis of the Board for decentralisation of Industries' (BDI) published annual reports represented in Table 2.2.

Contrary to Wellings and Black (1986*a*), who claimed that rising incentive distribution was the main driver of decentralisation, Table 2.2 demonstrates that disbursements of incentives during the second phase were approximately flat.[109] Instead of expanding incentives (i.e Pull Factors), growth in decentralisation may have been driven by an expansion of infrastructure to substitute for missing agglomeration. Debates in Parliament explained how, "[...] the failure of decentralisation came from a failure to provide benefits of agglomeration."[110] The same report cited a need for "rail transport, communication, telephone and other tools industrialists require to compete on a global basis."[111]

[106] quote excepted from Dewar, Todes and Watson (1984, p. 8)

[107] Federated Chamber of Industries, archival report on the decentralisation of industry, (1972). IDC Archives, Sandton. No reference number. IDC barcode 011490

[108] See the Federated Chamber of Industries archival report on the decentralisation of industry, (1972). IDC Archives, Sandton. IDC barcode 011490

[109] This finding agrees with Bell (1986, p. 290) that "financial incentives and direct controls on the mobility and use of Black labour may have played a significantly smaller role in this process than is commonly thought."

[110] Parliament of South Africa, Hansard, 21st of June, 1972, Vol 100, p. 5079. Library of Parliament, Cape Town.

[111] Parliament of South Africa, Hansard, 21st of June, 1972, Vol 100, p. 5081. Library of Parliament, Cape Town.

DECENTRALISATION INCENTIVES AND CONCESSIONS									
	1971/'72 R ' 000	**1972/'73** R ' 000	**1973/'74** R ' 000	**1974/'75** R ' 000	**1975/'76** R ' 000	**1976/'78** R ' 000	**1977/'78** R ' 000	**1978/'79** R ' 000	**1979/'80** R ' 000
Transport	R 3,850	R 3,129	R 4,198	R 4,250	R 3,990	R 7,560	R 9,440	R 10,700	R 13,070
Tax Concessions	R 6,978	R 7,769	R 7,609	R 6,734	R 14,336	R 30,019	R 29,341	R 41,949	R 44,330
Interest Subsidy	R 98,180	R 89,109	R 87,610	R 94,400	R 115,500	R 66,500	R 55,900	R 66,300	R 60,600
Rental Subsidy	R 17,100	R 9,791	R 1,600	R 1,600	R 3,700	R 9,400	R 11,000	R 14,200	R 11,300
Total	**R 126,108**	**R 109,798**	**R 101,017**	**R 106,984**	**R 137,526**	**R 113,479**	**R 105,681**	**R 133,149**	**R 129,300**

TABLE 2.2: Aggregate financial expenditure on incentives and concessions per category (1971 - 1980) in real terms (1980 Rands).

Source: *Compiled from the Board for the Decentralisation of Industry annual reports, (1971 - 1980). The National Archives, Pretoria, RSA. TAB 7869 - ZA.*

Reflecting on this earlier period, the Federated Chamber also noted in 1985 that an improvement and expansion of infrastructure was incentivising its members to decentralise. In a report to the Industrial Development Corporation, the FCI explained how "decentralisation during the period appeared to have been voluntary with better transport infrastructure and new factories attracting firms to the African homelands."[112] The expansion of large-scale infrastructure spending on the industrial periphery rather than industrial decentralisation incentives appears to have been motivating industries to relocate. To pursue this trend, an analysis of infrastructure expansion during this second phase is assembled first at the *(A)* national level and then in *(B)* specific homelands.

(A) The South African Reserve Bank (SARB) published the public-sector economic infrastructure components of South Africa's gross fixed capital formation. This national accounting measure includes land improvements, the construction of roads, railways and the like.[113] Based on 1960 as the reference year, Figure 2.3 shows an index of gross fixed capital formation, which demonstrates both rapid growth until the mid-1970s in the case of investment, and then a long-term deterioration from the 1980s.

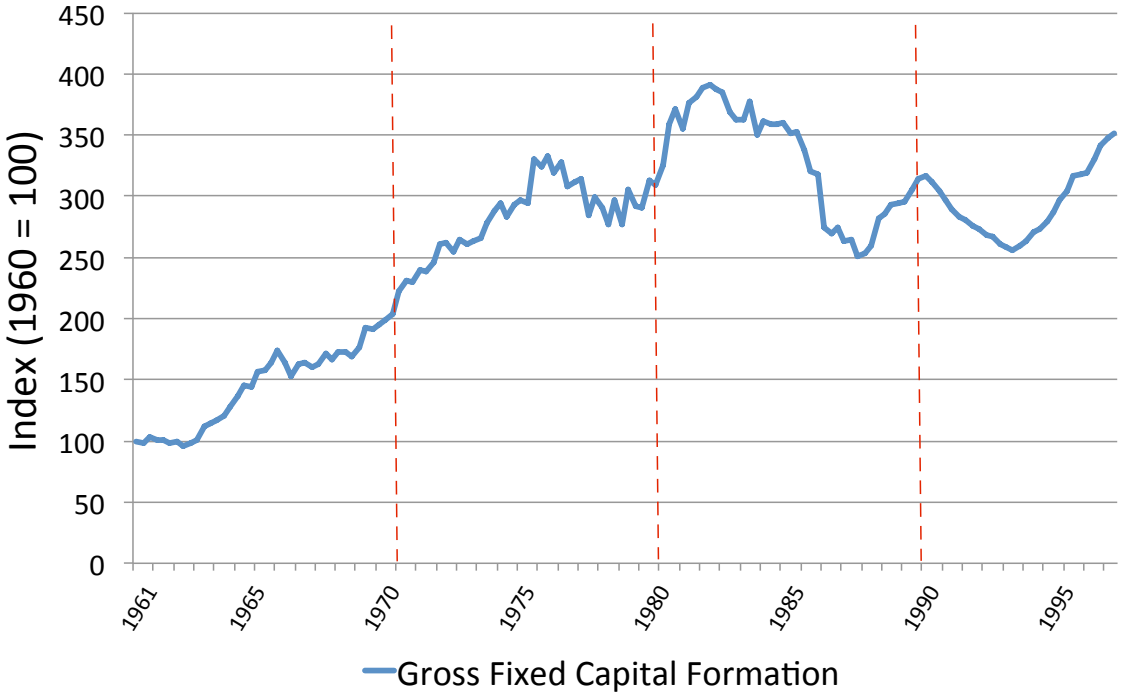


FIGURE 2.3: Public-sector economic infrastructure component of South Africa's gross fixed capital formation, (1960 - 1996)

Source: *The South African Reserve Bank (SARB) Quarterly online data series.*

[112] Federated Chamber of Industry, archival reports on the decentralisation of industry, (1985). IDC Archives, Sandton, Johannesburg, RSA. No reference number. IDC barcode 011510

[113] Including schools, offices, industrial buildings, hospitals, private residential dwellings, and commercial plant, machinery, and equipment purchases.

Feinstein (2005, p. 221) notes that the average investment ratio escalated from 1963, and swept upwards in three successive tranches. This was highlighted earlier in Phase 1 (see page 48), with the initial increase largely due to investments in state monopolies.[114] At the peak of these three booms, public sector investment was 16 % of GDP.[115] Of specific reference to the evolution of the RIDP was the construction of sixty-three industrial estates (shown in Figure 2.4), with roads and railways upgraded to the decentralisation zones and ports. The scale of these projects has been underestimated in prior research. However the Industrial Development Corporation reports estimated that the costs of constructing this infrastructure equated to 1.5 % of GDP in each year from 1972 - 1979.[116]

(B) Demonstrating the extent of homeland fixed capital expansion, Appendix B, Figure B.4 shows an original town planning schematic for Ezakheni Industrial Estate near Newcastle. Between 1978 and 1979 eleven of these mega estates were built in Zone E alone. Each was designed so homeland African commuters could reach the factories during the week and then return to their rural homes on the weekend. Railway routes were constructed centrally, linking outlying areas to ports with branch sidings. Water and power infrastructure was upgraded and semi-autonomous investment agencies were established to attract investors to these estates. The economic geography of these zones will be discussed in Chapter 5 when the agglomeration of Taiwanese firms is analysed.

Homeland	**Main Road** Km's	**Other Road** Km's	**Total** Km's	**Railways** Km's
Ciskei	358	1,173	1,531	64
KwaZulu	772	771	1,543	79
QwaQwa	0	175	175	0
Lebowa	900	8,000	8,900	28
Gazankulu	1,357	889	2,246	54
KaNgwane	223	235	458	0
Transkei	752	8,048	8,800	209
Bophuthatswana	640	8,170	8,810	228
Venda	48	1,221	1,269	13
Total	5,050	2,8682	33,732	675

TABLE 2.3: Length of Roads and Railways in Homelands (1976).
Source: *National Archives, Pretoria, BAO, VOLUME NO 3/3558.*

[114] SASOL, ISCOR and ESKOM. Total public investments were 45 % in 1963, and increased to 53 % in 1975.
[115] Statistics South Africa and Perkins, Fedderke and Luiz (2005, p. 215)
[116] Board for the Decentralisation of Industry (1979)

The map in Figure 2.4 below highlights how transport infrastructure was expanded, connecting RIDP zones to ports and cities. Of the approximately 18,900 route kilometres of railways in 1970, the homelands only had 70 kilometres. Although modest, Table 2.3 shows this increased to 675 kilometres, with only QwaQwa and the newly established homeland of KaNgwane not connected to the national network by 1976.

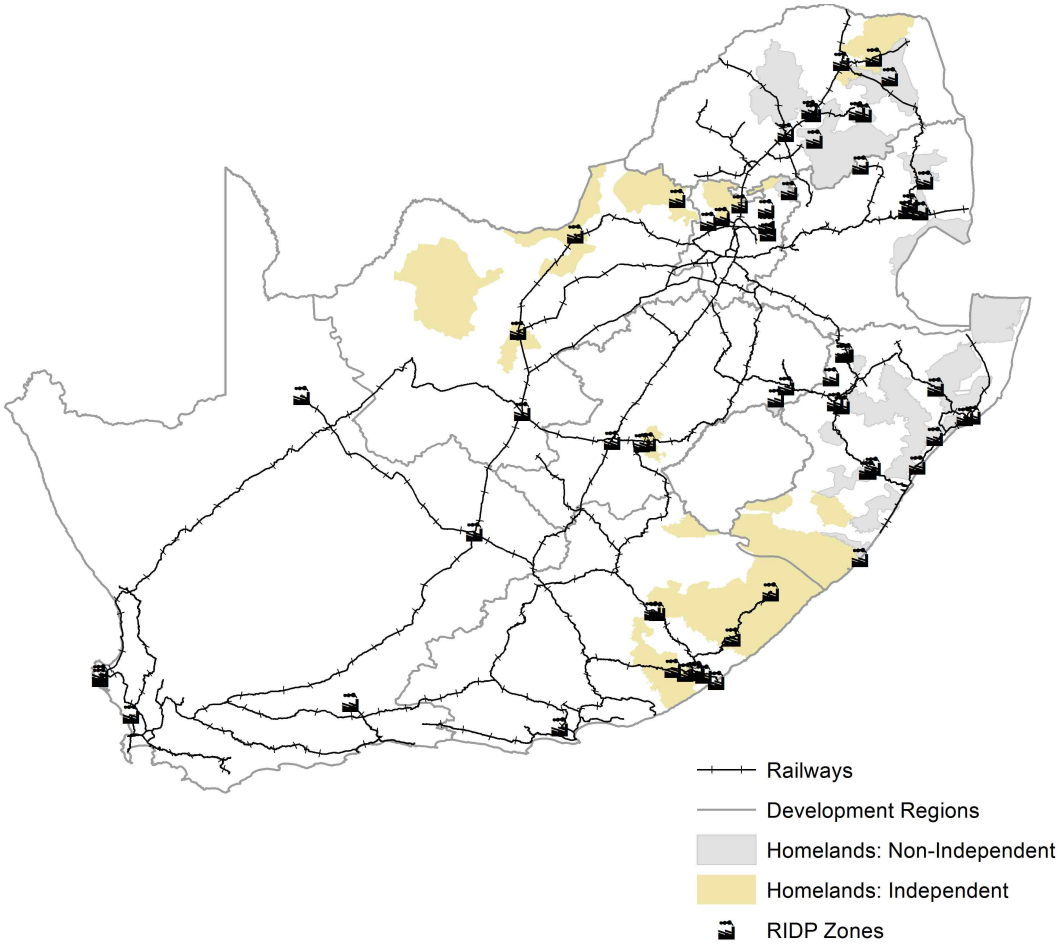


FIGURE 2.4: Map depicts the major transport networks into the homelands and peripheral industrial areas circa 1978.

Source: *Digitised by the author using the Board for the Decentralisation of Industry reports and planning commission maps. The National Archives, Pretoria, RSA*

Each independent and non-independent homeland government then determined the expenditure on physical infrastructure within the decentralisation zones. This expenditure was either directly funded by the national government (BDI and SADT) or via the respective development corporation (TDC, XDC, CNDC and CED) which will be analysed in the next section. Infrastructure spending is aggregated in Table 2.4 below for each of the years in Phase 2. It was deployed in the construction of standardised warehouse and industrial estates such as those shown in Appendix B, Figure B.4. Unlike national fixed capital formation which declined from 1975, RIDP expenditure in the homelands lagged, with the peak in infrastructure spending reaching R 97,592, 000 in 1978.

DECENTRALISATION INFRASTRUCTURE SPENDING						
	1973/'74 *R '000*	**1974/'75** *R '000*	**1975/'76** *R '000*	**1976/'77** *R '000*	**1977/'78** *R '000*	**1978/'79** *R '000*
Government [a]	23,690	29,628	40,396	66,515	83,308	41,482
SADT	2,959	4,256	10,136	10,051	9,787	7,542
CED	819	2,471	3,291	6,747	4,479	3,689
XDC [c]	1,431	3,664	6,090	-	-	-
TDC	-	-	-	6,500	-	-
CNDC	-	-	-	27	18	-
Total [b]	28,899	40,019	59,913	89,840	97,592	52,713

[a] *TBVC 'Independent' homeland Governments include the CED, SADT, XDC, TDC and CDNC.*
[b] *Other non-independent development corporations are included under 'Government'. i.e. KZN, QDC, KDC.*
[c] *The Bantu Investment Corporation became the Corporation for Economic Development (CED) and the Xhosa Development Corporation (XDC) was renamed the Transkei Development Corporation (TDC).*

TABLE 2.4: Infrastructure Spending by Independent Homeland and respective Development Corporations, (1972 - 1979) in real terms (1980 Rands).

Source: *Economics and Finance in South Africa's Black Territories, South African Government Information Services (1979). National Archives, Pretoria. Reprint from Official Yearbook.*

Outcomes from Phase 2

A register of collated BDI employment statistics indicates that a total of 1,240,978 permanent jobs were created between 1970 and 1979.[117] This would unrealistically imply that 17 % of new manufacturing employment was channelled through decentralisation of industry at the end of 1979. However examining the declassified employment statistics at the homeland and border zones, which were not attached to existing manufacturing areas, reveals a more modest gain in employment.[118] Excluding the peri-urban areas, these statistics are summarised in Table 2.5 on the next page, disaggregating employment between each of the homelands. The results show that approximately 10 % of the decentralisation employment (i.e. 110,597 jobs) was in the homelands or adjacent zones (i.e. border areas). These more moderate increases in employment are in contrast to the considerable R 1,036,272,000 fixed capital investments which exemplifies the period.

Moreover, the significant growth in government employment in each of the homelands is noticeable. The statistics record that 142,108 government employees were operating in the homelands. Exceeding manufacturing firm employment by 20 % shows the extent to which the African bureaucracy surrounding the RIDP was a critical factor in creating a perceived legitimacy as claimed by Evans (1997).

[117] Board for the Decentralisation of Industry (1979). This aggregate total is recorded with no geographic breakdown, and thus included both decentralisation zones and de-concentration areas near urban centres.
[118] South African Government Information Services (1979)

OUTCOMES FROM PHASE 2								
	EMPLOYMENT						CAPITAL INVESTMENT	
	Border [a]		Homeland [b]		Government		By Industry	By IDC
	Black	*White*	*Black*	*White*	*Black*	*White*	*R '000*	*R '000*
Transkei	10	5	12	2	37,600	200	R 27	R 843
Bophuthatswana	22,352	6,545	8,965	401	17,337	473	R 247,235	R 70,277
Venda	236	18	1,008	15	7,609	166	R 1,301	R 688
Ciskei	11,481	1,538	1,467	75	14,233	296	R 117,552	R 59,974
KwaZulu	30,395	3,759	3,335	171	25,900	605	R 273,967	R 113,139
QwaQWA	1,371	229	36	2	2,300	65	R 9,031	R 3,181
Lebowa	6,545	1,056	1,968	82	21,000	536	R 85,124	R 20,816
Gazankulu	4,776	104	692	24	8,491	170	R 12,077	R 11,950
KaNgwane	1,565	253	100	4	5,000	37	R 3,766	R 5,324
Sub-total	78,731	13,507	17,583	776	139,470	2,548	R 750,080	R 286,192
Total		***110,597***			***142,018***		***R 1,036,272***	

TABLE 2.5: Summary from Phase 2 of the RIDP showing total employment attributed to BDI funding and related capital expenditure up until 1978. Monetary values are in nominal 1978 Rands.

Source: *Compiled from the Economics and Finance in South Africa's Black Territories, South African Government Information Services (1979). The National Archives, Pretoria, RSA. TAB 7869 - ZA.*

Note: *In 1976, Transkei was the first of four territories to be declared independent. As such, the employment statistics and capital expenditure only reflect funding by the central Board for Decentralisation and its agencies. By 1978 when the statistics were collected, industrial funding was managed internally by the TDC. This may account for the relatively low employment and capital expenditures figures in comparison to the other homelands.*

2.4.3 PHASE 3: Desperation (1980 - 1990)

After the incentives lull of the 1970s, the government revamped industrial decentralisation by means of greater financial concessions in a programme termed *'The Good Hope Plan'*. Dewar, Todes and Watson (1984) explain that this was in reaction to numerous macroeconomic challenges at the beginning of the decade, compounded by political tension. Industrial stagnation after 1979 corresponded with three decisive factors justifying the *'Desperation'* label. The first factor was a drop in gold production, and the associated fall in migrant labour after deep-level mining expansion in the 1970s. Figure 2.5 highlights the precipitous decline in mining after a high in 1979. With the rising gold price, deeper, lower-grade ore became viable with a corresponding expansion of employment. However the price of gold fell from $ 800 to under $ 340 an ounce in 1982, reducing mine employment.[119] The second contribution was a net outflow of capital starting in 1977, and culminated in 1985 with a debt crisis. Declining investment and reduced global demand for South African resources shifted the balance of payments at a time of swelling national debt. The final, self-inflicted factor was an intensification of international sanctions in 1980, 1982 and 1985, further reducing industrial expansion and foreign direct investment.[120]

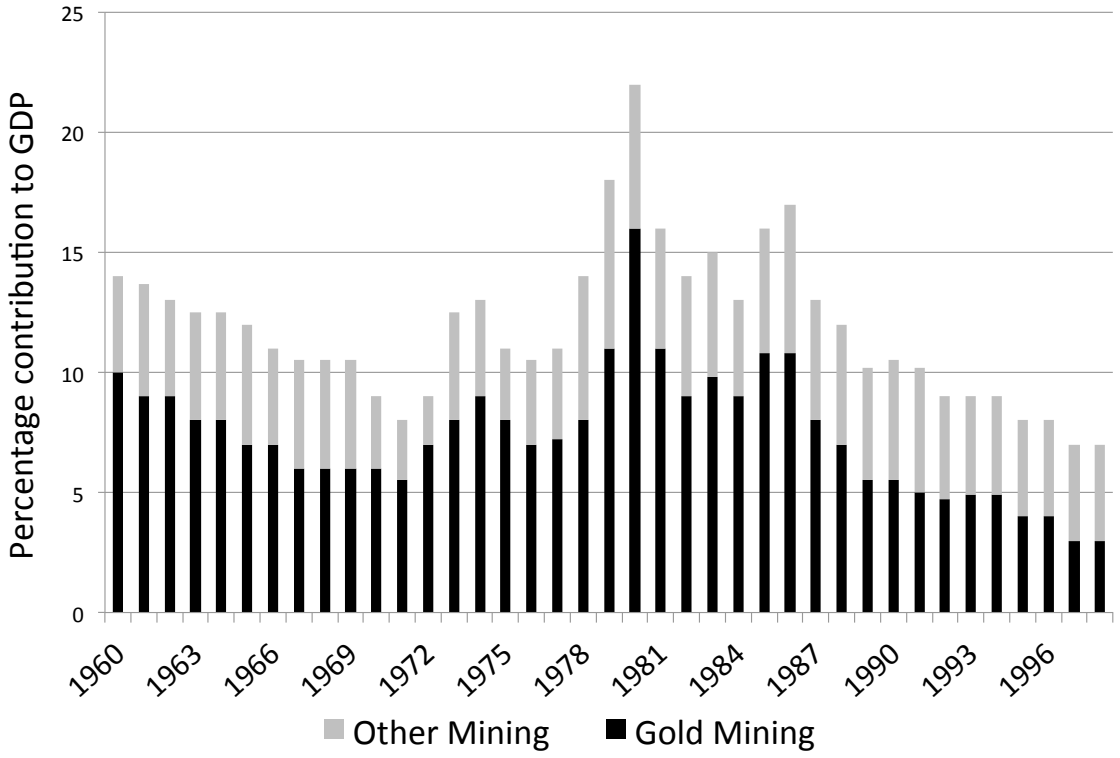


FIGURE 2.5: A graphical depiction of the split in contribution of gold mining and other mining to the South African GDP, 1960 to 1999.

Source: *South African Reserve Bank (2014), South African Chamber of Mines (2008), Industrial Development Corporation archive, Sandton, RSA and Jones (2002).*

[119] James (1992, p. 22) notes that by 1987 one in five mines was producing gold at a price that exceeded the market price, and reacted by introducing programmes of rationalisation.

[120] The balance of payment, sanctions and national debt crisis are discussed in Chapter 3.

South Africa's economy faced the challenge of increasing unemployment, declining labour intensity, and a withdrawal of foreign investment. A rising labour surplus in the homelands threatened to overrun the institutions of control.[121] This is further echoed by Greenberg (1987), noting how after two decades of increasing labour control, the 1980s necessitated yet more control. These draconian influx control measures and low labour productivity meant domestic industries had been replacing labour-intensive processes with capital equipment. Appendix B, Figure B.5 shows the historical decline of labour intensity within South African manufacturing.[122]

The desperation for homeland employment was also evident in the fierce debates recorded in the Hansard. The Minister of Co-operation is quoted as saying "the only road to labour stability and African development is the support for labour-intensive manufacturing [...] this depended on labour-intensive industry to take the jobs to the homelands, and would require international investment in manufacturing industries."[123]

The failure to attract foreign investment to the homelands was conspicuous. By 1978 there were fewer than 2,000 manufacturing jobs in foreign controlled enterprises within all the Homeland areas. This was in stark contrast to the rest of the country. For example, South Africa had 10 % of all British foreign direct investment, a significant statistical benchmark before embarking on Phase 3.[124] However Rogerson (1987) explained that historically, western investment had not been channelled towards the homelands, but rather urban areas where industry first emerged alongside mining.

Analysis of Table 2.6 below highlights the dominance of the foreign-owned manufacturing plants. In excess of 350,000 manufacturing jobs across 1,284 plants were held by foreign owned enterprises. This represented 25 % of all manufacturing employment in the country at 1979.[125] At the end of 1979 this equated to 59 % of all existing western inward FDI stock invested in the country. Furthermore, this view can be supported by the recently declassified 1980 Whitehall report on sanctions entitled "United Kingdom's interests in Southern Africa."[126] It estimated that 50,000 British home market jobs were directly related to South African industry with exports to the South Africa market accounting for £ 711 million and imports totalling £ 554 million per annum.[127]

[121] Greenberg (1987, p. 143) explains that labour bureaus under the control of local authorities proved insufficient. The laws and regulations were incomplete, unevenly implemented and the bureaucratic machinery understaffed and overrun.

[122] Feinstein (2005, p. 245) explains that output per worker was between 50 % and 75 % of other developing countries.

[123] Hansard, 1st of July, 1979, Vol 100, p. 2325, Minister of Cooperation and Development.

[124] Declassified Government Report:"United Kingdom's Interests in Southern Africa", The Secretaries, Defence and Overseas Policy Committee: Robert Armstrong and RL Wade-Grey. Declassified Report (1980) The National Archive, Kew, UK. Declassified in 2011.

[125] Industrial Development Corporation Archive, Sandton, RSA.

[126] The Secretaries, Defence and Overseas Policy Committee: Robert Armstrong and RL Wade-Grey. Declassified Report (1980, p. 37 - 49)

[127] The Secretaries, Defence and Overseas Policy Committee: Robert Armstrong and RL Wade-Grey. Declassified Report (1980, p. 51) These are confirmed by bilateral statistics assembled in Chapter 4.3.

EXISTING WESTERN INWARD FDI STOCK, CIRCA 1979

	Enterprises	% Per country	Plants	Employment
United Kingdom	551	59	767	210,186
United States	228	25	304	95,818
West Germany	67	7	90	25,932
Switzerland	21	2	36	9,583
France	18	2	24	7,575
Netherlands	15	2	21	10,409
Other	30	3	42	17,596
TOTAL	**930**	**100**	**1284**	**377,099**

TABLE 2.6: Inbound western investment sources at the end of 1979.

Source: *Industrial Development Corporation Archive, Sandton, RSA & The National Archives, Pretoria, RSA & estimates from Rogerson (1982).*

The final period of decentralisation coincided with the political appointment of Pieter G. J. Koornhof at the end of 1978. Koornhof was reshuffled to a new position as Minister of Co-operation and Development from the Ministry of Bantu Education. An Oxford-0educated Rhodes scholar, Koornhof was the central policy architect in revamping the programme. Like his predecessor Tomlinson, who oversaw the creation of decentralisation, Koornhof was a man of political and economic contradictions who would eventually witness its demise.[128] However he possessed the necessary political will to catalyse both a financial and structural change in the last revision of a process designed to artificially industrialise the African homelands.[129]

This began in 1979 at the Carlton Conference in Johannesburg with both government and industry participating in drafting a decentralisation programme. After a two-year process of consultation and revised legalisation, the "The Industrial Development Report for South Africa" was released in 1982. Commonly referred to as *'The Good Hope Plan'*, it witnesses extraordinary change in decentralisation policies which are discussed next.[130]

[128] While politically motivating for decentralisation and influx control, his doctoral dissertation at Oxford focused on the inevitable urbanisation of black people in Africa. Mail & Guardian (11/15/2007): A Man of Contradictions.

[129] Greenberg (1987, p. 389) noted how at The National Press Club in Washington, Koornhof proclaimed that "apartheid is dead" demonstrating the political freedom he possessed to change homeland policies.

[130] The programme was launched at the the Good Hope Centre in Cape Town, hence its title.

The Good Hope Plan

The revised third version of the RIDP policies advocated the creation of eight regional development zones (A - G), depicted in Figure 2.6. In contrast to 'separate development'[131] which was exemplified by the policies of the previous phases, the government "recognised that South Africa consisted of an integrated economic system and that economic development needed to take place across the homelands to prevent instability."[132] Urgent change came as decentralisation of industry transitioned to regional development, representing a substantial shift in political rhetoric. These new policies laid the foundation for large-scale direct investment into the homelands by both domestic and foreign firms.

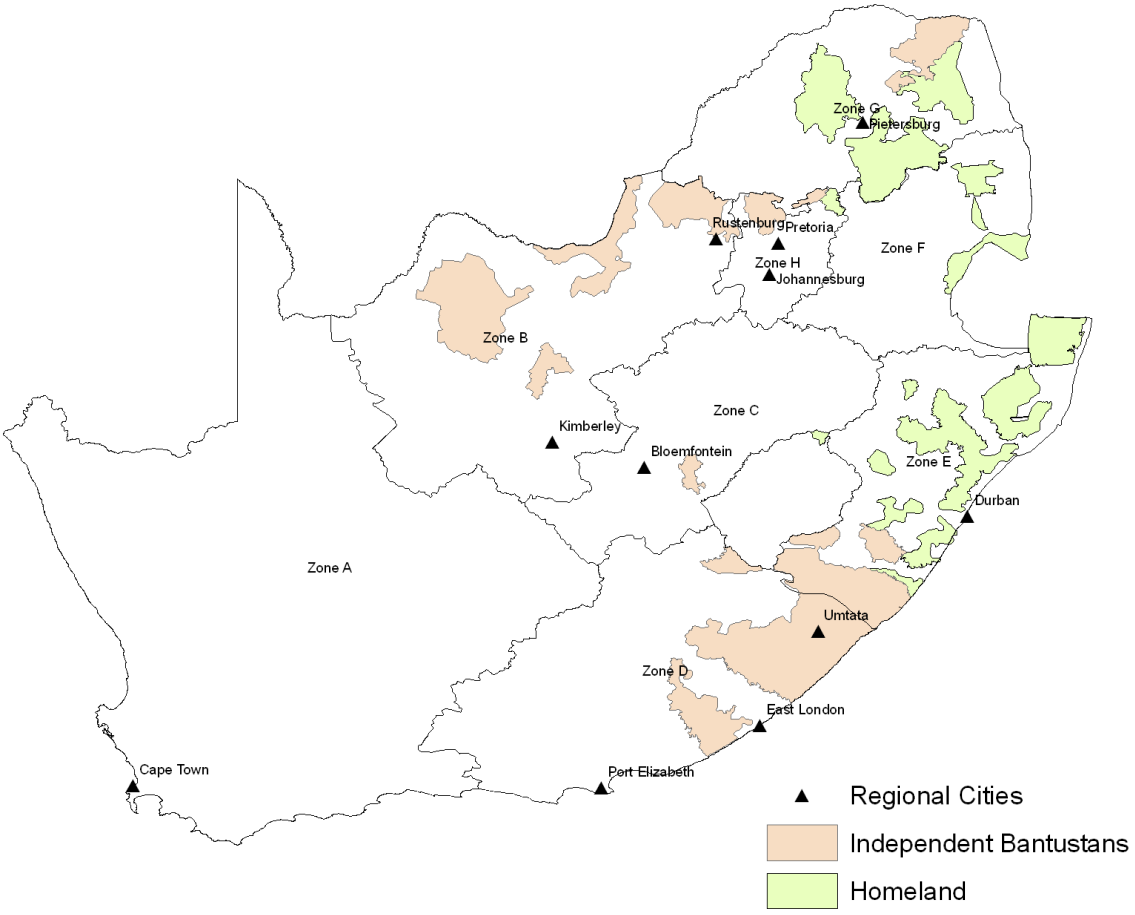


FIGURE 2.6: Map depicts the introduction of RIDP development Zones (A - G) allowing for individualisation of investment incentives and separate industrialisation management.

Source: *Digitised by the author using the Board for the Decentralisation of Industry reports and planning commission maps. The National Archives, Pretoria, RSA.*

[131] Interestingly Lombard (1978, p.12) a member of the Bureau of Economic Policy at Pretoria University, with numerous Afrikaans business and government connections noted that "separate development has become sinking development." He later had his office bombed by right-wing militia in 1980.

[132] Morris (1983, p. 273)

Of pivotal significance was the creation of these eight development regions which broadly reflected the provincial borders of South Africa and the independent or pseudo-independent homelands. Dewar, Todes and Watson (1986, p. 365) note that for the first time, the economic interdependence of the Bantustans and South Africa, and the non-viability of the Bantustan areas was acknowledged in policy. Industrial decentralisation was thus more actively pursued than ever before and incentives were significantly increased. The magnitude and duration of each industrial subsidy were to differ depending on the development requirement across the eight regions. A growing recognition that the physical infrastructure 'pull' and legislative 'push' was not sufficient to decentralise businesses. The growing focus on financial incentives was imminent and subsequently intimated in a speech by the Minister at the University of Cape Town in 1980:

> *"The question of decentralisation concessions is a somewhat thorny one and I obviously cannot go into detail now, but I want to say that the government is looking at the question, and considering various possibilities to make the whole concessions package more attractive to potential investors. I personally feel that the concessions could place more emphasis hither thereto on labour-intensive industries and dangle a really large carrot in front of businesses of that type."*[133]

Between the Carlton and Good Hope conferences, the Botha government commissioned a study group to examine the application of labour-intensive incentives. Vetted by Koornhof, the "Panel of Experts" constituted a broad range of economic and policy agendas. For example, the Study Group on Industrial Development Strategy (1983) notes that they "received memoranda from a large number of bodies in the public and private sectors. Special interviews were held with some of them including SA Federated Chamber of Industries (FCI), the Steel and Engineering Industries Federation, the Associated Chamber of Commerce, the Afrikaans Handelsinstituut (AHI), the Industrial Development Corporation (IDC), ISCOR, SASOL, the SA Railways and ARMSCOR. Certain individuals from the private sector also gave evidence before the Study Group."[134]

This broader business consultation stands in contrast to prior phases. Amongst the National Party loyalists were the Chairman of the Board of Trade and Industry, Dr S.J. Cleu and Dr S. Brand the economic advisor to the Prime Minster, while industrial representation came from Dr A. Hammond-Tooke, special advisor and chief economist of the Federated Chamber of Industries.[135] It is important to note the constituents of this

[133] "Speech by Dr, the Honourable P.G.J Koornhof at the Advanced Management Programme of the Graduate School of Business of the University of Cape Town, January 1980. The National Archive, Pretoria. TAB - 7658.

[134] Study Group on Industrial Development Strategy (1983, p. iv) in the National Archive, Pretoria, RSA. TAB - 9876.

[135] Not to be confused with outspoken apartheid critic, David Hammond-Tooke, (Professor Emeritus).

study group. They were the principal advisors recommending an expansion of incentives, and therefore renewed industrial decentralisation policy for the homelands. The inclusion of Hammond-Tooke was an important gesture, as prior decentralisation policy had been extremely unpopular with existing industrialists in urban centres. The citation from the FCI in Phase 2 testified to their contempt of the states "Push" policy during the 1970s. The Federated Chamber of Industries represented these industries, and their commercial interests were to be included in the revised incentive packages.

The number of industrial decentralisation points and de-concentration zones was significantly increased from 64 to approximately 150 during the final RIDP period. Many of these were in close proximity to existing urban centres to appease the business community.[136] Table 2.7 demonstrates how the classification ***(A)*** and the distribution ***(B)***, becomes broader as an expansionary policy into the homelands was deemed a priority to stem influx and urbanisation within the white areas. Under the new plan there were four levels of incentive: the most favourable benefits were for industrial development points, followed by de-concentration points, other industrial points, and ad hoc cases. [137] However the most lucrative (incentives) and attractive (labour endowments) remained the 63 existing de-concentration and decentralisation zones constructed at great expense during Phase 2.[138]

Category of Zone	White SA	Self Governing Bantustans	Independent Bantustans	Total
(A)		**(B)**		
Industrial Development Point	24	10	10	44
Deconcentration Point	7	3	2	12
Other Development Points	48	10	0	58
Ad Hoc Cases [a]	71	0	0	71
Total	**150**	**23**	**12**	**185**

[a] *Due to political pressure these sites were granted RIDP incentives on a year-by-year basis.*

TABLE 2.7: Number and Classification of Decentralisation and De-concentration Zones between (1978 -1984).

Source: *Board for the Decentralisation of Industry (1978 - 1984). The National Archives, Pretoria, RSA.*

[136] South African Institute of Race Relations (1988, p. 541) noted that limited concessions were made available at the four main industrial centres in the country to appease existing industrial interests.
[137] see 1986 Survey Part 1 p42).
[138] The capital outlay of construction is summarised in Table 2.5.

The urgency which had swept through parliament after the Good Hope Conference is demonstrated by steep increases in both the financial incentives and concessions available to industrialists. The Minister of Co-operation and Development, summarised the generosity of incentives. He noted that "[...] on average, labour-intensive industries are 180 % better off than previous incentives [...] capital intensive industries will see a 50 % improvement over previous incentives."[139]

Compared to the tax rebates and concession expenditure of the previous RIDP period (1972 - 1980)[140] which had remained roughly static, Figure 2.7 below demonstrates a notable structural change. This begins once the Good Hope Plan was promulgated in 1982, and sees a steep rise in total incentives paid to newly decentralised industries.[141]

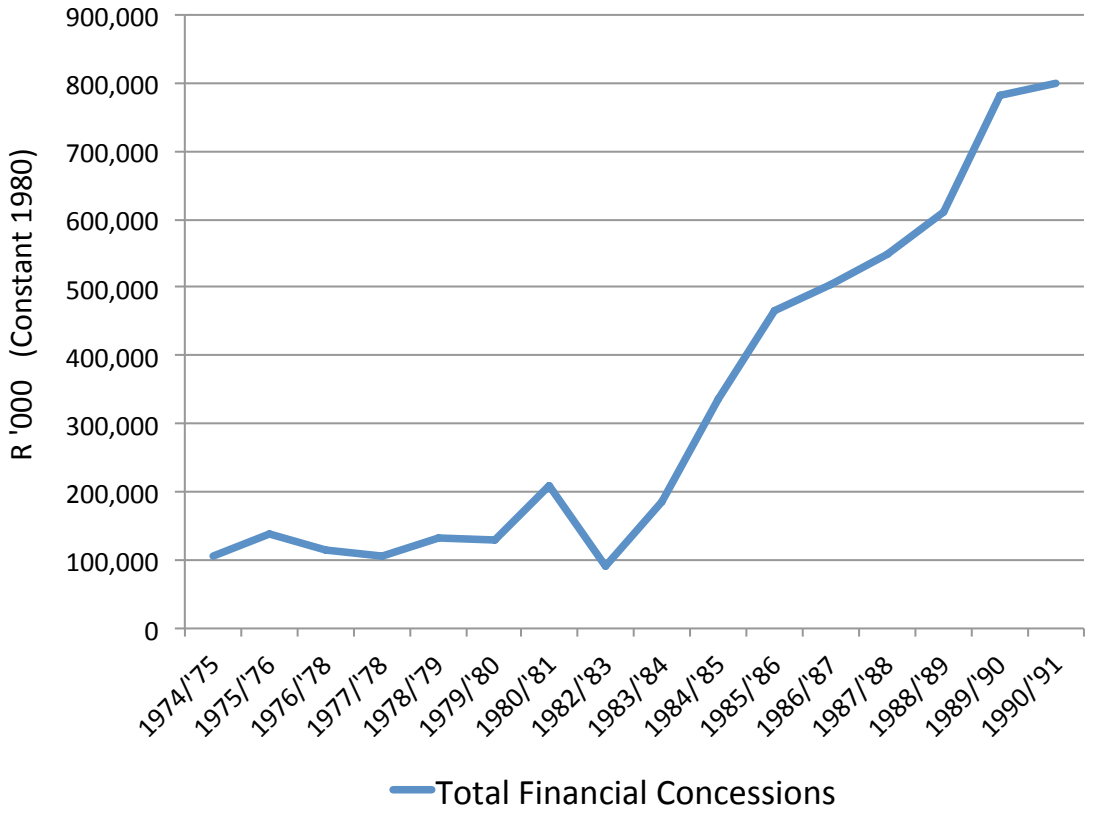


FIGURE 2.7: Total financial concessions allocated to industries in the homeland zones and de-concentration points (Constant 1980 Rands).

Source: *Collated from Board for the Decentralisation of Industry, The National Archive, Pretoria, RSA, TAB87865. The years 1971 through to 1973 have been omitted due to issues of reporting standardisation.*

[139] The Minister of Co-operation and Development, RSA Hansard, 21st of April, 1982, Vol 101, pg 3245

[140] Phase 2 incentives are summarised in Table 2.2 on page 52.

[141] A lag in the distribution of incentives is seen in Figure 2.7 between 1980 and 1983. This may be as a result of the decrease in applications in anticipation of a new programme.

The rise in concessions and new industrial legislation appears to have provided investment autonomy for the homeland development corporations.[142] By establishing the eight development regions, with sixty-three potential investment sites, the new RIDP programme created "inter-zone competition."[143] Under the oversight of the Board for the Decentralisation of Industry, each homeland region then attempted to attract manufacturing firms to their decentralisation or de-concentration zones.

Wilsenach and Ligthelm (1993) attributed some of the variation in homeland investment success to differences in the effectiveness of the marketing activities by the homeland Industrial Decentralisation Boards. Hart and Todes (1997) go further, explaining that "the KwaZulu Marketing Initiative played an aggressive role [...] with capitalists' search for low-wage sites on major transport routes."[144] An example of how this may have influenced inward investment was found in the KwaZulu Finance Corporation (KFC) almanac. This development corporation established a marketing office in Taipei and hosted touring industrialists promoting specific sites in the KwaZulu / Zone E area. Primary archival evidence from the KFC showed promotional material extolling the industrial virtues of KwaZulu. This familiar apartheid propaganda advertisement could be found across all the development corporations with the heading of "Your Industrial Future is Here"[145] summarising the benefits to investors as follows:

1. **Factories and Sites in the Industrial Estates:** The Factories and industrial sites are available on lease. The factories are available as standard or custom-built units. The standard factories are from 1000 m^2 to 4000 m^2 while custom-made buildings can be provided to suit specific requirements.

2. **Finance:** KFC provides financing on a selective basis against suitable securities.

3. **Labour Resources:** KFC's industrial estates are situated adjacent to large residential areas where labour is freely available. The stability of this labour is a proven factor.

4. **Consultancy:** *Pre-established services.* These include advice on initial feasibility, viability studies, government liaison, marketing/financial/technical and economic analyses, assistance with legal formalities and in-depth coverage of implementation procedures. *Post-establishment support.* This covers all aspects of the administration, the management of infrastructure services (such as railway shunting services), and provision of protection and health services within the estates.

[142] See Appendix B, Figure B.6 shows how each region developed a corporation marketing brand and advertising to target investment.

[143] The KwaZulu Finance Corporation notes in their 1983 periodical that "we now have the necessary financial and marketing ability to attract the best firms to our infrastructure, but need to act fast before our incumbents get to the winners first. We expect substantial inter-zone competition."

[144] Hart and Todes (1997, p. 39).

[145] Appendix B Figure B.7 shows an archival copy of this propaganda.

Yet with the increased incentives and concessions there was limited evidence of the domestic firms wishing to relocate to the decentralisation zones. As discussed in the literature section (2.3), the majority of studies focused on specific homeland sites, highlighting the perceived unwillingness of domestic manufacturers to relocate, regardless of the level of incentives. Table 2.8 summarises the only national firm study across major urban areas.

Nature of Question	**Cape Town**	**PWV**	**Durban/ Pine Town**	**Port Elizabeth/ Uitenhagen**	***N***	**%**
Considering Investment	3	33	34	5	75	35.7
Not considering investment	23	61	23	27	135	64.3
Total Sample	**26**	**94**	**57**	**32**	**210**	
Potential Location Choice:						
Another urban area	3	12	11	3	29	39.7
Deconcentration Point	0	6	7	2	15	20.5
Industrial Development Point	0	12	14	0	26	35.6
Other	0	2	1	0	3	4.1
Total	**3**	**32**	**33**	**5**	**73**	**-----**

TABLE 2.8: Survey of domestic South African manufacturing firms considering expansion or relocating as result of the RIDP incentives between 1980 and 1985.

Source: *Wellings and Black (1986a) compiled from an unpublished progress report in Black (1984), "Government policy and employment creation in manufacturing industry."*

Summarised above, the Black (1984) study surveyed the industrial attitudes to the prospect of firms relocating in the Industrial Development Point (homelands) or de-concentration points (rural-urban periphery). The results demonstrate two important benchmarks for furthering this research in Chapter 5. Firstly there is an underwhelming trend for existing industrialists to relocate or expand to the decentralised zones, with only 35 % of the sample indicating they would consider relocating between 1980 - 1985.

The second noteworthy observation is that established industrialists' preference would have been another urban area (39.7 %) or a de-concentration point (20.5 %). These results exemplify the disdain for which established domestic industrial manufacturers considered relocation options to the RIDP zones. Although not explicitly stated, the conclusion of these results was that the RIDP incentives were designed as pull factors, yet the established industries were clearly choosing to remain closer to existing urban

areas regardless of their generosity. However, it provides an empirical base from which to contrast the case of Taiwanese regional investment.

Kaempfer, Lehman and Lowenberg (1987) explain that prior to the revised RIDP incentives, Western European investment had been the primary source of capital in the manufacturing sector. This was demonstrated in Table 2.6 which summarised the long-established industrial partners in South Africa prior to disinvestment in the 1980s. Turning to new investment allies, Rogerson (1987) notes that homeland development corporations "looked to Taiwan for investment [...] that they may succour industrial advancement."[146]

FOREIGN MANUFACTURING INVESTMENT			
	RIDP Applications	**Capital Investment**	**Employment Opportunities**
1980 – 1985	**Successfully filed**	**Million US$**	**Projected Employment**
Taiwan	131	194.7	16,293
Israel	23	44.8	5,020
Hong Kong	10	10.8	2,580
Philippines	1	5.3	1,410
Other Countries	62	37.1	9,980
FDI FOR PERIOD	**227**	**292.7**	**35,283**
1986 – 1992			
Taiwan	261	1,583	237,929
Israel	17	679	6,576
Hong Kong	18	34	2,356
FDI FOR PERIOD	**296**	**2,296**	**246,861**
TOTAL	**523**	**2,588.7**	**282,144**

TABLE 2.9: Foreign Investment Business License Applications (1980 - 1992).

Source: *Board for the Decentralisation, business license applications (National Archive, Pretoria, RSA).*

Table 2.9 records the country origin of manufacturing firms applying for the Regional Industrial Development Programmes investment licenses. It establishes the remarkable presence of Taiwanese foreign direct investment, which came to dominate homeland industrialisation. Pickles and Woods (1989) called attention to this rapid increase

[146] Rogerson (1987, p. 136)

between 1982 and 1985. However they found that "sources of foreign investment [are] no longer provided by the Decentralisation Boards. The information is now considered confidential."[147] Rogerson (1987) also noted "that contemporary investment flows [...] are veiled in secrecy and no official data exists."[148]

Using declassified archives, Table 2.9 extends the series through the years 1985 to 1992. This provides further evidence to the substitution effect of foreign investment from West to East. The results show that 57 % of the RIDP applicants before 1985 were Taiwanese industrialists. These results are demonstrable of Taiwan's importance, growing to 88 % of the applicants by 1992.[149] There are noteworthy caveats to these statistics. The Gazette on the application of industrial financing and RIDP incentives stated that, "[...] replacement of other sources of capital, and financing for the take-over of an ongoing concern cannot be considered."[150] As such, the unprecedented investment inflows from Taiwan were not used to acquire existing Western investments or capital stock which were predominantly in metropolitan locations. They were 'greenfield'[151] industrial operations in the homelands. This was contrary to a trend during the turbulent period of the 1980s where established South African industrialists acquired western interests at "rock-bottom prices"[152] due to disinvestment pressures in their western home markets. Moreover, the declining scale of western investment highlights the extent to which Taiwanese investment inflows have been underreported. The industrial relocation from the Republic of China to the periphery of South Africa's homeland industrial zones became critical to the success in the final phase of apartheid.

In 1989 an evaluation by the Development Bank of Southern Africa (1989) led to the end of the Good Hope Programme in 1992. The major failings of the former programme identified by the DBSA panel were the excessive number of zones, and the fact that the location of firms was not in accordance with comparative cost advantages. The existing scholarship has therefore argued that Taiwanese investors were only enticed by incentives. This however will be challenged in Chapter 5 where economic geography and ethnic production networks are examined in addition to the effects of incentive variations.

[147] Pickles and Woods (1989, p. 510)
[148] Rogerson (1987, p. 136)
[149] Foreign Investment Business License Applications, Board for the Decentralisation of Industry (BDI). National Archive, Pretoria, TAB 39149 - ZA.
[150] Government Gazette, National Archive, Pretoria, TAB 39847 - ZA7.
[151] Blonigen (2008) in The New Palgrave Dictionary of Economics defines Greenfield Investments as "a project, which starts from scratch" and "a form of foreign direct investment where a parent company starts a new venture in a foreign country by constructing new operational facilities from the ground up. In addition to building new facilities, most parent companies also create new long-term jobs in the foreign country. Developing countries often offer tax-breaks, subsidies and other types of incentives to boost the countries' human capital."
[152] Kaempfer, Lehman and Lowenberg (1987) explain "financial disinvestment led to a fire sale of South African assets, South African wealth holders will sell foreign (that is, American assets) to buy back domestic assets. As domestic (that is, South African) asset prices are depressed, however, South Africans will greatly enhance their rate of return on their wealth."

Outcomes from Phase 3

The success of Phase 3 is mixed. The revised programme's ability to generate new labour-intensive foreign investment in the homelands was one of the few highlights. However I have to conclude that the overall results of the project were less impressive. Dickman (1991) notes that as a consequence of the push-and-pull legislation directed at the homelands, the outcome was one of job decentralisation and not job creation, as intended. Table 2.10 below summarises the total number of investments per sector, employment levels, and the private capital invested by these firms. Furthermore, based on the employment levels, each new job cost the national budget R 8000 in incentives.

TOTAL NUMBER OF FIRMS IN RIDP ZONES

PRODUCT	NUMBER OF FIRMS	EMPLOYMENT GROWTH	INVESTMENT (R '000)
Food: primary	164	6,769	257,180
Food: Other	17	498	27,244
Tobacco Products	19	432	25,032
Textiles	185	14,121	350,687
Clothing	757	53,068	858,374
Leather and leather products	17	1,533	27,671
Footwear	23	21,818	30,731
Wood products	243	9,926	185,551
Furniture	312	17,058	227,958
Paper and Paper products	134	5,127	176,288
Printing, publishing, related industry	60	859	119,925
Industrial Chemical	167	8,239	286,272
Other Chemicals	173	5,320	292,828
Other petroleum & Coal Products	1	20	162
Rubber products	17	448	87,254
Plastic products	146	15,707	244,431
Pottery, China and earthenware	72	2,741	8,471
Glass and glass products	50	1,012	49,803
Non-metallic mineral products	205	5,938	105,292
Iron and Steel basic infrastructure	59	1,680	73,545
Non-ferrous basic metal industries	37	1,601	37,891
Fabricated Metal products	913	32,047	1,329,021
Machinery exc. electrical	53	934	25,560
Electrical machinery and appliances	37	1,316	28,880
Motor vehicles, parts and accessories	39	1,274	79,533
Transport equipment	19	801	19,569
Scientific equipment and instruments	11	304	12,602
Other	234	12,803	256,646
Total	**4,164**	**214,394**	**R 5,224,401**

TABLE 2.10: Summary of RIDP firms per sector, employment level growth (number of new jobs) and total private investment for the period 1980 - 1992.
Source: *Board for the Decentralisation of Industry, 1992. National Archives, Pretoria.*

In 1992 the Good Hope incentives were terminated with 4,164 firms operating across the country. Of this total, approximately 10 % were Taiwanese-owned. A remarkable number, considering the short time in which they had grown to be the largest foreign investors in manufacturing. The intention of the RIDP was to generate labour-absorbing employment within the homelands. In this regard, the RIDP appears to have been a failure with only 214,394 additional jobs created by 1992. This is far below the estimated 300,000 that the RIDP had projected for the Taiwanese cohort alone. In comparison to Phase 2, the employment levels within the industrial periphery had scarcely grown from 1,240,978 to roughly 1,450,000 in 20 years. All the while, the working-age population had increased by about 35 %, to 12 million.[153] Hence the RIDP failed to employ more than 11 % of the population, even when 50 % of the population resided within the homelands. In the final annual report, the Chairman of the Board for the Decentralisation of Industry was more defiant in claiming the success of decentralisation during apartheid:

> *"When considering the families supported by the [additional] job opportunities, it is clear that the Regional Industrial Development Programme affected the lives of literally millions of people. This achievement is even more impressive because the industrial sector previously employed some 1.4 million people in South Africa"*[154]

2.5 DISCUSSION

Decentralisation drew on the international orthodoxy of regional development via state-led growth points.[155] It was based on intrinsic advantages in which industrial clusters could form, but the apartheid state used the principle to divide a nation. The programme first established growth poles, and then special economic zones within the homelands, which were decentralised from the four major urban centres, and had little existing industrial activity. However, the apartheid regime's spatial industrial policy needs to be seen in the broader context of the period. For example Dewar, Todes and Watson (1986) explained that "there are few nations in the world in which the state has not attempted to manipulate the spatial pattern of settlement to one or other political or economic end."[156] But Bell (1986) added the key caveat, noting how "few countries had manipulated industrial spatial locations with such intensity to bring about racial separation on a regional basis as the South African state."[157]

[153] Statistics South Africa, Census 1992.
[154] Board for the Decentralisation of Industry, Annual Report (1991). National Archives, Pretoria.
[155] Using policy tools and public investment to trigger a process of establishing industrial clusters that encourage the creation of internal and external economies of scale at a few selected growth points. See seminal authors such as Perroux (1950) and Boudeville (1966).
[156] Dewar, Todes and Watson (1986, p. 311)
[157] Bell (1986, p. 276)

This chapter demonstrated how over 40 years, the apartheid industrial policies gave rise to the extensive RIDP which attracted the first labour-intensive investment from Asia to Africa. Exhibited as three phases, it constructed a new periodisation of state-led industrial incentives. This is the first single body of research to quantify the changes in investment and labour-intensive employment between the different time periods and policies. *Phase One* began in the late 1950s and showed how the proposed plans for decentralisation (i.e. Tomlinson Commission) differed from those implemented by the apartheid state. Examining the context and ethos for the early decentralisation project offered a new perspective into Tomlinson's survey of the homelands. Tomlinson had suggested a total of £ 104 million, while the programme fell far short of this, spending only £ 48 million. Major investment and business partnerships between white and black groups never materialised. The private sector only received 30 % or £ 16 million of the designated financial aid for 'rural development', while the state monopolies received £ 32 million.

The lack of private investment continued into *Phase Two*. Fixed capital investment for special economic zones on the periphery was preferred over political reform. However eleven million of the fifteen million Africans resided in homelands, while industrial growth was limited to the urban areas. With these challenges, the government implemented coercive legislation to "push" industries to decentralise, limiting manufacturing firms from expanding their operations in the industrial core. The financial metrics suggest that the bulk of central government spending during this phase of the RIDP was directed to large-scale infrastructure, as shown by growth in gross fixed capital (Figure 2.3), rather than industrial decentralisation incentives, which remained flat (Table 2.2).

In *Phase Three* a renewed sense of urgency created eight regional development zones providing more autonomy to the homeland development corporations. State subsidies and spending escalated as the RIDP was increasingly seen as the only solution to reduce African influx. In a process Bell (1986) called "spontaneous decentralisation", improved infrastructure, changing labour preferences and international competition "pulled" industries to the zones. Moreover, the programme attracted labour-intensive foreign direct investment for the first time. An influx of Taiwanese firms created internal and external economies of scale at a few selected growth points. In Chapter 5 I will examine location and firm-specific factors generating this early agglomeration.

Chapter 3

INTERNATIONAL RELATIONS OF ISOLATION

"The Republic of China and South Africa will be able to help each other increase productivity, cut costs and save time in economic development [...]. A strong consensus has emerged that close and intimate cooperation between our two countries must be explored, pursued and acted upon with all deliberate speed, especially in the field of economic co-operation."[1]

Minister K.T. Li,
Taiwanese Minister of Finance and Minister without Portfolio,
January, 1980

3.1 INTRODUCTION

The current approaches to Taiwanese and South African relations have emphasised political isolation and sanctions as the leading factor for greater co-operation and diplomacy. Geldenhuys (1991) noted that entering the 1970s, both South Africa and Taiwan found themselves on the periphery of international diplomacy, becoming increasingly dependent on one another for political legitimacy. However, in this chapter I examine more complex economic motives that need to be considered in conjunction with political isolation.

Undoubtedly South Africa was the most type-cast of the ostracised states in world politics.[2] Colonial racist policies had evolved into formalised *'apartheid'* following the election of a nationalist government in 1948. South Africa subsequently descended into full-blown pariah status, withdrawing from the Commonwealth in 1961.[3]

[1] Minister K.T. Li's parliamentary speech to South Africa, excerpted from Free China Times (1980).
[2] Geldenhuys (1991, p. 121) groups South Africa with Taiwan, Chile and Israel.
[3] Following the *'Winds of Change Speech'* by Harold MacMillan, the Nationalist Government had a pre-emptive referendum, becoming a republic in 1960. Hyam and Henshaw (2003, p. 259) noted how MacMillan described the departure of South Africa from the Commonwealth as "unhappy, painful, very sad, tragic, disastrous [...] and harped upon his sense of grief and foreboding."

At the same time, Taiwan was embroiled in diplomatic warfare that stemmed from unfinished business after the Chinese civil war, which exiled the Republican Kuomintang to the island.[4] The nation's international and economic relations were therefore a central component of its bid for legitimacy and recognition over the Peoples Republic of China at the United Nations. This diplomatic battle was steadily being lost following the loss of UN representation in 1971 and the 1978 opening up of the PRC. These trends are highlighted in Table 3.1 below, while Appendix C Figure C.1 shows the declining UN voting outcomes as fewer countries came to recognise the ROC's sovereign claims. South Africa faced a similar existential crisis when the UN General Assembly formally denounced the institutional formation of ethnic black homelands.[5]

It was under these adverse conditions that an increasingly dependent economic and political relationship emerged between two unlikely allies. Focusing on the economic motives, this chapter contextualises three distinct factors in the rise and growth of the ROC - RSA co-operation by examining the relationship between the two countries from the interwar period until full diplomatic engagement in 1975. Firstly, it documents the changing political economy of South Africa and Taiwan. Secondly, it explores the diplomatic challenges, showing how and why bilateral trade treaties were important in securing the confidence of Asian investors during apartheid, when long-standing racial obstacles persisted. Finally, it assesses reserve bank data, discussing how diplomatic and economic factors prompted Taiwanese investors to hold long-term South African assets. It concludes that not only diplomatic protection, but also trade quotas, globalisation of labour-intensive manufacturing and lower domestic investment yields accounted for greater engagement. This lays the foundation for the following case studies on trade (Chapter 4) and investment agglomeration (Chapter 5).

INTERNATIONAL RECOGNITION FOR TAIWAN (ROC) OR CHINA (PRC)

	Republic of China (ROC)	Peoples Republic of China (PRC)
1949	46	16
1950	53	26
1963	58	42
1966	60	50
1971	62	59
1973	39	85
1977	23	111
1988	22	104

TABLE 3.1: Number of Sovereign Nations Recognising either Taiwan or China, (1949 - 1988).
Source: *Assembled by author (see forthcoming text on pg. 93) and sourced from Kao (1988).*

[4] Kuomintang (KMT or 中國國民黨) governed the Republic of China between 1927 to 1948.
[5] The General Assembly suspended South Africa from participating in its work, due to international opposition to the policy of apartheid.

3.2 HISTORICAL CONTEXT

To begin my analysis, I need to contextualise both countries building up to, and directly following World War II. In terms of their internal historical development and external relations, South Africa and Taiwan each faced a cross-roads in 1948. Mills (1994) explains that before 1948, the Union of South Africa was one of the most prestigious members of the international community. Regarded as an important link of the Commonwealth defence coalition in Africa, the country was the most economically developed, and one of three independent states on the continent. Despite sporadic criticism levelled at it over its administration of South West Africa (Namibia) and the treatment of its immigrant Indian population, it remained deeply integrated with the mainstream of international relations.[6] During the interwar period, large parts of Africa and Asia remained under colonial rule and "white domination over the non-white peoples was generally the order of the day."[7] It was in this era of the Pax Britannica that South Africa's domestic policies were overlooked in favour of deeper economic and geo-political ties.[8]

During the inter-war period, the Chinese Kuomintang (Nationalist) government also formed a pivotal point in geo-politics, resisting Japanese aggression in Asia, and later as a member of the Allied forces and Pax Americana.[9] Taylor (2009) notes how Chiang Kai-shek was heralded as "the greatest soldier-statesman of our time on the Continent of Asia"[10] attending the Cairo summit in 1943 as one of the big four, together with Josef Stalin, Winston Churchill and Franklin D. Roosevelt. Following defeat by the Chinese Communist Party (CCP) Chiang Kai-shek and his Kuomintang government fled from mainland China to Taiwan. In October 1949, the CCP established the People's Republic of China (PRC) at Beijing, while the Republic of China (ROC) relocated its seat of government from the the mainland to Taipei. Both sides claimed to be sovereign independent states while maintaining their political legitimacy over one another. During Chiang and his successors' rule, the KMT governed Taiwan for the next forty years under martial law.

Koorts (2014) notes in South Africa that the National Party came to power through a narrow electoral victory in 1948 which precluded Africans from the franchise. Posel (2011) explains how this outcome was unsurprising with the political climate dominated by an "iconography of 'die swart gevaar' or *'the black menace'*, a sprawling black mass - disaffected, restless and increasingly militant - threatening to swamp the white minority."[11]

[6] Dubow and Jeeves (2005, p. 236) explain how the government attempted to "prise Indians out of sectors" in which they could compete with whites, and met with international condemnation.

[7] Duignan and Gann (1974, p. iv)

[8] As discussed later, South Africa was the largest producer of gold, the "lubricant of trade", while its political leaders (Smuts) had played a leading role in important international activities such as the formation of the League of Nations and the United Nations (UN).

[9] General Chiang Kai-shek (蔣中正) was the Supreme Commander of the Allied Forces of the Chinese theatre during the war years (1937 - 1948).

[10] Taylor (2009, p. 19)

[11] Posel (2011, p. 325)

Once elected to power, the National Party set about redefining the country's relationship with Britain, and more broadly the West. For example, British citizenship was abolished, while *'God Save the Queen'* was dropped as the national anthem and the Union Jack swiftly scrapped in favour of a tricolour Union Flag.[12] This sense of independence culminated in the creation of a republic and the withdrawal from the British Commonwealth in March 1961. The apartheid project of white Afrikaner patronage required racial domination of the majority black population. However, Geldenhuys (1991) notes that "a new post-war international morality created an inhospitable external environment for a domestic order built on racial discrimination and domination."[13] This new stance was seen at the very first session of the General Assembly of the UN which publicly censured South Africa over its domestic racial policies and control over South West Africa.[14]

Taiwan's political legitimacy had come under pressure in the 1960s. At times it practised unorthodox diplomatic tactics bidding for recognition in a process Rich (2009, p. 165) termed "Status for Sale" which witnessed the country courting newly independent African nations. Highlighted in Appendix C, Table C.1, Taiwan sent an average of eight delegations to the continent each year between 1960 and 1970. These delegations negotiated aid and trade agreements with twenty-six African nations that were directly dependent on recognition for the ROC over the PRC.

Not until 1971, once Taiwan was expelled from the China seat at the UN, did the relationship between South Africa and ROC formally blossom when other African countries had became comparatively unimportant. Lin (2001), a former Taiwanese diplomat explains how "freed from the annual diplomatic battle for the China seat at the UN, the ROC no longer needed the African votes. [...] This gave the ROC the freedom and opportunity to strengthen bilateral relations with the RSA for the benefit of economic development, trade and the supply of minerals."[15] Interestingly, the former Deputy Minister of Foreign Affairs, Chien-jen Chen, gave a brief explanation to Lin:

> *"After the ROC was ousted from the UN, the political consideration, that by associating with the RSA, its apartheid policies might lead the ROC to offend other black African countries was removed, and the ROC's foreign policy towards the RSA was less influenced by factors of political stance. Therefore, we established ambassadorial-level relations with the RSA."*[16]

[12] Originally flown subordinate to the Union Jack from 1928, the flag was promoted to primacy, and reflected the colonial predecessors - of which the basis was the royal tricolour of the Netherlands.

[13] Geldenhuys (1991, p. 11)

[14] Modern day Namibia, a former German colony captured by South Africa in 1915 during the First World War, then subsequently refusing to allow the territory's transition to independence.

[15] Lin (2001, p. 65).

[16] Taipei Forum, The Political Situation of South Africa and ROC Relations cited in Lin (2001, p. 66).

3.2.1 Immigration and Control

South Africa was not always in favour of publicising its links to the breakaway Republicans on Taiwan. The Nationalist government was concerned that any overt ties to the ROC may have antagonised the PRC, escalating support for various liberation movements.[17] In one of the very few diplomatic studies of this period, Shinn and Eisenman (2012) explain the tensions, finding that the USSR and PRC regarded South Africa as "a major battle ground between communism and capitalism."[18] With the PRC supporting the breakaway Pan African Congress (PAC), and the USSR training African National Congress (ANC) militia, both Taiwan and South Africa became evermore suspicious of the "encroachment of their sworn enemy."[19] As such, the diplomatic relationship between Apartheid-era South Africa and Taiwan were "strengthened politically through the fact that both states were vehemently anti-communist."[20]

However racial discrimination imposed on South Africans of Chinese descent further complicated diplomatic ties. Voting in support of United Nations General Assembly's 'anti-apartheid' resolution *(N°. XVII)*, the Taiwanese (ROC) representative spoke out against South Africa:

> *"What has made racial discrimination in South Africa particularly objectionable is that unlike other societies where efforts are directed to rooting out such a phenomenon, South Africa has made it an instrument of national and official policy. It is all too clear that South Africa is moving in a collision course with African nationalism, and as time passes by, the chances for a compromise solution are dwindling. It is not too late for the government of South Africa to face up to the realities of the situation and reverse a policy, which is so glaringly out of step with the progress of mankind towards larger freedom, and so clearly contrary to its highest self-interest.*[21]

Ethnic Chinese had encountered discrimination well before the 1948 electoral victory and subsequent apartheid legislation. To contextualise, the migration of Taiwanese in the 1980s requires a discussion of how immigration to South Africa had its roots in racially discriminatory policies espoused by both the pre-apartheid and apartheid governments. These had severely restricted the movement, settlement and property rights of non-White individuals which created the racial and institutional environment necessary for the formation of business groups in the RIDP zones, which are analysed in Chapter 2.

[17] Pickles and Woods (1989, p. 511)
[18] Shinn and Eisenman (2012, p. 344)
[19] Grimm et al. (2014, p. 25)
[20] Grimm et al. (2014, p. 24)
[21] Reports on the Proceeding in the Security Council at the Eighteenth Session of the General Assembly of the United Nations on Questions Affecting South Africa, 1963, p.19. Also cited in Lin (2001, p. 52).

It is often forgotten that not only African, but also indentured Chinese labourers were involved in the large-scale industrialisation of mining in South Africa.[22] Following the the South African War (1899 - 1902), the mine owners and colonial government were anxious for new investment to restore wartime losses.[23] The continued profitability of low-grade, deep-level ores depended on depressing the average wages of African workers on the mines to about 50 per cent of their previous levels. However the lack of Africans willing to engage in wage labour slowed down the pace at which the mines were able to resume production. In turn, this affected the employment opportunities of skilled white workers, while depressing the stock markets as well as the entire Transvaal economy. Marks (2011) explains how the mining industry's solution to its crisis was to search out ever-cheaper sources of unskilled labour.

Importation of Chinese indentured mine labourers to the Transvaal gold fields provided a solution to these geological and labour constraints. However, Chinese migration to South Africa was brief. In the thirty-three months of recruiting in China for the South African mines, only 63,296 men were contracted, but a considerably greater number were actually mobilised. The practice of Asian labour was swiftly outlawed in 1906 and the indentured Chinese migrants forcibly returned.

Furthermore, both the Boer Republics segregated Asians, and in the British-controlled Cape they were classified as "free blacks". In 1885, the Transvaal (Zuid-Afrikaanse Republiek) enacted the Volksraad Law N$^{o.}$ 3 stipulating that "persons belonging to one of the native races of Asia" were prohibited from being "owners of fixed property."[24] The Orange Free State passed similarly draconian legislation in 1891 that forbade Chinese, Arabs or other Asiatic coloureds from settling in its territory.[25] Deep resentment for migrant Chinese labourers was evident in their institutional and social environment:

> *"The Chinese was a very different subject to the kafir. The kafir was honest, truthful, and reliable (laughter). He was reliable, he maintained, because he had never sought to usurp the white man's work. The moment the yellow man was brought into competition with themselves so soon would they break through any stipulation that might have been imposed, and seek to oust the whites from their position (hear, hear)."* [26]

The racial disdain with which the Chinese had been viewed in the late 19th century persisted into the 20th century. Apartheid then further entrenched colonial discrimination, and during the 1950s, 1960s and 1970s, ethnic Chinese remained strictly controlled in

[22] Richardson (1977, p. 89)
[23] Marks (2011, p. 169)
[24] Tan (2013, p. 179)
[25] Under Section *XXXIII* of 1891, the Orange Free State laws stated that "Arabier, Chinees, Koelie of andere Aziatische kleurling" were forbidden from traversing the territory.
[26] "The Labour Question", The Star newspaper (weekly edition), 4th of April 1903.

their ability to trade, or to enforce property rights.[27] They remained a very small, quiet minority in South Africa totalling about 10,000 inhabitants with limited diaspora linkages.[28] Harris (2013) explains that during apartheid, the Chinese were "not eager to be conspicuous, [...] remaining insular and as a result [...] relegated to the periphery of the host society."[29]

Not until Taiwanese bilateral trade and investment (BITT) emerged 80 years later did ethnic Chinese migration, under honorary white status, begin again. Following these diplomatic changes, Taiwanese entrepreneurs developed sophisticated trading networks and clusters to substitute for their historical economic and social exclusion imposed by prior racial segregation. These networks and clusters are the focus of Chapters 4 and 5.

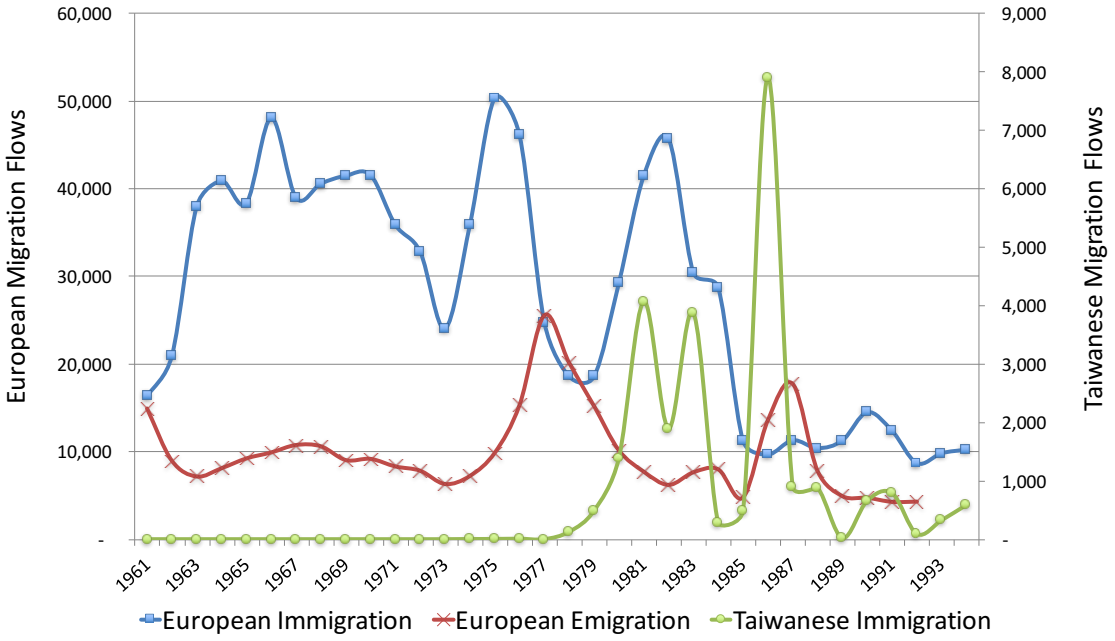


FIGURE 3.1: European and Taiwanese Migration between 1961 and 1994.

Source: *European - Department of Internal Affairs, Annual Reports, The National Archive, Pretoria, and The Government Publications Library, University of Cape Town (European:UK, Germany, France and US). Taiwanese - Migration and population series assembled from the Board for the Decentralisation, business license applications (National Archive, Pretoria, RSA).*

In contrast, the state initiated a programme to encourage the immigration of whites to the new republic in 1961, having previously suspended the post-war immigration programme on the grounds that it would 'submerge the Afrikaner'.[30] The inward flows of western immigrants from the former colonial power Britain, but also the United States, Germany and France, ebbed and flowed over the 20th century as demonstrated in Figure 3.1 above. The post-Nationalist peak was reached in 1975 with 50,337 people of European origin immigrating to South Africa. As such, Taiwanese migration to South Africa was a

[27] Chai and Li (1980, p. 48) also noted how they were denied hospital treatment, strictly restrained in trade, education, public transport, property rights and freedom of movement.

[28] Harris (2013, p. 197) in the *"Routledge Handbook of the Chinese Diaspora"* explains how "[Chinese] having lived out a separate existence for almost five centuries in the ill-defined economic and social spaces that colonial, segregationist, apartheid and post-apartheid South Africa left open to them."

[29] Harris (2013, p. 197)

[30] 'White Immigration' was initiated by then Prime Minister Jan Smuts. Cited in Posel (2011)

discernible outlier in the latter parts of the decade. By the downfall of apartheid, 15% of the population was legally classified as 'white', of which 5% reported as being born in Europe, while 2% reported as being born in Asia (either Taiwan or Hong Kong).[31] The basis for this comparison will become important in Chapter 4.

Following the 1971 United Nations expulsion, and unified by the perceived communist threats, South Africa and Taiwan inevitably became pressured into a more robust economic relationship.[32] However Lin (2001) noted that the "discriminatory treatment alienated the support of the ROC general public for developing closer links with South Africa."[33] Yap (1996) also interviewed diplomats who were often humiliated, refused entrance to restaurants in Pretoria and turned away from white enclosures at turf clubs.[34] Political sentiment toward South Africa was also negative back home. For example, Chai and Li (1980) explained how native Taiwanese protested the racial policies of South Africa, because of the similar hardships they had suffered at the hands of mainlanders, while Taiwanese scholars were also "opposed to the establishment of diplomatic links between the ROC and the RSA."[35]

3.2.2 A Strong Consensus Emerges

The first overture towards greater co-operation was the signing of a formal trade agreement in 1975, from which a number of supplementary agreements would follow.[36] Publicly overcoming this diplomatic hurdle paved the way for regular consultations between representatives of the two countries. In the following year (1976) the consulate of each country was upgraded to embassy level, with trade and economic relations flourishing. The bilateral trade agreement therefore created the conditions under which trade could expand, ensuring that Taiwanese property rights and capital flows would be covered by the same legal status as those of South Africa's western trade partners, employing the following legal wording:

> *"Any advantage, favour, privilege or immunity granted by either country shall be [...] unconditionally conveyed to like goods whether those are imported or exported as the case may [...]." The contract parties shall consult each other in respect of any measures which either of them may recommend as a means of expanding the trade between their respective territories or solving any difficulties [...].*[37]

[31] Population census 1996 is the closest census to the downfall of Apartheid in 1994.

[32] Commenting in the Business Day, December (1986), the Taiwanese Ambassador to South Africa, H. K. Yang pointed out, "South Africa and my country are joined in the fight against communism. We are in favour of free enterprise, democracy and freedom". Cited in Pickles and Woods (1989, p. 511).

[33] Lin (2001, p. 53)

[34] Yap (1996, p. 360)

[35] Chai and Li (1980, p. 48)

[36] Depicted in Appendix C Figure C.2

[37] *Articles I & V*, Bilateral Trade Agreement between the governments of ROC & RSA, 26th Feb, 1975.

As a result of this bilateral trade and investment treaty (BITT), most-favoured-nation status was accorded to each country, and tariffs were reduced. Moreover, annual ministerial meetings were held in Taipei and Pretoria on an alternate basis gradually strengthening the ROC - RSA economic relations.[38] As such, the trade agreement was accompanied by a flurry of cultural, scientific, naval and aviation agreements following a state visit by Premier Sun to South Africa in March of 1980.[39]

1. Agreement on the Co-operation of ROC - RSA Defence Industries.
2. Agreement on the Reciprocity of granting Most Favoured Nation (MFA) Status in respect of navigation and Shipping.
3. Aviation (Air Transport) Agreement.
4. Agreement of Reciprocal Exemption of the Income Tax on Aviation & Navigation.
5. Agreement on the Co-operation of Science and Technology.
6. Exchange of Personnel between the ROC National Science Council and the RSA Council for Scientific and Industrial Research (CSIR).

Lin (2001) notes that the six agreements not only reduced tariffs and taxation, but also "laid the foundation of ROC - RSA co-operation in the fields of national defence, navigation, shipping, aviation, science, technology and economy."[40] Once again these agreements appear like two pariahs superficially justifying one another. However, they were also the foundation for greater trust and commercial co-operation, which was important for both trade and migration. Moreover, as the ROC's trade with the RSA increased, so did political-diplomatic ties, which in turn improved prevailing public perception of South African investments in Taiwan.[41]

Speaking in 1980, the Taiwanese minister of Finance proclaimed that a "strong consensus [had] emerged" and "close and intimate co-operation must be explored."[42] Yet the question of racial discrimination remained. At the first meeting during Premier Sun's state visit in 1980, the status of Chinese in South Africa was raised as a priority.[43] Addressing the legalised discrimination would require wide-scale reform of the Population Registration Act (1950) and the Group Areas Act (1950) that classified and registered South Africans according to racial characteristics.[44] However, a revision of these Acts

[38] Office of the Economic Counsellor of the ROC Embassy, Johannesburg, July 16th - 31st (1982, p. 1).
[39] Agreements catalogued by Kalley (1987) and "The ROC Embassy's Comprehensive Report on Premier Sun's Visit to the RSA, pp.1-10." Cited by Lin (2001) with the original sources located at TLO Archives, Pretoria.
[40] Lin (2001, p. 88)
[41] Lin (2001, p. 85)
[42] Minister K.T. Li, Taiwanese Minister of Finance and Minister without Portfolio, January, 1980
[43] The ROC Embassy's Comprehensive Report on Premier Sun's Visit to the RSA, p.1 - 10. Taiwanese Liaison Office Archives, Pretoria, translated by Lin (2001, p. 97).
[44] Harris (2010, p. 155)

would have caused complex legal implications, especially regarding the treatment of the ethnic Indians who numbered nearly one million.[45] The South African delegation agreed that it would address "the chronic discrimination against the Chinese through the amendment of legislation."[46] The solution proposed was that of an *"Honorary White Status."*[47] Park (2008) explained that prior to this, Chinese were considered "displaced persons" and their "precarious position, constantly exposed them to exploitation, eviction, and prosecution, [...] making them dependent on the goodwill of landlords and neighbours."[48] The change in legal standing allowed Taiwanese investors to move freely and guaranteed their property rights.

Following the legal and diplomatic changes, ROC - RSA links began to grow after 1978. Attempting to attract Taiwanese investment, a group of more than 60 businessmen from South Africa arrived in Taipei for a week's visit in March 1981 which later set in place chain migration to the homelands. This was further supported in April 1981 when R.A. van Wezel was assigned the first South African commercial attaché in the Republic of China.[49] In addition, South African Airways began flights to Taipei using a long-range Boeing 747, becoming one of the few countries to have direct routes to Taiwan.[50]

Taiwanese investment and migration escalated in several phases which are discussed in Chapter 4. However in certain areas discrimination persisted with "apartheid snags for Taiwanese Businessmen."[51] A newspaper clipping by the same title noted how "Taiwanese businessmen attracted to South Africa by efforts to encourage foreign investment are running into apartheid tangles over housing and schooling for their children."[52] In the Orange Free State, Van der Watt and Visser (2008) noted how the peculiarity of former colonial and apartheid laws meant Taiwanese were granted residence permits but were not classified by the Population Registration Act. In 1983, after a special commission investigated legislation affecting the Chinese, they were granted the same rights as members of the white group.[53] From most accounts, Taiwanese entrepreneurs were favourable to the prospects of migrating and investing in South Africa. Although they were constantly perceived as outsiders and excluded from formal business alliances, their property rights and market access were upheld by the BITTs. For example, the MP for King William's Town, a region with large-scale Taiwanese migration championed the entrepreneurs concerns in Parliament. Explaining how "since 1981 when he came to parliament he had been involved in several efforts to overcome group areas problems for Taiwanese."[54]

[45] Accone and Harris (2008)
[46] Lin (2001, p. 98)
[47] Park (2008) explained how for the benefit of trade, the South African government had relaxed apartheid laws for the Japanese in the 1960s. As in the Japanese case, the Group Areas Act officially exempted Taiwanese.
[48] Park (2008, p. 126)
[49] Taiwan Today - Events during the year of 1981. Web access.
[50] Crawford and Klotz (1999)
[51] Title of Business Day article in Appendix C, Figure C.3.
[52] Business Day (12/06/1982)
[53] Yap (1996, p. 348)
[54] Mr Pat Rogers, MP for King William's Town, cited in Business Day (12/06/1982).

3.3 The Economics of Isolation

It was not until the period of political isolation that South Africa and Taiwan began to grow diplomatic ties. However, the underpinning of both countries' economic motives has been overlooked in favour of international relations. The following section therefore traces out the long-run growth path of both countries, showing how economic and market forces encouraged co-operation. Taiwan was liberalising its economy after many decades of growth, legislating the offshore expansion of sunset industries, while South Africa had failed in diversifying the export manufacturing sector from the commodities complex, and was left reeling under the strain of capital market isolation.

3.3.1 Taiwan: An Economic Miracle

Agriculture was by far the most important sector in Taiwan in the late 1940s, accounting for twice as much of domestic product as industry and over 90 % of exports. With the KMT's exile to the island, the aspirant Nationalists first turned to reforming the countryside in a "land-to-the-tiller programme."[55] Pursuing more egalitarian landholding, Koo (1982) explains how landlords were given land bonds in kind and stocks in public enterprise in exchange for the compulsory divestiture of their holdings.[56] As a result, the "landlord class sank into social oblivion, [...] overnight the countryside ceased to be oppressed [...] and became characterised by a large number of owner-operators with extremely small holdings."[57]

Surprisingly, following this upheaval, Ishikawa (1967) found that agricultural production grew at 4.4 % a year between 1954 and 1967, faster than just about anywhere else in Asia. Impressive rice yields reached three tons per hectare, the highest in Asia outside of Japan.[58] Agriculture could now supply export markets and generate an investable surplus for the rest of the economy. Lacking almost all raw materials, Wade (1990) notes how trade and exchange rate policies were then used to control external competition and induce industrial production.[59] Manufacturing as a share of GDP reached 22 % by 1960, exceeding agricultural production for the first time in 1963.[60]

[55] Amsden (1979, p. 352) explained how the same programme had amounted to sheer rhetoric in China during the 1930s and 1940s, because would-be expropriated landlords were stalwarts of the Nationalists.

[56] Wade (1990, p. 92) notes that there were monopolies owned by the former colonial administration, including Japanese-owned shares in industrial enterprises, and Japanese-owned lands, which were then passed to the incoming KMT government.

[57] Koo (1982, p. 156)

[58] Ishikawa (1967, p. 95)

[59] Wade (1990, p. 92) notes that agriculture received less in domestic currency than they would have at an equilibrium exchange rate and acted as an export tax. On the other hand, industrialists benefited from the overvalued exchange rate in the form of lower costs of imported inputs.

[60] World Bank, (1990)

With the population growing at over 3 % a year, raising living standards required labour-intensive manufacturing.[61] This was successfully achieved by pursuing export orientation in manufactured goods, with average annual GDP expansion reaching 8.8 % per annum between 1953 and 1986.[62] Kuo, Fei and Ranis (1981) calculated that this rapid export expansion accounted for 60 % of the growth in employment after 1970. During the economic transition, small and medium-sized enterprises (SMEs) played an important role in labour-intensive manufacturing. Moreover, export expansion was inextricably intertwined with the proliferation of small, networked enterprises resulting from the extensive land-reform programme and redistributive agricultural policies. Wu (1988) explained how "in the export sector, small and medium-sized enterprises are clearly the prime mover behind Taiwan's rapid growth."[63] Quantifying the size of Taiwanese industrial clusters, Buck (2000) found that Taiwan's largest firms accounted for only 27 % of exports in 1976. In comparison, small enterprises averaged 65 % of export earnings between 1978 & 1985.[64]

Prior to the 1960s, there was little foreign investment in Taiwan, amounting to only $ 2.5 million over the preceding decade.[65] However the new export-oriented policies offered incentives to exporters, attracting foreign investment from the Western countries and Japan, drawn by Taiwan's political stability and its "cheap, abundant, disciplined, and educated labour."[66] The *'Statute for the Encouragement of Investment'*[67] with tax holidays and the creation of three export-processing zones attracted further foreign capital that would "make it the mainspring of the local industrial development."[68] Between 1960 and 1985, foreign investment was split between overseas Chinese, accounting for 23 %, with Japan and the United States making up a further 65 %, demonstrating the strong links to Pax America and the Chinese diaspora.[69]

Following continuous growth and rising living standards, Taiwan's meteoric success of small-scale producers had come at a price. The model was centred on low wages and labour-intensive production, however Hart and Todes (1997) and Pickles and Woods (1989) note that the economic triumph generated the conditions for eventual demise. Currency pressure, labour shortages and rising land and labour costs made it necessary to relocate industrial activity offshore, or face closure. With the economy slowing and a large accumulation of foreign exchange reserves during the 1970s, Mai and Shi (2001) explain how the government actively promoted Taiwanese firms to relocate abroad.

[61] Ho (1980, p. 235) found that an expansion of labour-intensive manufacturing was in the textile products, plywood, footwear, plastic articles, garments, electronic products and bicycle sectors.
[62] Amsden (1979, p. 351) notes how "this 'miracle' is considered to be primarily a result of success in export-oriented industrialisation, one of the prime economic goals of the government."
[63] Wu (1988, p. 165)
[64] Buck (2000, p. 252) explained rural industrialisation was much faster than that of urban areas, largely attributable to the expansion of small, family-owned export manufacturers.
[65] Geldenhuys (1991, p. 356)
[66] Gold (1986, p. 79)
[67] Dobson and Chia (1997, p. 63) catalogue the impact of this legislation over 40 years.
[68] Fitting (1982, p. 732)
[69] Simon (1996) explains how this was an occurrence from USAID efforts following the WW2.

These major structural and regulatory changes to Taiwan's economy cannot be ignored when explaining the inward flow of capital to South Africa. Wade (1990) noted that by the early 1970s the economy was falling victim to its rapid success. Labour-intensive competitiveness had come under pressure due to relative New Taiwanese dollar strength compared to its major trading partner, especially the United States dollar.[70] This was further exacerbated following the Multi-Fibre Agreement (MFA) in 1974. Under the MFA, the United States and Europe restricted imports from developing Asian countries in an effort to protect their own domestic industries. Each developed country was assigned a quota or quantities of a specific item which could be exported to the United States and European Economic Community (EEC). Signalling the end of Taiwanese state-sponsored support for labour-intensive textile and sunset industries,[71] many of the manufacturers started to look for offshore opportunities to counter rising wages and MFA tariff exclusion.[72] Given South Africa's low levels of exports to the US and EEC, Taiwanese firms could take advantage of excess quota capacity by moving production to the RIDP zones under tax-incentive legislation similar to their export processing zones.

The devaluation of the rand made investments in South Africa even more compelling, lowering the operational costs and increasing export earnings.[73] This additional monetary variable provides further evidence of the intensity and volume of labour-intensive investment in South Africa from Taiwan. Overlooked in the prior literature was South Africa's weakening (dual) exchange rate vis-à-vis the rapidly strengthening New Taiwanese $. The impact of South Africa's commercial and financial rand system will be addressed in the following section on page 91, however it is necessary to examine the currency impact on the political motives for migration and investment. These motives are also supported by anecdotal archival accounts:

> *"Taiwanese investment in these areas [RIDP Zones] were business deals arising from that country's good [diplomatic] relationship with Pretoria. But he said that the influx was also due to their difficulties in coping with the strength of Taiwan's currency. And they derive great benefits from their deals with the homelands. The Taiwanese dollar has appreciated by 40 % against the US dollar. As a result many businesses are relocating their plants to other countries. The strength of the Taiwanese dollar - and the rand's weakness - means these entrepreneurs can produce goods in South Africa for export more cheaply than they can manufacture them there."*[74]

[70] Pickles and Woods (1989, p. 514)

[71] A sunset industry is an industry in decline. For various reasons governments might choose to target unprofitable sectors that have passed their peak or boom periods through tax and subsidy penalties.

[72] Free China Journal (1988) found that Taiwanese textile labour costs were five times those of Malaysia, Thailand and the People's Republic of China.

[73] Fixed operational costs, often subsidised by the Board for Decentralisation of Industry, were incurred in rands, exports in US $, while capital was accessed in NT $

[74] Taiwanese immigrant George Shih quoted in the Weekly Mail (1988). See Appendix C Figure C.4

The rapid decline of the South African rand against the New Taiwanese dollar gains momentum between 1980 and 1982 as shown in Figure 3.2. This coincided with the final phase of the RIDP programme that introduced lucrative incentives for foreign investment in the homelands. As the archival quote above suggests, this influenced both migration and foreign investment in the RIDP zones. The result of the devaluation, new incentives and political isolation, witnesses increasing capital flows to South Africa from Taiwan, with the Bank of Taiwan establishing a presence in Johannesburg. However the volume and asset classes in which Taiwanese investors were deploying their capital in South Africa have not been previously examined and will be discussed in Section 3.4. Interestingly, Standard Bank of South Africa was one of 19 foreign banks allowed to operate in Taiwan.[75] With the new-found diplomatic alignment, greater financial engagement ensued at a time when western investors were exiting South Africa.

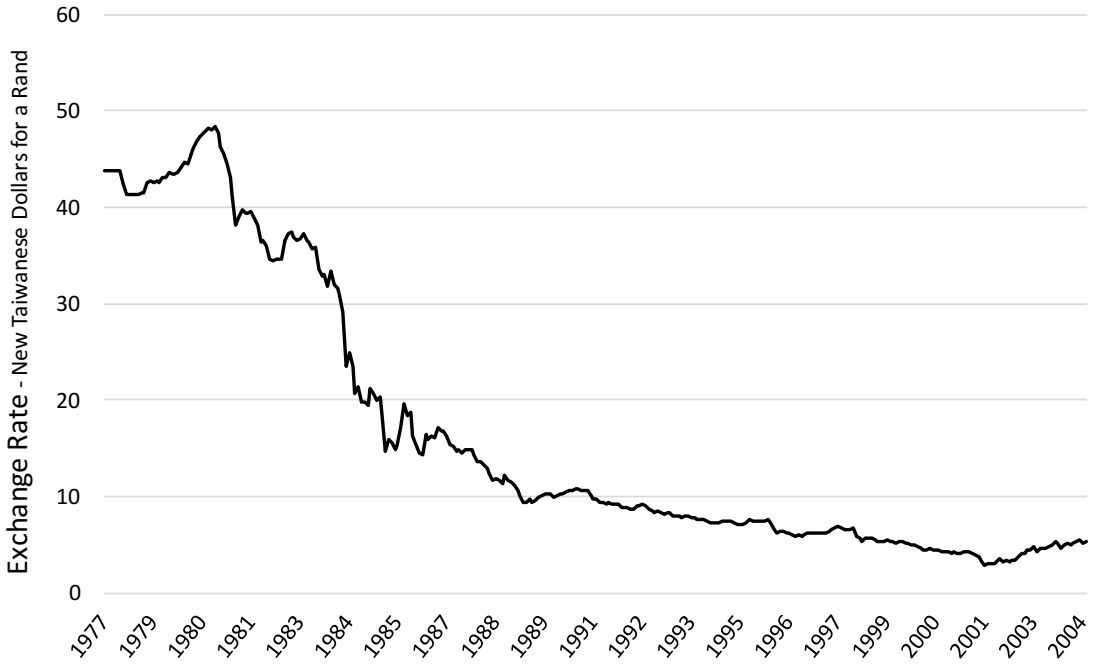


FIGURE 3.2: Taiwanese Dollar : South African ZAR exchange rate, (1977 - 2004).
Source: *South African Reserve Bank Quarterly Bulletin.*

The strengthening of the Taiwanese dollar against the rand was not only a result of South Africa's isolation, but also of a growing current account surplus and the liberalisation of Taiwan's monetary policy and banking sectors.[76] Although not the core findings of this chapter, three notable events are worth mentioning to provide context to the following analysis. Firstly, in 1979 Taiwan's central bank moved from a fixed to a floating exchange rate, which witnessed a gradual appreciation policy limited to 1 % per day against the US $. Kuo and Liu (1999, p. 45) note that this appreciation reached an unsettling 38 % in 1988 placing pressure on exporters and incentivising faster offshore expansion. Secondly,

[75] Dwyer (2002, p. 89)
[76] Amsden and Wang (1992, p. 23)

interest rates were no longer fixed by the CBOC, and the banking sector moved to a prime lending system, thus reducing returns on accumulated NT $ savings. Chen (2001) summarises how excessive domestic savings, low interest rates and deregulation triggered a flow of money to higher-yielding assets. Furthermore, deregulation in the banking industry and securities markets promoted competition among financial institutions.[77] Wu and Hu (2007) also noted how the liberalisation of lending rates set by the government encouraged risk-taking by formal financial institutions. Finally, capital mobility controls were lifted, and foreign banks could enter the Taiwanese market. ROC nationals could now invest directly offshore where risk-adjusted returns abroad were higher.[78] These all contributed to the offshoring of manufacturing and financial flows into South Africa.

3.3.2 South Africa: Rise and Decline

South Africa is richly endowed with minerals and agricultural land, which immediately differentiated it from Taiwan. Exploiting this natural advantage, industrialisation stemmed from a symbiotic relationship that emerged amongst the state, the mining sector and agriculture through a *'Gold Maize Alliance'* which created a very considerable surplus for investment.[79]

RATES OF GROWTH IN MANUFACTURING, GDP & EMPLOYMENT

Year	Manufacturing Output	GDP	Employment
1945 - '50	9.0%	2.8%	7.1%
1950 - '55	7.5%	4.9%	5.4%
1955 - '60	4.6%	4.1%	0.7%
1960 - '65	9.8%	6.3%	6.9%
1965 - '70	7.4%	5.1%	2.9%
1970 - '75	5.9%	3.6%	3.9%
1975 - '80	4.7%	3.1%	2%
1980 - '85	-0.5%	1.4%	0.5%
1985 - '90	1.4%	1.7%	1%
1990 - '95	0.15%	1.1%	-1.25%

TABLE 3.2: RSA Rates of Growth in Manufacturing, GDP & Employment, (1945 - 1995).
Source: *Manufacturing and GDP growth rates calculated from South African Reserve Bank. Employment rates from Statistics South Africa (1990) & (1998). Also see McCarthy (1994).*

[77] As a result Chen (2001, p. 215) noted how monetary aggregates grew at unusually high rates (e.g. M1 growth reached 51% between 1986:Q4 to 1987:Q1).
[78] Patrick and Park (1994, p. 166)
[79] Trapido (1971, p. 309)

Using the advantage from mining, the government pursued an active policy of import substitution to stimulate domestic manufacturing with state investment in key sectors.[80] Growth of the manufacturing sectors was particularly striking as South Africa was becoming a notable exporter of manufactured goods through this aggressive process of import substitution and state-directed industrialisation.[81] Feinstein (2005) cites the example of the automotive sectors, in which the government was allowed to exploit foreign investment in exchange for import trade credits. British, German and US manufacturers were induced to invest in assembly plants and to provide capital and expertise to develop a domestic industry. As Table 3.2 shows, manufacturing and GDP grew rapidly, reaching their peaks at 9.8 % and 6.3 % during 1960 - 1965, with average annual growth rates during the 1960s of 8.6 % and 5.7 % respectively.

Bell, Farrell and Cassim (1999) note how the economy diversified, with a shift from primary commodities towards manufacturing. Manufacturing output also became increasingly diversified, partly due to the levelling off of gold exports. Related to this, Bell and Cattaneo (1997) found that manufactured exports had been determined largely by variations in the price and volume of South Africa's main mining exports. Summarising the proportional share of export manufactures, Table 3.3 compares Gold, Other Mining, Services and Agriculture. These mirror the balance of trade (Figure 3.3 below), owing to major increases in the price of gold in 1973 - 1974 and 1979 - 1980. As such, the percentage share of gold in South Africa's total exports increased from 29.12 % in 1972 to 45.75 % in 1980.

COMPOSITION OF TOTAL EXPORTS BY MAIN ECONOMIC SECTOR (%)

SECTOR	1972	1975	1980	1985	1990	1993
Agriculture	8.12	7.04	5.25	2.58	2.36	3.34
Gold Mining	29.12	34.17	45.75	38.4	25.7	23.96
Other Mining	13.47	12.78	13.68	18.02	20.82	25.06
Manufacturing	33.21	29.17	24.87	29.68	37.1	34.24
Services	16.08	16.85	10.44	11.21	14.01	13.39
TOTAL	100%	100%	100%	100%	100%	100%

TABLE 3.3: Composition of South African total exports grouped by economic sector.
Source: *Bell and Cattaneo (1997) for the years 1972 to 1980, thereafter South African Revenue Services for 1985 to 1993.*

[80] ISKOR (iron & steel), ESKOM (electricity), SAPPI (forestry & paper) and SASOL (fuels & Chemicals).

[81] Schneider (2000, p. 413) noted that industrialisation in South Africa was generated by a symbiotic relationship among the state, state corporations, and the mining sector with the creation of huge state-owned corporations, protection of domestic industries, provision of a guaranteed local market for new industries, and state repression of labour.

Although manufactured exports became an increasingly larger proportion of total exports, rising from 26.3 % in 1956 to 31.4 % in 1972, South Africa never made the transition to export-led industrialisation.[82] As Feinstein (2005) explains, there were "faults in the foundation."[83] The small size of the domestic market for manufactured goods made it difficult to achieve scale economies. Manufacturing remained uncompetitive, relying on tariffs, exchange control and quotas to keep foreign competitors out of the market. Edwards and Lawrence (2008) note how this trade protection had seriously impeded both exports and imports. As such, South Africa developed a comparative advantage in capital-intensive primary and manufactured commodities, partly because of its natural resource endowments, but also because the pattern of protection was particularly detrimental to exports of non-commodity manufactured goods.

Unlike Taiwan, this encouraged firms to adopt labour-saving techniques rather than expand labour-intensive production envisaged by the rigid programme of industrial decentralisation which was analysed in Chapter 2. This was evident in the widening ratio of capital deployed in manufacturing compared to that of labour, deteriorating even further as the 1970s progressed.[84] The result was that South Africa had come to rely on commodities and capital flows to fund imports. This meant South Africa's economy depended on favourable global commodity price trends to avoid running into external balance-of-payments constraints. Leading up to the 1980s, McCarthy (1994) found that manufacturing growth was virtually non-existent, and employment creation, as highlighted in Table 3.2, incongruent with that of an economy now associated with a major labour surplus. Interestingly, the comparisons between Taiwan and South Africa with regards to labour intensity and productivity were even debated in Parliament, hinting at the first diplomatic engagements.

> *"Taiwanese workers in the clothing and textiles industry are equivalent to seven South African workers, which is a perturbing comparison. Taiwan is a country poor in resources. To a great extent it has to import its raw material, process them, and export them again; in other words, what is actually happening is it is selling the labour capacity or productivity of its people. In spite of this, its growth rate over the past 10 years has usually been equivalent to our inflation rate, and their inflation rate corresponds to our growth rate. From the foregoing it is clear that we will have to give attention to productivity. These are a result of poor management, inadequate training and the almost total disregard for productivity among unskilled labour. I call for a transfusion from Taiwan, where, in that country, productivity is a way of life."*[85]

[82] Bell and Cattaneo (1997)
[83] Feinstein (2005, p. 127)
[84] The deterioration of the capital-to-labour ratio was highlighted in the previous chapter, and also measured in Appendix B, Figure B.5. The capital-to-labour ratio shows whether assets were purchased to automate labour-intensive tasks. An increase in capital-to-labor ratio signals automation.
[85] Minister of Commerce, cited in South African Parliamentary Hansard (April 1977, p. 3768)

Throughout the twentieth century South Africa's trade with its former coloniser and related western partners had played a crucial role in the growth of the economy. In exchange for the export of gold, diamonds and an assortment of minerals, South Africa imported capital equipment and technology. However, by the 1970s the economy became increasingly sluggish with export trade in minerals and manufacturing declining further.[86] Figure 3.3 demonstrates a small, but growing trade deficit (1972 - 1976) which ensued as imports of capital equipment outstripped exports during times of depressed mineral prices. As mineral exports were the main source of foreign reserves, imports were curtailed by means of a shortage of foreign exchange and a weakened exchange rate. The graph is intended to highlight an inherent vulnerability, which would become more pronounced during the hight of sanctions (1985 - 1990). The reason for this imbalance may be two-fold. Firstly, South Africa could no longer import capital goods during the sanctions period, but the economy was also contracting, and exports therefore continued to outstrip imports.

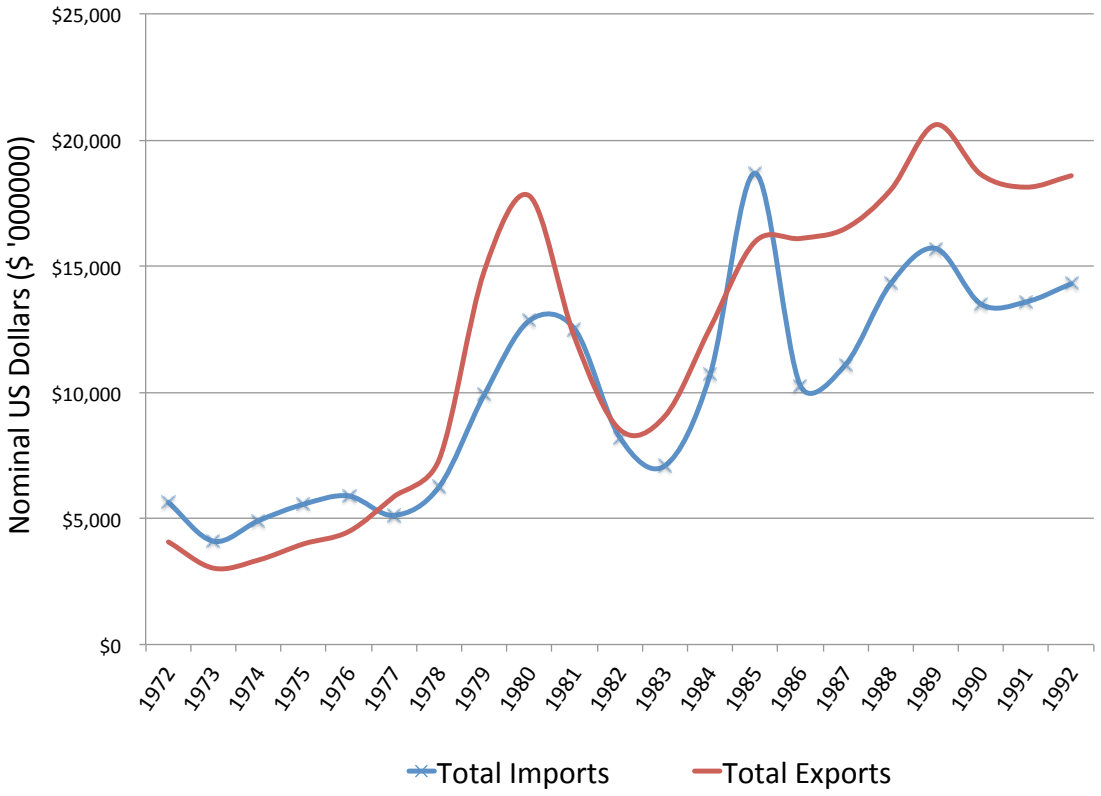


FIGURE 3.3: Total South African Exports and Imports in nominal US $

Source: *Trade series assembled from Foreign Trade Statistics 1975 - 1985, with supplementary statistics from the Department of Trade and Industry, Garner (1994) and IMF (DOTS) direction of trade statistics (1986 -1990). South African Revenue Services using HS codes in 1991 - 1995.*

[86] Jones (2002, p. 115) explains that the decline of manufacturing in the 1970s was closely related to the output and price of gold.

Before continuing, South Africa's experience with financial sanctions is briefly reviewed to contextualise the importance of foreign exchange and exchange rates to the Taiwanese investment case study. Sanctions began to take their toll in 1974, as it became increasingly difficult to raise offshore financing for both the private and public sectors.[87] First Switzerland imposed a cap on credit extensions to South Africa.[88] This was followed by Midland Bank in 1975, halting loans to the government or its agencies, which intensified in 1978 to all counterparties with any South African activity. Havemann (2014) notes that the most ominous gestures came in 1978 when a number of banks in the United States terminated all loans. Compounding this was an IMF prohibition of loans in 1978. As a result, western investors, fearful of growing financial and political instability, began to withdraw funds or to move it into short-term rather than long-term investments.

When global commodity markets were weak in the late 1980s, this seriously constrained South Africa's growth, and dulled the response of exports as the currency weakened against its main import partners. Moreover, manufacturing exports were an important foreign currency export earner during periods when gold production experienced downturns.[89] In the period 1980 - 1985, the export growth rates of all the main economic sectors including manufacturing declined. This was largely due to the very marked (13.93 % per annum) decline of gold exports. As a result, the share of manufactured exports in total exports rose in this period, to 29.68 % in 1985 in relation to imports which were constrained by the weak currency and lack of foreign reserves.

The 1980 to 1984 period was particularly difficult for South Africa, as economic conditions deteriorated significantly. Of particular apprehension for foreign investors and the government was the rapid devaluation of the currency. Figure 3.4 shows how the commercial rand devalued substantially, with the devaluation gaining momentum in the second half of 1984.[90] The crisis came to a head in August of 1985 when then President PW Botha gave an address, dubbed the *'Rubicon speech'*, in which he was expected to signal the dismantling of the Apartheid state.[91] However this never materialised, and the underlying message was that the Apartheid state would remain intact. The balance of payments rapidly deteriorated, and Havemann catalogues how increasingly desperate measures were taken to maintain economic stability as foreign capital withdrew. The most onerous of these was the imposition of a dual currency system, which provided for two exchange rates for the rand. A separate currency for current account transactions using the financial rand system (ZAL), and a second currency for capital account transactions for non-residents, using commercial rands (ZAR). Importantly for the Taiwanese cohort

[87] This was noted at the United Nations Centre Against International Conference on Sanctions Against South Africa, UNESCO House, Paris - first findings on trade embargo. See the published report - United Nations Centre Against Apartheid (1978).

[88] Ovendon and Cole (1989)

[89] A theme that reoccurs in the personal Taiwanese investment accounts as their exports were important sources of foreign exchange reserves.

[90] See Appendix C, Table C.2 for a complete table of annual exchange rates.

[91] Waldmeir (1998)

was that investments made by non-residents could only be sold for financial rand, and limitations were placed on the convertibility into commercial rands (ZAR) or foreign currencies.

The financial rand was first enforced in January 1979 to February 1983. To cope with capital outflows following the "standstill" on foreign debt in 1985, the South African Reserve Bank again imposed the ZAL (Figure 3.4), and at the same time reintroduced exchange control over non-resident equity investments in the form of the financial rand system. With the currency devaluation, the balance-of-payments crisis intensified in 1986, as South Africa could no longer fund its imports with foreign capital flows or debt. As a result, through the late 1980s imports declined significantly, while all available export earnings were used to finance external debt. After 1986, a combination of rising US $ gold exports, a weakening exchange rate, and declining imports generated the balance of trade surplus I highlighted in Figure 3.3 on page 89. [92]

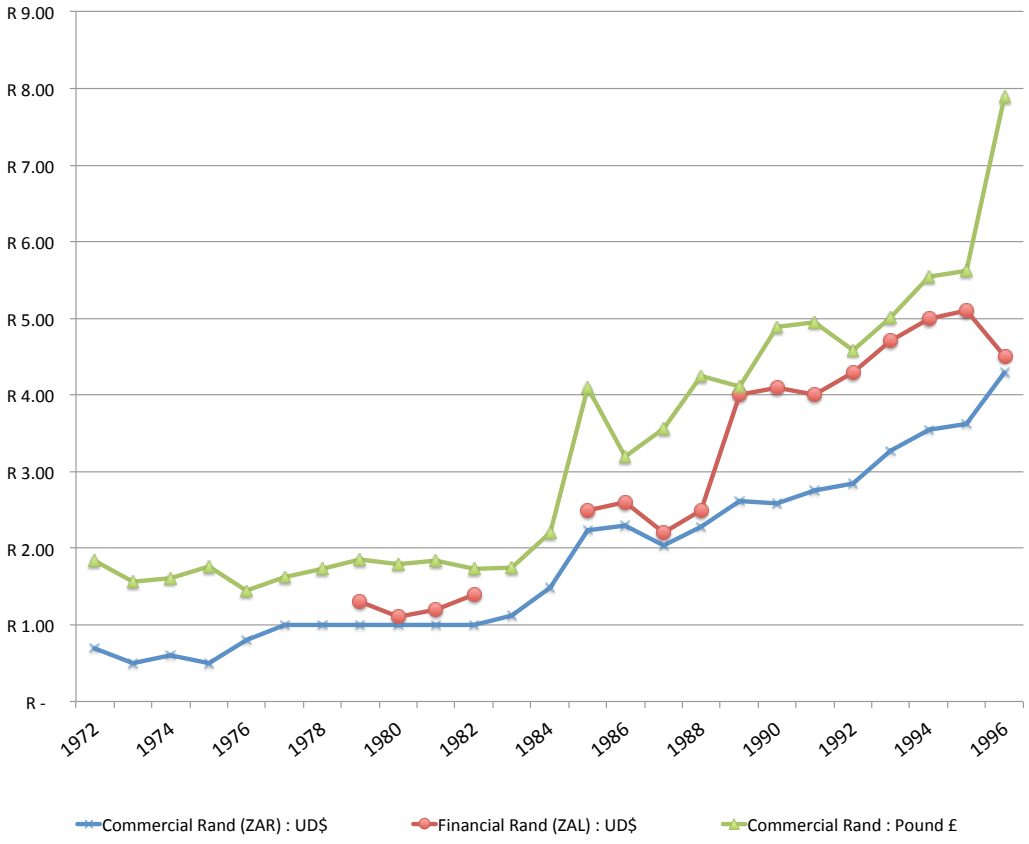


FIGURE 3.4: Annual Aggregate South African *ZAL* and *ZAR* exchange rate relative to US $ and GB £

Source: *South African Reserve Bank*

[92] In Figure 3.3 I compiled the balance of trade across each year to highlight how South Africa's imports and exports were reliant on the access to foreign currency. Although the deficit in the early 1970s was small, it shows how a small open economy such as South Africa is significantly curtailed by a shortage of import capacity when sanctions were imposed (1980s).

Compounding the currency devaluation (Appendix C, Table C.2) was the withdrawal of sizeable foreign-owned manufacturers who had been an important source of exports, and therefore hard currency.[93] In 1986, the United States Comprehensive Anti-apartheid Act limited trade and discouraged foreign investors while the European Economic Community (EEC) banned trade and investment in their entirety. European and US investors, under political and financial risk imposed by sanctions had become "skeptical of the domestic institutions and the enforceability of the laws as the apartheid government repeatedly imposed states of emergency deterring foreign investment."[94] This was evident in publicly damaging withdrawals, such as those of IBM and General Motors, who sold their South African operations to the management of their local subsidiaries.

Responding to the export crisis, an IDC report to parliament noted, "South Africa has succeeded in trading its strategic minerals, gold, and coal for the goods which it needed to develop its industries, but without further manufacturing and export diversification the situation will become terminal."[95] To counter the outflows of foreign investment, the government began actively urging both Taiwanese and domestic businesses to increase exports by "whatever means possible".[96] The Minister of Regional Development, the department responsible for recruiting Taiwanese industrialists to South Africa in the 1970s noted how "[...] the imposition of international sanctions, particularly by the RSA's traditional trading partners have resulted in a further need for development of new marketing methods and new exports markets."[97] In summary, South Africa was facing an investment precipice, isolated by its international trade partners and political conflict growing in the homelands.

Despite these challenges, Taiwanese foreign investment in South Africa escalated on the back of the legal and diplomatic amendments. However financial liberalisation through the 1980s, with deregulated interest rates and exchange controls have not been previously discussed in either of the ROC - RSA diplomatic studies conducted by Geldenhuys (1991) or Pickles and Woods (1989). In the following section a financial analysis of Taiwanese foreign investments in South Africa during, and after the sanctions period is a quasi-proxy for the impact of greater diplomacy and changing economic incentives.

[93] Selden (1999, p. 28) also notes the important role sanctions on ARMSCOR, the nationalised weapons company, played in foreign exchange earnings from manufacturing.

[94] Blanchard and Ripsman (2013) document how successive 'States of Emergency' cast a long shadow over the economy. The first was declared on the 20th of July 1985, initially covering the Eastern Cape and the Pretoria-Witwatersrand-Vaal (PWV) area. In June 1988, the second declaration was implemented on a nation-wide level. The Historical Papers at the University of the Witwatersrand note, "By the mid-1980s, South Africa was in flames, with violent resistance and escalating insurgence from all borders, including the ones inside the country. Rural uprisings in the desiccated countryside of South Africa's Bantustan homelands were met by violent demonstrations within the sprawls of South Africa's peri-urban townships."

[95] IDC report to parliament - Hansard 1986, April sitting, pg. 2467 - 3081

[96] Dr Gerhard de Kock, Governor of the South African Reserve Bank, Address delivered to SABTA (South Africa : Britain Trade Association) in Cape Town on 8 September 1986.

[97] Minister of Regional Development, (1991), The National Regional Development Programme; An Overview, pg. 70

3.4 INTERLINKING: Economics of ROC-RSA Diplomacy

To further understand the economic incentives, I exploit the South African Reserve Bank (SARB) register of foreign capital liabilities (inward FDI), examining the increase of direct and non-direct portfolio flows from Asia, and then specifically Taiwan.[98] By doing so, I will show that Taiwanese investors tended to hold longer-term investments, and had greater risk tolerance as measured by the class of assets held in South Africa.

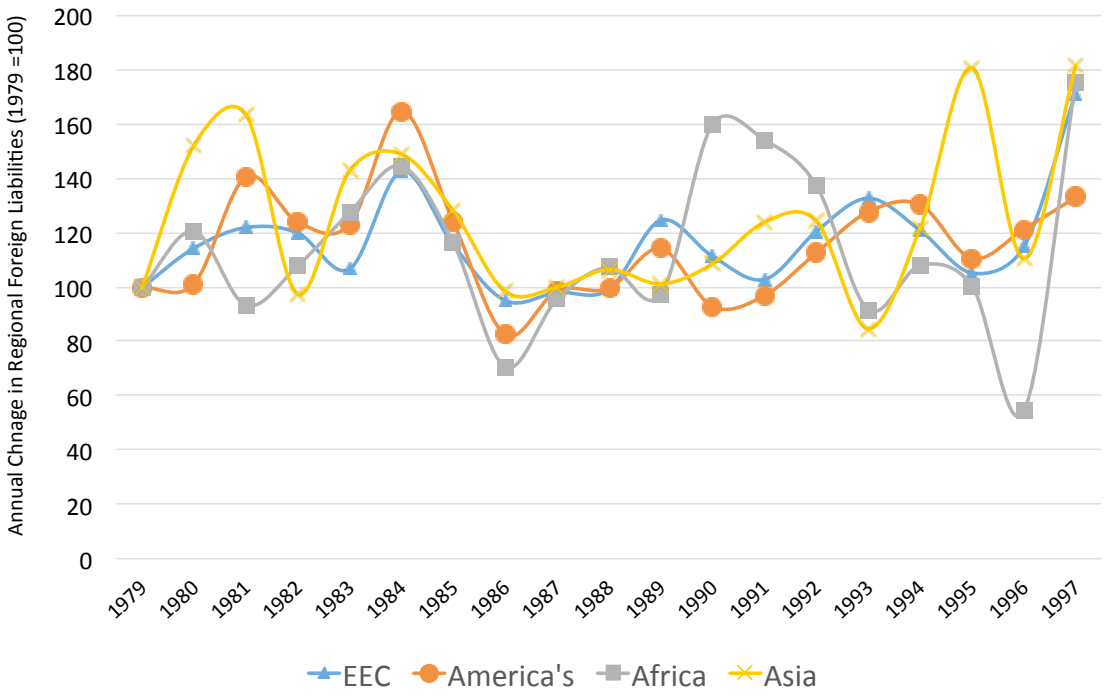


FIGURE 3.5: Regional Foreign Liabilities of South Africa, (1979 - 1997).

Source: *South African Reserve Bank Quarterly Bulletin. Foreign Liabilities, Appendix S71*

Figure 3.5 above graphically summarises the changes in regional foreign liabilities of South Africa in each year from the period under review. Between 1979 and 1992 foreign capital liabilities were reported at the regional level, i.e. European Economic Community, the Americas, Africa, Asia, Oceania, International Organisations and unallocated. Beginning in 1979, the first year of direct investment in South Africa by Taiwanese investors, a rapid increase in *'Asian'* liabilities is recorded in the capital account. Although this cannot be directly attributed to capital flows from Taiwan, the short-term and long-term liabilities grew from R 465 million to R 705 million in a single year (1979 - 1980).

[98] While other authors such as Fedderke and Liu (2002) and Smit and Mocke (1991) address capital flight during the period 1980 to 2000, this chapter is unique. It addresses inward capital flows to South Africa focusing specifically on Asia and then Taiwan once the data becomes available after 1992.

It must be noted that this was dwarfed by the investments held by European (R 12,860 million) and US investors (R 5,290 million).[99] However the trend during the turbulent 1985 - 1986 debt standstill shows lower fluctuations in Asian foreign liabilities, and thus drawdowns or capital flight, which is yet to be explored. After 1992 and the lifting of sanctions, individual country assets with South Africa can be reconciled from the SARB data.[100]

Utilising these archival sources, the annual regional change in foreign capital liabilities provides a departure point for analysing both long-term and portfolio investments from Asia. Relevant to this study, Table 3.4 demonstrates that Taiwan was the largest constituent of South Africa's liabilities in 1992 holding 58 % of the 'Asian' regional direct investment.

ASIAN FOREIGN INVESTMENT IN SOUTH AFRICA (R MILLIONS)					
Year	**Total**	**Japan**	**HK**	**Taiwan**	**Other**
1979	R 465	-	-	-	-
1980	R 707	-	-	-	-
1981	R 1,155	-	-	-	-
1982	R 1,124	-	-	-	-
1983	R 1,604	-	-	-	-
1984	R 2,387	-	-	-	-
1985	R 3,054	-	-	-	-
1986	R 3,004	-	-	-	-
1987	R 3,100	-	-	-	-
1988	R 3,192	-	-	-	-
1989	R 3,227	-	-	-	-
1990	R 4,000	-	-	-	-
1991	R 4,333	-	-	-	-
1992	R 5,382	R 900	R 1,324	R 3,113	R 45
1993	R 4,553	R 1,548	R 1,260	R 988	R 757
1994	R 5,537	R 2,420	R 1,180	R 232	R 1,705
1995	R 7,650	R 4,398	R 1,043	R 1,911	R 298
1996	R 12,654	R 8,332	R 1,095	R 1,920	R 1,307
1997	R 20,021	R 12,461	R 992	R 1,236	R 5,332

TABLE 3.4: Asian Foreign Liabilities (FDI) in South Africa, (1979 - 1997).
Source: *South African Reserve Bank Quarterly Bulletin. Foreign Liabilities, Appendix S71*

[99] See Appendix C, Table C.3 for all regions and monetary values.
[100] Despite all attempts to extract the archival data from the SARB at the country level, only regional foreign capital liabilities could be obtained between 1979 and 1991.

Foreign capital liabilities were reported on an annual basis allowing for the analysis of international investment in South Africa.[101] Quarterly adjustments to the capital account reflected net changes in ownership of national assets, and thus fluctuations in foreign investment. Within the capital account, asset classes are sub-classified as follows:[102]

1. Long-Term Bonds
2. Branch and Partnership Balances
3. Debentures, Loan Stock and Similar Securities
4. Mortgage and Long-term Loans
5. Ordinary and Other Shares
6. Share Premium
7. Short-term Bonds
8. Other Short-Term Liabilities

These eight investment and capital classes fall within two principal categories: ***(A)*** Direct investments which are numbered 1 - 4, forming longer-term capital flows with greater permanence and lower carry trade. ***(B)*** Non-direct investments which are numbered 5 - 8, suggest shorter-term or portfolio investment flows which can be liquidated and repatriated at short notice.[103] Examples of direct investments include commercial loans and foreign direct investment (FDI). The latter takes the form of bank loans issued to foreign businesses or governments, while the former pertains to international investments in which the investor obtains interests in an enterprise, buying or constructing a factory. In contrast, examples of short-term investments are foreign portfolio investments (FPI) which are easily traded, less permanent, and do not represent a controlling stake in an enterprise. These include investments via equity instruments (stocks) or debt (bonds) of a foreign enterprise, which do not necessarily represent a long-term commitment.

Using this categorisation from the Reserve Bank (SARB) capital register for Taiwan provides insight into the form of investments that was being undertaking in South Africa by Taiwanese nationals and banks. The results, disaggregated in Table 3.5 on the following page, highlights that at the end of apartheid a large proportion of Taiwan's investments resided in longer-term assets. Given the political instability, I would not have expected this. In the next section, I will therefore discuss these investment classes and their interconnectedness with the political economy of ROC - RSA relations.

[101] Hardcopy annual and quarterly SARB reports were consulted at both the UCT government publications library and the Library of Parliament in Cape Town.
[102] Annual and Quarterly SARB reports.
[103] Categorisation of capital flows stipulated by the International Monetary Fund (2009, p. 3 - 9).

ASIAN FOREIGN INVESTMENT IN SOUTH AFRICA (R MILLIONS)						
Year	Total Asian Investment		Total Taiwanese Investment		Distribution	
	Direct Investment	Non-Direct Investment	Direct Investment	Non-Direct Investment	% Direct	% Non-Direct
1979	R 78	R 387	-	-	-	-
1980	R 132	R 575	-	-	-	-
1981	R 154	R 1,001	-	-	-	-
1982	R 236	R 888	-	-	-	-
1983	R 227	R 1,377	-	-	-	-
1984	R 291	R 2,096	-	-	-	-
1985	R 304	R 2,750	-	-	-	-
1986	R 342	R 2,600	-	-	-	-
1987	R 350	R 2,300	-	-	-	-
1988	R 360	R 2,389	-	-	-	-
1989	R 254	R 2,601	-	-	-	-
1990	R 240	R 2,200	-	-	-	-
1991	R 262	R 4,071	-	-	-	-
1992	R 429	R 4,688	R 410	R 2,703	96 %	58 %
1993	R 868	R 3,685	R 204	R 784	24 %	21 %
1994	R 790	R 4,747	R 232	R -	29 %	0 %
1995	R 1,000	R 5,700	R 542	R 1,369	54 %	24 %
1996	R 2,248	R 11,533	R 306	R 1,614	14 %	14 %
1997	R 5,833	R 14,188	R 877	R 26	15 %	0 %

TABLE 3.5: Asian and Taiwanese Foreign Liabilities (FDI) in South Africa, (1979 - 1997).

Source: *South African Reserve Bank Quarterly Bulletin. Foreign Liabilities, Appendix S71*

In 1992, the *'Asia'* region had R 5,382 million of investments in South Africa. Interestingly, Taiwan is found to posses R 3,113 million or 58 % of all the Asian investment in South Africa. Of this, R 429 million is of a long-term nature, which represented 95 % of all long-term Asian liabilities, while 58 % of non-direct short-term investments were held by ROC nationals, companies or banks. Although the 1992 liabilities register can't be extrapolated across all the years from 1979, this outcome is meaningful. It demonstrates that the majority of ROC investments had greater capital permanence, thus risk appetite for the South African investment market. This may be a result of the significant diplomatic amendments, which affected both the implicit and explicit protection of property rights, contract enforcement and therefore investment promotion. Moreover, prior research from Javorcik et al. (2011) claims that the presence of migrants can stimulate long-term investment by promoting information flows across international borders and by serving as a contract enforcement mechanism. Surprisingly the link between the two is a relatively unexplored area in prior ROC - RSA literature on international relations during isolation. Although the total value by Asian investors shows an upward trend from 1979, the growth of these investments is borne out for the years prior to the end of apartheid. As Figure 3.6 below demonstrates, private sector investments, a sub-class of long-term investments grew during the very turbulent 1984 - 1987 period. However from 1992, the SARB liabilities registers once again reveals that the Taiwanese were the largest constituent of these long-term investments, holding approximately 48 % of Asian liabilities.[104]

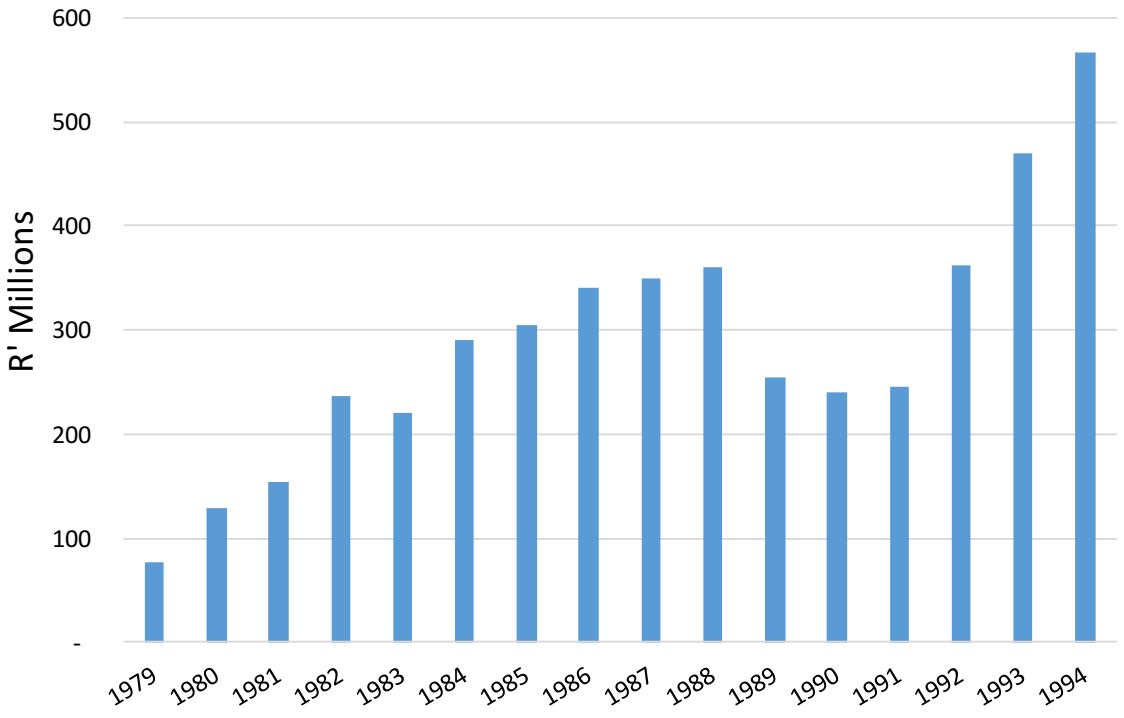


FIGURE 3.6: Asian and Taiwanese Foreign Liabilities (FDI) in South Africa, (1979 - 1997).
Source: *South African Reserve Bank Quarterly Bulletin. Foreign Liabilities, Appendix S71*

[104] Annual and Quarterly SARB reports.

Lowenberg (1997) notes how the macroeconomic environment of South Africa was particularly volatile during the 1980s with a high current-account deficit and a growing debt burden. Political and economic uncertainty resulted in volatile capital flows. Mohr (1989) found that the bulk of capital inflows switched to short-term loans to the public and banking sectors during 1975 - 1984. For example Lipton (1989) estimated that two-thirds of South Africa's total foreign debt of almost $ 24 billion in 1985 comprised short-term loans. Despite the challenges, the SARB data assembled above demonstrates that Taiwanese investors continued to invest in both long-term and short-term assets.

Furthermore, these under-utilised SARB data suggest three additional observations complementing this chapter's findings. Firstly the escalating investments in South Africa coincided with financial liberalisation in Taiwan and "an expansion in credit throughout the 1980s."[105] Secondly, lower growth and returns on capital resulted in a "search for higher-yield investments"[106] with South Africa receiving bond purchases and equity investment by Taiwanese investors. Finally, the political and economic risks of South Africa suggest the rise in long-term capital flows from Taiwan occurred as closer political engagement allowed for investment and migration. Moreover, the precipitous fall of the commercial rand in which exports were paid, versus the financial rand in which foreign investment was conducted, offers further evidence for the inward investment by Taiwanese industrialists seeking low-cost production centres. South Africa therefore offered the trinity of labour-intensive incentives: cheap labour, subsidised infrastructure and duty-free access to Taiwan's export markets in a weak currency.[107]

In the following Chapter (4), I will address the rise of migration and trade between ROC and RSA. As Javorcik et al. (2011) notes, there has been little attention devoted to studying the effects of migrants on foreign direct investment, and my contribution will be the first contribution in South Africa's apartheid context. Data which I have extracted from the SARB register of foreign liabilities, although not causal, suggests that ROC investment in South Africa is correlated with the political economy of bilateral trade treaties, which ensured explicit protection, but also the presence of Taiwanese migrants that conveyed some implicit investment security. Several authors, including Lowenberg (1997), Lipton (1989) and Lewis (1990), note that the high risk of investment in South Africa had witnessed a persistent outflow of capital, making the country especially vulnerable to financial sanctions. However the investment profile of South Africa was raised by the growing diplomatic links that allowed Taiwanese investors full access to the investments markets. Combined with political reforms that recognised Asians as honorary whites, migration ensued, which encouraged further long-term investments, rather than short-term portfolio flows.

[105] Chen (2001, p. 216)
[106] Leibowitz et al. (2013, p. 126 - 276)
[107] Puri (2007) refers to the trinity of FDI incentives.

3.5 DISCUSSION

This chapter has charted out the long-term changes in both South Africa and Taiwan's economic and diplomatic relationship from 1948. Although aligned to Pax Americana, Taiwan's diplomatic relations remained strained, even as economic growth accelerated. Seeking out legitimacy, it bought UN votes from newly independent countries by means of *'dollar diplomacy'*. In contrast, South Africa had retained a key role on the global stage until 1960, after which a steady decline in its international standing relegated it to full-blown pariah status. Losing international recognition to the Peoples Republic of China resulted in Taiwan's diplomatic insecurities reverberating through all of its future economic and political decisions. Once UN votes in Africa could no longer be bought, Taiwan and South Africa could publicly engage in closer diplomacy without threatening potential relations with the newly independent African states.

At the same time a convergence of economic interests between ROC and RSA gave rise to closer diplomatic links following Taiwan's expulsion from the UN and South Africa's deteriorating economic isolation.[108] Forging closer co-operation, a number of pivotal trade agreements were signed which also brought an end to formal discrimination of Asians, thereby "improving the status of the overseas Chinese community."[109]

These bilateral trade agreements created the conditions under which trade and investments could expand, ensuring that Taiwanese property rights and capital flows would be covered by the same legal status as those of South Africa's western trade partners.[110]

However, opposition to apartheid as well as greater sanctions, had resulted in public disinvestment, specifically in the manufacturing sectors which had become an important export earner. In times of weak resource prices, South Africa had financed the trade deficit through capital flows and a greater manufacturing reliance. This could no longer be counted upon, and closer engagement with Taiwan was seen as a replacement for western investment, while boosting labour-intensive manufacturing in the homelands.

Capital outflows and political risks heightened in the mid 1980s following the Rubicon crisis and the imposition of a dual currency. This occurred at the same time as financial liberalisation in Taiwan. Despite these risks, we observed accelerating foreign flows to South Africa from the island. Exploiting new data from the SARB, an analysis of South Africa's liabilities (i.e inward FDI) highlights how Asian investment simultaneously

[108] The image shown in Appendix A, Figure A.1 highlights the peculiar nature of the relationship with President Marais Viljoen decorating ROC Premier Sun Yun-sun, only 2 years after Chinese were officially recognised as 'white' citizens.

[109] Taiwan Review (文章資料), 5th of January, 1980.

[110] Agreements were also entered into regarding civil aviation, marine transportation, tax exemption of air and sea transport, and scientific and technological co-operation.

expanded in very specific asset classes. Of significance, the investment flows were constituted of long-term assets as opposed to short-term portfolios. At the same time, western investors were moving towards short-dated debt and when the SARB instituted a debt standstill in 1985, the capital markets collapsed. Despite this financial shock and a deteriorating capital account, Taiwanese investors did not withdraw long-term bonds, nor did the inward flow stop. It could therefore be interpreted that increasing diplomacy and migration to South Africa had an impact on the risk profile of Taiwanese investors. Unlike western investors, these migrants were actively engaged in the manufacturing sector, and had no option of returning production to the island. Moreover, the long-dated debt was actively invested in the real economy of South Africa, from where the additional volatility could be compensated through increasing export trade. Building on this, the trade-creating effects of migration and investment are examined in the next chapter.

In conclusion, the economic changes in each country cannot be divorced from the diplomatic links. As such, the lens of diplomacy provides for a more nuanced view of South Africa's economic and political challenges, but also the tail of Taiwan's growth miracle. Monetary liberalisation, lower capital returns, and South African diplomatic policy can't be ignored in the processes of migration, trade and investment. The remainder of this thesis is therefore dedicated to examining each of these topics.

Chapter 4

ISOLATED STATES, MIGRANT NETWORKS AND TRADE

"Using their vast trading networks; businessmen, industrialists and technologists of Chinese [ROC] extraction are playing an increasingly constructive role in the development of a modern South Africa."[1]

Minister K.T. Li,
Taiwanese Minister of Finance and Minister without Portfolio,
January, 1980

4.1 INTRODUCTION

At the start of the 1970s South Africa's key import and export markets had maintained their pre-eminence for many years. Three-quarters of South Africa's bilateral trade was with OECD countries - mainly Western Europe, North America and Japan.[2] However, in 1975 some significant changes began to occur in individual country rankings. This was linked not only to sanctions, but also, as I will discuss, a reorientation of Asian trade partners. Both Britain and Japan declined, and Taiwan became South Africa's fastest growing trade partner during the period.[3] The inflow of foreign investment and immigrants from Taiwan may have also increased the potential for manufactured exports. To contextualise this I first examine the interdependence of South Africa's trade, relative to several of its larger, former 'colonial' and now OECD trading partners and then the subsequent growth with Taiwan.[4] Second, using RIDP migration data, I examine the extent to which the immigration of Taiwanese investors both increased and

[1] Minister K.T. Li (李國鼎) notes in a parliamentary speech to South Africa that Taiwanese entrepreneurs have the advantage of "vast networks to expand trade which can be very constructive in manufacturing development." Quote excerpted from a 1980 newspaper article in the New China Times.

[2] 73 % of 1975 bilateral trade was with these countries.

[3] Garner (1994, p. 7) could not determine if this was a result of Taiwanese foreign investment in the homeland RIDP zones.

[4] *Sample Country Set:* UK, Germany, France, United States, Japan, Taiwan, Hong Kong.

diversified trade between the two countries. Finally, using archival accounts, I discuss the possible processes through which these changes occurred. I conclude that network linkages helped Taiwanese investors overcome informal barriers to trade, and were able to leverage existing business links, in turn, diversifying South Africa's manufactured exports.

With very few exceptions, access to reliable statistical data restricted research on these topics during late apartheid. The quantum of bilateral trade (& migration) was classified or omitted by government agencies as a response to UN sanctions and punitive disinvestment by foreign firms. Relying on estimates, prior research from Garner (1994) has noted the methodological problems in assessing trade flows as a result of a data embargo, and doubted the accuracy of any publicly available trade statistics during sanctions.

Using declassified trade statistics and a triangulation of two further published sources, I assemble a new, more complete bilateral trade data series for each of the twenty-three reported Standard Industrial Classifications *(SIC)*[5] in the sample country set. Exploiting this more granular SIC data, I first highlight the regional shifts in South Africa's trade partnerships during this period, which were underscored by the imposition, and then later repeal, of trade sanctions. Second I categorise the change in South Africa's trade with Taiwan, examining the degree to which exports shifted from homogeneous to differentiated products. With a further variable, namely an annual reconstruction of Taiwanese migration to the homeland RIDP zones, I examine qualitative archival accounts, questioning to what extent these migrant investors, "using their vast trading networks"[6], were able to diversify export trade from South Africa to Taiwan.

Rauch and Casella (2001) in their study of business and social networks in international trade, explain how informal co-ethnic networks formed by migrants "like the Chinese trading network [...] and formal business networks such as the Japanese keiretsu have a significant impact on the volume of trade across borders."[7] This informed my thesis chapter question, and Rauch and Trindade (2002) later used an empirical trade-flow model to show how a network, formed by the overseas Chinese population, had a major trade-creating effect. They found that these networks had an economically positive impact on bilateral trade in differentiated rather than homogeneous products.[8]

This distinction is noteworthy. In Chapter 3, Table 3.3 on p. 87 I showed how South Africa had historically traded homogenous, reference-price products, such as mineral ores in global markets, while failing to develop competitive manufacturing exports. Noting how immigrants could increase differentiated products, Rauch and Trindade argued that the migrant effect operated through two channels. Firstly migrants reduced information costs, as the mechanism of matching and referral services is more important

[5] See Appendix D, Table D.2 for the categorisation of each industrial sector in the respective groups
[6] Minister K.T. Li, 1980 newspaper article in the New China Times.
[7] Rauch and Casella (2001, p. 7)
[8] Rauch and Trindade (2002) find that for trade between countries with ethnic Chinese population shares at the levels prevailing in Southeast Asia, the smallest estimated average increase in bilateral trade in differentiated products attributable to ethnic Chinese networks is nearly 60 %."

for differentiated exports such as manufactured goods, which require the provision of information regarding trading opportunities. Secondly, it improved contracting conditions as migrant networks had an impact on trade through community enforcement or sanctions that deterred opportunistic behaviour, and encouraged co-operation. This increased the potential for host countries with larger migrant populations to diversify and increase trade. Therefore could Taiwanese migrants have increased South Africa's export trade by means of matching sellers and improving contracting and thus making it more competitive?

Following the signing of ROC - RSA trade treaties in 1976, migration grew rapidly. As part of a "chain migration"[9], Hart (2002*b*) found this that large cohort of Taiwanese investors were deeply connected to their homeland and sites across East Asia. Although not causal, Figure 4.1 highlights how the migration to South Africa may have been accompanied by an increase in bilateral trade between South Africa and Asia. For example, clusters of Taiwanese-owned factories were established in a select set of the RIDP zones producing manufactured goods for exports. These migrants brought with them product knowledge of foreign (Asian) markets, new labour-intensive production methods, and trading networks. Urban trading companies sprang up in major metropolitan areas to meet the raw input demands of Taiwanese firms, and to support cross-border transactions.

Taiwanese migrant trade networks were a unique phenomenon in South Africa. Taiwanese were easy to identify, as South Africa had previously only a very small Chinese population before 1975, and limited bilateral trade. When official bilateral trade data was once again published in 1994, Taiwan's trade with South Africa was more diversified, and in some manufacturing sectors exceeded that of its former OECD trade partners.

However, no prior research has delved into the possible causes for this shift. In one related study, Garner (1994) noted how they "were unable to ascertain whether the change reflected the activity of Taiwanese-owned firms, or switching activity from other trade partners, specifically Japan."[10] At the time Garner questioned whether the change in bilateral trade reflected the activity of Taiwanese-owned firms.[11] Without the SIC categories or country-specific volumes of trade, this research merely conjectured whether the reorientation was a result of the RIDP firms, or merely the switching of activity from other trade partners such as Japan. As such the combination of trade and migration statistics can possibly provide an answer to this question.

The remainder of the chapter is organised as follows: Section 4.2 details the underlying data collection and research methodology. Section 4.3 analyses the assimilated bilateral trade data. Section 4.4 is a discussion on the evolution of trade, and the role of migrant trade and business networks.

[9] MacDonald and MacDonald (1964) define this as a "movement in which prospective migrants learn of opportunities, are provided with transportation, and have initial accommodation and employment arranged by means of primary social relationships with previous migrants."

[10] Garner (1994, p. iii)

[11] Garner (1994, p. 6)

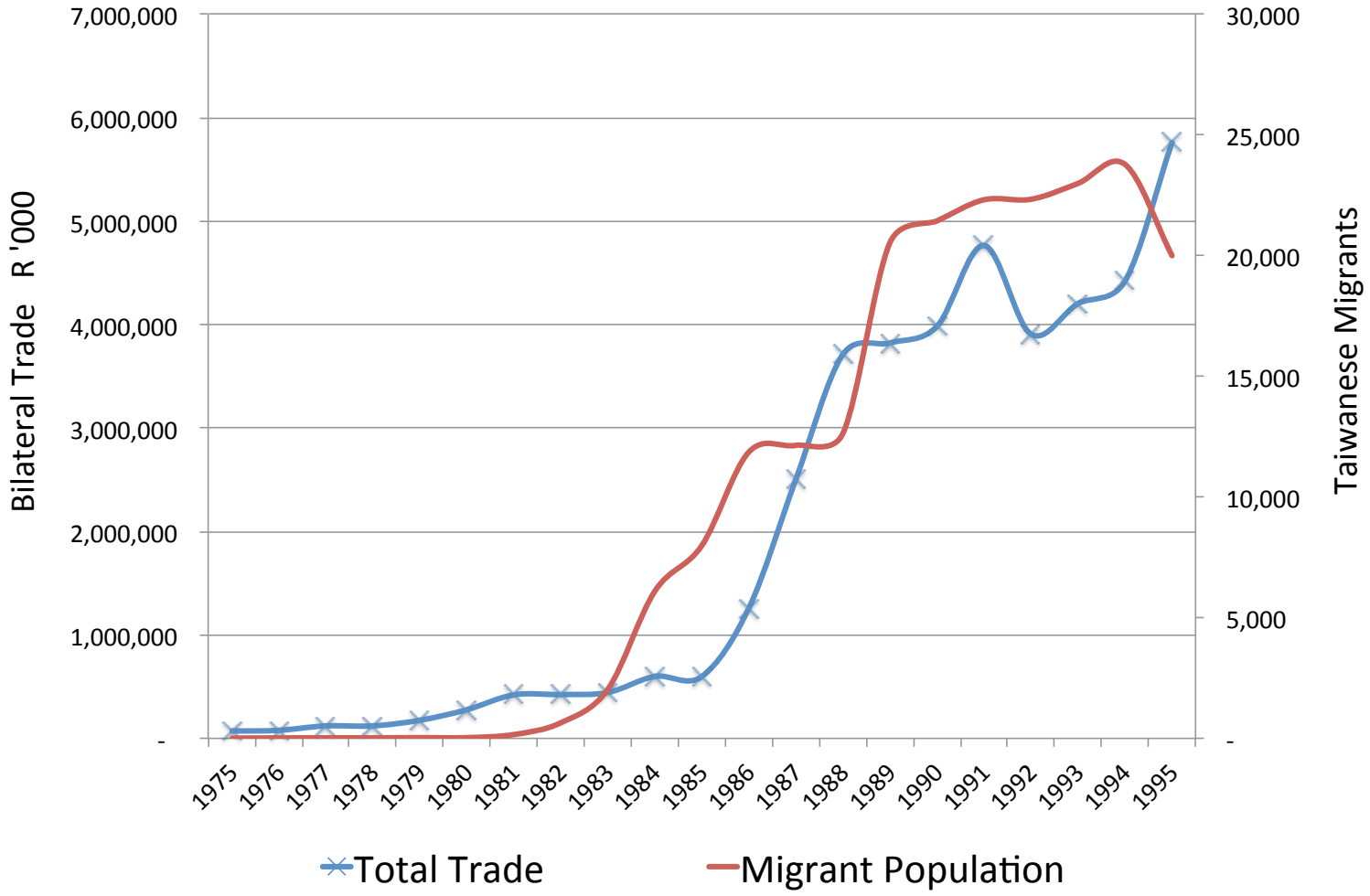


FIGURE 4.1: Plots the growth of bilateral trade and migration between South Africa and Taiwan (1975 - 1995).

Source: *Estimates of Taiwanese migration and population series assembled from the Board for the Decentralisation, business license applications (National Archive, Pretoria, RSA). Bilateral trade is assembled from the South African Revenue Service (1975 - 1985), National Treasury (1986 - 1992), and the South African Revenue service (1993 - 1995).*

4.2 DATA & METHODOLOGY

For this chapter I have assembled new bilateral trade and migration data for South Africa. The collection strategy was detailed on page 24 of Chapter 1. However, I will briefly review the methodology and importance of this new data.

Prior to 1975, South Africa mostly traded with former western and OECD trade partners (73 % in 1975)[12], with limited permanent non-European immigration. After 1980 it experienced a very rapid increase in both Taiwanese trade and immigration. By starting the trade data series before Taiwanese migration, this new data provides the benchmark years to examine the possibility of a trade-creating effect of new immigrants.

Compiling estimates from statistical measures in South Africa during this time was fraught with challenges of data availability and consistency in reporting. The changes to bilateral trade and foreign investment were shrouded in secrecy during sanctions. Once again Geldenhuys (1991) explained how South Africa's financial and statistical agencies stopped publishing trade statistics in 1986, remarking that "only a geographical breakdown of South Africa's international trade has been available for world zones, namely Africa, Europe, Americas, Asia and Oceania".[13]

The restrictions on trade data resulted in a skewed, but hidden view of South Africa's bilateral trade relationships. Annemarie van der Walt, the head of archival trade statistics at the South African Revenue Services (SARS),[14] noted in written communication, "prior to 1992 all statistical data held by this institution referring to trade between Chinese Taipei and South Africa is likely to be unreliable at best".[15] The reasons for this scarcity are manifold. Certain scholars have inferred that the 'under-reporting' was done in order to protect both the trading partner who sought to circumvent sanctions, or as a direct act of data secrecy by the Nationalist Government who were under severe external funding pressure.[16] For example **?** explained that much of the trade history has been underreported with the "South African government permitting firms to withhold sensitive data from their financial reports [...] indicating that it will not enforce international trade practices, such as labelling the origin of goods."[17] Furthermore, much of the data has been overlooked due to restricted access and the sheer labour intensity of reconstructing bilateral trade series from diffuse archival documents.

[12] Foreign Trade Statistics 1975
[13] Geldenhuys (1991, p. 267)
[14] Institution responsible for recording bilateral trade for the purpose of tax collection.
[15] Per email communication dated 11/04/2013.
[16] See Ovendon and Cole (1989) for a synopsis on how SA circumvented sanctions.
[17] **?**, p. 276

In addition to trade data limitations, recent migration studies have also suffered from data availability. For example Stapleton (2015) explained how empirical research into migration in South Africa is conspicuous in its absence. Empirical migration studies require longitudinal data that can track individuals across time. Therefore data limitations, especially during late apartheid have restricted any migration studies.

The Department of Internal Affairs recorded the total number of permanent residents entering and leaving the country each month. However South Africa's data collection was further clouded by racial restrictions on migration and the balkanisation of homelands, which collected their own statistics. In the aggregated national statistics, only developed countries were recorded, while those in Africa and Asia, apart from Japan, were simply grouped at the regional level. As such, official Department of Internal Affairs migration statistics could not be used to quantify Taiwanese immigration. In fact Taiwanese immigration was never recorded in the Internal Affairs statistics, which was curious, as my research shows that they were the largest cohort of immigrants during the 1980 - 1990 period (highlighted in Figure 3.1 on page 78).[18] A possible reason for this may have been the secretive terms under which the residence permits were granted. The following section details the sources and rationale for the trade and migration data.

The ethnic Chinese community in South Africa was a very small, silent minority prior to 1975.[19] This, however, began to change with the influx of Taiwanese investment. South Africa was in the process of reviving the domestically unpopular decentralisation programme during the late 1970s, which sought to shift labour-intensive industries to the most rural African homelands.[20] The RIDP attracted the attention of small-scale Taiwanese export-oriented enterprises attempting to internationalise as a result of rising costs and competition on the island.[21] In South Africa, the Taiwanese foreign investors offered one of the only opportunities for black homelands to attract new industries to their zones.[22] Seeking out Taiwanese investment (& immigration), successive marketing campaigns and trade missions were sent to Taiwan and Hong Kong in an attempt to attract capital to these RIDP zones. In doing so, South Africa revised its immigration laws relating to residence permits and multiple-entry visas for Taiwanese. The changes were aimed primarily at facilitating Taiwanese investment in the Republic.[23]

[18] Although South Africa had a high level of sub-Saharan migration to the mines (i.e. Mozambique, Malawi and Lesotho) these are excluded from my statement. These were circular migratory patterns with no permanent settlement in South Africa.

[19] Van der Watt and Visser (2008)

[20] Discussed in Chapter 2 on page 33.

[21] Pickles and Woods (1989, p. 510)

[22] Pickles and Woods (1989, p. 515) explains that virtually all of the investments were in the homelands, while Chapter 5 of this thesis examines the agglomeration of these firms.

[23] Pickles and Woods (1989, p. 513)

Demonstrating the immigration trend, Figure 4.2 graphically plots the waves of Taiwanese migrants to South Africa against the important diplomatic, political and industrial events. Three migration spikes corresponding to the recruitment drives and political events can be observed. The first wave **(A)** followed trade missions and changes by the KwaZulu-Natal Finance Corporation and Transkei Development Corporation (1978 - 1980), expediting visa registrations for Taiwanese enterprises. These were designed to "welcome Taiwanese industrialists and build networks of firm collaboration between the Development Corporation and foreign investors."[24]

The second wave arrived after the announcement of the Good Hope RIDP incentives **(B)**, which saw a deliberate effort to increase subsidies and attract foreign investment. The third and final large wave **(C)** followed the political changes in the Orange Free State province, namely the repeal of *Act XXXIII*, which had prevented Chinese from settling in the province. A marked decline in immigration **(D)** is seen from 1990 as RIDP subsidies were removed in 1992 and South Africa transitioned towards democracy in 1994. The Taiwanese population also declined due to emigration. Whether the termination of the incentives or diplomatic links account for this is debatable.[25]

Although social acceptance among white South Africans towards the growing ethnic Chinese adapted during the 1980s, a deep racial divide in business persisted.[26] As a result "boundaries and borders, both real and metaphorical, related to various Chinese communities in southern Africa"[27] Park (2008) explains that because of their small numbers and variations in categorising Chinese, bureaucrats were often at a loss as to what to do with the few Chinese they encountered.[28]

Tensions also formed between the Chinese South Africans and the newly arrived Taiwanese,[29] while relations with the white business community remained limited to urban areas. Van der Watt and Visser (2008) found that the Chinese were commonly perceived to be a threat to the white small businessmen, and legal obstacles in the form of permits and restrictions were regularly put in their way. This was not a new impediment, as the original Chinese (Cantonese) and later Taiwanese communities in South Africa faced a long history of institutionalised discrimination. As a result, Taiwanese immigrants resorted to their existing transnational networks, which were important for trade and investment.[30]

[24] The Developer, 1979, issue 2, Mthata Archives.
[25] The 2001 census found that the population was estimated to be 10,000 in 2012.
[26] Park (2008, p. 124)
[27] Park (2010, p. 457)
[28] Park (2008, p. 125) notes how "second and third generation Chinese South Africans attested to the confusion in the day-to-day implementation of apartheid laws affecting them."
[29] Park (2010, p. 457 - 458)
[30] Examined in further detail in Chapter 5, Hart (1996, p. 14) also demonstrated how the "original investors were joined by small, new firms established by their own former technicians [...] who began to subcontract to their former firms. Some of the older firms supplied credit to the new firms."

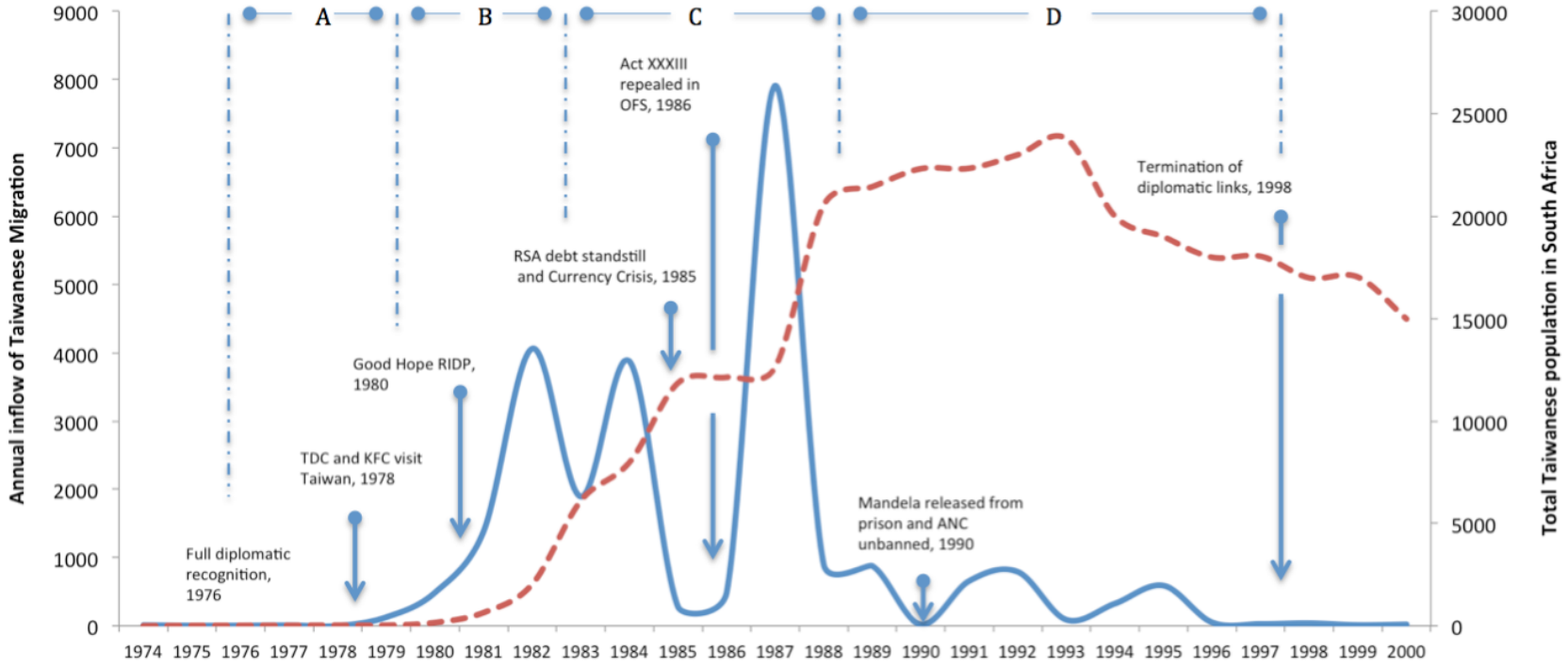


FIGURE 4.2: Taiwanese annual migration and total population (broken line) between 1974 and 2000.

Source: *Estimates of Taiwanese migration and population series assembled from the Board for the Decentralisation, business license applications (National Archive, Pretoria, RSA).*

4.3 ANALYSIS

Exploiting my new, more complete trade series, the following analysis examines three discrete elements of the changes to bilateral trade and exports.

1. First it quantifies the macro trends from 1975, highlighting regional and country shifts, which underscored South Africa's trade partnerships in the 1980s. This provides the basis against which to measure OECD exports vis-à-vis Taiwanese.
2. Second it quantifies bilateral trade with Taiwan. Using the intensive and extensive margin of trade provides the basis for analysing the substitution effects during sanctions.
3. Finally, using the SIC codes, it categorises the change in South Africa's export trade with Taiwan, examining the degree to which exports shifted from homogeneous to differentiated products.

Each of these analysis questions build on one another. The last section then qualitatively discusses whether the emergence of trade networks account for any observed changes to Taiwanese exports.

4.3.1 Macro Trends

South Africa was among the leading 25 trading nations in the west.[31] Direct colonial ties with Britain, and indirect OECD ties with Germany, France and the United States accounted for much of the export trade, which was discussed in Section 4.2. Imports from Germany, the US, Japan and Britain accounted for 63 % of merchandise purchases in 1975, with the remainder widely and thinly spread. As such, South Africa's foreign trade has been concentrated with the leading OECD states. We would therefore expect these to persist in the export data going into the 1970s and 1980s.

It is important to note that trends in South Africa's exports emphasise the country's largest export earner, namely gold (Table 4.1). Exports were highly sensitive to changes in the price and production of gold.[32] Over the the 1970s and into the 1980s, the quantity of gold produced and exported declined. However in the 1980s, a sharp increase to $800 an ounce witnessed a windfall in the exports. Demonstrated in Appendix D, Figure D.3, the annual nominal US $ value of South Africa's exports to the sample group captures these changes. However, this needs to be interpreted in the context of both a rising gold price, mineral exports and the imposition of economic sanctions in 1985.[33]

[31] Assuming South Africa could be considered a member of the western block (Geldenhuys, 1991, p. 345)

[32] Annual Gold Price, Appendix D, Figure D.2

[33] Base metals, articles of base metal and primary mineral commodities (iron ore, coal, copper)

Gold and Mineral Exports

	Gold Exports	Mineral Exports	Others Exports	Total
1975	30.8 %	19.8 %	49.4 %	100
1976	24.0 %	29.6 %	46.4 %	100
1977	29.1 %	31.9 %	39.1 %	100
1978	21.2 %	29.3 %	49.5 %	100
1979	19.1 %	35.5 %	45.4 %	100
1980	25.4 %	29.5 %	45.1 %	100
1981	17.5 %	35.2 %	47.3 %	100
1982	15.8 %	36.6 %	47.5 %	100
1983	18.5 %	35.6 %	45.9 %	100
1984	11.0 %	41.3 %	47.7 %	100
1985	10.9 %	41.7 %	47.4 %	100
1986	24.2 %	31.9 %	43.9 %	100
1987	19.9 %	34.3 %	45.8 %	100
1988	20.1 %	30.9 %	49.0 %	100
1989	20.3 %	29.1 %	50.6 %	100
1990	20.4 %	27.0 %	52.5 %	100
1991	24.9 %	35.0 %	40.1 %	100
1992	24.9 %	35.0 %	40.1 %	100
1993	26.1 %	34.3 %	39.6 %	100
1994	30.0 %	27.8 %	42.2 %	100
1995	29.8 %	29.6 %	40.6 %	100

TABLE 4.1: Gold, Mineral and All Other Exports expressed as a Percentage of Total Exports for the Sample Group (1975 - 2000).

Source: *Foreign Trade Statistics 1975 - 1985, Department of Trade and Industry, Garner (1994), IMD direction of trade statistics (1986 -1990). South African Revenue Services (1991 - 1995).*

Jones and Inggs (1994) notes how non-gold mineral exports increased in the 1970s with the development of new mines and transport infrastructure. This is clearly observed in Table 4.1 above. Furthermore non-gold minerals (Appendix D, Figure D.1) began to outstrip gold exports in 1976, superseding its importance, and thus diversifying exports further. This market diversification reduced South Africa's vulnerability to economic sanctions. For example, I found that that South Africa's largest mineral market (Japan) absorbed only 17.8 % of South Africa's mineral exports. Geldenhuys (1991) notes that this partly explains why sanctions were not a crippling blow to the economy when Japan, and then the US, imposed import bans on South African commodities. A noticeable decline of trade was observed in exports to Britain. In 1984, Britain had dropped to 3rd place[34] with the US and Japan surpassing UK exports.[35]

[34] 4th place if Switzerland had been included in the sample, but as they mostly received gold exports (97 %), it was necessary to exclude the Swiss from the sample-country set.

[35] See Appendix D, Figure D.3 which show the nominal US $ exports to each country.

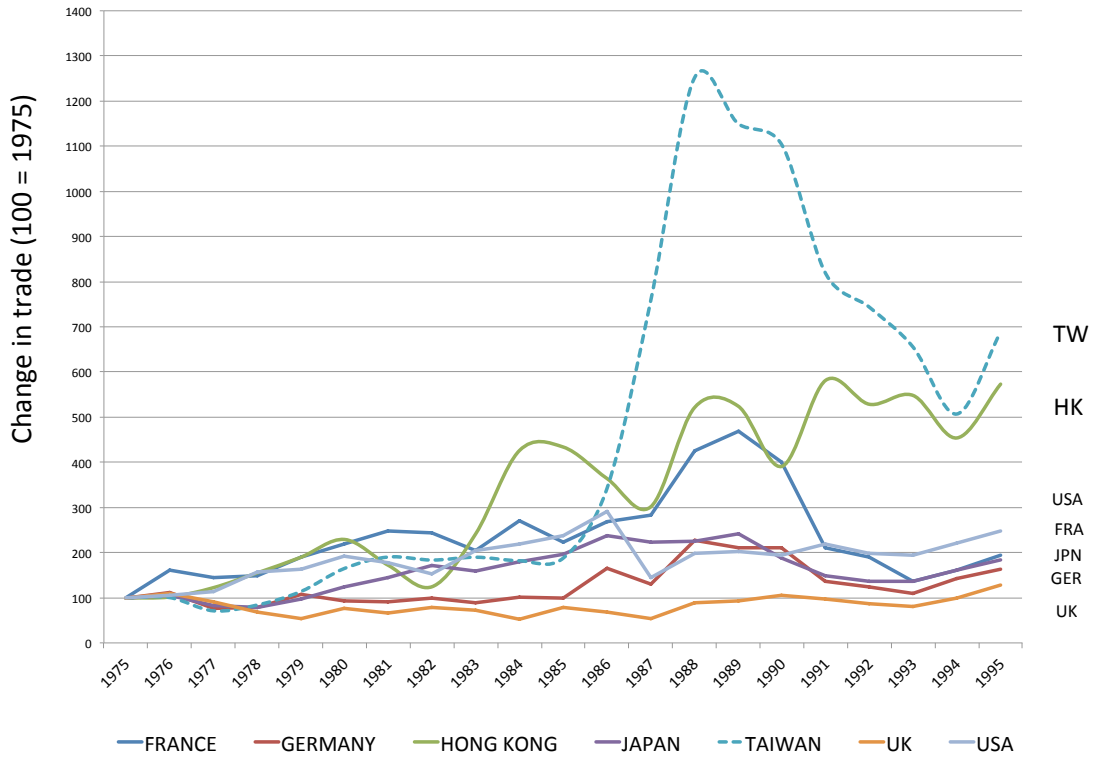


FIGURE 4.3: Percentage Change in Exports to Sample Countries, Nominal US $ (1975 - 1995)

Source: *Foreign Trade Statistics 1975 - 1985, Department of Trade and Industry, Garner (1994), IMD direction of trade statistics (1986 -1990). South African Revenue Services (1991 - 1995).*

Britain's entry into the European Economic Community partly explains this change, as South Africa no longer enjoyed preferential access as a former Commonwealth member. The US's imports from South Africa expanded strongly just before sanctions were imposed. However it appears that Japan's decline in export trade with South Africa wasn't as pronounced as prior research from Garner (1994) had speculated. Indeed there was a decline after 1985, but exports remained stable during the sanctions period. This would give credence to Geldenhuys (1991) who found that a "cloak of official secrecy" surrounded exports when Japan had not included "massive gold imports in their officially released figure".[36]

In 1975, South Africa's annual exports to Taiwan barely reached $100 million. By 1984, South Africa's non-traditional Asian markets (Taiwan and Hong Kong) were becoming increasingly important for her exports. Figure 4.3 clearly confirms the Garner (1994) theory that Taiwan was the fastest growing trade partner and can now be accurately estimated. It is against this backdrop that changes to Taiwanese trade is next explored.

[36] Geldenhuys (1991, p. 349)

4.3.2 Bilateral Trade with Taiwan

While export trade diminished with South Africa's traditional partners, bilateral trade with Taiwan increased. In this section I therefore examine how exports changed by quantifying the extensive margin *(volume over time)* and the intensive margin *(change in diversity)*. The growth in value (extensive margin), and the change in diversity (intensive margin) could be emblematic of greater connections and deeper markets as result of immigration. Although not causal, migration to South Africa highlights the potential relationship between the extensive and intensive margins.

The volume of trade with Taiwan could have also have been skewed by the growth in mineral exports and the changing US $ price of gold.[37] However, to examine the possibility that this shift in trade occurred at both the extensive and intensive margin and not just because of minerals exports, the data is disaggregated into five main groups using the SIC code. These categories include Agriculture & Foods, Minerals, Consumers Goods, Capital Goods and Processed Chemicals. Confirming the hypothesis, Figure 4.4 below demonstrates the shift in export trade with South Africa, growing in all sectors.

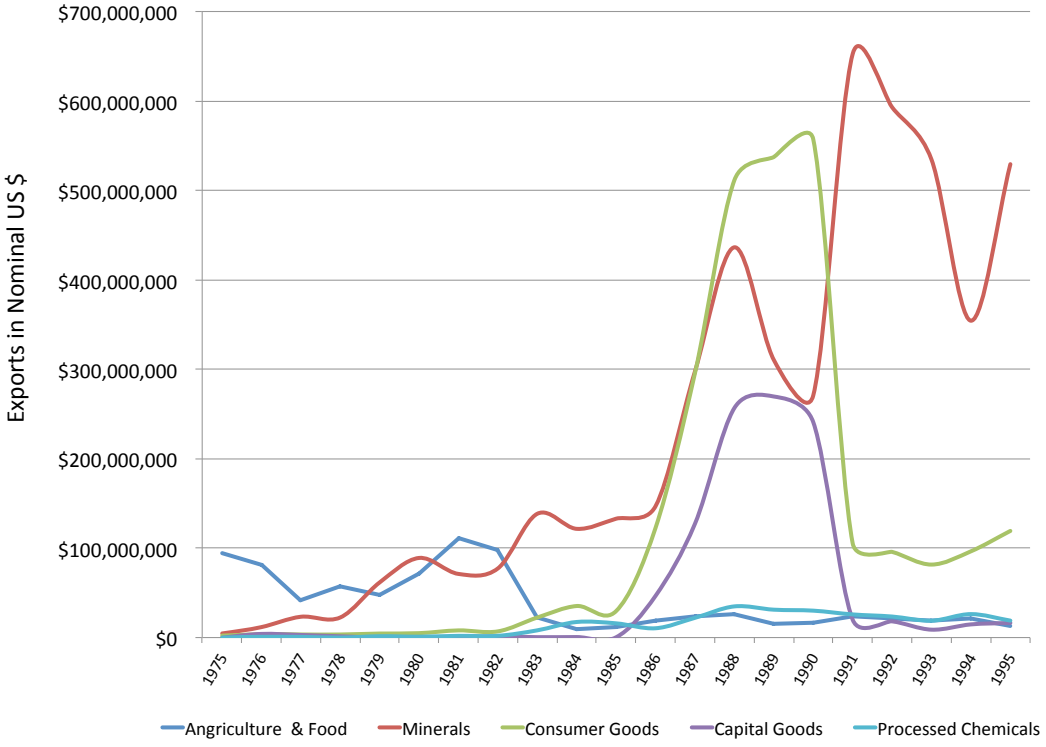


FIGURE 4.4: Exports to Taiwan, grouped by SIC codes in five primary categories.

Source: *Foreign Trade Statistics 1975 - 1985, Department of Trade and Industry, Garner (1994), IMD direction of trade statistics (1986 -1990). South African Revenue Services (1991 - 1995).*

[37] A complete table can be seen in Data Appendix F, Table F.3 which summarises all exports to the sample group countries in nominal US $.

Before discussing the possible causes for these changes in the next section, three trends relating to the margin of trade can be identified. Firstly, there was continuous growth in exports of Minerals,[38] accelerating between 1986 - 1988, and again in 1990. This is representative of the extensive margin, i.e. where trade between countries already exists, we would expect this to continue and grow over time.[39] Taiwan, prior to 1975, had traditionally traded minerals and agricultural products in a limited quantity. We thus observe the expansion of these export products along an extensive margin in the trade data. However, there are sizeable shifts in the demand for mineral exports in the periods identified above. This may suggest that other factors could account for these shifts such as "sanction busting"[40] or re-exporting[41] of resources via Taiwan. Although Taiwanese exports of minerals only represented a small percentage of total exports, the shift is sizeable. This can also be seen in conjunction with changes to Hong Kong exports of minerals, which could therefore support a reorientation towards Asian exports via Taiwan during sanctions.

The second trend is a very pronounced growth in Consumer Goods[42], and finally the increase in Capital Goods, bounded between the sanction years of 1985 & 1991.[43] Felbermayr and Kohler (2004) notes that when a new trade partnership is newly formed, growth in the diversity and value of exports may accompany the newly established relationship. It is the growth in this diversification of trade (i.e. differentiated Consumer Goods and Capital Goods, as opposed to reference priced Minerals sold on organised markets) that is of particular interest. As Figure 4.4 clearly demonstrates, South Africa had very little diversified Consumer or Capital Goods exports to Taiwan prior to 1980. Interestingly, coinciding with sanctions, only after the migration of the Taiwanese to the RIDP zones in the 1980s, growth in these industries are observed in the trade data.

4.3.3 Trade Diversification

To quantify this second (extensive) impact I have grouped exports into two categories by matching each Harmonised Commodity Description and Coding System to a product category: **(1)** differentiated goods and **(2)** reference-price, homogenous goods.[44]

For the purpose of this study, I will focus on the export side of the balance of trade as it is the diversification from homogenous to heterogeneous that is of particular interest.[45] The percentage increases in export trade is also reported against OECD ties. These are

[38] SIC: 5, 14 & 15 - See Appendix D, Table D.2
[39] Felbermayr and Kohler (2004)
[40] Naylor (1999) explains how various schemes to skirt South African embargoes were deployed by strategic allies.
[41] Geldenhuys (1991, p. 353)
[42] SIC: 7, 8, 9, 11, 12 & 13 - See Appendix D, Table D.2
[43] SIC: 17, 18, 19, 22 & 23 - See Appendix D, Table D.2
[44] According to the Rauch and Trindade (2002) classification of homogenous to heterogeneous exports.
[45] This is detailed in the Discussion Section 4.4.

included to provide a baseline against which the growth in a small Taiwanese population can be compared, and are not intended to be causal. A reference price is defined as a price that is quoted without mentioning a brand name or other producer identification. The reason to distinguish between differentiated goods and homogenous goods is that commodities, traded on organised exchanges, behave differently from differentiated goods. Commodities possess reference prices in which traders can see the price differential between two countries' markets. However, differentiated goods carry no reference price and therefore may hold an information premium conveyed by the possible existence of Taiwanese production networks in South Africa. Because of South Africa's different economic, cultural and political environment, this information premium is expected to be more advantageous for differentiated products, and we may then find a positive effect for trade in differentiated goods between RSA and ROC. It is in such a case, that the Taiwanese migrants could have engaged in a market creation for their RIDP factory production, accounting for this growth.

PERCENTAGE EXPORT TRADE

		% Population in South Africa	*Homogenous Products*	*Differentiated Products*
1975	*Overseas Chinese network in SA*	*0.01%*	*1.02%*	*0.60%*
	OECD Trading Countries	*2.12%*	*10.86%*	*43.7%*
1980	*Overseas Chinese network in SA*	*0.03%*	*1.06%*	*0.69%*
	OECD Trading Countries	*1.95%*	*6.43%*	*23.69%*
1985	*Overseas Chinese network in SA*	*0.8%*	*0.86%*	*0.90%*
	OECD Trading Countries	*1.96%*	*5.49%*	*17.5%*
1990	*Overseas Chinese network in SA*	*0.9%*	*2.93%*	*4.93%*
	OECD Trading Countries	*1.82%*	*7.4%*	*24.98%*
1995	*Overseas Chinese network in SA*	*1.2%*	*3.75%*	*5.93%*
	OECD Trading Countries	*1.68%*	5.98%	26.38%

TABLE 4.2: Heterogeneous & Homogenous Exports for Taiwan and to the traditional OECD trading links (UK, US, Germany, Japan & France).

Note: *Gold is excluded from homogenous commodities as exports were highly sensitive to changes in the price and were stockpiled, skewing the analysis. Jewellery and precious stones are excluded from the differentiated data for similar reasons, as the value outweighed the manufacturing base.* ***Source:*** *Foreign Trade Statistics 1975 - 1985, Department of Trade and Industry, Garner (1994), IMF direction of trade (1986 -1990). South African Revenue Services (1991 - 1995).*

These baseline results in Table 4.2 highlight the extent to which most of South African differentiated trade (43.7 %) in 1975 was dominated by its former OECD trade and investment partners. However, if jewellery and precious stones are removed from the differentiated data, this falls to 31 % in 1975 and 19 % in 1990.[46]

In 1975, Taiwan received 1.6 % of South Africa's total exports, of which 1 % were reference-price homogenous goods, such as coal and maize. While 0.6 % was considered differentiated, of which approximately 50 % were waxes and edible oils, and 20 % were beverages or spirits. Given that South Africa had both a large agricultural, wine and spirit sector, we would expect this to have dominated early differentiated exports to Taiwan, which did not enjoy the same endowments. However the extent to which these could be considered *'information-intensive'* and therefore preference sensitive is debatable as wines or waxes could easily be substituted. If we move further through the time period, the trade patterns changed in favour of Taiwanese information-intensive exports such as electronics, textiles, footwear and specialist chemicals. Moreover, of particular significance is how differentiated trade in traditional markets rapidly declined in the intervening years of sanction (1980 - 1985). However, a key finding from the new data shows that during this tumultuous timeframe, the share of total differentiated products in South Africa's exports escalated from 0.9 % to 4.93 % in favour of Taiwan.[47]

Although small in total differentiated exports, this shift is a noticeable increase. Geldenhuys (1991) notes how by 1984, non-traditional market diversification accounted for roughly a third of South African exports. After 1985, Taiwan appears to outstrip the growth of all other partners, "which can hardly be coincidence that several of the countries have also, to varying degrees experienced international ostracism."[48]

A further explanation for this change could have been sanction busting, encouraged by the complementary nature of the South Africa and East Asian economies. Taiwan and to some extent Hong Kong were becoming re-exporters, through which other Asian nations were receiving both differentiated and homogenous South African exports. Pickles and Woods (1989) mentioned that Taiwan could be "a possible conduit for South African exports in the event of comprehensive sanctions."[49] While Garner (1994) had suggested that during these years, the risk of doing business in South Africa outweighed the benefits of accessing the most industrialised African country. Taiwanese trade may have been a conduit through which countries like Japan accessed their supply chains located in South Africa. This may have particular reference to the automotive sector in which Toyota, GM and Ford had heavily invested in both South Africa and Taiwan. The coming sections will discuss the formation of supply-chain linkages further.

[46] This provides for a more conservative estimate of trade and was not removed or differentiated by Edwards and Lawrence (2008), and is therefore a weakness of their study.
[47] Traditional markets were UK, US, Germany & France.
[48] Geldenhuys (1991, p. 353)
[49] Pickles and Woods (1989, p. 512)

4.4 TRADE & MIGRATION

South-east Asia has strong ethnic business networks as part of their embedded social capital. The links between those in East and South-east Asia have been discussed extensively in the literature, with most attention being given to the Chinese business networks that knit together the export manufacturing success stories in Taiwan, Hong Kong, Singapore, and parts of South-east Asia.[50] Therefore, within an integrated RIDP production network, co-ethnic Taiwanese suppliers and exporters could be regarded as part of a broader diaspora's social capital embedded in South Africa. Recent scholarship has examined how these networks have also spread from Asia[51] to Europe,[52] the US[53] and now into Africa[54] Kotkin (1993) stated that "Chinese entrepreneurs remain in essence, arbitrageurs, their widespread dispersion a critical means of identifying prime business opportunities."[55] The South African hypothesis in therefore neatly summarised by Weidenbaum and Hughes (1996) who noted that;

> *"The members of the bamboo network operate in the interstices of the trading world. They make components, manufacture for others, and perform sub-assembly work. They are also heavily involved in wholesaling, financing, sourcing, and transporting. The leading businessmen know each other personally and do deals together, with information spreading through an informal network rather than through more conventional channels"*[56]

I have further disaggregated the export industries into industrial sectors in which Taiwanese entrepreneurs were heavily invested, exploring how Taiwanese investors contributed to growth of differentiated exports. Of particular interest to this chapter is the way that networks affect the relationship between migration and trade when the two countries have been internationally isolated. With a further variable, namely an annual reconstruction of Taiwanese migration to the homeland RIDP zones, I will also examine qualitative archival accounts, questioning to what extent these migrant investors, "using their vast trading networks",[57] were able to diversify export trade from South Africa to Taiwan.

Migrants can provide an information bridge between two dense networks: in this case, suppliers in South Africa and customers' demands in established export markets such

[50] Weidenbaum and Hughes (1996)
[51] Rauch and Trindade (2002)
[52] Hsu and Saxenian (2000)
[53] Head, Ries and Swenson (1995)
[54] Bräutigam (2003)
[55] Kotkin (1993, p. 17)
[56] Weidenbaum and Hughes (1996, p. 198)
[57] Minister K.T. Li, 1980 newspaper article in the New China Times.

as Taiwan, Asia or Europe. Taiwanese migrants possessed economic, cultural and institutional knowledge about both the home (Asian) and the host markets (Southern Africa), in which they were able to mediate exchange, thus increasing trade above what it would be in the absence of their migration. Although these two nations may have been a special case, it could be argued that without migration neither would have traded to a greater degree.

Seminal work from Gould (1994) demonstrates how immigrants' associations to their home country were able to foster bilateral trade linkages. These ties include knowledge of home-country markets, language, preferences, and business contacts that have the potential to decrease trading transaction costs, and increase market knowledge. This is evident in the archival accounts discussed below (4.4.2). The networks themselves are woven together with strands of information, shared contacts, sometimes finance (credit or investment), and a degree of trust, frequently backed up by group-based sanctions. If we conceptualise Taiwanese entrepreneurship in South Africa as "embedded in networks of continuing social relations"[58] then social capital and networks are a central tenet in how bilateral trade expanded. The benefits derived from belonging to an ethnic-specific group and having social ties via former employment or managerial posts facilitated trade.

South Africa was in upheaval in the 1980s. Institutionalised racism precluded migrant Taiwanese from credit markets or domestic supply chains, while sanctions prevented access to large export markets in Europe or North America. Greif (1994) and Dunlevy (2006) demonstrate how private order networks substitute for weakening political institutions. As such early migrants had to form interconnected supply chains in South Africa that were an extension of customers in Taiwan with whom they had a relationship that could transcend the risks associated with apartheid South Africa.

In 1981 the Taiwanese entrepreneurs in South Africa initiated their first Chamber of Commerce (later the African Taiwanese Chamber of Commerce or ATCC) to facilitate trade and interaction between the communities. Appointing Taiwanese agents in Taipei, the homeland development corporations also facilitated further ROC investment in the RIDP. Hart and Todes (1997) observed that "the predominance of Taiwanese investment in the 1980s was not just a quirk of apartheid subsidies and diplomatic ties between pariah states, but [...] organised around familial and network forms of production."[59] The formation of network migration and investment within the RIDP zones will be discussed next.

[58] Gould (1994, p. 365)
[59] Hart and Todes (1997, p. 36)

4.4.1 Changes to Taiwanese Exports

The recurring findings in the literature emphasise how Taiwanese entrepreneurs provided foreign market information to both customers and supply chains in Asia, spurring exports in specific sectors. To explore the possibility of RIDP investors contributing to the growth of differentiated exports, I disaggregate the export industries into the industrial sectors in which the Taiwanese entrepreneurs operated. Table 4.3 below summarises the percentage investment in each manufacturing sector during the RIDP zones between 1978 - 1992. Although any growth in exports cannot be directly linked to these investors[60] I merely seek to observe the possibility of a pro-trade effect of RIDP investment and exports. The possibility that Taiwanese investors may have developed as part of an integrated supply network will then be discussed in the following section.

Manufacturer Category	Percentage of Taiwanese Manufacturers per Sector
Electrical	11.5%
Plastics and Allied Chemicals	17.7%
Clothing and Knitwear	34%
Raw Textiles	1.85%
Footwear	9.62%
Packaging	8.9%
Metal ware	5.5%
Furniture	1.1%
Jewellery	2.59%
Cosmetics and Toys	1.1%
Food	1.1%
Other	4.81%

TABLE 4.3: Percentage Taiwanese Investment in each RIDP Manufacturing Sector (1978 - 1992)

Source: *Board for the Decentralisation of Industry. National Archive, Pretoria, South Africa.*

Examining the sectors in which the Taiwanese invested and the export growth of differentiated goods is particularly enlightening. For example 10 % of the Taiwanese entrepreneurs were invested in clothing and knitwear industries. While in 1975, South Africa exported almost none of these products (0.03 %), by 1990, 17.45 % of the exports were from this sector. The same is observed in transport equipment (1.6 % in 1975) as Taiwanese firms in the RIDP zones started producing OEM equipment for vehicle manufacturers. Appendix D, Table D.5 details all sectors and exports to Taiwan over the period. Given the possible implication of Taiwanese migration to South Africa measured in the bilateral trade data, the next section will discuss to what extent qualitative accounts provide additional evidence for the observed shift in trade.

[60] The export trade data cannot be attributed to any specific areas in the regional industrial census.

4.4.2 Taiwanese Networks in South Africa

After the 1975 and 1978 BITTs, the Taiwanese community were racially recognised as honorary whites, and offered the necessary private property protection under the law. The BITTs may have created "ethnic tolerance in which the Chinese could emerge in South Africa as a legitimate business group, free from official prejudice, protected by trade agreement, but they were suffused in social exclusion."[61] As such, this legal recognition did not extend to any social or commercial inclusion in the homelands or urban centres like those in Malaysia or Hong Kong, with large Chinese populations and Taiwanese investment.

These entrepreneurs found themselves precluded from business affiliations or social linkages with white South Africans who dominated manufacturing and the business communities. Furthermore, due to the deep racial divisions, entrenched by the apartheid laws, both Chinese South Africans and Taiwanese migrants were excluded from many of the formal manufacturing and business organisations, and prohibited from formal credit markets. Lawrence Ting an early investor noted that:

> *"The industrialists initially had problems with raising finance as they were not known to the South African banks, and by providing capital themselves were at the mercy of South Africa's exchange-control regulations."*[62]

While Charles Liao, secretary of the Taiwanese Chamber of Commerce explained how the BITTs offered little protection:

> *"[...] too many promises had been made to Chinese investors, and the governments of Taiwan and South Africa could have offered industrialists more support which meant we had to group together and find solutions".*[63]

This was further compounded by language and cultural divides not only between the Taiwanese and South Africans, but also between the Chinese South Africans who in the main originated from Cantonese-speaking areas.[64] Migrants to the homelands struggled to speak English, but had to contend with the rural settings of the RIDP zones where Africans also spoke little English. Charles Liao summarised the early cultural and operational challenges for new migrants in the 1970s:

[61] Sono and South African Institute of Race Relations (1999, p. 36)

[62] Yap (1996, p. 421)

[63] Liao C (1991), Biennial conference speech at the Chinese Association on the "The Chinese investor in Southern Africa in retrospect and futurity".

[64] Park (2010) notes that the early ancestors of today's Chinese South Africans, were two distinct ethnic/language groups: the Cantonese and the Hakka (or Moiyeanese), both from Guangdong Province. These two groups settled in different parts of South Africa ,and did not mingle until well into the apartheid period when their small numbers and apartheid laws essentially forced them to coexist. South African Chinese did not identify at all with the Taiwanese and felt that they had given the Chinese a bad name.

> *"From a densely populated Taiwan to the rural underdeveloped countryside of the border areas, the new settlers found themselves isolated, far from city amenities, without a place of worship and unable to purchase Chinese provisions [...] Insufficient research on their part often led to the establishment of factories producing goods for which there was no market in South Africa."*[65]

Ironically, it appears that the naivety and lack of domestic market knowledge resulted in even greater stimulus to export their manufactured goods. The early excess production supply, especially of textiles, could not be sold into South Africa or Africa. As such, Taiwanese factories had to export their products back to warehouses in Asia.[66] The formation of export supply chains became the base for exports as both sanctions and knowledge of customer preference in Taiwan, Hong Kong and Japan provided an easier route to market. This began to change as they quickly adapted, or new entrepreneurs joined the production network allowing for economies of scale producing higher-value finished goods. The KwaZulu Finance Corporation noted in their annual reports that many of the later entrants (after 1983) came to affiliate in domestic production networks:

> *"The early Taiwanese migrants who had come to the country and our development zones had to rely on their existing home-market business relationships to export goods. Now that hundreds more have followed, we see greater volumes of finished goods being exported to markets, mostly in Asia, but also Europe and our African neighbours. The Taiwanese export not only their products, but customer loyalty as orders can be guaranteed from long-standing relationships established when the island was still referred to as Formosa."*[67]

In later research Hart (1996) also found that the Taiwanese industrialists in Newcastle, a small town in KwaZulu, had to rely on their existing co-ethnic business networks, using it as an extension of factories operating in Asia. The Taiwanese immigrants leveraged their home country (ROC) links but also links to Hong Kong, which in turn provided export markets and enhanced bilateral trade flows between Asia and Southern Africa. This sentiment was echoed in the minutes of the KFC annual reports, which noted how:

> *"Taiwanese migrants reduced both the cost and risk associated with immigrating to KwaZulu, increasing the net returns, and thus the probability of more migrating to our industrial zones in Newcastle, and Indizini. They bring not only production knowledge and capital, but customer knowledge and their loyalty."*[68]

[65] Van der Watt and Visser (2008, p. 122)
[66] Yap (1996, p. 475)
[67] KwaZulu Finance Corporation, trade publication (1985), (check issue number in Archive records).
[68] KwaZulu Finance Corporation (1988) annual report, Government Publications, University of Cape Town.

4.5 DISCUSSION

By the end of apartheid, exports and imports (excluding services) amounted to around 40% of GDP. This was despite attempts going back as far as the UN arms embargo of 1977, and an OPEC oil embargo in 1973 to hinder the country's trade with the rest of the world. During sanctions, a clearly observable increase in export trade to Taiwan is measured in the new trade data assembled for the first time. This may merely suggest that two nations, isolated from international relations, traded with each other more. Building a complete trade series between Taiwan, South Africa and the traditional export countries suggests other possibilities. This more complete data does point to the possibility of trade, specifically homogenous reference-price commodities, inexplicably increasing with Taiwan (& Hong Kong) and declining with traditional markets. The homogenous exports, such as coal, iron ore and other strategic minerals partly confirm suspicions by other authors that Taiwan was acting as a conduit for exports during sanctions.[69]

However the observed increase in differentiated exports could not be accounted for by this evidence, given that South Africa rarely produced nor traded these SIC categories of merchandise with Taiwan, or even Asia. Exploring the possibility of Taiwanese entrepreneurs in the RIDP zones increasing exports of differentiated goods in specific sectors, certainly demonstrated that both investments and exports increased in tandem. Although not causal, this suggests that Taiwanese entrepreneurs, who invested in these sectors, were able to leverage their business links, possibly via a migrant network, and therefore increase trade. Building on this proposition, Chapter 5, which focuses on Taiwanese-firm agglomeration in South Africa, shows how new firms established by their former technicians from Asia joined the earlier, original investors.

This form of pro-trade migration is indicative of the network effects suggested by the existing economic geography literature. Similarly the existing trade literature found a greater pro-trade effect for differentiated products amongst ethnic networks. This suggests that Taiwanese migrants operated by providing market information across international borders about export opportunities.

A further factor was the possibility that Taiwanese ethnic networks provided a deterrent against opportunistic behaviour through enforcement of community sanctions. As discussed in Chapter 3, Taiwanese entrepreneurs were very visibly outsiders in the South African RIDP zones. Although nominally protected by the bilateral treaties and honorary white status, institutionalised racism precluded them from engaging in formal credit or

[69] For example, Geldenhuys (1991) and Garner (1994) both queried the possibility of trade changing in the eastern direction because of sanctions or Taiwanese investment.

domestic networks. Moreover, given the unstable institutional environment in South Africa, they operated in a close business community forming the "Taiwanese Chamber of Commerce in Africa" thus encouraging further co-operation.

As such, it is possible that network linkages were helping to overcome the informal barriers to trade imposed by the racial isolation and increasing risk of operating in South Africa during a state of emergency.[70] Unlike other disinvesting international firms that could not tolerate the political or financial risks in South Africa, Taiwanese entrepreneurs could use their co-ethnic linkages to co-operate by sharing market knowledge or credit. This promoted an increase in exports to Taiwan, not only by signalling home market preferences, but also by providing community enforcement that deterred violations of contracts in a weak legal environment. For example, Weidenbaum and Hughes (1996) noted how in Asia "if a business owner violates an agreement, he is blacklisted. This is far worse than being sued, because the entire Chinese network will refrain from doing business with the guilty party."[71] Similarly in South Africa, Hart (2002*a*) found that some of the older Taiwanese firms in KwaZulu supplied credit to the new firms. This would suggest a high level of trust amongst the network of suppliers and contractors in the RIDP zones. Migrant networks not only facilitated the initial migration decision, but also acted as a force for perpetuating migration. It became easier for potential Taiwanese enterprises to move, given the manufacturing complex in which they were embedded, and the trust that existed in their network. The new factories, with established links in the migrant network, then perpetuated an ongoing virtuous cycle, linking potential buyers and markets by means of networks.

In Chapter 5 I will now discuss how Taiwanese entrepreneurs began to subcontract to their former firms in Taiwan, which in turn generated a unique agglomeration in South Africa. Migrant networks therefore reduced both the cost and the risk associated with immigration, increasing the net returns, and thus the probability of trading.

[70] During this period the government deployed troops, and was able to suspend and change the executive, legislation and constitution without judicial approval, increasing instability for FDI.

[71] Weidenbaum and Hughes (1996, p. 36)

Chapter 5

GEOGRAPHY, INCENTIVES OR ETHNICITY?

"We were perfect for each other. What they had [South Africa] we didn't, and what we had [Taiwan], they didn't."[1]

Ming Wang,
Republic of China Embassy,
Pretoria, 1983 - 1992

5.1 INTRODUCTION

In this chapter I study the location choice of a large, vibrant community of Taiwanese industrialists, which had established themselves in a select group of homeland special economic zones. Manufacturing a wide range of consumer products for both the domestic market and international export, these enterprises developed sophisticated export trade networks which were examined in Chapter 4. Furthermore, these export networks were complemented by manufacturing networks, as Figure 5.1 demonstrates, showing that Taiwanese firms mostly clustered across 4 of the 63 available RIDP zones. The agglomeration of Taiwanese firms reflected geographic factors, financial incentives and cultural preferences, which is the focus of this chapter. Importantly, this first large-scale agglomeration of integrated Asian industrialists offers many lessons for both business historians and development economists. The opening quote therefore summarises the central theme of this chapter, prompting the research question: Why did the Taiwanese foreign investors cluster and what was it "that they [South Africa] had" in the former homeland RIDP Zones?

[1]Quote excerpted from an interview with Mr Ming Wang, London; 2nd of February 2012. Former Assistant Representative, Taiwan Ministry of Economic Affairs, Republic of South Africa. Mr Wang was a member of the Taiwanese delegation to South Africa from 1983 until 1992.

Three hypotheses are offered by the literature. The first questions whether the economic geography of specific industrial zones attracted this foreign investment. The second examines whether government incentives could account for these unique clusters. The third explanation examines to what extent this agglomeration was a result of co-ethnic Chinese business networks. This chapter assesses the relative importance of each hypothesis and examines the interaction between them using new quantitative and qualitative data.

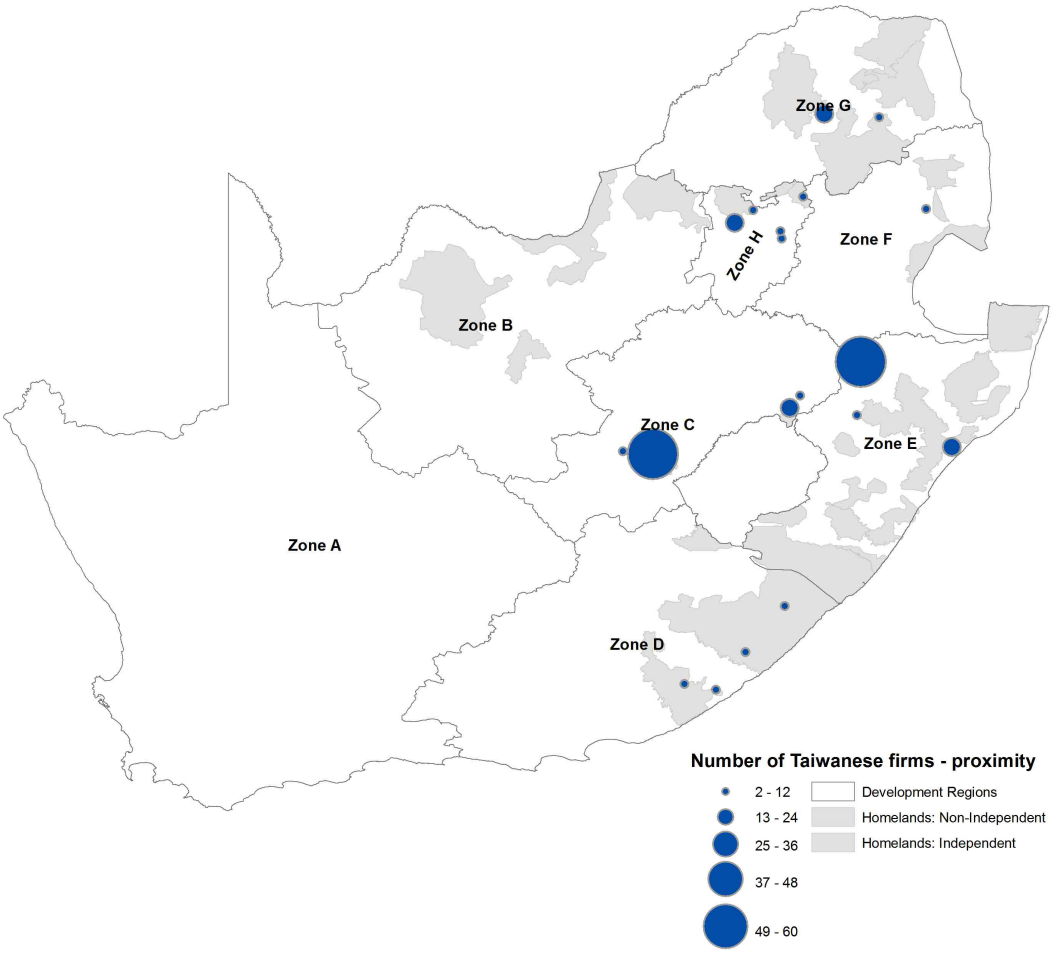


FIGURE 5.1: Concentration of Taiwanese Firms in the sixty-three zones at the end of 1992. ***Source:*** *African Taiwanese Chamber of Commerce Almanac. Geocoded using area code prefix.*

Failing to agree, the existing literature has surmised that either government incentives, international competitiveness, or ethnic production networks were the leading factors in attracting investment. For example Pickles and Woods (1989) argued that Asian entrepreneurs made "full use of the incentives offered by the upgraded industrial decentralisation policy after 1982 [...] particularly those of Taiwan."[2] While Bell (1987) noted there was always evidence of underlying spontaneous long-term trends in decentralisation,

[2]Pickles and Woods (1989, p. 509)

but "the financial inducements may have accelerated the trend."[3] Rogerson (1987) found the "mass of Taiwanese ventures are located at Bantustan growth points, a pattern which reflects the influence of their assiduous courting by Bantustan leaders and individual development corporations" such as those highlighted in Chapter 2.[4] He also notes "the obvious attraction of Bantustans [...] is the lucrative package of concessions, [...] large supplies of relatively cheap labour [...] kept in subjugated conditions."[5] However, Hart and Todes (1997) called these earlier theses into question, explaining "the predominance of Taiwanese investment in the 1980s was not just a quirk of apartheid subsidies and diplomatic ties."[6] Despite sharp cuts in subsidies after 1992, Hart (1998) subsequently found that "industries in the former Bantustans continued to grow, driven particularly by Taiwanese investment and more recently by mainland China [...] exhibiting many features of ideal-type flexible specialisation, namely industrial clusters, network production, and close inter-firm co-operation, but combined with low wages, [...] and a predominately female workforce."[7]

In this chapter I make three contributions. Firstly, I argue that incentives were not the primary determinants of agglomeration as widely cited by previous studies. While they were important, compiling new archival data across South Africa will demonstrate that RIDP sites with better location-specific *(i.e. economic geography & market access)* and firm-specific factors, *(i.e. first-mover Taiwanese production networks)* conveyed these zones with an earlier advantage in attracting foreign direct investment. Using firm level data, I then demonstrate that manufacturing plants started clustering in Zone C and Zone E, while firms in Zone D and Zone H formed specialised production networks in close proximity to urban centres and export markets. Secondly, exploring further qualitative accounts, I'll argue that transnational network linkages interacted with firm-specific and location-specific factors to determine the long-term locational choice of Taiwanese foreign investment in South Africa. Finally, my results provide a more holistic industrial-policy understanding of how these three agglomeration factors contributed to the largest cluster of Asian manufacturing firms in South Africa.

The chapter progresses as follows: Section 5.2 provides historical context by interrogating both empirical and theoretical literature for each of the proposed agglomeration explanations. Section 5.3 then summarises the data pertaining to these agglomeration variables and frames my location-choice methodology. Using this methodology, Section 5.4 analyses how these variables interacted with the Taiwanese firm cohort in the homelands. Section 5.5 challenges the competing explanations for Taiwanese-firm clustering, evaluating both the quantitative and qualitative archival accounts.

[3] Bell (1987, p. 1302)
[4] See Section 2.4.3 on page 69.
[5] Rogerson (1987, p. 140)
[6] Hart and Todes (1997, p. 39)
[7] Hart (1998, p. 335)

5.2 WHAT DETERMINES CLUSTERING?

Prior studies of economic geography, industrial agglomeration and regional development have dealt with specific explanations of firm clustering. However as I discussed in Chapter 2, the historiography of South Africa's decentralisation is divided on its success, while access to data on Taiwanese foreign investment has been noticeably scarce in prior research.[8] Moreover, neither of the studies mentioned in the introduction have sufficiently dealt with the specificities of Taiwanese clustering in the African homelands. In this section I briefly summarise the empirical and theoretical literature pertaining to the economic geography, regional incentives, and business networks of the homeland zones.

5.2.1 Economic Geography

Economic geography considers both first- and second-order nature explanations for firm agglomeration.[9] In the case of Taiwanese investment within South Africa, the former includes the availability of lower homeland wages, more desirable homeland demographics, lower transport cost and better market access, while the latter examines complementary firms. As such, advantages in first-order (i.e. location-specific) geographic factors in certain RIDP sites may have accounted for the second-order concentration (i.e. agglomeration economies) of firms within these zones.

On the theoretical side, early work by Marshall (1890, 1920) suggested that firm agglomeration occurs because of knowledge spillovers, larger labour markets, as well as backward and forward linkages associated with domestic markets. More recently, theoretical work from *'new economic geography'* builds on the spatial concentration or clustering of industry. Led by Krugman (1991, 1993), this new school modelled the role of market-access, cost-of-living, and market-crowding in understanding spatial dynamics of firms. However Sachs and McCord (2008) notes that "the precise location of firms may be accidental. Early advantages in agglomeration can lead to a snowball effect."[10] Examining this phenomenon Head, Ries and Swenson (1995) concluded that firms in the "same industry may be drawn to the same locations, because proximity generates positive externalities or agglomeration effect."[11] While numerous articles by Porter (1990, 1995, 1998*a*,*b*) showed that companies in a cluster benefit from important complementarities, this in turn can attract new business formation and clustering. However, these effects

[8] Rogerson (1987, p. 136), in the only work on Third World Multinational agglomeration during the 1980s notes that "information on contemporary investment flows into South Africa from the Third World is veiled in secrecy, and no official data exists to enable researchers accurately to monitor such flows"

[9] In the most recent work on the global agglomeration of multinational firms Alfaro and Chen (2014, p. 265) grouped these variables as **(i)** location fundamentals (also referred to as ***first nature***) and **(ii)** agglomeration economies (also known as ***second nature***).

[10] Sachs and McCord (2008) goes on to explain that "one of the striking implications of the new economic geography is that spatial concentration arises in a homogeneous region, where there is no fundamental geographical advantage to locating in one place or another."

[11] Head, Ries and Swenson (1995, p. 224)

cannot be separated from the economic geography of a specific region. Expanding on this, Glaeser (2010) explained that agglomeration of industries may also arise, because certain locations have intrinsic advantages, such as better transport links and desirable demographic factors.

For example, these intrinsic advantages were encapsulated by debates on *'Spontaneous Decentralisation'* to the South African homelands. Bell (1987) argued that better location-specific factors in the African homelands, not merely incentives, were attracting a new swathe of investment in the 1980s. This alternative hypothesis drew on the traditional trade theory that industries would concentrate in regions with better comparative advantages in economic geography. As a result of greater international competition, industries were relocating to the African homelands where "first order location fundamentals"[12] were better than those in Taiwan. Bell summarised these factors as land cost, labour costs and transport links, which had been contrary to the existing RIDP literature.

The Asian equivalent to spontaneous decentralisation is comparable to the *'Flying Geese Paradigm'* or FGP, a model for the international division of labour based on dynamic comparative advantages.[13] In this model, the production of commoditised goods continuously moved from advanced countries (i.e. ROC) to the less advanced countries (i.e. RSA) as comparative advantages changed. Under this definition, the homelands therefore possessed comparative advantages, such as a larger female demographic, lower wages and better market access for the Taiwanese firms. This would be consistent with social, political and economic factors discussed in Chapter 3 which highlight how international competition, rising wages in Taiwan and Phase 3 of homeland industrial decentralisation were intrinsically linked with migration.

5.2.2 Regional Incentives

Regional variations in RIDP incentives is the second tenet of the agglomeration hypothesis. The central question is to what extent regional variations in government incentives and concessions were driving Taiwanese-firm agglomeration. However no comparative research between the different RIDP zone incentives has been conducted. Yet Pickles and Woods (1989) argued that incentives were the main driver of Taiwanese investment, being "most lucrative [...] at industrial decentralisation points."[14] These zones were the least developed and received greater incentives. Their qualitative research observed that "most of the Taiwanese investment has been in the homelands, where investors qualify for lavish incentives and benefit from the exploitative [...] at times super-exploitative

[12] Bell (1987). Furthermore, this is also stressed in the international trade literature. These have consisted primarily of market access (i.e. firms choose to produce in large markets to avoid trade costs) and comparative advantage (i.e. firms produce goods in countries with desired-factor abundance and low-factor prices.)

[13] Originally proposed by Akamatsu (1962) and expanded on by Kasahara (2004).

[14] Pickles and Woods (1989, p. 517)

[...] labour conditions enforced by homeland governments." This line of argument was compelling, with several domestic studies on the use of decentralisation policy, such as Black, Siebrits and Van Papendorp (1991) and Addleson, Pretorius and Tomlinson (1985) also demonstrating the importance of incentives and tax concessions for new firms wishing to establish greenfield operations. However, a more recent international study by Head and Ries (1996) analysed agglomeration forces in China's special economic zones. They showed that co-ethnic agglomeration magnified the direct financial impact of government incentives, amplifying further investment.

As discussed in Chapter 2, the apartheid government substituted for the shortfall in investment and industrial agglomeration within the homelands with incentive packages and tax concessions. The dimensions of the incentives varied, depending on the nature and classification of the development sites. More than sixty-three RIDP development and de-concentration points were created. These are depicted in Appendix E, Figure E.1 which demonstrates the location of the special economic zones across the eight development regions in relation to homelands and main urban complexes.

The "excessive and expansive distribution"[15] of these zones was perceived as a contributing factor in the programme's overall failure. Black, Siebrits and Van Papendorp (1991) also advocated this view, noting that "South Africa's RIDP was too fragmented to achieve meaningful agglomeration economies."[16] While Wellings and Black (1986*a*,*b*) found that only a fraction (35.6 %) of the surveyed industries had any interest in relocating or establishing plants in the homelands. These survey observations may have been representative of domestically decentralised South African industries, but there was no data for inward foreign investment by the Taiwanese industrialist.

International studies have, however, shown the effects of incentives to be ambiguous in the absence of the first- or second order geographic factors discussed above. Using cross-country data, James and World Bank (2009) found that fiscal incentives were particularly ineffective in attracting investment to countries with poor investment climates, such as that found in South Africa during the 1980s.[17] In contrast, Altshuler, Grubert and Newlon (2000) showed that the locational decisions of international investors had become increasingly sensitive to differential subsidy considerations during the same period as the Taiwanese cohort was migrating. Analysing data from 14 home countries and 34 host countries showed that multinational firms had become more responsive not only to tax incentives, but also to transport concessions, free land, and subsidised factory space.[18] Head, Ries and Swenson (1999) had similar results in their study on United States inward- investment promotion and the subsequent investment agglomeration of Japanese firms. They found that the provision of foreign trade zones, lower taxes, and

[15] Development Bank of Southern Africa (1989, p. 187)
[16] Black, Siebrits and Van Papendorp (1991, p. 41)
[17] James and World Bank (2009, p. 1 - 3)
[18] Altshuler, Grubert and Newlon (2000, p. 17)

job-creation subsidies had statistically significant effects on the location of Japanese investment. These studies highlight how the potential variation of RIDP concessions may have influenced the agglomeration of Taiwanese firms evaluating South Africa in the 1970s and 1980s.

5.2.3 Business Networks

Economic geography and variations in regional incentives cannot be examined in isolation of the ethnic or *'nationality-based'* agglomeration effects of the Taiwanese investors. The importance of formal and informal business networks has been well established in long-distance exchange, contract enforcement and trade.[19] Furthermore Bloch (2008) noted how economic geographers have recognised that informal networks based on personal co-ethnic links helped to explain the spatial agglomeration of firms. While Ellison and Glaeser (1999) have also found that specific industrial activities explained the emergence of industrial districts based on these network factors. Therefore this section questions the role of Taiwanese co-ethnicity informing zone selection, and the subsequent agglomeration of firms in a subset of RIDP sites.

A number of international studies have pointed to the role co-ethnicity may have played in location choice through established business networks. Most notably Head, Ries and Swenson (1995) found a relationship between the geographical distribution of investments in the United States and the ethnicity of the firms co-locating. Using data on Japanese investments between 1980 and 1992 shows how these firms preferred to site their plants in areas where they found a concentration of previous Japanese investments in the same industry, or by Keiretsu affiliates.[20] However, Bräutigam (2003) found that "little research has been done on [co-ethnic] Chinese business networks in an African context."[21] As such, the ethnographic research into Taiwanese firms co-locating by Hart (1996, 1998) and Hart and Todes (1997) was exceptional within the historiography. Documenting the first wave of Taiwanese investors to the RIDP site at Isetebe in the KwaZulu region "offered a [...] rare look at the start of an investment sequence that might have represented the early stage of the flying-geese model."[22] Focusing further on this region, Hart and Todes (1997) found that "foreign investment, the bulk of which was Taiwanese, was concentrated almost exclusively in Isithebe, Ladysmith/Ezakheni and Newcastle/Madadeni."[23]

[19] These were highlighted in Chapter 4 but notable authors include Greif (1994, 2006) on long-distance exchange, Granovetter (1983) on embedded institutions and exchange, Kranton (1996) on circular reciprocity and Rauch (2001) on ethnicity and trade.

[20] Goodman (2008, p. 133) defines the Keiretsu [系列] as an informal business alliance unique to Japan, enforced through interlocking business relationships and shareholdings. The Keiretsu maintained dominance over the Japanese economy for the last half of the 20th century.

[21] Bräutigam (2003, p. 453)

[22] Bräutigam (2003, p. 454)

[23] Hart and Todes (1997, p. 34)

Linking with economic geography, Hart and Todes, like Bell (1987) also noted how Taiwanese industries started relocating in the 1980s in a response to structural changes in their cost-base, forming production networks similar to those in their home market. Although their research was limited to a single development region, they established that Taiwanese investment was "not just the product of incentives made available through apartheid policies, but reflects much broader tendencies in global capitalism."[24] Their findings concluded that South Africa was an intersection in a world-wide Taiwanese diaspora where small and medium-sized firms linked via intricate subcontracting ties.[25]

Finally, the role of foreign investment, competing investment incentives and shifting global supply chains will continue to play an important role in future African industrialisation. This chapter therefore makes a contribution to these debates. First it it calls into question whether government incentives were the foremost contributing factor for agglomeration. Secondly, it provides alternative hypotheses for Taiwanese agglomeration by examining the interrelationship of economic geography and co-ethnic networks. In the following section I will describe and assemble new archival data and propose a methodology for the location choice of Asian firms in Africa.

5.3 DATA & METHODOLOGY

As with the previous analytical chapters, data availability and access were somewhat challenging when I was collating archival sources from South Africa's late-apartheid period. In Chapter 1, the main sources of RIDP incentives (1.3.1), manufacturing wages (1.3.2), demographic variation (1.3.3) and Taiwanese-firm level data (1.3.5) were discussed. In this section I therefore summarise the assembled data for each of the explanatory categories, which will then be used in Section 5.4 to analyse what impact they had on agglomeration.

5.3.1 The Economic Geography of Industrial Zones

The variation in economic geography may have played a role by inducing Taiwanese firms to invest in zones that provided the necessary first-order input factors. Given the empirical studies and theories discussed in 5.2.1, the forthcoming section explores the three geographic factors deemed to be driving Taiwanese agglomeration. These include ***(A)*** interregional differences in homeland wages; ***(B)*** demographic distribution of homeland labour supplies; and ***(C)*** proximity and cost of transport infrastructure.

[24] Hart and Todes (1997, p. 47)
[25] Hart and Todes (1997, p. 49)

(A) Homeland Wages

The secondary literature ostensibly agreed on the importance of low wages to manufacturing firms in the RIDP zones.[26] Yet African manufacturing wages during the apartheid period have been contentious, and one of the most challenging data series to construct. These limitations required a degree of innovation, which was discussed in the archival and data source section (1.3.2) on 16 of the introduction. In summary, I now have interregional manufacturing wages for 63 RIDP zones using new sources compiled from the homelands between 1970 and 1992. Using a triangulation of data sources composed of **(i)** newspapers, **(ii)** the RIDP almanac, **(iii)** and officially sanctioned wages estimates, has allowed me to examine which RIDP zones had the lowest wages. These sources are discussed below and wages summarised across homeland in Table 5.1 below with the disaggregated data available in Data Appendix F, Table F.2.

(i) Published Newspaper Sources: Using newspaper sources, a broad collection of primary and publicly reported wage estimates have been categorised per development region. Where possible they have been recorded at the lowest disaggregated geographical level, industry, gender, skill grade and year. This data has then been compiled into a series for each of the eight development regions. Although not exhaustive, 57 out of the 63 development sites have unskilled wages cited in a range of financial publications.

(ii) RIDP Almanac: To test the wage estimates cited above, and to substitute for missing data, I have included the RIDP almanac, homeland trade periodicals and other ad hoc secondary homeland sources. The periodicals were published in magazine format and released quarterly offering me both quantitative wage data and qualitative accounts about Taiwanese-firm behaviour in the homelands vis-à-vis unskilled wages.

(iii) Formally Authorised Sources: Officially sanctioned data is used to further test the validity of the sources in the unofficial wage category, and those reported in homeland trade periodicals and the RIDP almanac. The first source is from an archival report prepared by the Bureau for Economic Research.[27] The second is from a regional series compiled by Gottschalk (1977). The final source comes from the Second Carnegie Report on poverty in South Africa.[28]

The three categories are combined in Data Appendix F, Table F.2 showing wages for each of the RIDP sites. However, the aggregate wages in Table 5.1 below summarise the urban (columns 1 – 4) and regional manufacturing wages (columns 5 – 13) for the decentralisation zones at the highest aggregate level of province or homeland. The initial results suggest three noteworthy trends for African wages in the RIDP zones.

[26] Hirsch (1986) explained that the prominence of low wages in the RIDP appeared to be more significant for the distribution of industry within homelands than in their international counterparts.

[27] Bureau for Economic Research: Bantu Development (1976).

[28] This covered five homelands and can be obtained from The Second Carnegie Report on poverty in South Africa compiled by Wilson and Ramphele (1989).

Firstly, semi-skilled manufacturing wages for Africans were substantially higher in urban areas than those in the homelands or on the urban periphery. Observing the baseline aggregate wages in 1970 demonstrates that the Transvaal (Zone H) had a significantly higher African manufacturing wage than the three other urban areas. On average, wages across this complex were 50 % higher than those in the other urban areas. However, the second trend shows that manufacturing wages escalated across the RIDP zones over time. The escalation begins in the latter parts of the 1970s and shows signs of faster growth than the wages in urban areas, but not in a uniform manner. This hints at the third trend, which I think is the most important finding, namely that manufacturing may have been displaced from urban centres to regional RIDP zones. If we refer to Figure 1.5 on page 21, the heat map illustrates that wages were possibly higher in the RIDP zones closer to the urban areas in Zone H (i.e. PWV) and Zone A (i.e. Western Cape). While zones along the coast (i.e. Port Elizabeth and East London) had lower aggregate wages, they were still higher than those in northern parts of the country. Table 5.1 is a summary to illustrate the trend, but more granular inter-zone wages will be used in Section 5.4 to analyse how the average wages may have had an impact on RIDP incentives, and thus contributed to Taiwanese agglomeration.

Real African Manufacturing Wages, (Rands per annum)

	REGION	1970	1980	1985
1	**Cape Province** *(urban)*	1275.5	2022.3	2459.6
2	**Orange Free State** *(urban)*	946.5	1679.2	2030.6
3	**Transvaal** *(urban)*	2314.8	3850.5	5147.2
4	**Natal** *(urban)*	1049.9	1202.2	1249.7
5	**QwaQwa**	10.1	700.7	1200.5
6	**Bophuthatswana**	475.7	1099.9	1239.1
7	**Transkei**	579.2	889.3	1300.3
8	**Ciskei**	209.9	416.5	537.3
9	**KwaZulu**	379.8	1200.6	1548.9
10	**Gazankulu**	300.4	900.5	1800.6
11	**KaNgwane**	42.3	119.5	183.2
12	**Lebowa**	275.6	617.7	806.4
13	**Venda**	84.8	211.3	191.5
14	**KwaNdebele**	34.6	126.9	189.4

TABLE 5.1: Aggregate annual wages across urban and rural RIDP zones, (1970 - 1985).
Source: *Wages for 1970 are reported by Gottschalk (1977). The remaining base years are summarised from the average wages reported in Table F.2 of Data Appendix F.*

(B) The Demographics of Homeland Labour

In this section I quantify the second economic geography variable, which is the composition of the homeland labour market. Bell (1987) explained that advantageous demographic factors i.e. "higher concentrations of female labour at lower costs in the industrial periphery induced decentralisation toward to the RIDP zones."[29] Hence, this data quantifies the RIDP labour market vis-à-vis the **(i)** labour-pool size between zones and **(ii)** the male-to-female ratio in each zone.

The economic geography hypothesis therefore proposes that labour-intensive firms are thought to have selected sites that had better demographic potential. A larger female population was desirable for two reasons. Firstly, as shown above, women received lower wages, as they could not migrate internally, and secondly, because of the nature of the unskilled work in the RIDP zones.[30] This is also supported by secondary literature. Todes and Watson (1984) explained that "wage levels are affected by a sexual division of labour. [...] women form the largest percentage of industrial workers while their earnings are some 32 % - 34 % of their national [male] counterparts. Female dominance [in the homeland labour market] must therefore be seen as contributory to overall [low] wage levels."[31] Maasdorp (1990) confirmed this view. He noted that firms moving into the homeland RIDP were "seeking out low-wage regions for labour-intensive industries or for those stages of production which are labour-intensive."[32] While Ardington (1984) recorded "marked differences between the salaries paid to men and women approaching R 3 to R 1."[33] Hirsch (1986) found similar trends in the Ciskei with the average salary for men being R 3,284.33 per annum whereas the comparative figures for women were R 1,224.32 per annum.[34]

The homelands of South Africa were constituted by a high percentage of working-age African females, because of historical migrant labour demands from the mining industries and agriculture.[35] Pre-eminent scholars such as First (1961) and Freund (1984) also document the mass migration of male labour to the mines.[36] This labour system, of working age men migrating to the Transvaal and Free State mining sector, resulted in a demographic divergence, giving rise to a high proportion of older men, women, and young children remaining in the rural areas of the homelands.[37] This led to a situation where

[29] Bell (1987, p. 56)
[30] The quantum and age distribution of the female labour base will be discussed next. However, see Mager (1999) and Lee (2009) for a social history of women and migration in the formation of Bantustans.
[31] Todes and Watson (1984, p. 31)
[32] Maasdorp (1990, p. 77)
[33] Ardington (1984, p. 11)
[34] Hirsch (1986, p. 192)
[35] This was discussed in Chapter 2 but also documented by Bonner (2011, p. 457)
[36] Freund (1984) explains how the Witwatersrand had become the capital of an economic empire resulting in a drain on male African labour.
[37] Homelands closer to the industrial core, from where the population could commute, were less imbalanced in their demographic distributions than those on the rural periphery.

homeland inhabitants had to rely on remittances from their family members formally employed in the industrial or mining areas.[38] Although these apartheid demographic trends have been well documented, insufficient empirical evidence has been forthcoming to compare the inter-homeland (RIDP Zone) labour imbalances. For similar reasons to those cited in the wage data section (5.3.1), census data has been insufficient to examine the demographic variation across homelands.

(i) Labour Pool: As a result of this scarcity, the labour pool data set has been constructed from the concatenation of multiple census sources. I firstly assembled the enumeration areas from the 1980 South African census for each of the RIDP zones that was adjacent to a homeland. Secondly, I used additional statistical sources as the 1980 national census excluded two of the four independent homelands.[39] Combining the regional census data with the BENSO Economic Review reports thus substituted demographic data for the homelands that were excluded from the national census.[40] Third, the RIDP zone enumeration areas from the 1980 five percentage African census that included the non-independent homelands were selected. Finally, for the purpose of demographic comparison the enumeration areas from each of the three data sources were merged and then GIS matched to their respective development zone (A-H).

(ii) Demographic Ratio: The aggregate gender imbalance of female labour across all homelands RIDP zones is summarised in Table 5.2 below. A high prevalence of immobile female labour may have been attractive to labour-intensive industrialists. In the data section on page xxx, this was extrapolated into the four age-cohort bands which represent the ILO labour-force participation scale: **(1)** 13 to 18 years as a youth baseline, **(2)** 19 to 29 years, **(3)** 30 to 39 and **(4)** 40 to 59.[41]

Seen in conjunction, Figure 1.7 on page 23 and Table 5.2 below demonstrate two significant findings. Firstly that the working-age female population materially exceeded that of men in the RIDP zones. Given the mining labour migration regime, this is to be expected. However, the magnitude is noteworthy, with female labour exceeding males by to up 50 % in 'Band 2'. Secondly, there are variations in the gender imbalances between homeland RIDP zones with the gender disequilibrium of men to women declining further in the prime-employment working-age 'Band 2' and 'Band 3' (figure 1.7). This data will therefore be used in Section 5.4 to analyse the impact female-labour participation possibility had on Taiwanese-firm clustering.

[38] Mager (1999)

[39] Areas of the Transkei and Bophuthatswana were excluded.

[40] *'Transkei Development and Independence Report'*, African population statistics table, page 136 - 178. (TAB-8768/02) and Bophuthatswana BENSO Man Power study (TAB 4568-876.)

[41] Data Appendix F, Figure F.2 extrapolates all ILO labour-force participation age cohorts, providing a demographic baseline for later analysis of trends in demographic imbalances between homelands.

INTER ZONE GENDER IMBALANCE AS PER ILO WORKING AGE COHORTS

Zone	Gender	< 12 years	13 to 18 years	19 to 29 years	30 to 39 years	40 to 59 years	60 and older	Total Population
Zone A	Female	16 %	7 %	10 %	6 %	7 %	3 %	49 %
	Male	17 %	7 %	11 %	6 %	8 %	2 %	51 %
Zone B	Female	23 %	9 %	10 %	5 %	5 %	4 %	56 %
	Male	21 %	10 %	6 %	2 %	3 %	2 %	44 %
Zone C	Female	23 %	10 %	10 %	5 %	5 %	3 %	56 %
	Male	21 %	10 %	6 %	2 %	2 %	2 %	44 %
Zone D	Female	22 %	9 %	8 %	4 %	6 %	5 %	54 %
	Male	22 %	9 %	6 %	3 %	4 %	3 %	46 %
Zone E	Female	23 %	8 %	9 %	5 %	7 %	4 %	55 %
	Male	23 %	7 %	6 %	3 %	4 %	2 %	45 %
Zone F	Female	24 %	8 %	9 %	5 %	7 %	3 %	56 %
	Male	23 %	7 %	5 %	2 %	4 %	2 %	44 %
Zone G	Female	25 %	7 %	9 %	6 %	8 %	3 %	58 %
	Male	24 %	7 %	5 %	2 %	3 %	2 %	42 %
Zone H	Female	23 %	8 %	9 %	5 %	6 %	3 %	55 %
	Male	23 %	8 %	6 %	3 %	3 %	2 %	45 %

TABLE 5.2: Gender imbalances between homeland RIDP zones – all age bands.

Source: *The 1980 census and 1980 five per cent African census, and the BENSO man power study of the BOP. 1980 & 1985 compiled by Statistics South Africa and digitised by the South African Data Archive (SADA), Central Statistics Service Report No. 02-80-02. 1980. Population Census, 1980. Pretoria. BENSO manpower study, National Archive, Pretoria, RSA, TAB 4568-876.*

(C) Proximity To Transport Infrastructure

According to the third strand of the economic geography debate, homeland regions needed preferable market access if they were to generate agglomeration. For example Glaeser (2010) explained that "proximity to transport infrastructure facilitated agglomeration and these benefits all ultimately come from transport cost savings."[42] However the historical South African literature noted that "the distance from suppliers and markets is also considered a major disadvantage of a peripheral location."[43] Many of the RIDP sites were isolated from metropolitan regions (demonstrated in Appendix E, Figure E.1), and poor access to transportation systems may have adversely affected industrial competitiveness by raising the unit cost of freight in the RIDP zones.[44] As discussed in Chapter 2, in an attempt to accelerate decentralisation, transport infrastructure was expanded, such as that shown in Figure 5.2 below. The following quotation emphasises the importance of transport costs and infrastructure access in the success of the RIDP.

> *"The labour and incentive benefits of the RIDP are often outweighed by the distance to domestic markets or exports ports. In recent years the infrastructure programme has been extended to ensure that the appropriate railway transport is provided to equalise the benefits and risks to industrialists."* [45]

To counter these serious disadvantages, the Board for the Decentralisation of Industry offered railway and port incentives.[46] Moreover, archival records highlight how certain sites were "ideally situated on a transport corridor for both domestic and international markets, ferrying in willing low-skilled labour from nearby homelands."[47] In this section I therefore measure two factors which will be used to explain firm agglomeration. **(i)** Firstly, the geographic proximity of RIDP sites to ports and domestic markets is calculated. **(ii)** Secondly, using the proximity data and the associated incentive classification, the railway transport cost variation for each of the RIDP zones is estimated.

(i) Market Proximity: The digitised railway map (Chapter 2, Figure 2.4) indicates that after 1978, all of the potential RIDP sites had some degree of railways access. However the railway access had different opportunity costs associated with their proximity to markets. For example, a specific zone may be further from a port (export market), but closer to a large city (domestic market). In calculating the transport costs, each of the

[42] Glaeser (2010, p. 21)
[43] Wellings and Black (1986*b*, p. 21)
[44] The RIDP quote summarises how these "created external diseconomies by introducing inefficiencies and unreliability in the supply chain."
[45] Board for the Decentralisation of Industry annual reports, 1978. The National Archives, Pretoria, RSA. TAB 7869 – ZA
[46] Wellings and Black (1986*a*, p. 141) called them "exceedingly generous".
[47] Transkei Development Corporation, Annual Report, 1983 pg.5

sixty-three RIDP zones have been geocoded. The railway path distance to domestic markets and exports markets (ports) is then calculated in kilometres (kms). Table E.1 in Appendix E tabulates the railway path distance to the nearest port from each zone.

(ii) Transport Cost Variation: Variation in transport incentives altered the cost structure in each of the RIDP sites. The incentives are discussed in more detail in Section 5.3.2. Briefly summarised, the most favourable benefits were for industrial development points, followed by de-concentration points.[48] To estimate the variation, geocoded RIDP zones from above *(i)* and digitised infrastructure maps are combined with a topographic overlay of South Africa, calculating the path distance to the four ports (Durban, Cape Town, East London, Port Elizabeth).[49] Using the categorical incentive structure (i.e. "deconcentration" or "decentralisation") an estimated cost for each of the ports is demonstrated in Table E.2 of Appendix E while Figure E.5 shows each of the RIDP zones on a distributed cost curve.[50] This will be deployed in the analysis section (5.4) to examine agglomeration based on geographic proximity and transport costs.

FIGURE 5.2: Aerial view of an RIDP site in Zone E (Itsetebe). The image demonstrates a typical RIDP site built between railway lines with sidings servicing each arm of the complex. As the complexes were expanded, additional railway sidings could be added.

Source: *RIDP almanac, 1982. National Archive, Pretoria, South Africa. TAB - 1982/2*

[48] *"De-concentration"* zones were in closer proximity to metropolitan areas, thus receiving lower concessions. *"Decentralisation"* zones were in rural areas, receiving higher transport incentives.

[49] The Path Distance function is the primary spatial tool for comparative cost analysis in GIS. It factors in both horizontal and vertical cost dimensions, as well as true surface distance between the RIDP zone and the closest export port.

[50] These are disaggregated by "de-concentration" and "decentralisation" in standardised 8 ton container rates.

5.3.2 RIDP Incentives

In this section I quantify the second, and most cited element of the agglomeration thesis, namely the variations in government investment incentives. The *'Good Hope'* Regional Industrial Development Programme contained eight distinct subsidy and concession variables.[51] The financial incentive categories were **(1)** Wage subsidies, **(2)** Transport rebates, **(3)** Interest concessions on capital and land, **(4)** Harbour rebates, **(4)** Electricity subsidies, **(6)** Training subsidies, **(7)** Preferential tenders, and **(8)** a Relocation allowance.

To quantify the potential impact each of these incentives may have had on agglomeration, the annual reports from the Board for the Decentralisation of Industry (BDI) are assembled from 1971 through to 1992.[52] Unlike prior anecdotal studies,[53] these reports provide longitudinal data pertaining to the annual change in financial distributions for each of the incentive categories. By focusing on the period of highest Taiwanese investment (from 1982 until 1992), this data seeks to quantify the incentives and concessions offered to Taiwanese firms. The Board for the Decentralisation was the central oversight body for the homeland development corporations. In the absence of granular data from each of these corporations, the annual reports thus capture the total number of firms, and the allocation of incentives at the regional level. This builds on Chapter 2, Figure 2.7 which showed a structural break in the decentralisation programme, with a very steep increase in financial distributions at the start of the final RIDP period. However, this incentive data has not been exploited in prior studies, suggesting the importance of financial inducements to the thesis of Taiwanese-firm clustering.

Collating all categories reveals that 83 % of financial incentives and concessions were channelled into four key areas, namely **(i)** a wage subsidy for unskilled labour, **(ii)** a transport subsidy (i.e. Rail, Road & Harbour), **(iii)** interest concessions on land and capital goods, in addition to **(iv)** a relocation rebate. Table 5.3 below summarises the percentage of incentives paid per category (1 - 8). Moreover, the proportion and importance of incentives evolved over the period. For example, certain incentives were distributed in greater proportions as the RIDP Programme shifted from capital-intensive to labour-intensive industries. Most notably, the summary findings show that the electricity subsidy rapidly diminished, while wage-labour subsidies escalated and the allocation of transport concessions rose, but shifts from railway usage to road haulage.[54]

[51] Chapter 2, Section 2.4.3 quantifies and discusses the evolution from phase 2 into phase 3 of the RIDP as the state becomes more desperate.

[52] Source: Board for the Decentralisation of Industry Annual Reports *(National Archives, Pretoria - TAB series & Government Publications, University of Cape Town)*. The BDI annual reports contained the officially audited income statements for the RIDP in each of the financial years from 1970 until 1992.

[53] These were discussed in Section 5.2.2 above, but in summary Pickles and Woods (1989) and Black (1990) claimed that these were the leading cause for Taiwanese and decentralisation investments.

[54] The transition from railways peaked in 1988 and slowly dipped into the later phase of the RIDP. This is an important distinction, and will be discussed in detail in the following section.

The complete schedule of financial incentives and concessions across all of the RIDP zone is tabulated in Data Appendix F, Table F.1. This data will be used to analyse the potential impact of RIDP incentives on agglomeration. However, in the following section the major findings are summarised. The four leading incentive variables *(i - iv)* are then discussed.

1. **Wage Incentives:** Wage subsidies paid to domestic and Taiwanese firms within the RIDP were a key determinant, increasing from 2% to 22% of all disbursements. Therefore, differences in regional wages and wage incentives are calculated to estimate the labour attractiveness of each zones. For example, there was a variation between RIDP zones, with the maximum wage bill refund (i.e. 80 % refund) and an upper-wage bound (i.e R 120 pm). Interregional wages were assembled in subsection 5.3.1 and will be employed in Section 5.4 to calculate a wage-rebate index.
2. **Transport Incentives:** Transport subsidies constituted 45 % of the annual RIDP budget in 1982, declining to 37 % in 1992. Rail incentives incurred 98 % of the transport category at the beginning of the period, gradually declining as road freight concessions were introduced as a substitute in the domestic market transport mix. The variation in the *StD, DP and IDP* transport subsidies, and the economic geography of market proximity (subsection 5.3.1) will be used to examine the geographic attractiveness of each zone.
3. **Interest Concessions:** The allocation of incentive payments to companies in the form of concessions on capital and land increased sharply. The concession lasted 10 years and grew in real terms from 3 % in 1982 to 22 % in 1991.
4. **Relocation Allowance:** This incentive grew from 2 % in 1982, reaching a high of 9 % in 1990. The relocation allowance was almost exclusively paid to foreign investors, therefore qualitative accounts are explored within this incentive category.
5. **Preferential Tenders:** This incentive was negligible, as it was limited to government procurement only.
6. **Electricity Rebates:** The RIDP income statement demonstrates that electricity was a significant proportion of the incentive distribution, accounting for 26 % in 1982, but rapidly decreasing to 1 % by 1986.
7. **Training Rebates:** Rural RIDP sites would require substantial training to develop human capital, however only a negligible amount was utilised compared to wages or transport. Yet qualitative accounts suggest that a select group of zones used this incentive variable to substitute for the shortfall in African human capital. This will require further contextual analysis in Section 5.4.
8. **Harbour Subsidies:** South Africa had four large commercial cargo ports, where rebates on harbour tariffs were historically available. In comparison to other available transport incentives or tariff concessions, the analysis of the RIDP income statement reveals that the harbour rebates were poorly utilised. Only RIDP sites in Zone D exploited the rebate which is discussed in Section 5.4.

PERCENTAGE DISTRIBUTION OF ALL RIDP INCENTIVES AND CONCESSIONS PER YEAR

CLASSIFICATION	1982/'83	1983/'84	1984/'85	1985/'86	1986/'87	1987/'88	1988/'89	1989/'90	1990/'91
Transport subsidy	45	41	33	37	42	44	46	38	37
Electricity concessions	26	14	10	7	1	1	0	0	0
Wage Incentives	2	15	23	21	23	24	24	21	22
Rental concessions Land and Building	1	3	5	7	8	7	6	7	10
Relocation subsidy	2	5	6	6	4	4	5	9	7
Tax Concessions	20	12	7	5	3	2	1	1	1
Interest Concessions	3	9	16	18	19	18	18	22	22
TOTAL (%) of RIDP	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

TABLE 5.3: Aggregate RIDP incentives and concession categories represented as a percentage (%) of total incentives paid, (1982 - 1992).

Source: *Compiled from the Board for the Decentralisation of Industry annual reports, 1982 - 1991. The National Archives, Pretoria, RSA. TAB 7869 - ZA.*

(i) Wage Incentives: Archival evidence has suggested that lucrative RIDP wage subsidies paid to Taiwanese firms were a valuable enticement.[55] The final RIDP schedule introduced two forms of wage subsidies: a defined maximum monthly cash payment for each employee, and a total percentage wage bill rebate which remained constant during Phase 3 of the RIDP project. However the effect of this has been unknown due to an absence of quantitative evidence pertaining to unskilled homeland wages.[56] Combining the variation in incentives and the new wage data assembled in Section 5.3.1 allows us to estimate the *'Wage Premium Gap'* that firms would receive in each of the RIDP zones. Although the wage data collected in Section 5.3.1 is not conclusive, it offers a first-pass impact assessment of regional wages and wage subsidies.

The wage bill subsidy and defined cash payment differed substantially, and depended on the level of development aid allocated by the BDI. For illustrative purposes, Table 5.4 demonstrates a sample of locations across the eight development zones *(Column ii)*. This highlights how the wage subsidy differed between regions and locations. Regions refer to the border development region,while locations refer to specific RIDP sites.[57] The intention of this rebate variation was to entice investors to rural areas. The lowest subsidy was of R 30 per month in Zone H which was in close proximity to the PWV region containing Johannesburg (i.e urban). The highest subsidy of R 110 per employee per month was paid in Zone D, the most rural zone in the Eastern Cape Border region. However, the extent to which regional wages and incentives determined the firm zone selection is untested. This data will therefore be exploited further in the Analysis section (5.4) to quantify and explain its impact on Taiwanese-firm agglomeration.

Category *(i)*	Zone *(ii)*	Name of S.E.Z *(iii)*	% Wage bill *(iv)*	Maximum Rebate *(v)*
Deconcentration Point (urban)	**A**	Atlantis	80%	R 70
Industrial Decentralisation Point	**B**	Heystekrand	80%	R 80
Industrial Decentralisation Point	**C**	Botshabelo	95%	R 100
Industrial Decentralisation Point	**D**	Dimbaza	95%	R 110
Industrial Decentralisation Point	**E**	Imbali	80%	R 35
Deconcentration Point (urban)	**F**	Nelspruit	80%	R 70
Deconcentration Point (urban)	**G**	Pietersburg	80%	R 90
Deconcentration Point (urban)	**H**	Bronkhorstspruit	80%	R 30

TABLE 5.4: Total Wage Bill and Wage Rebate Subsidies: *Column (i)* demonstrates the category of RIDP zone (i.e. Rural vs. Urban), *Column (ii)* denotes the regional zone. *Column (iii)* gives the name of the zone. *Column (iv)* stipulates the maximum wage bill rebate as a percentage and *Column (v)* stipulates the maximum wage rebate per employee in 1980 Rands.

Source: *RIDP Schedule of Incentives, The National Archives, Pretoria, RSA. TAB 7869 - ZA*

[55] Hirsch (1986) noted that low wages were significant, which is explored further in the Analysis Section.
[56] This was discussed in the Wages Section (5.3.1).
[57] Appendix E, Table E.3 aggregates sixty-three RIDP investment locations, allowing for a comparison across all the zones and regions at a finer spatial level.

(ii) Transport Subsidy: Transport incentives constituted 45 % of the budget in 1982, declining to 37 % of the incentive payments by 1992. However, there was a noteworthy trend and shift in the distribution during the period related to a shift in transport mode. Table 5.5 demonstrates how railway rebates and road transport concessions received a significantly larger percentage of the RIDP financial assistance. Rail incentives incur 98 % of subsidies at the beginning of the period. However, this gradually declined as road freight concessions are introduced to substitute for rail in the domestic market.

PERCENTAGE EXPENDITURE ON TRANSPORT INCENTIVES & CONCESSIONS								
	1982/'83	1983/'84	1984/'85	1985/'86	1986/'87	1987/'88	1988/'89	1989/'90
Railroad	99 %	99 %	90 %	67 %	62 %	59 %	52 %	51 %
Road Transport	0 %	0 %	9 %	26 %	30 %	34 %	41 %	44 %
Unworked steel	0.6 %	0.7 %	0 %	0 %	0 %	0 %	0 %	0 %
Coastal Shipping	0 %	0 %	0 %	5 %	5 %	5 %	4 %	3 %
Harbour charges	0.4 %	0.3 %	1 %	2 %	3 %	1 %	2 %	2 %
Air Freight	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %

TABLE 5.5: Percentage Expenditure an all Transport Incentives and Concessions, (1982 - 1990). Based on constant 1980 Rands. *Note: Rounding may result in totals ≠ 100 %.*

Source: *Board for the Decentralisation of Industry annual reports, extracted from the 1982 - 1991 railways almanac. The National Archives, Pretoria, RSA. Box TAB 7869 - ZA, Series 1982 -1991. Note: 1991 was not reported in separate transport categories.*

Containerisation was introduced to the decentralisation schedule of incentives in 1976. This new form of global, standardised transport technology offered additional benefits to future RIDP investors.[58] The RIDP Special Report On Transport Dynamics (1982), notes how this form of bulk container transport had "come to dominate the railway transportation of finished goods from the regional zones to national ports or domestic markets. This Spoornet service, offered decentralised firms a convenient and secure means of transportation in standardised tonnage requirements."[59] New empirical evidence from the archived transport rebate reports corroborates these assertions. While not complete for the entire period, the reports show that between the years 1981 and 1988, 79 % of manufactured goods were transported by standardised 8 ton containers.[60]

[58]The KFC noted how "in Taiwan, we used containers, so now in Newcastle [Zone E], we have the same standards which our customers in [the] USA expect."

[59]Special Report On Transport Dynamics (1982), National Archive, Pretoria, ZAF - 1987/2.

[60]The South African Railways annual reports between 1978 and 1980, summarised in Appendix E, Figure E.6 highlight how mineral resources, specifically coal and base metals dominated total volumes on the railway system.

Highlighted in the economic geography section (5.3.1) above, the railway incentives had two dimensions. The first was the geographic location (i.e. market proximity) and the second was the category of incentives (i.e. DP or IDP).[61] Using the South African Railways and Harbour Gazette (1980) and the path-distance data calculated in Section 5.3.1, Figure 5.3 demonstrates the estimated cost of railway transportation from the 63 regional zones in container units. The size of the bubble represents the average cost of transporting goods to an export port from either an DP or IDP zone. This is also detailed in Appendix E.5 using a cost curve which will test this variable in Section 5.4.

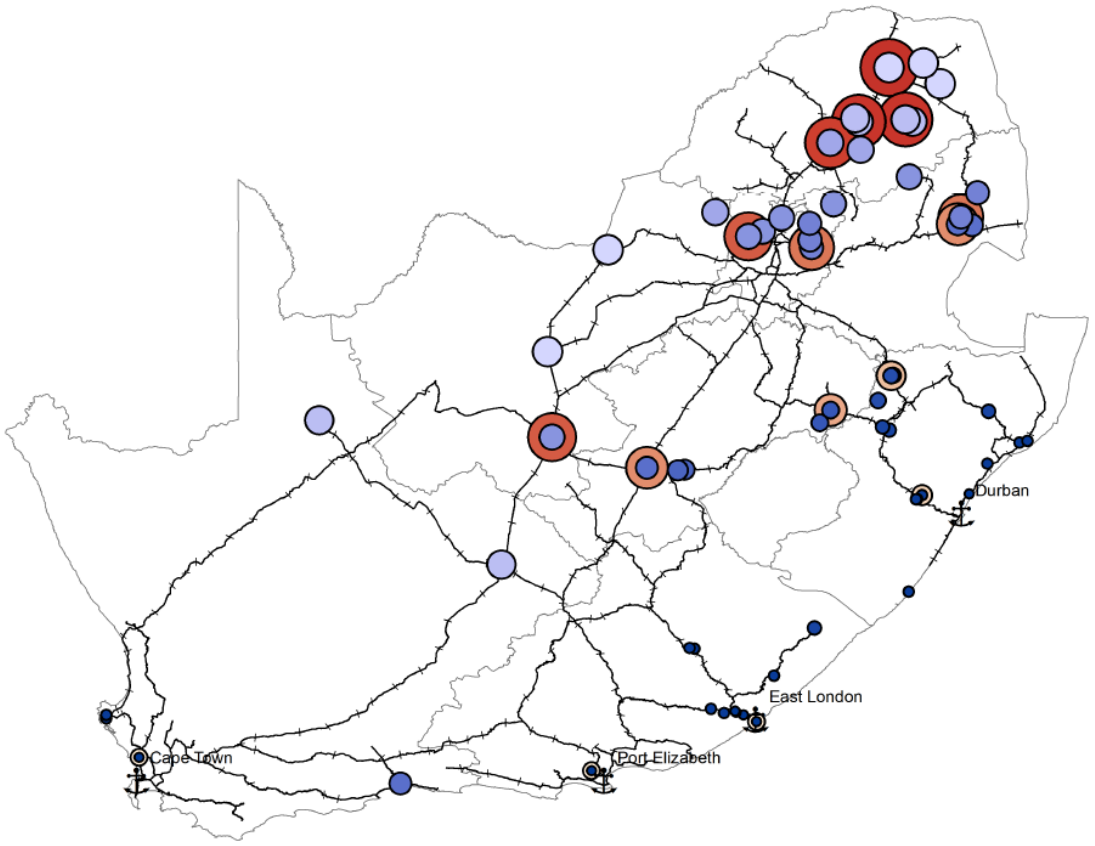


FIGURE 5.3: Deconcentration Point (DP = Red Bubbles) & Decentralisation Point (IDP = Blue Bubbles) railway costs. Cost bubbles represent the Rand cost of transporting a container from each zone to its closest shipping port. Based on constant 1980 Rands.

Source: *South African Railways and Harbour Gazette (1980).*

Reduced container costs were an important factor in determining the initial zone selection for investors. Therefore using the railway cost data provides a comparable rate for the category of RIDP location, and therefore the incentives received. Zones located in

[61] Deconcentration Point = DP and Decentralisation Point = IDP.

decentralisation zones (IDP) received larger transport rebates. This is particularly important for export-orientated firms, while domestic market manufacturers would have been more reliant on road transport. The transport opportunity costs of locating in a decentralisation zone or de-concentration point is discussed in the analysis (Section 5.4). However as Figure 5.5 shows, railway incentives declined towards the latter half of the decade in favour of road transportation, requiring further exploration of this variable.

Road transport had not been explicitly included in the RIDP incentives gazette published after the Good Hope concessions. Examination of these financial disbursements reveals that a discretionary incentive for road transport was introduced in 1984. This would account for the increase and subsequent substitution effect from railways to road transport. The Good Hope report explained that a revised rebate would "create parity amongst the various modes of transport available to regional industrialists [...] enabling them free choice on the most economical method of transport for their products without being influenced by any transport rebates for which they may qualify."[62] This change could have had a substantial effect on small businesses. Not only could the Taiwanese industrialists access subsidised railway transport, they could also purchase a subsidised light commercial vehicle under the new scheme. However, Taiwanese agglomeration had already taken hold in a select group of RIDP zones before these changes were made.[63] Nonetheless, it was necessary to mention the historical rise of road transport incentives.

The final transport incentive is harbour rebates. Although the disbursement of concession rebates for harbour tariffs is small relative to those attributed to railway tariff rebates, the data indicates that there was an upward growth trend.[64] This distinct shift in the distribution of financial incentives for harbour rebates occurred after 1984. Harbour rebates were adapted to focus specifically on utilising excess cargo capacity from the port of East London. Located in Zone D, this port was in close proximity to the RIDP zones of the Transkei and Ciskei, and on the transport corridor from Zone C. According to Fair and Jones (1991), it was hoped that revised rebates would resuscitate the port. With the advent of containerisation, East London was effectively relegated to a secondary port, which was reflected in the port's traffic performance.[65] Fair and Jones noted how cargo traffic coming from the Border area (i.e. Zone D) increased port utilisation.[66] Moreover, new data collected for this chapter found that RIDP Zones significantly revived the fortunes of East London. Following Taiwanese investment, utilisation of harbour incentives from Zone D increased in the years 1985 through to 1991, as shown by Appendix Figure E.7.

[62] The Good Hope Programme (1982), Final Recommendations, National Archive Pretoria, TAB - 3678.
[63] In these cases, archive records often cited the importance of railways in their choice of location.
[64] See Appendix E, Figure E.7 demonstrating this trend growth from the port of East London.
[65] Fair and Jones (1991) note that the port handled 2.7 million tons of cargo during the 1970s, falling below 2 million tons in 1985, and slumping further to 0.8 million tons in 1988.
[66] The PWV (Zone C) was 1000 kms from East London, making it an unlikely gateway for cargo.

(iii) Interest Concessions on Land and Capital Goods: The allocation of incentive payments to companies in the form of concessions on capital and land increased sharply during the third phase of the RIDP, as shown in Table 5.3. The concession on interest payments, which lasted 10 years, grew in real terms, from 3 % in 1982 to 22 % of the total incentives package paid by the RIDP across all investment zones. This category of incentive appears to be widely acknowledged, but little is known about its importance. For example, a Taiwanese investor remarked, "[...] your working capital is financed by the Development Corporation at a very attractive interest rate [...]."[67] However we cannot generalise across all zones. The reader requires an understanding of the different financing institutions and in which zones these concessions were more readily accessible.

Interest concessions were administered by three categories of financial institutions. Each will be detailed below to provide context on how these could have supported Taiwanese inward investment, and therefore influenced its subsequent geographic location and agglomeration. The first institution was the Industrial Development Corporation (IDC), a statutory body; which made finance available for the establishment of new industries and the expansion of new industries in metropolitan as well as decentralised areas outside the independent TBVC states and semi-autonomous homelands.[68]

Of relevance to the analysis of Taiwanese manufacturing firms were three caveats to the financing requirements. First, the IDC could only fund companies established within the borders of the Republic and not the homelands (i.e TBVC and semi-autonomous homelands) thus excluding 37 potential locations from large-scale investment financing. Second, only manufacturing entities could be considered and activities such as trading, farming and mining were excluded. Furthermore, the replacement of "other sources of finance and finance for the take-over of an ongoing concern cannot be considered."[69] These two caveats are important later for explaining how and why the Taiwanese agglomerated in certain zones, may be due to the IDC restriction.[70] The restriction on non-homeland investments would have reduced the attractiveness of many potential locations.

The second provider of concessionary finance was the Small Business Development Corporation. The SBDC was responsible for industrialists requiring financial assistance of less than R 200,000 and therefore specialising in smaller undertakings.[71] Founded in 1981, just as Taiwanese investment flows were escalating, it had the specific purpose of "developing small business amongst all population groupings within the Rand Monetary

[67] Interview transcript - Public Affairs Research Institute (Eddie Sun interview, PARI records, October 2013). Courtesy of Laura Phillips: laurap@pari.org.za

[68] TBVC = Transkei, Bophuthatswana, Venda and Ciskei

[69] The National Archive, Pretoria, RSA, Ref: G 68 E INDU 86 MANU.

[70] When viewed in conjunction with economic geography of each homeland, the Taiwanese investment would not have satisfied the IDC funding requirements.

[71] Republic of South Africa (1982) Department of Trade and Industry, The National Archive, Pretoria, RSA, Ref: G 68 E INDU 86 MANU.

Area."[72] According to their archival records, the SBDC offered a wide range of assistance, but mostly in the fields of financing start-up capital, furnishing business sites and providing advisory information. The Small Business Development Corporation archival records quantified the financial assistance and subsequent distribution to the RIDP programme. The findings show that payments were made almost exclusively (78 %) to South African domestic firms within Zone H and G. As I show, these were areas that experienced lower Taiwanese investment inflows. Secondly, the companies that did receive financing had, on average, assets totalling less than R 750,000 in 1985. This was below most of the Taiwanese investors' requirements. As such, the Small Business Development Corporation would have been of little service to the Taiwanese investors.

The National Homeland Development Corporations were the final category of financial institutions to which Taiwanese industrialists could turn in order to access this category of incentive financing. Given the evidence in Chapter 2 (Section 2.4.3), this was the financial channel through which favourable loans were granted. Ten of these centrally funded, but semi-autonomous development financing institutions existed. Of importance to the agglomeration hypothesis is the level of interest concessions available in each of the RIDP sites. In addition, the marketing and recruitment activity of each development financing institution appears to have also induced a degree of agglomeration. Interest concessions appeared to be extended more widely in the Transkei and KwaZulu homelands, which is not accurately reflected in RIDP income statements. From initial analysis, homeland zones received higher concessions ranging from 50 % to 80 % of the interest payments for the first 10 years, while de-concentration zones in or near peri-urban areas received lower concessions ranging between 25 % and 40 %. Providing disaggregated data per RIDP sites, Appendix E, Table E.5 tabulates the interest concessions. The impact of these differences will be tested and discussed in Section 5.4 with the other incentives.

(iv) Relocation Allowance:

The final category of RIDP incentives pertained to the relocation allowance of plant and machinery. These are summarised from the decentralisation gazette - "Relocation costs were reimbursed when an industrialist moved a complete factory or part thereof as a going concern from PWV (Zone H) or Durban-Pinetown (Zone E) areas to a decentralised area. In the Cape peninsula (Zone A) only relocations to the Atlantis RIDP site are paid." However, foreign firms could select RIDP zones that were categorised as decentralisation areas and receive higher relocation subsidies. For example, "industrialists were then able to claim up to a maximum of R 500,000 in respect of relocation costs and an additional 20 per cent to compensate for the unquantifiable costs."[73]

[72]The National Archive, Pretoria, RSA, Ref: G 68 E INDU 86 MANU.

[73]Manual on the establishment or expansion of industrial undertaking (1982), Department of Trade and Industry, The National Archive, Pretoria, RSA, Ref: G 68 E INDU 86 MANU pg. 216

Analysis of the RIDP income statement demonstrates that the category grew rapidly. Figure 5.4 below demonstrates that this category of incentives grew from approximately 2 % in 1982 to 9 % of total distributions in 1990. This is also recorded in a number of archival sources and appears to have been very useful in attracting firms, warranting further discussion. For example, the development almanac from the Free State (Zone C) and Lebowa (Zone H) advertise the growing demand for relocating to their respective RIDP sites based on "sufficient relocation allowances for small enterprises, reducing the risk and inconvenience for entrepreneurs from abroad."[74]

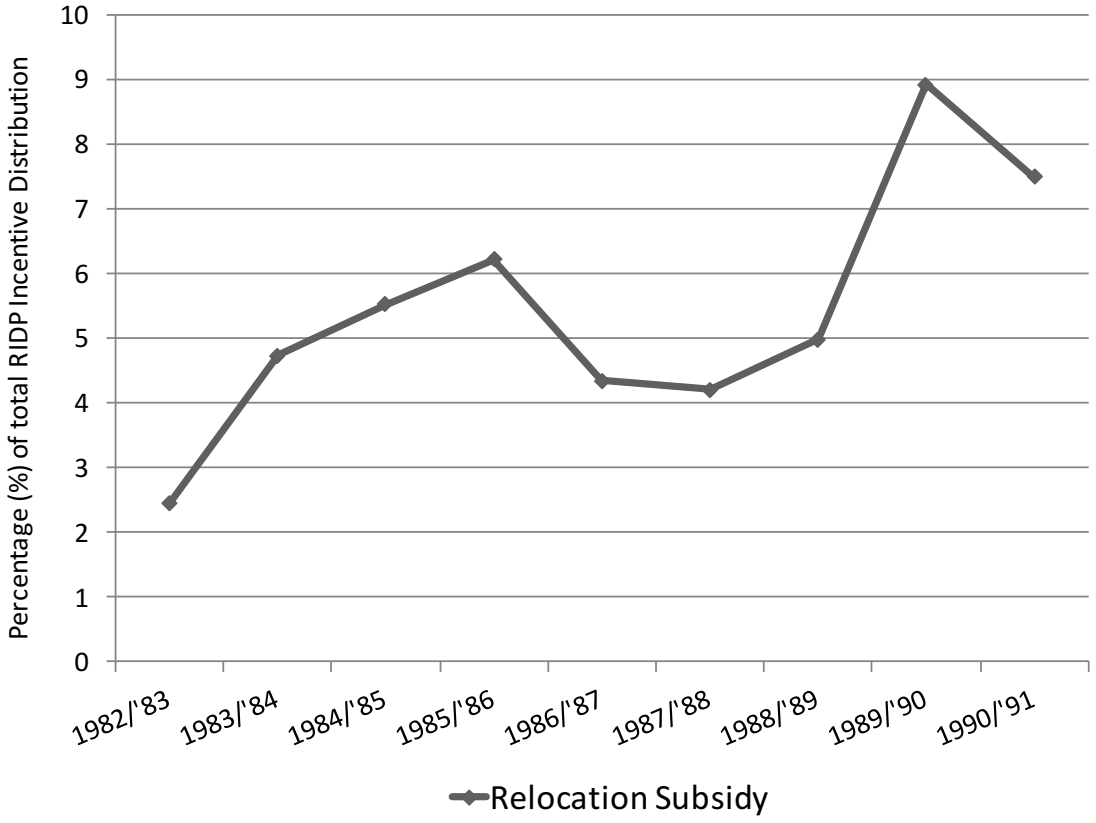


FIGURE 5.4: Annual RIDP expenditure on relocation subsidies across all zones, (1982 - 1991).

Source: *Board for the Decentralisation of Industry annual reports, 1974 - 1991. The National Archives, Pretoria, RSA. TAB 7869/ZA - Series 1971-1991.*

An interview with a Taiwanese entrepreneur in Butterworth (Zone D) also highlights the attractiveness of this incentive for the relocation of foreign firms to the homelands. He explained, "[...] we thought the investment relocating costs are relatively attractive so you don't have to really outlay a lot of money to relocate your factory." The entrepreneur goes on to explain how these enticed investment; "[...] there were relocation incentives so virtually the cost of shipping of your machinery from the Far East largely is being subsidised."[75]

[74]The Star; *"Foreigner set to flock to homelands"*, 15th of April, 1981: Homelands, Lebowa Labour collection, SADLRU Clippings, 1975 - 2000, pg. 343.

[75]Official interview transcript - Public Affairs Research Institute (Eddie Sun interview, PARI records, October 2013). Courtesy of Laura Phillips luarap@pari.org.za

5.3.3 Taiwanese Business and Production Networks

The ethnic Taiwanese diasporas could have served as an important facilitator during the agglomeration process in South Africa's RIDP zones. Redding (1996) first found that small and medium-sized Taiwanese firms had loose organisational structures, but strong production networks. These highly enduring 'relational assets', produced commonly understood production conventions and rules which accelerated Taiwanese firm expansion via transnational business networks.[76] Further informing this hypothesis, Chen and Chen (1998) demonstrated that production linkages were an important determinant of location choice for Taiwanese firms as they internationalised their investments in Southeast Asia and China. For example industrial clusters and the small firms therein, benefited from the production networks in which they were embedded back in Taiwan. Moreover, small firms were more sensitive to relational linkages than large firms were in their choice of FDI location. This distinction will become important in Section 5.4 to explore how firm networks intersected with RIDP incentives and economic geography of specific zones.

To investigate firm agglomeration in the RIDP zones because of these integrated ethnic networks, the following data is assembled: **(1)** Geocoded location of Taiwanese firms across all the RIDP zones to firstly quantify the degree of agglomeration. **(2)** Secondly, the industrial sectors in which the Taiwanese cohort invested is categorised using the business almanac. Finally, **(3)** the chronological pattern of investment is examined to test for period-specific increases of Taiwanese FDI to the RIDP zones.

The data employed in this section was sourced from declassified reports pertaining to the Board for the Decentralisation of Industry *(BDI)*, and is supplemented with the African Taiwanese Chamber of Commerce almanac *(ATCC)*.[77] These records capture the geographic location (telephone prefix), year of RIDP application and commencement, in addition to the industry sector. The variable used to test Taiwanese agglomeration is the total number of firms in all sectors and RIDP zones in 1992, which was the final year of the Good Hope RIDP incentive programme. By this year, 306 Taiwanese firms were operating across South Africa and its African homelands. The Taiwanese cohort represent approximately 10 % of all manufacturing firms (both international and domestic) operating under the revised RIDP regime. This is a meaningful sample, as the policy of decentralisation had been in place from the 1960s, while the Taiwanese cohort of firms established operations from 1979. Thus, in the space of 13 years, 1 in 10 firms operating in South Africa's decentralisation programme was of Taiwanese origin.[78]

[76] Dunning (2002) coined the term *"relational asset"* to describe how tangible assets and social capital consists of resources which are embedded in networks of relationships.

[77] ATCC annual reports for the year 1986, 1987, 1988, 1989, 1990. Provided by the Taiwanese Representative Office Archive, Hyde Park, Johannesburg, South Africa.

[78] Data Appendix F, Table F.3 summarises the zone distribution of Taiwanese and domestic South African investment in 1992.

(1) Taiwanese Agglomeration Data: The geocoded location of all Taiwanese firms is assembled to establish the degree of firm agglomeration. Geocoding requires the input of the longitudinal and latitudinal co-ordinates for each of the Taiwanese firms. This data was gleaned from two archival sources. Firstly, the annual reports of the BDI recorded the RIDP site code. This data was then matched with the geographic co-ordinates of the homeland RIDP zone. Second, the 1992 ATCC almanac provided the telephone numbers for every Taiwanese firm belonging to the organisation. The prefix of the telephone number indicated the geographic location, which in turn was mapped to the geographic co-ordinates of the geocoded RIDP zones. Figure 5.1 on pg. 124 visually represents a notable agglomeration of firms, and demonstrates the geographic relation to African homelands and development regions.

Further developing the agglomeration thesis, an aggregate of Taiwanese firms across each of the eight Development Zones is calculated, thus providing a base measure of the investment distribution across South Africa. Beginning at the highest spatial level, Figure 5.5 below represents Taiwanese firms' clustering. These results supplement findings by Hart (1996) and Pickles and Woods (1989) who also noted Taiwanese firms centreing in selected geographic areas, namely Region E. However, the new national data casts further light on the distribution of Taiwanese firms, showing a higher proportion investing in Development Region C. Remarkably, 94 firms clustered in Zone C, and a further 50 clustered in Zone D, while Zone E sees the second highest agglomeration with 88 firms. Disaggregating the data, Table 5.6 on the next page explores these trends further, highlighting the percentage distribution of firms in each the specific RIDP zones.

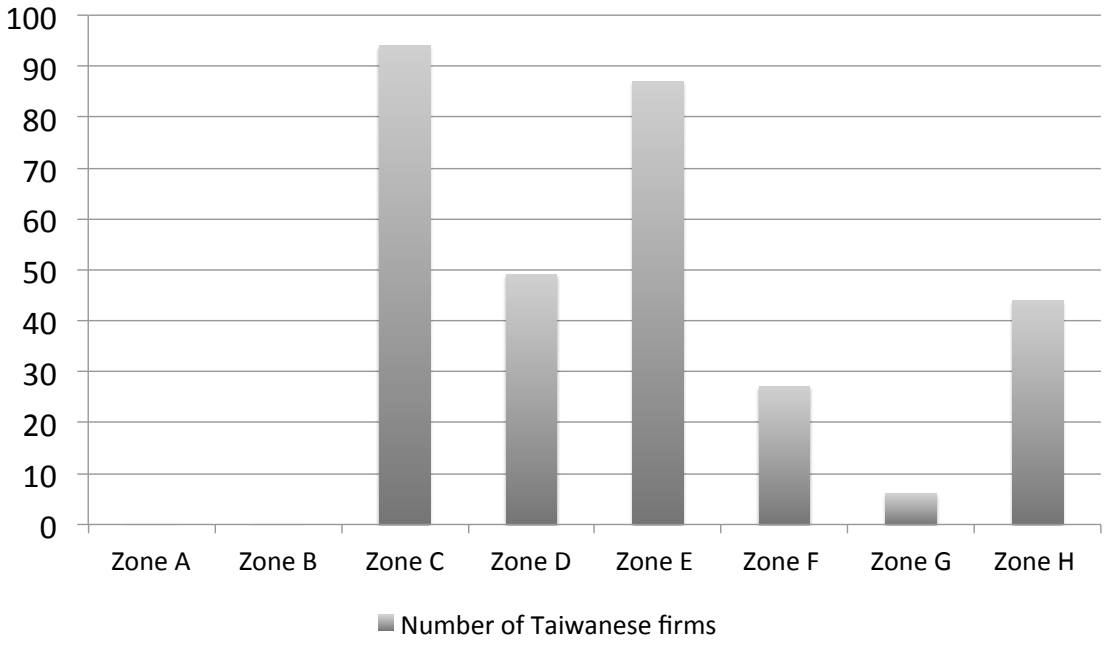


FIGURE 5.5: Aggregated Taiwanese firms by development Zone, (1992). *Note: Taiwanese firms operated in Zone A and Zone B, but ceased RIDP incentives in 1985.*

Source: *ATCC & BDI archival sources. See Appendix E, Table F.3.*

PERCENTAGE DISTRIBUTION OF FIRMS IN EACH RIDP SITE

Zone	Site Name	Taiwanese	Taiwanese %	Domestic	Domestic %
(i)	*(ii)*	*(iii)*	*(iv)*	*(v)*	*(vi)*
Zone C	Botshabelo- Thaba'Nchu	69	23 %	54	2 %
Zone E	Newcastle - Madadeni	61	20 %	20	1 %
Zone D	Dimbaza	27	9 %	7	0 %
Zone E	Tongaat-Isthebe	18	6 %	39	1 %
Zone F	KaNgwane	15	5 %	0	0 %
Zone H	Ga'rankuwa	15	5 %	0	0 %
Zone D	Butterworth	11	4 %	0	0 %
Zone D	Umtata	11	4 %	12	0 %
Zone C	Phuthaditjaba	10	3 %	176	5 %
Zone F	Nelspruit	10	3 %	54	2 %
Zone H	Bronkhorstspruit	10	3 %	19	1 %
Zone H	Babelegi	8	3 %	0	0 %
Zone C	Selosesha	7	2 %	0	0 %
Zone C	Bloemfontein	6	2 %	178	5 %
Zone E	Pietermartzburg	6	2 %	165	5 %
Zone H	KwaNdebele -Siyabuswa	6	2 %	21	1 %
Zone G	Lebowakkgomo	5	2 %	18	1 %
Zone H	Ekangala	5	2 %	92	3 %
Zone C	Harrismith	2	1 %	19	1 %
Zone E	Ezakeni	2	1 %	99	3 %
Zone F	White River	2	1 %	26	1 %
	TOTAL	**306**	**100 %**	**989**	**29 %**

TABLE 5.6: Spatial Distribution of Taiwanese firms in 1992. Column **(i)** Development Zone. Column **(ii)** Name of RIDP Site. Column **(iii)** Number of Taiwanese firms. Column **(iv)** Percentage of all Taiwanese firms. Column **(v)** Number of Domestic firms. Column **(vi)** Percentage of all Domestic RIDP firms. *Note: Domestic firms ≠100 %, as only sites with Taiwanese firms were included in the summary table.*

Source: *Board for the Decentralisation of Industry (BDI), National Archives, Pretoria, South Africa, TAB 9879/987. The African Taiwanese Chamber of Commerce almanac (ATCC), Taipei Liaison Office, (formerly the Taiwan Representative Embassy) Archive, Hyde Park, Johannesburg, South Africa.*

Although this data will be used in the analysis section, results in Table 5.6 already start to show interesting patterns of firm clustering. Firstly, two RIDP sites attracted the overwhelming majority of Taiwanese firms. In absolute terms, 42 % of all Taiwanese investment was situated in Botshabelo-Thaba'Nchu (Zone C) and the Newcastle-Madadeni Complex (Zone E). The next nine most prevalent sites represent a further 42 % of investment. As such, only 11 of the 63 RIDP sites attracted 84 % of all Taiwanese investment with prominent location-choice agglomerations demonstrated in Figure 5.1 on p. 124, while the same sites only attract 29 % of the domestic South African investment.

Of further importance to the business network thesis are the regional groupings of RIDP zones that existed in close proximity to each other. For example, Botshabelo - Thaba'Nchu and Seloshesha (Zone C) are within a 20 km circumference and form an industrial complex accounting for 27 % of all Taiwanese firms. While the same observations can be extrapolated to Newcastle-Madadeni and Tongaat-Isithebe (Zone E), which in turn represents a further 26 % of firm agglomeration. The same observation can be made for Bronkhorstspruit-Babelegi-Ekangala and Ga'rankuwa (Zone H). This complex of RIDP sites on the outskirts of Pretoria accounted for a further 12 % of Taiwanese agglomeration. In summary, one can consider the possibility that production networks emerged in close geographic proximity, with three distinct industrial complexes representing 65 % of the Taiwanese firms in South Africa. What's more, if the Ciskei and Transkei sites of Butterworth-Dimbaza (Zone D) are grouped around East London; the agglomeration factor reaches 86 % in four industrial complexes.

(2) Industrial Sector Data: Exploring the possibility of industrial complexes, this section assembles further production network data, and measures the extent to which Taiwanese firms in the same industry or supporting industries clustered in each of the RIDP zones. As noted in the literature section (5.2), both economic geography and firm theory scholarship suggest that firms in the same industry cluster geographically.[79] Many of these cluster effects arise because the physical proximity of firms reduces transaction costs. For example, buyers, suppliers, service providers and specialists can reduce search, negotiation and contracting costs. Known as localisation economies, a concentration of particular industries therefore increases productivity in a specific geographic area. Examining this trend, the data is firstly grouped by sectors (Figure 5.6), and then at the level of the individual RIDP sites (Table 5.7). Finally, the firm data is grouped by industrial complex where integrated production links are identified (Table 5.8). The purpose of this data is to quantify the extent of industry-sector clustering in RIDP zones, or broader industrial complexes containing multiple zones.

[79] In summary, the literature examines a combination of natural endowments, sunk costs and agglomeration effects. In this section the latter is examined due to production networks within identifiable industrial sectors.

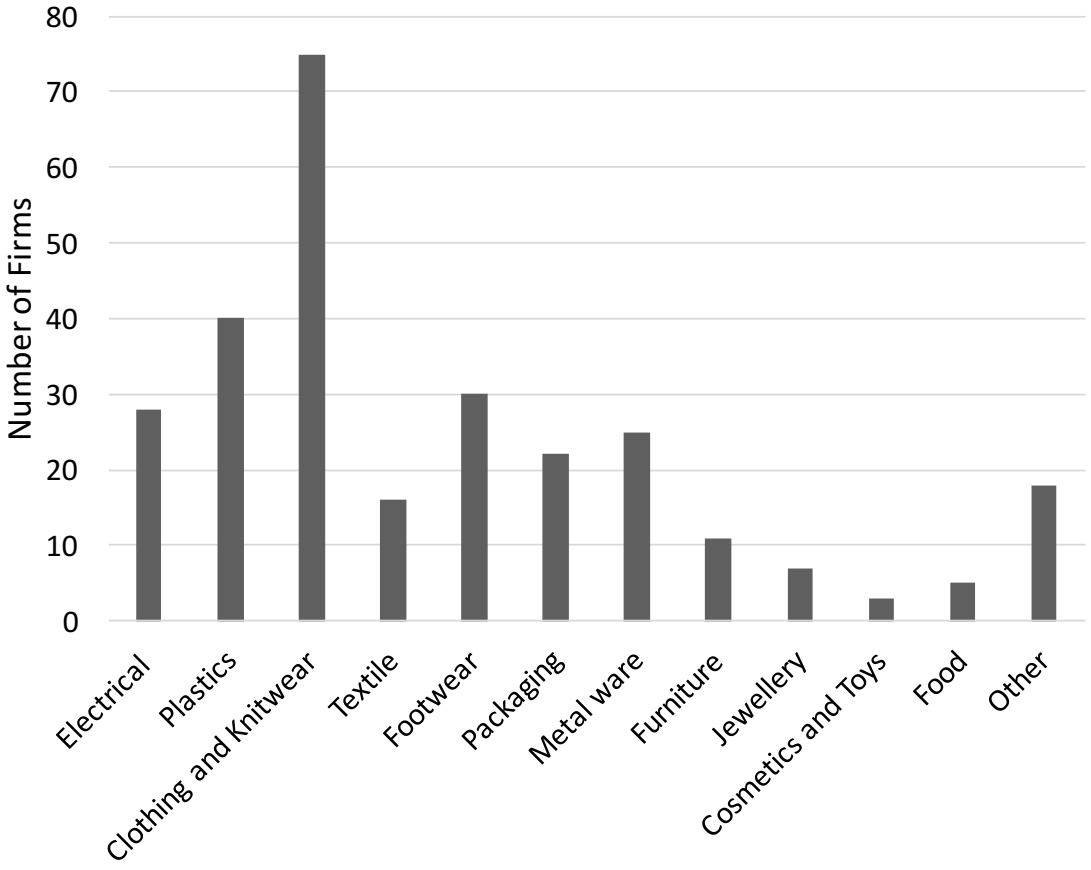


FIGURE 5.6: Industrial sectors from the grouped regional industrial complexes tabulated in 5.8.

Source: *Board for the Decentralisation of Industry (BDI), National Archives, Pretoria, South Africa, TAB 9879/987. The African Taiwanese Chamber of Commerce almanac (ATCC), Taipei Liaison Office, (formerly the Taiwan Representative Embassy) Archive, Johannesburg, RSA.*

The motive to cluster would not be captured by the financial incentives, but rather idiosyncratic factors whereby first movers migrated, and then recreated existing production networks. For example, the initial relocation of a large manufacturer into a single RIDP zone created a chain reaction, whereby the smaller suppliers or assemblers followed the larger firm, reproducing the supply chain and production network. This industrial-sector agglomeration is emblematic of the network thesis promoted by Ho (1979). He found that Taiwanese investors organised production around networks formed in specific industries.

Figure 5.6 initially indicates that a higher proportion of firms were classified in the electronics, plastics, clothing apparel, textiles and metal fabrication sectors. The complementarity of these industries is noteworthy, providing the basis for exploring the agglomeration effect of cluster-based input sharing in Figures 5.7 and 5.8. This data will be used in Section 5.4 to test if production networks emerged in specific zones, thus accounting for subsequent ethnic agglomeration.

TAINWANESE FIRMS IN EACH INDUSTRY SECTOR AND DEVELOPMENT ZONES								
SECTOR	**ZONE A**	**ZONE B**	**ZONE C**	**ZONE D**	**ZONE E**	**ZONE F**	**ZONE G**	**ZONE H**
Electrical	0	0	11	5	5	7	4	2
Plastics	0	0	17	7	13	0	0	3
Clothing & Knitwear	0	0	24	14	35	2	0	2
Textile	0	0	3	1	6	1	0	6
Footwear	0	0	15	3	7	0	0	3
Packaging	0	0	8	1	9	0	0	4
Metal ware	0	0	4	4	1	0	0	16
Furniture	0	0	0	9	1	0	0	1
Jewellery	0	0	3	1	1	0	0	2
Cosmetics & Toys	0	0	1	1	0	0	0	1
Food	0	0	2	1	0	13	2	2
Other	0	0	6	2	9	4	0	2

TABLE 5.7: Taiwanese firms by Industry sector and RIDP zones, (1992).

	Free State Complex *(Zone C)*			**Eastern Cape Complex** *(Zone D)*		**KwaZulu Natal Complex** *(Zone E)*			**PWV Complex** *(Zone H)*
SECTOR	**BOTSHABELO**	**THABA'NCHU**	**SELOSHESA**	**CISKEI**	**TRANSKEI**	**LADYSMITH-QWAQWA**	**NEWCASTLE-MADANENI**	**TONGAAT - ISITHEBE**	**BBEG‡**
Electrical	5	1	5	1	4	0	3	2	2
Plastics	12	5	0	4	3	0	11	2	3
Clothing & Knitwear	14	9	0	8	6	3	27	5	2
Textile	2	1	0	0	1	1	3	2	6
Footwear	9	4	2	3	0	4	2	1	3
Packaging	6	0	0	1	0	0	8	1	4
Metal ware	1	2	0	1	3	0	0	1	16
Furniture	0	0	0	1	8	0	0	1	1
Jewellery	2	1	0	1	0	1	0	0	2
Cosmetics & Toys	1	0	0	0	1	0	0	0	1
Food	2	0	0	0	1	0	0	0	2
Other	0	0	0	0	2	1	6	2	1
TOTAL	**54**	**23**	**7**	**29**	**20**	**10**	**60**	**17**	**43**
		84			**49**		**87**		**43**

‡Bronkhorstspruit – Babelegi – Ekangala and Ga'rankuwa

TABLE 5.8: Taiwanese firms (1992) by industry sector, RIDP site and grouped within the regional industrial complex: Namely Botshabelo-Thaba'Nchu and Seloshesha (Zone C); Bronkhorstspruit - Babelegi - Ekangala and Ga'rankuwa (Zone H); Newcastle - Madadeni and Tongaat-Isithebe (Zone E); Transkei-Ciskei (Zone D).

(3) Chronological Pattern of Investment Agglomeration: Within the broader economic geography scholarship are chronological investment patterns inducing subsequent investments. In this section, the chronological investment pattern is quantified to examine if earlier investments may have resulted in greater clustering.

To examine the possibility of this effect in the Taiwanese RIDP cohort, the chronological start date of each firm investment is assembled from the BDI investment application data. The purpose of this is two-fold. Firstly to quantify whether there were specific time periods of intensified Taiwanese firm formation. Secondly, to test whether zones in which Taiwanese firms invested first, then later attracted greater numbers of supporting Taiwanese firms. Thus the earlier Taiwanese firms (i.e. first- mover Taiwanese production networks) would have made it more attractive to relocate in subsequent periods, achieving a lasting competitive advantage. This self-reinforcing agglomeration effect may have important implications for which RIDP zone Taiwanese investors later clustered. To investigate this proposition, Figure 5.7 below demonstrates the chronological investment flow for each of the RIDP zones. This graph has been summarised from Table 1.2 on page 31 of Chapter 1 and can be referred to in the following analysis.

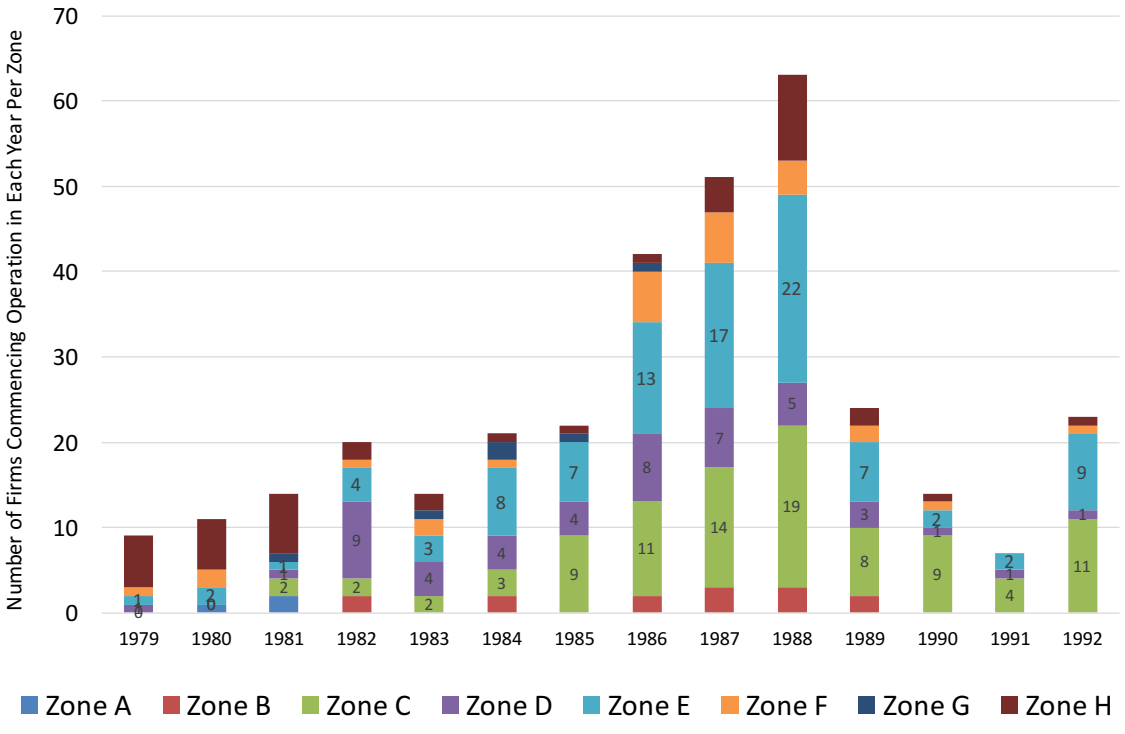


FIGURE 5.7: Number of Taiwanese firms commencing operation, (1979 - 1992).

Source: *Board for the Decentralisation of Industry (BDI), National Archives, Pretoria, South Africa, TAB 9879/987. The African Taiwanese Chamber of Commerce almanac (ATCC), Taipei Liaison Office, (formerly the Taiwan Representative Embassy) Archive, Johannesburg, RSA.*

The assembled data in Figure 5.7 (and Table 1.2) highlights that in 1979 only nine Taiwanese firms commenced operation in South Africa, with a noticeable increase over time. Of the early cohort, six firms selected sites in the traditional industrial heartland of the PWV contained in Zone H; while Zone D, E and F received one firm each respectively. The Zone D and E firms were both textile mills, while the Zone H firms were in the metal assembly sector.[80] This already provides evidence as to the investment sequence discussed above, with apparel assembly following textile firms. By 1982 an increase in firm formation can be observed, possibly as a result of the new Good Hope RIDP incentives becoming available. However, domestic Taiwanese and network factors may have also led to this rise in FDI.

In the following years there is a significant increase in 1986, 1987 and 1988 as the number of Taiwanese firms relocating to the RIDP started to exceed the domestic firms. After 1991 there is a drop-off, possibly as a result of political instability and the imminent demise of apartheid. A small escalation in formations is recorded again in 1992. This may have been a result of the incentive programme terminating, with investors seeking to take a final opportunity to participate in the RIDP.

Within the zones, the number of firm formations started to deviate, supporting the chronological hypothesis of earlier investments. Other empirical studies of the FDI location decision have uncovered the importance of earlier firm formation emanating from clusters of inter-firm linkages. One possible explanation for this agglomeration effect is that information flows within local networks make it easy for future potential investors to establish themselves in the local networks. In other words, earlier agglomeration increases the possibility of linking potential investors, reducing their risk. As such, three zones begin to receive the majority of FDI. In 1982, Zone E initially starts to show a divergence from the others, with 10 firms locating to this region. Thereafter, Zone C and E also start receiving more FDI than the alternative regions. By 1992, these three zones had received 82 % of the investment, with most of this concentrated in the Free State Complex (Zone C), Eastern Cape Complex (Zone D) and KwaZulu Natal Complex (Zone E) as highlighted in Figure 5.7.

These early data trends may be indicative of other empirical research, which found the ease of establishing network linkages to be a significant determinant in the geographic choice of foreign investment, independent of other locational characteristics of the host country.[81] In the following analysis section, I will evaluate how these network linkages and location-specific factors interacted to generate further clustering.

[80] See Table 5.8

[81] Head, Ries and Swenson (1995) modelled the location choice of Japanese manufacturing plants in the United States, and found that industry-level agglomeration played an important role in location decisions. In a further study Head and Ries (1996) analysed agglomeration forces in China's special economic zones, and found that firms from the same country had a lasting impact on agglomeration. Co-ethnic agglomeration magnified the direct financial impact of government incentives.

5.4 ANALYSIS

The clustering of Taiwanese firms was a dynamic process. Explanations for agglomeration are grouped into three categories: ***(A)*** economic geography, ***(B)*** regional investment incentives, and ***(C)*** co-ethnic business networks. In other words, were Taiwanese firms locating as result of economic geography (i.e. endowments of the region), the regional incentives offered by the RIDP, or were they co-locating to RIDP zones due to existing co-ethnic business networks? As such, the three factors proposed in the agglomeration thesis cannot be evaluated as isolated variables. Through the analysis of both quantitative and qualitative aspects of agglomeration I will evaluate each of these explanations.

5.4.1 Wages, Wage Subsidies and Zone Location

In this section I focus on the interregional wages in each of the investment zones and the variation in wage subsidies received by Taiwanese investors. The historical scholarship cites how lower homeland wages, paired with larger incentives, drove inward investment.[82] It would therefore follow that Taiwanese firms would cluster in zones where wage incentives were higher than aggregate wages.

To explore whether wage incentives may have had an impact on Taiwanese-firm location choices, a variable termed *'Rebate Wage Gap'* is calculated (RWG). This is derived from the maximum allowable RIDP wage rebate (compiled in Appendix E, Table E.3) and the unskilled aggregate RIDP wages per zone.[83] The Rebate Wage Gap variable thus measures the difference between the average RIDP wages (1982- 1992) in each of the zones and the respective RIDP incentives received in those zones. In other words, if the RWG variable is positive, an investor received a wage incentive premium from the decentralisation Programme, while if negative, the investors had to contribute additional funds towards the firm's wage bill.

The results of the wage rebate gap are summarised in Table 5.9 on the following page. Here I have ranked each RIDP zone by the total number of Taiwanese firms in 1992 (column iii). Focusing on wages, I included the maximum wage rebate received (column iv), the average monthly wage paid at that RIDP zone (column v) and then calculated the rebate wage gap. The second variable is an interest rebate, which was a subsidy paid to the investor on capital equipment loans (column vii). The final column (viii) summarises the average cost of transporting goods to a port by railway. These two last variables will be discussed in section 5.4.2 and 5.4.3, after I have dealt with wages.

[82] Amongst others, Pickles and Woods (1989) claim wages and incentives were the leading variable, while Hart (1996) notes the importance of lower wages, especially amongst the cohort of female workers.
[83] This has been discussed throughout the thesis and can once again be seen in Appendix Table F.2.

ECONOMIC GEOGRAPHY FACTORS

(i)		*(ii)*	*(iii)*	*(iv)*	*(v)*	*(vi)*	*(vii)*
ZONE & NAME		**RIDP SITE**	**FIRMS**	**WAGE REBATE**	**WAGES (pm)**	**RWG**	**TRANSPORT**
Zone E	**KwaZulu**	Newcastle - Madadeni	61	R 80	R 30	R 50	R 167
Zone C	**Free State**	Botshabelo	40	R 100	R 55	R 45	R 245
Zone C	**Free State**	Thaba'Nchu	29	R 100	R 48	R 52	R 245
Zone D	**Eastern Cape**	Dimbaza	27	R 110	R 60	R 50	R 128
Zone E	**KwaZulu**	Tongaat-Isithebe	18	R 105	R 60	R 45	R 245
Zone F	**Eastern Transvaal**	KaNgwane	15	R 110	R 50	R 60	R 128
Zone H	**PWV**	Ga'rankuwa	15	R 35	R 96	-R 61	R 303
Zone D	**Eastern Cape**	Butterworth	11	R 110	R 40	R 70	R 128
Zone D	**Eastern Cape**	Umtata	11	R 110	R 36	R 74	R 187
Zone C	**Free State**	QwaQwa - Phuthaditjaba	10	R 110	R 51	R 59	R 500
Zone F	**Eastern Transvaal**	Nelspruit	10	R 70	R 50	R 20	R 361
Zone H	**PWV**	Bronhkorstspruit	10	R 30	R 80	-R 50	R 538
Zone H	**PWV**	Babelegi	8	R 30	R 38	-R 8	R 303
Zone C	**Free State**	Selosesha	7	R 100	R 32	R 68	R 361
Zone G	**Northern Transvaal**	Seshogo	7	R 70	R 51	R 19	R 128
Zone C	**Free State**	Bloemfontein	6	R 70	R 67	R 3	R 500
Zone E	**KwaZulu**	Pietermaritzburg	6	R 25	R 62	-R 37	R 351
Zone G	**Northern Transvaal**	Pietersburg	6	R 35	R 40	-R 5	R 341
Zone H	**PWV**	Ekangala	5	R 35	R 78	-R 43	R 283
Zone E	**KwaZulu**	Ezakheni	2	R 105	R 59	R 46	R 167
Zone E	**KwaZulu**	Ladysmith	2	R 80	R 30	R 50	R 128

TABLE 5.9: Table ranks the concentration of Taiwanese firms in 1992 relative to four measurable economic geography factors. Column **(i)** Development Zone. Column **(ii)** Name of RIDP Site. Column **(iii)** Number of Taiwanese firms. Column **(iv)** Maximum Wage Rebate Receivable. Column **(v)** Average monthly wage paid at that RIDP zone. Column **(vi)** Rebate Wage Gap i.e. the incentive paid to the investor. Column **(vi)** The average cost of transporting goods to a port by railway.

Source: *Board for the Decentralisation of Industry (BDI), National Archives, Pretoria, South Africa, TAB 9879/987. The African Taiwanese Chamber of Commerce almanac (ATCC), Taipei Liaison Office, (formerly the Taiwan Representative Embassy) Archive, Hyde Park, Johannesburg, South Africa.*

Referring to Table 5.9, one can observe that wages across the 22 zones, in which Taiwanese investors located, varied considerably. For example, Ga'rankuwa offered the highest wages to employees, but the lowest investment incentive. As a result, it had the widest rebate rate, which may have discouraged investors, yet we see 15 firms established operations in this zone. Conversely, Selosesha had the highest investment incentive and one of the lowest aggregate wages, but only attracted half the number of Taiwanese investors (7). On balance there does appear to be a trend towards lower wages and higher investment incentives. If I focus on the top eight zones which account for 190 Taiwanese firms (62 %), the average wage and wage rebate are in a very similar range. Wages ranged from R30 pm to R50 pm, and RWG of R45 to R60 pm. This could suggest that certain investors were attracted by lower wages, or by higher incentives. However, for investors in zones that had higher wages or lower incentives, other factors may account for their agglomeration. Here I'm specifically referring to distance to markets or production networks, which will be discussed after I've dealt with the impact of gender and wage.

Archival evidence collected from the Transkei Development Corporation archive (1982) makes reference to the comparable female wages in China when attempting to attract Asian investment.[84] As such, a gender dimension also existed in the zone and wage differential, which has yet to be fully explored in prior analysis.[85] For example, the lowest-paid RIDP sites, such as Seshogo and Pietersburg were situated in Zone G, and received a comparably small cohort of the Taiwanese investment. Yet these locations had some of the highest wage rebate incentives, while the inverse is observed for sites in Zone H, which reflect some of the highest wages.

This was particularly relevant for female wages, although only passing mention has been made of their importance in prior literature. Bell (1987) note that "[...] while the financial inducements offered by the state to industrialists in the periphery have been central [...] other factors have also been at work.[86] Wellings and Black (1986*a*) suggest lower labour costs and advantageous demographic factors, especially a greater concentration of unskilled female labour, played an important role.[87]

To emphasise the importance of female labour to Taiwanese investment, the same labour-ratio technique as Butler, Rotberg and Adams (1977) is exploited.[88] Using new demographic data collected from Section 5.3.1 on page 133 highlights a deterioration in

[84] Transkei Development Corporation (1982), Wage Statistics in Transkei. Umtata Archive.

[85] For example, Pickles and Woods (1989) only mention the Eastern Cape (Zone D) referring to no specific RIDP sites, while Hart and Todes (1997) focus solely on Newcastle-Madeni (Zone E).

[86] Bell (1987, p. 1291)

[87] Wellings and Black (1986*a*, p. 143) note how "a third factor accounting for extremely low wages is the high proportion of female labour in growth-point production sites, in many of which they constitute the majority of the industrial labour force."

[88] Butler, Rotberg and Adams (1977) used these ratios to underscore KwaZulu's greater dependence on migrant labour and income remittances as a result of this gender imbalance.

the Male-to-Female homeland working-age bands. Shown in Table 5.10, this simple ratio is calculated by dividing the total number of Female and Male working-age populations.

Illustrating the male population deficit, *Column D* records the ratio of economically active females to their male counterparts in the homelands. In most zones, the ratio of females to males exceeded two to one. These results are not in themselves causal but are nonetheless interesting. They support archival evidence that Taiwanese firms were positioning themselves to take advantage of female labour that could be trained in the workplace or had previously been present in the unskilled labour pool.

SECTOR (A)	RIDP SITES (B)	CONCENTRATION (C)	FEMALE: MALE LABOUR RATIO (D)
Electronic manufacturers and electrical assemblers	Botshabelo – Seloshesha complex (Zone C)	47%	2:1
	Butterworth (Zone D)	33%	1.6:1
Plastic manufacturers	Botshabelo - Thaba'Nchu (Zone C)	50%	2:1
	Newcastle (Zone E)	28%	1.7:1
Footwear	Botshabelo - Thaba'Nchu and Seloshesha complex. (Zone C)	57%	2:1
Furniture Manufacturing	Butterworth (Zone D)	80%	1.6:1
Metalwork and metal fabrication	Bronkhorstspruit-Babelegi-Ekangala complex (Zone H)	67%	1.8:1
Clothing and Knitwear	Newcastle-Madaneni complex	37%	1.7:1
	Botshabelo-Thaba'Nchu complex. (Zone C)	31%	2:1
Textile	Babelegi – Ekangala (Zone H)	40%	1.8:1
	Ladysmith-QwaQwa (Zone E) Newcastle-Madaneni (Zone E) Tongaat – Isithebe (Zone E)	40%	1.7:1

TABLE 5.10: **Column (A)** Agglomeration by industry sector. **Column (B)** RIDP site in which the agglomeration occurred. **Column (C)** calculates the sector concentration as a % of total investment. **Column (D)** shows the ratio of female working-age labourers to males in the age band 19 – 29 years.

Source: *For demographic sources see section 5.3.1 on page 133. Firm level data from the African Taiwanese Chamber of Commerce almanac (ATCC), Taipei Liaison Office, (formerly the Taiwan Representative Embassy) Archive, Johannesburg, South Africa.*

Furthermore, archival evidence collected in three former RIDP sites, corroborates these findings. In 1981, the first large-scale Taiwanese electronic manufacturer, (Sunson) entered the Transkei (Zone D), producing radios for the Southern African export market. Sunson was an "expansion subsidiary" from the Taiwanese factory, and was managed by a former factory technician from the Chinese parent company.[89] The manager notes:

> *"I was very surprised and highly satisfied with the quick manner in which the Transkei labour force managed to train in the assembly of sophisticated electronic equipment. The workers are mainly female. They are trained from scratch and within 6 months capable of assembling radios."*[90]

In 1983 a further two electronics manufacturers followed from Taiwan. The largest of these was Senkei Speakers, also managed by a former technician from the Taipei parent company. Senkei was established to export car speakers and portable radios. The manager explains the importance of trained labour:

> *"[. . .] we export to the United States and other world markets making use of favourable labour conditions and trained female production-line workers, which can ensure we have the quality needed. Initially employing 400 women, the production facility is expected to expand as more workers can be trained on the assembly line over 3 months, with a full production employing 3000 Transkeians."*[91]

The archive images below capture unique photographic evidence of African female labourers. The first image (5.8) shows a production line utilising only female labour, with the Taiwanese supervisor at Sunson Electronics in Umtata *(circa 1981)*. The second image (5.8) demonstrates a Free State Development Corporation (Zone C) fact-finding visit to a factory at Kauchung in Taiwan, also employing only female labourers *(circa 1985)*. Importantly, Botshabelo in Zone C would later become the largest RIDP site for electronic assembly as shown in Column C of Table 5.10. This archival data suggest that these firms were actively pursuing sites with adequately trained female labour.

> *"We came here, as we can employ more women, who are better with delicate tasks involved in making these metal stoves [...] This place is closer to our main customers in Pretoria and Botswana, but far from the ports. We came here for labour and a supply of parts from our partners, not because we can export."*[92]

[89] South African Digest in English, July (pg. 3, 1982).
[90] Transkei Today, Quarterly Trade publication series. (formerly Umtata, the capital of Transkei) Archives, Volume 3, Number 2, April - March (1982).
[91] TDC Development periodical, Trade publication (1983). Walter Sisulu University Library, Mthatha.
[92] Free State Development Corporation almanac, (pg. 17, 1987). Advertorial on Taipei visit.

FIGURE 5.8: Sunson Electronics in Umtata. Image demonstrates the production line utilising only female labour, with the Taiwanese supervisor training employees on the job.

Source: *Umtata Archives. Transkei Development Corporation.*

FIGURE 5.9: Free State Development Corporation site visit to Taiwan in 1985, attempting to attract Taiwanese firms to Zone C sites. The image demonstrates the production line utilising only female labourers.

Source: *QwaQwa Archive, (now the Free State archives), Phuthadachaba.*

5.4.2 Geography, Transport Costs and Zone Location

The second quantifiable geographic variable was differences in regional transport costs. These varied depending on the export or domestic markets and are summarised in Appendix E, Table E.1. The trade in goods between RIDP zones incurred railway, harbour and road costs. As such, the economic geography literature suggests that firms agglomerate in areas that have the lowest transport costs.[93] It therefore follows that certain RIDP sites enjoyed advantageous geographic proximity to domestic markets or harbours (export markets), which could explain a degree of firm agglomeration.

To examine this, I have derived an RIDP transport cost curve, placing each of the zones in their representative ranking.[94] In doing so, I can then estimate the average cost of transporting a standard container from each zone to it nearest port via rail. This is then combined with the category of transport incentive (DP or IDP) as an input value and the least cost route function from my GIS database.[95] The results in Figures 5.10 and 5.11 on the following page, show the transport cost variation for either locating in a De-concentration Point (DP) versus an Industrial Decentralisation Point (IDP). DP zones were closer to urban centres and not situated in homelands, thus received lower incentives, but incurred less geographic disadvantage, while IDP zones were brownfield sites in the homelands, more rural and thus geographically disadvantaged, which was then theoretically offset by higher incentives.

Referring to Table 5.9 on page 157, one can compare the transportation cost from each zone and the concentration of Taiwanese firms. Naturally, zones closer to the coast would incur lower port transport costs. This would be further incentivised by zones located in IDP regions, such as the homelands, as opposed to DP zones on the urban periphery.

However, the zone with lowest average port transport costs was Ladysmith, which only attracted two Taiwanese firms. In contrast, Bronkhorstspruit, the most expensive transport destination, attracted 10 firms and was categorised as a DP site, which received lower transport and wages incentives. Furthermore, isolating the location of the top 70 % of Taiwanese on the transport curve, once again shows a wide cost variation across zones. It appears that firms were not locating to zones based solely on transport-cost subsidies. As such, what could explain this variation? To begin, the international trade literature notes that foreign firms co-locate based not only on reduced transport costs, but also based on market access.[96] For example, transportation costs could have induced Taiwanese firms to locate in an 'optimal trading distance' between both their suppliers and customers. In this regard, South Africa's economic geography is unique, and the trade-off between domestic and foreign markets will be discussed next.

[93] Historical literature summarised the process as "spontaneous decentralisation" (see Bell (1987)).
[94] Produced in Appendix E, Figure E.5.
[95] Methodology discussed on pg. 136: Deconcentration Point = DP and Decentralisation Point = IDP.
[96] Alfaro and Chen (2014, p. 265)

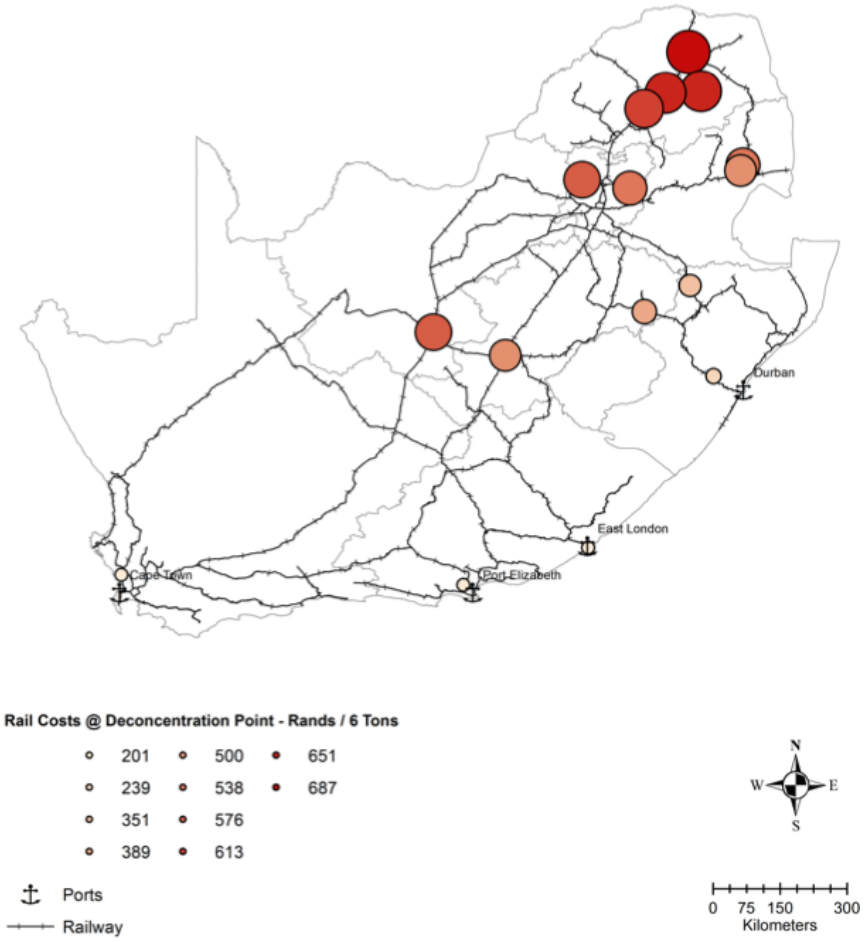


FIGURE 5.10: DP Zones - Subsidised costs to nearest Port in 1980 Rands.

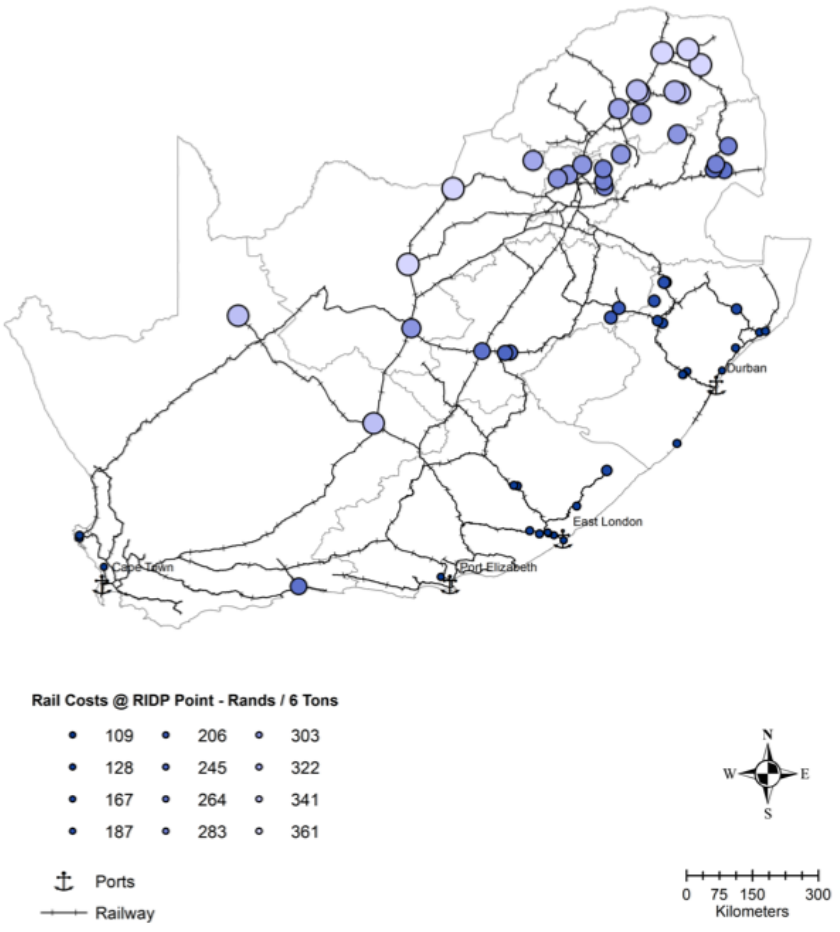


FIGURE 5.11: IDP Zones - Subsidised costs to nearest Port in 1980 Rands.

The primary urban and industrial market of South Africa exists in the PWV (Zone H), and was a substantial domestic market for consumer goods produced by RIDP firms. However, it has a geographic disadvantage, in that it is land-locked and 600 km from the closest port. Therefore the inland position of the PWV could explain some of the Taiwanese agglomeration in alternative RIDP zones, given the nature of the products produced and the intermediate inputs for these products. Using further archival evidence from the KwaZulu RIDP almanac, this possibility is explored using Figure 5.12.

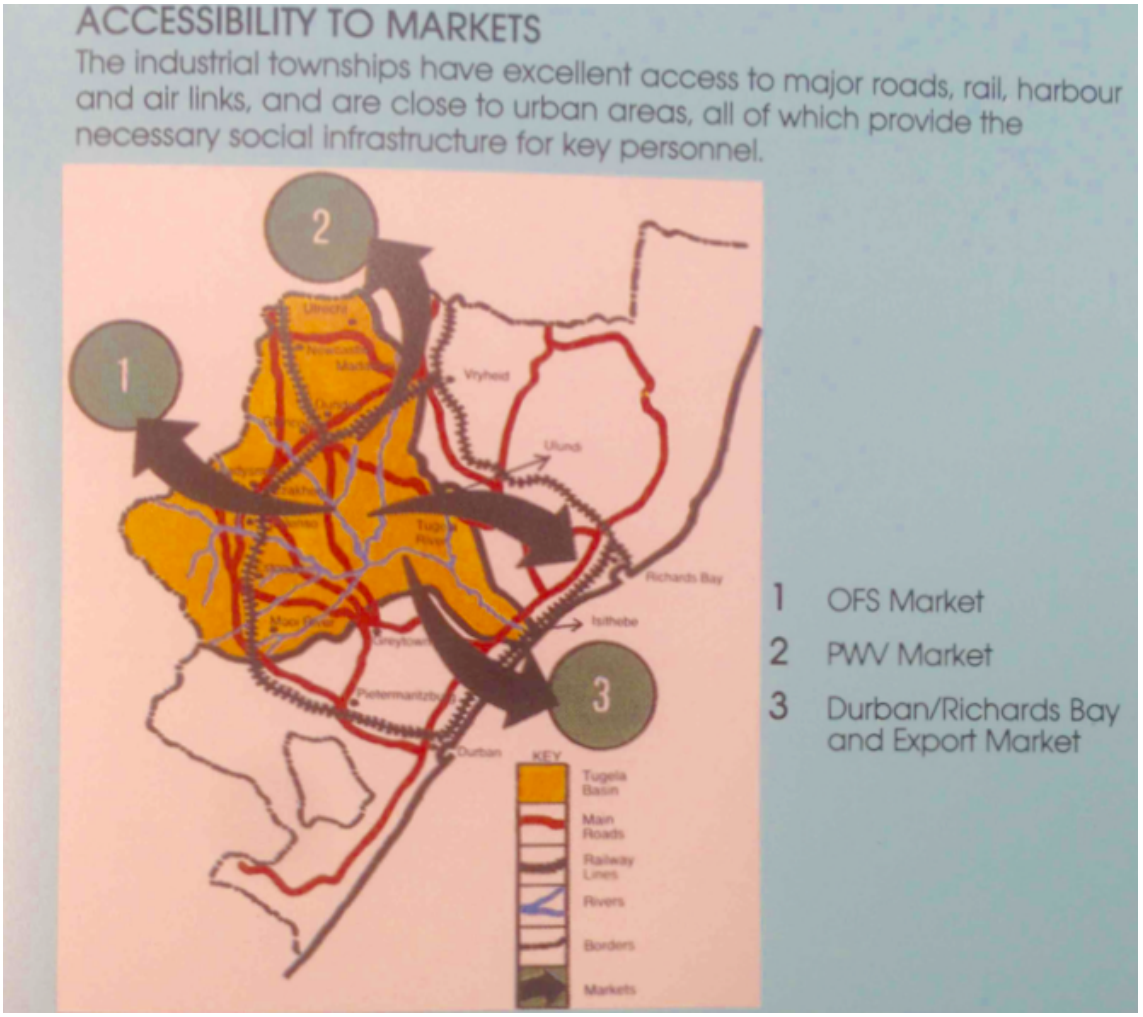


FIGURE 5.12: Zone E Market Access, (1982).
Source: *KwaZulu Natal Archives, Pietermaritzburg.*

The archival map highlights how certain Zone E sites had better transport links to Bloemfontein (Zone C), PWV (Zone H), and export markets (Ports at Durban and Richards Bay). Moreover, depending on the industry sector, lower transport costs would have attracted investors to specific sites. For example, textile manufactures located in Zone E were in an optimal trading distance, whereby the export markets are within reach of the Durban port, and the large domestic markets of the PWV area. This achieved a balance between the distance to a port and the distance to domestic markets.

Combining these qualitative accounts with the subsidised railway costs calculated in Figure 5.10 and 5.11 on page 163 serves as further visual references to the major industrial cities and export ports. The size of the cost bubbles denotes the Rand ton price of transporting goods to the closest export port for both decentralised *(IDP)* and deconcentration zones *(DP)*. Naturally zones closer to the coast or ports enjoyed lower export transport costs, but were disadvantaged by higher domestic market costs to the PWV region. However, certain zones offered a trade-off between domestic and export markets. These offer some explanation of the Taiwanese clustering, and are also corroborated by archival accounts. To explain this, I will use archival evidence from Taiwanese firms in Zone C and Zone D. Here I investigate this notion of the optimal trading distance between coastal ports for convenient export to international markets and the inland domestic markets (Zone H).

Firms clustering in Zone D appear to have a propensity for labour-intensive export industries. Column C of Table 5.10 demonstrates that furniture and wood products tended to locate in this zone. These RIDP sites were in close proximity to the port of East London, the only Zone to receive substantial port subsidies.[97] The importance of this was not clear in RIDP financial statements, as the harbour subsidies were trivial in comparison to those for the railways. This becomes apparent in primary archival evidence from the Transkei Development Corporation. In these monthly reports I have found examples from the Chopstick Product Company. This Taiwanese firm focused specifically on the export market, shipping its "billionth chopstick to Japan" in 1988.[98] In the same year seventy-seven containers were exported from East London and the company controlled 10 % of the Japanese market. Importantly, the owner of the company, Kang Cheng, explains:

> *" [...] the location was chosen for three reasons; proximity to the railway and port, accessible input material from the local pine forest plantations and female labour which could be rapidly trained as the factory added 300 workers a year."*[99]

There appears to be a preference for exporting firms to locate closer to the ports. Once again this is supported by the archival accounts from Taiwanese firms, with a furniture manufacturer quoted as saying:

> *"We need to transport thousands of couches and lounge suites each year. The cheaper trains and port subsidies allow us to export these back to Taiwan and Hong Kong for much less than our competitors in Europe."*[100]

[97] See the incentives Section 5.3.2 on page 142.
[98] See Appendix E, Figure E.3.
[99] "Transkei factory ships its billionth chopstick to Japan", Transkei Development Corporation publication. Q1/1988.
[100] Transkei Today (1985, Q2), citation from "Rising Sun Sofa Company" pg.17

Firms clustering in Zone C show contrasting needs, with greater domestic market access, than those cited above in Zone D. For example, the Botshabelo complex was situated on a transport axis, midway between larger domestic markets and export ports.[101] Attracting 47 % of the electronic manufacturers and electrical assemblers, these Taiwanese firms were producing products for both domestic consumer markets and exports. As such, it was in close proximity to Bloemfontein, the regional transport hub of Zone C. By railway, all three urban domestic markets could be reached. Cape Town was 800 km away; Johannesburg was 400 km and the port at East London was 500 km. This example demonstrates the trade literature's proposition of an optimal trading distance for Taiwanese firms in Zone C. Archival records from Taiwanese firms operating on the site also confirm this theory:

> *"The Taiwanese aim was primarily [to] export to the USA market to circumvent quotas imposed on exports from Taiwan. But these quotas were also sent to Johannesburg, Pretoria and Harare, especially after 1985 when sanctions restricted our export ability [...] This site (Zone C) is close to the railway where we send electronics, and to the PWV and a port in East London where we send containers."*[102]

The balance between economic geography and wage costs was also cited in the Transkei.

> *"A large enamel kitchenware manufacturer from Hong Kong has relocated to Butterworth, despite the wages being lower in other decentralisation zones. Mr Chong, managing director of family-owned Universal Metals, says he prefers to be to be closer to the port in East London and customers in Southern Africa. Butterworth is on a central transport route and has reliable electricity, said Chong. This firm operates like a 'family member' of the growing Chinese diaspora in the Border region of South Africa, employing 700 blacks with a turnover of R4 million."*[103]

In conclusion, the transport and geographic location of specific RIDP sites played an important role in determining the spatial agglomeration. The archival accounts cited above demonstrate that low-cost wages and RIDP incentives needed to be balanced with the unique economic geography of South Africa.

[101] See Appendix E, Figure E.9 which demonstrates the economic geography of Botshabelo in relation to the transport routes and markets.

[102] Cited in "This is Botshabelo", a trade publication advertorial in ATCC 1989 almanac pg. 357. Taipei Liaison office archive, Hyde Park, Johannesburg.

[103] Transkei Today (Q1, 1988), *"Hong Kong Chinese make good in the Transkei"*. Umtata Archive.

5.4.3 Co-Ethnic Production Networks

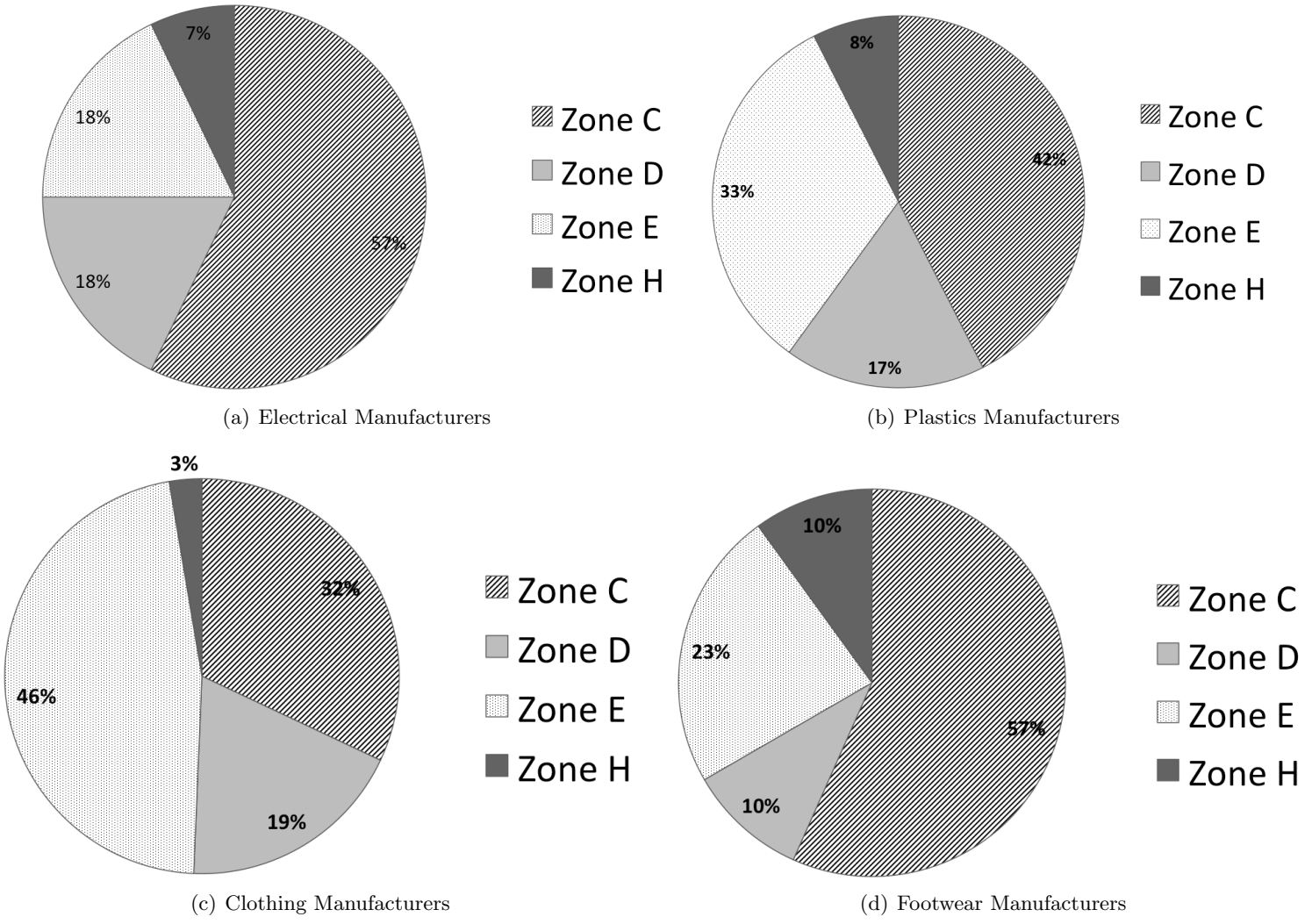
In this final section, I discuss whether the presence of similar Taiwanese firms raised the probability that subsequent investors selected the same RIDP location. Chen and Chen (1998) found that Taiwanese entrepreneurs "may have stretched foreign production networks with personal relationship linkages built upon cultural and ethnic bonds."[104] This expands on Chapter 4 where I examined the role that co-ethnic networks played during the expansion of Asian bilateral trade. The findings in that chapter suggested that the immigration of Taiwanese investors to South Africa increased and diversified trade between the two countries. Elaborating on the trade results, the following section examines how co-ethnic production networks may have also accounted for the Taiwanese-firm agglomeration in South Africa.

In the following analysis, quantitive data from industrial sectors, firm clustering and investment chronology is combined with qualitative archival evidence to explore my network thesis. The theoretical literature discussed in Section 5.2.3 found that a "multiplicity of bridges between networked clusters and ethnic diasporas have been shown to reinforce agglomeration".[105] For example, Rauch and Casella (2001) noted how ethnic networks allow for the inflow of filtered (i.e. trustworthy) information and knowledge into a localised cluster. Diaspora ties also confer a number of advantages to firms in an industry or cluster, providing location information and consumer knowledge. This information and knowledge has "passed social filter and screening mechanisms."[106]

The disaggregated industrial-sector data in Section 5.3.3 illustrated that Taiwanese firms were clustering around industrial and labour specialisations. For example, Table 5.8 summarised Taiwanese firms by industry sector and RIDP zones, while Table 5.7 grouped Taiwanese firms by industry sector, and regional industrial complex. To further interpret sector agglomeration, the graphs below again highlight each of the industries and their corresponding RIDP zone.

These are grouped as follows - electrical manufacturers 5.13(a) ; plastics manufacturers 5.13(b); clothing assemblers 5.13(c); footwear manufacturers 5.13(d); textiles manufacturers 5.14(a); packaging manufacturers 5.14(b); metals fabricators 5.14(c) and furniture manufacturers 5.14(d). Combining this sector analysis with the chronological firm migration shows that earlier investments may have attracted subsequent clustering. In this production diaspora, entrepreneurs began to subcontract to their former firms in Taiwan, which in turn generated a unique RIDP agglomeration. This process with relevant examples will be discussed next.

[104] Chen and Chen (1998)
[105] Amineh (2010, p. 27)
[106] Rauch and Casella (2001) note how ethnic network ties can be considered more trustful conduits of information.



(a) Electrical Manufacturers

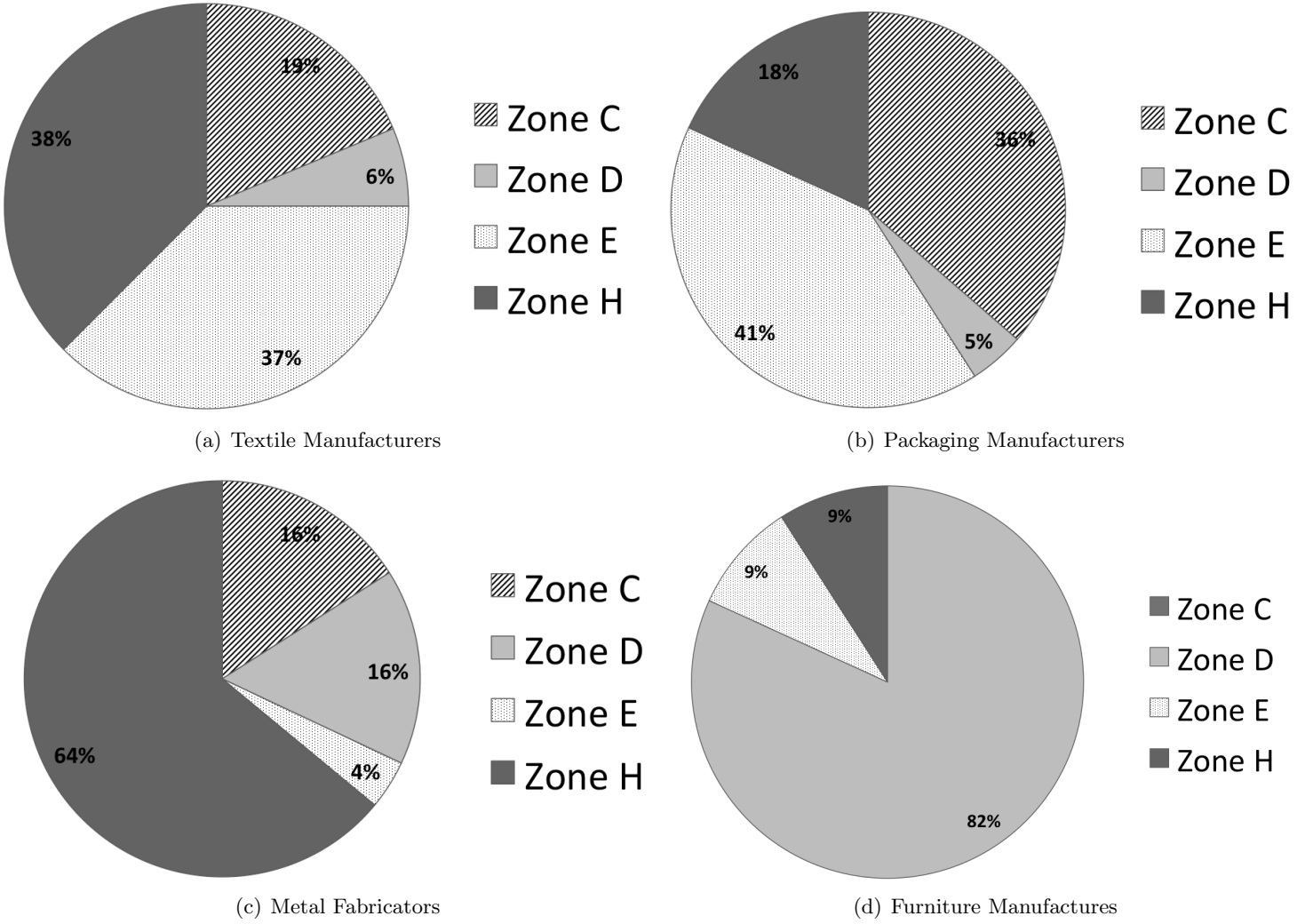
(b) Plastics Manufacturers

(c) Clothing Manufacturers

(d) Footwear Manufacturers

FIGURE 5.13: Taiwanese Sector Agglomeration by Sector and RIDP Zone (Electrical, Plastics, Clothing & Footwear)

Source: *Board for the Decentralisation of Industry (BDI), National Archives, Pretoria, South Africa, TAB 9879/987. The African Taiwanese Chamber of Commerce almanac (ATCC), Taipei Liaison Office, (formerly the Taiwan Representative Embassy) Archive, Hyde Park, Johannesburg, South Africa.*



(a) Textile Manufacturers

(b) Packaging Manufacturers

(c) Metal Fabricators

(d) Furniture Manufactures

FIGURE 5.14: Taiwanese Sector Agglomeration by Sector and RIDP Zone (Textiles, Packaging, Metal & Furniture)

Source: *Board for the Decentralisation of Industry (BDI), National Archives, Pretoria, South Africa, TAB 9879/987. The African Taiwanese Chamber of Commerce almanac (ATCC), Taipei Liaison Office, (formerly the Taiwan Representative Embassy) Archive, Hyde Park, Johannesburg, South Africa.*

Electronic Manufacturers and Electrical Assemblers:

- Figure 5.13(a) shows that electronic manufacturers and electrical assemblers were dominant in Zone C (57 %) and Zone D (18 %).

Zone C, which included the Botshabelo - Thaba'Nchu and Seloshesha complex was dominated by the electronic manufacturing and assembler industries. These industries appeared to have been established for both domestic and international export sales, on a prominent railway corridor. Archival records note how managers and former employees from the Taiwanese factories in Taipei "advanced from managing radio, lighting and electrical toy factories, establishing their own suppliers and products in Botshabelo."[107]

Zone D has better archival accounts of the electrical companies that were established there. These were discussed in subsection 5.4.1 where a network of Taiwanese-speaking manufacturers emerged.[108] These were well acquainted with each other from the existing factory system in Taiwan (Senkei Speakers). However, the network of firms came to specialise in car radio speakers for the South African automotive industry clustered around East London (Daimler-Benz) and Port Elizabeth (VW and General Motors). As sanctions started restricting exports of speakers to Europe and the United States, these firms diversified into the domestic automotive sector.[109]

Apparel Industry Network:

- Figure 5.13(b) shows that plastics manufacturers cluster in Zone C (42 %) and Zone E (33 %).
- Figure 5.13(c) shows that clothing and knitwear dominate Zone E (46 %).
- Figure 5.14(a) shows that textile manufacturers, are equally split between Zone H (38 %) and Zone E (37 %).
- Figure 5.13(d) shows that footwear dominates Zone C with 57 % of manufacturers located in the Botshabelo - Thaba'Nchu and Seloshesha complex.

[107]The African Taiwanese Chamber of Commerce almanac (ATCC) (1985), Taipei Liaison Office, (formerly the Taiwan Representative Embassy) Archive, Hyde Park, Johannesburg, South Africa.
[108]Senkei and Sunson
[109]Transkei Development Corporation, "This is Transkei" (Q2, 1989), Umtata Archive.

These firms (plastics, textiles, clothing and footwear) are interrelated in their production network and agglomeration process. In an empirical study of small and medium-sized clothing firms, Hsing (1999) found the principal sources of agglomeration emanated from their relationships with larger textile firms.[110] This was especially evident in the apparel industry network.

Firstly, textile mills emerged producing high-volume textiles that appeared to service numerous clothing and knitwear producers. These large firms may have found it easier to penetrate the South African market, later bringing with them apparels assemblers. Chen and Chen (1998) found that larger Taiwanese investors commanded sizeable forward and backward linkages in the production process, with suppliers modifying themselves to accommodate the needs in the process of forming a network of their own. Therefore, the functions of a network linkage may also depend on the size of the investor. Second, plastics manufacturing emerged to support the textile sector. These firms can be divided into those producing parts for assembly via extrusion or intrusion. Intrusion firms were almost exclusively located in Zone C (7 of 18) where they moulded components for the electrical sector, toys and shoes. The extrusion firms (11) were located in Zone E, where plastics were formed for the textile sector. These included synthetic micro-plastic fibres such as yarn, nylon, padding and filling materials.[111] Of these firms, three were exclusively involved in making packaging material for the clothing sector. This further demonstrates how the large textile production network emerged in Zone E justifying specialist-packaging producers.

These patterns of production organisations, with linked clothing and textile factories were a common practice in Taiwan.[112] Textile mills could produce custom, high-volume fabrics for the assemblers, reducing the manufacturing and transport costs. As discussed in Chapter 3, following the multi-fibre agreement (MFA) in 1974, many Taiwanese clothing firms faced export restrictions.[113] Taiwanese producers formed the bulk of a textile diaspora, as South Africa was exempt from these agreements. The almanac notes how these Taiwanese production networks fragmented, then migrated to take advantage of favourable trade preferences. This encouraged textile mills to relocate, bringing with them the clothing and knitwear assemblers to manufacture garments for export.

[110] Hsing (1999) in the work of networks in Taiwan's fashion shoe industry.

[111] The African Taiwanese Chamber of Commerce almanac (ATCC) (1985), Taipei Liaison Office, (formerly the Taiwan Representative Embassy) Archive, Hyde Park, Johannesburg, South Africa.

[112] Hsing (1999, p. 110)

[113] See Baldwin, Chen and Nelson (1995) for further legal details on negotiations in the area of textiles and clothing between Taiwan and the US.

Chen and Chen (1998) cite similar examples in the footwear industry, which are relevant to South Africa. They showed how Taiwan's footwear industry was export-oriented, and the United States had been the major export market. The US buyers and Taiwanese footwear manufacturers had developed a collaborative relationship over the previous 20 years before wage increases and appreciation of the Taiwanese currency in the mid-1980s rendered Taiwan's industry uncompetitive in footwear manufacturing. The US buyers were reluctant to switch suppliers in the face of rising costs in Taiwan, because the collaborative relationship had created a valuable asset of mutual obligations, trust, and understanding that reduced business uncertainties. Instead of abandoning these relationships, the US buyers encouraged Taiwanese suppliers to relocate to low-wage countries. Some even participated in Taiwanese overseas investments as joint-venture partners. More importantly, the US buyers assured Taiwanese investors of export orders to forthcoming overseas subsidiaries, thus reducing the FDI risks for them. This internationalisation of a production in the global apparel industry was the first to emerge in Africa as a result of Taiwanese firms.

Metal and Metalwork Network:

- Figure 5.14(c) shows that metalwork and metals-based fabrication dominates the Bronkhorstspruit - Babelegi - Ekangala complex in Zone H (64 %).

Metal industry production networks did not emerge across multiple sites like apparel and electronics networks, but were rather centred around Zone H. Three reasons are proposed for this. Firstly, the Bronkhorstspruit - Babelegi - Ekangala complex (BBE) was situated in close proximity to Witbank, the largest iron and steel-producing region in South Africa. Therefore access to input materials may have determined the location choice. Secondly, the BBE complex was in close proximity to Johannesburg and Pretoria, the largest domestic market. Thirdly, transporting heavy, or bulky metal products to export ports may have been prohibitively expensive. In this case, these manufacturers would have established in zones closer to the export markets. This is also evident in the Taiwanese furniture firms.

Furniture Network:

- Figure 5.14(d) shows that furniture manufacturing clusters in Zone D (82%).

Like metal fabrication, furniture was almost exclusively situated in Zone D, closer to the East London port, from where preferential tariffs were available. What was evident in the network formation was the location of a textile mill supplying fabrics for these firms. When examining the firm-level data, an isolated Taiwanese textile mill in Butterworth was puzzling, given the absence of apparel manufacturers. This textile mill, called Suntex, produced specialised nylon stretch fabric. The African Taiwanese Chamber of Commerce almanac (1985) later revealed that these fabrics were used exclusively for upholstering wood frame furniture.[114] Suntex, and the founder of the business, Eddie Sun, played an interesting co-ethnic role in the future development of this furniture assembly network.[115] For example, early investors in conjunction with the development corporations, started to actively attract new industrialists. Figure 5.15 is an example of the earlier Transkei investors returning home to encourage further investment to Zone E.

FIGURE 5.15: Informal Group of Transkei Taiwanese Business Leaders, (1982).
Source: *Umtata Archives.*

[114]The African Taiwanese Chamber of Commerce almanac (ATCC) (1985), Taipei Liaison Office, (formerly the Taiwan Representative Embassy) Archive, Hyde Park, Johannesburg, South Africa.
[115]Interview transcript - Public Affairs Research Institute (Eddie Sun interview, PARI records, October 2013). Courtesy of Laura Phillips: laurap@pari.org.za .

Chronological Agglomeration:

The network literature cited in Section 5.2.1 and 5.2.3 highlights how companies in a cluster benefit from important complementarities, which in turn attracted new business formation and clustering.[116] An initial investment can therefore induce subsequent investors in similar or linked industries to the same location. In addition to the theoretical literature, Hart and Todes (1997) noted that "Taiwanese industrialists do not operate as isolated individuals, but as part of intricate social networks that stretch across the globe. Accordingly, once settlement takes hold in a particular place, these networks generate powerful forces that draw in additional people. This dynamic of social agglomeration operates in Newcastle and other locations in South Africa, and has played a key role in shaping ongoing processes of Taiwanese investment."[117] To visualise this self-reinforcing agglomeration effect, the chronological investment data (Figure 5.7 on pg. 154) shows specific time periods of intensified Taiwanese firm formation. In this chapter I will build on the chronological investment effect, further archival footage (Figure 5.15) and explore examples.

Tracing the investment timeline highlights how an early (1978) settlement of Taiwanese firms followed a city council visit from Taipei. This visit started an "aggressive marketing campaign to lure investors and industrialists to Bloemfontein and the 'black cities' of Thaba'Nchu and Botshabelo."[118] These in turn created connections back to Taiwan that induced further inward investment to specific RIDP sites. Archival data collected from the Taiwanese Chamber of Commerce and the Transkei Development Corporation (TDC) found local investment bodies to be more supportive in Newcastle and Butterworth, while a long history of Taiwanese contacts in Bloemfontein had helped form business links. Archival accounts suggest that early links with Taiwanese firms created longer and deeper agglomeration:

> *"TDC 1981: The Transkei Development Corporation has signed an agreement with two prominent Taiwanese industrialists for the establishment of two electronic manufacturing plants. These agreements are the direct result of a high-powered delegation visit to Taiwan last year to invite businessmen to invest in Transkei. Taiwanese people are no strangers to the Transkei. For many years one of the most successful textile industries in Butterworth was established by Taiwanese. This is a major break- through for Transkei and we are optimistic more Taiwanese will follow"*[119]

[116] For example Porter (1990, 1995, 1998*a*,*b*).
[117] Hart and Todes (1997)
[118] Umtata Archival collections, Walter Sisulu University, formally the University of the Transkei.
[119] Development Transkei, 1981, MOU 689/01. Walter Sisulu University Library.

As Hart and Todes (1997) suggested, these networks generated powerful forces. Zone E firm data supports this claim with evidence of early investment by a single large investor setting off a sequence of events. The textile manufacturer attracted several yarn suppliers, which in turn attracted numerous clothing assemblers. This proved so successful that the Transkei Development Corporation actively hired Taiwanese business people in Taipei to recruit industries to RIDP Zones within the homeland. The existing RIDP investors went on subsidised excursions to Taiwan to recruit further members of their production network. An article published in the TDC almanac demonstrates how investors were attracted to the RIDP sites:

> *"The TDC has appointed Mr R Lee as agent in Taiwan. Transkei has realised that an agent in Taiwan is a great asset, a key link with industrialists Transkei is trying to attract. Mr Lee is well qualified for the new appointment. He is an established businessman in Taiwan and has a clear understanding of the needs of the Taiwanese business community. Mr Lee is also the principal shareholder in Tally Furniture (Pty) Ltd in Butterworth. When he talks about the advantages of investment in Transkei he does so as one who has invested here [...] Transkei is looking for more investment, while Taiwan is looking for new areas to invest."*[120]

Although the network data is not causal, both the industrial sector and chronological evidence highlights the proliferation of the Taiwanese firms, organised around a network form of production. When considered in conjunction with the export data from Chapter 4, the firm-clustering highlights how South Africa had become a 'node' in a world-wide Taiwanese diaspora. Small and medium-sized firms linked to one another through intricate subcontracting ties that were driven by larger earlier RIDP investment.[121] Subsequent visits and marketing efforts by Taiwanese firms in the RIDP, then encouraged additional investment by linked or complimentary industries reinforcing the agglomeration process. Similar to the early east Asian development models, this investment sequence also represented the early stage of the flying geese formation. The industry-level agglomeration played an important role in location decisions with co-ethnic agglomeration magnifying the direct financial impact of government incentives. [122]

[120] Development Transkei, 1981, MOU 689/01. Walter Sisulu University, formally the University of the Transkei.

[121] In a 1994 survey, Hart and Todes (1997) found that in Newcastle, 70 percent of the Taiwanese firms clustered around knitwear production; most of these firms are closely linked with one another [...] and with a large Taiwanese acrylic yarn firm in Ezakheni.

[122] Head, Ries and Swenson (1995) found the same effect for Japanese manufacturing plants in the United States.

5.5 DISCUSSION

Although the RIDP generally failed at inducing labour-intensive homeland industrialisation, there were examples of remarkable success with a vibrant production network of labour-intensive manufacturing firms from Taiwan. Moreover, lessons from this case study are important for a number of reasons. Not only were Taiwanese firms the earliest and largest example of direct Asian manufacturing investment in Africa, but the policies and impact of their investment process cast light on the apartheid economic system. The case study therefore provides historical and empirical evidence not only for the effects of tax incentives, global production networks and agglomeration, but also the tragedy of the *Bantustan* homeland system, which entrapped millions of people.

The current historiography of the RIDP period focused mainly on the shortcomings of the incentives, the political motivation for decentralisation and the subsequent lack of industrial takeoff from the project. This relegated the Taiwanese investment to a mere quirk of isolated states. Most notably, Pickles and Woods (1989) surmised that this wave of foreign investment was catalysed by the political isolation of the two countries, forcing them to collaborate, and reinforced by low wages and lucrative incentives. While Geldenhuys (1991) also observed the importance of international relations as these two 'pariah nations' became increasingly isolated. However none of these offer sufficient evidence for why they clustered in specific zones. This relegated the economics of Asian investment to a second-order research topic when the international community shunned apartheid South Africa. Yet there were a number of interesting and under-appreciated variables, which contribute to the economic history of South Africa and the business history of Special Economic Zones. Using this opportunity, Chapter 5 has assembled primary data for ***(a)*** economic geography, ***(b)*** regional investment incentives, and ***(c)*** co-ethnic business networks to help explain why Taiwanese firms came to dominate the RIDP of late apartheid South Africa.

Starting with a new African wage-data series, this chapter has demonstrated interregional wage differences, that were exceptionally low in the homelands. Combined with a wage rebate, which was higher in rural zones, this resulted in some Taiwanese firms receiving incentives in excess of their wage bills. However new demographic data also highlighted that regional wage variation was further influenced by demographic imbalances, whereby labour-intensive firms may have moved

into specific zones to take advantage of female labour.[123] The results were not in themselves causal, but supported archival evidence that Taiwanese firms were positioning themselves to take advantage of female labour that could be trained in the workplace, or had previously been present in the unskilled labour pool.

The most cited explanation for Taiwanese investment had been RIDP incentives, yet a complete dataset of these inducements had not previously been compiled. Concatenating BDI annual reports challenged prior anecdotal accounts with an empirical study of how different incentive categories may have shaped the clustering process. The BDI almanac revealed that 83 % of financial incentives and concessions were channelled into four key areas: namely a wage subsidy for unskilled labour, a transport subsidy, interest concessions on land and capital goods, in addition to a relocation rebate. Delving further into these inducements exposed a number of insights not previously considered. Wage incentives may have been important, but primary archival data showed that they were not the principal contributor.

Transport concessions were then also interrogated with the economic geography of the RIDP. Using the path function in GIS demonstrated the railway cost differentials between homeland decentralisation zones and de-concentration points. Here the economic geography of the RIDP also played a role. Reduced transportation costs could have induced Taiwanese firms to locate in an 'optimal trading distance' between both their suppliers and customers. In this regard, South Africa's economic geography is unique, with a number of zones located at the coast and inland. In context of the transport data, there appeared to be a preference for exporting firms to locate closer to the ports. Once again this was supported by Taiwanese archival accounts, and then substantiated by the assembled GIS data. Export-orientated firms are thought to have located in closer proximity to ports, but as sanctions and growing domestic demand changed so did the location preference. Firms appeared to reach an equilibrium between the domestic markets of the PWV and the export ports of Durban and East London. This again is borne out by archival accounts and the quantitative cost data.

Finally, collating a novel firm level dataset I examined how Taiwanese business networks influenced agglomeration. Secondary literature suggests that enduring relational and production conventions are thought to encourage firms to agglomerate. For example, the RIDP zones benefited from Taiwanese production networks in

[123] Pickles and Woods (1989) also noted that Taiwanese domestic competitiveness had come under pressure, finding it increasingly difficult to recruit "[...] dedicated, eager-beaver production line workers who had made the Taiwanese miracle possible" and "[...] due to the increase in the value of the New Taiwanese Dollar relative to the currency of other countries [...]." These were also compounded by the variation in incentives offered for wage employees.

which they had been embedded back in Taiwan. This *'RIDP diaspora'* could have served as an important facilitator in the agglomeration process. Using disaggregated firm data showed how three zones came to dominate the project, with nine RIDP sites specialising in specific sectors. The network motives to cluster were not captured by the financial incentives, but rather by idiosyncratic factors, such as marketing and site visits by former managers. For example, South Africa's semi-autonomous homeland development agencies established marketing and investment offices in Taipei, seducing new Asian firms to relocate or establish new operations in the RIDP zones. These 'first movers' migrated and then recreated existing production networks. Hence, the initial relocation of a large manufacturer into a single RIDP site or complex appeared to have created a chain reaction. Smaller suppliers or assemblers then followed the larger firm, reproducing the supply chain and production network. This industrial sector agglomeration is emblematic of the network thesis promoted by Ho (1979). He found that Taiwanese investors organised production around network forms in specific industries. This research is the first to demonstrate these co-ethnic network mechanisms in the African context, with the emergence of international production networks in selected industrial zones.

In conclusion, a more complex process, which included economic geography, incentives and firm networks, was driving the Taiwanese firm agglomeration. By collecting new data on wages, foreign investment and industrial incentives, this chapter casts light upon the apartheid economy and the process of business clustering. Its contribution is unique in the context of African investment promotion showing that labour-intensive foreign direct investment can be attracted to rural areas, but the economic geography and international competitiveness need to be weighed with the costs of providing tax concessions and incentives.

Chapter 6

CONCLUSION

My thesis has sought to identify how diplomatic isolation, sanctions, regional industrial policies and transnational ethnic networks shaped South Africa's trade and investment with Taiwan. Each chapter addressed a specific research question, drawing on sources not previously used, to identify the connected themes of trade, investment and firm agglomeration. By doing so, I make a contribution to the broader analysis of South Africa's 20^{th} century economic history. Within this, three persistent constraints are identified. First, the examination of trade shows how the economy failed to diversify from commodities to export-oriented manufacturing. Continuously vulnerable to commodity prices shocks, the Taiwanese case study is a rare example of export orientation in South Africa's manufacturing history. Second, the apartheid state attempted to control labour markets and internal migration by means of regional industrial policy. Showing how this failed over a 40-year period, the homeland system remains a blight on the economic geography of South Africa. Yet select zones attracted foreign investment from Taiwan making these sites the first viable manufacturing centres in the homelands. Finally, despite large-scale infrastructure, tax incentives and low wages, only the Taiwanese firms were able to generate sizeable scale economies, which were not solely reliant on RIDP incentives. These outcomes are noteworthy for contemporary industrial policies which seek to replicate special economic zones, and therefore the possibility for further research.

6.1 DISCUSSION

Although short-lived, the ROC - RSA case study builds on South Africa's long history of international investment and trade. The nature of its frontier economy, at first based on agricultural commodities and then later minerals, required links

to overseas capital, international markets and migrant skills. The discovery of gold and diamonds in the late 19th century ushered in rapid growth, setting in place the economic trajectory which would define the following century. Making a modern economy rested on the subjugation of Africans, not only in terms of land tenure, but also in the labour hierarchy, ensuring reserved employment for Europeans.

Following the elections of the Nationalist Party, South Africa moved towards the periphery of international relations as the morality of apartheid became objectionable. Sanctions, weakening prices for commodities and low manufacturing productivity placed strain on the economy in the latter years of the 1970s. At the same time, South Africa and Taiwan began to mover closer, with contemporary scholarship focusing on diplomatic necessity. However this thesis reveals the economic motives for the greater levels of engagement. South Africa was in need of foreign investment to stimulate manufacturing and balance trade flow. Taiwan was also in a process of adjustment following many years of export-led growth. At this point, a curious, yet valuable case of transnational migration, trade and investment ensued between these countries.

6.1.1 The Role of Diplomacy, Trade and Investment

With the 1975 signing of a trade deal, ethnic Chinese were officially recognised, following a diplomatic pivot towards Taiwan. Appendix A, Figure A.1 highlights the peculiar nature of the relationship with President Marais Viljoen decorating Premier Sun Yun-sun during a 1980 state visit. Neither country had any formal diplomatic agreement a mere 10 years prior to this meeting. Yet in a few short years, they came to depend diplomatically on one another. But more importantly, as I have shown, they also became more economically engaged as migration grew.

This intensified period of investment, migration and bilateral trade would later develop into a large diaspora of Asian manufacturing firms on the African continent.[1] For readers familiar with the isolationism of apartheid it may appear like an idiosyncratic episode of two pariah states' selfish pursuit of economic and diplomatic legitimacy. On the one hand, this superficial analysis may ring true for South Africa, but neglects the complexity of United Nations sanctions, South Africa's spatial industrial policies, and the persistent economic geography of colonial and apartheid rule. While on the other hand it fails to take into account Taiwan's growing trade diaspora, rising manufacturing costs in Asia and the liberalisation of foreign direct investment.

[1] Although Chinese firms have begun investing directly in African countries, no evidence as measured by number of firms or total country employment suggests that the quantity or diversity has reached that of Taiwanese manufacturing firms in South Africa between 1975 and 1996.

Quantifying these effects, Chapter 3 (p. 94) showed how the short-term and long-term liabilities grew from R 465 million to R 705 million in a single year (1979 - 1980) following Taiwanese migration. Moreover, Taiwan was the largest constituent of South Africa's Asian liabilities in 1992 holding 58 % of this region's direct investments. As such, I have argued that the majority of ROC investments had greater capital permanence, demonstrated by the risk appetite for the South African investment markets and bonds. This was a result of diplomatic amendments, which affected both the implicit and explicit protection of property rights, contract enforcement and therefore promoted Taiwanese investment in South Africa.

However, there were further economic incentives. With the ability to expand off-shore, and exacerbated by the 1974 Multi-Fibre Agreement (MFA), Taiwanese firms found a willing diplomatic and economic destination in the RIDP zones of South Africa. Chapter 3 argued that the growth policies of export-led industrialisation that spurred the Taiwanese miracle also created the downfall of its labour-intensive manufacturing industries. For example sunset industries such as textiles, footwear and clothing manufacturers began to relocate in 1978.

A wave of Taiwanese migration ensued to South Africa as the production network constituents followed larger firms to rural RIDP zones. As migration and investment gained momentum, an interesting change in South Africa's trade patterns was observed. Expanding on this, Chapter 4 (p. 101) analysed the migrant trade effect of Taiwanese investment to South Africa.

Prior to 1975 South Africa mostly traded with former western and OECD trade partners (73 % in 1975).[2] However, the quantum of bilateral trade (& migration) after 1975 was classified or omitted by government agencies as a response to UN sanctions and punitive disinvestment by foreign firms. Relying on estimates, prior research has noted the methodological problems in assessing trade flows as a result of a data embargo, and doubted the accuracy of any publicly available trade statistics during sanctions. Assembling a new data series from declassified trade statistics demonstrates that the inflow of foreign investment and immigrants from Taiwan may have increased the potential for manufactured exports. Moreover, by disaggregating the extensive and intensive margin of trade, it is shown how South Africa not only increased its trade volume, but more importantly, increased the diversity of exports to Taiwan. When official bilateral trade data was once again published in 1994, Taiwan's trade with South Africa was more diversified, and

[2] Appendix D Table D.1 on pg. 213 highlights the total South African bilateral trade by geographic region, 1975 - 1995.

in some manufacturing sectors exceeded that of its former OECD trade partners. These findings offer a novel perspective on the rise of export manufacturing, and shows how migration to a small open economy such as South Africa could have a positive impact on trade.

Although diplomacy was an important factor in migration and investment to the RIDP, the natural endowments such as cheaper land, female labour and tax-free incentives were an important factor in how Taiwanese firms came to agglomerate. The following discussion details my findings for the economic geography of industrialisation in the homeland RIDP zones.

6.1.2 The Impact and Efficacy of Industrial Decentralisation

On the surface, industrial decentralisation could be viewed as a scheme designed by a visionary, i.e. Professor FR Tomlinson, a man considered to be ahead of his time.[3] On the other hand, it could be seen an industrial ploy to keep the race groups separate and superficially justify the scattered homelands through industrial policy. Analysing the chronological changes, Chapter 2 assesses the political, economic and industrial changes through *Three Phases* of the apartheid policy evolution.

Industrial decentralisation made only the smallest of inroads during *Phase 1*, with very little industrial growth or employment within the homelands. The popularity of the policy vacillated with the business cycles, however as the 1970s approached, political necessity started to motivate for greater homeland development. It is at this point that both 'Push' and 'Pull' policies were developed to stimulate decentralisation from urban areas which came to define *Phase 2*.

With the African population trapped behind economically artificial homeland borders, businesses were pulled to the areas by lower labour costs, but also by better infrastructure and tax incentives. However, prior research has neglected the impact of infrastructure on the decentralisation of industry during the second phase. Figure 2.3 on p. 53 quantified gross fixed capital formation, which demonstrates rapid growth until the mid-1970s in the case of this investment. Of specific reference to the evolution of the RIDP was the construction of sixty-three industrial estates, which are shown in Figure 2.4 on pg. 55. Using new archival data and GIS to quantify the infrastructure of the RIDP project, the map visually highlights how roads and railways were upgraded to the decentralisation zones and ports. The scale of these projects has been underestimated in prior research. For example

[3] In an address titled *'Will The Real Professor Tomlinson Please Step Forward'*, van Rooyen (2000) notes how "F R Tomlinson was ahead of his time in his approach towards social upliftment of the developing (agricultural) sector."

new data from the Industrial Development Corporation estimated that the costs of constructing this infrastructure equated to 1.5 % of GDP in each year from 1972 - 1979.[4] Of the approximately 18,900 route kilometres of railways in 1970, the homelands only had 70 kilometres. Although modest, this increased to 675 kilometres, with only QwaQwa and the newly established homeland of KaNgwane not connected to the national network by 1976. As such, I have argued that the expansion of infrastructure was more important than incentives during this phase.

At the beginning of *Phase 3* we start to observe material changes in the RIDP. Entering the 1980s, South Africa's economy faced the challenge of increasing unemployment, declining labour intensity, and a withdrawal of western foreign investment. A sense of desperation swept through the Nationalist Party, and greater decentralisation intervention was proposed as both a political solution to unemployment, but also an economic stimulant to increase manufacturing. Following the Good Hope Conference in 1982, steep increases in both the financial incentives and concessions were made available to industrialists willing to relocate to the most rural homelands.[5] Despite better infrastructure or incentives, very little domestic interest in these rural homeland zones existed.

6.1.3 Confluence of Business Networks, Ethnicity and Agglomeration

Although I showed how the decentralisation policies failed, a unique agglomeration of Taiwanese firms emerged in select groups of RIDP zones during the 1980s. Principally clustered in only four of the 63 available locations, I have argued that existing business networks, financial incentives and economic geography were interacting.[6] Disentangling these factors contributes to the international debate on special economic zones, and also considers the economic underpinning of apartheid industrial policies. Using a location choice analysis I construct a new data set for each explanatory variable of economic geography, investment incentives and business networks.

Beginning with RIDP incentives, (i.e. the most cited explanation for Taiwanese investment), I found that 83 % of financial incentives and concessions were channelled into unskilled labour, transport, interest concessions and relocation rebates. This allowed me to empirically focus the analysis on how this interacted with the variation in economic geography. In compiling this data, I argued that market distance, female-labour availability and industry grouping interacted with the

[4] See Chapter 2, p. 53.
[5] The number of decentralisation zones and incentives were rapidly increased.
[6] See Figure 5.1 on 124 for the map showing agglomeration.

incentives. Using GIS to measure the distance from ports or export markets and compiling a novel wage-labour data set demonstrated these variables were important to the agglomeration process, but needed to be considered together with archival accounts.

By forming 'production enclaves' within the RIDP zones, Taiwanese firms brought with them knowledge of foreign (Asian) markets, new labour-intensive production methods, and global supply chains. Urban trading companies sprang up in major metropolitan areas to meet the raw input demands of Taiwanese firms, and to support cross border transactions. Moreover, depending on the industry sector, lower transport costs would have attracted investors to specific sites. For example, textile manufacturers were located in proximity to export markets. Further desegregating the data into industrial sectors and production complexes demonstrated how the Taiwanese firms were clustering around industrial and labour specialisations. For example, textile mills emerged producing high-volume textiles that appeared to service numerous clothing and knitwear producers. These patterns of production organisations, with linked clothing and textile factories, were a common practice in Taiwan, and therefore also emerged in South Africa as the diaspora spread.

These were further reinforced by the unique racial setting of South Africa. Taiwanese firms were precluded from formal financial markets or domestic supply chains, therefore magnifying the impetus to collaborate amongst the small ethnic Chinese network within the homelands. Given the unstable institutional environment in South Africa, they operated in a close business community forming the "Taiwanese Chamber of Commerce in Africa", thus encouraging further co-operation. In turn, this cycle of investment, network production and collaboration generated the conditions for successful scale economies and agglomeration. All prior industrial and legal incentives to stimulate domestic clustering and production spillovers had failed, yet these Taiwanese migrants were able to successfully establish themselves.

Moreover, the co-operation contributed to the growth in Asian export trade, but also perpetuated the policies of decentralisation, and therefore racial homeland segregation. The RIDP had been considered an overall failure, generating very little industrial agglomeration. Yet the findings of Chapter 5 highlight how large international production networks emerged. Specifically, these networks have many similarities to those that formed in Asia during the 1960s and 1970s. As such, I have provided evidence of these networks in an African context showing that not only tax incentives, but economic geography and firm-specific factors had an impact on industrial policy. Historical researchers can draw lessons from these apartheid economic zones, as the subsequent effects on bilateral trade and homeland economic geography have contemporary relevance.

6.2 LESSONS FOR TODAY

Apartheid and industrial decentralisation continue to reverberate through South Africa's society and economy. For example, influx control legislation was repealed in 1986, yet apartheid economic geography imposed by the homeland system persists where the African population remain 'economically trapped' behind historical borders.[7]

As demonstrated in Figure 6.1 below, the effects of the homeland system and influx control are visible in South Africa's economic geography today. Collinson, Kok and Ganenne (2006, p. 3) found that the distance between the former homelands and current urban centres is still a significant cost incurred by economic migrants. This in turn has acted as a disincentive for migration, further hindering economic growth. By restricting natural migration, Naudé and Krugell (2006) have shown how these policies contributed to both inefficient land use, and resulted in slow growth and high-cost economic development. Recently addressing these demographic and geographic constraints, a revised Special Economic Zones Act (2014) has once again advocated for industrial expansion using growth poles, thereby moving industry to the former homelands.[8]

6.2.1 Contemporary Spatial Policies

Given the similarities of these objectives, South Africa's rich industrial past offers insightful references and under-utilised empirical case studies for present and future industrial policy. The policies of decentralisation had limited success, while the costs and historical outcomes from special economic zones remain questionable. Yet the current democratic government has elected to target regional development programmes similar to those in the RIDP. In the years since democracy (1994), successive national planning policy documents have advocated industrial expansion on the premise of growth pole theories. For example, Special Economic Zones *(SEZ)*[9] or Industrial Development Zones *(IDZ)*[10] have recently been proposed in the Industrial Policy Action Plan (IPAP) to broaden the geographic industrial base and stimulate employment on the regional periphery.[11]

[7] The pass laws were repealed by the Identification Act, 1986 and the influx control laws by the Abolition of Influx Control Act, No. 68 of 1986

[8] Government Gazette (20014): The designation, promotion, development, operation and management of Special Economic Zones.

[9] Business Day (20/12/2014): A few tweaks, and special economic zones will thrive.

[10] Business Day (06/08/2015): Saldanha Bay IDZ attracts 'healthy interest' from private sector.

[11] The 2014/15 - 2016/17 Industrial Policy Action Plan - IPAP identified SEZs as key contributors to economic development. See the Industrial Development Financial Assistance (Incentives) provided by the Department of Trade and Industry

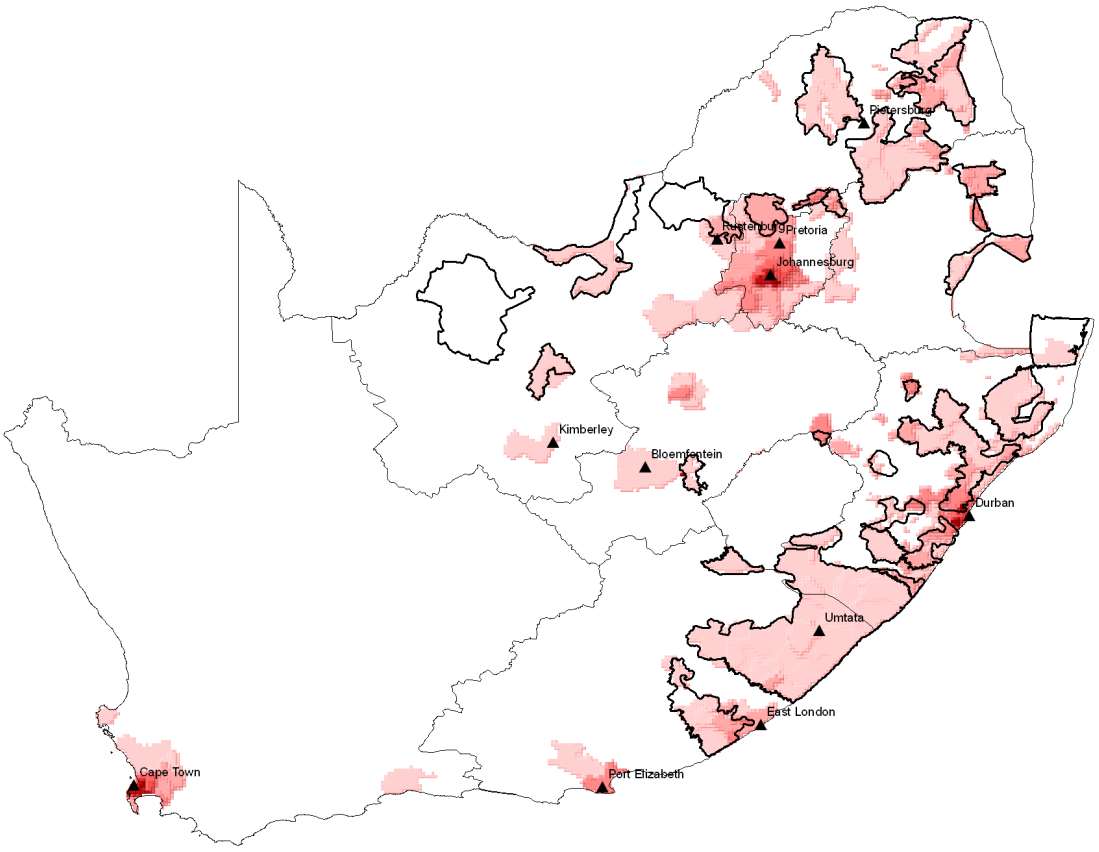


FIGURE 6.1: Concentration of the African population, represented by the measure of urban density per km^2. Darker perimeter lines surrounding the population denote the historical borders of the homelands, demonstrating how the African population is still denser in the former homeland areas created by the Group Areas Act.

Source: *Homeland borders digitised from RIDP archival maps (National Archive, Pretoria) and population mask circa 2001 sourced from Statistics South Africa.*

Moreover, contemporary South African policy makers have once again been debating the renewed practice of both tax and direct incentives as an apparatus for attracting foreign investment to SEZ's.[12] In contrast to financial incentives, the apartheid era industrialisation policies appear to have succeeded as a result of informal transnational trade networks. As such, the dynamics that attracted Asian foreign investment and firms in the 1980s were more complex than diplomacy and tax breaks, while the overall success of the RIDP experience is at best questionable, requiring further empirical study.

[12]In an article titled *'SA moves to create framework for industrial decentralisation'* Terence Creamer notes the similarities between current and historical decentralisation policies: "The South African government is hoping its new Special Economic Zones (SEZs) Bill and policy will create the framework for the development of new industrial nodes outside of the traditional industrial heartlands." Engineering News (2012/01/16)

6.2.2 African Industrialisation

Although South Africa may have an unusual history with Taiwan, its outcome is not unconnected from the rest of Africa. Farole (2011, p. 60) in a World Bank report explains that SEZs are increasingly seen to be emerging in African economies as industrial policy tools to address similar structural challenges faced by South Africa: namely, to attract foreign direct investment; alleviate large-scale unemployment; support economic reforms such as export orientation; and experimental laboratories for new policies.

South Africa's historical episode therefore reveals a number of useful empirical precedents for current scholars and policy makers studying Africa's industrial development. Firstly it shows the role of state policies in labour-intensive industrialisation and trade diversification. This is relevant to countries in both East Africa and West Africa as they expand the use of industrial zones,[13] manufacturing incentives[14] and trade treaties, soliciting investment from the Asian tigers and China.[15] The purpose of these new policies is an attempt to lure manufacturing from Asian markets, while potentially diversifying their economies from natural resources. In this regard the ROC - RSA case study has empirical significance for current special economic zone, trade and investment policies.

6.3 FUTURE RESEARCH

This thesis has contributed to the economic history of South Africa's former homelands, however there is still substantial work that needs to be done.[16] Many of the archives consulted in writing this thesis remain threatened or endangered. It is my hope that I can continue to develop and share these resources with future scholars. Business and economic history in South Africa can contribute to the renewed interest in its industrial past, but can be analogues to current economic themes. In the case of South Africa, the business history has tended to be inward-facing, but developing this thesis further, I hope to publish papers on the comparative experience of South Africa in the global context.[17]

[13] See articles such as *"Ethiopia says expanding zones to become industrial hub"* - Reuters 2014/07

[14] Bräutigam and Xiaoyang (2011, p. 276) write about "African Shenzhen" with the growth in China's special economic zones on the continent.

[15] Markusen and Venables (1999, p. 657) examines how foreign direct investment is a necessary catalyst for industrial development.

[16] And before many of the archives are relinquished to the scrap heap.

[17] I have presented each of the chapters as separate working papers at LEAP, UCT and LSE. A special issue on African Business History is planned for the European Business History Review in early 2017, which may be an outlet for this work.

In the process of data collection, often in the bowels of crumbling Bantustan administrative buildings, a treasure trove of history was discovered. Here one finds the archive of Bantustan rule and the making of a modern South Africa, but also the institutional roots of inequality. While amassing a personal digital archive, a number of future research projects have been identified. A priority amongst these projects is African education in the homelands, and a more ambitious project on African wages.

African Education: Collecting data from the Tomlinson Report I photographed and digitised a large survey of homeland education standards conducted in 1952. This provides the basis for future research on education attainment before apartheid, and the subsequent effects on human capital after the Bantu Education Act was legislated. A glimpse into the quality and expanse of this data was presented in Chapter 2. For example, the number of missionary schools, missionary teachers, and the geographic distribution of these schools can be found in the Tomlinson archive and is summarised in Appendix B, Table B.2. Using the Tomlinson education census and the 1985 apartheid education census, statistical and demographic measurement show how missionary education attainment was higher in the homelands bordering South Africa, but then collapsed following the Bantu Education Act.[18]

African Wages: The second fertile area for future research is on African wages. Hofmeyr (1995) conceded that South African economists and economic historians have found themselves at a disadvantage in regional wage comparisons to their counterparts in major industrialised countries. While Fourie and Schirmer (2012) highlighted how "there is at present only sparse information on African wages during apartheid."[19] Scholars such as Mariotti (2012) have made tremendous contributions, but a complete series of African homeland wages and remittance income could benefit future research on the persistence of apartheid inequality. Building on the theme of African wages, a new wage series on African manufacturing wages in the homelands is an exciting opportunity in South African research.[20]

African Manufacturing: Recently the rise of manufacturing in Africa has entered the mainstream of economic history. However, sub-Saharan Africa has the lowest manufacturing output per capita of any inhabited region on the planet.

[18] A conference proceeding on this data and possible research questions was presented at the XVIIth World Economic History Congress in Kyoto, titled *"Counting People, Dividing the Nation: A History of the Tomlinson Commission in South Africa (1950 - 1954)."* Kerby (2015).

[19] Fourie and Schirmer (2012).

[20] A conference proceeding on *"African Manufacturing Wages during Apartheid"* was presented at the African Economic History Network meeting in London (2014) and at the International Labour Organisations historical wage seminar at the University of Arras (2015). A book chapter on African manufacturing wages in historical perspective is planned for 2016, and a draft submitted to the Community of the Universities of Nord-Pas-de-Calais Press. Kerby (2014*a*).

Bénétrix, O'Rourke and Williamson (2015) examined long-run changes to manufacturing in underdeveloped countries, noting how they reached a high point between 1950 - 1973 with widespread import substituting industrialisation. Austin, Frankema and Jerven (2015) respond to this decline, arguing that Africa failed to supplement agricultural and extractive commodities by means of increased productivity and therefore the creation of employment in manufacturing industries never took off like it did in east Asia. These government policies are blamed for this with escalating debts and conditional aid policies, which hampered independent economic initiatives. As such, future research on manufacturing, industrial policy and import substitution are areas that can be further explored using data collected during this project.[21]

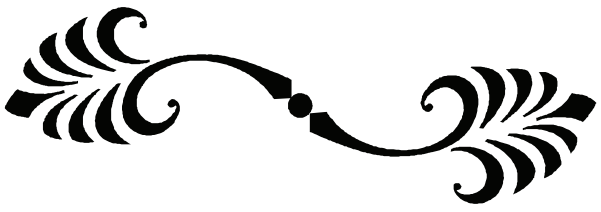
6.3.1 Limitations of Case Studies

There are clear limitations to the case study approach proposed in this thesis. These prohibit the generalisation of the findings in different ways. Beginning with trade and migration, many econometric studies have used fine spatial and manufacturing census data to determine the absolute effect of immigration. Most recently Vézina and Parsons (2016) used the Vietnamese boat people in the United States as a natural experiment showing how these immigrants potentially fostered international trade between the US and Asia, reducing trade costs and increasing exports. Their study was very similar to the hypothesis presented in Chapter 4, however it benefited from richer data sources. Using gravity modelling and the distribution of Vietnamese in the US, their paper could show state-level increases in trade. Unfortunately, the manufacturing census in South Africa only covered enumeration areas in the republic. However, as the majority of Taiwanese export manufacturing was conducted in the homelands, which were not enumerated, the same spatial effects cannot be detected in this thesis.

The same constraints were seen in the location-choice analysis of Chapter 5. Although the scale of my archival collections has attempted to overcome the lack of data during the 1980s, the sparse distribution of wages, or census enumeration, has limited the statistical models which have dominated the international literature.[22] In future research I hope to be able to collect additional data or collaborate with other researchers, thus allowing for more robust statistical modelling of the location choices used in Chapter 5.

[21] Planned working papers include: Kerby (2014*b*) - "Fields into Factories", which examines the import substitution policies of the RIDP. Kerby (2016) - "Bamboo Shoots", which examines the first large-scale Asian manufacturing in Africa.

[22] With the current manufacturing and population census data such techniques are not possible.



Appendix A

Appendix A - Chapter 1

FIGURE A.1: RSA President Marais Viljoen decorates ROC Premier Sun Yun-sua. (1980)
Source: *Taiwan Review (文章資料), 5th of January 1980.*

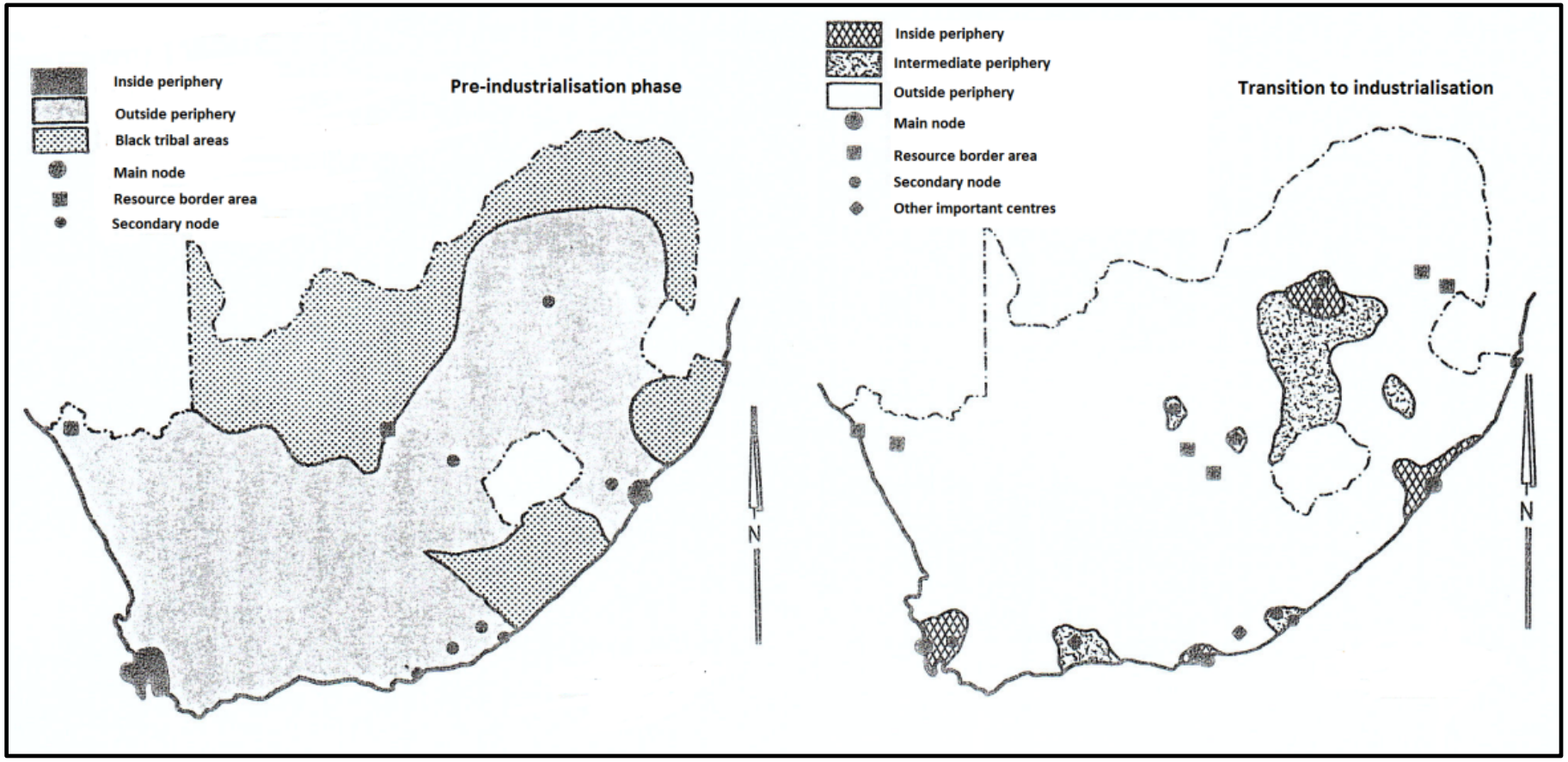


FIGURE A.2: MAP OF THE TRANSITION OF SOUTH AFRICA FROM PREINDUSTRIAL TO ITS TRANSITION TO INDUSTRIAL SOCIETY SHOWS HOW AFRICAN LANDS WERE REDUCED BY THE 1913 LAND ACT.

Source: *Digitised from Fair (1982)*

Appendix B

Appendix B - Chapter 2

From veld to factory

. . . in just two short years!

In just 2 short years the National Brushware Group of Companies has progressed from drawing board to the giant 110 000 square feet factory shown above.
Giving employment to over 500 people, this new homelands industry is developing at a phenomenal pace. Orders are already outstripping production, and even at this early stage, further additions to the factory are being planned. The National Brushware Group manufacture brushes of all types, steel wool and the celebrated ranges of Wolf Garden Machinery, and Bissell Carpet Care Products.

One of many skilled African technicians.

The assembly bay for Wolf garden machinery.

NATIONAL BRUSHWARE
(PTY) LTD.,

Maraisburg Road, Industria West, Box 8516. Tel: 35-8991
Factory: 9th Road, Babelegie, Hammanskraal. Tel: 152

WOLF TOOLS

BISSELL APPLIANCES LTD.

FIGURE B.1: Bantu Investment Corporation (1975), Homelands: the role of the corporations in the Republic of South Africa.

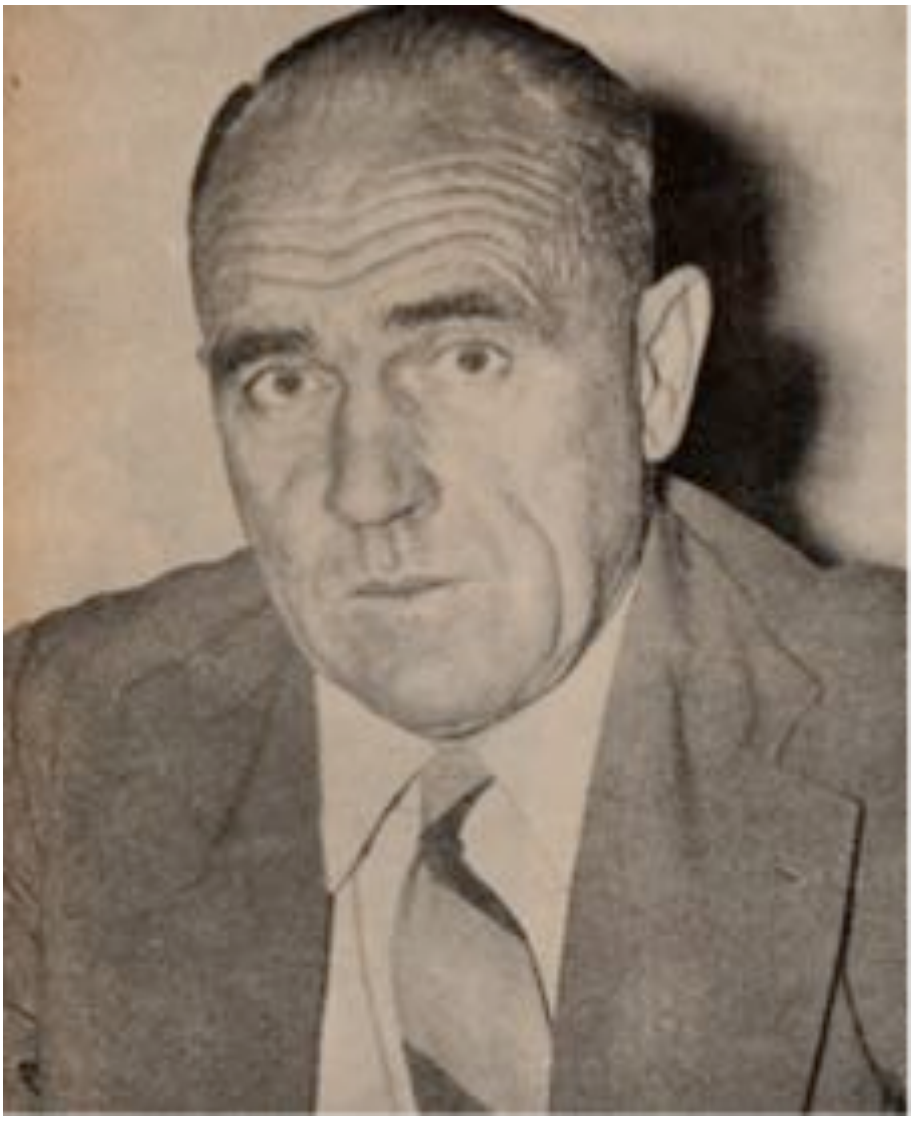


FIGURE B.2: Frederick Rothman Tomlinson - source: The Forum, Vol.5 No.2 (1956).

FIGURE B.3: SCHEMATIC OVERVIEW OF THE TOMLINSON COMMISSION REPORT
Source: *Summarised from Houghton (1956)*

AFRICAN POPULATION					
	Total Population	**Homeland Areas**	**'White' Rural Areas**	**Urban Areas**	**Percentage in White Areas**
1921	4,438,774	2,113,778	1,737,995	587,000	49%
1936	6,595,541	2,962,083	2,491,817	1,141,642	55%
1946	7,882,988	3,115,779	2,914,534	1,852,675	61%
1951	8,560,274	3,307,616	2,924,124	2,328,534	61%
1957	9,535,467	3,651,307	3,261,288	2,622,872	62%
1960 [a]	10,928,264	5,573,415	5,354,849		49%
1970	15,057,952	6,997,179	8,060,773		54%
1986 [b]	24,901,192	9,698,406	15,202,786		61%
1991 [c]	27,000,000	11,000,000	16,000,000		59%

[a] Demographic data excludes the Ciskei and Transkei

[b] Estimates from the South African Institute of Race Relations

[c] Official census was considered inaccurate as the TBVC conducted a separate census.

TABLE B.1: AFRICAN HOMELAND AND URBAN POPULATION, (1921 - 1991)

Source: *South African Bureau of Statistics, South African Institute of Race Relations (1986) and Horrell (1973)*

Christian Missions

	European		Bantu	
Missionaries	Protestant	Catholic	Protestant	Catholic
Ordained	840	426	2079*	47
Un-ordained		32,810		
Teachers		13,655		
Medical Personnel		1,311		
Total		51,101		
Church Buildings	4,018		3,269	
	Non-Reserve Areas		**Reserve Areas**	
Teachers	5,955		7,700	
Nurses	755		478	
Doctors	36		37	
Hospitals	34		32	
Beds	2,179		1,955	
Primary Schools	1,888		2,250	
Secondary Schools	70		49	
Training Schools	16		17	
Agri' Schools	2		2	
Domestic Science	16		4	
Technical Schools	15		15	
Adult Education	59		7	
Distribution	**27,621**		**23,480**	
S.A. Bantu Affairs	N.A.		3,172	

TABLE B.2: TABULATION OF MISSIONARY ACTIVITY IN THE HOMELANDS AND UNION OF SOUTH AFRICA, (1952)

Source: *Aggregated from the Commission for the Socio-Economic Development of the Bantu Areas (1955)*

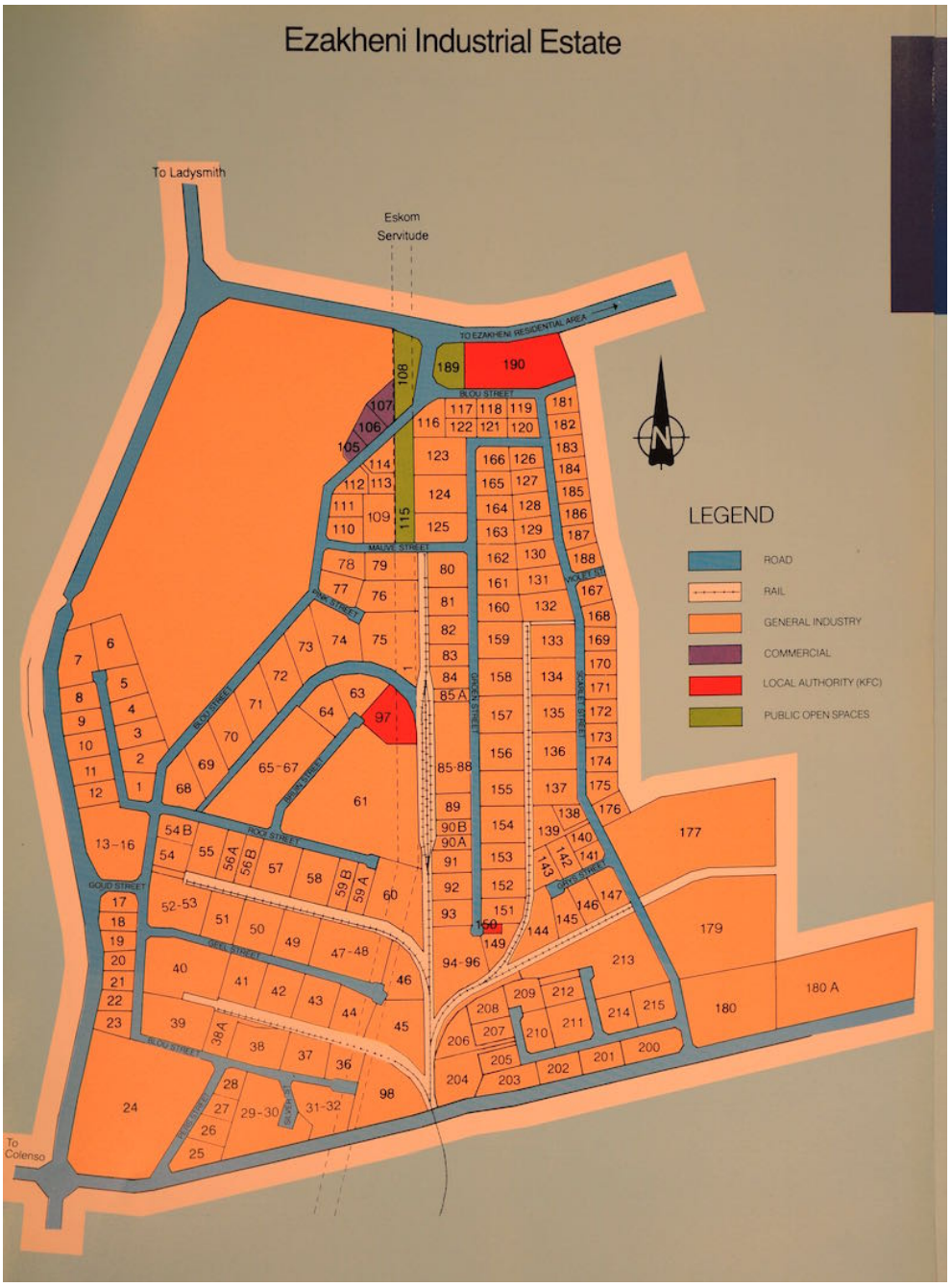


FIGURE B.4: EZAKHENI INDUSTRIAL ESTATE. FUNDED BY THE BOARD FOR THE DECENTRALISATION OF INDUSTRY, 11 OF THESE ESTATES WERE BUILT IN ZONE E AROUND THE KWAZULU NATAL HOMELANDS (1978)

Source: *KwaZulu Finance Corporation, Annual Reports, (1977). Pietermaritzburg Archive.*

FIGURE B.5: LABOUR INTENSITY WITHIN SOUTH AFRICAN MANUFACTURING. LABOUR INTENSITY IS MEASURED BY DIVIDING THE AMOUNT OF CAPITAL EQUIPMENT AND TOTAL LABOUR FORCE IN MANUFACTURING (1911 - 1976)

Source: *Kleu and Department of Industries and Commerce. (1983) Report of the Study Group on Industrial Development Strategy of South Africa.*

Board for the Decentralisation of Industry

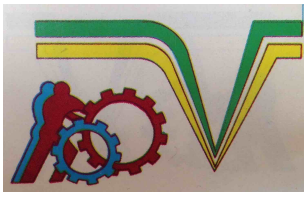
	Indepenedent Bantustans	Non-Independent Homelands	
Zone B / Zone H	 **Bophuthatswana National Development Corporation**	 **KwaZulu Finance Corporation**	Zone E
Zone D	 **Transkei Development Corporation**	 **KaNgwane Economic Development Corporation**	Zone G
Zone D	 **Ciskei National Development Corporation**	 **QwaQwa Development Corporation**	Zone C
Zone F	 **Venda Development Corporation**	 **Shangaan Development Corporation**	Zone H

FIGURE B.6: INDEPENDENT AND NON-INDEPENDENT HOMELANDS DEVELOPMENT CORPORATIONS, (1982)

Source: *Development Corporations, Annual Reports, (1982)*

FIGURE B.7: KWAZULU NATAL FINANCE CORPORATION, INVESTMENT PROSPECTUS, (1982)

Source: *KwaZulu Development Corporation Archive (1982), publication No 3, p. 17. Government Publications Archive, 68 (R220).*

Appendix C

Appendix C - Chapter 3

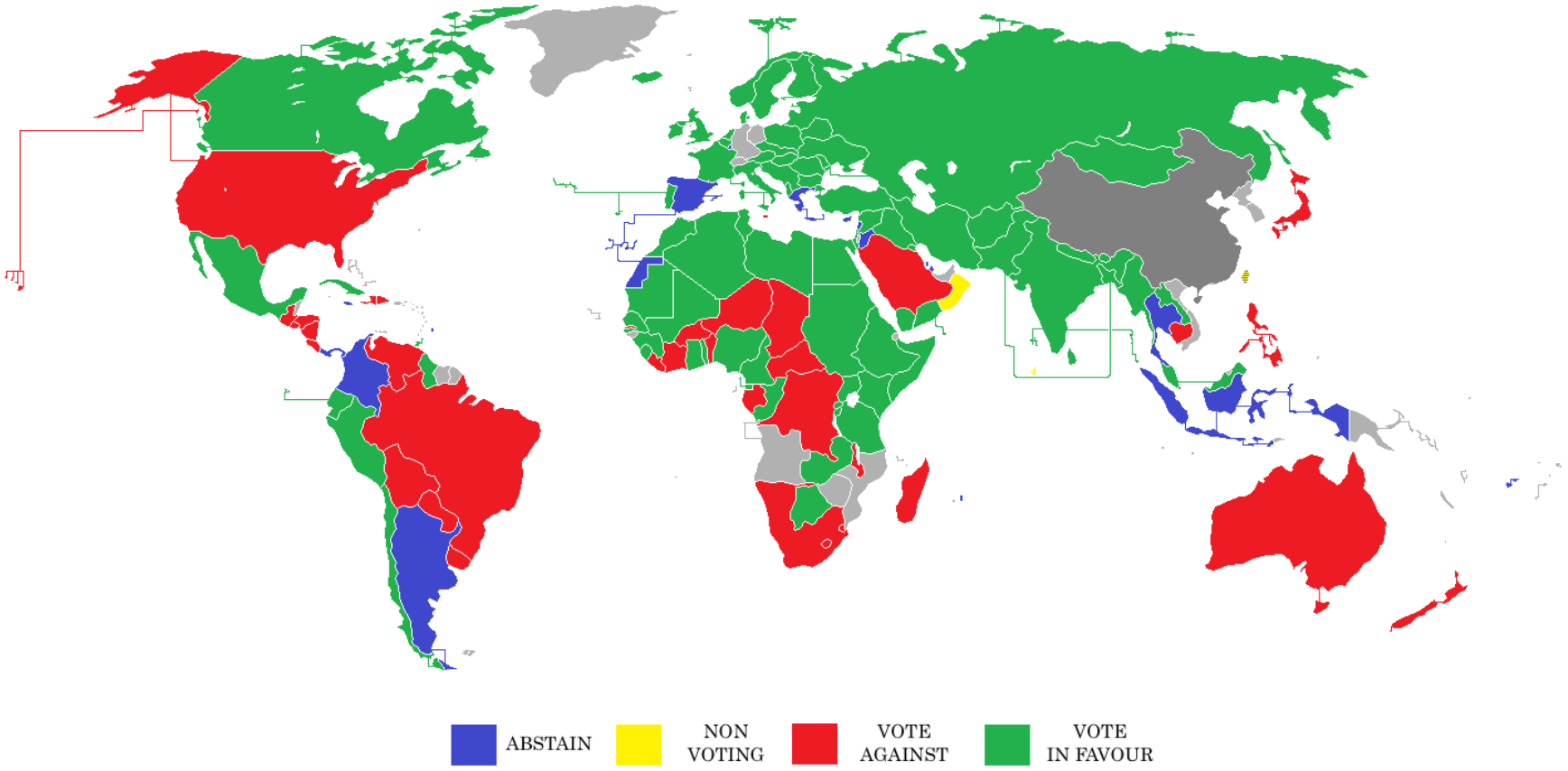


FIGURE C.1: GRAPHIC REPRESENTATION OF THE VOTING OUTCOME TO RESOLUTION 2758 IN THE UN GENERAL ASSEMBLY, (1971).

Source: *United Nations Resolution Bill, 1971 and image sourced from the creative commons.*

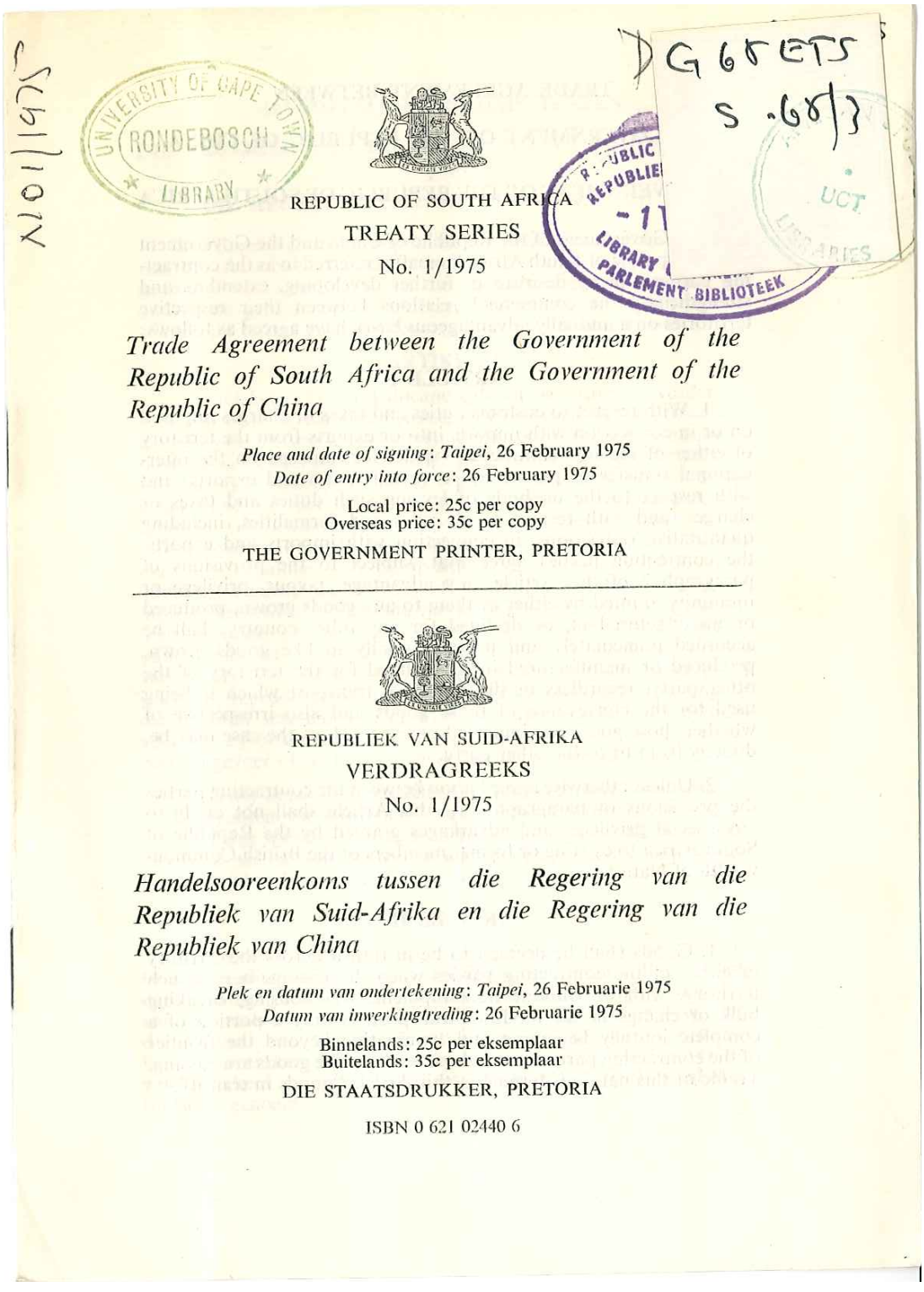
DOLLAR DIPLOMACY‡

Year	Number of Nations Recognition for the R.O.C	Number of Nations Vote for the R.O.C	Note
1960	8	2	Before Econ Assistance
1961	12	9	After Econ Assistance
1962	15	17	After Econ Assistance
1963	19	17	After Econ Assistance
1965	15	10	After Econ Assistance
1966	16	17	After Econ Assistance
1967	18	19	After Econ Assistance
1968	19	20	After Econ Assistance
1969	20	21	After Econ Assistance
1970	22	18	After Econ Assistance
1971	20	15	After Econ Assistance

‡ *The term given to Taiwan's diplomacy, gaining UN votes through economic aid to African countries.*

TABLE C.1: AFRICA'S SUPPORT WITH UN VOTES FOR THE ROC AFTER RECEIVING ECONOMIC ASSISTANCE.

Source: *Tsai and Ming (1990)*



REPUBLIC OF SOUTH AFRICA
TREATY SERIES
No. 1/1975

Trade Agreement between the Government of the Republic of South Africa and the Government of the Republic of China

Place and date of signing: *Taipei*, 26 February 1975
Date of entry into force: 26 February 1975

Local price: 25c per copy
Overseas price: 35c per copy

THE GOVERNMENT PRINTER, PRETORIA

REPUBLIEK VAN SUID-AFRIKA
VERDRAGREEKS
No. 1/1975

Handelsooreenkoms tussen die Regering van die Republiek van Suid-Afrika en die Regering van die Republiek van China

Plek en datum van ondertekening: *Taipei*, 26 Februarie 1975
Datum van inwerkingtreding: 26 Februarie 1975

Binnelands: 25c per eksemplaar
Buitelands: 35c per eksemplaar

DIE STAATSDRUKKER, PRETORIA

ISBN 0 621 02440 6

FIGURE C.2: ROC - RSA BILATERAL TRADE AND INVESTMENT TREATY, (1975).

Source: *University of Cape Town, Government Publications.*

Apartheid snag for Taiwan businessmen

By IVOR WILKINS
Political Correspondent

TAIWANESE businessmen, attracted to South Africa by efforts to encourage foreign investment, are running into apartheid tangles over housing and schooling for their children.

Particularly in the Border area, where several Taiwanese have been attracted to do business in Transkei and Ciskei, there have been frustrating and embarrassing delays over permission to live in white group areas.

The incidents could cause diplomatic tensions between South Africa and the Republic of China — with whom close ties have been nurtured in recent years.

Informed sources say this has been a source of concern for the Decentralisation Board, which has conducted its own inquiries about the snarl-ups.

The MP for King William's Town, Mr Pat Rogers of the New Republic Party, said in an interview this week he had dealt with several cases of this sort.

MR PAT ROGERS
Dealt with several cases

Since 1981, when he came to Parliament, he had been involved in several efforts to overcome group areas problems for Taiwanese.

"In 1981, in answer to a parliamentary question, I was told that residence permits for Taiwanese business people and investors excluded them from the provisions of the Race Classification Act," Mr Rogers said.

"One would have presumed this would also mean the Group Areas Act would not apply to them."

But, three years on, the problems continue.

Mr Rogers said that during this session of Parliament alone he had had to intercede in three cases, one of which was still not satisfactorily concluded.

"This whole issue is causing delays, frustrations and acute embarrassment to business and is damaging the image of the area," Mr Rogers said.

Entangled

It may also end up confounding the Government's efforts to attract investment to the area as part of the economic deconcentration plan intended to give life to the homeland regions.

"The whole question should be decentralised, so that people on the spot can deal with issues like this quickly and efficiently," said Mr Rogers.

He added that the greatest problems seemed to arise when Taiwanese investors wanted to use Industrial Development Council funds to obtain houses in "white" towns like King William's Town and Queenstown.

It appeared that the IDC then applied to the Department of Community Development for Group Areas Act exemptions, and the two bodies became entangled in bureaucratic contradictions and delays.

The Minister of Community Development, Mr Pen Kotze, told the Sunday Times one application which his department had dealt with had been granted to enable a textile company in Dimbaza to arrange accommodation for Taiwanese employees.

"Future applications will also be favourably dealt with when we receive them," he said.

Efforts to obtain comment from the IDC were unsuccessful.

FIGURE C.3: NEWSPAPER ARTICLE CLIPPING HIGHLIGHTING THE APARTHEID CHALLENGES FOR TAIWANESE INVESTORS, (1982).

Source: *Business Day, April (1982), SALDRU Clippings Collection.*

	Commercial Rand (ZAR) : UD$	Financial Rand (ZAL) : UD$	Commercial Rand : Pound £	New Taiwanese $: Rand
1972	R 0.70	-	R 1.84	-
1973	R 0.50	-	R 1.57	-
1974	R 0.60	-	R 1.61	-
1975	R 0.50	-	R 1.76	-
1976	R 0.80	-	R 1.45	-
1977	R 1.00	-	R 1.62	NT$43
1978	R 1.00	-	R 1.73	NT$42
1979	R 1.00	R 1.30	R 1.85	NT$43
1980	R 1.00	R 1.10	R 1.80	NT$44
1981	R 1.00	R 1.20	R 1.84	NT$46
1982	R 1.00	R 1.40	R 1.73	NT$37
1983	R 1.12	-	R 1.74	NT$36
1984	R 1.48	-	R 2.20	NT$28
1985	R 2.24	R 2.50	R 4.09	NT$18
1986	R 2.29	R 2.60	R 3.20	NT$17
1987	R 2.04	R 2.20	R 3.57	NT$16
1988	R 2.28	R 2.50	R 4.24	NT$13
1989	R 2.62	R 4.00	R 4.11	NT$10
1990	R 2.59	R 4.10	R 4.88	NT$10
1991	R 2.76	R 4.00	R 4.95	NT$10
1992	R 2.85	R 4.30	R 4.58	NT$9
1993	R 3.27	R 4.70	R 5.01	NT$8
1994	R 3.55	R 5.00	R 5.54	NT$7
1995	R 3.63	R 5.10	R 5.62	NT$7
1996	R 4.30	R 4.50	R 7.89	NT$7

TABLE C.2: AVERAGE ANNUAL SOUTH AFRICAN COMMERCIAL (ZAR) AND FINANCIAL (ZAL) EXCHANGE RATES IN RELATION TO US $, GB £, AND NEW TAIWAN $, (1972 - 1996)

BUSINESS

Chopstick economics and the homelands

As the Taiwanese businessman explains, there are plenty of reasons for investing in South Africa's homelands: no unions, cheap labour, tax concessions and subsidies galore. SIMON NGOMANE reports from East London

THE world's largest chopsticks factory is not in the East but in Transkei, next to the Langeni pine forests. The two million chopsticks the factory produces each day are shipped to the Far East.

The Bophuthatswana National Development Corporation has a colour catalogue written in Mandarin and it offers to take potential investors from the East on reconnaissance tours.

These are some of the signs of the influx to South Africa's "homelands" of Taiwanese investors who are taking advantage of incentives for decentralised industries.

There are at least 120 Taiwanese factories in "homelands" like Transkei, Bophuthatswana, Venda, Ciskei QwaQwa , kwaZulu , kaNgwane and kwaNdebele, the Taiwanese trade mission representative, George Shih, told the *Weekly Mail*.

He said Taiwanese investments in these areas were "business deals" arising from that country's good relationship with Pretoria. But he said the influx was also due to their difficulties in coping with the strength of Taiwan's currency. And they derive great benefits from their deals with the "homelands".

The Taiwanese dollar has appreciated by about 40 percent, Shih said. As a result many businesses are relocating their plants to other countries.

The strength of the Taiwanese dollar — and the rand's weakness — mean these entrepreneurs can produce goods in South Africa for export to Taiwan more cheaply than they can manufacture them there.

The availability of cheap labour in the "homelands", with wages at a maximum of R80 to R120 a month, is one attraction. Another is the largely trade union-free environment. Unions are unwelcome in Ciskei, Bophuthatswana and Transkei. Others are not unionised because of their geographic distance from South Africa's industrial centres.

Decentralisation incentives include large sums of money available to investors as relocation expenses, factory rent at 20 percent for 10 years and a wage subsidy that can be as big as 95 percent for seven years, depending on the geographic position of the area chosen. The further you go into the "homeland", away from the busier centres , the more subsidy you get.

Ciskei operates as a "tax haven", levying no company tax and little personal income tax. The aim of its tax system, introduced over two years ago, was to attract quality, profit-oriented, self-funding industries.

The first R8 000 in personal income is tax free in Ciskei and there is no estate duty, capital tax or donations tax.

The government's income comes from general sales tax and witholding tax on dividends and earnings leaving the country. Businesssmen have a choice of the concession method or "tax haven" system.

Thaba'Nchu in Bophuthatswana is popular with Taiwanese and other investors — so popular the locals have renamed it "Bophuthachina". It is far from the main centres, so the benefits are great. That means a 95 percent subsidy courtesy of the Bophuthatswana Development Corporation which will pay a wage package of up to R100 a worker for seven years.

The incentives offered to investors have brought all sorts of factories from the East to the "homelands". And rice fields have been established in Venda, Lebowa and Gazankulu.

For the Taiwanese, another attraction is the ease with which they can start a business without competition.

Shih says their business in the "homeland" is a success although he complains of problems Taiwanese business people have encountered. "The first problem is language. Most blacks cannot speak English and so communication is difficult," he says.

"We also have problems with people stealing from factories and a shortage of labour. Blacks come to work this week and just stop coming without notice. So production is not very high like in other places where we have invested in like the Philippines, Brazil and Mexico," he said.

Shih denied investors underpaid workers as salaries were set by how much each company produced.

FIGURE C.4: NEWSPAPER ARTICLE CLIPPING HIGHLIGHTING THE CURRENCY MOTIVATION FOR TAIWANESE INVESTORS, (1988).

Source: *Weekly Mail, July 7th (1988), SALDRU Clippings Collection.*

TOTAL FOREIGN INVESTMENT IN SOUTH AFRICA							
	EEC	America's	Africa	Asia	Oceania	Other	Total
1979	R 12,868	R 5,290	R 689	R 465	R 113	R 3,455	R 22,880
1980	R 14,700	R 5,351	R 830	R 707	R 172	R 3,735	R 25,495
1981	R 17,907	R 7,517	R 774	R 1,155	R 241	R 4,896	R 32,490
1982	R 21,466	R 9,314	R 834	R 1,124	R 272	R 6,859	R 39,869
1983	R 22,874	R 11,452	R 1,062	R 1,604	R 321	R 8,232	R 45,545
1984	R 32,600	R 18,860	R 1,534	R 2,387	R 415	R 11,192	R 66,988
1985	R 37,632	R 23,363	R 1,782	R 3,054	R 572	R 15,017	R 81,420
1986	R 35,731	R 19,272	R 1,257	R 3,004	R 501	R 12,136	R 71,901
1987	R 35,000	R 19,000	R 1,200	R 3,000	R 480	R 2,833	R 61,513
1988	R 34,663	R 18,895	R 1,286	R 3,192	R 413	R 11,744	R 70,193
1989	R 43,157	R 21,568	R 1,251	R 3,227	R 405	R 16,814	R 86,422
1990	R 48,000	R 20,000	R 2,000	R 3,500	R 400	R 15,684	R 89,584
1991	R 49,321	R 19,363	R 3,081	R 4,333	R 487	R 18,677	R 95,262
1992	R 59,394	R 21,785	R 4,231	R 5,382	R 658	R 21,897	R 113,347
1993	R 78,761	R 27,798	R 3,878	R 4,553	R 494	R 10,103	R 125,587
1994	R 95,155	R 36,221	R 4,184	R 5,537	R 626	R 11,090	R 152,813
1995	R 100,000	R 40,000	R 4,200	R 10,000	R 700	R 45,904	R 200,804
1996	R 114,807	R 48,470	R 2,281	R 11,036	R 1,023	R 63,381	R 240,998
1997	R 196,506	R 64,460	R 4,000	R 20,021	R 1,272	R 19,606	R 305,865

TABLE C.3: TOTAL FOREIGN INVESTMENT GROUPED BY GEOGRAPHIC REGION, (1979 - 1997).

Source: *The South African Reserve Bank, table of South African Liabilities 1979 - 1997, UCT Government Publications.*

Appendix D

Appendix D - Chapter 4

TOTAL SOUTH AFRICAN BILATERAL TRADE 1975 – 1995,

SUMMARISED AT THE REGIONAL GROUP

	Africa	Europe	Americas	Asia
1975	R 677,443,844	R 5,432,221,839	R 1,738,962,925	R 1,489,654,071
1976	R 759,467,728	R 5,715,641,352	R 2,104,875,929	R 1,616,300,993
1977	R 807,309,062	R 5,929,221,377	R 2,165,563,137	R 1,900,188,823
1978	R 783,099,531	R 7,393,998,174	R 2,745,045,830	R 2,467,797,026
1979	R 988,716,514	R 9,208,620,759	R 3,250,241,027	R 2,824,237,567
1980	R 1,382,392,191	R 10,877,961,127	R 4,371,795,898	R 3,805,474,949
1981	R 1,353,886,784	R 12,467,448,566	R 5,081,828,808	R 5,006,764,429
1982	R 1,237,228,731	R 13,152,114,997	R 4,812,387,612	R 5,257,858,771
1983	R 1,103,124,073	R 12,528,694,771	R 5,062,487,843	R 5,412,924,004
1984	R 1,421,286,817	R 16,445,722,647	R 6,607,809,396	R 7,469,538,943
1985	R 2,035,967,681	R 20,276,128,869	R 7,347,463,935	R 8,717,190,241
1986	R 1,856,532,000	R 24,741,990,000	R 10,859,900,000	R 10,563,770,000
1987	R 1,969,695,000	R 12,521,520,000	R 7,363,370,000	R 12,521,520,000
1988	R 2,519,880,000	R 14,564,640,000	R 9,591,000,000	R 14,564,640,000
1989	R 3,419,880,000	R 15,926,980,000	R 10,014,900,000	R 15,926,980,000
1990	R 6,042,960,000	R 44,755,530,000	R 12,370,410,000	R 14,706,020,000
1991	R 6,500,000,000	R 46,829,330,000	R 14,711,200,000	R 16,849,800,000
1992	R 7,751,426,315	R 46,654,025,502	R 15,050,118,487	R 23,759,487,063
1993	R 9,290,373,921	R 52,653,783,145	R 16,373,216,297	R 30,076,517,677
1994	R 11,841,619,590	R 65,772,173,256	R 20,930,152,312	R 38,508,058,361
1995	R 16,722,677,385	R 79,630,414,272	R 25,576,656,643	R 50,454,943,663

Table D.1: TOTAL SOUTH AFRICAN BILATERAL TRADE 1975 - 1995, SUMMARISED BY REGIONAL GROUP

SECTIONS OF THE HARMONISED SYSTEM

Section	Ref Price	Chapter	Description
I	**YES**	**1 to 5**	Live animals, animal products.
II	**YES**	**6 to 14**	Vegetable products.
III	**NO**	**15**	Animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes.
IV	**NO**	**16 to 24**	Prepared foodstuffs, beverages, spirits, and vinegar; tobacco and manufactured tobacco substitutes.
V	**YES**	**25 to 27**	Mineral products.
VI	**NO**	**28 to 38**	Products of the chemicals or allied industries.
VII	**NO**	**39 to 40**	Plastics and articles thereof; rubber and articles thereof.
VIII	**NO**	**41 to 43**	Raw hides and skins, leather, fur skins and articles thereof; saddler and harness, travel articles, handbags and similar containers; articles of animal gut (other than silkworm-gut).
IX	**NO**	**44 to 46**	Wood and articles of wood, wood charcoal, cork and articles of cork, manufactures of straw, of esparto or of other plaiting material, basket ware and wickerwork.
X	**YES**	**47 to 49**	Pulp of wood or of other fibrous cellulosic material; waste and scrap of paper or of paperboard; paper and paperboard and articles thereof.
XI	**NO**	**50 to 63**	Textiles and textile articles.
XII	**NO**	**64 to 67**	Footwear, headgear, umbrellas, sun umbrellas, walking-sticks, seat-sticks, whips, riding-crops and parts thereof; prepared feathers and articles made therewith, artificial flowers, articles of human hair.
XIII	**NO**	**68 to 70**	Articles of stone, plaster, cement, asbestos, mica or similar materials, ceramic products, glass and glassware.
XIV	**NO**	**71**	Natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad with precious metal and articles thereof; imitation jewellery, coins.
XV	**YES**	**72 to 83**	Base metals and articles of base metal.
XVI	**NO**	**84 to 85**	Machinery and mechanical appliances, electrical equipment; parts thereof, sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles.
XVII	**NO**	**86 to 89**	Vehicles, aircraft, vessels and associated transport equipment.
	NO	**90 to 92**	Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus, clocks and watches, musical instruments; parts and accessories thereof.
XIX	**NO**	**94 to 96**	Miscellaneous manufactured articles.
XX	**NO**	**97**	Works of art, collectors' pieces and antiques.
XXI	**NO**	**-**	Other unclassified goods.
XXII	**NO**	**-**	Special classification provisions: Original Equipment Components
XXIII	**NO**	**98**	Special classification provisions: Other Miscellaneous OEM Component

TABLE D.2: SECTIONS OF THE STANDARD INDUSTRIAL CLASSIFICATIONS HARMONISED SYSTEM

	Commercial Rand (ZAR) : UD$	Financial Rand (ZAL) : UD$	Commercial Rand : Pound£	New Taiwanese$: Rand
1972	R 0.70	-	R 1.84	-
1973	R 0.50	-	R 1.57	-
1974	R 0.60	-	R 1.61	-
1975	R 0.50	-	R 1.76	-
1976	R 0.80	-	R 1.45	-
1977	R 1.00	-	R 1.62	-
1978	R 1.00	-	R 1.73	-
1979	R 1.00	R 1.30	R 1.85	-
1980	R 1.00	R 1.10	R 1.80	-
1981	R 1.00	R 1.20	R 1.84	-
1982	R 1.00	R 1.40	R 1.73	NT$37
1983	R 1.12	-	R 1.74	NT$36
1984	R 1.48	-	R 2.20	NT$28
1985	R 2.24	R 2.50	R 4.09	NT$18
1986	R 2.29	R 2.60	R 3.20	NT$17
1987	R 2.04	R 2.20	R 3.57	NT$16
1988	R 2.28	R 2.50	R 4.24	NT$13
1989	R 2.62	R 4.00	R 4.11	NT$10
1990	R 2.59	R 4.10	R 4.88	NT$10
1991	R 2.76	R 4.00	R 4.95	NT$10
1992	R 2.85	R 4.30	R 4.58	NT$9
1993	R 3.27	R 4.70	R 5.01	NT$8
1994	R 3.55	R 5.00	R 5.54	NT$7
1995	R 3.63	R 5.10	R 5.62	NT$7
1996	R 4.30	R 4.50	R 7.89	NT$7

TABLE D.3: AVERAGE ANNUAL SOUTH AFRICAN COMMERCIAL (ZAR) AND FINANCIAL (ZAL) EXCHANGE RATES IN RELATION TO US $, GB £, AND NEW TAIWAN $, (1972 - 1996)

IMMIGRATION				
	EU		Ethnic Chinese	
Year	Immigration	EU Cumulative	Taiwan	Chinese/Taiwanese
1961	16,309	16,309	0	8,000
1962	20,916	37,225	0	8,200
1963	37,964	75,189	0	8,200
1964	40,865	116,054	0	8,200
1965	38,326	154,380	0	8,200
1966	48,048	202,428	0	8,200
1967	38,937	241,365	0	8,200
1968	40,548	281,913	0	8,200
1969	41,446	323,359	0	8,200
1970	41,523	364,882	0	8,200
1971	35,845	400,727	0	8,200
1972	32,776	433,503	0	8,200
1973	24,016	457,519	0	8,200
1974	35,847	493,366	3	8,203
1975	54,295	547,661	4	8,207
1976	16,255	563,916	8	8,215
1977	-	563,916	0	8,215
1978	-	563,916	127	8,342
1979	4,941	568,857	487	8,829
1980	-	568,857	1387	10,216
1981	-	568,857	4067	14,283
1982	24,741	593,598	1890	16,173
1983	22,624	616,222	3876	20,049
1984	15,802	632,024	278	20,327
1985	13,476	645,500	490	20,817
1986	5,035	650,535	7907	28,724
1987	5,436	655,971	900	29,624
1988	5,056	661,027	876	30,500
1989	4,798	665,825	20	30,520
1990	6,979	672,804	657	31,177
1991	5,076	677,880	789	31,966
1992	3,649	681,529	89	32,055
1993	4,242	685,771	326	32,381
1994	2,638	688,409	587	32,968
1995	8,000	696,409	51	33,019

TABLE D.4: EUROPEAN AND TAIWANESE MIGRATION (1972 - 2000)

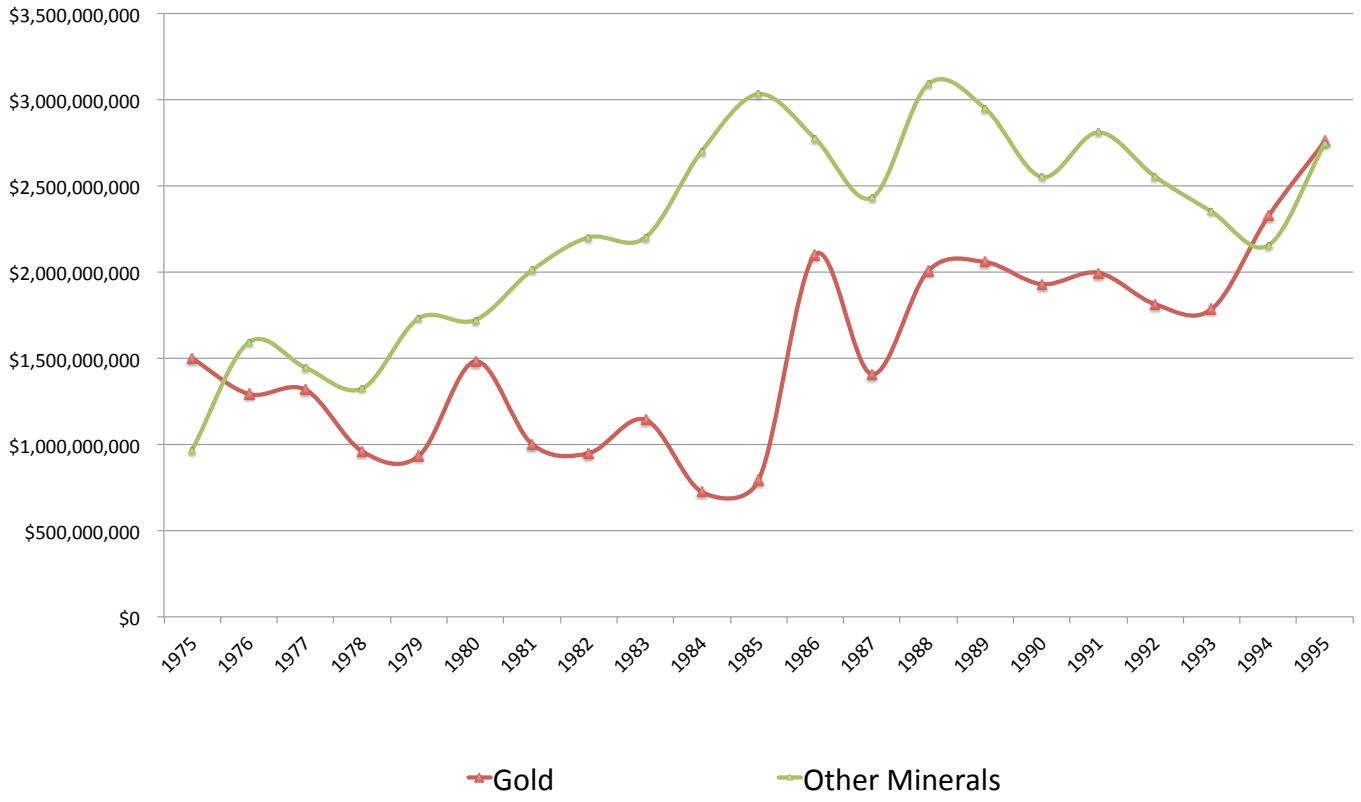


FIGURE D.1: GOLD AND MINERAL EXPORTS (NOMINAL US $), (1972 - 1996)

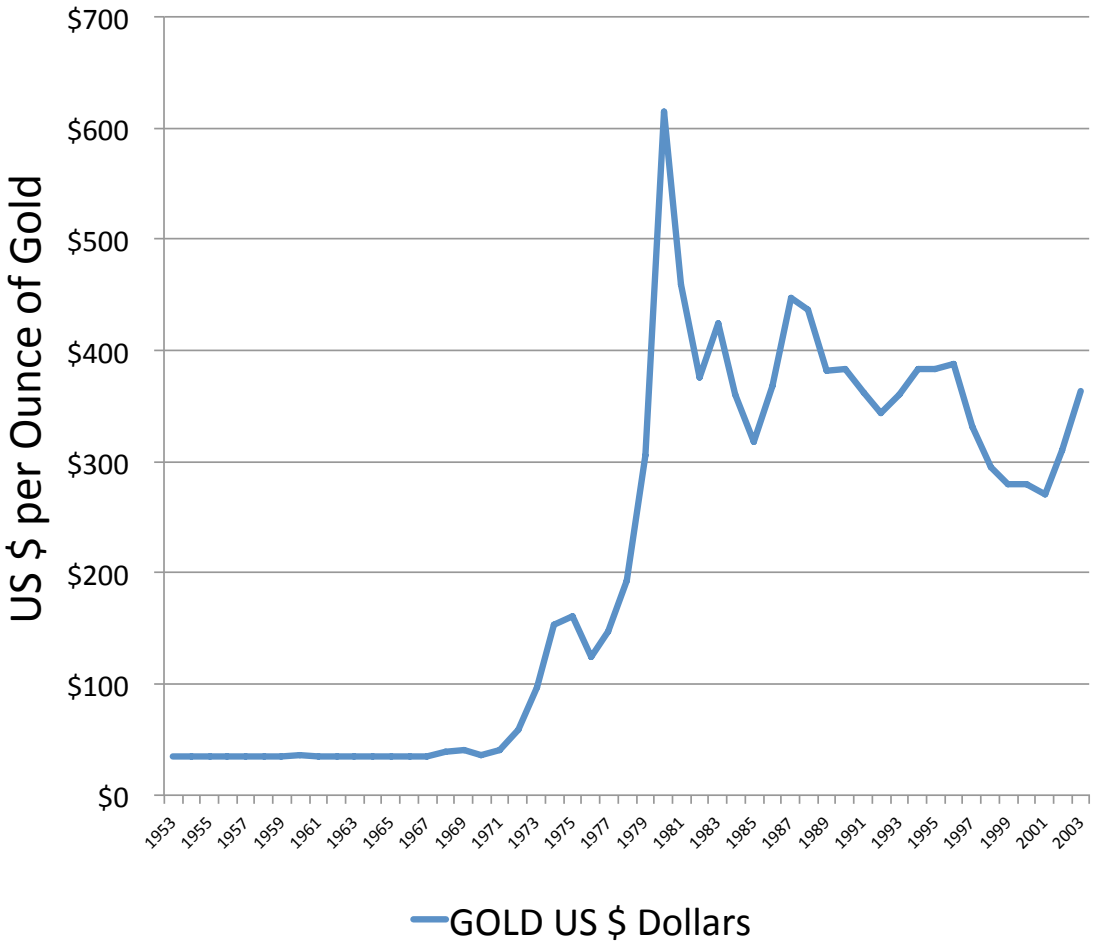


FIGURE D.2: GOLD PRICE PER OUNCE US $ (1953 - 2003)

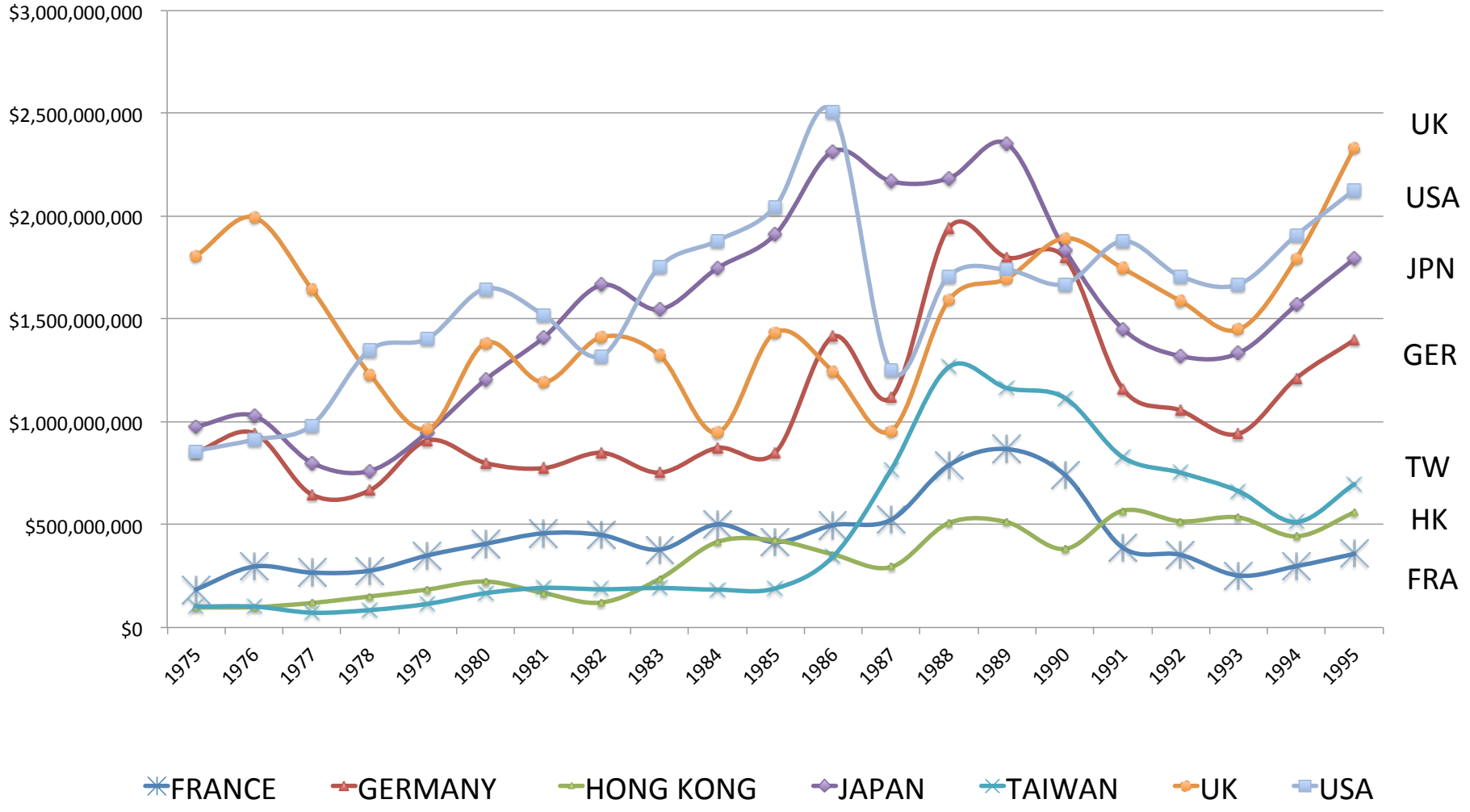


FIGURE D.3: TOTAL ANNUAL NOMINAL US $ EXPORT (1975 - 1995).

DIFFERENTIATED TAIWANESE EXPORTS PER SIC CLASSIFICATION (Percentage)

Year	Agriculture and Food	Specialist Chemicals or Allied Industries	Plastics and Rubber	Wood Manufactures	Textiles, Footwear & Clothing	Glass and Glassware	Appliances & Electrical Equipment	Transport Equipment	Optical & Photographic	Other
1975	70.80	4.93	0.17	0.02	0.19	3.02	5.18	1.61	0.66	13.41
1976	51.93	8.24	0.43	0.01	0.44	0.38	4.20	11.99	0.84	21.55
1977	60.03	6.81	0.68	5.52	6.20	0.58	14.85	2.58	0.36	2.38
1978	68.81	2.94	0.33	6.21	6.54	0.28	9.81	3.31	0.94	0.84
1979	57.16	7.74	2.06	2.66	4.72	4.51	6.98	2.04	1.63	10.49
1980	55.29	6.93	2.98	5.32	8.30	5.42	6.83	0.59	1.09	7.24
1981	60.14	8.88	3.01	3.75	6.76	2.66	5.11	1.05	0.50	8.14
1982	52.87	9.44	7.62	1.73	9.36	1.54	7.04	1.02	0.66	8.72
1983	44.57	18.90	8.45	0.53	8.98	1.48	2.46	0.12	1.31	13.21
1984	28.47	25.91	11.34	1.67	13.02	2.14	5.27	0.86	0.40	10.91
1985	34.16	20.66	11.25	2.01	13.27	3.59	5.44	1.42	0.30	7.89
1986	9.34	9.89	12.74	0.74	13.48	1.28	10.74	13.99	4.19	23.60
1987	6.30	7.38	7.46	0.81	8.27	2.57	13.40	8.69	9.14	35.96
1988	4.15	6.25	7.19	0.72	7.91	4.40	13.53	9.34	9.56	36.94
1989	3.42	5.17	6.90	0.62	7.52	4.70	14.26	8.28	11.96	37.18
1990	3.51	4.35	6.60	0.62	7.21	5.68	13.27	5.74	13.36	39.65
1991	17.91	19.98	11.18	1.87	13.04	1.00	6.73	5.64	0.14	22.51
1992	17.91	19.98	11.18	1.87	13.04	1.00	6.73	5.64	1.16	21.49
1993	14.21	25.52	5.59	4.90	10.50	1.28	6.42	4.34	0.18	27.06
1994	14.65	34.75	9.92	3.09	13.01	1.51	7.58	4.84	0.39	10.26
1995	11.04	30.72	13.32	3.40	16.72	2.11	10.74	4.19	0.90	6.86

TABLE D.5: SIC PERCENTAGE DIFFERENTIATED EXPORTS TO TAIWAN, AS % (1975 - 1995)

Appendix E

Appendix E - Chapter 5

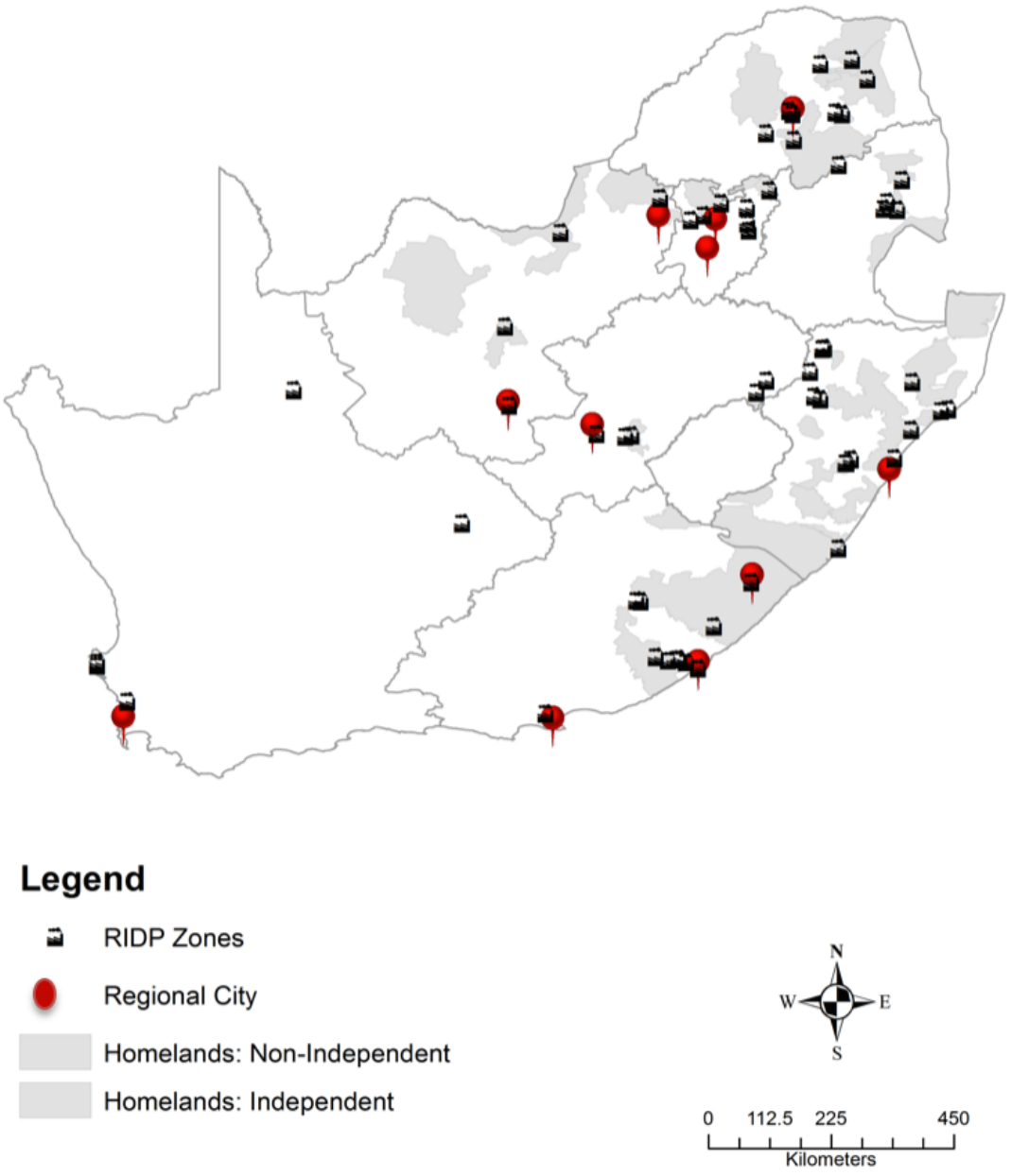


FIGURE E.1: MAP REPRESENTING THE DISTRIBUTION OF THE 63 ZONES IN THE FINAL RIDP PHASE, (1982).

Source: *Digitised from Regional Industrial Development Programme maps, The National Archive, Pretoria, RSA - TAB7678 - 01/79. RIDP industrial zones geocoded and recreated from archival reports on the application and creation of new zones, The National Archive, Pretoria, RSA TAB7678 - 01/79.*

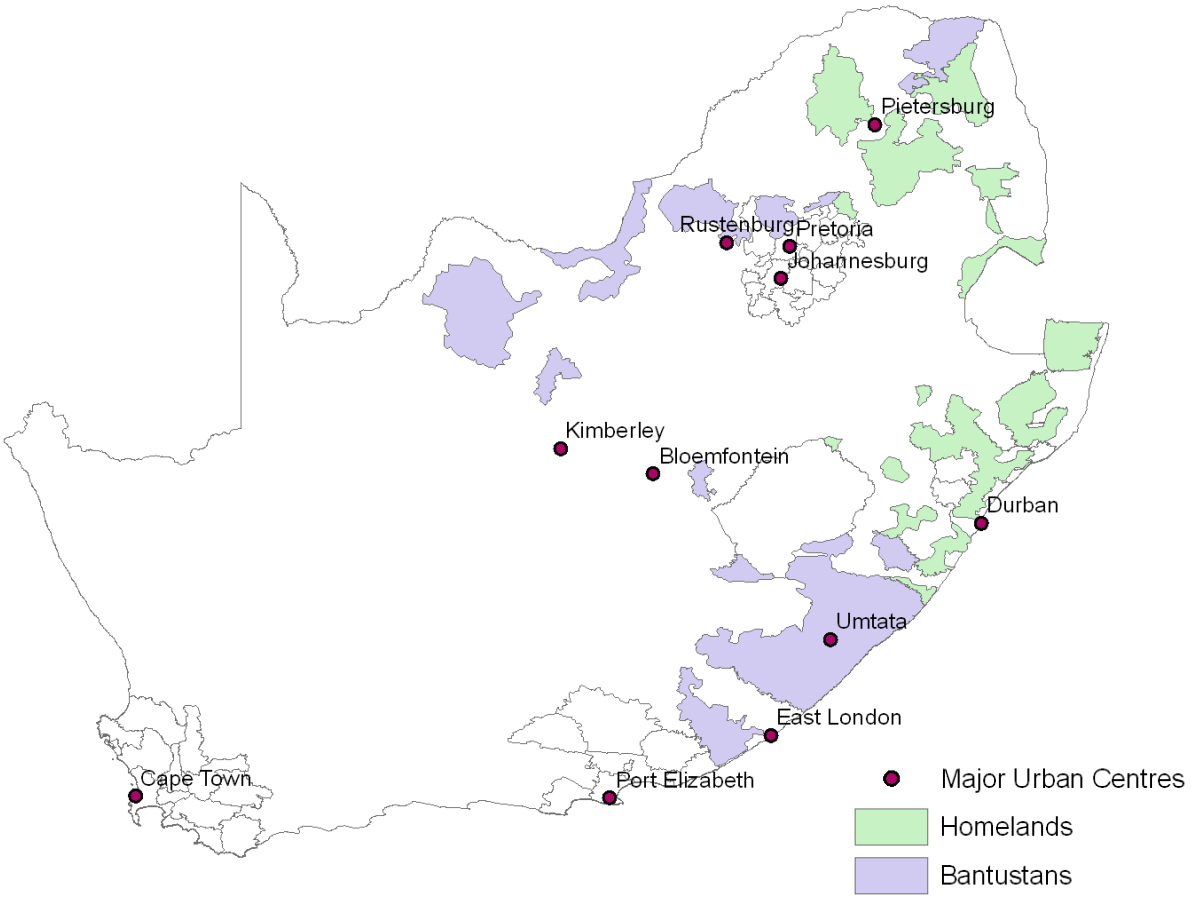


FIGURE E.2: PROXIMITY OF THE FOUR METROPOLITAN COMPLEXES TO THE AFRICAN RESERVES. THE CENSUS ENUMERATION AREAS (IN GREY) SURROUNDING THE URBAN COMPLEXES SHOW THE EXTENT TO WHICH THE REMAINDER OF THE COUNTRY WAS NEGLECTED IN MANUFACTURING WAGES CENSUS.

Source: *Digitised from Manufacturing Census Maps, Statistics South Africa.*

Transkei Today

Published by the Transkei Development Corporation, Umtata September 1987

TRANSKEI DEVELOPMENT CORPORATION

World's largest chopsticks factory opened at Langeni

THE biggest chopsticks manufacturing factory in the world was officially opened by the Prime Minister, Chief George Matanzima, near Umtata, recently.

The factory, which will supply over 400 million chopsticks a year to mainly Far East markets, has been established in Transkei by Taiwanese interests in association with the Transkei Development Corporation.

Built at a cost of R8,3-million, the factory — owned by Chopsticks Products Company (Pty) Ltd — will employ over 400 people, the majority of whom will be Transkeians.

At present just over 300 people are employed at the facility, situated in the heart of the Langeni forest, 48 km from Umtata.

The opening ceremony was attended by members of the Transkei Cabinet, the Transkei Army, senior civil servants, representatives of the Transkei Development Corporation, and the South African Ambassador.

The owner of the factory, Mr J Miyake, accompanied by his son, Daiki, flew from Japan to attend the ceremony.

The Prime Minister, after a speech to about 200 people, cut a ribbon at the entrance to the factory and then attended a Chinese lunch in the warehouse which had been converted into a banqueting hall.

Speeches were also delivered by the Minister of Commerce, Industry and Tourism, Mr T T Letlaka, as well as by the Managing Director of Chopsticks Products Company, Mr T C Wang, of Taiwan.

The opening ceremony was extensively featured on South African television as well as on radio services of Transkei and South Africa.

The Prime Minister, Chief George Matanzima, speaking at the official opening of the chopsticks factory near Umtata.

The Taiwanese Managing Director of Chopsticks Products, Mr T C Wang, addresses guests at the official opening of the factory.

A worker feeds a roll of specially treated wood into a chopstick cutting machine.

Mountains of chopsticks! Staff at work at the new factory.

FIGURE E.3: TRANSKEI DEVELOPMENT PUBLICATION ADVERTISING THE PRESENCE OF A TAIWANESE CHOPSTICK FACTORY.

Source: *Cullan Library Government Publications, University of the Witwatersrand, Johannesburg, South Africa.*

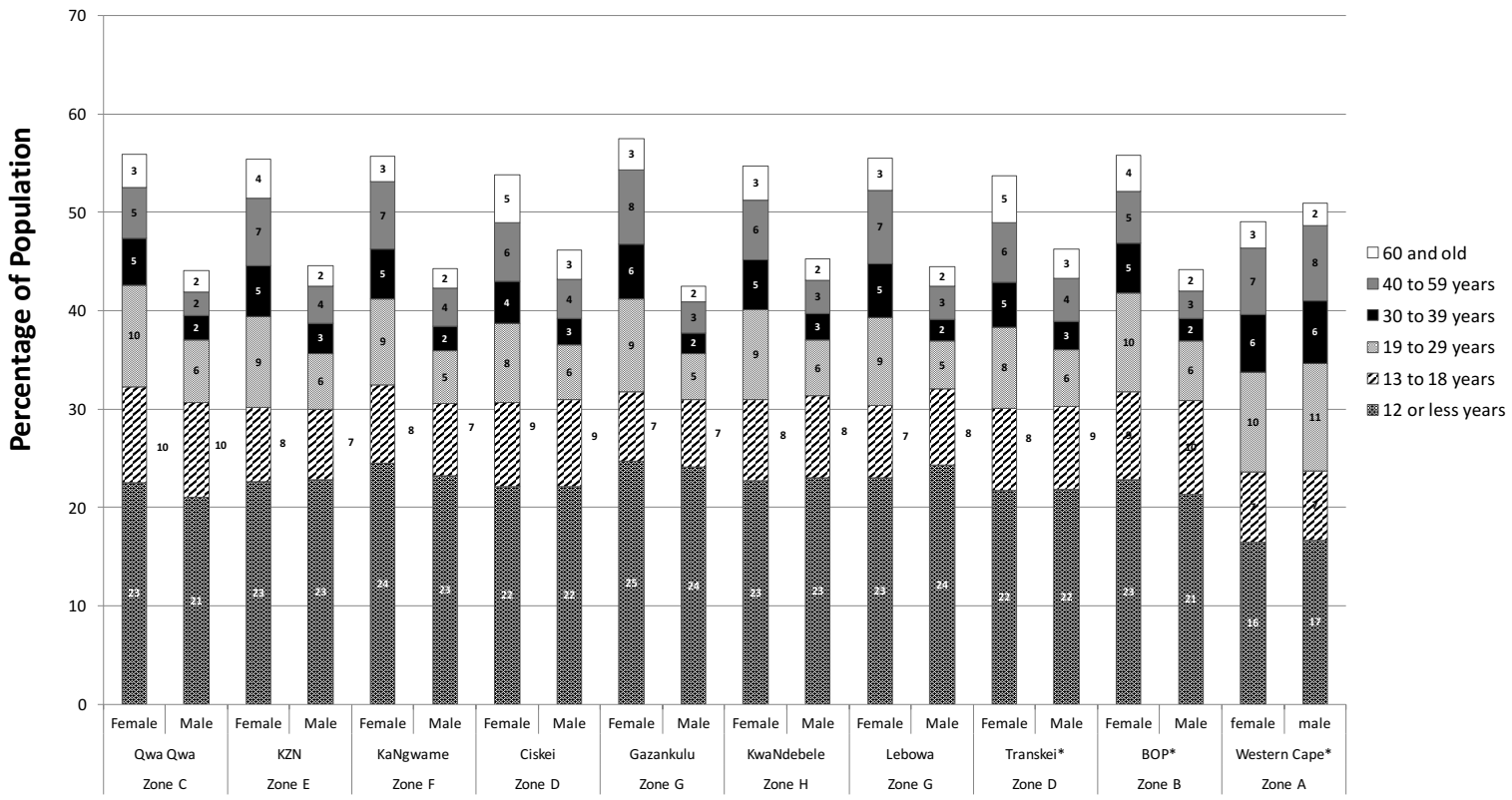


FIGURE E.4: AGGREGATE MALE AND FEMALE DEMOGRAPHIC IMBALANCE PER HOMELAND RIDP ZONE. (1978 - 1991).

Source: *1980 census and 1980 five per cent African census, and the BENSO man power study of the BOP. 1980 & 1985 compiled by Statistics South Africa and digitised by South African Data Archive (SADA), Central Statistics Service Report No. 02-80-02. 1980. Population Census, 1980. Pretoria. BENSO man power study, National Archive, Pretoria, RSA , TAB 4568-876.*

DISTANCE TO EXPORT PORTS				
RIDP ZONE	INCENTIVE CATEGORY	RIDP ZONE NAME	EXPORT PORT	DISTANCE (km's)
Region A	Industrial Development Point	Vredenburg	Cape Town	110
Region A	Industrial Development Point	Upington	Durban	989
Region A	Industrial Development Point	Upington	Cape Town	615
Region A	Industrial Development Point	Saldanha	Cape Town	105
Region A	Industrial Development Point	George	Port Elizabeth	310
Region A	Industrial Development Point	De Aar	Port Elizabeth	364
Region A	Deconcentration Point	Atlantis	Cape Town	35
Region B	Industrial Development Point	Pudimoe	East London	644
Region B	Industrial Development Point	Mafikeng	Durban	672
Region B	Deconcentration Point	Kimberley	Port Elizabeth	529
Region B	Industrial Development Point	Heystekrand	Durban	593
Region C	Industrial Development Point	Selosesha	East London	396
Region C	Industrial Development Point	Phuthaditjaba	Durban	257
Region C	Deconcentration Point	Harrismith	Durban	254
Region C	Industrial Development Point	Bothsabelo	East London	397
Region C	Deconcentration Point	Bloemfontein	East London	418
Region D	Industrial Development Point	Umtata	East London	165
Region D	Industrial Development Point	Queenstown	East London	148
Region D	Deconcentration Point	Port Elizabeth/Uitenhage	Port Elizabeth	25
Region D	Industrial Development Point	Mdandtsane	East London	20
Region D	Industrial Development Point	King Williams Town	East London	50
Region D	Industrial Development Point	Ezibeleni	East London	143
Region D	Deconcentration Point	East London	East London	4
Region D	Industrial Development Point	Dimbaza	East London	71
Region D	Industrial Development Point	Butterworth	East London	72
Region D	Industrial Development Point	Berlin South	East London	32
Region D	Industrial Development Point	Berlin	East London	34
Region E	Industrial Development Point	Ulundi	Durban	160
Region E	Industrial Development Point	Tongaat	Durban	31
Region E	Industrial Development Point	Swartkop	Durban	214
Region E	Industrial Development Point	Richards Bay	Durban	149
Region E	Industrial Development Point	Port Edward (proposed)	Durban	144
Region E	Deconcentration Point	Pietermartzburg	Durban	67
Region E	Industrial Development Point	Osizweni	Durban	235

TABLE E.1: SHORTEST RAILWAY PATH DISTANCE TO NEAREST EXPORT PORT FROM EACH RIDP ZONE.

Source: *Calculated using geocoded path distance function from each RIDP Zone.*

DISTANCE TO EXPORT PORTS (Continued)				
RIDP ZONE	INCENTIVE CATEGORY	RIDP ZONE NAME	EXPORT PORT	DISTANCE (km's)
Region E	Deconcentration Point	Newcastle	Durban	236
Region E	Industrial Development Point	Madadeni	Durban	235
Region E	Industrial Development Point	Ladysmith	Durban	179
Region E	Industrial Development Point	Isithebe	Durban	85
Region E	Industrial Development Point	Imbali	Durban	71
Region E	Industrial Development Point	Ezakeni	Durban	168
Region E	Industrial Development Point	Empangeni	Durban	139
Region E	Industrial Development Point	Edendale	Durban	73
Region F	Deconcentration Point	White River	Durban	452
Region F	Deconcentration Point	Nelspruit	Durban	441
Region F	Industrial Development Point	Mkhuhlu	Durban	489
Region F	Industrial Development Point	KaNgwane	Durban	439
Region G	Deconcentration Point	Tzaneen	Durban	606
Region G	Industrial Development Point	Thohoyandou	Durban	689
Region G	Industrial Development Point	Steelpoort	Durban	519
Region G	Industrial Development Point	Seshego	Durban	623
Region G	Deconcentration Point	Potgietesrus	Durban	599
Region G	Industrial Development Point	Nkowankowa	Durban	601
Region G	Deconcentration Point	Louis Trichardt	Port Elizabeth	1170
Region G	Deconcentration Point	Louis Trichardt	Durban	688
Region G	Industrial Development Point	Lebowakkgomo	Durban	575
Region G	Industrial Development Point	Giyani	Durban	655
Region H	Industrial Development Point	Kwandebele	Durban	499
Region H	Industrial Development Point	Garankuwa	Durban	526
Region H	Industrial Development Point	Ekangala	Durban	477
Region H	Deconcentration Point	Bronhkorstspruit	Durban	465
Region H	Deconcentration Point	Brits	Durban	533
Region H	Industrial Development Point	Babelegi	Durban	527

Table E.1.1 CONTINUED: Shortest Railway Path Distance.

RIDP RAILWAY TRANSPORT ESTIMATIONS						
Region	Zone Category	RIDP ZONE	PORT	StD Cost	DP Cost	IDP Cost
Region A	Deconcentration Point	Atlantis	Cape Town	R 223	R 201	R 109
Region A	Industrial Development Point	Saldanha	Cape Town	R 306	R 279	R 128
Region A	Industrial Development Point	Vredenburg	Cape Town	R 306	R 279	R 128
Region A	Industrial Development Point	George	Cape Town	R 555	R 500	R 264
Region A	Industrial Development Point	Upington	Cape Town	R 722	R 651	R 341
Region A	Industrial Development Point	De Aar	Cape Town	R 722	R 651	R 341
Region B	Deconcentration Point	Kimberley	Port Elizabeth	R 639	R 576	R 303
Region B	Industrial Development Point	Heystekrand	Durban	R 680	R 613	R 322
Region B	Industrial Development Point	Pudimoe	Port Elizabeth	R 763	R 687	R 361
Region B	Industrial Development Point	Mafikeng	Durban	R 763	R 687	R 361
Region C	Deconcentration Point	Harrismith	Durban	R 431	R 389	R 206
Region C	Industrial Development Point	Phuthaditjaba	Durban	R 431	R 389	R 206
Region C	Industrial Development Point	Selosesha	East London	R 514	R 463	R 245
Region C	Industrial Development Point	Bothsabelo	East London	R 514	R 463	R 245
Region C	Deconcentration Point	Bloemfontein	East London	R 555	R 500	R 264
Region D	Deconcentration Point	East London	East London	R 223	R 201	R 109
Region D	Industrial Development Point	Mdandtsane	East London	R 223	R 201	R 109
Region D	Deconcentration Point	Port Elizabeth/Uitenhage	Port Elizabeth	R 223	R 201	R 109
Region D	Industrial Development Point	Berlin South	East London	R 223	R 201	R 109
Region D	Industrial Development Point	Berlin	East London	R 223	R 201	R 109
Region D	Industrial Development Point	King Williams Town	East London	R 223	R 201	R 128
Region D	Industrial Development Point	Dimbaza	East London	R 265	R 239	R 128
Region D	Industrial Development Point	Butterworth	East London	R 265	R 239	R 128
Region D	Industrial Development Point	Ezibeleni	East London	R 306	R 279	R 128
Region D	Industrial Development Point	Queenstown	East London	R 306	R 279	R 128
Region D	Industrial Development Point	Umtata	East London	R 348	R 314	R 167
Region E	Industrial Development Point	Tongaat	Durban	R 223	R 201	R 109
Region E	Deconcentration Point	Pietermartzburg	Durban	R 265	R 239	R 128
Region E	Industrial Development Point	Imbali	Durban	R 265	R 239	R 128
Region E	Industrial Development Point	Edendale	Durban	R 265	R 239	R 128
Region E	Industrial Development Point	Isithebe	Durban	R 265	R 239	R 128
Region E	Industrial Development Point	Empangeni	Durban	R 306	R 279	R 128

TABLE E.2: Estimated railway costs for each of the RIDP zone categories in constant Rands: **(1) StD Cost** = Standard Base Rate without incentives, **(2) DP Cost** = Deconcentration Point & **(3) IDP Costs** = Industrial Decentralisation Point.

Source: *Calculated using geocoded path distance function from each RIDP Zone.*

RIDP RAILWAY TRANSPORT ESTIMATIONS (Continued)

Region	Zone Category	RIDP ZONE	PORT	StD Cost	DP Cost	IDP Cost
Region E	Industrial Development Point	Port Edward (proposed)	Durban	R 306	R 279	R 128
Region E	Industrial Development Point	Richards Bay	Durban	R 306	R 279	R 128
Region E	Industrial Development Point	Ulundi	Durban	R 348	R 314	R 167
Region E	Industrial Development Point	Ezakeni	Durban	R 348	R 314	R 167
Region E	Industrial Development Point	Ladysmith	Durban	R 348	R 314	R 167
Region E	Industrial Development Point	Swartkop	Durban	R 389	R 351	R 187
Region E	Industrial Development Point	Osizweni	Durban	R 389	R 351	R 187
Region E	Industrial Development Point	Madadeni	Durban	R 389	R 351	R 187
Region E	Deconcentration Point	Newcastle	Durban	R 389	R 351	R 187
Region F	Industrial Development Point	KaNgwane	Durban	R 555	R 500	R 264
Region F	Deconcentration Point	Nelspruit	Durban	R 555	R 500	R 264
Region F	Deconcentration Point	White River	Durban	R 597	R 538	R 283
Region F	Industrial Development Point	Mkhuhlu	Durban	R 597	R 538	R 283
Region G	Industrial Development Point	Steelpoort	Durban	R 639	R 576	R 303
Region G	Industrial Development Point	Lebowakkgomo	Durban	R 680	R 613	R 322
Region G	Deconcentration Point	Potgietesrus	Durban	R 680	R 613	R 322
Region G	Industrial Development Point	Nkowankowa	Durban	R 722	R 651	R 341
Region G	Deconcentration Point	Tzaneen	Durban	R 722	R 651	R 341
Region G	Deconcentration Point	Pietersburg	Durban	R 722	R 651	R 341
Region G	Industrial Development Point	Seshego	Durban	R 722	R 651	R 341
Region G	Industrial Development Point	Giyani	Durban	R 763	R 687	R 361
Region G	Deconcentration Point	Louis Trichardt	Durban	R 763	R 687	R 361
Region G	Industrial Development Point	Thohoyandou	Durban	R 763	R 687	R 361
Region H	Deconcentration Point	Bronhkorstspruit	Durban	R 597	R 538	R 283
Region H	Industrial Development Point	Ekangala	Durban	R 597	R 538	R 283
Region H	Industrial Development Point	Kwandebele	Durban	R 597	R 538	R 283
Region H	Industrial Development Point	KwaNdebele -Siyabuswa	Durban	R 639	R 576	R 303
Region H	Industrial Development Point	Garankuwa	Durban	R 639	R 576	R 303
Region H	Industrial Development Point	Babelegi	Durban	R 639	R 576	R 303
Region H	Deconcentration Point	Brits	Durban	R 639	R 576	R 303

Table E.2.1 CONTINUED: Estimated railway costs for each of the RIDP zone categories.
***(1) StD Cost** = Standard Base Rate without incentives, **(2) DP Cost** = Deconcentration Point & **(3) IDP Costs** = Industrial Decentralisation Point.*

TOTAL SCHEDULE OF INCENTIVES AND CONCESSION ACROSS ALL RIDP ZONES

Development Region	Name of Area	Rail Rebate (%)	Total wage bill (%)	Max Wages R's per month	Training Grant	Rental and Interest Subsidy (%)	Housing Subsidy (% of interest rate)	Relocation Allowance	Tender preference (%)
Region A									
Industrial Development Point									
	George	40	80	70	Yes	40	40	Yes	5
	De Aar	40	80	70	Yes	40	40	Yes	5
	Vredenburg/Saldanha	40	80	70	Yes	40	40	Yes	5
	Walvis Bay	40	80	70	Yes	40	40	Yes	5
	Upington	40	80	70	Yes	40	40	Yes	5
Deconcentration Points									
	Atlantis	40	80	70	Yes	40	40	Yes	4
Region B									
Industrial Development Point									
	Kimberley	40	80	70	Yes	40	40	Yes	5
	Heystekrand	40	80	80	Yes	45	40	Yes	10
BOP	Mafikeng	40	80	80	Yes	45	40	Yes	10
	Pudimoe	40	80	80	Yes	45	40	Yes	10
Region C									
Industrial Development Point	Bloemfontein	40	80	70	Yes	40	40	Yes	5
	Harrismith	40	80	70	Yes	40	40	Yes	5
QwaQwa	Phuthaditjaba	40	95	110	Yes	75	40	Yes	10
	Onverwacht	40	95	100	Yes	70	40	Yes	10
BOP	Selosesha	40	95	100	Yes	70	40	Yes	10
	Bothsabelo	40	95	100	Yes	70	40	Yes	10

TABLE E.3: DISAGGREGATED RIDP INCENTIVES SCHEDULE PER ZONE, (1982 - 1992).

Source: *Compiled from the Board for the Decentralisation of Industry; pamphlet on proposed RIDP incentives (1981). The National Archives, Pretoria, RSA. Box: TAB 7869 - ZA/09*

Development Region	Name of Area	Rail Rebate (%)	Total wage bill (%)	Max Wages R's per month	Training Grant	Rental and Interest Subsidy (%)	Housing Subsidy (% of interest rate)	Relocation Allowance	Tender preference (%)
Region D									
Industrial Development Point	Berlin	40	80	100	Yes	60	60	Yes	5
	King Williams Town	40	80	100	Yes	60	60	Yes	5
	East London	40	80	100	Yes	60	60	Yes	5
	Queenstown	40	80	100	Yes	60	60	Yes	5
Transkei	Butterworth	60	95	110	Yes	80	60	Yes	10
	Umtata	60	95	110	Yes	80	60	Yes	10
	Ezibeleni	60	95	110	Yes	80	60	Yes	10
Ciskei	Dimbaza	60	95	110	Yes	80	60	Yes	10
	Mdansane	60	95	110	Yes	80	60	Yes	10
	Berlin South	60	95	110	Yes	80	60	Yes	10
Metro	Port Elizabeth/Uitenhage	20	no	no	No	no	no	No	no
Region E									
Industrial Development Point	Ladysmith	50	80	80	Yes	45	50	Yes	5
	Newcastle	50	80	80	Yes	45	50	Yes	5
	Richards Bay	50	80	80	Yes	45	50	Yes	5
	Empangeni	50	80	80	Yes	45	50	Yes	5
	Port Edward (proposed)	50	80	80	Yes	45	50	Yes	5
Zululand	Isithebe	50	95	105	Yes	70	50	Yes	10
	Ulundi	50	95	105	Yes	70	50	Yes	10
	Ezakeni	50	95	105	Yes	70	50	Yes	10
	Madadeni	50	95	105	Yes	70	50	Yes	10
	Osizweni	50	95	105	Yes	70	50	Yes	10
	Verulum (Proposed)	50	95	105	Yes	70	50	Yes	10
Deconcentration Point	Pietermartzburg	20	80	25	Yes	15	20	Yes	4
	Tongaat	20	80	30	Yes	20	20	Yes	4
	Imbali	20	80	35	Yes	25	20	Yes	4
	Swartkop	20	80	35	Yes	25	20	Yes	4
	Edendale	20	80	35	Yes	25	20	Yes	4

Table E.3.1 CONTINUED: Disaggregated RIDP Incentives Schedule per Zone.

Development Region	Name of Area	Rail Rebate (%)	Total wage bill (%)	Max Wages R's per month	Training Grant	Rental and Interest Subsidy (%)	Housing Subsidy (% of interest rate)	Relocation Allowance	Tender preference (%)
Region F									
Industrial Development Point	Nelspruit	40	80	70	Yes	40	40	Yes	5
	White River	40	95	110	Yes	70	40	Yes	10
Gazankulu	Mkhuhlu	40	95	110	Yes	70	40	Yes	10
Kangwane	KaNgwane	40	95	110	Yes	70	40	Yes	10
Region G									
Industrial Development Point	Pietersburg	50	80	90	Yes	50	50	Yes	5
	Louis Trichardt	50	80	90	Yes	50	50	Yes	5
	Potgietesrus	50	80	90	Yes	50	50	Yes	5
	Tzaneen	50	80	90	Yes	50	50	Yes	5
Venda	Thohoyandou	50	95	110	Yes	70	50	Yes	10
Lebowa	Seshego	50	95	100	Yes	60	50	Yes	10
	Lebowakkgomo	50	95	110	Yes	70	50	Yes	10
	Steelpoort	50	95	110	Yes	70	50	Yes	10
Ga'zankulu	Giyani	50	95	110	Yes	70	50	Yes	10
	Nkowakowa	50	95	110	Yes	70	50	Yes	10
Region H									
Deconcentration Points	Bronkhorstspruit	No	80	30	Yes	20	20	Yes	4
	Brits	No	80	30	Yes	20	20	Yes	4
BOP	Babelegi	No	80	30	Yes	20	20	Yes	4
	Ga'rankuwa	No	80	35	Yes	25	20	Yes	4
KwaNdebele	Kwandebele					40	20		
	Ekangala					40	20		

Table E.3.2 CONTINUED: Disaggregated RIDP Incentives Schedule per Zone.

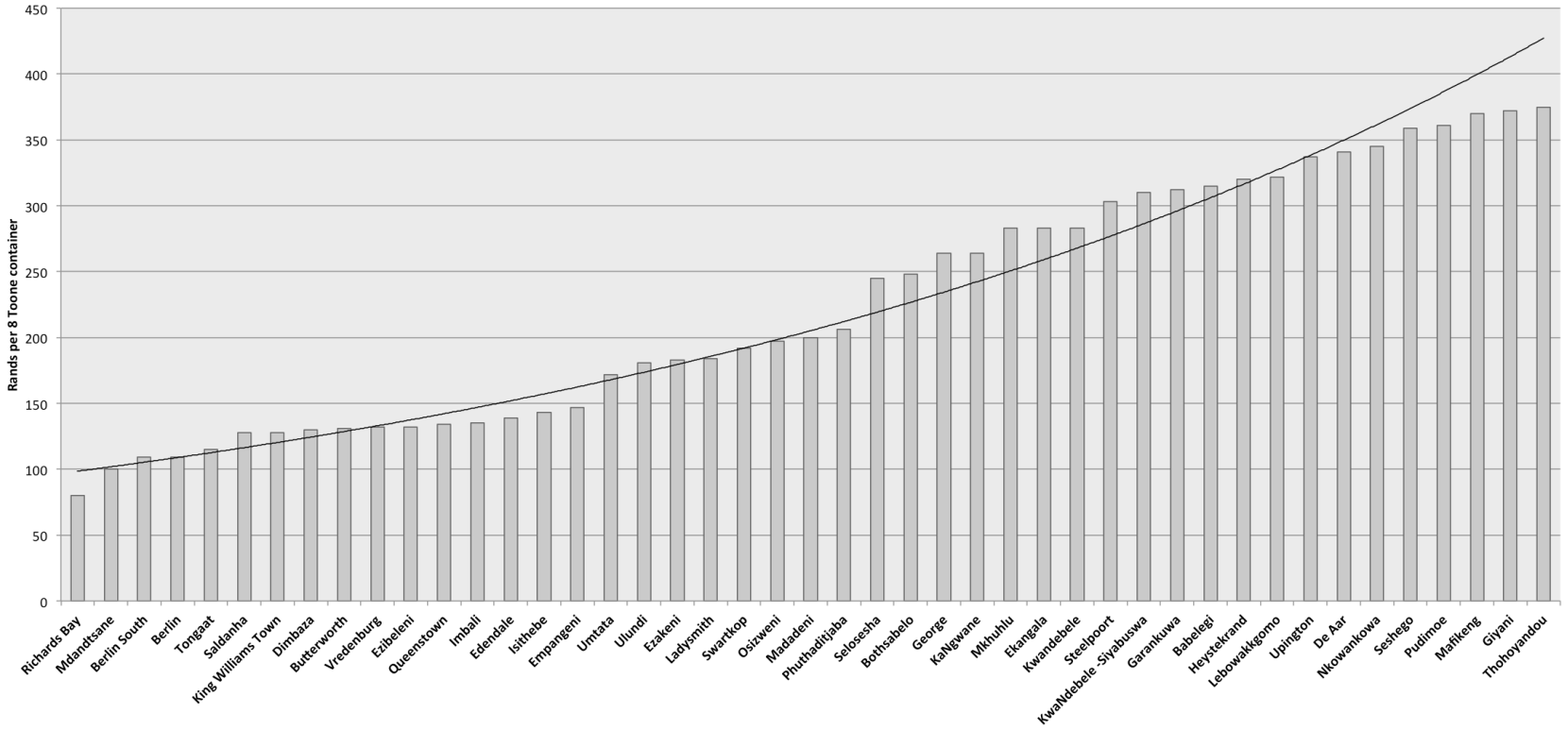


FIGURE E.5: RAILWAY COST CURVE, REPRESENTING THE RAND COST OF TRANSPORTING A CONTAINER FROM EACH RIDP ZONE TO ITS CLOSEST SHIPPING PORT (1980 - 1991).

Source: *Calculated using GIS and the Railway Gazette (1980)*

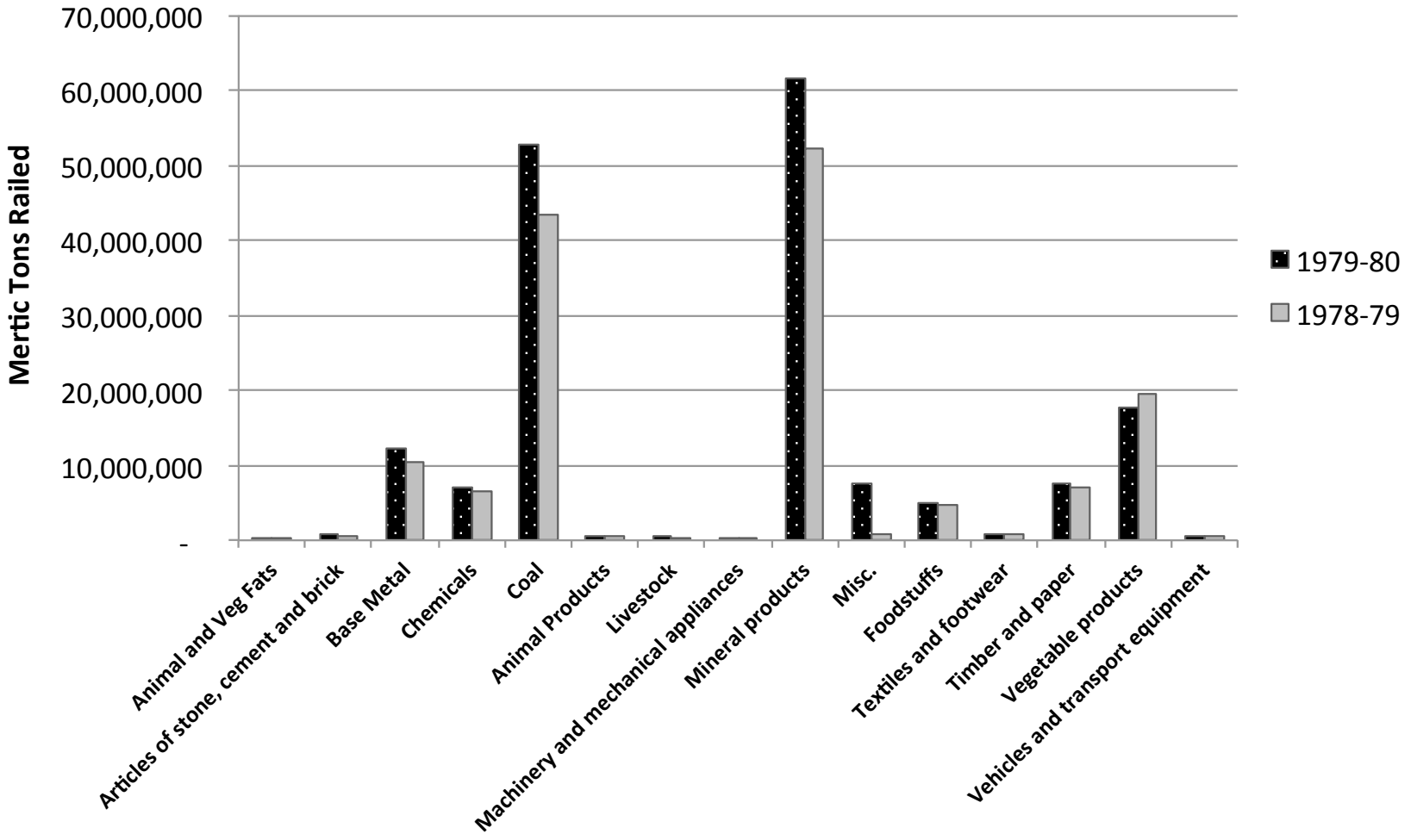


FIGURE E.6: TONNAGE RAILED (1978 AND 1980).

Source: *Compiled from the South African Railway and Harbour Annual Reports (1978 - 1980). Transnet Library & Archive Collection, Johannesburg, RSA.*

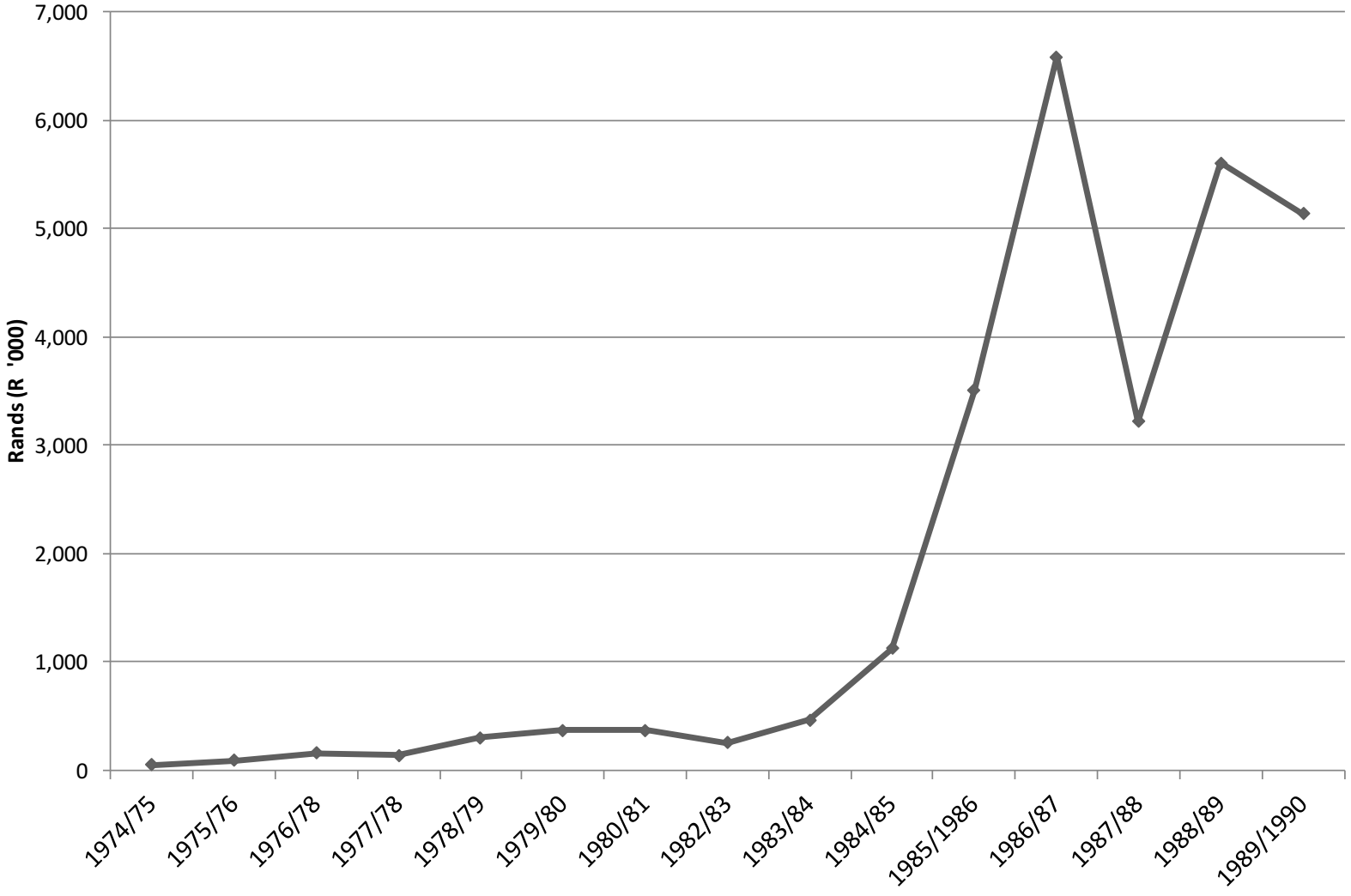


FIGURE E.7: ANNUAL RIDP EXPENDITURE ON HARBOUR TARIFF CONCESSIONS, (1980 - 1991).

Source: *Compiled from the Board for the Decentralisation of Industry annual reports, 1974 - 1991. The National Archives, Pretoria, RSA. TAB 7869 - ZA - Series, 1971 - 1991*

Interest and Rental Subsidy

Development Region	Name of Area	Rental and Interest Subsidy (% of interest rate)	Housing Subsidy (% of interest rate)
Region A			
Industrial Development Point			
	George	40	40
	De Aar	40	40
	Vredenburg/Saldanha	40	40
	Walvis Bay	40	40
	Upington	40	40
Deconcentration Points			
	Atlantis	40	40
Region B			
Industrial Development Point			
	Kimberley	40	40
	Heystekrand	45	40
BOP	Mafikeng	45	40
	Pudimoe	45	40
Region C			
Industrial Development Point	Bloemfontein	40	40
	Harrismith	40	40
QwaQwa	Phuthaditjaba	75	40
	Onverwacht	70	40
BOP	Selosesha	70	40
	Bothsabelo	70	40
Region D			
Industrial Development Point	Berlin	60	60
	King Williams Town	60	60
	East London	60	60
	Queenstown	60	60
Transkei	Butterworth	80	60
	Umtata	80	60
	Ezibeleni	80	60
Ciskei	Dimbaza	80	60
	Mdansane	80	60
	Berlin South	80	60
Metro	Port Elizabeth/Uitenhage	no	no

TABLE E.4: RIDP INTEREST AND RENTAL SUBSIDY SCHEDULE PER ZONE, (1982 - 1992).

Source: *Compiled from the Board for the Decentralisation of Industry; pamphlet on proposed RIDP incentives (1981). The National Archives, Pretoria, RSA. Box: TAB 7869 - ZA/09*

Development Region	Name of Area	Rental and Interest Subsidy (% of interest rate)	Housing Subsidy (% of interest rate)
Region E			
Industrial Development Point	Ladysmith	45	50
	Newcastle	45	50
	Richards Bay	45	50
	Empangeni	45	50
	Port Edward (proposed)	45	50
Zululand	Isithebe	70	50
	Ulundi	70	50
	Ezakeni	70	50
	Madadeni	70	50
	Osizweni	70	50
	Verulum (Proposed)	70	50
Deconcentration Point	Pietermartzburg	15	20
	Tongaat	20	20
	Imbali	25	20
	Swartkop	25	20
	Edendale	25	20
Region F			
Industrial Development Point	Nelspruit	40	40
	White River	70	40
Gazankulu	Mkhuhlu	70	40
Kangwane	KaNgwane	70	40
Region G			
Industrial Development Point	Pietersburg	50	50
	Louis Trichardt	50	50
	Potgietesrus	50	50
	Tzaneen	50	50
Venda	Thohoyandou	70	50
Lebowa	Seshego	60	50
	Lebowakkgomo	70	50
	Steelpoort	70	50
Ga'zankulu	Giyani	70	50
	Nkowakowa	70	50
Region H			
Deconcentration Points	Bronkhorstspruit	20	20
	Brits	20	20
BOP	Babelegi	20	20
	Ga'rankuwa	25	20
KwaNdebele	Kwandebele	40	20
	Ekangala	40	20

Table E.5.1 CONTINUED: RIDP Interest and Rental Subsidy Schedule per Zone.

RIDP FIRMS IN THE FINAL YEAR OF THE GOOD HOPE RIDP

Region	Category	SEZ	Taiwanese	Domestic	*Region*	Category	SEZ	Taiwanese	Domestic
Region A	*Deconcentration Points*	Atlantis	0	141	Region E	Industrial Development Point	Isithebe	0	273
Region A	*Industrial Development Point*	George	0	135	Region E	Industrial Development Point	Ladysmith	0	55
Region A	*Industrial Development Point*	Saldanha	0	15	Region E	*Deconcentration Points*	Pietermartzburg	6	165
Region A	*Industrial Development Point*	Vredenburg	0	30	Region E	Industrial Development Point	Port Edward	0	0
Region B	*Industrial Development Point*	De Aar	0	3	Region E	Industrial Development Point	Richards Bay	0	80
Region B	*Industrial Development Point*	Heystekrand	0	0	Region E	Industrial Development Point	Swartkop	0	0
Region B	*Deconcentration Points*	Kimberley	0	61	Region E	Industrial Development Point	Tongaat	18	39
Region B	*Industrial Development Point*	Mafikeng	0	0	Region E	Industrial Development Point	Ulundi	0	0
Region B	*Industrial Development Point*	Pudimoe	0	0	Region F	Industrial Development Point	Kabokweni	0	39
Region B	*Industrial Development Point*	Upington	0	23	Region F	Industrial Development Point	KaNgwane	15	0
Region C	*Deconcentration Points*	Bloemfontein	6	178	Region F	*Deconcentration Points*	Nelspruit	10	54
Region C	Industrial Development Point	Bothsabelo	69	54	Region F	Industrial Development Point	Rocky's Drft	0	12
Region C	*Deconcentration Points*	Harrismith	2	19	Region F	*Deconcentration Points*	White River	2	26
Region C	Industrial Development Point	Industriqwa	0	16	Region G	Industrial Development Point	Giyani	0	9
Region C	Industrial Development Point	Phuthaditjaba	10	176	Region G	Industrial Development Point	Lebowakkgomo	5	18
Region C	Industrial Development Point	Selosesha	7	0	Region G	*Deconcentration Points*	Louis Trichardt	0	44
Region D	Industrial Development Point	Berlin	0	21	Region G	*Deconcentration Points*	Messina	0	16
Region D	Industrial Development Point	Berlin South	0	0	Region G	Industrial Development Point	Mkhuhlu	0	21
Region D	Industrial Development Point	Butterworth	11	0	Region G	Industrial Development Point	Nkowankowa	0	87
Region D	Industrial Development Point	Dimbaza	27	7	Region G	*Deconcentration Points*	Pietersburg	0	115
Region D	*Deconcentration Points*	East London	0	367	Region G	*Deconcentration Points*	Potgietesrus	0	80
Region D	Industrial Development Point	Ezibeleni	0	0	Region G	Industrial Development Point	Seshego	0	84
Region D	Industrial Development Point	King Williams Town	0	34	Region G	Industrial Development Point	Steelpoort	0	0
Region D	Industrial Development Point	Mdandtsane	0	165	Region G	Industrial Development Point	Thohoyandou	0	0
Region D	*Deconcentration Points*	P.E./Uitenhage	0	259	Region G	*Deconcentration Points*	Tzaneen	0	40
Region D	Industrial Development Point	Queenstown	0	37	Region H	Industrial Development Point	Babelegi	8	0
Region D	Industrial Development Point	Umtata	11	12	Region H	*Deconcentration Points*	Brits	0	46
Region E	Industrial Development Point	Edendale	0	0	Region H	*Deconcentration Points*	Bronkhorstspruit	10	19
Region E	Industrial Development Point	Empangeni	0	61	Region H	Industrial Development Point	Ekangala	5	92
Region E	Industrial Development Point	Ezakeni	2	99	Region H	Industrial Development Point	Garankuwa	15	0
Region E	Industrial Development Point	Imbali	0	0	Region H	Industrial Development Point	KwaNdebele	6	21
TOTAL								**306**	**3485**

FIGURE E.8: TAIWANESE AND DOMESTIC RIDP INVESTMENT PER ZONE, (1992).

Source: *Compiled from the Board for the Decentralisation of Industry (National Archives), and Taiwanese Trade Association almanac (ATCC).*

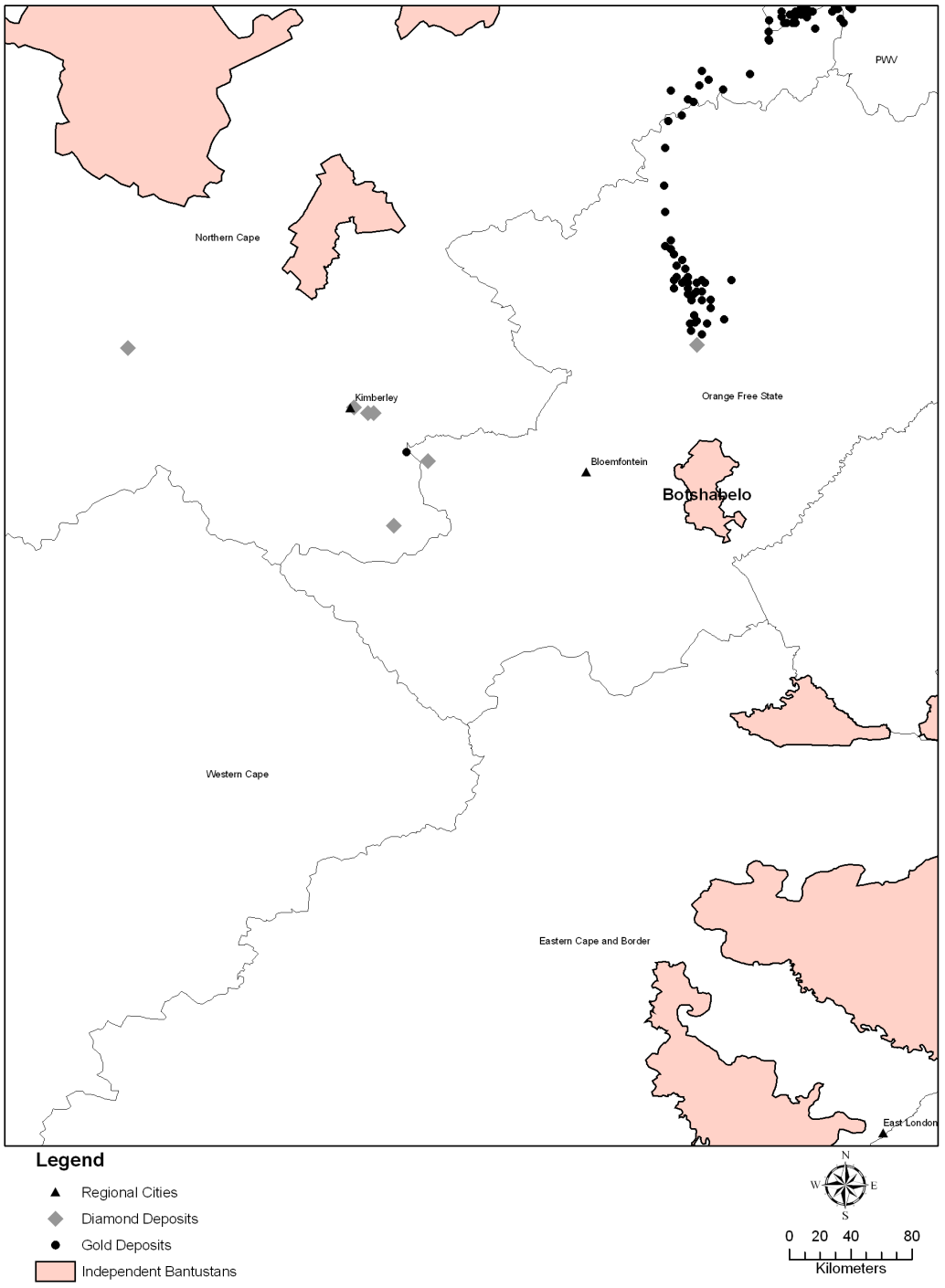


FIGURE E.9: BOTSHABELO RIDP COMPLEX

Appendix F

Appendix F - Data Appendix

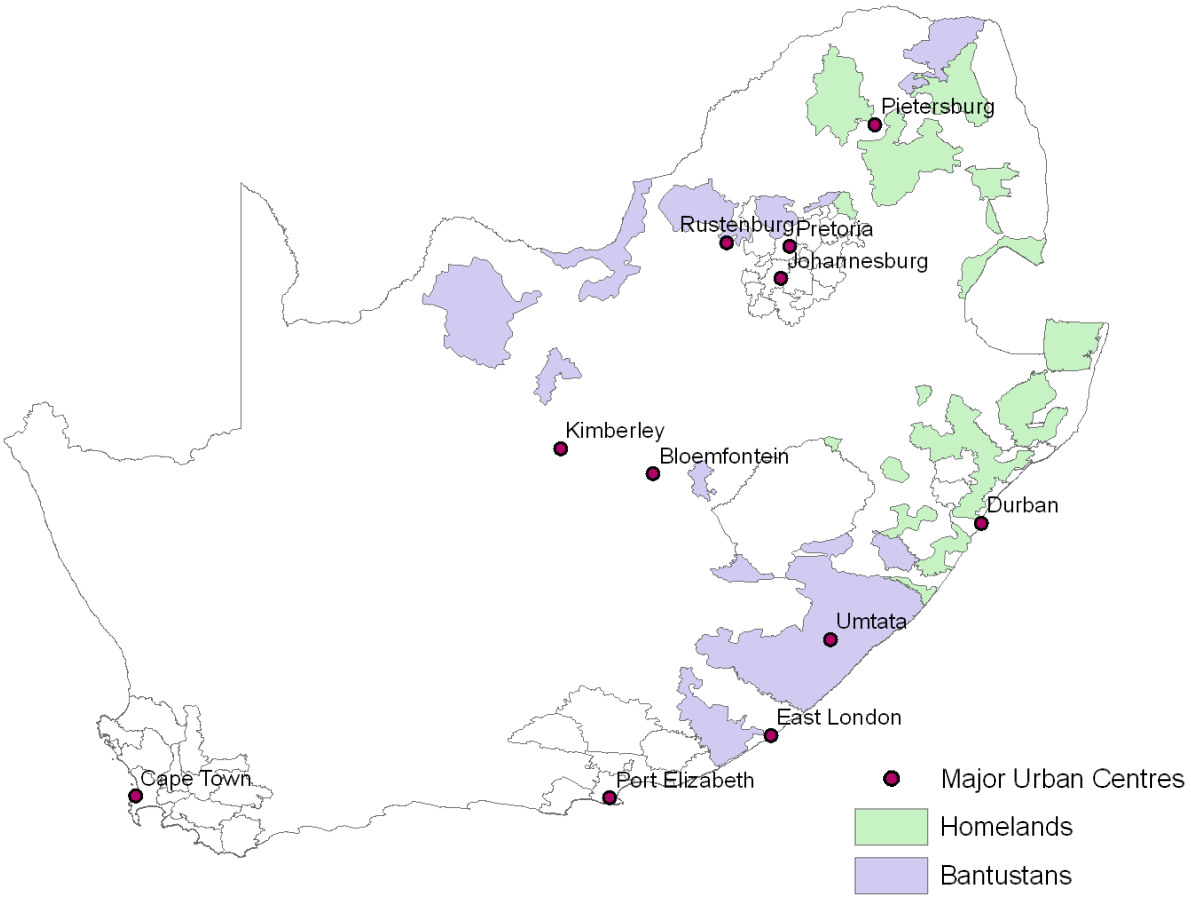


FIGURE F.1: PROXIMITY OF THE FOUR METROPOLITAN COMPLEXES TO THE AFRICAN RESERVES. THE CENSUS ENUMERATION AREAS (IN GREY) SURROUNDING THE URBAN COMPLEXES SHOW THE EXTENT TO WHICH THE REMAINDER OF THE COUNTRY WAS NEGLECTED IN MANUFACTURING WAGES CENSUS.

Source: *Digitised from Manufacturing Census Maps, Statistics South Africa.*

TOTAL SCHEDULE OF INCENTIVES AND CONCESSION ACROSS ALL RIDP ZONES

Development Region	Name of Area	Rail Rebate (%)	Total wage bill (%)	Max Wages R's per month	Training Grant	Rental and Interest Subsidy (%)	Housing Subsidy (% of interest rate)	Relocation Allowance	Tender preference (%)
Region A									
Industrial Development Point									
	George	40	80	70	Yes	40	40	Yes	5
	De Aar	40	80	70	Yes	40	40	Yes	5
	Vredenburg/Saldanha	40	80	70	Yes	40	40	Yes	5
	Walvis Bay	40	80	70	Yes	40	40	Yes	5
	Upington	40	80	70	Yes	40	40	Yes	5
Deconcentration Points									
	Atlantis	40	80	70	Yes	40	40	Yes	4
Region B									
Industrial Development Point									
	Kimberley	40	80	70	Yes	40	40	Yes	5
	Heystekrand	40	80	80	Yes	45	40	Yes	10
BOP	Mafikeng	40	80	80	Yes	45	40	Yes	10
	Pudimoe	40	80	80	Yes	45	40	Yes	10
Region C									
Industrial Development Point	Bloemfontein	40	80	70	Yes	40	40	Yes	5
	Harrismith	40	80	70	Yes	40	40	Yes	5
QwaQwa	Phuthaditjaba	40	95	110	Yes	75	40	Yes	10
	Onverwacht	40	95	100	Yes	70	40	Yes	10
BOP	Selosesha	40	95	100	Yes	70	40	Yes	10
	Bothsabelo	40	95	100	Yes	70	40	Yes	10

TABLE F.1: DISAGGREGATED RIDP INCENTIVES SCHEDULE PER ZONE, (1982 - 1992).

Source: *Compiled from the Board for the Decentralisation of Industry; pamphlet on proposed RIDP incentives (1981). The National Archives, Pretoria, RSA. Box: TAB 7869 - ZA/09*

Development Region	Name of Area	Rail Rebate (%)	Total wage bill (%)	Max Wages R's per month	Training Grant	Rental and Interest Subsidy (%)	Housing Subsidy (% of interest rate)	Relocation Allowance	Tender preference (%)
Region D									
Industrial Development Point	Berlin	40	80	100	Yes	60	60	Yes	5
	King Williams Town	40	80	100	Yes	60	60	Yes	5
	East London	40	80	100	Yes	60	60	Yes	5
	Queenstown	40	80	100	Yes	60	60	Yes	5
Transkei	Butterworth	60	95	110	Yes	80	60	Yes	10
	Umtata	60	95	110	Yes	80	60	Yes	10
	Ezibeleni	60	95	110	Yes	80	60	Yes	10
Ciskei	Dimbaza	60	95	110	Yes	80	60	Yes	10
	Mdansane	60	95	110	Yes	80	60	Yes	10
	Berlin South	60	95	110	Yes	80	60	Yes	10
Metro	Port Elizabeth/Uitenhage	20	no	no	No	no	no	No	no
Region E									
Industrial Development Point	Ladysmith	50	80	80	Yes	45	50	Yes	5
	Newcastle	50	80	80	Yes	45	50	Yes	5
	Richards Bay	50	80	80	Yes	45	50	Yes	5
	Empangeni	50	80	80	Yes	45	50	Yes	5
	Port Edward (proposed)	50	80	80	Yes	45	50	Yes	5
Zululand	Isithebe	50	95	105	Yes	70	50	Yes	10
	Ulundi	50	95	105	Yes	70	50	Yes	10
	Ezakeni	50	95	105	Yes	70	50	Yes	10
	Madadeni	50	95	105	Yes	70	50	Yes	10
	Osizweni	50	95	105	Yes	70	50	Yes	10
	Verulum (Proposed)	50	95	105	Yes	70	50	Yes	10
Deconcentration Point	Pietermartzburg	20	80	25	Yes	15	20	Yes	4
	Tongaat	20	80	30	Yes	20	20	Yes	4
	Imbali	20	80	35	Yes	25	20	Yes	4
	Swartkop	20	80	35	Yes	25	20	Yes	4
	Edendale	20	80	35	Yes	25	20	Yes	4

Table F.1.1 CONTINUED: Disaggregated RIDP Incentives Schedule per Zone.

Development Region	Name of Area	Rail Rebate (%)	Total wage bill (%)	Max Wages R's per month	Training Grant	Rental and Interest Subsidy (%)	Housing Subsidy (% of interest rate)	Relocation Allowance	Tender preference (%)
Region F									
Industrial Development Point	Nelspruit	40	80	70	Yes	40	40	Yes	5
	White River	40	95	110	Yes	70	40	Yes	10
Gazankulu	Mkhuhlu	40	95	110	Yes	70	40	Yes	10
Kangwane	KaNgwane	40	95	110	Yes	70	40	Yes	10
Region G									
Industrial Development Point	Pietersburg	50	80	90	Yes	50	50	Yes	5
	Louis Trichardt	50	80	90	Yes	50	50	Yes	5
	Potgietesrus	50	80	90	Yes	50	50	Yes	5
	Tzaneen	50	80	90	Yes	50	50	Yes	5
Venda	Thohoyandou	50	95	110	Yes	70	50	Yes	10
Lebowa	Seshego	50	95	100	Yes	60	50	Yes	10
	Lebowakkgomo	50	95	110	Yes	70	50	Yes	10
	Steelpoort	50	95	110	Yes	70	50	Yes	10
Ga'zankulu	Giyani	50	95	110	Yes	70	50	Yes	10
	Nkowakowa	50	95	110	Yes	70	50	Yes	10
Region H									
Deconcentration Points	Bronkhorstspruit	No	80	30	Yes	20	20	Yes	4
	Brits	No	80	30	Yes	20	20	Yes	4
BOP	Babelegi	No	80	30	Yes	20	20	Yes	4
	Ga'rankuwa	No	80	35	Yes	25	20	Yes	4
KwaNdebele	Kwandebele					40	20		
	Ekangala					40	20		

Table F.1.2 CONTINUED: Disaggregated RIDP Incentives Schedule per Zone.

RIDP MANUFACTURING WAGES

	RIDP Site	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	*N*	*Ave'*
Wages: Rands per month																	
Zone A	**Atlantis**		90 (14)		90 (38)	99.5 (31)		104 (24)			100 (31)					5	96.70
	George		90 (14)			99.5 (31)		109.5 (24)				98 (31)				4	99.25
	Saldanha		89 (14)			99 (31)		94 (24)					97 (31)			4	94.75
	Vredenburg		89 (14)			84 (31)		92.5 (24)					95 (31)			4	90.13
Zone B	**Kimberly**	34.6 (19)			64 (38)	65 (39)	65 (39)	65 (39)	65 (39)							6	59.77
Zone C	**Thaba'Nchu**						48 (3)					47 (37)				2	47.50
	Bloemfontein						65 (3)						68 (37)			2	66.50
	QwaQwa/Harrismith	39 (19)			57.5 (23)	58 (23)	60 (4)	62 (23)	60 (29)							6	56.00
	Botshabelo			34 (30)	36 (30)	42 (34)	52 (4)	56 (34)	58 (34)				52 (28)			7	47.14
	Selosesha					40 (30)		41 (30)	41 (30)				47 (30)	40 (30)		5	41.80
Zone D	**Butterworth**				50.5 (21)	52.5 (8)	55 (7)	57 (7)	70 (29)	72 (32)	80 (7)	82 (7)				8	64.88
	Umtata	39 (19)		43 (21)	46 (25)		43 (29)	41 (26)								5	42.40
	King Williams Town	35 (19)			46 (25)		42 (20)		45 (20)		51 (37)		53 (37)			6	45.33
	East London	38 (19)			60 (25)		65 (21)	75 (26)		76 (20)	78 (20)					6	65.33
	Dimbaza		51 (20)		55 (25)	58 (25)	60 (30)		52 (20)					70 (20)		6	57.67
	Mdanstane				57 (25)		55 (21)	57 (26)			50 (37)					4	54.75
	Berlin				56 (25)				60 (20)							2	58.00
	Queenstown							50 (26)								1	50.00

TABLE F.2: AGGREGATE HOMELAND WAGES IN EACH OF THE RIDP DEVELOPMENT ZONES, (1978 - 1991).

	RIDP Site	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	*N*	*Ave'*
Wages: Rands per month																	
Zone E	**Ezakheni (A)**								59 (1)				77 (10)			2	68.00
	Isithebe	35 (19)	40 (16)	37 (38)				41 (12)		40 (10)		44 (15)				6	39.50
	Umlazi					52 (2)			58 (5)							2	55.00
	Isithebe					45 (3) (4)		32 (9)	36 (3)					45 (27)	43 (12)	5	40.20
	Ulundi				60 (38)			80 (17)		67 (15)		72 (12)				4	51.75
	Ladysmith	32 (19)	30 (12)		33 (38)	35 (18)		37 (9)			37 (9)			37 (12)		7	34.43
	Newcastle/Madani		38 (8)	37 (11)	32 (9)	35 (18)	35 (9)	45 (13)	38 (9)	41 (15)		39 (9)	42 (28)			10	38.20
	Richards Bay					130 (14)		300 (11)	100 (6)							3	176.67
	Pietermaritzburg				60 (12)		63 (12)			62 (15)						3	61.67
Zone F	**Kabokweni**		50 (5)													1	50.00
	KaNgwane		48 (5)													1	48.00
	Nelspruit		50 (5)		53 (38)											2	51.50
	Rocky's Drft		50 (5)													1	50.00
	White River		50 (5)		52 (38)											2	51.00
Zone G	**Letaba**					40 (32)										1	40.00
	Phalaborwa	40 (19)				43.5 (32)		40 (36)								3	41.17
	Pietersburg	35 (19)			50 (38)	47.5 (32)					60 (36)					4	48.13
	Potgietersrus	32.5 (19)				46 (32)				51 (36)						3	43.17
	Seshogo	39 (19)				53 (32)										2	46.00

CONTINUED: Wage Data Table F.2.2

RIDP Site		1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	*N*	*Ave'*
Wages: Rands per month																	
Zone H	**Babelegi**	35 (19)		40 (32)												2	37.50
	Brits	36 (19)				64 (32)						90 (40)				3	63.33
	Montshiwa	39 (19)														1	39.00
	Bronhkorstspruit				75 (38)			89 (35)	87 (35)	90 (35)			96 (35)	101 (35)		6	89.67
	Ga'rankuwa				75 (38)											1	75.00
	Ekangala								87 (35)	90 (35)			96 (35)	101 (35)		4	93.50
	Siyabuswa						60 (6)									1	60.00

Table 2: Aggregated RIDP unskilled wages, presented in Rands per month.

SOURCES: Assembled from the sources discussed above, and listed below:

(1) *"Americans underpay us",* Natal Witness, 29th of May 1985, Homelands, KwaZulu Labour 1975 – 1994 archive, SALDRU clippings collection, pg. 11.

(2) *"New Labour Laws",* Financial Mail, 8th of August 1985, Homelands, KwaZulu Labour 1975 – 1994 archive, DALDRU clippings collection, pg. 114

(3) Cited in Financial Mail advertorial, August, 1984, Homelands BOP Labour 1975 - 1994, SALDRU clippings collection 1975 – 2000, pg. 387

(4) The Star 24th of October, 1984, Homelands BOP Labour 1975 - 1994, SALDRU clippings collection 1975 – 2000, pg. 659

(5) The Star 9th of August 1979 - Wage Regulation General 1974 - 1990, SALDRU clippings collection 1975 – 2000, pg. 2

(6) International Labour Review (1985), *"Wiehahn and Riekert Revisited: A Review of Prevailing Black Labour Conditions in South Africa"*

(7) Jeffrey (1986, p. 11 - 16), *"The Black homelands of South Africa, with specific focus on Transkei and KwaZulu"*

(8) Converted from hourly rates of .22c and 25c/hour. Cited in Hosking and Haines (1997, p. 16) - *"The Rise and Fall of Butterworth: Development Policy Lessons."*

(9) Ardington (1984). *"Decentralised industry, poverty and development in rural KwaZulu".* Carnegie SALDRU working papers.

(10) *"FOSATU warns UK firm in KwaZulu*". Natal Herald 15/10/1989, Homelands Kwazulu Labour 1975 - 1994 archive, SALDRU clippings collection, pg. 102

(11) *"FOSATU also warns US firm in KwaZulu",* Natal Herald 20/10/1989, Homelands Kwazulu Labour 1975 - 1994 archive, SALDRU clippings collection, pg. 110

(12) *"Conditions and pay are poor for women working in KwaZulu", Mercury,* 12/01/1988, Homelands KwaZulu Labour 1975 - 1994 archive, SALDRU clippings, pg. 237

(13) Wages are R45 per week across the border - same article as above.

CONTINUED: Wage Data Table F.2.3

(14) *"Unions hits at loophole",* Rand Daily Mail, 23/04/1985, Homelands KwaZulu Labour 1975 - 1994 newspaper archive, SALDRU clippings collection, pg. 108
(15) *"It's Half Pay for KwaZulu"*, (no date, estimated to be 04/1985) Sunday Tribune, Homelands KwaZulu Labour 1975 – 1994, archive, SALDRU clippings, pg. 33
(16) *"Factory Workers Get Slave Wage"*, Sunday Post, 16/09/1979 - Homelands KwaZulu Labour 1975 – 1994 archive, SALDRU clippings, pg. 33
(17) *"Workers go back after pay dispute"*, Mercury, 6/04/1984 - Homelands KwaZulu Labour 1975 – 1994 archive, SALDRU clippings, pg 64
(18) *"Wage findings on farm workers",* Natal Mercury, 17/12/1982, Homelands KwaZulu Labour 1975 – 1994 archive, SALDRU clippings, pg. 64
(19) Wages per month cited in Gottschalk (1977) *"Industrial decentralization, jobs and wages"*
(20) *"Slave wage workers dismissed"* - 30/08/1986 - Homelands Ciskei Labour 1975 - 1994 newspaper archive, SALDRU clippings, pg. 128
(21) Abedian (1983, p. 71), *"Length of employment and average wage were provided by the labour recruiting organisations in Umtata".*
(22) Wages per month in Zone E, soured from Ardington (1984, p. 43), *"Decentralised industry, poverty and development in rural KwaZulu"*
(23) QwaQwa non-migratory employment, Bank (1984) *"Finding a job in QwaQwa: A study of employment opportunities in QwaQwa"*
(24) Riley et al. (1984) *"Spatial variations in the levels of living in the cape"*
(25) Fabricius and McWlliams, (1992*) "Population Development Survey of Five Magisterial Districts in the Republic of Ciskei",* Research Report no. 42, Port Elizabeth.
(26) Gilmour, D. and Roux, A (1984). *"Urban Black Unemployment and Education in the Eastern"*, Carnegie Conference Paper, no 120, SALDRU, Cape Town.
(27) Hart and Todes (1997), *"Industrial decentralisation revisited",* unskilled wage estimates for females from mid-1980's, until 1996 in Zone E.
(28) *"Taiwanese firm goes on strike"*, South African Institute of Race Relations (1989) pg. 458 – wage estimates for unskilled textiles workers circa 1987 – '89
(29) *"Transkei Special Report",* Rand Daily Mail, 25/05/1985, sourced from the LSE government publication library, 67 (903)
(30) Manufacturing in Botshabelo Decentralisation Programme; Outcomes and opportunities, Department of Manpower, National Archive, Pretoria, RSA - TAB 3676-876
(31) Western Cape Regional Report on RIDP Manufacturing (1989), Parliamentary Library, Cape Town, CBE 367/821201
(32) Wilson and Ramphele (1989), *"Carnegie Commission Enquiry",* Final Report, Cape Town.
(33) Bureau of Market Research (1988, p. 17 - 21), estimates of wages paid by industries in QwaQwa, Unisa Library, MCE 7897-09.
(34) Bureau of Market Research (1989), *"Minimum living levels in QwaQwa and Botshabelo",* Unisa Library, MCE 7897-09.
(35) National Union of Metalworkers, (1989), *"NQF application for metal fabrication wage schedule",* Labour Bulletin, UCT Special Collections.
(36) BENSO (1988), *"Report on RIDP in Lebowa and Pietersburg",* National Archive, Pretoria, RSA, box TAB 6785/90
(37) Development Bank of South Africa (1989) report on RIDP, *"Findings From Panel Of Experts",* National Library, Pretoria, RSA.
(38) BENSO Statistical Survey of Black Development, (1981), (a) Self governing and (b) Independent National States. Pretoria, 1981. National Library Pretoria, MC76897
(39) Survey of Kimberley deconcentration industries, BENSO, (1988), Government Printers, National Archive, Pretoria, RSA.
(40) Hall et al. (1932), *"A profile of poverty in the PWV*"; Carnegie Conference Paper, SALDRU, University of Cape Town.

CONTINUED: Wage Data Table F.2.4

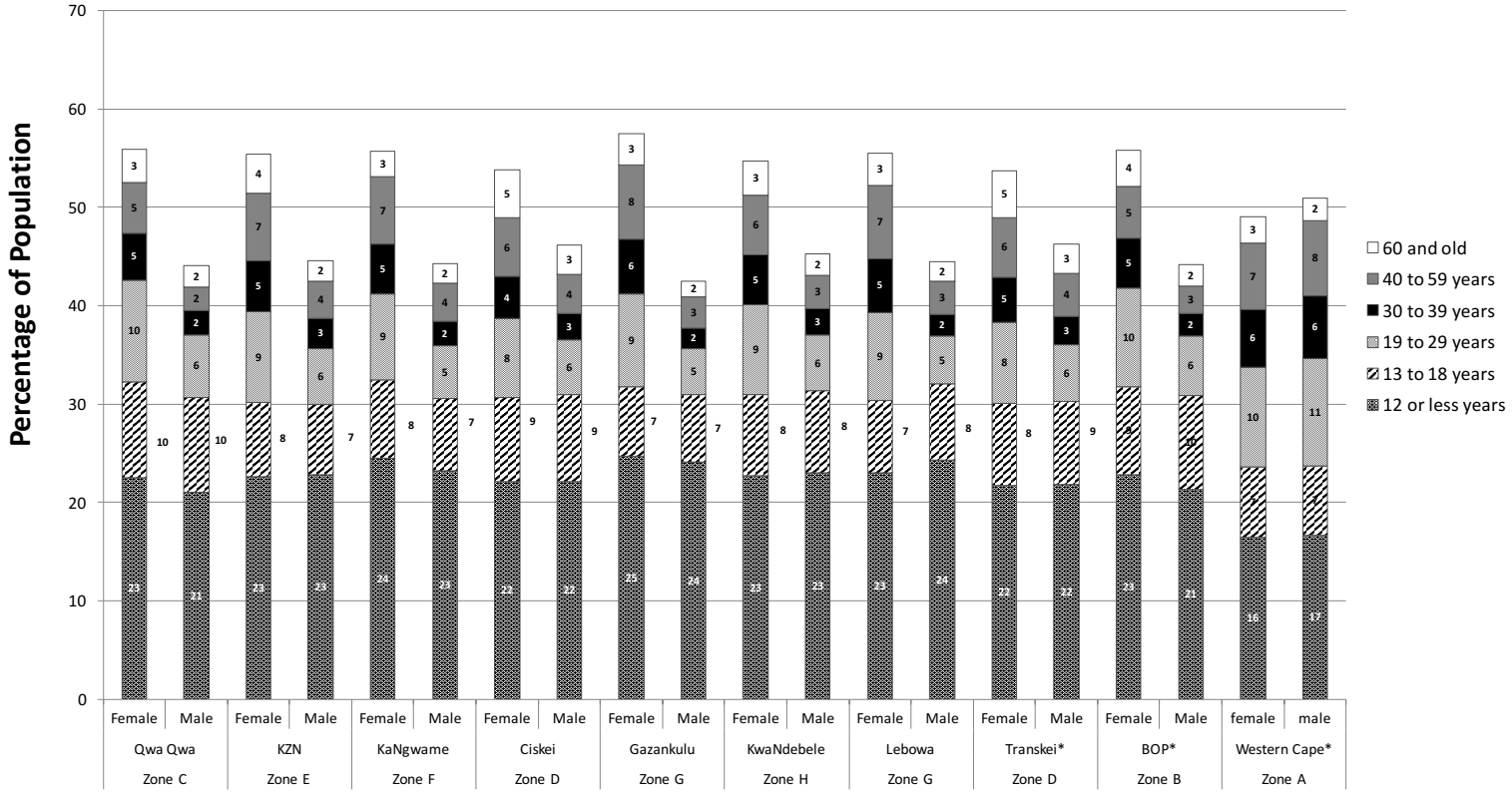


FIGURE F.2: AGGREGATE MALE AND FEMALE DEMOGRAPHIC IMBALANCE PER HOMELAND RIDP ZONE. (1978 - 1991).

Source: *1980 census and 1980 five per cent African census, and the BENSO man power study of the BOP. 1980 & 1985 compiled by Statistics South Africa and digitised by South African Data Archive (SADA), Central Statistics Service Report No. 02-80-02. 1980. Population Census, 1980. Pretoria. BENSO man power study, National Archive, Pretoria, RSA , TAB 4568-876.*

EXPORTS

YEAR	FRANCE	GERMANY	HONG KONG	JAPAN	TAIWAN	UK	USA	Grand Total
1975	$185,189,914	$853,662,620	$97,682,812	$974,692,110	$101,286,320	$1,807,469,914	$859,494,638	$4,879,478,328
1976	$296,630,926	$945,665,544	$99,295,048	$1,029,631,802	$101,796,450	$1,994,084,488	$913,116,274	$5,380,220,532
1977	$266,889,784	$646,195,015	$119,386,988	$801,143,891	$71,986,693	$1,643,840,281	$984,361,175	$4,533,803,826
1978	$276,436,724	$667,342,812	$151,317,996	$761,688,225	$84,882,807	$1,231,201,967	$1,349,867,103	$4,522,737,634
1979	$350,952,202	$909,893,340	$185,135,900	$949,769,274	$115,143,479	$964,081,556	$1,405,781,489	$4,880,757,240
1980	$407,148,414	$799,949,749	$223,783,748	$1,205,846,183	$167,094,454	$1,384,524,279	$1,648,013,589	$5,836,360,416
1981	$458,222,648	$775,065,068	$167,914,913	$1,409,694,766	$192,661,474	$1,193,035,434	$1,519,841,509	$5,716,435,812
1982	$450,000,924	$849,643,780	$121,493,502	$1,665,711,712	$185,871,582	$1,412,383,403	$1,320,936,765	$6,006,041,668
1983	$378,739,456	$753,401,894	$236,028,334	$1,546,704,395	$192,233,474	$1,324,099,888	$1,753,811,943	$6,185,019,384
1984	$501,560,579	$872,978,212	$416,159,751	$1,747,549,571	$184,313,265	$947,258,721	$1,880,989,708	$6,550,809,806
1985	$414,950,655	$850,273,995	$423,777,179	$1,911,541,316	$190,149,678	$1,435,520,226	$2,047,087,638	$7,273,300,687
1986	$497,628,298	$1,414,843,268	$355,721,071	$2,316,580,357	$345,951,574	$1,245,187,500	$2,507,997,205	$8,683,909,273
1987	$524,079,831	$1,118,203,640	$294,267,773	$2,170,061,135	$767,228,678	$955,860,262	$1,249,137,165	$7,078,838,484
1988	$789,719,639	$1,943,890,238	$508,740,869	$2,185,000,000	$1,267,138,848	$1,592,647,059	$1,710,532,279	$9,997,668,932
1989	$867,662,150	$1,799,596,118	$512,257,363	$2,352,254,386	$1,164,744,946	$1,697,254,386	$1,740,005,536	$10,133,774,885
1990	$742,972,251	$1,797,966,308	$381,923,756	$1,836,725,191	$1,116,980,437	$1,893,072,519	$1,671,057,097	$9,440,697,558
1991	$388,856,098	$1,161,214,911	$568,051,698	$1,452,592,253	$828,642,947	$1,746,853,432	$1,879,433,314	$8,025,644,654
1992	$353,381,507	$1,055,279,515	$516,229,438	$1,320,075,065	$753,047,450	$1,587,491,365	$1,707,976,240	$7,293,480,580
1993	$252,707,455	$942,031,533	$535,321,960	$1,334,620,851	$663,407,683	$1,449,185,348	$1,668,660,319	$6,845,935,150
1994	$298,502,009	$1,213,147,001	$443,387,420	$1,569,015,751	$513,449,725	$1,796,186,870	$1,908,408,201	$7,742,096,976
1995	$358,221,474	$1,397,755,999	$559,814,716	$1,793,365,398	$697,592,444	$2,333,912,636	$2,128,125,865	$9,268,788,532

TABLE F.3: EXPORTS TO SAMPLE COUNTRIES IN NOMINAL US $ (1975 - 1995)

RIDP FIRMS IN THE FINAL YEAR OF THE GOOD HOPE RIDP

Region	Category	SEZ	Taiwanese	Domestic	*Region*	Category	SEZ	Taiwanese	Domestic
Region A	*Deconcentration Points*	Atlantis	0	141	Region E	Industrial Development Point	Isithebe	0	273
Region A	*Industrial Development Point*	George	0	135	Region E	Industrial Development Point	Ladysmith	0	55
Region A	*Industrial Development Point*	Saldanha	0	15	Region E	*Deconcentration Points*	Pietermartzburg	6	165
Region A	*Industrial Development Point*	Vredenburg	0	30	Region E	Industrial Development Point	Port Edward	0	0
Region B	*Industrial Development Point*	De Aar	0	3	Region E	Industrial Development Point	Richards Bay	0	80
Region B	*Industrial Development Point*	Heystekrand	0	0	Region E	Industrial Development Point	Swartkop	0	0
Region B	*Deconcentration Points*	Kimberley	0	61	Region E	Industrial Development Point	Tongaat	18	39
Region B	*Industrial Development Point*	Mafikeng	0	0	Region E	Industrial Development Point	Ulundi	0	0
Region B	*Industrial Development Point*	Pudimoe	0	0	Region F	Industrial Development Point	Kabokweni	0	39
Region B	*Industrial Development Point*	Upington	0	23	Region F	Industrial Development Point	KaNgwane	15	0
Region C	*Deconcentration Points*	Bloemfontein	6	178	Region F	*Deconcentration Points*	Nelspruit	10	54
Region C	Industrial Development Point	Bothsabelo	69	54	Region F	Industrial Development Point	Rocky's Drft	0	12
Region C	*Deconcentration Points*	Harrismith	2	19	Region F	*Deconcentration Points*	White River	2	26
Region C	Industrial Development Point	Industriqwa	0	16	Region G	Industrial Development Point	Giyani	0	9
Region C	Industrial Development Point	Phuthaditjaba	10	176	Region G	Industrial Development Point	Lebowakkgomo	5	18
Region C	Industrial Development Point	Selosesha	7	0	Region G	*Deconcentration Points*	Louis Trichardt	0	44
Region D	Industrial Development Point	Berlin	0	21	Region G	*Deconcentration Points*	Messina	0	16
Region D	Industrial Development Point	Berlin South	0	0	Region G	Industrial Development Point	Mkhuhlu	0	21
Region D	Industrial Development Point	Butterworth	11	0	Region G	Industrial Development Point	Nkowankowa	0	87
Region D	Industrial Development Point	Dimbaza	27	7	Region G	*Deconcentration Points*	Pietersburg	0	115
Region D	*Deconcentration Points*	East London	0	367	Region G	*Deconcentration Points*	Potgietesrus	0	80
Region D	Industrial Development Point	Ezibeleni	0	0	Region G	Industrial Development Point	Seshego	0	84
Region D	Industrial Development Point	King Williams Town	0	34	Region G	Industrial Development Point	Steelpoort	0	0
Region D	Industrial Development Point	Mdandtsane	0	165	Region G	Industrial Development Point	Thohoyandou	0	0
Region D	*Deconcentration Points*	P.E./Uitenhage	0	259	Region G	*Deconcentration Points*	Tzaneen	0	40
Region D	Industrial Development Point	Queenstown	0	37	Region H	Industrial Development Point	Babelegi	8	0
Region D	Industrial Development Point	Umtata	11	12	Region H	*Deconcentration Points*	Brits	0	46
Region E	Industrial Development Point	Edendale	0	0	Region H	*Deconcentration Points*	Bronkhorstspruit	10	19
Region E	Industrial Development Point	Empangeni	0	61	Region H	Industrial Development Point	Ekangala	5	92
Region E	Industrial Development Point	Ezakeni	2	99	Region H	Industrial Development Point	Garankuwa	15	0
Region E	Industrial Development Point	Imbali	0	0	Region H	Industrial Development Point	KwaNdebele	6	21
TOTAL								**306**	**3485**

FIGURE F.3: TAIWANESE AND DOMESTIC RIDP INVESTMENT PER ZONE, (1992).

Source: *Compiled from the Board for the Decentralisation of Industry (National Archives), and Taiwanese Trade Association almanac (ATCC).*

IMMIGRATION				
		EU	Ethnic Chinese	
Year	Immigration	EU Cumulative	Taiwan	Chinese/Taiwanese
1961	16,309	16,309	0	8,000
1962	20,916	37,225	0	8,200
1963	37,964	75,189	0	8,200
1964	40,865	116,054	0	8,200
1965	38,326	154,380	0	8,200
1966	48,048	202,428	0	8,200
1967	38,937	241,365	0	8,200
1968	40,548	281,913	0	8,200
1969	41,446	323,359	0	8,200
1970	41,523	364,882	0	8,200
1971	35,845	400,727	0	8,200
1972	32,776	433,503	0	8,200
1973	24,016	457,519	0	8,200
1974	35,847	493,366	3	8,203
1975	54,295	547,661	4	8,207
1976	16,255	563,916	8	8,215
1977	-	563,916	0	8,215
1978	-	563,916	127	8,342
1979	4,941	568,857	487	8,829
1980	-	568,857	1387	10,216
1981	-	568,857	4067	14,283
1982	24,741	593,598	1890	16,173
1983	22,624	616,222	3876	20,049
1984	15,802	632,024	278	20,327
1985	13,476	645,500	490	20,817
1986	5,035	650,535	7907	28,724
1987	5,436	655,971	900	29,624
1988	5,056	661,027	876	30,500
1989	4,798	665,825	20	30,520
1990	6,979	672,804	657	31,177
1991	5,076	677,880	789	31,966
1992	3,649	681,529	89	32,055
1993	4,242	685,771	326	32,381
1994	2,638	688,409	587	32,968
1995	8,000	696,409	51	33,019

TABLE F.4: EUROPEAN AND TAIWANESE MIGRATION (1972 - 2000)

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