

Chapter 2

South African exports: nurture or nature?

From time immemorial South Africa has been a trading nation. This is fundamental to our economy and indeed our society. It emanates from the wealth of our natural resources first mobilised by the trading empire we now refer to as Mapungubwe. As an economy and as a people we are linked to trade. For us it is not possible to extricate development and trade from the well being of our people (Erwin, 2003).

2.1 Introduction

Many factors determine trade patterns. To gain a better understanding of the drivers impinging on South Africa's propensity to export, it is necessary to consider relevant international and South African political, economic and social developments. Natural features and endowments contribute to what a country can export. However, both theory and evidence suggest that history plays a role in shaping the direction of international trade and a country's economic development is therefore influenced (or nurtured) by historic events and political decisions (Dunning, 1988).

This chapter traces the history of South Africa's trade and trade policy, and analyses their rationale and impact. The background to the current trading environment, the monetary system and the institutions that play a role, are sketched. The chapter provides an overview of South African trade and trade policy, dealing briefly with the early colonial era before covering the period until 1970. It was during this time that import substitution policies were introduced and developed. Although South Africa experienced international boycotts from the 1960s¹ and sanctions from the mid-1980s, it also realised the need for export promotion policies. These events are described sequentially while the events after 1990, are discussed topically according to the factors that influence trade. After 1990, sanctions were reduced until they were eventually phased out completely and trade was normalised. This coincided with the formation of the World Trade Organisation (WTO) and the further liberalisation of South Africa's trade policy. Cumulatively, these events have created the environment in which South African businesses make decisions and hence influence or determine trade. The purpose of this chapter is to do the following:

¹ A variety of consumer, sporting, cultural and other boycotts were organised by the anti-apartheid movement, activists and other private bodies, while sanctions were instituted by governments and international bodies such as the UN. It is therefore difficult to pinpoint starting dates.

1. Chronologically describe the development of the South African economy and draw attention to political and social conditions that have influenced South Africa's trade;
2. Review pertinent international and South African trade policies; and
3. Induce determinants of South African exports that can be included in an empirical analysis.

Many of the factors that influence South Africa's current trade can be traced back to the colonial period. This chapter provides concise insight into current events and is divided into three sections corresponding to the colonial period (from 1600 to 1960), the period of isolation (until 1990), and recent events. Each section describes the role of endowments, trade policies and the international and domestic elements that influenced trade policy.

2.2 The development of the South African economy

Despite a long history of trade and the openness of the South African economy, very little export promotion policy developed over the years. Interestingly, even though the Dutch East India Company (one of the first multinational trading companies) was responsible for colonising South Africa and thus gave it a link to the international economy 150 years prior to countries such as Australia or New Zealand, the country never developed as a major exporting nation (Houghton, 1973). Although cultural and economic links developed with Europe, South Africa is some distance from the world's major markets. Nevertheless, since the discovery of the country's rich natural resources and the recognition of its strategic location, South Africa has been the focus of world powers that have influenced it economically. Over the years South Africa's trade patterns have been forged from a mixture of endowments (particularly its natural resources), locational factors and politics.

(i) The role of the early colonialists

Although not well documented, human societies have traded in South Africa for centuries. Documented history starts in 1488 when South Africa was "discovered" by Bartolomeu Diaz, eventually resulting in opening of the Indian trade route. This trade route was monopolised by the Portuguese until the 1600s, when it was wrested from them by English, Dutch, and French trade rivals.

European colonialists controlled, exploited and developed the South African economy primarily for their own benefit. Prior to 1652, when the Dutch East India Company established a halfway station to replenish its ships, barter with the indigenous people along the coast was the only recorded trade. The agricultural sector dominated the Cape economy, supplying mainly local needs and passing ships. Limited agricultural products were exported to the Netherlands, while

various commodities were obtained from the East and Europe (mainly the Netherlands). Besides the agricultural endowments, South Africa has abundant mineral resources. Before 1867, these natural resources were not nurtured and very little mining activity took place, although there was copper mining in Namaqualand. Manufacturing only provided for the basic needs of the local inhabitants and was limited to activities such as bakeries, the manufacture of furniture and very basic agricultural implements. As can be expected, the infrastructure was poor and undeveloped. “The policy of the Dutch East India Company was typically mercantilist. It aimed at maximum immediate profit, which it tried to achieve by monopolising every activity of any economic significance” (Viljoen *et al.*, 1983: 29).

(ii) The influence of the global political economy

The colonialists that controlled the South African economy were in turn influenced by other international events, including the growth in world trade. This growth was shaped by political thinking which in turn was influenced by philosophical debate. At the beginning of the 19th century, liberalisation (with intellectual foundations rooted in the writings of the classical economists) led to the removal of trade barriers, while improved transport facilitated the growth of trade.

With the dismantling of mercantilism and the availability of worldwide transport, global markets were created. The integration of world commodity markets that followed can also be attributed to the advent of steamships, the opening of the Suez Canal, and the building of railroads. Transport costs dropped rapidly. This integration was not limited to the Atlantic economy, but included the Black Sea, the Mediterranean and Asia (Lindert & Williamson, 2001). Since 1820, growth of global trade has exceeded growth in gross domestic product (GDP). This trend even accelerated in the latter part of the 20th century as demonstrated in Table 1.

Table 1 World merchandise exports as a percentage of world GDP

Year	%
1820	1,00
1870	4,60
1913	7,90
1929	9,00
1950	5,50
1973	10,50
1998	17,20

Sources: Maddison (2001); Venables and Crafts (2001).

Global politics, especially in Europe, have had an impact on South Africa’s economic development. The 1820s can be considered a watershed in both the evolution of the world

economy and South African history. After a brief occupation in 1795, the British regained control of the Cape from the Dutch in 1806 and introduced policies to benefit British exports. They placed prohibitive restrictions on non-British goods entering the Cape. This aimed to protect the interests of Britain, rather than to develop Cape industry (Schneider, 2000: 413). Policies were not beneficial and tended to hamper the development of South African exports.

Free factor movement, including migration and investment, also influenced trade internationally. However, besides the early Dutch and German settlers who were joined by the Huguenots (mainly French) and the 1820 British settlers, there was very little European migration to South Africa as other destinations were far more popular. In these early years, there was very little investment.

The international political economy is an important factor in any nation's trade pattern. Being a small country, South Africa has always been subject to these factors. Although a stable international environment is a prerequisite for trade, on its own it does not contribute to trade development. Local policies must be conducive toward this goal.

(iii) Early factors determining trade

Even in these early years, exports were an outcome of various factors. Using natural resources, including weather, the settlers added skills and technology to produce merchandise that could be traded. However, exports depended not only on supply capacity but also demand conditions and market access.

This is demonstrated by both the Huguenots who brought viticulture technology to the Cape, and the 1820 settlers, who had experienced the industrial revolution and brought much needed skills. The conditions in the Cape are suitable for growing grapes and wine production. Preferential tariffs on wine from the Cape to Britain initially led to wine contributing substantially to the colony's exports. Demand conditions also played a role and exports of wine grew until foreign market forces reduced and eventually eliminated exports (Viljoen *et al.*, 1983: 29).

Natural resources played a prominent role in the early development of the South African economy. In the 1840s, wool became the most important export from the Cape Colony, contributing more than 75 per cent of total exports by the 1860s. The first structural change to the economy occurred with the discovery of diamonds in 1868 and gold in 1886. This transformed the entire social, political and economic landscape and wakened a country that "had slumbered peacefully for over two centuries" (Botha, 1973: 321-355). From 1868, the mining sector rapidly developed into a large industry by any standards. As can be seen from Table 2 below, this was the

cause for the increase in total exports after 1870 and continued to be the major driver of exports throughout the 20th century.

Table 2 South African exports: 1820-1905

Annual average	Food and drink (Rm)	Raw materials (Rm)	Diamonds (Rm)	Gold (Rm)	Total (Rm)
1821-25	0,3	0,1	-	-	0,4
1831-35	0,3	0,2	-	-	0,5
1841-45	0,2	0,3	-	-	0,6
1851-55	0,2	0,7	-	-	1,4
1861-65	0,2	3,8	-	-	4,2
1871-75	0,2	7,8	2,6	-	11,3
1881-84	0,2	8,2	6,5	-	16,0
1891-95	0,2	7,9	7,9	11,3	28,6
1901-05	0,1	8,7	11,6	24,4	48,3

Source: Houghton (1976: 13).

Mining not only drove exports, but also steered the further development of the South African economy, particularly the manufacturing and financial sectors. Technologies were developed that reduced the cost of mining, despite mines being deeper. These advances had spillover effects into other sectors. As mining developed, the need for strong financial systems and new infrastructure grew. The conditions necessary for trade to develop were established and acquired a critical mass because of the needs of the mining sector. The necessary links with foreign markets were established not only by the producers, but also by the service companies (banks, shipping lines, freight forwarders etc). The financial system, technological development and manufacturing capacity that arose to support mining operations continue to play an important role in the development of South Africa's international trade.

(iv) Early import substitution

It was during the nineteenth century that the seeds were sown for South Africa's import substitution policy. Hamilton (1791) and List (1827; 1856) provided the intellectual argument for protection (see section **Error! Reference source not found.** below). Initially the resurgence of protection internationally did not affect South Africa, whose trade policies² were focused on revenue rather than protection and other customs issues.

In 1881 President Kruger initiated South Africa's protectionist policies, arguing that local citizens generally did not share in the large mine earnings and used monopoly "concessions" and import

² South Africa was comprised of the Coastal Colonies and Boer Republics and only unified in 1910.

tariffs³ to promote local production. Although these efforts were mildly successful, they increased production costs as mine owners had to pay more for local goods and services produced under concessions, especially dynamite and rail transportation. Import substitution gained momentum in 1910 when the Cullinan Commission (Houghton, 1976: 121) recommended that it was “in the best interest of the country as a whole that adequate protection should be given to agricultural and industrial undertakings.”

Economic development was influenced by the Anglo-Boer wars.⁴ However, in 1902, post-war reconstruction was set in motion with the restarting of mining and the rehabilitation of farms. The structure of Kruger’s earlier concessions changed to favour mining and the prices of inputs dropped. Mine owners invested locally, especially in dynamite, chemicals and metalworking and other mining-related industries. Mining magnates lobbied the state to develop other essential, but unprofitable sectors, such as railways and electricity. Infrastructure needed by mines also provided the platform for industrial exports.

(v) **Post unification**

In 1910 the Union of South Africa was formed comprising the former Cape and Natal colonies and the Transvaal and Orange Free State republics. As part of the British Empire, it soon felt the inevitable impact of world events and by 1914, was again at war, this time on the side of Britain. This had a positive impact on South Africa’s industrialisation as it stimulated growth of manufacturing with output doubling between 1915 and 1920. The legacy of the war resulted in more restrictive policies with many nations introducing restrictive migration and trade policies (Lindert & Williamson, 2001).

Colonial policies, although primarily designed to serve Britain, nevertheless did have positive economic spin-offs for colonies, including South Africa. However, preferential duties in favour of British goods (a 25 per cent ad valorem rebate) were introduced and later extended to the other British possessions on a reciprocal basis. South African goods enjoyed favourable entry into Britain and perhaps this marks the first export promotion of South African goods.

All the same, industrial development was hampered by imperial thinking which frowned on substantial beneficiation (or value-added production) in South Africa. Raw materials were exported for further processing in British factories. South Africa’s main exports remained raw

³ Concessions included railways, explosives, bricks, cement, tiles, liquor, sugar, leather, paper, gas, electricity, and water works.

⁴ There were in fact two wars between the British and the South African republics in 1880-81 and 1899-1902.

materials and precious metals. In 1911-1912, minerals comprised 81,8 per cent of South Africa's total exports (gold and diamonds alone contributing 63,5 and 15,1 per cent respectively). The agricultural sector's 17,6 per cent accounted for most of the remainder (Frankel, 1938: 108, Table 16).

Table 3 South Africa's principal non-mineral exports: 1910-1933⁵

Year	Wool (£000)	Hides and skins (£000)	Fruit (£000)	Other food, beverages and tobacco (£000)	Diamonds (£000)	Metals and metal manufacture (£000)	Gold exports (£000)	Total exports (£000)
1910	3 831	1 282	35	-	8 479	-	31 791	52 228
1919	17 919	4 972	215	-	11 547	-	47 672	95 804
1927	17 118	3 718	1 102	4 043	12 285	871	29 057	73 612
1933	8 831	1 601	2 446	3 547	2 131	1 001	46 419	68 860

Source: Jones and Muller (1992: 114).

As can be seen in Table 3, despite an increase in industrial output, the industrial exports group remained of minor importance, comprising only 0,7 per cent in 1929. Jones and Muller (1992) show that manufactured exports were low because of high domestic demand. Firms only exported when there was surplus capacity in line with Smith's vent-for-surplus. Plants were designed to serve the local market and not necessarily the international market.

Although natural resource-based exports dominated, the government continued to influence trade. In his analysis of South African exports from 1913-1933, Van Biljon (1934: 44) states that "outstanding accretions to exports occurred in animals, agricultural and pastoral products, and foodstuffs, tobacco, ales, spirits, wines and beverages", and ascribes this to "government assistance granted in devious ways from revenue accruing by virtue of constant activity in the mining industry". Although van Biljon does not elaborate on the "devious ways" he does highlight the importance of cross-subsidisation.

(vi) Developing supply capacity

Supply is an essential determinant of trade. Supply capacity is created through investment. South Africa increasingly determined its own economic policies and unlike most other well-endowed African countries, it was able to retain profits generated by mining by encouraging investment and production for the local market and making it extremely profitable. Natrass (1981: 162) comments that "it was largely due to the determined efforts that were made by successive South African administrations after 1924 to encourage industrialisation and to develop a class of local

⁵ The method of compiling statistics changed in 1924.

manufacturing capitalists, that enabled South Africa to escape the ill effects of economic imperialism that were the concomitant of colonialism in so many instances on the African continent”. Schneider (2000: 413) adds that the fiscal and trade policies of the time were so attractive that, in 1917, the Anglo American Corporation was incorporated in South Africa rather than in the United Kingdom.

Investment is an important determinant of trade and from 1925 there was a “more positive attitude toward industrial development” (Houghton, 1976: 122) including the reconstitution of the Board of Trade and Industry. Innes (1984: 131) believes that the Customs Tariff and Excise Duties Amendment Act, no 36 of 1925, was successful because of a “resurgence of foreign investment in South Africa and, in particular, a significant rise in the level of both foreign and mining investment in manufacturing production. Large overseas concerns increasingly established factories in South Africa as a means of gaining access to the local market without running up against the protective tariffs.” These firms include Babcock and Wilcos, Cadbury, Davy Ashmore, General Electric, Dorman Long, Dunlop, Firestone, Ford, General Motors, McKinnon Chain, Nestlé, Siemens, and Stewards and Lloyd. Most investment was either market- or resource-driven⁶. Market-driven investments, which primarily exploit the domestic markets, tended not to contribute to exports, other than to neighbouring countries. Resource-driven investments exploit natural resources and usually led to exports of primary products, with not too much value added. Investment however, did contribute to acquisition of technology and other spillovers such as management techniques. In later years this contributed to further industrial development and exports of manufactured products.

The State did not always rely on market forces, nor did its restrict its role to a facilitator, coordinator, or stimulator. When it perceived market forces and policies did not achieve the desired goals, it played the role of entrepreneur or developer. Despite protection, private investors were reluctant to make the massive investments necessary for developing a steel industry. The State responded in 1927 and founded Iscor, a steel manufacturer, “as a state enterprise run on ordinary business principles” (Norval, 1962: 18). It was believed that South Africa had a potential

⁶ UNCTAD (1998: 91) (based on Dunning (1997)) has identified three main classifications of FDI: **Market-seeking** FDI - determined by market size and per capita income, market growth, access to regional and global markets, country-specific consumer preferences, and structure of markets. **Resource or asset-seeking** FDI - determined by availability of raw materials, low-cost unskilled labour, skilled labour, technological, innovatory and other created assets (e.g. brand names) including those embodied in individuals, firms and clusters, and physical infrastructure (ports, roads, power, telecommunication). **Efficiency-seeking** FDI - determined by cost of resources and assets adjusted for productivity of labour resources, other input costs, e.g. transport and, communication costs and costs of other intermediate products, membership of a regional integration agreement conducive to the establishment of regional corporate networks.

comparative advantage as it had iron ore and cheap power, supplied by Eskom, the state-owned electricity utility company. By the 1940s, Iscor steel was competitive with internationally produced steel, and by the 1960s Iscor's steel prices were "considerably lower than in the leading iron and steel producing countries" (Norval, 1962: 18).

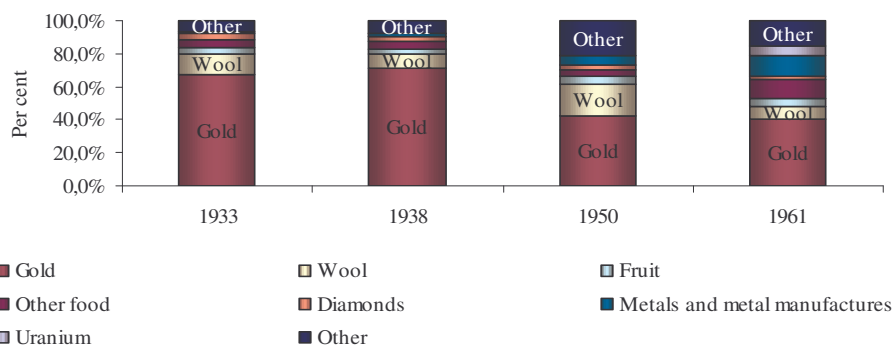
Supply capacity was therefore a function of demand from the mines and agriculture, investment of mining profits, FDI due to growing market size, state investments and encouragement from fiscal and trade policies.

(vii) Demand factors

Wealth or income and other demand conditions too, were important economic determinants of South Africa's trade. Although the Great Depression reduced world income and significantly affected world trade in the early 1930s, the impact was less significant in South Africa because the exports comprised of gold and other primary products. The global growth rate declined from an average of almost 40 per cent per decade (1881-1913) to 14 per cent (1913-1937) (Kenwood & Lougheed, 1992: 174).

South Africa responded to changing demand. As the composition of world trade shifted and the percentage of manufactured products increased from 37 per cent in 1937 to 55 per cent in 1960 internationally (Kenwood and Lougheed, 1992: 290), the volume of South Africa's manufactured exports, particularly metal and metal products, also increased as a proportion of total.

Figure 1 South Africa's principal exports: 1933-1961



Source: Union statistics for 50 years, as quoted in Houghton (1973: 240).

(viii) Non-economic factors

The importance of colonial ties and cultural linkages with Europe cannot be underestimated. This resulted in Eurocentric trade and "the significance of English and European markets for all branches of South African industries" (Van Biljon, 1934: 43). Besides the cultural links, the direction of trade was driven by the fact that Europe was a large and wealthy market. Expansion

of trade with France and Italy strengthened the European ties, while “close family contacts further reinforced the importance of the British market” (Jones & Muller, 1992: 116), thus underlining the economic importance of the British Empire to South Africa. Political ties also played a role, and although trade with the United Kingdom declined after World War I, it regained its importance as a trading partner by the end of the Great Depression. Trade with Southern Rhodesia was small but important – given the size of the market.

Table 4 South Africa’s principal export markets: 1910, 1920 and 1933

Country	1910		1920		1933	
	£000	%	£000	%	£000	%
UK	49 819	91,0	59 458	65,2	55 042	78,4
Germany	1 814	3,3	515	0,6	1 942	2,8
Belgium	668	0,2	1 778	2,1	2 308	3,3
USA	402	0,7	3 917	4,7	-	-
Japan	-	-	5 982	7,2	-	-
Southern Rhodesia	-	-	1 212	1,5	-	-
France	-	-	-	-	2 805	4,0
Italy	-	-	-	-	1 129	1,6

Source: Customs and Excise annual reports as quoted in Jones and Muller (1992: 117).

During South Africa’s early development, the most important factors driving the direction of trade were the cultural and political factors. Nevertheless, geography was a factor. The direction of trade was influenced by various non-economic as well as economic factors. Trade is a function of distance. Despite decreasing costs of transport, it is expected that the closer countries are to one another, the more likely they are to trade. This concept has been extended to include other factors such as language and a common legal system.

(ix) Trade policy and tariffs

From the time of union, both domestic and international trade policies were important determinants of South Africa’s trade volumes. After the Great Depression, with declining trade, political pressure across the world mounted for increased tariffs to protect domestic industries and global protectionism increased. This prevented South Africa from shifting to an active export promotion policy. South Africa’s policy of protection insulated the country against the full impact of the Great Depression and it diversified and became more self-sufficient.

The role of trade policy cannot be underestimated in determining export composition. On the one hand, South Africa ignored its comparative advantage in resources and tried to diversify. On the other hand, the global conditions that led to this diversification also limited the exploitation and export of products from these diversified industrial sectors. The pattern for subsequent

development of the South African economy was laid. Because import substitution policies contributed to industrialisation, the importance of manufactured products in the South African export basket increased. On the other hand, protective barriers and the increasing anti-export bias⁷ hampered the development of manufactured exports.

The policies necessary to create local industries, such as Iscor, and to ensure their sustainability and profitability, also contributed to slower development in other sectors, particularly those that rely on inputs they provide and other “crowding-out” effects. These protected firms rely on import parity pricing where domestic prices are kept just below world prices plus duties and transport costs. This has contributed to an anti-export bias, particularly in the manufacturing sector. Therefore the creation of domestic industries through protection has hampered the development of downstream manufacturing and manufactured exports.

(x) Dutch disease⁸

Despite the important role trade policy played in shifting South Africa toward manufacturing and increased industrial exports, for the first half of the twentieth century, gold and other resource-based sectors remained prominent. This again emphasised the importance of endowments and particularly natural resources. Export revenues were generated from only three commodities (gold, diamonds and wool). This crowded out the development of other industries and South Africa tended to suffer from Dutch disease. This provided a further disincentive to pursuing manufactured export aggressively.

⁷ Protection, depending on how the tariffs are structured, introduces an anti-export bias on two counts. Firstly, tariffs make domestic sales more lucrative than export sales; and secondly exporters face higher inputs prices.

Monopolies have the power to set prices to maximise their profits. In a small geographically isolated country such as South Africa, inputs are generally expensive because they are sold to the manufacturing industry at import parity prices. This arises from the fact that there is generally only one supplier of any input, or in cases where there is more than one, there is often collusion. The main price raising components are transport costs from the foreign supplier and tariff duties. Although the 470.03 and 521 provisions in the Customs and Excise Act redress some of these cost-raising effects on feedstocks and intermediate inputs, the overpricing of inputs is a major reason for the lack of competitiveness of the South African manufacturing sector.

An anti-export bias (AEB) generally refers to the disincentives to export caused by trade and tax regimes. The AEB measures the extent to which trade policies increase value added when a firm sells good on the domestic market compared to export markets. With neutral trade policies the AEB equals one. If they raise value-added in the domestic market more compared to the export market the AEB exceeds one. (The calculation of the AEB is presented in Appendix 3).

⁸ Dutch disease is a syndrome where country relies on one or two commodities, usually natural resources. It dominance makes other sectors uncompetitive through crowding out effects and can condemn the country to specialising in this single commodity that usually is a low-growth primary export.

(xi) Roots of apartheid

Black enterprise has a long history of exclusion and black businesses were a “product of historic circumstance” (Riley, 1993: 5). The legal roots of this exclusionary policy can be traced back to the Land Act of 1913 that denied black entrepreneurs from owning land and hence doing business in urban areas. The only formal black business that was permitted under the Native (Urban Areas) Act number 21 of 1923 and later Natives Consolidation Act number 25 of 1945 was trade in milk, bread, and vegetables. The effect was to deny a black entrepreneurial class from developing and becoming exporters.

(xii) Conclusion

From the end of the Great Depression (1933) until the outbreak of World War II, agriculture and mining continued to be the most important export sectors. Natural resources drove exports despite real growth rates averaging 4,5 per cent in the 1930s and 1940s, 5 per cent in the 1950s and reaching almost 6 per cent in the 1960s (Houghton, 1973: 240). As with World War I, manufacturing was given a boost by World War II and the economy diversified further. Nevertheless exports still mainly consisted of gold, wool, diamonds and certain agrarian exports to the United Kingdom.

Exports during this period therefore were driven mainly by supply factors and the abundance of raw materials. However, demand factors played a smaller role with colonial links being particularly relevant. Nevertheless, policy also had a contributory role, although it was not always positive.

2.3 The post-World War II period

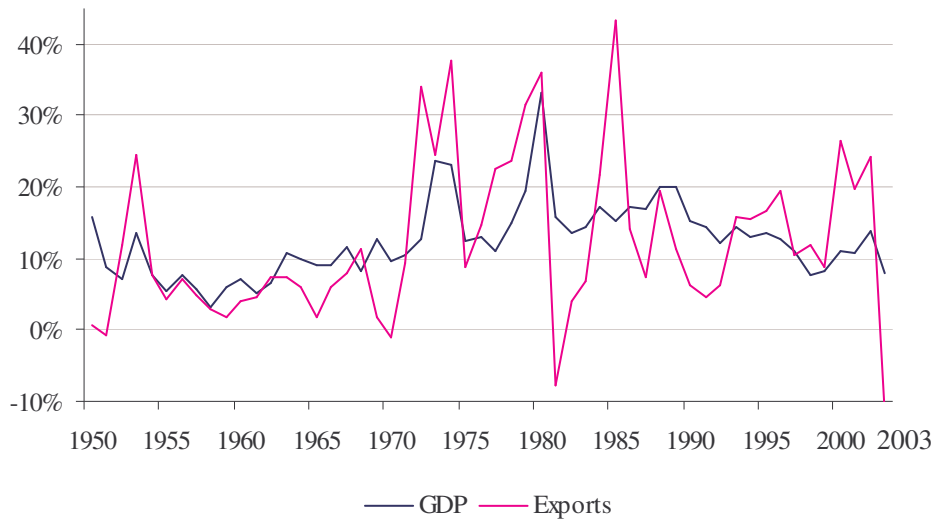
The post-World War II period with its rapid real growth was dominated by the USA.⁹ The 1950s were characterised by a renewed interest in international trade on the part of the main industrial countries. The General Agreement on Tariffs and Trade (GATT) was formed in 1947, with South Africa as one of the founder members. GATT contributed significantly to liberalisation and particularly to the reduction in tariff barriers, thereby facilitating and stimulating global trade.

The multi-lateral rules-based system, besides reducing protection, also contributed to a more stable environment under which trade thrived. The growth of merchandise trade continues to exceed output growth. From 1950 to 1994, output increased five-fold while, in real terms, world

⁹ As with the pax Roma that contributed to the development of trade in ancient times, the pax Americana, despite the cold war, created conditions under which trade could thrive.

trade has increased 14 times (WTO, 1996). Using South African Reserve Bank data, Figure 2 shows periods of high export growth relative to GDP growth.

Figure 2 Growth rate of South Africa's GDP and volume of merchandise exports, 1950-2003



Source: Own calculations using South African Reserve Bank (2004) data.

The impact of gold cannot be underestimated. Rapid increases in exports coincide with high international demand (and high prices) for gold. The impact of sanctions is also observable, particularly from the mid-1980s.

(i) Changing patterns of demand

The economic growth of industrialised countries during the 1950s and 1960s is attributed to the expansion of basic industries. Comparative advantages were gradually acquired in mass-consumed standardised products through the slow accumulation of capital. Japan emerged as a major industrial power by upgrading its labour force and moving progressively towards highly skilled, labour-intensive production, as part of its industrial policy (McMillan, 1985: 89). Newly industrialised countries (NICs) successfully imitated Japan. Brazil, Hong Kong, Korea, Spain and Taiwan started to specialise in comparatively basic products, whose production utilised large numbers of unskilled labour and small capital investments. Japan, however, developed more capital-intensive, technologically advanced industries.

As these Asian countries exported to the rest of the world, they needed raw material to feed their growth. As they developed and industrialised, they became richer and demand increased. Consequently South African trade with Asian countries increased from R17m in 1955 to R118m

in 1964 and to R219m in 1970. The products exported included pig-iron, steel, sugar and maize (Houghton, 1976: 177-189).

(ii) Apartheid institutionalised

After the National Party won the 1948 elections and introduced and institutionalised various policies commonly referred to as apartheid¹⁰, demands were made for punitive measures including political and economic sanctions against South Africa. This limited foreign demand for South African goods. It also hampered the development from the supply-side since “apartheid systematically and purposefully restricted the majority of South African from meaningful participation in the economy. The assets of millions of people were directly and indirectly destroyed and access to skills and to self-employment was racially restricted” (DTI, 2004: 4). Apartheid therefore created a complex set of restrictions that limited the existence of black businesses and severely curtailed their ability to acquire capital and grow. Blacks were denied access to education and training, skills, access to finance and access to markets. Unsurprisingly there were few black exporters in 1994.

Apartheid also contributed to lower productivity. Fallon and Da Silva (1993: 14) identify two reasons: First, the environment in which many blacks live has become less attractive. They argue that this may reduce their effectiveness in the work place and would lower productivity. Second, there has been a dramatic increase in workdays lost through strikes and other types of industrial action.

(iii) Continued import substitution

South Africa’s post-war industrial development followed a typical pattern – implementation of import replacement of light consumer goods while gradually moving towards production of intermediate capital goods. Although this provided considerable stimulus for industrial growth, by the early 1960s, import replacement as a growth factor had lost most of its impetus because the remaining opportunities required large markets and economies of scale to be effective. There was a lack of willingness to invest in these industries. The South African (or even the southern African market) was not large enough. It was easier to import the variety of products demanded despite increasing duties. Fallon and Da Silva (1994: 77) shows that from 1983 to 1990, import substitution policies had a negative impact on South African growth and many of its sectors, while export expansion was having a greater effect (see Table 5).

Table 5 Sources of South Africa's industrial growth, 1972-1990

Sector	Output expansion %		Export expansion %		Import substitution %		Domestic demand %	
	1972-83	1983-90	1972-83	1983-90	1972-83	1983-90	1972-83	1983-90
Food, beverages and tobacco	56,3	16,4	3,1	2,9	0,4	-0,8	54,6	14,4
Textiles, clothing and footwear	44,8	-8,8	5,2	-8,4	3,2	4,5	36,5	-5,0
Wood and wood products	49,3	-10,8	4,5	-5,8	6,7	1,7	38,1	-6,6
Paper and paper products	32,5	19,8	1,9	4,0	-1,7	-0,2	32,3	16,0
Chemicals	67,9	11,2	2,6	3,7	3,2	-8,7	62,2	16,3
Non-metallic minerals	23,8	-0,8	-0,7	-5,8	0,5	1,7	24,0	3,3
Basic metals	70,9	20,6	15,5	19,4	21,7	-1,3	33,7	2,5
Metal products and equipment	40,2	-15,7	-0,2	-2,4	-0,5	6,1	40,8	-19,4
Other manufacturing	19,1	83,4	-2,0	30,7	-22,0	2,9	43,1	49,9
Total manufacturing	50,1	3,5	2,5	5,3	3,0	-3,3	44,6	1,6

Source: Belli (1993), as presented in Fallon and Da Silva (1994: 77).

2.3.1 Attempt toward trade promotion

In the 1960s it became clear to policy-makers that the import replacement strategy had run its course and that its contribution to economic growth and industrial development was diminishing. New sources of growth had to be pursued. The Reynders Commission (Republic of South Africa, 1972) and the Van Huyssteen Committee (Republic of South Africa, 1977) recommended that greater emphasis be placed on export development as the driving force behind industrial development, although tariff protection and import replacement remained important elements of South African trade and industrial policy.

Until 1980, export development consisted mainly of trade facilitation activities such as the introduction of quality standards and the promotion of better shipping. In 1957, the Export Reinsurance Scheme was introduced, followed in 1962 by tax concessions on certain market development expenditure. Following the Reynders Commission in 1972 and the Van Huyssteen Study Group in 1977, the Category A (input compensation) and Category B (value-added compensation) schemes were introduced in 1980 to promote manufactured exports from South Africa. (Appendix 1 has more details of these and other schemes to promote South Africa exports.)

Most of these policies attempted to create the necessary conditions required by international buyers. The infrastructure that was created and the services introduced to serve the mineral and agricultural exporters, were also available to manufacturers. However, the Category A and

¹⁰ These include the Prohibition of Mixed Marriages Act (1949); Group Areas Act (1950) and the Population Registration Act (1950). This legislation, and other policies, is collectively referred to as apartheid.

Category B schemes were introduced to eliminate the negative impact created by import substitution policies on manufactured exports. The net impact of these policies was therefore intended to be neutral.

2.3.2 Other post-World War II factors influencing South African exports

Besides the factors described above there are a number of other factors that have influenced South African exports.

(i) Oil price shocks

Input costs certainly affect the volume and direction of trade. Besides the cost-raising impact of South Africa's protectionist policies there were other exogenous factors. In 1973, a chain of events revolutionised the global oil economy and eventually led to the oil crisis of the mid-1970s and the early 1980s. The increase in the price of crude oil from \$2,59 to \$11,65 (Kindleberger & Lindert, 1978: 5) had a major impact on all nations, especially countries such as Japan that relied heavily on oil imports. The full impact of these events on the South African economy was cushioned by gold exports and abundant coal supplies. Coal was used as an alternative source of power and led to the development of oil from coal technology, which in turn played a part in the development of the chemical industry.

The oil price increases and instability caused the demand for gold to increase internationally and the role of gold was again emphasised. However the boom it created was not beneficial to all sectors of the economy. This syndrome commonly referred to as Dutch disease has "some adversely affected sectors and some relative price changes which accompany the boom" (Corden, 1975: 324) and influenced South Africa's trade pattern. The natural resource boom of 1972-1981 produced a massive foreign exchange and fiscal windfall and high levels of investment. A reduction in the growth rate of non-mining GDP can be expected as a result of a temporary natural resource boom, especially in the case of a minerals-rich economy like that of South Africa. Gold and the high price of gold explained the export-led growth of 1973-1979, which ended in 1980. The following decade, South African external trade reverted to the pattern of the 1960s and early 1970s, when the growth of trade was slower than the growth of GDP (Jones and Muller, 1992: 116). Input costs, and particularly transport costs, influenced the volume of trade.

(ii) Foreign demand

For the Organisation for Economic Cooperation and Development (OECD) countries, the growth rate for the period 1974-1980 was 2,8 per cent compared with approximately 5 per cent during 1950-1973. The world economy was faced with inflation and lower productivity (Kenwood &

Lougheed, 1992). Although high gold prices led to far higher growth rates in South Africa, the government responded with restrictive economic policies.

(iii) Trade and economic integration

Following World War II, economic integration increased with the formation of numerous trading blocs. These trade policies not only had an impact on imports, and particularly South African exports, but also influenced their direction. The economic and political re-alignments diverted trade and created new trade patterns (Matthews, 1987). As can be seen in Table 6, as colonial ties with South Africa were reduced and eventually ended in 1961, the importance of the British market decreased. After Britain joined the European Economic Community (EEC), trade again declined, yet remained substantial. Trade with Europe increased, as did trade with Southern Rhodesia (Zimbabwe). In southern Africa, the Southern African Customs Union (SACU), although considerably older than the EEC or its successor the European Union (EU) has not developed nor integrated to the same extent. Holden (1996: 35) found no evidence that the various regional groupings influenced South Africa's direction of trade in the early 1990s. The importance of neighbouring countries, particularly Rhodesia (Zimbabwe) is highlighted as the gravity model¹¹ indeed predicts. Since becoming a Republic, South Africa's trade patterns have swung increasingly to Asia and America. However, with increasing integration and the strengthening of the European Common Market (particularly once Britain joined), Europe imported a smaller share of South African exports. Despite this South Africa's nominal exports were higher. Europe was still South Africa's most important trading partner.

Table 6 South Africa's principal export markets: 1938 and 1961¹²

Country	1938		1961	
	£000	%	£000*	%
UK	58 791	74,40	111 854	26,20
Germany	4 992	6,30	20 578	4,80
France	2 129	2,70	17 013	4,00
Belgium	1 566	2,00	16 741	3,90
Southern Rhodesia	1 352	1,70	-	-
Italy	1 021	1,30	-	-
Rhodesia and Nyasaland	-	-	48 481	11,40
USA	-	-	34 347	8,10
Japan	-	-	25 628	6,00

Sources: Customs and Excise annual statements of trade and shipping for 1938, 1947 and 1955; and Foreign trade statistics for 1961, as given in Houghton (1976: 135).

¹¹ The gravity model is discussed in Chapter 6.

¹² South Africa changed from the pound to the rand in 1961, but for the sake of comparison the 1961 figures are in pounds.

(iv) Sanctions

With the establishment of apartheid, the anti-apartheid campaign was established and later intensified. The measures recommended and introduced were initially symbolic but later were more punitive. These sanctions ranged from voluntary boycott actions organised by activists to official restrictions on the importation of South African goods. At the end of July 1985, the sanctions campaign gained impetus through Chase Manhattan Bank's decision not to rollover South Africa's loans. This resulted in the reintroduction of the Financial Rand¹³ and a debt moratorium.

With the introduction of financial sanctions in 1985, the Rand depreciated substantially. Although this stimulated industrial development, it also fuelled inflation. Inflation was aggravated by the import surcharges which were introduced to protect the balance of payments. This acceleration in inflation was not countered by means of a reduction in protection and import parity prices. A policy of high real interest rates was also introduced again to protect the balance of payments constraints and also to restrain inflation.

The sanctions and debt crises led to a decline in investment and a need to accelerate export growth. To compensate for the decline of gold demand and production, manufactured exports had to contribute to most of this growth. Bell, Farrell and Cassim (1999: 16) describe the effect of these events as "an abrupt, involuntary shift to export-oriented industrialisation." Prior to the debt crisis (1983-1985), there was a deliberate, voluntary liberalisation involving a substantial reduction in quantitative restrictions. Driven by the concern for self-sufficiency, largely for political and strategic reasons, this policy was reversed.

Although it is difficult to quantify the impact that sanctions have had on the South African economy, they certainly did influence the direction, volume and price of South African trade. Table 7 shows how South Africa's trade moved away from Europe and Africa from 1960 to 1985, although sanctions cannot account for the entire shift. The increased trade with Asia was as a result of that regions growth.¹⁴

¹³ Financial rand, reintroduced during liquidity crisis in August-September 1985, traded at discount relative to commercial rand, had to be used for investments in South Africa by non-residents; capital imported by immigrants; proceeds from sale of South African securities, other equities if repatriated abroad; investments abroad by South African residents; and capital exports by emigrants. These transactions however, first had to be approved by authorities. Other transactions, goods trade, payments of investment income, royalties, used the commercial rand. In period 1985-88, financial rand traded at an average discount of 40 per cent to commercial rand (Ovenden and Cole, 1989: 113).

¹⁴ From 1985 to 1990 trade data is unreliable particularly in terms of country of origin and destination, although certain products, because of their strategic nature were simply listed as uncategorised.

Table 7 Direction of South Africa's trade: 1961, 1970, 1976, 1985¹⁵

	1961		1970		1976		1985	
	Rm	%	Rm	%	Rm	%	Rm	%
Europe	706	53,2	1235	51,5	3218	53,2	9293	44,6 ↓
Americas	80	9,5	176	11,5	650	15,5	3477	16,7 ↑
Asia	86	10,2	220	14,4	780	18,6	5246	25,2 ↑
Oceania	14	1,7	15	1	47	1,1	277	1,3 ↓
Africa	128	15,1	263	17,2	453	10,8	1577	7,6 ↓

Source: South African Statistics and South African yearbooks.

Sanctions were often used as an excuse to introduce non-tariff measures. Lipton (1988: 52) reports that:

Protectionist lobbies within the USA – coal, textiles and agriculture ... were active in shaping the items selected for the 1986 CAA Act. Clearly, the selection of items worldwide reflects these interests and pressures and not simply their possible effectiveness in inflicting costs on the South African government, while avoiding costs which hit the victims of apartheid. Coal, iron and steel, sugar, wine and fruit are labour intensive industries, heavily geared to export production.

The main products affected by sanctions were iron and steel, uranium, coal, fruit and textiles. According to the Financial Times (1992: 7) most of these products “found alternative markets, affecting prices, not volumes. About 65 per cent of South African exports are precious and strategic metals – gold, diamonds, platinum, chrome and vanadium – which were virtually sanctions proof. Gold exports in 1991 were R19.7 billion, or 26 per cent of the total.”

Coal was an important export commodity to be targeted for sanctions. To maintain exports, South Africa has also had to sell its coal at 10 per cent discount below world price (Washington Post, 1986). However South African coal exports continued to grow during the late 1980s and became the most important export after gold despite unfavourable conditions for producers and new competitors continuously entering the market (ILO 1992: 1-12).

Agricultural and manufactured exports underwent a structural change in 1985, with the growth rate increasing rather than suffering due to sanctions. The anecdotal evidence however, seems to suggest that, although export volumes may have been impacted, South African exporters were forced to sell at a discount, and that prices were therefore more seriously affected.

¹⁵ The percentage figures are computed from total merchandise and do not correspond to the sum of the five continents.

(v) Technology

Although, during this period, South Africa did invest in research and development (R&D), it was “strategic.” The purpose was to reduce vulnerability to sanctions and other external pressures. The research expenditures were in the armaments and energy industries and unconnected to the rest of the manufacturing sector. The environment was not conducive for sustained innovation and new initiatives in technology. These observations are supported by the fact that the number of patents of South African origin issued by America fell steadily (Tsikata, 1999).

Kaplan (1991) attributes these deficiencies to the following:

- Shortage of skills;
- The historical inwardness of the economy reduced opportunities for learning by exporting;
- Commercial application was sharply reduced since research was concentrated in the universities with very few links to the business sector; and
- Large firms conducted the bulk of research within the private sector.
- Limited research and development undertaken locally due to the dominance of foreign subsidiaries and licensing agreements (almost all technology is generated abroad);
- The limited size of the domestic market;
- A lack of protection for capital goods;
- Foreign competition;
- The high cost of locally produced inputs; and
- The high price and limited availability of skilled labour.

Because of the inability to develop technological autonomy, South Africa continued importing capital goods.

(vi) Apartheid, export culture and entrepreneurial skills

Collectively the various apartheid laws damaged entrepreneurial spirit in South Africa. Black entrepreneurs were denied ownership of land and limited opportunities of doing business in urban areas. The effect was to deny a black entrepreneurial class from developing and becoming exporters. According the Global Entrepreneurship Monitor (2003) South Africa has among the world’s lowest entrepreneurial activity rates.

Besides the impact apartheid had on entrepreneurial development, sanctions and the threat of sanctions increased the risk and lowered profits of doing business globally. This together with the

prevailing import substitution policies (strengthened by the need for self-sufficiency) made the domestic more profitable and destroyed the embryonic export culture.

(vii) Summary of the historic impact on exports

By the mid-1980s, trade had grown both in variety and in geographical range despite political and currency instability as well as a global economic recession. From the mid-1980s, export growth was moderately high, coinciding with the real depreciation of the South African rand, as well as increasing sanctions. Despite official sanctions being introduced during the mid-1980s, manufacturing exports increased in almost all sectors. Agricultural exports grew gradually while the exports of mining equipment grew more rapidly. South Africa exported mainly to the EU, USA and Japan. Appendix 2 shows the direction of South African exports.

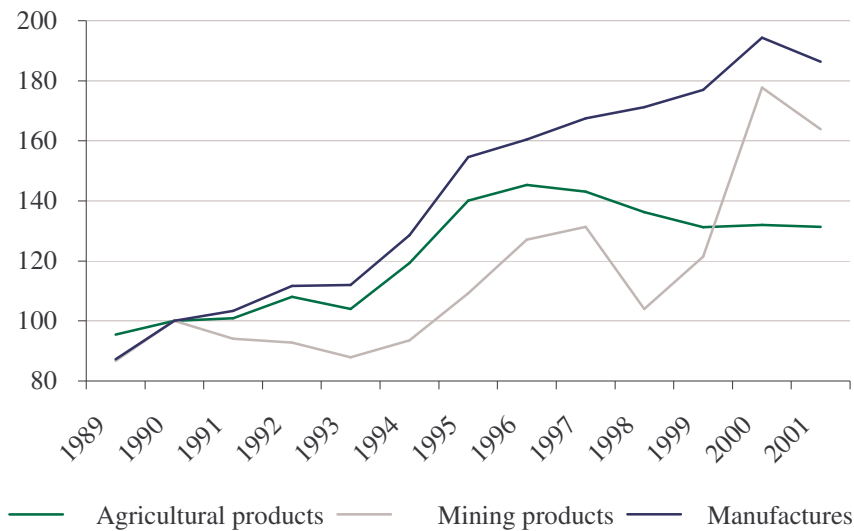
Nature and nurture both contributed to the development of South African pre-1990 trade and economic history. The two most striking features are the rich mineral endowments (nature) and political turmoil (nurture). However, as can be seen from the discussion above, there were many other factors. The influx of immigrants contributed to the pool of skilled and semi-skilled labour. Capital inflows were required to exploit the mineral wealth. Infrastructure, to serve the mining complex, also benefited other sectors and exports. Although initially the economy profited from import substitution, it did hamper the competitiveness of manufactured products and exports.

Despite the negative legacy of the past, certain foundations provided a basis for the positive developments that took place in the 1990s.

2.4 The period since 1990

After the fall of the Berlin Wall ended the Cold War, trade was influenced again by political and economic changes both in South Africa and internationally. South Africa became democratic and sanctions were lifted. The conclusion of the Uruguay Round heralded further liberalisation, which South Africa too embraced.¹⁶ The pattern of trade continued to change, involving proportionately fewer primary products and more beneficiated products.

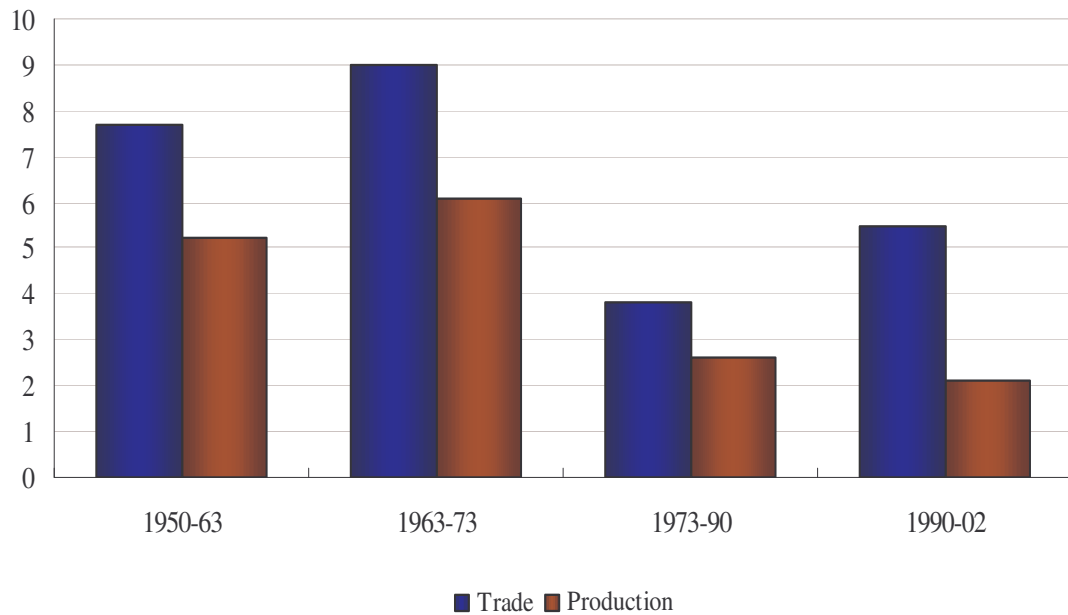
¹⁶ Liberalisation deepened in 1993 through a series of deliberations on the potential direction of trade policy between the government, key African National Congress (ANC) policy-makers, trade unionists and the business community through the National Economic Forum (NEF) and later the National Economic Development and Labour Council (NEDLAC).

Figure 3 World merchandise trade by major product group: 1989-2002

Source: Own calculations based on *WTO* (2003).

In 1990, South Africa introduced policies to change its historic reliance on trade in primary products, especially through the continuation of various demand-side export subsidies, notably the General Export Incentive Scheme (GEIS). There was a shift in the direction of trade policy, from inward-looking import-substituting industrialisation to a more outward-oriented focus, with special emphasis on the promotion of competitiveness. Liberalising the external trade regime has been one of the central and more visible elements of South Africa's drive to achieve accelerated economic growth. Considerable progress was made in rationalising the very complex tariff regime by lowering the overall level of nominal and effective protection (see Appendix 3). This is seen from the following improvements that occurred in South African tariffs from 1990 to 1996:

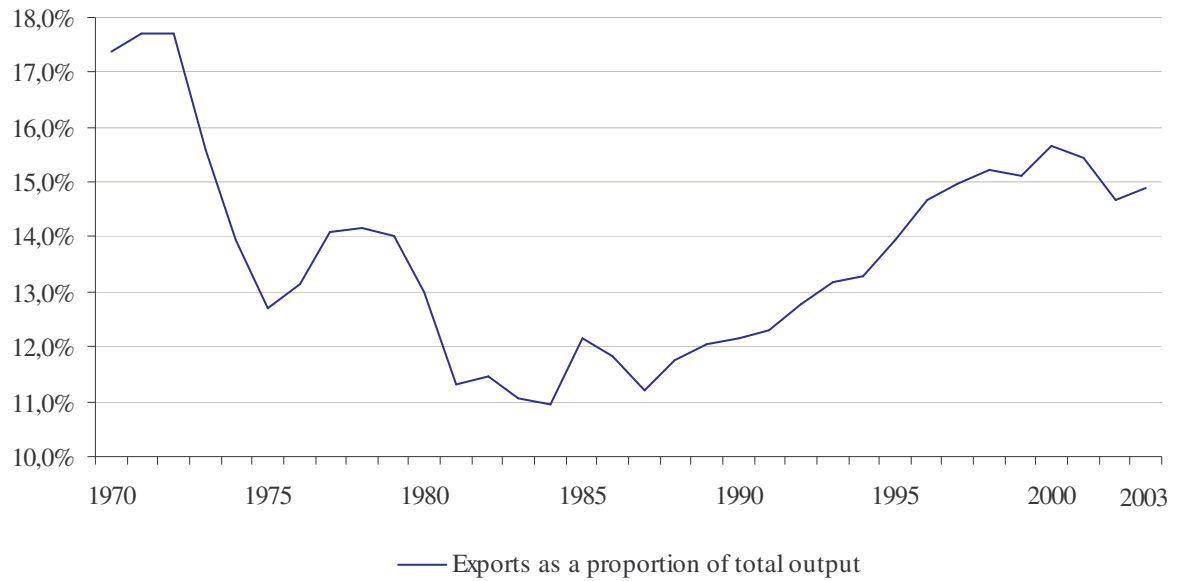
- The average economy-wide tariff fell from 28 to 10 per cent;
- The average manufacturing tariff was reduced from 30 to 16 per cent;
- The maximum tariff rate was cut to 61 per cent (40 per cent if "sensitive" industries are excluded);
- The number of tariff lines was cut by a third; and
- The number of separate tariff "bands" or rates was cut from 200 to 49.

Figure 4 Growth in world merchandise trade and GDP: 1950-2002

Source: *WTO* (2003).

Since approximately 1985, South African exports of manufactures have risen, both nominally and as a share of gross output. Tsikata (1999) calculates that between 1990 and 1994, manufactured exports grew by an average annual nominal rate of 10,8 per cent (4,4 per cent in dollar terms), while this rate doubled between 1994 and 1996 (9,6 per cent in dollar terms). Growth occurred across most sectors, with the main exceptions being the food, textiles, clothing and footwear sectors, which all experienced absolute declines in exports.

The South African economy adapted to globalisation in general and the opening of new markets specifically. As the economy opened, the proportion of exports to total output grew as Figure 5 shows.

Figure 5 South African exports as a proportion of total output: 1970-2003

Source: Own calculations based on *Quantec* (2004).

At current prices, recent growth of exports has been impressive. In real terms however, besides the 1995 to 1997 period and 2000, export growth has been dismal. The 1998 to 1999 slowdown was largely due to the crisis in East Asia and other emerging markets, which lowered import and agricultural demand.

Table 8 South African exports: 1990-2001

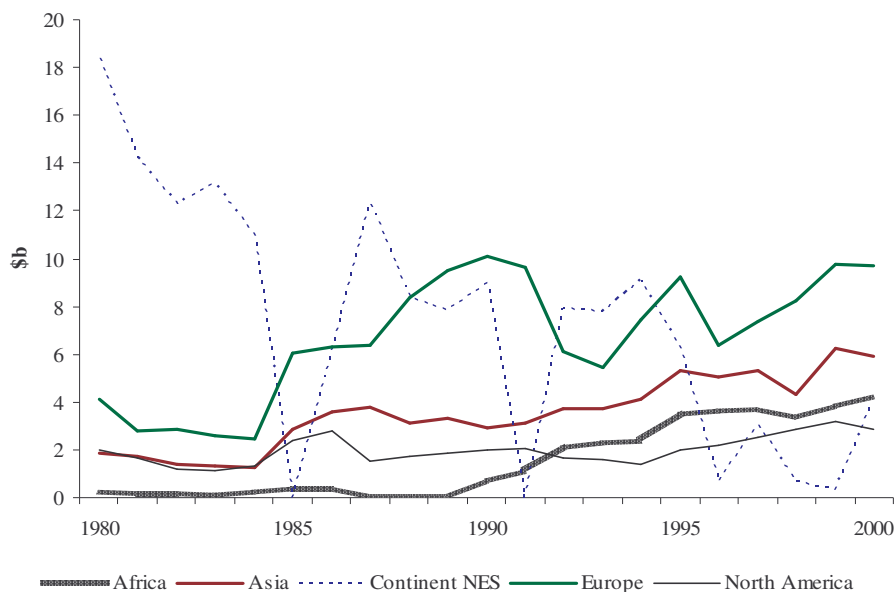
	Exports of goods (fob) ¹⁷ Rm (current prices)	Average annual percentage change	Exports of goods (fob) Rm (1995 prices)	Average annual percentage change
1990	62 917	..	89 024	2,73
1991	65 734	4,48	89 612	0,66
1992	69 837	6,24	92 209	2,82
1993	80 877	15,81	96 679	4,62
1994	93 536	15,65	99 577	2,91
1995	109 118	16,66	109 118	8,74
1996	130 206	19,33	117 161	6,86
1997	143 830	10,46	123 624	5,23
1998	161 121	12,02	125 007	1,11
1999	174 897	8,55	126 978	1,55
2000	220 051	25,82	138 771	8,50
2001	261 863	19,00	139 930	0,83

Source: *SARB Quarterly Bulletin* (various issues).

¹⁷ fob = free on board.

With barriers to trade lifted, trade in South Africa returned to normal patterns. Even in the 1980s, South Africa exported to Europe, with a small portion of exports going to North America and Asia. During the 1990s, trade with natural trading partners in Africa resumed. Although the gravity model¹⁸ predicts that countries should trade proportionately more with neighbours, South Africa only began to trade normally with other African countries from 1990. However, even by 2000, South African exports to Africa were less than 20 per cent of its total exports (World Trade Analyser, 2003).

Figure 6 South Africa's regional exports, 1980-2000



Source: Own calculations using the *World Trade Analyser* (2003).

When grouping trading partners according to income levels, trade appears to be even more concentrated. Almost 80 per cent of South Africa's trade is conducted with high-income countries (Alleyne & Subrmanian, 2000).

(viii) Trade composition and intensity

Since 1970 the composition of South African trade has changed considerably with gold and other primary products making a smaller contribution. Despite volatile prices since the early 1970s, gold has played a critical role in the development of the South African economy.

¹⁸ The gravity model explains bilateral trade as a function of distance and size of the economies and is discussed in Chapter 6.

In 1970 primary products contributed to almost 70 per cent of South African exports, while less than 15 per cent came from manufactured products. Even by 1990, primary products had a 55 per cent share, with manufacturing only contributing 30 per cent. The latter figure had risen to almost 60 per cent in 2000.

Table 9 Average annual growth rates of South African exports and imports: 1950-1998¹⁹

	Merchandise exports %	Net gold exports %	Total exports %	Merchandise imports %
1950-55	9,4	2,9	6,9	8,1
1955-60	2,9	6,2	4,0	1,5
1960-65	2,8	7,5	4,6	9,5
1965-70	3,8	-1,1	1,8	4,7
1970-75	9,6	13,1	11,0	9,6
1975-80	9,9	19,8	14,3	5,4
1980-85	-8,9	-14,2	-11,5	-13,1
1985-90	10,6	-2,1	5,7	7,4
1990-95	5,0	-3,8	2,7	8,6
1950-70	4,7	3,8	4,3	5,9
1970-98	4,5	0,6	3,5	2,8
1985-98	6,2	-4,4	3,0	6,0
1990-98	3,5	-5,7	1,3	5,2

Source: *SARB Quarterly Bulletin* (various issues).

Appendix 4 gives a more disaggregated picture of South African exports since 1970. Even within the export basket of manufactured products, change has been significant. South Africa has adapted to international trends by supplying final products rather than intermediary inputs. This is reflected in the contribution of the food sector dropping from over 20 per cent in 1970 to 5 per cent in 2000, while the share of basic iron and steel of manufactured exports shrunk 30 per cent in 1995 to 10 per cent in 2001.

Table 10 Sectoral contribution to South African exports: 1970-2001

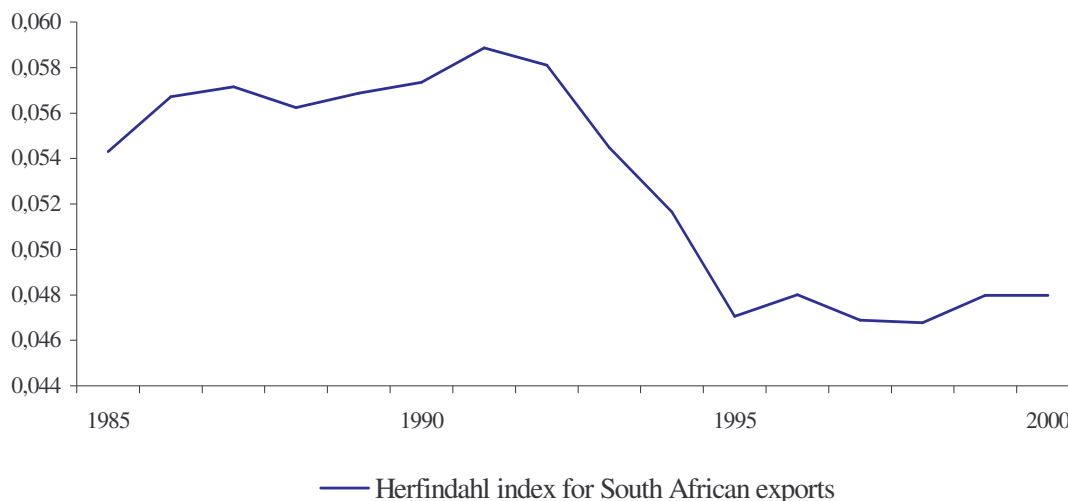
	1970 %	1975 %	1980 %	1985 %	1990 %	1995 %	2000 %	2001 %
Primary [1-2]	66,8	62,6	66,1	62,1	55,0	41,1	28,7	27,7
Agriculture, forestry and fishing [1]	2,0	3,2	2,3	1,6	3,3	3,7	4,1	4,5
Mining and quarrying [2]	64,8	59,3	63,9	60,6	51,7	37,3	24,6	23,2
Manufacturing [3]	14,9	16,7	16,8	21,5	29,7	45,7	56,3	56,1

Source: Own calculations based on *Quantec* (2004).

¹⁹ Excluding non-factor services

(ix) Concentration of products

There are differing views on how the level of concentration affects economic development and exports. South Africa has long been dependent on primary commodities, particularly gold, and in common with many developing countries primary products were a major contributor to economic development, but also responsible for earnings fluctuations.

Figure 7 South Africa's diversified export base

Source: Own calculations using *StatCan* (2002).

On the other hand, high levels of industry concentration may be necessary for enhanced trade performance. Production concentrated in one location (particularly with a large domestic demand) is able to realise economies of scale and minimise transport costs. Therefore with increased trade, a concentration of increasing-returns industries will result.

The Herfindahl Index²⁰ confirms the increased diversification of both South Africa's total trade and manufactured products. It shows a fall in export (product) concentration continuing since 1991, although there was a slight increase in 1999 and 2000.

(x) Market share

South Africa's traditional exports, such as gold, coal, fresh fruit and other primary products, have not grown as fast as the international market for manufactured goods. South Africa's share of global merchandise markets dropped from 2 per cent in 1948 to 1,7 per cent in 1953, and to 1,5

²⁰ The Herfindahl Index is calculated as the sum of squared shares of four-digit standard industrial classification (SIC) exports to total exports. The index varies between 0 and 1. The smaller the index, the more diversified exports are.

per cent in 1963, and eventually to 1 per cent of global trade in 1973 to 0,54 per cent in 2000 (own calculations using StatCan, 2002). This shrinking share of trade mirrors Africa's drop from 7,3 per cent in 1948 to 2,5 per cent by 1990 (WTO, 2003: 34). Even though South African export volume has grown, since the 1950s, global trade has grown faster and the country's share of trade has declined steadily as its competitive position deteriorated.

Nevertheless, market share analysis (M_{ij}/M_i)²¹ can be used to identify sectors or products that have been performing better. Using TradeCan (2002) data, product groups with a sizable share of the world market were found to be ores and concentrates of uranium and thorium, natural abrasives, not elsewhere specified (n.e.s.) (including industrial diamonds), silver, platinum and other metals of platinum group, pig iron, spiegeleisen, sponge iron, ferro-alloys and non-monetary gold. Other sectors with a notable market share of the world market are pulpwood (including chips and wood waste), coal, lignite and peat, fertilisers, and iron ore and concentrates. Since 1985 number of sectors have made significant inroads into global markets:

- Ships and boats (including hovercraft) and floating structures (from 0,04 per cent of the world market in 1985 to 1,36 per cent in 2000);
- Armoured fighting vehicles, war arms and ammunition (0,02 in 1985 to 0,79 per cent in 2000);
- Pumps (excluding pumps for liquids) (0,05 in 1985 to 0,77 per cent in 2000);
- Compressors and fans (0,05 in 1985 to 1,37 per cent in 2000);
- Alcoholic beverages (0,09 in 1985 to 0,57 per cent in 2000);
- Tea and matt (0,67 in 1985 to 4,02 per cent in 2000);
- Hydrocarbons, n.e.s. and their derivatives (0,09 in 1985 to 0,48 per cent in 2000);
- Furniture and parts thereof (0,14 in 1985 to 0,64 per cent in 2000);
- Cinematograph film, exposed and developed (0,16 in 1985 to 0,72 per cent in 2000);
- Cotton (0,18 to 0,75 per cent in 2000);
- Waste and scrap metal of iron or steel (0,33 in 1985 to 1,02 per cent in 2000); and
- Pulpwood (including chips and wood waste) (2,7 in 1985 to 7,9 per cent in 2000).

²¹ The market share represents the value of exports of commodity *i* from South Africa to the world import market as a percentage of total value of imports of commodity *i* on import market where M_i is the value of imports of commodity *i* and M_{ij} is the value of imports of commodity *i* originated in South Africa (Exporter Country *j*).

Sectors that have gained market share would seem to indicate that South Africa has acquired a comparative advantage in the export of that product, although from the data presented above it is not apparent what the source of the comparative advantage would be.

(xi) Revealed comparative advantage

The revealed comparative advantage (RCA) index pioneered by Balassa (1965, 1979, 1986), assumed that the pattern of comparative advantage could be observed from post-trade data. Although the RCA faces various theoretical limitations, its calculation is based on an economy's actual export performance and has been used to consider the intrinsic comparative advantage of a particular export commodity. In general, a change in the RCA is consistent with changes in countries' relative factor endowment and productivity (Marchese & Simone 1989). Thus, a higher RCA indicates a larger comparative advantage in exports. Table 11 below give the RCA for all commodities based on the standard international trade classification (SITC) classification.

Table 11 South Africa's revealed comparative advantage

SITC	1980-85 Rank	1986-90 Rank	1991-95 Rank	1996-00 Rank	2001 Rank
Non metallic mineral manufactures, n.e.s.	3,28 7	1,59 15	2,38 13	5,00 6	14,05 1
Coal, coke and briquettes	4,22 4	9,29 4	14,48 2	17,03 1	10,59 2
Live animals, zoo animals, dogs, cats etc.	1,04 16	0,69 17	2,23 15	3,73 7	6,72 3
Metalliferous ores and metal scrap	3,48 6	4,74 5	5,90 6	7,39 2	6,24 4
Sugar, sugar preparations and honey	2,79 8	3,25 8	2,32 14	5,01 5	5,06 5
Crude fertilisers and crude materials (excl. coal)	4,04 5	4,53 7	10,95 3	3,62 9	3,69 6
Pulp and waste paper	1,85 13	1,87 11	3,91 7	5,26 3	3,47 7
Special transactions & commodities, not classified	29,18 1	0,47 23	10,07 4	3,66 8	3,35 8
Inorganic chemicals	1,58 15	2,19 10	3,67 8	5,21 4	3,25 9
Iron and steel	1,80 14	1,85 12	2,82 10	3,21 10	2,81 10
Commodities and transactions not elsewhere classified.	17,26 2	12,38 3	9,01 5	2,83 13	2,43 11
Hides, skins and fur skins, raw	2,45 9	1,65 13	2,54 12	3,10 12	2,36 12
Fish, crustaceans, molluscs, preparations thereof	0,76 17	0,68 18	0,93 19	1,41 20	2,04 13
Beverages	0,20 36	0,11 40	0,78 22	2,08 16	1,99 14
Miscellaneous, edible products and preparations	0,25 33	0,10 42	0,45 33	0,89 30	1,93 15
Vegetables and fruit	2,31 10	2,31 9	2,72 11	3,15 11	1,93 16
Non ferrous metals	2,18 11	4,71 6	2,94 9	2,76 14	1,74 17
Fertilisers, manufactured	0,45 24	0,22 35	1,11 17	2,30 15	1,47 18
Cork and wood	0,25 31	0,35 24	0,52 29	1,22 22	1,22 19
Live animals chiefly for food	0,10 49	0,02 64	0,06 64	0,22 58	1,20 20

Source: Own calculations based on the Balassa method using *World Trade Analyser* (2004).

South Africa's comparative advantage has shifted toward manufactured products, but there are still many primary commodities that feature strongly. It is interesting to note that when these calculation are done according to the SIC classification, beverages, leather, furniture, paper, products of petroleum, basic iron and steel, and non-ferrous metals in South Africa, are sectors

that have a revealed comparative advantage. Appendix 5 gives a full synopsis of South Africa's RCA using the Balassa calculations.²²

(xii) Constant market share analysis

Using the constant market share (CMS) model, Kellman, Roxo and Shachmurove (2002) explain changes in South Africa's share of trade in world markets. Differences in growth are attributed to four principal components (Pick & Vollrath, 1994: 563):

- World trade;
- Commodity composition;
- Market distribution; and
- A general competitiveness given by the residual (Tiwari, 1983: 70).

Kellman *et al.*, (2002) found that from 1992-1999 South Africa gained overall market shares in the OECD for the manufactured goods market, even though the commodity composition and market effects were in fact negative. This is attributable to the competitiveness effect. However, these authors also point out that the CMS model cannot spell out which policies cause which effect. They list labour unions making wage demands, the over- or undervaluation of the exchange rate, and inability to adapt to world demand.

(xiii) Origin of South African exports

Geographically, South Africa is a large country with varying conditions and factor endowments. The patterns of trade could therefore be different.²³ Gauteng, the industrial hub of Africa, is the main contributor to national exports, followed by KwaZulu-Natal and the Western Cape. Gauteng, which is some distance from the coastal ports, has an internal port at City Deep. Johannesburg International Airport is important, especially when it comes to high-value, low-

²² Again problems can be seen with South African trade data, especially data during the sanctions period. Unclassified products had the highest average RCA during the 1986-1990 period.

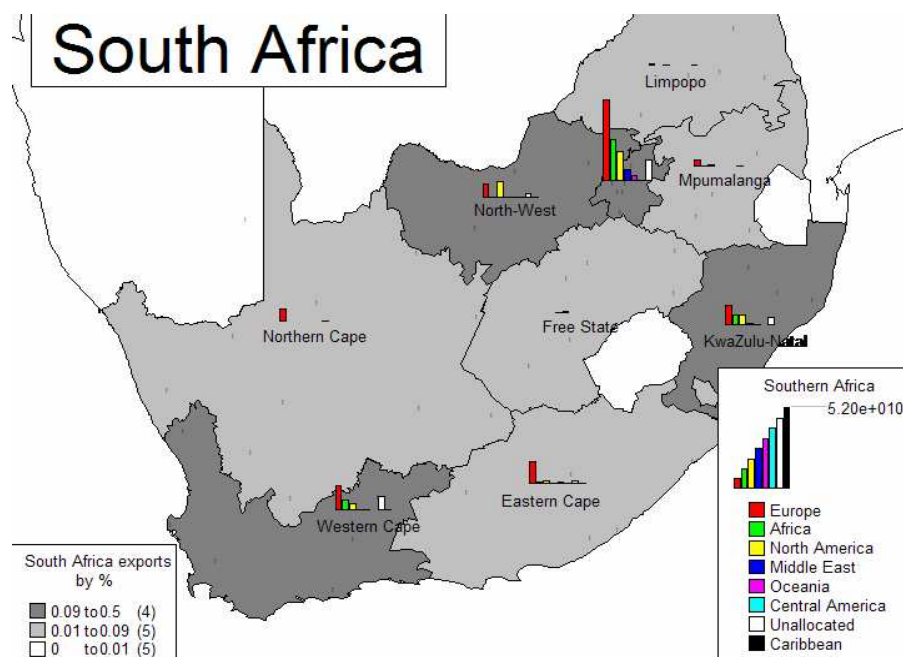
²³ South African Customs Union international import and export statistics are collected by the South African Revenue Services (SARS), and the Department of Customs and Excise. The postal code of the registered post office or street address of the South African importer or exporter is captured as part of the documentation of a particular transaction. Global Insight, an international firm providing economic data, compiled a geo-coding for each postal code reflecting the physical coordinates where the postal boxes are located. Using a "geographical smoothing" technique they obtained a mapping between postal codes and magisterial districts and provinces, and applied this mapping to calculate imports and exports by magisterial district. These magisterial allocations were then benchmarked and adjusted back to figures in the *South African Reserve Bank (SARB) Quarterly Bulletins* and the sectoral breakdown as published in the preliminary trade statistics from SARS.

weight products and perishables. Export values per province and export values per province per industrial sector are given in Appendix 6.

Calculating exports as a percentage of gross value added reflects the importance of exporting to each province. With the exception of the Limpopo province, exports of the provinces made a bigger contribution to the gross geographic product (GGP) in 2002 than in 1996. Exporting is relatively more important in provinces that have a larger industrial base. Value-adding manufacturing products, rather than agricultural or mining products, are growing across South Africa and this is shown in Appendix 6.

The map in Figure 9 shows South African exports according to region. Gauteng, the province exporting the most, is also responsible for the highest proportion of exports to Africa. Locational factors in this case are therefore important, and could be a determinant of trade to Africa, possibly because investment decisions tend to be driven by market and resource factors. Gauteng is also the largest South African market and has attracted the most investment.

Figure 8 Export markets per province



Source: Own calculations based on Customs and Excise data supplied by Global Insight (2004).

(xiv) Trade policies and export incentives

That there has been a switch in orientation of trade policy from inward to outward orientation has been evidenced by both the tariffication of non-tariff barriers and the phased reduction in import tariffs. As gold's share of South African exports has declined over the 1990s, so has the share of manufactured products increased. As indicated in Table 12, in 1990 manufactured products

contributed less than 10 per cent of the export basket. This proportion steadily increased and by the end of the decade represented almost a quarter of exports.

Table 12 Exports by stage of manufacturing

Category	1990 %	1993 %	1996 %	1999 %
Gold	33,7	31,2	23,5	16,3
Primary products ²⁴	24,5	25,4	21,5	20,4
Material intensive products	6,1	5,7	7,1	7,9
Manufactured products	9,2	14,4	19,9	23,6

Source: IDC (2000).

On the face of it, export incentives, particularly GEIS, contribute to this. However, even though GEIS ended in March 1997, the proportion of manufactured products continued to increase. (The impact of these incentives will be evaluated econometrically in Chapter 5).

Appendix 4 lists exports per sector since 1970. A leading gainer, the automotive sector, can ascribe its success ostensibly to incentive programmes²⁵ although, Cassim, Onyango and van Seventer (2002: 103) cite increased connectivity to global networks as the reason. Multinational corporations, which control almost all production of motor vehicles and a large part of components, have made investments in South Africa despite the small local market and other economic and political problems. This has contributed to increased exports – the share of motor vehicles, parts and accessories has increased from approximately 4 per cent in 1970-90 to 12 per cent in 2001. Discussions²⁶ with industry executives indicate that incentives, although important, do not in fact drive investment decisions.

(xv) Trade policies and preferential market access

Before 1990, inward-looking policies and sanctions influenced South Africa's trade. Since 1990, and particularly since democracy, South Africa has negotiated or unilaterally been granted privileged market access by many of the country's major trading partners. The General System of Preferences (GSP) and AGOA were unilaterally granted by developed countries (Appendix 7), while free trade agreements were negotiated with the European Union (EU) and the Southern

²⁴ The stages of manufacturing refers to the value chain and broadly can be interpreted as primary products = raw materials, material intensive products = semi-manufactured, and manufactured products = finished products.

²⁵ Phase VI of the automotive local content programme and the Motor Industry Development Programme (MIDP).

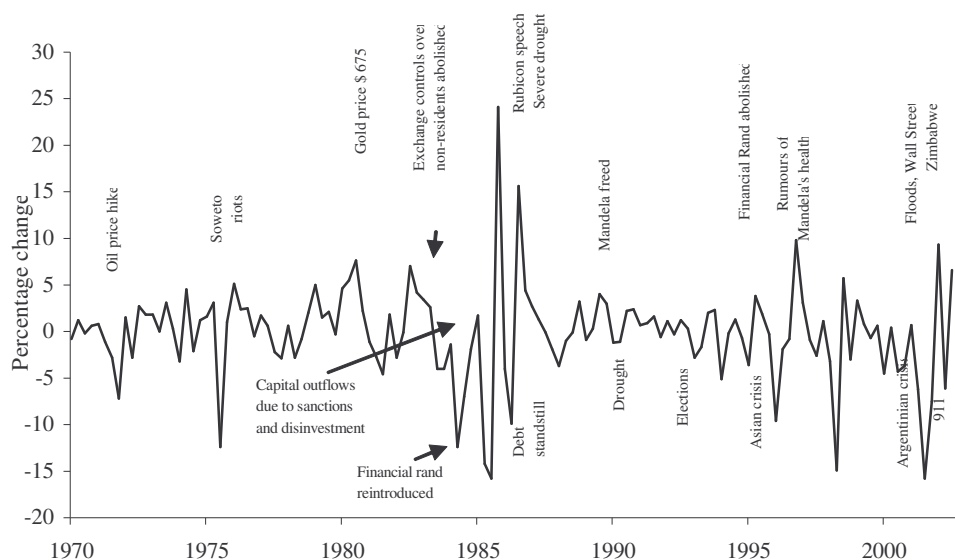
African Development Community (SADC). These agreements are asymmetrical in terms of the extent and timing.

The African Growth and Opportunity Act (AGOA), contained in the U.S. Trade and Development Act of 2000, offers free access to some manufacturing products originating in sub-Saharan African countries. In addition, Southern Africa Customs Union (SACU) members are signatories to the Cotonou Agreement (successor to the Lomé Convention), between the EU and 77 countries in Africa, the Caribbean, and the Pacific (ACP). South Africa, however, is excluded from most of the trade provisions of the Cotonou Agreement. The EU is an important market for SACU's main exports of sugar, meat, and meat products, which enter the EU at zero tariffs. According to Botswana, Lesotho, Namibia and Swaziland (BLNS) authorities, complex procedures, including rules of origin, undermine the preferences.

(xvi) Exchange rates

Since South Africans exporters generally tend to invoice in foreign currencies, exchange rates changes affect their receipts directly, and can have an impact on their profit. Prior to the 1970s, the South African currency was pegged. However, since then the country's exchange rate has been sensitive to political and economic events, and even different perceptions.

Figure 9 Real effective exchange rate



Source: *SARB Quarterly Bulletin* (various issues, S-147).

²⁶ These occurred over a period from 1990 to 2004. Executives do not want to be quoted since this may jeopardise future incentive packages. It is therefore unclear whether efficiency-seeking investment, incentives or the linkages to global networks drive trade in this sector.

The exchange rate is subject to monetary policy. Generally, the two main objectives of monetary policy are to reduce the rate at which domestic prices increase (inflation), and to maintain a stable exchange rate²⁷. The South African exchange rate has been influenced by an inflation rate exceeding that of its trading partners, although this alone is not enough to explain the decline.

In recent years, monetary policy has been disciplined and prudent, with real positive interest rates. Exchange control in various forms was introduced, relaxed and changed until February 1983, when exchange control over non-residents was abolished and it was hoped that it would be relaxed for residents as well. This hope was short-lived, as in 1985 President Botha's "Rubicon speech" had a catalytic effect on both local political developments and international perceptions. This eventually led to the debt standstill, the reintroduction of the financial rand, and pressure to strengthen trade sanctions. Exporters have responded accordingly, assuming that the South African currency would continue to lose value against its major trading partners. Various studies have been conducted on the relationship between the real exchange rate and South African exports from the 1970s until recently (Bell *et al.*, 1999; Holden, 1985; Holden & Gouws, 1997; IDC, 1997; Tsikata, 1999; World Bank, 1994). Kellman *et al.*, (2002) also found that South African export volume destined to the USA and the EU increased in response to a depreciating rand.

It is important, however, to consider the types of goods being exported. For instance, in a study of sub-Saharan countries, Ghei and Pritchett (1999) observe that devaluing the real exchange rate on agricultural commodities may increase the price received by exporters. Nevertheless, due to a combination of low price elasticities in world markets and the fact that the benefits are not passed on to the ultimate producers, export responses are muted. Using quarterly export data for 1988-1995, Holden and Gouws (1997) found that not all manufacturing exports were influenced by the exchange rate. Some industrial sectors enjoyed greater productivity as the proportion of output exported grew. Tsikata (1999), using 1970-1996 data, estimated that manufacturing exports are sensitive to the real exchange rate.

Kellman *et al.*, (2002) found that exporters generally did not switch from one market to another (e.g. Japan, the EU and the USA) when exchange rate differentials between these markets changed. The only exceptions were for science-based products (between Europe and the USA) and scale-intensive products (between the USA and Japan). This seems to support the hypothesis that once exporters have sunk costs in setting up a foreign marketing and distribution network, they are reluctant to switch to other markets in the short term.

²⁷ The South African Reserve Bank has set inflation targets and therefore does not necessarily strive to maintain a stable exchange rate.

There is considerable debate about whether the rand is over- or undervalued. Some argue that the currency is overvalued given the cost structures of the South African economy, while others believe that the rand is undervalued based on purchasing power calculations. The South African rand lost more than 30 per cent of its value against the major currencies of the world towards the end of 2001 but from around October 2002, the rand strengthened reversing past trends. Marsberg (2004) shows that the currency's appreciation was underpinned by:

- General dollar weakness;
- An improvement in global commodity prices, particularly gold and platinum;
- Favourable real interest rate differentials;
- Improved investor sentiment toward emerging markets; and
- The elimination of South Africa's net open forward currency position.

From a macro policy perspective, attention needs to be given to the cost structures of the South African economy. This will help mitigate the negative effect of a strong currency.

(xvii) Capacity and vent-for-surplus

From a supply-side point of view, exporters need to have product available to export. Depending on whether the firm in question has excess capacity or faces capacity constraints, growth in exports may or may not be realised. Firms with exporting experience and which have excess capacity may ramp up their exports if, say, the rand was devalued. This was probably the case in 2000 for firms in the steel industry, owing to the weakness of the rand for the greater part of the year, and because exports are dollar denominated. On the other hand, for incumbent exporters who are operating at near capacity levels, export response will be muted unless there is increased capital investment.

(xviii) Infrastructure

Infrastructure is one of the "necessary but not sufficient conditions" under which exports can take place. The Central Intelligence Agency (CIA) (2004) states that South Africa has a "well-developed financial, legal, communications, energy, and transport sectors; a stock exchange that ranks among the 10 largest in the world; and a modern infrastructure supporting an efficient distribution of goods to major urban centers throughout the region." Despite the sound infrastructure, it is inadequate with congestion at South Africa's major ports. Vermeulen (1999: 32) reported that "the congestion has forced ships to divert to other harbours, and freight agents, importers and exporters are being burdened with the costs of delayed payment on delivery, re-routing and amendments to documentation."

Perhaps a matter of concern for the future is the rising relative cost of communication, particularly on the Internet. Hanley (2004: 1) “believes that the high costs of calls is inhibiting business development and the growth of the internet in this country. South Africa has consistently slipped in the rankings of the most connected countries in the world, from being in the top 20 to slipping to 34th position by January 2003.” He complains that South Africa’s call and internet charges are out of line with global trends and continues that “South Africans are forced to pay around 13 times as much for a service of inferior quality to the one available in the UK. Such prohibitive cost structures affect all companies that rely on the internet for business transactions. These include (but are not limited to) banking, retail, eBusiness, tourism, the travel industry and auctions.”

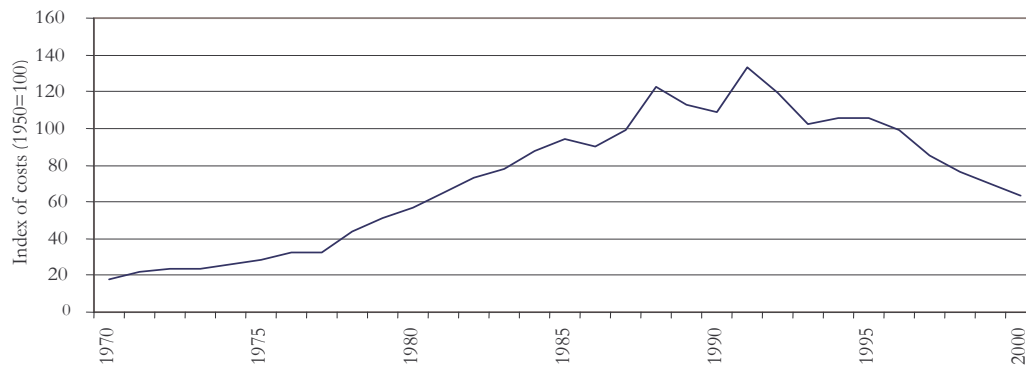
Although the infrastructure created by government contributed to export development, the relative cost of using these facilities in recent years has contributed to increased export prices and uncompetitive exports.

(xix) Freight rates

Geographically, South Africa is far from its major trading partners and increases the transaction costs which are further aggravated by internal transport costs, since much of South Africa’s output is produced inland. Nevertheless, South Africa is a major sea trading nation accounting for approximately 6 per cent of real world sea trade. This places it within the top 12 international maritime trading nations.

Since 1988, South African exporters have continued to gain better market access. On account of the formation of the WTO, South Africa’s tariffs have declined. In turn, this reduction in artificial trade barriers has implied that transport costs have become an increasingly important determinant of trade. Naude (1999) found international transport costs (shipping costs), as proxied by the import cost, insurance and freight (CIF) and the free on board (FOB) band, is significantly higher in South Africa’s case than the world average.

Conference lines are associations of ship owning lines that operate on a given sea route with a standard tariff rates. Although initially guaranteeing service to exporters, they are often accused of price collusion and operating cartels. Freight rates have not been static, and have actually decreased since 1990 as can be seen below.

Figure 10 South Africa–Europe freight rates

Source: Chasomeris, (2003).

The impact of these will be tested in both the gravity and trade equation models (using the error correction techniques).

2.5 Factors determining South African exports

Many factors have influenced South African exports. The following characterised South African exports prior to 1990:

- Volatile commodity markets;
- Domestic and international trade policy;
- Exchange rate management and volatile exchange rates;
- Domestic and foreign demand;
- Political factors including sanctions (1985–1990);
- The international debt problem; and
- Capital shortages.

While agriculture and mining continue to contribute to the country's exports, the growth in exports from the primary sector (including mining) no longer acts as the main determinant of economic activity.

The following factors influenced the direction and composition of South African trade after 1990:

- Preferential market access (as apposed to sanctions);
- Subsidies, including GEIS;
- Endowments;
- Role of education;

- Tax;
- Exchange rate and monetary policy; and
- Trade policy (especially the effective rate of protection and market access).

From this descriptive analysis, it appears that South Africa's vast natural endowments, especially gold, initially drove the country's trade. The high prices of these commodities caused Dutch disease, crowding out and the limiting of industrialisation. Import substitution, although it initially contributed to industrialisation, led to high rates of protection that resulted in an anti-export bias. Various measures, such as GEIS, used to counteract this situation were largely unsuccessful. The years of sanctions did not help matters either. Political problems also influenced the direction of trade. Trade with Africa never developed as it should have, allowing other countries to capture these markets.

Despite these drawbacks, manufacturing exports did grow, but not commensurate with the rate of international growth. South African exporters became less competitive in a growing market. Foreign demand is clearly a driver of South African trade. Government has highlighted what no longer drives South African trade:

The old modes of competitiveness are less and less useful in this environment. The cost of the raw materials, access to cheap labour, control over proprietary technologies, and privileged access to markets – these advantages are less and less valuable. This does not mean that our strengths in manufacturing based on energy and raw materials are not receiving attention but rather that we seek to further enhance these basic competitive advantages by integrating knowledge intensive processes into these sectors (Erwin, 2001).

2.6 Conclusion

Although South African economic history could be traced back much further, its modern economic foundation was laid by colonialists. Both endowments (nature) and political events (nurture) played a role in South Africa's development. From the 1900s, South African development started with the replacement of light consumer goods and gradually moved towards certain intermediate capital goods. More recently, various domestic and international political and economic events have influenced South Africa's trade, balance of payments, economic activity and policy. In summary, it appears as though South Africa's trade is primarily determined by prices, foreign demand, trade policy and sanctions, and capacity and capacity utilisation. These factors will be discussed in detail in Chapter 5. This chapter has given a descriptive outline of the development of South Africa's exports and has inductively identified South Africa's determinants of exports. The next Chapter will look at trade theory and deduce causes of South Africa's trade.