

**THE NATURE AND POTENTIAL OF INDUSTRIAL DEVELOPMENT WITHIN
THE SOUTHERN AFRICAN DEVELOPMENT COMMUNITY (SADC) AND THE
FACILITATING ROLE OF TRADE LIBERALISATION AND FOREIGN DIRECT
INVESTMENT IN SELECTED COUNTRIES**

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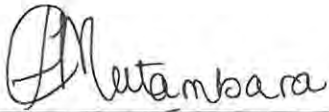
by

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DECLARATION

Except for the references specifically indicated in the text and such help as I have acknowledged, this thesis is wholly my own work and has not been submitted for degree purposes at any other university.

A handwritten signature in cursive script that reads "Mutambara". The signature is written in black ink and is positioned above a horizontal line.

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ABSTRACT

To date the SADC region has managed to develop a manufacturing base but this base is still small as evidenced by its low contribution to GDP. For example, only three out of the fourteen SADC countries, viz. Mauritius, South Africa and Swaziland, had over 20 percent of their GDP originating from the manufacturing sector throughout the 1990s. Also to note is that while the manufacturing sector is quite diversified, the sector is dominated by industrial processes which are more of resource- and labour-intensive in nature than those processes of scale-intensive, differentiated and science based in nature. The trade performance of the manufacturing sector supports these observations and as such the region is heavily dependent on imports for scale-intensive, differentiated and science based commodities. However, despite the fact that the region tends to focus more on resource- and labour-intensive manufacturing activities, products from these manufacturing activities are still significant components of manufactured goods imports into the region. Also to note is that since resource- and labour-intensive industries dominate manufacturing activities; these are the areas in which investment opportunities abound. For example, agro-based manufacturing presents most of the investment opportunities, with food processing presenting the majority of the investment opportunities followed by garments and textiles production. Mineral processing also presents significant investment opportunities.

The analyses of the nature of the manufacturing sector also show that in a few SADC countries, viz. Mauritius, South Africa and Zimbabwe; scale-intensive, differentiated and science based industries also form a significant component of the industrial base implying more technologically complex manufacturing sectors. Since high technology and technologically complex manufacturing activities are limited, investment opportunities in these manufacturing sub-sectors are also limited to just a few countries. However, with the SADC FTA in place, opportunities could arise for these limited technology-related manufacturing facilities to expand or engage in import substitution production so as to meet the demands of the growing regional market. It is also important to note that, while the region may not have as competitive advantage in these industries as in the resource- and labour-intensive industries, there is a need for the region to selectively identify and target such industries for priority development, a lesson SADC could learn from the East Asian NIC's took in their industrialisation strategy.

The study also shows that the manufacturing sector has been a priority sector for both domestic and foreign investors. This has implications for industrial development because a strong and dynamic manufacturing sector would be developed, forming a sound basis for industrialisation as well as being able to effectively link and support all the other sectors of the economy. FDI could help the region to fully utilise the labour-intensive industries and use them as a stepping-stone to higher levels of industrial development. This is a lesson to SADC from the experiences of the East Asian NICs where

while industrialisation was initiated by labour-intensive manufacturing, the countries were able to move into capital-intensive manufacturing due to FDI as it enabled the establishment of the industrial bases, thus leading to a rise in the share of manufactured exports.

FDI could also help to develop the resource-intensive industries further by promoting further processing of raw materials into products of more value, thus propelling industrialisation through a resource-led industrial development programme as the current resource-intensive industries become fully utilised. The raw materials which occur in great abundance in the region's primary sector would have a ready market in the manufacturing sector where they would serve as inputs to the production of high value products. The currently smaller industrial base for scale-intensive products, differentiated and science-based manufactured products would benefit from the improved technological capabilities and managerial skills that result from FDI. Therefore, by impacting positively on manufacturing activities of both low and high MVA, FDI would thus have a facilitating role in establishing a more solid industrial base, broadening the current manufacturing base, and improving installed capacity utilisation.

The study also shows that investment in productive capacity in the form of machinery and equipment is of great importance in the sampled SADC countries. Investment towards the acquisition of this capital is very important as this is directly relevant towards improving productive capacity. FDI could thus play a facilitating role by augmenting the current domestic investment in machinery and equipment.

While the manufacturing sector within the region is still small and the current utilisation of installed industrial capacity is low, there is potential for further industrial growth. The current process to usher in the SADC Free Trade Area would have a facilitating role through various ways: viz. increasing the market size and enabling easier access through the reduction of tariff and non-tariff barriers, promoting regional competitiveness, improved utilisation of regional corridors, increasing opportunities for utilising identified intra-industry trade potentials, and providing opportunities for increased regional cross-border investment. Apart from the SADC FTA, the USA African Growth and Opportunity Act (AGOA) and the Cotonou Agreement will also motivate the identification and utilisation of existing and new potentials within the manufacturing sector in SADC.

In order to improve the current nature of industries in the region, there is also a need to design and implement appropriate industrial policies and strategies. Such policies should consider the region's trade policies and the recently launched Regional Indicative Strategic Development Plan (RISDP) so as to complement them. The industrial policies should also address issues relating to industrial investment, technology and local technological capabilities development, human resources

development, the structure and nature of industry, the competitiveness of industries, as well as facilitating the complementarities between the agricultural and manufacturing sectors. To this end therefore, instead of relying solely on individual national industrial policies, SADC is in the process of formulating a regional industrial policy and strategies which seek to promote and support sustainable industrial growth across the region, thus facilitating industrial development.

CONTENTS

Abstract	iii
List of Tables	xvii
List of Figures	xxi
Acknowledgements	xxii
CHAPTER ONE: INTRODUCTION	1
1.1 INTRODUCTION	1
1.2 THE RESEARCH PROBLEM	1
1.3 GOALS OF THE RESEARCH	2
1.4 METHODOLOGY	3
1.4.1 Review of existing literature on theoretical frameworks	3
1.4.2 Review of case studies on successful industrialisation within the developing world	3
1.4.3 A comparative statistical analysis	3
1.4.4 Use of questionnaires for qualitative and supporting information	4
1.5 PLAN OF THE THESIS	5
1.6 LIST OF ABBREVIATIONS	6
CHAPTER TWO: THE THEORETICAL FOUNDATIONS UNDERLYING THE PROCESS OF INDUSTRIALISATION	7
2.1 INTRODUCTION	7
2.2 THE TRADITIONAL THEORY OF INDUSTRIAL LOCATION	8
2.2.1 Profit maximisation	9
2.2.2 Transport costs	9
2.2.3 Labour costs	10
2.2.4 Economies of scale	10
2.2.5 The market	11

2.2.6	Agglomeration economies	11
2.2.7	Non-pecuniary factors	12
2.2.8	The Marshallian theory	12
2.2.9	The theory of new economic geography	13
2.3	THE THEORY OF INDUSTRIAL CLUSTERING	14
2.3.1	Porter's "diamond" framework	14
2.3.1.1	Demand conditions	15
2.3.1.2	Supporting and related industries	16
2.3.1.3	Factor conditions	16
2.3.1.4	Firm structure, strategy and rivalry	16
2.3.1.5	The "diamond" as a tool for industrial development	17
2.3.2	Contributions by Dunning	17
2.4	THEORIES OF ECONOMIC GROWTH	18
2.4.1	The Harrod-Domar growth model	18
2.4.1.1	Assumptions of the model	18
2.4.1.2	The Harrod-Domar model	19
2.4.1.3	Implications of the model	19
2.4.1.4	Criticisms of the model	20
2.4.2	Solow's neo-classical growth models	21
2.4.2.1	Assumptions of the model	22
2.4.2.2	The model	22
2.4.2.3	Implications of the model	23
2.4.2.4	Criticisms of the model	24
2.4.3	New growth theory/ Endogenous growth model	25
2.4.3.1	Assumptions of the model	25
2.4.3.2	The model	26
2.4.3.3	Implications of the model	26
2.4.3.4	Criticisms of the model	29
2.5	THEORY OF INDUSTRIAL POLICY	30
2.5.1	Introduction	30
2.5.2	Theoretical basis of the industrial policy	31
2.5.2.1	Trade and industrial policy	32
2.5.2.2	Industrial investment and industrial policy	33
2.5.2.3	Technological development, local technological capabilities and industrial policy	33
2.5.2.4	Human resources development and industrial policy	35
2.5.2.5	Structure and behaviour of industry and industrial policy	36

2.6 IMPORT SUBSTITUTION INDUSTRIALISATION	37
2.6.1 Introduction	37
2.6.2 Defining import substitution industrialisation	38
2.6.3 Import substitution industrialisation (ISI) as a three stage process	38
2.6.4 Rationale or import substitution industrialisation	39
2.6.4.1 Infant industry protection reasons	39
2.6.4.2 Economic rationale for ISI	40
2.6.4.3 Political rationale for ISI	40
2.6.4.4 Technological capabilities reasons	41
2.6.4.5 External forces fuelling ISI	41
2.6.5 Criticisms against import substitution industrialisation	42
2.6.5.1 Limitations of the pattern of demand and distribution of income	42
2.6.5.2 Limitations of trade data	43
2.6.5.3 Diversion/ unequal distribution of resources and underutilisation of resources	43
2.6.5.4 Impact of ISI on balance of payment problems	44
2.6.5.5 Exhaustion of ISI opportunities	45
2.6.5.6 Problems with infant industry protection	46
2.7 NEO-CLASSICAL THEORY OF EXPORT ORIENTATED INDUSTRIALISATION	47
2.7.1 Introduction	47
2.7.2 Economic theory behind export orientated industrialisation	47
2.7.3 Manufactured export strategies	48
2.7.3.1 Processing for export	48
2.7.3.2 Exports based on import substitution industries	49
2.7.3.3 Labour-intensive assembly and processed exports	50
2.7.4 Measures to promote export orientated industrialisation	51
2.7.5 Transition from import substitution to export orientated industrialisation	52
2.7.5.1 ISI as a precondition for EOI	52
2.7.5.2 Prior industrialisation as a precondition for EOI	53
2.7.5.3 Simultaneous pursuit of both ISI and EOI	54
2.7.6 Criticisms against export orientated industrialisation	54
2.8 CONCLUSION	56

CHAPTER THREE: SUCCESSFUL INDUSTRIALISATION WITHIN DEVELOPING COUNTRIES	59
3.1 INTRODUCTION	59
3.2 SELECTED CASE STUDIES: EAST ASIAN NEWLY INDUSTRIALISED COUNTRIES	60
3.2.1 Introduction	60
3.2.2 Kuznets' East Asian development model	61
3.2.3 South Korea	63
3.2.3.1 Industrial development strategies followed	64
3.2.3.1.1 Import substitution industrialisation	64
3.2.3.1.2 Export oriented industrialisation	65
3.2.3.1.3 Simultaneous implementation of import substitution and export orientation	67
3.2.3.2 FDI and industrial development in South Korea	68
3.2.3.2.1 FDI and export promotion	69
3.2.3.2.2 The development of technological capabilities	70
3.2.4 Taiwan	73
3.2.4.1 Industrial development strategies followed	74
3.2.4.1.1 Import substitution industrialisation	74
3.2.4.1.2 Export oriented industrialisation	75
3.2.4.1.3 Simultaneous implementation of import substitution and export orientation	76
3.2.4.1.4 Encouragement of rural industrial development	77
3.2.4.2 Foreign direct investment	77
3.2.4.3 Technological development	78
3.2.5 Hong Kong	79
3.2.5.1 Industrialisation strategy	80
3.2.5.2 The nature of the industrial structure	81
3.2.5.3 The role of government	82
3.2.5.4 Transfer of technology and local technological capabilities	82
3.2.6 Singapore	83
3.2.6.1 Industrial development strategies followed	83
3.2.6.1.1 Import substitution industrialisation	84
3.2.6.1.2 Export oriented industrialisation	85
3.2.6.2 The role of government	85
3.2.6.3 The role of FDI	88
3.2.6.4 Industrial development and the transfer of technology	89
3.3 THE EAST ASIAN NICs AND THE WORLD ECONOMY TODAY	90
3.4 LESSONS FROM THE EAST ASIAN NICs TO SADC COUNTRIES	95
3.4.1 The correction of skills shortages	96
3.4.2 Infrastructure development	97

3.4.3	Resource endowment and the choice of industrialisation strategy	97
3.4.4	Pursuing sound macroeconomic policies	98
3.4.5	The role of FDI	99
3.4.6	Availability of markets	99
3.4.7	The development of linkages	100
3.4.8	Internal peace and security	101
3.4.9	The importance of SMEs	102
3.4.10	The importance of exports for economic growth	102
3.5	CONCLUSION	102
CHAPTER FOUR: AN ECONOMIC OVERVIEW OF THE SADC REGION		105
4.1	INTRODUCTION	105
4.2	AN OVERVIEW OF THE ECONOMIC SECTORS	106
4.2.1	The primary sector	106
4.2.2	The secondary sector	110
4.2.2.1	The manufacturing sector	110
4.2.2.2	The energy production sector	112
4.2.3	The tertiary sector	115
4.2.4	Implications of the economic sectors for industrial development	117
4.2.4.1	Primary sector	117
4.2.4.2	Secondary sector	119
4.2.4.3	Tertiary sector	120
4.3	THE BUSINESS ENVIRONMENT WITHIN SADC	121
4.3.1	Entry regulations	121
4.3.2	Contract enforcement	123
4.3.3	Implications from the investment and business climate indicators	124
4.4	INFRASTRUCTURE DEVELOPMENT	124
4.4.1	The industrial infrastructure	125
4.4.2	The financial infrastructure	127

4.4.3	Transport and communication network	129
4.4.3.1	Road transport	130
4.4.3.2	Railway networks	132
4.4.3.3	Telecommunication systems	133
4.4.4	Wholesale and retail, hotels and restaurants	133
4.4.5	Building and construction	134
4.5	HUMAN CAPITAL RESOURCES	136
4.5.1	Human capacity building efforts	137
4.5.1.1	Funding for education	139
4.5.1.2	Educational enrolments for capacity building	140
4.5.2	Implications for industrial development	144
4.6	INDUSTRIAL DEVELOPMENT STRATEGIES BEING PURSUED	147
4.6.1	Current industrial development strategies	147
4.6.1.1	Market-driven approaches	147
4.6.1.2	Export-oriented industrial development strategies	149
4.6.1.3	Import substitution industrial development strategies	150
4.6.2	Progress in privatisation of economies	151
4.6.3	Institutions in place to support industry	154
4.7	INCOME DISTRIBUTION AND POVERTY WITHIN THE SADC REGION	157
4.8	CONCLUSION	161
CHAPTER FIVE:	INVESTMENT PATTERNS WITHIN SADC AND	
	IMPLICATIONS FOR INDUSTRIAL DEVELOPMENT	164
5.1	INTRODUCTION	164
5.2	DATA COLLECTION	164
5.3	AN OVERVIEW OF DOMESTIC INVESTMENT WITHIN SADC AND ITS	
	IMPLICATIONS FOR INDUSTRIAL DEVELOPMENT	166
5.3.1	Gross domestic investment trends	166
5.3.2	Gross private and public investment	170
5.3.3	Gross domestic saving and investment	176
5.3.4	Sectoral composition of domestic investment	180

5.4 FOREIGN DIRECT INVESTMENT FLOWS WITHIN SADC	185
5.4.1 Foreign direct investment inflows into SADC	185
5.4.1.1 Foreign direct investment inflows into South Africa	186
5.4.1.2 Foreign direct investment inflows into Angola	188
5.4.1.3 Foreign direct investment inflows into Mozambique	189
5.4.1.4 Foreign direct investment inflows into Tanzania	190
5.4.1.5 Foreign direct investment inflows into Zambia	192
5.4.1.6 Foreign direct investment inflows into Lesotho	193
5.4.1.7 Foreign direct investment inflows into Mauritius	194
5.4.1.8 Foreign direct investment inflows into Namibia	195
5.4.1.9 Foreign direct investment inflows into Zimbabwe	196
5.4.1.10 Foreign direct investment inflows into Botswana	197
5.4.1.11 Foreign direct investment inflows into Swaziland	198
5.4.1.12 Foreign direct investment inflows into the remaining SADC countries	199
5.4.2 Concluding remarks	199
5.4.3 Implications of FDI for industrial development	202
5.5 REGIONAL CROSS BORDER INVESTMENT PATTERNS WITHIN SADC	205
5.5.1 Motivating factors for cross border investment within SADC	205
5.5.2 Regional cross border investment patterns	206
5.5.2.1 South Africa's cross border investments within SADC	206
5.5.2.1.1 Cross border investment by South Africa into Zambia	207
5.5.2.1.2 South Africa's cross border investment into Zimbabwe	210
5.5.2.1.3 Cross border investment by South Africa into Namibia	211
5.5.2.1.4 Cross border investment by South Africa into Mozambique	211
5.5.2.1.5 Cross border investment by South Africa into the remaining SADC countries	213
5.5.2.2 Zimbabwe's cross border investment within SADC	215
5.5.2.3 Cross border investment into Zimbabwe by SADC member states	217
5.5.2.4 Regional cross border investment into and out of Zambia	222
5.5.2.5 Regional cross border investment into Mozambique	223
5.5.2.6 Regional cross border investment by Mauritius	225
5.5.3 Benefits from regional cross border investments and implications for industrial development	225
5.5.3.1 Economic benefits to the host country	225
5.5.3.2 Economic benefits to the investor	226
5.5.3.3 Possible disadvantages	227
5.6 CONCLUSION	228

CHAPTER SIX:	EMPIRICAL ANALYSIS OF THE OF THE MANUFACTURING SECTOR WITHIN SADC	232
6.1	INTRODUCTION	232
6.2	DATA COLLECTION	232
6.3	GROWTH PERFORMANCE OF THE MANUFACTURING SECTOR	233
6.4	THE STRUCTURE OF THE MANUFACTURING SECTOR	238
6.5	TRADE PERFORMANCE BY THE MANUFACTURING SECTOR	244
6.5.1	The export performance of the manufacturing sector	244
6.5.2	Technological structure of manufactured exports	247
6.5.3	Manufactured imports into the SADC region	250
6.5.4	Intra-industry trade potentials within the SADC region	254
6.5.4.1	Intra-industry trade between SACU and selected non-SACU SADC countries	255
6.5.4.1.1	SACU – Malawi trade	255
6.5.4.1.2	SACU – Mauritius trade	257
6.5.4.1.3	SACU – Mozambique trade	257
6.5.4.1.4	SACU – Tanzania trade	257
6.5.4.1.5	SACU – Zambia	257
6.5.4.1.6	SACU – Zimbabwe trade	258
6.5.4.2	Implications of intra-industry trade analysis for industrial development	258
6.6	INDUSTRIAL PERFORMANCE OF SADC ECONOMIES AS MEASURED BY BASIC INDICATORS	259
6.7	INDUSTRIAL CAPACITY UTILISATION	261
6.7.1	Industrial capacity utilisation in South Africa	262
6.7.2	Industrial capacity utilisation in Zimbabwe	264
6.8	CONSTRAINTS TO THE SADC MANUFACTURING SECTOR	267
6.9	OPPORTUNITIES AND POTENTIALS WITHIN THE MAUFACTURING SECTOR	268
6.9.1	Investment opportunities within the manufacturing sector	268

6.9.2	The importance of a market for the manufacturing sector	272
6.9.2.1	Realising manufacturing potentials through AGOA and Cotonou Agreements	273
6.9.2.2	The importance of regional agreements	275
6.9.3	The availability of human resources	276
6.9.4	Realising opportunities through improvements in infrastructural facilities	277
6.9.5	Realising manufacturing potential through intra-industry trade	278
6.9.6	Other observations on how to realise manufacturing potential	278
6.10	CONCLUSION	279
CHAPTER SEVEN: THE INDUSTRIAL POLICY IMPLICATIONS AND THE FACILITATING ROLE OF THE SADC FREE TRADE AREA		282
7.1	INTRODUCTION	282
7.2	METHODOLOGY USED TO OBTAIN INFORMATION ON THE SADC INDUSTRIAL POLICY AND STRATEGIES	283
7.2.1	Questionnaires to SADC contact points in member states	283
7.2.2	Questionnaires to SITCD in Tanzania and the SADC secretariat	284
7.2.3	Questionnaires to Ministries of industry and trade	284
7.3	INDUSTRIAL POLICY RECOMMENDATIONS FOR THE SADC REGION	288
7.3.1	Trade policies to support industrial development	288
7.3.2	Recommendations for industrial investment	293
7.3.3	Proposals for the structure and behaviour of industries	294
7.3.4	Recommended human resources development policies	296
7.3.5	Recommendations for technology development	298
7.3.6	Focussing on promoting selected industrial sub-sectors as an industrial policy	300
7.3.7	Industrialisation through regional industrial clusters	302
7.3.7.1	The textiles and clothing cluster	304
7.3.7.2	Clusters for high technology and technologically complex products	305
7.3.7.3	The facilitating role of the SADC FTA and other trade agreements	306
7.3.7.4	The facilitating role of regional cross border investment	308
7.3.8	Agriculture and rural development as complements to industrial policy	308

7.4 SADC INITIATIVES TO DEVELOP THE PROPOSED SADC INDUSTRIAL POLICY AND STRATEGIES	309
7.4.1 Progress in developing the policy since inception	309
7.4.2 Main areas of concern to be addressed	313
7.4.2.1 Identification of industrial investment potentials in the region	313
7.4.2.2 The effectiveness of current national industrial policies	314
7.4.2.3 The need for balanced development	314
7.4.2.4 Possible polarisation of industries	315
7.4.2.5 Legal framework and implementation	316
7.4.2.6 Monitoring and performance evaluation	317
7.5 POSSIBLE CHALLENGES IN IMPLEMENTING THE PROPOSED SADC INDUSTRIAL POLICY AND STRATEGIES	318
7.5.1 Reducing industrial disparities between member states	318
7.5.2 Suitable and adequate institutional arrangements	319
7.5.3 The paradox	320
7.5.4 Cooperation by member states	321
7.5.5 Sense of ownership of the proposed regional industrial policy	323
7.6 THE FACILITATING ROLE OF THE SADC FREE TRADE AREA IN IMPLEMENTING THE SADC INDUSTRIAL POLICY AND STRATEGIES	325
7.6.1 Market size and access	326
7.6.2 Regional competitiveness	326
7.6.3 Utilisation of regional corridors	327
7.6.4 Utilising intra-industry trade potentials	327
7.6.5 Increased regional cross-border investment	328
7.6.6 Possible emergence of skewed investment patterns	328
7.7 CONCLUSION	329
CHAPTER EIGHT: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH	331
8.1 INTRODUCTION	331
8.2 EVALUATION OF THE CURRENT NATURE OF THE SADC INDUSTRIAL BASE	332
8.2.1 Share of manufacturing to GDP	332
8.2.2 Growth of the manufacturing sector	332

8.2.3	The structure of the manufacturing sector	333
8.2.4	Trade performance of the sector	335
8.2.5	Utilisation of current industrial capacity	337
8.3	EVALUATION OF INVESTMENT IN THE MANUFACTURING SECTOR	339
8.3.1	Domestic investment and implications for industrial development	339
8.3.2	Foreign direct investment and implications for industrial development	341
8.3.3	Regional cross border investment and its implications for industrial development	342
8.4	THE FACILITATING ROLE OF THE SADC FTA	344
8.4.1	Improving industrial capacity utilisation	344
8.4.2	Protection to industries with demonstrable potential	345
8.4.3	Fostering regional industrial clusters	346
8.4.4	Attracting in new industrial investment	346
8.5	POSSIBLE WAYS TO HARNESS FULLY THE POTENTIAL OF THE MANUFACTURING SECTOR	347
8.6	THE SADC INDUSTRIALISATION STRATEGY	350
8.7	RECOMMENDATIONS FOR FURTHER RESEARCH	351
	APPENDICES	353
	REFERENCES	396

LIST OF TABLES

Table 3.1:	FDI outflows by home region and economy (US \$million): 1991-2002 (most recent data)	91
Table 3.2:	East Asian NICs' participation in cross border mergers and acquisitions sales and purchases by economy of seller and purchaser respectively (US \$million): 1990-2002 (most recent statistical data)	92
Table 3.3:	Country composition of the top 50 TNCs from developing economies by transnationality index and foreign assets: 1993, 1997, 1998, 1999, 2000*	93
Table 3.4:	Country composition of the top 5 TNCs from developing economies in terms of transnationality: 1996, 1998 and 2000 ^a	94
Table 3.5:	The East Asian NICs among the top 20 export winners, by technology category, 1985 – 2000 (most recent statistical data)	95
Table 4.1:	Energy production within SADC (most recent statistical data)	113
Table 4.2:	Electricity production with SADC (most recent statistical data)	114
Table 4.3:	Business environment within the SADC region (as at January 2002)	122
Table 4.4:	Distribution of manufacturing activities within the SADC region (1980, 1990, 1999)	125
Table 4.5:	Percentage contribution of financial infrastructures to GDP	127
Table 4.6:	Paved primary roads within SADC (1991 – 1999 ^a)	131
Table 4.7:	Percentage contribution to GDP by other sectors	135
Table 4.8:	Adult literacy rate (% of population 15 years and above) by country	136
Table 4.9:	Investment in education by government (Public expenditure on education as % of total government expenditure) by country (most recent data)	139
Table 4.10:	Gross enrolment by level of education (% of relevant age group), up to the most recent year for which statistical data is available from the most recent source	141
Table 4.11:	Summary of privatisation of public enterprises within SADC countries (1995- 2000)	152
Table 4.12:	Income distribution in selected SADC countries (1993 – 1998)	158
Table 4.13:	Prevalence of poverty within SADC (1993 – 1998)	160
Table 4.14	Summary of the key industries in SADC countries	162
Table 5.1:	Gross domestic investment and real economic growth in SADC countries (1990-2001)	167

Table 5.2:	Gross public investment (% of GDP) and Gross private investment (% of GDP) by country, 1990-2001	171
Table 5.3:	Gross domestic savings (% of GDP) and Resource balances (% of GDP), 1990-2001	177
Table 5.4:	SADC's share of FDI inflows (1990-2002), US\$ billion (most recent data)	186
Table 5.5:	FDI performance by SADC countries: 1991 – 2001 (most recent data)	201
Table 5.6:	Top twenty South Africa investors in Zambia by May 2000	208
Table 5.7:	Investment by South Africa into the retail sector in Zambia by May 2000	209
Table 5.8:	Investment into Zimbabwe by South Africa (1995 –2002) (most recent data)	210
Table 5.9:	Sectoral investment by South Africa in Namibia (1998 –2001) (most recent data)	211
Table 5.10:	South Africa FDI into Mozambique and the sectoral distribution	212
Table 5.11:	South Africa's FDI in the remaining SADC countries, 1996-1998 (US\$ million)	213
Table 5.12:	Cross border investment by Zimbabwe: 1989-1993	215
Table 5.13:	Approved investment from regional investors (August 1989 – July 1993)	218
Table 5.14:	Three major regional investors in Zimbabwe, 1995 – 2002 (most recent data)	219
Table 5.15:	Cross border investment into Zimbabwe by other SADC countries: 1995–2002	220
Table 5.16:	Investment certificates by country of origin, 1995 –2001	222
Table 5.17:	Cross border investment into Mozambique by SADC countries, (Thousands of Meticals) (most recent statistical data)	224
Table 5.18:	Comparison of performance between SADC countries	228
Table 6.1:	SADC manufacturing sector by ISIC industry	239
Table 6.2:	Structure of manufacturing (selected countries within the SADC region)	240
Table 6.3:	Manufactured goods exports: 1991-2000 (US\$ million, current prices) and as a percentage (%) of total merchandise exports (up to the most recent year for which data was available)	245
Table 6.4:	Technological structure of SADC manufactured exports (1985, 1998*) percent	248
Table 6.5:	High technology manufactured exports (1999 – 2002)	249
Table 6.6:	Manufactured goods imports, 1991-2000 (US \$ million, current prices), and as a percentage (%) to total merchandise imports (up to the most recent year for which data was available)	251

Table 6.7:	Capital goods imports, 1991-2000 (US \$ million, current prices), and as a percentage (%) to total merchandise imports (up to the most recent year for which data was available)	253
Table 6.8:	Major sectors with increasing intra-industry trade ¹ , in descending order of importance ² (1994 – 2000)	256
Table 6.9:	Ranking of economies by basic indicators of industrial performance and by composite index of competitive industrial performance (1985, 1998)	260
Table 6.10:	Capacity utilisation by sector in South Africa for selected years	263
Table 6.11:	Industrial capacity utilisation in Zimbabwe (1990-2001)	265
Table 6.12:	Investment opportunities within the manufacturing sector in the SADC region	269
Table 7.1:	Analysis of questionnaire responses from SITCD in Tanzania and the SADC Secretariat	285
Table 7.2:	Analysis of questionnaire responses from the Ministries of Industry and Trade in South Africa, Swaziland, Zambia and Zimbabwe	287
Table 7.3:	The proposed tariff reduction schedule	291
Table 7.4:	Implementation of the SADC Protocol on Trade	292
Table 7.5:	Possible regional industrial clusters	303
Table 7.6:	Progress in formulating the proposed SADC industrial policy and strategies	310
Table 7.7:	Road map for completing the second industrial policy and strategies draft	312
Table A-1:	Foreign Direct Investment inflows by region, (1990 - 2001) percentages	355
Table A-2:	Rates of growth (1950 –1998)	356
Table A-3:	The rate of inflation and the prime lending rates within SADC	357
Table A-4:	Industrial structure of the labour force (% of total employment) (most recent data available)	358
Table A-5:	Wages by industrial sector for selected SADC countries: monthly earnings (current US dollars) for the period 1980 – 1997 (most recent data available)	359
Table A-6:	A summary of government policies on industrial development and the current industrialisation strategies within the SADC region (selected countries)	360
Table A-7:	Progress in privatisation: ownership and control changes	367
Table A-8:	Institutions in place to support industrial development within the SADC region	368
Table A-9:	Gross fixed capital formation (GFCF) by kind of activity of owner in selected SADC countries (% of Total GFCF at current prices)	369

Table A-10:	Producer capital goods as a percentage (%) of gross fixed capital formation at current prices (up to the most recent year for which statistical data were available)	372
Table A-11a:	Foreign direct investment inflows into individual SADC countries (US \$ million) and the corresponding FDI:GFCF ratios (%) (most recent statistical data)	374
Table A-11b:	Investment climate within the SADC region (1997, 2001 and 2002)	375
Table A-12a:	Sectoral distribution of FDI in South Africa (1994-2000)	376
Table A-12b:	Sectoral distribution of FDI in Mozambique (1990 - 1999)	377
Table A-12c:	Sectoral distribution of FDI in Tanzania (1996 - 2002)	377
Table A-12d:	Sectoral distribution of FDI in Zambia (1995 - 2001)	378
Table A-12e:	Sectoral distribution of FDI in Mauritius (1990 - 2000)	378
Table A-12f:	Sectoral distribution of FDI in Namibia (1998 – 2001*)	378
Table A-12g:	Sectoral distribution of FDI in Zimbabwe (1995 – 2002)	379
Table A-12h:	Sectoral distribution of FDI in Botswana (1997 – 2001)	379
Table A-12i:	Sectoral distribution of FDI in Swaziland (1991 – 2000)	379
Table A-12j:	FDI into SADC by industry, 1996 – 1998 (% of total FDI)	380
Table A-13:	Share of manufacturing sector to GDP (%) and growth of manufacturing value-added (MVA) (% annual growth rate)	381
Table A-14:	Number of industrial establishments by industrial sector (1980 – 1999*)	382
Table A-15:	Significant intra-industry trade changes taking place within the SADC region (1994 – 2000) (at constant 1995 prices, R000s)	386

LIST OF FIGURES

Figure 2.1:	Porters “Diamond” of competitive advantage	15
Figure 3.1:	Kuznets’ East Asian development model	62
Figure 4.1:	Annual average share (%) to GDP by the primary sector (1990 – 2000) (most recent statistical data)	107
Figure 4.2:	Composition of GDP by primary sector (percentage distribution) (most recent statistical data)	108
Figure 4.3:	Composition of GDP by the manufacturing sector (percentage distribution) (most recent statistical data)	111
Figure 4.4:	Composition of GDP by the tertiary sector (percentage distribution) (most recent statistical data)	116
Figure 5.1:	The top 3 priority economic sectors for GFCF in selected SADC countries	182
Figure 5.2:	Machinery and equipment as a percentage of gross fixed capital formation at current prices (up to the most recent year for which statistical data is available)	184
Figure 6.1:	Growth of manufacturing value added (MVA) (% annual average growth rate) (up to the most recent year for which statistical data is available)	234
Figure 6.2:	Distribution of establishments for manufacturing activities between the different industries	242

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CHAPTER ONE

INTRODUCTION

1.1 INTRODUCTION

The Southern African Development Community (SADC) is one of the regional groupings in southern Africa and has fourteen member states, viz. Angola, Botswana, the Democratic Republic of Congo, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe. The countries are at different levels of industrial development, with most of them categorised as low-income countries. Therefore, the key challenge facing this regional grouping is industrial development and to promote and support sustainable industrial growth across the region. This has resulted in the ongoing initiatives to formulate and implement appropriate policies to facilitate the economic development of the region.

1.2 THE RESEARCH PROBLEM

The importance of industrial development to SADC can be traced back to the 1980s with the establishment of the Southern African Development Coordination Conference (SADCC), as evidenced by the SADCC regional industrial programme where core industries were identified and plants were located in selected countries and funded so as to create and expand the identified industries which would serve the whole region, although by the time the organisation was transformed into SADC, these industrial projects¹ had failed to have the expected significant impact on regional industrial development.

Further evidence on the importance of industrial development to the region can be seen in the adoption of import substitution industrialisation (ISI) as the main industrialisation strategy by most of the regional countries in the 1980s, as well as the adoption of export orientated industrialisation (EOI) from the late 1980s, following recommendations from the World Bank

¹ For example, a huge but underutilised paper milling industry was established in Tanzania, to help develop the pulp and paper industry in the region, while in Mozambique another pulp and paper industry was established although it did not report much progress then. In Tanzania, the pesticide and insecticide plant received considerable financial support to form a facility to develop this sector for the benefit of the region. The significant financial backing to the fertiliser industry in Malawi and Mozambique, during that period, sought to help to install invaluable industrial capacity which the region would take advantage of in establishing the chemicals and fertiliser industry (Mutambara, 2001:148-149).

and International Monetary Fund. With the transformation of the regional grouping to SADC in 1992, efforts towards higher levels of economic integration and cooperation not only aimed at trade development and integration, culminating in the SADC Protocol on Trade, but also focussed on industrial development as the substantially large market to be created would be expected to, among other things, create an environment conducive to industrialisation through attracting higher levels of productive investment, generating economies of scale in production, rationalising infrastructural investment necessary for industrialisation, and facilitating the exploitation of comparative advantages in production, as observed by Leistner (1995:265) and Davies (1994:12).

However, despite all these initiatives, industrialisation has been slow and development problems have persisted. Since the manufacturing sector is regarded as the basis and the engine for industrial development within countries, an empirical analysis of this sector becomes important so as to ascertain its nature, the problems being faced, its potentials and how these can be harnessed fully so as to promote industrialisation in the region. It is also important to investigate and propose appropriate industrial policies and strategies to promote industrialisation, bearing in mind the region's trade policies and the recently launched Regional Indicative Strategic Development Plan (RISDP) so as to complement them.

1.3 GOALS OF THE RESEARCH

Given the desire and efforts towards industrial development, the goals of this study are to:

- (i) analyse the nature and extent to which the SADC member states have developed their industrial bases;
- (ii) examine the existing potential for industrial development and establish how the region could harness such potential to facilitate industrialisation;
- (iii) identify the facilitating roles of foreign direct investment and the SADC Free Trade Area (SADC FTA); and
- (iv) analyse the nature and potential success of the SADC industrial policy and strategies which is currently being formulated to foster industrialisation.

1.4 METHODOLOGY

1.4.1 Review of existing literature on theoretical frameworks

A review of existing literature on the theoretical frameworks that form the basis of industrial development strategies will be done. This is necessary to understand the process of industrialisation and to contextualise development in the case studies and the SADC region. Countries adopt different industrial development policies and strategies so as to attain set industrial development goals, to enjoy the benefits that arise from each strategy, and/or to set up the foundation or conditions necessary for the adoption of another industrial development strategy. Therefore, identifying the theoretical framework upon which a country or a region bases its industrial development strategy is important as this provides a sound basis upon which one will be able to evaluate the country's progress in industrialisation, the challenges the country or region faces, and the potentials that exist for further industrial development.

1.4.2 Review of case studies on successful industrialisation within the developing world

A review of literature on industrial development strategies followed by other countries outside the region will be instrumental to present case studies of successful industrialisation within the developing world. South Korea, Taiwan, Singapore and Hong Kong are often regarded as models of developing countries which successfully implemented industrialisation strategies that helped them to develop from being some of the world's poorest countries into some of the world's best performing economies. In this regard therefore, a review of relevant existing literature on these countries will be necessary so as to have an insight into the industrialisation strategies followed and how they were implemented, challenges faced during the industrialisation process and how they were solved, and the possible lessons for SADC as it seeks to embark on an industrialisation process geared towards turning the region into one which can promote and support industrial growth across the region.

A literature review of the industrial development strategies which SADC countries have followed will also be undertaken so that together with the review of case studies, one could get a better understanding of the challenges of industrial development within SADC.

1.4.3 A comparative statistical analysis

A comparative statistical analysis will be undertaken using data from both secondary and primary sources. The collected data will be used to compare, evaluate, establish trends or contrast countries, as well as to oppose or support views expressed by some authors. This analysis will

also be instrumental in ascertaining public and private sector participation in domestic investment, investment by both local and foreign investors, the sectoral distribution of both domestic and foreign investment, regional cross border investment and the sectoral distribution of such investment, the nature /or level of development of the manufacturing sector in the region as well as its trade performance.

Chapters Four to Six rely very heavily on the availability of a variety of statistical data. Most of the data will be collected from secondary sources, viz. statistical tables developed and made available through publications by various organisations like (i) SADC, (ii) the United Nations, (iii) the African Development Bank (ADB), (iv) the World Bank, (v) the Central Statistical Offices in the various member states, (vi) the Consumer Unity and Trust Society, (vii) the United Nations Conference on Trade and Development (UNCTAD), (viii) the United Nations Development Programme (UNDP), (ix) United Nations Educational, Scientific and Cultural Organisation (UNESCO), and (x) United Nations Industrial Development Organisation (UNIDO). Statistical data available on UNCTAD World Investment Directory on-line, an on-line statistical database by UNCTAD was also accessed. Collecting statistical data from secondary sources is helpful where direct requests to member states, through electronic mail or postal mail, for such statistical data may not yield positive results.

1.4.4 Use of questionnaires for qualitative and supporting information

Primary data will also be obtained through questionnaires for some of the sections in Chapter Seven of the thesis. These questionnaires are presented as Appendix 7 and 8. The questionnaires are to obtain qualitative and /or supporting information from the individual SADC member states on the SADC industrial policy and strategies currently being designed. More information will also be sought on the progress in designing the policy, objectives of the policy, implementation mechanisms, and expected industrial benefits by member states. Telephonic follow-ups to the questionnaires will be undertaken if necessary. Some of the primary data collected through interviews conducted in 1999 for an earlier research will also be drawn upon and used in Section 5.5.

1.5 PLAN OF THE THESIS

Chapter Two of this thesis examines the theoretical frameworks underlying the process of industrialisation, viz. the theory of industrial policy, the import substitution industrialisation strategy, export orientated industrialisation, the economic growth models and their contribution to the significant role of savings and investment in industrial development, Porter's "diamond" framework, and the industrial location theory. Chapter Three covers case studies of successful industrialisation within developing countries, using as examples the East Asian Newly Industrialised Countries (NICs), viz. South Korea, Taiwan, Hong Kong, and Singapore. Inferences and lessons from the case studies are drawn for SADC.

Chapter Four presents an economic overview of the SADC region. This discussion shows the extent to which a country or the region depends on any of the three economic sectors, viz. primary, secondary, and tertiary, and the likely impact of such dependence on current and future industrial development. The disparities between countries on the level of industrial development and the likely impact this could have on a regional approach to industrial development through the SADC industrial policy and strategies, are also discussed. It also covers business confidence, and infrastructural development as it pertains to industrial and financial infrastructure, transport and communication networks, and commercial services.

Chapter Five evaluates the investment patterns within SADC and their possible implications for industrial development. The region's investment is examined with relation to the different origins of investment, viz. domestic investment, foreign direct investment, and regional cross border investment. Chapter Six attempts an empirical analysis of the nature and potential of the manufacturing sector within the SADC region. The study of the manufacturing sector is done in terms of its growth, its structure, trade performance, capacity utilisation and industrial performance, opportunities and potential.

Chapter Seven discusses the industrial policy implications and recommendations emanating from Chapters Four to Six with support from some of the theories presented in Chapter Two as well as the industrialisation experiences of the East Asian NICs presented in Chapter Three. The chapter also analyses ongoing efforts by SADC to formulate the SADC industrial policy and strategies as well as the facilitating role of the SADC FTA in industrial development. Chapter Eight concludes the thesis with an overview of the evaluation of the current nature of the region's industrial base,

potential and opportunities, investment within the manufacturing sector, and the facilitating role of the SADC FTA and FDI.

The Appendices contain the additional information (statistical and non-statistical) necessary to support the discussions in the various chapters, but could not be presented in-text.

1.6 LIST OF ABBREVIATIONS

The terms which often appear in this thesis are as follows:

AGOA	African Growth and Opportunity Act
EOI	Export orientated industrialisation
FDI	Foreign direct investment
ISI	Import substitution industrialisation
NICs	Newly Industrialised Countries
SADCC	Southern African Development Coordination Conference
SADC	Southern African Development Community
SADC FTA	Southern African Development Community Free Trade Area
SITCD	SADC Industry and Trade Coordinating Division

CHAPTER TWO

THE THEORETICAL FOUNDATIONS UNDERLYING THE PROCESS OF INDUSTRIALISATION

2.1 INTRODUCTION

Countries adopt different industrial development strategies with the objective of attaining set industrial development goals. In some cases, a country can simultaneously follow more than one industrial development strategy with the aim of enjoying the benefits that arise from each strategy. It is also noteworthy that a country can adopt a particular strategy with the aim of setting up the foundation or conditions necessary for the adoption of another industrial development strategy so as to further promote its industrial development goals.

Therefore, identifying the theoretical framework upon which a country bases its industrial development strategy is important as this provides a sound basis upon which one will be able to evaluate the country's progress in industrialisation, the challenges that the country faces and the potential that exist for further industrial development.

Section 2.2 considers the traditional theory of industrial location whose premise it is that profit maximisation dominates locational choice. However, other locational factors are also important, viz.: transport costs, labour costs, material inputs, markets of products, and agglomeration economies. The Marshallian theory proposes a pooled market, provision of non-tradable specialised inputs and information spillovers as significant factors for locational choice. As SADC countries continue to promote cross border investment and implement the SADC Free Trade Area, increased capital movement is going to be experienced and different locational factors are going to come into play in deciding where investment is going to be concentrated.

Section 2.3 discusses the theory of industry clustering. Porter's "diamond" framework will be considered and how it relates to the national advantages within which national firms are created and compete. The framework considers four attributes, viz.: demand conditions, supporting and related industries, factor conditions and firm structure and rivalry. While this framework is mainly referred to when discussing industry clustering, the "diamond" as a system could very well be used to refer to an industrial environment within a country which impacts on industrial

development. It is in this regard therefore that an insight into this framework is necessary, bearing in mind that the SADC countries through the co-ordination of the SADC Industry and Trade Sector have been working on creating conducive investment environments.

Section 2.4 considers the economic growth models and their contribution to the significant role of savings and investment in industrial development. This would lay the groundwork for analysing the savings and investment rates in SADC countries as would be discussed in Chapter Five. Section 2.5 examines the theory of industrial policy. This theory focuses on the broad framework and principles which inspire and guide the industrial policy of a country so that existing industries and new ones can be promoted. This theory is worth analysing, because apart from promoting the Southern African Development Community Free Trade Area (SADC FTA), SADC is also focusing on a sound industrial policy geared at improving industrial development within the region.

Section 2.6 analyses the import substitution industrialisation (ISI) strategy. This strategy aims at substituting domestic production for foreign supplies of formerly imported intermediate goods, investment goods and capital goods, so as to promote local industrial capacities necessary for industrialisation. Political, economic and technological capability arguments have been given for adopting ISI as an industrialisation strategy. It is important to analyse this industrialisation strategy because some SADC countries are currently practising ISI in selected sectors.

Section 2.7 discusses the neo-classical theory of export-orientated industrialisation (EOI). On realising the limitations of ISI, most developing countries have moved away from this strategy into export orientated industrialisation. SADC's plans for regional economic development and integration stress export orientated industrialisation as one of the strategies, thus the relevance of reviewing this development strategy. Section 2.8 concludes the chapter.

2.2 THE TRADITIONAL THEORY OF INDUSTRIAL LOCATION

This theory addresses the question on why industries locate in a particular region. Important factors that influence the decision to locate include: profit maximisation, transport costs, labour costs, concentration of raw material supplies, the availability of markets for finished products and agglomeration economies. Each of these factors is discussed below.

2.2.1 Profit maximisation

In most discussions about the location of industries, profit maximisation by the firm is often viewed as dominating the locational choice. Therefore, entrepreneurs will choose locations where they can maximise revenues over costs (Karaska and Bramhall, 1969:10; Karaska, 1969:23). For example, other things being equal, a region with the lowest production costs (including transport costs) would be the most desirable location, as it will enable the industry to maximise its profits (Isard, 1960:235). However, Mueller and Morgan (1969:429) note that under certain circumstances, other economic and non-economic factors play significant roles in the location of industries therefore rendering the assumption of profit maximisation too restrictive to analyse industrial location decisions.

2.2.2 Transport costs

Alonso (1969:47) argues that “one of the most commonly accepted truths about location of industries is that they will locate to minimise transport costs, unless they find some localised advantages such as cheap labour which compensates for added transport costs”. Furthermore, he notes that this is based on the assumption that, apart from transport costs, everything else remains constant, thus making the problem of minimising transport costs the sole focus of location of industries. Mueller and Morgan (1969:429) observe that markets and inputs sources are fixed and that the necessary resources are often available in a limited number of locations. This leaves transportation as a very important and major cost to significantly determine industrial location.

Karaska (1969:25-26) points out that the site of the plant is where transport costs are minimised and this could be found at either the material (input) site or the market (product market) site and not at any other point. For example, other things being equal, if the transport cost on the supply or input item is higher than on the product, a supply-oriented location for the plant will occur. A market-oriented location of the plant will result if the transport cost on the final product is higher than on the supply/input item. In the case of a regional grouping, e.g. SADC, transport costs are still a significant locational factor as improvements in the region’s internal and external transport networks can significantly affect the relative advantages of the region for industrial location. Such transport improvements could work favourably for industrial location within the region even if it is lightly populated with variety and supply of raw materials needed for production (Isard, 1960:234). However, as Alonso (1969:47) observes, if we remove the assumption that everything apart from transport remains constant, it will not follow that firms will locate to minimise

transport costs. The optimal location will depend on the factor-mix, as other factors will be considered.

2.2.3 Labour costs

The cost of labour is an important locational factor. It would make sense for industries that experience the highest labour cost per dollar of output to locate in cheap-labour regions. However, it has often been observed that some industries with comparatively high labour costs per unit or per dollar output have continued to expand their operations in regions with relatively expensive labour. The reason for this is that there are other cost items which exercise varying significant locational influences, and these have to be taken into account. For example, where labour and transport costs are the only significant locational variables, there is a need to show the relative attractiveness of a cheap-labour location to different industries with due regard to inter-industry transport cost differences. Other things being equal, the higher an industry's labour coefficient¹, the more likely it is that the labour cost savings it could achieve by locating in a cheap-labour region would be greater than the additional transport costs it would incur by not locating on a minimum transport cost site. Therefore, the locational attraction of cheap-labour areas tends to be greater for industries with high labour coefficients than for those with low ones. Therefore, where the gains from labour (savings in labour cost) are greater than the loss in transportation costs, then the industry's optimal location will be the cheap-labour site and not necessarily the minimum transport cost site (Isard, 1960:245-246; Karaska, 1969:33).

2.2.4 Economies of scale

Alonso (1969:50-51) notes that the existence of economies of scale also affects locational decisions because optimal location will vary with the scale of production. If bigger volume production is more efficient, the quantities of material inputs per unit of output product will decrease and so will be the delivery price of material inputs. Therefore the locational influence of materials becomes less significant. The role of the market influence increases due to the scale of production, leading to a market-oriented locational decision. In such a case, the existence of a large city will attract the firm. Therefore, where economic development leads to large markets and increased efficiency in production, this could most likely result in increasing market-orientation for an industry as a whole.

¹ This is the ratio of the labour cost per unit of product (at existing locations) to the locational weight of that unit. The locational weight is the sum of the required weights of localised raw material plus product (Isard, 1960:246).

2.2.5 The market

Greenhut (1969a:328,338; 1969b:340) observes that site selection can also depend on growing demand. For example, due to the development of a new market, an original plant could be found wanting in terms of location and size with respect to the new market. Therefore, a new plant sufficiently large enough to meet the new market demand will be located in the area where the market is, or near the market where the plant sales are directed. In this case, location in this area may suggest that the market is so favourable that even though the cost is higher than at other places, the sales potential is sufficiently large enough to induce the location.

2.2.6 Agglomeration economies

Isard (1960:339) argues that agglomeration economies² will determine the favoured location only if the two main location factors, viz.: transport orientation (minimum transport costs) and labour orientation (low labour costs sites) are not dominant.

Among the contributions Weber (1929) made to the theory of the location of industries, is the theory of agglomeration where local concentration of industry arise because “the production of a unit of product can in this concentrated producing complex be more economically performed by a certain definite amount” (Weber, 1929:134). The theory only concerns itself with agglomeration as a necessary consequence of agglomerative factors³ (Weber, 1929:135). The interaction of the agglomerative factors in each concentrated industry must always result in certain indices of cost per unit of product, which serve to illustrate that “with a certain degree of concentration the costs are smaller on account of this concentration” (Weber, 1929:126).

The agglomeration factors the theory deals with are (i) the development of the technical equipment, which because of the specialised machines become a basis of independent auxiliary industries to serve several large plants, even extending its services beyond the minimum plants initially considered; (ii) the development of the labour organisation which is fully developed, differentiated and integrated, serving the needs of not a single large-scale plant; (iii) marketing

² These economies are traditionally separated into: (i) economies of scale which are achieved only through the change in the level of a given activity whilst holding constant the level of all other activities and external variables. (ii) localisation economies, i.e. external economies which accrue when like plants congregate at one place. For example, benefits resulting from more effective exploitation of a common labour pool or from fuller utilisation of diverse specialised facilities. (iii) urbanisation economies which are external economies which derive when unlike plants congregate at one locality. For example, social welfare gains, higher labour productivity resulting from more adequate incomes, use of optimum-size power and steam plants, etc (Isard, 1960:339, 401, 404).

³ Weber (1929:126) defines an agglomeration factor as an advantage resulting from production taking place at one place for a considerable period of time.

factors, as industrial concentration creates a large unified market for products; and (iv) general overhead costs, which become cheaper for the individual firm (Weber, 1929:128-131). Therefore, the agglomeration which the theory deals with, only considers these four factors, and is called “pure” or “technical”.

As Makuwaza (2001:26-27) therefore observes, as society develops over time, infrastructures also develop and production points will emerge whether or not the locations exhibit labour, transport, or access to suppliers and markets advantages. From such production points, localisation economies will arise and these will attract new units of production to congregate around these established points forming agglomeration centres. Therefore, a centre of agglomeration may not necessarily be the overall minimum transport cost point, and if a firm relocates to the centre, each unit of production will benefit if it diverges as little as possible from its optimal transport site.

However, literature shows that there is agglomeration which is due to other factors or causes of orientation, such that industries could concentrate whether or not the agglomeration or local concentration of production as such has any advantages or not. For example, transport facilities could concentrate industries near the sources of raw materials or bigger markets; while lower labour costs could attract industries to concentrate on a location (Weber, 1929:134-135).

2.2.7 Non-pecuniary factors

Mueller and Morgan (1969:430) note that non-pecuniary factors also affect industry location. These include: (i) those factors which have no obvious effect on the money value of cost and revenue, e.g. personal preferences for a location, good schools, housing, recreational facilities, etc; and (ii) those whose impact on costs and revenues is indirect and cannot be readily quantified, e.g. industrial climate, business contacts, infrastructure, future trends, legal climate, etc. A country can improve its chances of attracting firms to locate there by improving on these non-pecuniary factors.

2.2.8 The Marshallian theory

Marshall (1920:271) observes that when an industry has chosen a particular location, it tends to stay in that location for a long time. There are advantages associated with other firms in similar trades locating close to this industry. For example, inventions and improvements in machinery, processes and business organisation techniques are discussed promptly. Ideas and suggestions

come to the fore and become a source of further new ideas, leading to improved production. The localised industry also offers a constant local market for industry specific skills, thus attracting more employers, which in turn increases employment opportunities and further attracts more people with the skills needed by the employers in that location. Subsidiary trades are bound to grow in the neighbourhood of the industry so as to supply the industry with implements, materials, and other relevant services. The viability of trade between subsidiary industries and the industry, as well as growth in this formed industrial area, will attract more specialised auxiliary industries, leading to the development of several distinct industries which are supportive of each other. The ultimate effect is lowering production costs for the entire industry.

However, Marshall (1920:273) also observes that the cheapening of means of communication between distant places, facilities for free interchange of ideas and information between distant places, and the lowering of tariffs or of freights for transporting goods can reduce the importance of geographic proximity in industrial location. The increasing importance of the internet in business, globalisation of markets and supply sources, and the abundance of information and knowledge networks, are such that face-to-face communication is no longer necessary for firms to remain efficient and innovative.

2.2.9 The theory of new economic geography

The theory of new economic geography, a new body of theory to emerge since the 1970s, recognises the importance of some of the locational factors already discussed above, i.e. transport costs, the market, and non-pecuniary factors (see Sections 2.2.2, 2.2.5, and 2.2.7) as forces for agglomeration and as such are essential in analysing industrial location. Therefore, the geographic concentration of industries is not bound by natural resource endowments but by the interplay of the dynamic factors already mentioned. Other dynamic factors which the theory regards as forces for agglomeration of industries include regional transfers of human capital, research and development, and localised technological progress. The presence of these factors in a location benefits it as they make it more attractive and possibly lure industries away from other locations. Therefore, these factors have implications for industrial policy (see Sections 2.5.2.3; 2.5.2.4; 7.3.4; and 7.4.5), and measures have to be put in place for regions/ countries to develop these factors so as to avoid possible polarisation of industries.

Other dynamic factors in the theory of new economic geography are factor mobility, input-output linkages, and wages. These factors could lead to an increasing concentration of industry in some

regions while it declines in other locations. For example, (i) input-output linkages provide an incentive for the concentration of industries both within the same industry and between different industries that may contribute parts to each others' production processes; (ii) factor mobility in the presence of increasing returns could result in increasing concentration of industries in some regions; while (iii) wages provide one of the strongest forces for dispersion since when they get to a certain level, wage differences would attract industry away from the core centres (Hess, 2004:46, 47, 48, 56, 62).

The theories of industrial location have a bearing on SADC and will thus be drawn upon or made reference to in the various sections of the remaining chapters of this thesis, e.g. Sections 4.4.1; 4.4.3; 4.4.3.1; 4.5.2; 5.4.1.1; 5.4.3; 6.9.4; and 7.3.3.

2.3 THE THEORY OF INDUSTRIAL CLUSTERING

The concept of industry clustering is not new and over the years, many authors have made their contributions. Clustering provides an important element in industrial development and location, and as Nel and Makuwaza (2001:1) point out, "experiences from both developed and developing countries have shown the potential of clustering to improve manufacturing performance and competitiveness". In this section the contributions by Porter (1998) and Dunning (1995) will be considered.

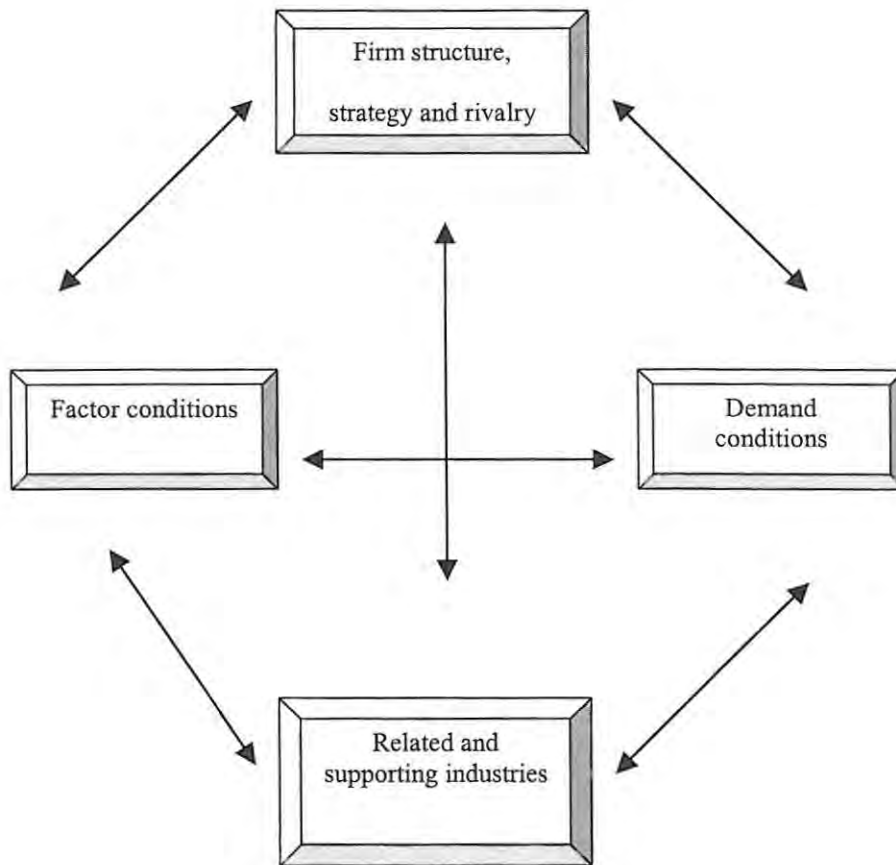
2.3.1 Porter's "diamond" framework

Porter (1998) developed a framework, illustrated in Figure 2.1, which is a significant contribution on the application of industry clusters. Through this framework he illustrates and argues that "competitive advantage and strong industrial clusters are interrelated and successful clusters can drive economic development" (Porter, 1998:149⁴). The competitive firms which the economy depends on are more likely to emerge and prosper if they are part of a geographically concentrated industry.

This framework consists of four attributes, viz.: demand conditions, supporting and related industries, factor conditions, and firm structure and rivalry. It is argued that the interaction of the four factors determines the national advantage within which firms are created and compete. The four attributes of the framework are discussed in the sections below.

⁴ Cited in Makuwaza (2001:15).

Figure 2.1: Porters “Diamond” of competitive advantage



Source: Makuwaza (2001:16).

2.3.1.1 Demand conditions

Demand includes both final consumers (people and companies) and intermediate demand (other companies in the production chain) (Makuwaza, 2001:16). It is the ability of local demand to absorb products which is important, as this determines whether or not it is profitable for industries to locate within a given area. The existence of strong backward and forward linkages between companies in the production chain is also essential to create effective demand for suppliers and to motivate innovation.

2.3.1.2 Supporting and related industries

These include industries within the production chain (customers and suppliers) and also those of relevance but outside the production chain. The existence of internationally reputable local suppliers enables easier access to cheaper inputs, while a geographic concentration of industries with shared requirements leads to a high level of development necessary to support factor conditions like specialist skills, training programmes, logistics and technology development centres. Therefore the existence of industries within and outside the chain, as well as a strong private sector is of great significance in providing effective backward and forward linkages and other support.

2.3.1.3 Factor conditions

There are basic (or generalised) and advanced (or specialist) factors. Through continued investment and building up on the basic factors, specialist factors can be “created”⁵. It can therefore be argued that the more richly endowed a country is with advanced factors than with generalised factors, the more attractive it becomes as an investment destination. It also implies that the country becomes more competitive in the long run since advanced factors are as a result of innovation which is difficult to duplicate, unlike basic factors.

2.3.1.4 Firm strategy, structure and rivalry

This relates to the “context in which firms are created, organised and managed as well as the nature of domestic rivalry” (Porter, 1998:107)⁶. Rivalry is seen as important in stimulating competition between and among industries. Rivalry can be motivated by differences in internal diversification, spin-offs from established firms, reputation for quality of products, technological excellence and innovation and global leadership. As firms compete, this can lead to improvements in quality of products, technological innovation and upgrading which enhances productivity, and improvement in business environment.

From the above, it can be deduced that rivalry stimulates further industrial development as firms continue to invest in research and development so as to innovate and improve on technological capabilities and quality of products, as well as diversifying operations so as to capture a wider

⁵ Generalised factors include physical infrastructure like transportation and communication and schools, raw materials, climate, and a highly skilled labour force, and these factors form the basis for the creation of specialised factors. Through technology centres and research institutions, specialist factors can be created, e.g. specific research programme for a specific cluster of industries; a highly skilled and competent labour force; high and guaranteed quality standards; specialist information, knowledge and technology (Makuwaza, 2001:17).

⁶ Cited in Makuwaza (2001:18).

market. Active domestic rivalry implies that firms have to continue to innovate in order to develop and sustain competitive advantage. This therefore helps to create an environment that promotes long-term investment commitments which are essential for industrial development.

2.3.1.5 The “diamond” as a tool for industrial development

The “diamond” as a system can be used to explain an industrial environment within a country. The manner in which the four attributes relate to each other and reinforce each other, creates the environment in which industrialisation will take place. The competencies within each factor and within the “diamond” as a whole will determine the environment, e.g. whether or not the environment is vibrant enough to sustain existing investments and make them viable, how effective the environment is in attracting foreign direct investment (FDI), and how effective it is in facilitating and promoting the transfer of advanced technology resulting from FDI into developing local technological capabilities.

The competencies within each of the four factors are important. For example, the absence of high quality basic and advanced factors has a negative effect on the ability of effective local demand to generate competitiveness, which becomes a deterrent to foreign capital inflows. Poor and weak related and supporting industries reflect badly on the existing forward and backward linkages, thereby killing the competitiveness of the industrial environment. Poor and weak demand factors due to the smallness of the domestic market, shown by low per capita income levels, have a bearing on expenditure, thus acting as a deterrent to investment into this sector.

2.3.2 Contributions by Dunning

Dunning (1995) refers to clusters as cooperative alliances or inter-firm alliances; where there is both cooperation and competition in production and transactions between firms. The quality of the network relationships of the firms in the cluster is important as it helps to determine the growth of such firms. For example, Dunning (1995:470⁷) observes that deep and close interaction and networking between firms and their alliances positively impacts on overall industrial performance.

The justifications for developing clusters include; (i) the need to minimise transaction and coordinating costs, (ii) to enhance skills and experiences of firms within the cluster, (iii) protecting existing, or gaining new proprietary ownership specific advantages, as well as (iv) to enhance

⁷ Cited in Makuwaza (2001:22).

assets through gaining access to new and complementary technologies so as to improve efficiency (Dunning, 1995:466-467⁸; Fountain, 1997:8⁹).

The theory of industrial clustering has implications for SADC and as such components of it will be drawn upon or made reference to in some of the discussions in other chapters in this thesis, e.g. Sections 4.4.1; 4.4.2; 4.4.4; 4.7 and 7.3.5.

2.4 THEORIES OF ECONOMIC GROWTH

Each of the economic growth models to be discussed contributes to the understanding of the role of savings and investment in industrial development within a country. Their respective contributions will become clearer as we explore the implications of each model.

2.4.1 The Harrod-Domar growth model

One of the principal necessary conditions for development is the mobilisation of domestic and foreign savings in order to generate sufficient investment to accelerate economic growth. The Harrod-Domar growth model illustrates the economic mechanism by which more investment leads to more growth. The model places emphasis on the need in every economy for a proportion of present income to be saved and invested in order to augment future output and income. New investments representing net additions to the capital stock are necessary for growth to occur.

2.4.1.1 Assumptions of the model

The underlying assumptions upon which the model is constructed (see Equation 2.1 in Section 2.4.1.2 below) are as follows:

- (i) there is a direct economic relationship between the size of the total capital stock, **K**, and total GNP, **Y**. For example, if R3 of capital is always necessary to produce a R1 stream of GNP, it will follow that any net additions to the capital stock in the form of new investment will bring a corresponding increase in the flow of national output, GNP. This relationship is called the **capital-output ratio** (in this example, it is 3:1), and is normally defined as **k**, and this is constant;
- (ii) the national savings ratio is a fixed proportion of national output. For example, 6 percent of national output is always saved. This ratio is normally defined as **s** and is constant;

⁸ Cited in Makuwaza (2001:22-23).

⁹ Cited in Makuwaza (2001:23).

- (iii) there is a constant rate of growth of population, I , and the amount of labour, L/Y , needed to produce a unit of output is constant; and
- (iv) total new investment is determined by the level of total savings (Todaro, 1997:72; Stonier and Hague, 1972:604; Jones, 1975; 46-47, 59-62; Hamberg, 1971:4-5, 8).

2.4.1.2 The Harrod-Domar model

The model is given by the following equation, whose construction is given in Appendix 1.

$$\Delta Y/Y = s/k \quad \text{or} \quad G_y = s/k \quad \dots\dots\dots (2.1)$$

The rate of growth of GNP ($\Delta Y/Y$) or (G_y) is determined jointly by the national savings ratio, s , and the national capital-output ratio, k . Therefore, in the absence of government, the growth rate of national income will be directly or positively related to the savings ratio, and inversely or negatively related to the economy’s capital-output ratio. Therefore, the more a country saves and invests out of a given GNP, the greater will be the growth of that GNP. The actual rate at which an economy will grow from an additional unit of savings invested (additional output resulting from an additional unit of investment) is given by or measured by the inverse of the capital-output ratio, k , i.e. $1/k$, which is the output-capital or output-investment ratio (Todaro, 1997:73; Stoner and Hague, 1972:594; Hamberg, 1971:12-13; Lipsey *et al*, 1999:728, 743).

2.4.1.3 Implications of the model

Several implications arise from the model and these relate to how economies can grow. For example, it can be deduced that economies must save and invest a certain percentage of their GNP in order to for them to grow. It can also be inferred that the more they save and invest, the faster they can grow. If the proportion of national income saved is increased, this will lead to a rise in the economic growth rate as shown in the example below.

*If $s = 6\%$, and $k = 3$; then $\Delta Y/Y = 2\%$.
 Due to consumption sacrifices, foreign aid, or taxes, s can increase, e.g. to 15% . With the capital-output ratio remaining constant, economic growth rate will rise to 5% .*

In developing countries, levels of new capital formation are generally low due to capital constraints. Therefore, a country may want to grow faster, but cannot generate savings and investment at the required high rates. In this case, the country experiences a “savings gap” which

it can seek to fill through private foreign investment. For example, if a country wants to grow at a rate of 7%, it will need to generate savings and investment at a rate of 21% of its national income, assuming that k remains constant. If the country can only save 18% of its national income, it would have to fill the “savings gap” of 3% through foreign direct investment (FDI) or any other form of private foreign investment. Therefore, Todaro (1997:74) and Wie (2000:11, 17) observe that the existence of “savings gaps” and the need by countries to fill such gaps so as to revive their economies and promote economic growth, in some cases, leads to massive transfers of capital and technical assistance from the developed nations into the developing countries.

If a government is very strict in its foreign investment policy, as is the case in some of the developing countries, this could retard growth in the economies, as low levels of new capital formation would persist through the impediment of the inflow of foreign investment. Liberalising such national economies would help draw additional domestic and foreign investment, thereby increasing the rate of capital accumulation. In terms of GNP growth, Todaro (1997:88-89) points out that this is equivalent to raising domestic savings rates, thus enhancing economic growth and per capita incomes in the economies.

The physical capital stock of a nation which plays an important role in this theory however needs to be supplemented by investments in social and economic infrastructure, which facilitates and integrates economic activities. This infrastructural investment also requires that some proportion of present income be saved and invested. Therefore, the “savings gap” would cater for the accumulation of both the nation’s physical stock as well as infrastructural development necessary for the efficient and effective utilisation of the nation’s physical capital.

2.4.1.4 Criticisms of the model

A number of criticisms have been levelled against the model, but the main objection has been the underlying assumption of fixed proportions in the combination of capital and labour. This has led to the conclusion that the model is inapplicable except in the context for which it was designed. For example, the rigid assumptions and fixed proportions make the model too simple and therefore inconsistent with the experiences of real growing economies. The assumption of a constant capital-output ratio, which implies no substitutability between capital and labour, is unrealistic in the long run. These criticisms renders the model inappropriate to analyse long-run processes of economic growth, thus giving way to the Solow growth model to be discussed in Section 2.4.2 below (Jones, 1975:66; Sato, 1964:380, 383; Solow, 1956:65).

The model also assumes that the developing countries possess the necessary structural, institutional, and attitudinal conditions to effectively convert capital injections from foreign investors used to fill the “savings gap” into higher levels of output. However, in many developing countries, market imperfections exist, e.g. skills market failures result in lack of complementary factors such as managerial competence, skilled labour, and the ability to plan and administer a wide range of development projects. Market imperfections also arise due to either non-existent or segmented markets as shown by lack of well-integrated commodity and money markets, inefficient transport facilities and other substandard physical infrastructures. Inefficiency, obstruction and corruption by governments worsen the existing market failures, while unclear property rights increase investment risks (Stern, 1991:128; Arndt, 1988:221, 225; Todaro, 1997:74-75).

Therefore, while more saving and investment is a necessary condition for accelerated economic growth rates, and such savings could be increased through increased mobilisation of domestic resources and/or through foreign capital injections, this may not be sufficient to foster economic growth. As a result, growth rates may not rise as expected due to these inefficiencies and other inadequacies within the economy. Furthermore, developing countries are part and parcel of the international community, and so external forces beyond their control can negatively affect any development strategy that could be put in place irrespective of its relevance to the countries. Therefore, merely removing obstacles within the economies and supplying capital injections and other forms of assistance needed by the developing world, may not be enough for development to take place.

2.4.2 Solow’s neo-classical growth model

Solow’s model is a long-run growth model, and like the Harrod-Domar growth model, stresses the importance of savings, where aggregate savings finance additions to the national capital stock. The model accepts all the Harrod-Domar assumptions except those on fixed proportions. It expands on the Harrod-Domar model by adding other factors relevant for economic growth, i.e. labour and technology, with technology as an independent variable. Solow’s neo-classical growth model exhibits diminishing returns to labour and capital separately and constant returns to scale to both factors jointly (Stern, 1991:124, 129; Todaro, 1997:88; Jones, 1975:72; Hamberg, 1971:37; Solow, 1956:66; Lipsey *et al*, 1999:730, 743).

2.4.2.1 Assumptions of the model

The explicit assumptions of the Solow model are as follows:

(i) only one good is produced, i.e. a single all-purpose commodity, which is either consumed or invested. So there is no distinction between savings and investment, and so, saving is simply investment and there is no separate investment function;

(ii) like in the Harrod-Domar model, there is a simple proportional savings function, i.e.

$$S = sY, \text{ where: } 0 < s < 1.$$

(iii) the capital stock does not depreciate, and investment is equal to the rate of increase of the capital stock of the composite commodity;

(iv) technical possibilities of the economy are represented by a continuous, constant returns to scale, aggregate production function: $Y = A(t) F(K, L)$;

(v) the labour force grows at an exogenous constant proportional rate; and

(vi) the level of technological progress is exogenous, i.e. independent of all other factors. Technological progress is the **residual factor**, and is considered to substantially contribute towards growth, thus explaining long-term growth (Jones, 1975:72-73; Hamberg, 1971:37, 44, 127; Sato, 1964:380-1, 383; Stern, 1991:124, 125; Todaro, 1997:88; Solow, 1956:67, 68, 91, 85; Lipsey *et al*, 1999:730, 743).

The Solow growth model presents the standard neo-classical views as well as the less obvious neo-classical assumptions. For example, factor prices and factor proportions are fully variable, there is full employment of labour and capital, factors are remunerated according to their marginal product, and wage rates and the rate of profit adjust smoothly and instantaneously to changing circumstances. Therefore, both the product and factor markets are perfectly competitive (Jones, 1975:75; Hamberg, 1971:43-44).

2.4.2.2 The model

Solow's growth model is derived from the standard aggregate production function:

$$Y = A_{(t)} F(K, L) \dots\dots\dots (2.2)$$

to give rise to the equation¹⁰:

$$Y = Ae^{at} K^b L^{1-b} \dots\dots\dots (2.3)$$

Where: Y = gross domestic product

K = the stock of human and physical capital

¹⁰ Appendix 1 shows how this equation is derived.

L = unskilled labour

A = a constant which reflects the level of technology

e^a = the constant exogenous rate at which technology grows

b = the elasticity of output with respect to capital, i.e. the percentage increase in GNP resulting from a 1% increase in human and physical capital (Todaro, 1997:88-89; Stonier and Hague, 1972:607; Hamberg, 1971:38-39, 42-44; Sato, 1964:381; Solow, 1956:66-67, 76, 85; Romer, 1994:4; Pack, 1994:55-56; Lipsey *et al*, 1999:729-730).

2.4.2.3 Implications of the model

It can be deduced from the model that output growth could result from factors like increases in labour quantity and quality as a result of population growth and education, increases in capital due to increased savings and investment, improvements in technology, or a combination of any of these factors (Todaro, 1997:89; Lipsey, *et al*, 1999:730-733).

Foreign private investment, including FDI, can impact on any of the factors above so as to promote economic growth. For example, technology transfer from developed nations in the form of well-educated and skilled personnel could be used to develop and augment local managerial competence, entrepreneurial skills, as well as impacting other skills through on-the-job-training, so as to improve on the quality of labour. As already observed in the previous model, foreign investment inflows would help to fill the “savings gap” thus helping the countries to attain higher levels of investment and economic growth. Improvements in technology and capital accumulation can be attained through attracting foreign investment inflows and using the capital inflows to develop and improve local technological capabilities. Therefore, it can be concluded that, according to the Solow model, by liberalising national economies, and encouraging the inflow of foreign investment, growth in the developing countries can be improved.

Any increases in GNP that are not a result of short-term adjustments in stocks of either labour or capital are a result of the **residual factor / Solow residual**, i.e. an independent process of technological progress. Stern (1991:129) and Todaro (1997:91) observe that more than 50 percent of historical growth rate in the industrialised nations is often attributed to this residual. In the middle-income developing countries, Stern (1991:129) points out that the residual explains less than 25 percent of growth, thus showing its scarcity. Therefore, this supports the neo-classical theory's view that the bulk of economic growth results from this residual. This in itself therefore,

places a lot of importance and pressure on having private foreign investment in developing countries to facilitate technological progress.

Stonier and Hague (1972:606) and Solow (1994:46) note that, if existing growth of income is so low such that unemployment continuously rises, increasing the capital-labour ratio could be a way out in order to restore balanced-growth equilibrium. Therefore, in developing countries where a large pool of labour exists, this implies raising capital accumulation, technical progress, or a combination of both, through increased domestic investment and/or actively promoting foreign investment inflows, into the country. By increasing its investment, Solow (1994:46) argues that the countries would be able to promote long-term industrial growth rates.

2.4.2.4 Criticisms of the model

Just like the Harrod-Domar growth model, Solow's neo-classical growth model assumes the existence of perfect markets and yet in many developing countries, market failures are wide spread as markets are often fragmented and in some cases much of the economy is still non-monetised. In addition to the market failures, Todaro (1997:88, 89) observes that information market failures also exist leading to missing and incomplete information, there is underutilisation of economies of scale in production, and the general sovereignty of consumers is rare.

It can therefore be argued that the deficiencies and weaknesses resulting from the absence of the institutional and structural conditions necessary to effectively and efficiently engage resources into higher levels of output render the assumptions and policy precepts of traditional neo-classical theory questionable and incorrect for developing countries. Such weaknesses and deficiencies are likely to result in substantial low factor productivity in developing countries. Wasteful allocation of resources would also be experienced leading to costs and distortions, seriously impeding growth. Therefore, despite new capital inflows to help close the "savings gap" and/or success in raising domestic savings rates, developing countries may not experience higher growth rates, as capital would continue to be unproductive or to be productive below optimal levels.

The model regards the advance of productivity of factors/ technological process as exogenous or completely independent of other factors and yet this is regarded as the major source of growth. This makes it difficult or impossible to analyse the determinants of technological advance, as it is independent of the decisions of economic agents. It has also been observed that the model fails to explain the large differences in the process of technological progress across countries with similar

technologies (Todaro, 1997:91; Stern, 1991:125; Solow, 1994:47, 48). As a result, these criticisms lead to the development of the new growth theory/ endogenous growth model, a model which treats technical progress as endogenous.

2.4.3 New growth theory/Endogenous growth model

This model developed as a result of failures/ criticisms on development strategies based on the neo-classical theory (see Sections 2.4.1.4 and 2.4.2.4). The new growth theory emphasises that economic growth is an endogenous outcome of an economic system and not the result of exogenous factors/ or forces that impinge from outside. It therefore provides a framework to analyse endogenous growth and persistent GNP growth that is determined by economic agents governing the production process. The theory explains the growth rate differentials across countries as well as the huge proportions of growth experienced by other countries. By uncovering the private and public sector choices that cause the rate of growth of **the residual** to vary across countries, the model seeks to explain the factors that determine the size of **a**, i.e. the rate of growth of GDP (see Equation 2.3), which is left unexplained and exogenously determined in the Solow neo-classical growth equation. While the endogenous growth model re-emphasises the importance of savings, it acknowledges the importance of human capital investments in achieving rapid growth (Romer, 1994:3, 13; Todaro, 1997:91-92; Lipsey *et al*, 1999:736).

2.4.3.1 Assumptions of the model

While the model bears some structural resemblance to the neo-classical model, it differs from the latter in its underlying assumptions and the conclusions it draws. The underlying assumptions of the model include the following:

- (i) the existence of external economies and productivity improvements resulting from public and private investments in human capital;
- (ii) increasing returns to scale in aggregate production as a result of external economies and productivity improvements, thus offsetting the assumption of diminishing returns to capital in neo-classical economics;
- (iii) technical progress is endogenously determined;
- (iv) technological opportunities and levels differ between countries;
- (v) national growth rates differ across countries depending on national savings and technology levels;
- (vi) divergent long-term growth patterns among countries; and

(vii) GNP growth is regarded as a natural consequence of long-run equilibrium (Todaro, 1997:92; Stern, 1991:127; Barro *et al*, 1995:104; Romer, 1994:3, 4, 9, 15; Lipsey *et al*, 1999:736, 738, 743).

2.4.3.2 The model

The endogenous growth model is given by the equation: $Y = AK$ (2.4)

where: Y = gross domestic product

A = represents any factors that affect technology

K = stock of capital, inclusive of both physical and human capital

It is important to note that in this model, there are no diminishing returns to capital, and so there are possibilities that investment in physical and human capital can generate external economies and productivity improvements that exceed private gains by an amount sufficient to offset diminishing returns. Secondly, the equation above creates the possibility that such investments that generate the external economies, can cause b in the Solow equation to equal unity, thus reducing the neo-classical growth equation, $Y = Ae^{at} K^b L^{1-b}$, to the endogenous growth equation, $Y = Ae^{at} K$. Thirdly, the net result of the model is sustained long-term growth resulting from increasing returns to scale, an outcome which the neo-classical growth model prohibits (Todaro, 1997:92; Barro *et al*, 1995:104; Pack, 1994:56; Lipsey *et al*, 1999:738).

2.4.3.3 Implications of the model

The endogenous growth model has several implications for growth that are in direct conflict with traditional neo-classical theory. For example, by treating technology progress as endogenous, the model shows the importance of innovations and productive enhancing ideas. This implies that economic agents (both private and public) within a country have to be actively involved in allocating resources to the capital sector so as to contribute to technology advancement. The existence of information and technical externalities and how market distortions arising from this can be addressed (see Section 2.5.2.3), so as to ensure optimal allocation of resources for technical progress, brings to light the importance of government intervention and participation in promoting technical progress. Therefore, the model shows that the extent to which resources are allocated to the productive enhancing sector, would determine the level of technology and technical progress. For developing countries, this may mean raising domestic savings, and attracting foreign investment so as to build up resources to promote technical progress.

Romer (1994:8) observes that the investment rate has a positive bearing on economic growth through its impact on a country's state of technology and technological progress. Therefore, as Romer (1990:S72) argues, the technological change would provide the incentive for continued capital accumulation, and together, capital accumulation and technological change would lead to much of the increase in output per hour worked, resulting in economic growth. This is supported by Robinson (1964:415) who points out that "each round of gross investment creates a blueprint for a superior plant that raises the output of commodities per worker employed", while Arndt (1988:220) notes that high investment rates lead to expansion of production not only through increasing productive capacities, but also through enabling the productive employment of unutilised or underutilised factors of production.

De Long and Summers (1991)¹¹ argue that investment in capital is critical in the growth performance of a country as the equipment share of investment has a more than proportionate effect on output growth. Therefore, to promote investment in machinery, countries have to undertake research and development, as much of the resulting knowledge would be embodied in equipment. Both the government and the private sector should be willing to channel resources towards research and development. Countries with little or no domestic capacity to produce machinery and equipment would have to import and also to encourage FDI so as to improve the average technology level within the country. Since investment in machinery is dependent on the policy environment, countries would therefore need to put appropriate industrial policies in place.

Spillovers may occur in the course of investment, whether it is investment in physical capital, human capital, or both. Grossman and Helpman (1994:24) note that such spillovers could sustain economic growth if a country continuously accumulates inputs that generate the positive externalities. Therefore, as observed by Pack (1994:56), an increase in the investment rate could lead to sustained growth if strong external economies are generated by the investment itself. Therefore, while there may be a need to improve investment rates, it has to be noted that such investment should be that which would generate the externalities needed to sustain growth and industrial development.

According to the neo-classical theory, the low capital-labour ratio of developing countries is supposed to result in exceptionally high rates of return on investment. This in turn is supposed to motivate increased investment, leading to higher growth rates, rising productivity and standards

¹¹ Cited in Pack (1994:57).

of living. However, Solow (1956:93) and Richardson (1973:105-106) observe that net investment may at times be insensitive to the high rates of return to capital in developing countries, as investors prefer locations where their investments are more secure despite low marginal rates of return. The endogenous growth theory observes that national growth rates depend on national savings and technology levels, and so, where investment becomes insensitive to the high rates of return to capital in developing countries, this impedes efforts by developing countries to realise foreign investment necessary for them to build national savings and technology levels. Therefore, this implies that developing countries need to improve the currently lower levels of complementary investments in human capital, infrastructure, or research and development, as these significantly erode the potentially high rates of return on investment.

The endogenous growth model places importance on public and private investments in human capital as these result in productivity improvements and external economies, which in turn lead to increasing returns to scale. This shows that while technology is important, human resources development also plays a critical role in the long-run growth process. For example, Grossman and Helpman (1994:35-36) note that cross-country regressions done by some authors show the significant role played by human capital in the growth process in that the skills acquired by individuals could be applied to an ever improving set of production technologies. This results in the value of human capital continually rising through time. Therefore, countries should deliberately invest in human resources development and, as shown in Section 2.5.2.4, this can be achieved by active government and private sector participation in higher levels of education and training, with government subsidising the private sector's efforts to implement on-the-job-training programmes. A suitable investment climate could attract FDI and encourage private investment in knowledge-intensive industries where human capital can be accumulated through the transfer of expertise, entrepreneurship, and technology, leading to the development of local technological capabilities by foreign investors.

While the endogenous growth theory may in many ways have its roots in the neo-classical tradition, it departs from strict adherence to free markets and passive governments, giving room for government intervention and influence on endogenous growth. For example, as would be shown in Section 2.5.2, in developing countries where market imperfections exist, free markets lead to the accumulation of less than the optimal level of complementary capital. It also leads to a less than optimal allocation of resources for physical and social infrastructure, human capital development, research and development, and technology development. Government intervention

may improve the allocation of resources by facilitating the operation of markets through “non-selective” or “market friendly” interventions. This would subsequently lead to the generation of increasing returns to scale and long-term growth patterns.

2.4.3.4 Criticisms of the model

While the model represents a departure from neo-classical economics, and discards some of the neo-classical assumptions so as to explain endogenously the long-run rate of growth, the model is often criticised for its strong roots in neo-classical tradition. For example, it is based on the traditional neo-classical assumptions of efficient capital and goods markets, adequate and efficient infrastructure and institutional structures, which may be inappropriate to developing countries (Todaro, 1997:93). Therefore, just like in the preceding models, the limitations in developing countries have to be taken into account when applying this model to study economic development and conducting country-to-country comparisons.

The endogenous growth theory regards technological progress as endogenous and models this as an integral part of the theory of economic growth. However Solow (1994:51-53) argues that technological progress is only partially endogenous to the economy because there is an “irreducibly exogenous element in the research and development process.” For example, research projects can begin and end unpredictably, while some of them may end up with results not intended. Therefore, technology progress may not simply be a matter of the amount of resources devoted and the subsequent output, but other exogenous factors may come into play. As a result, it becomes difficult to determine by how much resource allocation to research and development and innovation would increase technical progress.

The model has also been criticised for being new and simple, such that empirical studies relating to its value are yet to gather much support. For example Solow (1994:49, 51) observes that while the model has made some contributions to economic growth theory, it is still simple and unconvincing. Pack (1994:55-58, 63, 69-70) points out that while the model has created interest in investigating the determinants of long-term growth; most empirical research by the model has been towards testing the Solow-style neo-classical growth models rather than testing the endogenous growth model itself. As a result, there is still a need for empirical support for the model. Furthermore, he notes that while the model emphasises the importance of externalities, “it is difficult to construct tests of their presence.” Also, he observes that despite the more recent

tests to support the model's assertion that research and development has an important effect on growth rates, there is still more research needed to confirm this.

It has also been shown that slow GDP growth rates may not only be as a result of low rates of savings and human capital accumulation as the model suggests. For example, Pack (1994:59-60) observes that slower physical and human capital growth rates are only minor sources compared to other variables not addressed by the model. These include labour relations and organisational structures and institutions to take full advantage of innovations for productivity. Todaro (1997:93) notes that other variables could include poor incentive structures, low rates of factory capacity utilisation in low-income countries where capital is scarce, or that economies could be undergoing transition from traditional markets to commercial markets and thus experience inefficiencies in allocation of resources.

Therefore, while the model has significant contributions by bringing attention to the need for a better theoretical understanding of divergent long-run growth experiences by countries, and focussing on the principal sources of endogenous economic growth; the support for the theory's ability to explain observed patterns of growth among nations is still weak.

The economic growth models have relevant implications for SADC and as such they are going to be drawn upon or made reference to in some of the discussions in the remaining chapters, e.g. Sections 4.2.4.3; 4.5.2; 4.4; 5.1; 5.3.1; 5.3.3; 5.3.4; 5.4; 5.4.3; and 5.6.

2.5 THEORY OF INDUSTRIAL POLICY

2.5.1 Introduction

The theory of industrial policy deals with government measures to either promote or prevent structural change so as to provide for further growth and the overall expansion of the economy. For example, when the industrial sector (the engine for economic growth) performs below its potential such that this greatly impedes the economic and social development of a country, this could call for government to promote the sector through a variety of policy instruments. Therefore, as Weiss (1988:289, 307) and Tshabangu (1997:3) observe, the basic objective of the industrial policy becomes the creation of a dynamic industrial sector which can lead to the overall expansion of the economy, broaden the industrial base and promote industrialisation. Since there

is government intervention, economic decisions relating to industrial development would no longer be left entirely to market forces.

The theory also brings attention to the balance between the role of government and the private sector initiatives and that this would shape the outcome of the industrial policy. This balance depends on a number of factors: viz. the political commitment of the government to public ownership; the administrative capacity and competence of government to effect interventionist policy measures; the strength, influence and competitiveness of the domestic private sector to guarantee reasonable efficient allocation of resources; the significance and role of foreign investors in the domestic economy; and the availability of resources within the economy (Weiss, 1988:289; Price, 1981:20).

It is important to discuss the theory of industrial policy because at the end of this research, industrial policy implications and recommendations for SADC will have to be presented in Section 7.3. Therefore, this discussion would thus provide the relevant background and theoretical justifications for any industrial policy recommendations that would be presented in that section.

2.5.2 Theoretical basis of the industrial policy

Weiss (1988:307) and Department of Trade and Industry (1998:21) argue that issues relating to trade, investment, technology development and local technological capabilities, the structure and behaviour of industry, and human resources development, are important components of a government's industrial policy. Each of these components is founded on a theoretical framework, and it is the country's views on the theoretical debates surrounding each one of them, which will influence its overall industrial policy. For example, if markets were fully efficient as assumed by traditional neo-classical theory, optimal allocation of resources and production would be achieved without any form of government intervention. Therefore, all the components relevant for designing the industrial policy would be left to the determination of market forces, leading to a market determined industrial policy. However, the opposite is true in cases where markets are not efficient, thus calling for government interventions with the aim of improving economic performance. However, as Lall (1994:67) observes, such intervention would be determined by the extent of the market failures being experienced as well as the ability of governments to design

and implement the necessary intervention measures¹². Stewart and Ghani (1992:144) add that the precise implications of the market failures on the economy in which they occur are also important in designing the most appropriate intervention policy.

The manner in which each of these important components could influence a government's industrial policy is discussed in Sections 2.5.2.1 - 2.5.2.5 below.

2.5.2.1 Trade and industrial policy

The influence of trade on industrial policy is often felt through the country's views on free trade versus protectionism. For example, the neo-classical economists argue that free trade leads to optimising allocative efficiency due to the operations of free markets, whilst production and trade based on a country's comparative advantage leads to increasing production efficiency. Technology and information accessibility are enhanced as the country interacts with the rest of the world, production increases through economies of scale resulting from producing for the world markets, and the country gains foreign currency through its exports (Department of Trade and Industry, 1998:37). If a country adopts a trade policy based on the neo-classical arguments, this would lead to designing an outward looking or export oriented industrial policy where the structures of incentives are geared at promoting industries to produce for the export markets. Such an industrial policy would lead to adopting export-orientation industrialisation (EOI) as the country's industrialisation strategy (to be adequately discussed in Section 2.7 below).

Criticisms of free trade are based on market failures which lead to imperfect competition and allocative inefficiencies. Government intervention is therefore regarded as necessary to improve allocative efficiency and economic performance. Criticisms are also levelled against stiff competition from international firms on local industries, thereby calling for government intervention through granting protection to local industries until they mature to face the competition from industries abroad. If a country prefers this line of argument, it would lead to designing an inward looking industrial policy that promotes import substitution. Such an industrial policy would lead to import substitution industrialisation (ISI) as the country's industrialisation strategy (to be addressed in more detail in Section 2.6 below).

¹² Intervention measures could be functional or selective. Functional intervention involves use of remedies to market failures without favouring any selected activity over another, while with selective intervention; the remedies are there to favour individual activities or groups of activities so as to remedy specific failures or externalities (Lall, 1994:66).

2.5.2.2 Industrial investment and industrial policy

In developing countries, the shortage of capital constitutes a major constraint for sufficient investment to facilitate economic growth, and FDI is often regarded as an important source for additional funds to facilitate investment (see Sections 2.4.1.3, 2.4.2.3). However, a country's views on the role of foreign capital, its ability to help develop local industries, and the extent to which it would create social and other economic benefits to the host country, would determine the industrial policy. So the policy would either encourage or discourage industrial investment by foreign investors through either incentives or disincentives.

For example, where foreign investment is regarded as a progressive force necessary to raise productive capacity and the country wants to optimise the economic returns of foreign investment, it would design an industrial policy which would have incentives to encourage foreign capital inflows, as well as containing investment promotion programmes to develop industries in specific locations so as to benefit the country from the potential in those currently underdeveloped areas. The industrial policy would also have programmes to develop industrial clusters which would take advantage of specific resources in particular locations, as well as programmes with a re-distributive effect so as to avoid polarisation of industries within a country.

A country could view foreign investment as complementary to its own savings and local investment initiatives, and thus does not regard itself as totally dependent on FDI for investment resources. This view will be reflected in an industrial policy which would not allow foreign investment to weaken and disrupt existing national firms. For example, Weiss (1988:318) observes that the industrial policy would (i) be selective on the industrial branches in which foreign investment is allowed so as to protect the interests and operations of the already existing national; (ii) have measures to direct foreign investment into areas where the host country knows it would benefit through the provision of essential but locally scarce resources; and (iii) contain provisions that give the host country bargaining powers on the terms of the investment¹³.

2.5.2.3 Technology development, local technological capabilities and industrial policy

Neo-classical economics assumes that technology is costless and is passively selected and absorbed by developing country firms. Fully efficient capital and factor markets in which firms

¹³ E.g. bargaining powers to ask foreign investors to revise their investment terms, unbundling the foreign investment packages, insisting on joint ventures, local content requirements, absorption of locals in the management structure of the establishment, as well as stipulating a percentage of the workforce that should be composed of locals.

operate freely are assumed. However, the theory of industrial policy argues that in developing countries, these assumptions are too simplified and misleading (Lall, 1994:68; 2004:16). Due to the prevalence of market inefficiencies, the Department of Trade and Industry (1998:45) notes that the level of investment to generate technology advancement would therefore be far less than socially optimal if left to the markets, thus creating a case for intervention through government support in scientific and technological development.

Where the host country decides to rely on technology imports as the main source of industrial technological development, the industrial policy would be designed to promote technology imports with FDI being the main source. However, Weiss (1988:316), Department of Trade and Industry (1998:45), Lall (1994:71, 72) and Caves (1987:73) observe that the policy would still need to incorporate institutional frameworks to debate the appropriateness of the technology, costs, the process of importing the technology, countries to import from, the mode of technology import¹⁴, as well as other selection measures so as to import appropriate technology.

Where the host country acknowledges the importance of local technological capabilities as well as initiatives to adapt and modify foreign technology, the industrial policy would reflect this through incorporating government intervention measures like (i) increased direct government expenditure on research activities; (ii) fiscal incentives to the private sector to encourage expenditure on research; and (iii) protection and favourably allocating resources to infant industries¹⁵ aimed at domestic production of capital goods where the technological capabilities exist to modify and adapt foreign technologies, produce equipment in which new technology would be embodied, as well as where there is the capacity for developing local technology substitutes (Weiss,1988:316; Price, 1981:31; Lall, 1994:69, 72).

Levels of technology, efficiency in the use of technology, as well as the absorption of new technology, differ between firms, industries and countries. These differences could motivate selective intervention as an industrial policy as the government seeks to help specific underprivileged industrial activities. Complex activities like heavy engineering industries which

¹⁴ Internalised modes are technology imports by foreign owned ventures where the supplier provides the hardware and software, does the start-up, trains manpower and adapts the technology, manages the operation and does the marketing, and continues to supply the technology and skills from the parent company. Externalised modes are technology imports purchased at arm's length in the form of equipment, licences or other contracts, whilst the local firm retains control (Lall, 1994:71).

¹⁵ Protection should not be indiscriminate but be related to learning costs and periods. It would be reduced as capital markets become more efficient and the firms mature.

involve large-scale operations, advanced information and skill needs, wide linkages and complex organisations, and have learning processes spreading over years or decades; could give rise to an industrial policy that selectively intervenes to redirect resources so that such activities may be undertaken (Lall, 1994:69; 2004:17).

Technological and information externalities could arise as a country pursues technological development and such externalities can be reciprocal between firms¹⁶ (Corden, 1974:257, 258). However, since the externalities distort resource allocation¹⁷ this presents a case for intervention. For example, where vertically interlinked activities are involved, there is a need for an industrial policy that coordinates investment decisions between firms because it could be difficult for one firm to anticipate another's learning process in order for it to invest (Lall, 1994:69). Granting patents for a limited duration would help to trade off the under-provision of innovation information/ industrial knowledge against the loss of welfare that could arise from monopoly pricing of proprietary knowledge and innovation (Caves, 1987:70; Grossman and Helpman, 1994:32-33). The industrial policy should also provide sufficient incentives for investment in knowledge and to increase the flow of ideas, which could be through measures like tax relief or subsidies on research and development inputs, training of researchers, tax rebates on revenues arising from discoveries and government funding of research (Caves, 1987:71; Stern, 1991:127; Corden, 1974:263). However, since externalities, their reciprocity between firms, duration and impact vary across industries, they are more likely to be more abundant in industries with considerable technical change, thus calling for an industrial policy which facilitates selective intervention (e.g. subsidies) so that activities that have more beneficial and widespread externalities could be promoted and form the country's "strategic group of industries" (Stewart and Ghani, 1992:144). Therefore, as Corden (1974:258) points out, the results of such an industrial policy would be an accumulation of assets which would in the long run cause a fall in costs to the firms involved.

2.5.2.4 Human resources development and industrial policy

Low levels of commitment to human resources development reduce the productivity of capital and labour, leading to poor industrial sector performance. This makes investment in human

¹⁶ Production by firm X could create a capital asset the benefits of which go in later years at least partly to firm Y, while at the same time, production by firm Y could create a capital asset the benefits of which go later in years partly to firm X (Corden, 1974:257, 258). Proprietary knowledge externalities can be in the form of revealing or providing further knowledge-creating opportunities to other firms since such discoveries are may be difficult to patent or hide away from other firms (Spencer 1984 cited in Caves, 1987:70; Romer, 1986:1003; Grossman and Helpman, 1994:37).

¹⁷ Firms could under-invest due to the inevitable spread of new knowledge and innovation.

resources a significant part of an industrial policy so as to gain technological mastery and dynamism through the development of new knowledge, skills, organisational forms, as well as interlinkages between enterprises relevant to facilitate technological capabilities. As technology gets sophisticated and industrial structures continue to develop, the skills requirements become more diverse and the range of special skills also widens, making advanced technical training more critical, thus calling for an industrial policy that promotes considerable investment from both the public and private sectors, with the government playing a key role.

In order to encourage the training and financing of human resources development programmes, an industrial policy would promote government subsidies, tax relief, and other incentives to encourage companies to effect training programmes for employees. To strengthen the factor market without supporting particular activities, functional intervention could be used, e.g. education to all through government investment in various educational institutions, as well as provision of the infrastructure necessary for technological mastery.

In order to have an appropriate education curriculum that correctly anticipates and meets the needs of the new technologies and industry, there is a need for proper co-operation and co-ordination between industry and the education ministry (Department of Trade and Industry, 1998:45). This partnership could also motivate industry to increase its participation in training at the vocational and technical education level, with selective intervention used in cases where specialised tertiary education (e.g. vocational and technical education) is needed to facilitate industrial specific skills so as to encourage industrial development in a particular direction (Lall, 1994:68).

2.5.2.5 Structure and behaviour of industry and industrial policy

If left to the markets, the structure and behaviour of industry may not reflect government priorities as some industrial activities are regarded as more risky and may thus fail to access funds from the capital market. It therefore becomes key for the industrial policy to reflect government's priorities and vision in terms of the structure of industry, the balance between large and small firms, and the scale of production within different branches of the industrial sector (Weiss, 1988:310).

Government's priorities in terms of the composition of output in the various industrial sub-sectors could be attained through an industrial policy that has mandatory production targets in selected

industrial activities or employs selective use of tariffs, fiscal incentives, credit allocation and other selective measures to promote and expand output in the priority industrial activities while contracting output in others. The government's views on promoting both small-scale and large-scale industries would be reflected through an industrial policy that intervenes to strike a balance in resource allocation between the two types of industries. Intervention could be through programmes and incentives like credit provision, industrial extension and advisory services, management and training, and others; so that resources can also be channelled to the small-scale firms which tend to find it difficult to compete for resources on the market.

Where government priorities are on large-scale production and efficiency, and this cannot be attained through market forces, an active industrial policy would be needed that promotes any of the following or a combination of them: (i) infant industry protection with the prospect that the firm would mature and operate efficiently; (ii) attracting a multinational corporation firm which has already undergone the learning process and has adequate finance and is prepared to take up the activities; (iii) mergers or rationalisation between existing producers so as to raise production levels from the current below minimum efficient scales of production; and (iv) export promotion incentives to encourage venturing into the export markets so as to attain higher levels of production and economies of scale (Lall, 1994:69; Weiss, 1988:313).

As mentioned at the onset of the discussions on the theory of industrial policy, it has implications for SADC and as such will be drawn upon in the discussions presented in the remaining Chapters of this thesis, e.g. Sections 3.2.3.2.2; 4.5.2; 7.3.2; 7.3.4; and 7.3.5.

During the course of discussing the theory of industrial policy, issues pertaining to specific industrialisation strategies were mentioned, but it was also highlighted that such issues were going to be discussed in more detail in specific sections of this chapter. The remainder of this chapter will look at such issues within the confines of the respective industrialisation strategies, starting with the import substitution industrialisation (ISI) strategy.

2.6 IMPORT SUBSTITUTION INDUSTRIALISATION

2.6.1 Introduction

Although this industrial development strategy is currently out of favour with development economists, in the 1950s to 1960s it dominated the industrialisation policies of most of the less

industrialised countries, and with some countries this went on until the 1980s (Todaro, 1997:459; Schmitz, 1984:2). Import substitution of domestic for foreign sources of supply has been accomplished with support of government policies giving a considerable amount of protection to industries involved. As Schmitz (1984:2) observes, the principal mechanism for the import substitution strategy has been deliberate economic policies with tariffs, quotas, and multiple exchange rates, being the main devices used to restrict imports of manufactured goods.

2.6.2 Defining import substitution industrialisation

The definition of import substitution which is going to be used in this research is by Sutcliffe (1971:255), Nixon (1982:40), Clark (1970:25), Todaro (1997:459) and Kirkpatrick and Nixon (1983:10) where import substitution is defined as the “direct substitution of domestic production for the import of the same product” or “domestic production of goods previously imported.” From this definition, Sutcliffe (1971:256) deduces that import substitution involves three concepts, viz.: (i) the substitution of domestic production for goods formerly imported; (ii) changes in the pattern of consumption away from goods normally imported; and (iii) changes in the import content of total supplies of manufactured goods.

2.6.3 Import substitution industrialisation (ISI) as a three stage process

Import substitution is expected to play a significant role in the industrialisation process of a country through a step-by-step approach to substituting domestic production for imports as imports of particular commodities reach a sufficient level to make their domestic production viable. In this regard, Nixon (1982:42), sees import substitution as a planning instrument where the following steps have to be observed: (i) evaluating various imports and consider the product(s) suitable for domestic production; (ii) checking whether the domestic market, given the value or volume of imports of the product chosen, is greater or equal to the minimum economic output of a single manufacturing unit, in order for import substitution to be viable; and (iii) deciding on the level of protection to be given to the domestic producer so that the price of the imported product, assuming that imports are permitted, would be equal to or greater than the price of the domestic product.

Nixon (1982:40, 47), Sutcliffe (1971:268) and Raj and Sen (1961)¹⁸ note that in principle, there are three options available within the overall ISI strategy for any country which decides to use this as an industrialisation strategy. In option one, a country could use its foreign currency to

¹⁸ Cited in Kirkpatrick and Nixon (1983:11-12) and Nixon (1982:40).

import investment goods and raw materials so as to manufacture consumer goods, e.g. a country could use its foreign currency to import looms, which are investment goods, to produce cloth, which is a consumer good. The second option involves using foreign currency to import capital goods, e.g. machine tools, to make investment goods. These would in turn be used to produce consumer goods, intermediate goods, e.g. steel, as well as to develop domestic raw material supplies. Thirdly, countries have the option of using their foreign currency to import capital goods to make local/domestic capital goods. These will in turn be used to make other capital goods, investment goods, intermediate goods and consumer goods. From this discussion, one can see that the first option depicts lower levels of industrialisation, while the third option depicts the highest level of industrialisation. However, to successfully pursue option one through to three implies an effectively planned industrial development policy.

2.6.4 Rationale for import substitution industrialisation

The arguments for adopting import substitution as an industrialisation strategy have often centred on the need to protect infant industries, economic, political and technological capabilities reasons, as well as externally determined factors over which the country may not have control. Each of these is discussed in the sections below.

2.6.4.1 Infant industry protection reasons

The infant industry argument has been the main growth related argument for protection. Corden (1974:248), Mill (1965:918-919)¹⁹ and Evans and Alizadeh (1984:23) observe that this is the only case in which protective duties can be justified. The classic infant industry scenario is where the protective tariff is so high that imports are effectively prohibited and the “infant” is allowed to operate behind a very high protective wall (Todaro, 1997:467; Appleyard and Field, 2001:287-290).

The argument for this protection rests on market imperfections, learning economies, and other externalities. However, after a given period of time, the infant industries are expected to mature and outgrow the need for protection and be directly competitive on the world markets. Eventually, the industries would be able to produce for both domestic consumption and for export, as the products will now be produced more efficiently and at lower costs.

¹⁹ Cited in Corden (1974:248).

However, as Corden (1974:256, 258) notes, for the infant industry protection argument to hold, protection has to be temporary on the basis that: (i) learning could be temporary thus determining the infancy period; (ii) the market imperfections relating to information and capital markets may be temporary such that as the industry grows and expands, its costs fall, making it easier to finance further investment; and (iii) externalities are not continually created but for a limited period, constraining protection to the use of a tariff which ends once the imports of the goods concerned have been eliminated. Corden (1974:262-263) notes that where subsidies are used as a form of protection, these could be directed towards inputs, production, labour training, knowledge creation and the training of researchers.

2.6.4.2 Economic rationale for ISI

The justifications for ISI based on the economic benefits to a country are wide and varied. For example, the ISI model of industrialisation has been based on economic issues like: (i) insufficient foreign currency to pay for imports; (ii) the expectation that the import ratio (ratio of total imports to national income) will fall as ISI proceeds and thus save foreign currency; (iii) to reduce pressure on balance of payments problems; (iv) the ease of raising substantial tax revenue from tariff collections; and (v) that some of the needed imports were not easily available (Nixson, 1982:41,45; Clark, 1970:21; Todaro, 1997:466).

Nixson (1982:41,45) and Kirkpatrick and Nixson (1983:12-13) note that for some countries, ISI is an easier option for industrialisation on the bases that: (i) saving foreign currency through ISI is easier than earning additional foreign currency through exporting manufactured goods; (ii) domestic markets are easier to protect; (iii) the domestic markets for the particular import substitution products are known and established whilst with manufactured goods exports there is need to break into new markets and for devising and implementing successful export promotion policies. Clark (1970:21) discusses several other economic reasons for ISI, which for reasons of being brief, will not be listed here.

2.6.4.3 Political rationale for ISI

Schmitz (1984:2), Clark (1970:21) and Todaro (1997:465, 466) note that the political justification for ISI can be summed up by the desire by developing countries for greater self-sufficiency and independence. Newly independent countries have had the ambition to demonstrate to the rest of the world, as well as their former colonial masters, that they can manufacture products for themselves rather than depend on imports, and for this reason have deliberately pursued ISI. They

deliberately imposed protective tariffs so as to facilitate rapid industrial development of their domestic industries²⁰.

2.6.4.4 Technological capabilities reasons

Schmitz (1984:7) and Todaro (1997:459) observe that the need by countries to acquire technological capabilities has also led to adopting ISI as an industrialisation strategy. Therefore, as already noted in Section 2.5.2.3, rapid industrialisation under temporary protection to generate local technological capabilities could be justified. ISI can also be justified by the benefits resulting from learning by doing, as well as establishing local capital goods production. List (1841)²¹ also notes the importance of building up productive forces through “building up domestic coherent economic circuits” and suggests that this could be achieved if the infant economy could be protected from the world economy. Schmitz (1984:7) also observes that in the majority of less developed countries, less than one third of capital goods have a domestic origin, and so, this sector could be expanded through ISI.

2.6.4.5 External forces fuelling ISI

Hirschman (1968)²² and Ballance (1982)²³ argue that external forces fuelled early ISI, particularly in Latin America. They argue that the two world wars and the interim depression made continued importation of industrial goods very difficult and in some cases impossible. They also note that earnings from primary commodity exports fell and suppliers could not supply the needed industrial goods as countries were at war. This therefore led to industrialisation with countries seeking to domestically produce formerly imported industrial goods. While the empirical validity of externally enforced ISI is doubted²⁴, it is possible that international circumstances prevailing in a period could enforce the pursuit of ISI. For example, apart from the disruptions resulting from war, economic sanctions imposed on a country by the world community, thus making it difficult for the country to import products, could force a country to pursue ISI. In the same manner, the increasingly oligopolistic structure of the developed capitalist economies could cause a country, especially the less developed countries, to pursue ISI.

²⁰ In order to protect and maintain their market positions, transnational corporations and local enterprises formerly engaged in importing manufactured goods took advantage of this and established domestic production facilities within the high tariff walls.

²¹ Cited in Schmitz (1984:1-2).

²² Cited in Schmitz (1984:2).

²³ Cited in Schmitz (1984:2).

²⁴ Dean (1969), Villela and Suzigan (1977), Ingham and Simmons (1981), and Albert and Henderson (1981) are some of the economists who doubt the empirical validity of externally forced ISI (Schmitz (1984:2)).

Irrespective of the various rationales upon which a country pursues ISI, selective intervention as opposed to functional intervention is mainly used as a remedy to protect domestic industries. With the protective tools ranging from import tariffs, subsidies, quotas, multiple foreign exchanges, or a combination of any of these, the end result is as some critiques²⁵ observe; the development of highly protected and overdiversified industrial sectors which are capital intensive in nature. This therefore brings us to the implications and criticisms that have been levelled against pursuing import substitution as an industrialisation strategy.

2.6.5 Criticisms against import substitution industrialisation

Several authors²⁶ have levelled criticisms on the viability of import substitution as an industrialisation strategy and therefore, while pursuing ISI has helped some countries to establish domestic technological capabilities and to develop their industrial bases through infant industry protection, economists argue that this has been at great costs compared to benefits. The strategy has also been largely regarded as out dated, and as such, it has fallen out of favour with many development economists. The criticisms against ISI are discussed in Sections 2.6.5.1 – 2.6.5.6 below.

2.6.5.1 Limitations of the pattern of demand and distribution of income

Several authors²⁷ have criticised ISI for accepting the pattern of consumer demand as given and yet the market for imported goods may not necessarily represent the demands of the population as a whole. It takes the underlying distribution of income (inherited in the past) as given, while an increasing unequal distribution of income occurs as income is diverted from labour to capital due to the development of capital-intensive modes of production, thus forming a bias against employment of labour. The redistribution of national income also often favours those sectors of the economy with a high propensity to consume imported goods or domestically produced import intensive products, thus favouring the urban middle and higher income groups while discriminating against the rural farmers, the low-income groups, and the self-employed; thus further widening the gap between the poor and the rich. This skewed distribution of income would lead to insufficient domestic demand, which in turn would lead to the under-utilisation of

²⁵ Some of the critiques who have made such observations are Nixon (1982:43), Kirkpatrick and Nixon (1983:14), and Todaro (1997:468).

²⁶ Such authors include Nixon (1982), Schmitz (1984), Sutcliffe (1971), Kirkpatrick and Nixon (1983), United Nations Economic Commission for Latin America (1964) and Todaro (1997).

²⁷ Such authors include Nixon (1982:42, 46), Schmitz (1984:4), Sutcliffe (1971:267), Kirkpatrick and Nixon (1983:21, 25), United Nations Economic Commission for Latin America (1964) and Todaro (1997:469).

industrial capacity, as observed by Baer and Maneschi (1971)²⁸, Nixon (1982:48) and Kirkpatrick and Nixon (1983:23).

2.6.5.2 Limitations of trade data

Import substitution uses trade data to consider products suitable for domestic production to replace imports (see Section 2.6.3). Criticisms arise on (i) the extent to which trade data is sufficiently disaggregated to allow an accurate identification of the specific products for protection; (ii) how, despite the level of aggregation, import data can effectively indicate which products are suitable for domestic production; (iii) whether or not products which do not enter a country or enter a country in small quantities, do not merit domestic production; (iv) whether because certain products enter the country in large quantities, domestic production is necessary; and (v) whether it could not be the case that industrialisation could require the domestic production of goods which were previously neither imported nor consumed (Nixon, 1982:42-43). These limitations therefore imply that other factors have to be considered, e.g. the price elasticity of demand of the product earmarked for domestic production²⁹ as well as reconciling the choice of products or industries with the country's factor endowments, development objectives, technological characteristics of the project in question, and the demands of the project chosen.

2.6.5.3 Diversion or unequal distribution of resources and underutilisation of resources

It has been argued that preoccupation with industrialisation has often led to the neglect of other sectors of the economy, especially the agricultural sector (Nixon, 1982:43; Schmitz, 1984:3; Mountjoy, 1975:59; Kirkpatrick and Nixon, 1983:14, 24; United Nations Economic Commission for Latin America, 1964³⁰). In the majority of less developed countries, there is great need for a close economic relationship between industrial and agricultural development since the two are interdependent as they are potential markets to each other, such that, turning the inter-sectoral terms of trade against the agricultural sector would be detrimental to the whole industrialisation process (Mountjoy, 1975:59, 75; Weiss, 1988:84; Clark, 1970:23). The United Nations Economic Commission for Latin America (1964)³¹, Schmitz (1984:3), Nixon (1982:44), Wie (2000:4) and Kirkpatrick and Nixon (1983:16) observe that imbalances were also observed within the

²⁸ Cited in Kirkpatrick and Nixon (1983:23) and Nixon (1982:48).

²⁹ Where tariff protection is used, this could result in a reduction in demand as a result of the higher price of the domestic product. It is only when the relevant price elasticity of demand is equal to zero that a tariff protection would not lead to a reduction in demand.

³⁰ Cited in Nixon (1982:48) and Kirkpatrick and Nixon (1983:22).

³¹ Cited in Kirkpatrick and Nixon (1983:22) and Nixon (1982:48).

industrial sector itself, between capital and consumer goods, with resources diverted more from the latter towards the former. Even within the capital goods sector, import controls did not apply equally, with some capital goods (e.g. machinery and large-scale capital-intensive import substitution industries) receiving more favourable credit facilities and the highest effective rate of protection. Significant bias³² has also been observed against the export sector as a country devotes all its efforts towards ISI, and yet, this export sector is regarded as a more promising line of industrialisation for small countries (Nixson, 1982:43; Schmitz, 1984:3; Weiss, 1988:181).

Therefore, while diversion of resources towards the industrial sector/ or sections therein, could initially result in the establishment of productive capacities within the favoured sector or sections, inadequate demand resulting from diverting resources from other sectors could lead to over-diversified capital-intensive industrial sectors which are substantially under-utilised, as well as unequal industrial development with inadequate linkages.

2.6.5.4 Impact of ISI on balance of payments problems

Import substitution could take place without any reduction in the proportion of total supplies of imported manufactures as import substitution could lead to a rise in the imports of other manufactured goods not being produced domestically under ISI³³, while the domestic production of manufactured goods could lead to increased imports of capital and intermediate goods needed as inputs (Sutcliffe, 1971:257; Nixson, 1982:45; Schmitz, 1984:3; Clark, 1970:18; Kirkpatrick and Nixson, 1983:20). Also as Nixson (1982:46) and Kirkpatrick and Nixson (1983:21) argue, the import intensity or import content of the various import substitution industries varies as the domestically produced goods have different import intensities, and therefore, depending on where the import intensity is high, this would lead to increased imports. Furthermore, as industrialisation proceeds and national income increases, Felix (1968)³⁴ and Nixson (1982:46) note that such rising income shifts demand towards products with high income elasticities of demand and higher

³² The overvalued exchange rates and high tariffs that accompany ISI suppress the capacity to export as they often force the prices of exports to rise above world levels, thus forcing productive factors to shift from export production as the sector becomes less competitive in world markets (Sutcliffe, 1971:261; Clark, 1970:25; Todaro, 1997:469).

³³ If for example, the domestic manufacturer of consumer goods gets priority in ISI, the commodity composition of imports in this category changes with imports becoming relatively less important. However, imports in intermediate goods, fuel, machinery and equipment, which are not yet getting priority, become of greater importance, thus increasing the composition of imports in these categories.

³⁴ Cited in Kirkpatrick and Nixson (1983:22-23) and Nixson (1982:48).

imports intensities, thus aggravating more imports such that the magnitude of the import bill is not likely to decline during the ISI process³⁵.

From the above discussion, it can be seen that as ISI proceeds, it leads to a recurrent requirement for foreign currency to maintain the supply of imported inputs and technology needed, thus negatively affecting the availability of foreign currency. Also since the effective rate of protection may be high, the value of the domestic industries' inputs at world prices will be greater than their output measured at world prices, and so, effectively domestic production would be costing the country foreign currency. Therefore, instead of improving the balance of payments position and alleviating the debt problem, ISI often worsens the situation. Also to note is that since resources are diverted from the export sector during import substitution programmes (see Section 2.6.5.3), this worsens the availability of foreign currency reserves leading to chronic balance of payments problems.

2.6.5.5 Exhaustion of ISI opportunities

While ISI allows a very rapid rate of industrial growth in the short-run, with time, it appears to lose momentum with further opportunities becoming exhausted, thus negatively impacting on a continued industrialisation base. This has been attributed to the failure by ISI to, among other things (i) develop a growing home market (domestic demand) or exports markets; (ii) maintain a higher rate of growth of income to sustain the initial rapid growth and the country's resource base; (iii) develop a broad and balanced base of economical viable supporting industries due to the diversion of resources from some sectors of the economy in preference for the import substitution industries (Sutcliffe, 1971:260; Nixon, 1982:43, 47; Schmitz, 1984:3; Wie, 2000:2, 24; Kirkpatrick and Nixon, 1983:21; Clark, 1970:22; Mountjoy, 1975:89). Furthermore, Clark (1970:22) notes that as ISI proceeds, its costs increase and these will gradually and progressively begin to absorb the increment in real income which should accrue to technical and capital improvements. As a result, consumption loss is experienced, thus diminishing domestic demand and leading to stagnation.

Critics of ISI also attribute the exhaustion of ISI opportunities to lack of incentives for raising productivity as well as distortions in the economy as a result of government intervention which leads to inefficient implementation (Nixon, 1982:47; Lall, 1994:74; Kirkpatrick and Nixon,

³⁵ Felix (1968) notes that as ISI proceeded in Latin American countries, it lost its capacity to reduce the import ratio and this became even more difficult as import substitution moved to intermediate and capital goods industries (Nixon, 1982:48; Kirkpatrick and Nixon, 1983:22-23).

1983:22); while it is also argued that stagnation tendencies are inherent within ISI and as such, once a certain stage of industrialisation has been attained, stagnation occurs (Kirkpatrick and Nixon, 1983:22).

Sutcliffe (1971:260) observes that opportunities for ISI also depend the country's resource base, and in this regard therefore, import substitution becomes progressively more difficult as the remaining industrial commodities being imported are those for which the necessary domestic raw materials, as determined by the country's resource base, are not available. Also to note are the problems often associated with the choice of industries/options and the problems often associated with sequencing industrial development (see Section 2.6.3), have meant that for the majority of less developed countries the tendency has been to get stuck in the first stage of industrialisation, thus failing to create further ISI opportunities³⁶.

2.6.5.6 Problems with infant industry protection

The infant industry protection argument (see Section 2.6.4.1), has been a basis for criticism because during protection, the economy incurs costs resulting from the protection. It has also been observed that "investment may occur in areas where comparative advantage never grows, the high costs of the protected industries may create a lack of competitiveness in other domestic industries whose inputs are the outputs of the protected industries, some potential comparative advantages may not be exploited because of the distorting effects of existing tariffs, and consumers experience high prices" (Lipsey *et al*, 1999:757). Corden (1974:270) and Lall (2004:17) observe that due to varying time lags in response to the protection given, as well as differences in the duration of the learning process, complementary firms under the same temporary protection may not progress at the same pace. This may mean that in some activities, the need for protection may be minimised while subsidising other firms more so as to stimulate them more, thus raising the costs accruing to the economy as a result of infant industry protection.

Therefore, infant industry protection must be employed selectively and wisely and especially to those cases where there are adequate grounds that the industry will eventually grow and dispense

³⁶ On the other hand, the advanced and semi-industrialised less developing countries have managed to move to higher levels of industrialisation (Nixon, 1982:40). India and Brazil managed to achieve proper sequence through massive and direct government intervention in the establishment of intermediate, investment and capital goods industries (Nixon, 1982:47; Kirkpatrick and Nixon, 1983:22).

of the protection so that as Bastable (1921)³⁷ notes, the ultimate saving in costs would be able to compensate the community for the high costs of protection.

ISI has some relevance to the SADC region, and as such, some of the discussions thus presented will be drawn upon or made reference to in some of the chapters in the thesis, e.g. Sections 3.2.1; 3.2.3.1; 4.6.1.3; 4.7; 5.3.4; 6.5.3; and 7.3.8. The limitations and criticisms levelled against ISI have often called for the adoption of an alternative industrialisation strategy capable of greater capacity utilisation, permitting the exploitation of economies of scale, as well as avoiding economic stagnation. The export oriented or outward looking industrialisation strategy is often recommended, and this strategy is discussed in the next section.

2.7 NEO-CLASSICAL THEORY OF EXPORT-ORIENTATED INDUSTRIALISATION

2.7.1 Introduction

After ISI had failed to generate sustained growth in manufacturing and employment, various bodies including the OECD, The World Bank, IMF and others, commissioned studies which clearly showed the economic drawbacks of inefficient ISI, thus calling for the adoption of an alternative industrialisation strategy. The remarkable success of the East Asian newly industrialising economies (NIEs) in achieving sustained rapid growth in output and employment through export orientated industrial development, encouraged other countries to shift from ISI to export orientated industrialisation (Todaro, 1997:460; Wie, 2000:4; Schmitz, 1984:8; Kirkpatrick and Nixon, 1983:26, 35).

2.7.2 Economic theory behind export oriented industrialisation

Export orientated industrialisation (EOI) is founded in the neo-classical analysis which emphasises liberalisation of an economy, or allowing free market operations. As an outward-looking strategy, EOI leads to economic advantages of opening up economies and promoting exports. For example, resources are allocated according to the country's comparative advantage, leading to optimum allocation of scarce resources, thereby maximising economic welfare. In response to competition from abroad, technological improvements are generated which lead to productivity improvements and lowering of production costs further. Exposure to competition also improves efficiency while the removal of price distortions helps the host county's exports to become more competitive. In labour-surplus countries, export-oriented policies will contribute

³⁷ Cited in Corden (1974:265).

towards increased employment as countries produce according to their comparative advantage. There is also greater capacity utilisation, thus permitting the exploitation of economies of scale (Wie, 2000:4; Schmitz, 1984:8; Kirkpatrick and Nixon, 1983:15, 26, 37; Todaro, 1997:479-480).

The stagnation that occurred under ISI (see Section 2.6.5.5), necessitated the creation of external demand for domestically produced goods. Therefore, it can be argued that the need and importance of substituting large markets for narrow domestic ones made EOI an attractive option, while in a bid to satisfy both internal and external market demands, EOI also ensured full utilisation of the existing heavy underutilised industrial capacity that resulted from ISI.

However, Schmitz (1984:12), Kirkpatrick and Nixon (1983:41) and Todaro (1997:464) observe that whilst liberalisation of the economy is deemed essential for EOI, this has to be done selectively and gradually on the basis that liberalisation must reflect the competitive strength of the evolving local products. Therefore, quite a number of countries that shifted from ISI to EOI did not practice an across-the-board import liberalisation and market forces were not given a free reign to allocate resources.

2.7.3 Manufactured export strategies

Kirkpatrick and Nixon (1983:29) and Weiss (1988:34) argue that there are three options available to less developed countries (LDCs) who want to adopt a more outward-looking strategy based on the expansion of manufactured exports. The economic structure, industrialisation experience, and development priorities of the country determine the options, and these options are: (i) processing for export; (ii) exports based on import-substitution industries; and (iii) labour-intensive assembly and processed exports. However, it has been argued that in practice most less developed countries (LDCs) follow a combination of these three options as they pursue EOI. Each of these options is discussed below.

2.7.3.1 Processing for export

For a country with substantial exports of primary products and raw materials, local processing before export helps to increase manufactured exports. In many developing countries, primary products and raw materials still account for the major share of total exports, and so support for resource-based export production through processing activities in the producer economies could be promoted. Resource-based export production is expected to yield benefits to the host country due to comparative factor intensity, locational and cost advantages, as well as due to economies

of scale. UNCTAD (1999:21, 41) observes that the host country also benefits from the trade creating effects of a rise in exports, diversification in the composition of exports towards manufactures and more complex products, and the generation of employment.

However, this option is often met with problems resulting from a variety of market imperfections and constraints which discourage the relocation of processing facilities in LDCs, thus hindering the growth of their processed exports. Authors note that the barriers which often render this option ineffective are: (i) the structure of protectionism in the developed countries, e.g. tariffs and non-tariff barriers³⁸ which tend to rise with each stage of processing, such that the more processed the products, the higher the trade restraints. Therefore, this restricts an increase in LDCs' processed exports; (ii) the international freight tariffs, where the structure is that shipping tariffs go up for processed goods, thus disadvantaging the processors in LDCs; and (iii) the influence of the international market structure in the processing and subsequent marketing and distribution of primary and raw materials (i.e. transnational corporations tend to be vertically integrated, oligopolistic in nature, and dominate the market). Therefore, where processing activities and penetrating the international markets by LDCs is viewed as a threat to the TNCs' own processing activities and control of the markets, the latter can react by developing stronger links with supply sources through their oligopolistic powers, thus isolating the LDC producers (Kirkpatrick and Nixon, 1983:30-1; Todaro, 1997:464-465; UNCTAD, 1999:19; Weiss, 1998:302, 305).

Therefore, since all this could constrain the establishment of processing industries in which LDCs have a competitive advantage, the success of processing for export as an option to develop and promote manufactured exports during the EOI cannot only depend on comparative factor intensity, economies of location, and transport, but on these factors too.

2.7.3.2 Exports based on import substitution industries

Countries which initially pursued ISI have followed this strategy with the heavily underutilised import substitution industries now used to produce for both domestic and foreign markets (UNCTAD, 1999:29; Weiss, 1988:310, 235). Through export promotion measures, the import substitution industries are encouraged to produce for export³⁹. Such measures include: (i) export

³⁸ These include quantitative import restrictions, licensing arrangements, health and safety regulations, voluntary export agreements and other forms of trade restraints (Kirkpatrick and Nixon, 1983:30).

³⁹ Countries which have adopted this option have done so when their countries were at different levels or stages of ISI. This has sparked debate among economists as to what level of ISI is ideal for a smooth and successful transition into EOI, and whether or not ISI is a necessary precondition for the development of a manufactured export-based industrial development programme. This discussion is presented in Sections 2.8.5.1 - 2.8.5.3.

targeting, where failure by the firm to meet export targets leads to the withdrawal of privileges like domestic credit, access to import licences or protection; (ii) the direct tying of import licence allocations to export performance; (iii) export voucher or entitlement schemes which allow producers to retain a proportion of foreign earnings for use outside the licensing system; and (iv) allowing the firms to use discriminatory pricing between domestic and foreign markets (Kirkpatrick and Nixson, 1983:32).

In the long run, it is the government's commitment to an export-based industrial development strategy which would sustain the initiative to use import substitution industries to manufacture for export, with resources being pulled into export activities, thus successfully transforming import substitution industries into export oriented industries.

2.7.3.3 Labour-intensive assembly and processed exports

LDCs normally follow this option in their EOI programme due to the growing internationalisation of production, where the tendency among the TNCs is vertical integration of their production activities on a global scale. This leads to worldwide sourcing for the most economic location of the various stages of the production process. Sharpston (1975)⁴⁰, UNCTAD (1999:11, 21) and Schmitz (1984:10) observe that the TNCs have thus relocated their labour-intensive assembly and processing operations in LDCs so as to take advantage of lower labour costs, which are sufficient to outweigh any labour productivity differential and additional transport costs. Kirkpatrick and Yamin (1981)⁴¹ and Schmitz (1984:10) note additional locational factors as the general reduction in international transport and communication costs, increasing divisibility of the production process, and the growing standardisation of products.

This option has also been promoted by the policy incentives offered by both the host and home countries. For example, UNCTAD (1999:24) notes that developed countries have laws which favour the processing of inputs originating from the home country in the host country. So the firms affiliated to the originating company would relocate to the developing country, import components from the home country, process, and export to the home country, duty-free. LDCs attract export activities of this type by offering varied incentives to TNCs (see Section 2.7.4 below). Helleiner (1973)⁴² observes that export activities have centred on labour-intensive

⁴⁰ Cited in Kirkpatrick and Nixson (1983:34).

⁴¹ Cited in Kirkpatrick and Nixson (1983:35).

⁴² Cited in Kirkpatrick and Nixson (1983:34).

processes like electronics and clothing industries, automobile components, optical equipment, musical instruments, typewriters and other office equipment.

However, it has been argued that in this option, the net benefit to the host country is mostly limited to local labour receipts only. This is because most material inputs are imported, capital is predominantly foreign owned, profits and remittance taxes charged by the host country are minimal and sometimes no charges are made in an effort to attract more investors. Also, often there are limited linkages created with the rest of the economy, and the enterprises are footloose in nature (Kirkpatrick and Nixon, 1983:35). On the other hand, UNCTAD (1999:24) notes that where affiliate firms relocate to developing countries so as to take advantage of the duty-free entry of their processed products into the home country, the rules of origin would limit the developing countries' ability to diversify their export markets.

2.7.4 Measures to promote export orientated industrialisation

As noted in Section 2.7.2 above, the shift to EOI requires opening up the economy and putting in place mechanisms which promote exports. Countries which have adopted EOI have taken various measures to promote an outward-looking export-oriented strategy. For example, opening up the economies as an export promotion measure has involved the elimination of tariffs and quotas so as to encourage firms to be more efficient while maintaining sensible exchange rate policies would make exports more competitive on the world market. Policy incentives⁴³ have been offered by the host countries to attract foreign investors and to encourage the setting up of export orientated industries. Host countries have also improved on the provision of infrastructural requirements, e.g. buildings, water, power, transport, telecommunication, and labour training facilities, so as to encourage the setting up of export orientated industries. The host countries have also liberalised restrictive policies towards foreign investment, as well as setting up measures to promote co-operation between government and the private sector (Wie, 2000:3, 5, 6; Kirkpatrick and Nixon, 1983:35; UNCTAD, 1999:9, 29; Mbekeani, 1999:4).

The establishment of export processing zones (EPZs) is another export promoting measure which has been used to facilitate EOI. The EPZs attract exporting companies as the companies are allowed to import their inputs duty free subject to the requirement that their entire output will be exported. The EPZs are also linked to good transport infrastructure which enables them to

⁴³ This has involved incentives like duty rebates and exemptions; tax exemptions on imports, corporate and personal income, royalties and dividends; and uncontrolled foreign exchange remittances.



promote exporting industries. By promoting exports, the EPZs help establish a country's international reputation as a reliable export country, thereby paving the way for more foreign investment (Wie, 2000:5; Tshabangu, 1997:10).

Regional integration arrangements and other forms of economic cooperation among developing countries are measures that could lead to a successful export-orientated industrial development programme. The regional grouping would thus serve as a market for the region's manufactured exports, thus reducing the emphasis often put on the success of EOI as being dependent on the ability of individual LDCs to penetrate the markets of the developed nations.

2.7.5 Transition from import substitution to export oriented industrialisation

Most countries that have adopted the export promotion strategy have been preceded by a period of ISI, but the timing and characteristics of the transition have differed from one country to another. As a result, this has often led to the debates on whether or not ISI was necessary as a basis for EOI to succeed, and whether or not to have a two-pronged import policy which allows a simultaneous pursuit of both ISI and EOI.

2.7.5.1 ISI as a pre-condition for EOI

Some authors have regarded ISI as a pre-condition for successful EOI. This argument has its roots in the observations that some of the most successful exporters from the newly industrialised countries (NICs) in the world today were countries in which ISI was relatively successful in building up an industrial structure. In such economies, ISI was not merely limited to production of consumer goods, but succeeded in creating both forward and backward linkages with the domestic economy as well as between industries. This led to simultaneous growth in industries, leading to a remarkable balanced growth of complementary industries which acted as self-reinforcing factors (Schmitz, 1984:13; Weiss, 1988:301; UNCTAD, 1999:29; Todaro, 1997:466). Therefore a developed industrial structure enabled a country to embark on EOI as the country now had the advantage of being able to produce and export non-commodity exports.

It has also been argued that continuing ISI beyond its first easy stages enables countries to lay the groundwork for a more diversified structure of manufactured exports, which is one of the conditions necessary to sustain EOI and to reduce the country's vulnerability to slowdowns and instabilities in international demand. It has also been argued that continuing ISI beyond its initial

stages is also important because as Stewart (1974)⁴⁴ notes, manufactured exports to advanced countries tend to require the use of the necessary advanced technology that meets the quality standard appropriate to the income levels and taste patterns of the developed-country markets.

However, it has also been argued that the transition from ISI to EOI soon after the early stages of ISI is important as this has a bearing on the country's subsequent success in expanding its manufactured exports. It is argued that beyond the first stages of ISI, increased difficulties and inefficiencies are experienced. For example, as the industries become more capital intensive and more sophisticated, market distortions increase, the interest to continue the system also increases, and foreign currency constraints become more pronounced. All these will have to be overcome before implementing EOI successfully, the country will have to re-orient such industries to a more outward-looking strategy, and selective forms of export promotion will have to be adopted to induce such industries to produce for export. Therefore, it is argued that the export growth performance of those countries that switched to export promotion at an early stage in their ISI has been significantly higher than for those who made the transition to EOI after prolonging the ISI period (Balassa, 1980⁴⁵; Weiss, 1988:201).

2.7.5.2 Prior industrialisation as a pre-condition for EOI

It has also been argued that what is important is that there has to be significant industrialisation before EOI can commence in order to have success in export manufacturing, but this does not necessarily make ISI a pre-condition to EOI. For example, Datta-Chaudhuri (1981:52)⁴⁶ observes that, industrial structures supported by adequate infrastructures and accumulated industrial experience as well as technical skills and entrepreneurship developed during prior industrialisation, are essential for the success of EOI (Schmitz, 1984:13). However, such industrial experience and technical and entrepreneurial skills need not to have been acquired from prior industrialisation in the host country, but could have been acquired from a foreign country. Therefore, a country with little prior industrialisation could equally have successful EOI through use of skilled people from other countries⁴⁷.

⁴⁴ Cited in Kirkpatrick and Nixson (1983:38).

⁴⁵ Cited in Kirkpatrick and Nixson, 1983:33).

⁴⁶ Cited in Schmitz (1984:13).

⁴⁷ Schmitz (1984:14) and Lall (1994:77) note that Taiwan and Hong Kong were not at the same level of prior industrialisation as South Korea, but the success of EOI in these countries was due to a considerable influx of people with prior industrial experience, technical and entrepreneurial abilities from mainland China. This will be discussed further in Chapter Three of this thesis.

Prior industrialisation, not necessarily resulting from ISI, is also regarded as a pre-condition for successful EOI on the basis that it enables the country to start with unique added advantages which can attract foreign capital (Lall, 1994:75-77). Therefore, foreign capital would become the major driving force behind the EOI programme⁴⁸.

2.7.5.3 Simultaneous pursuit of both ISI and EOI

This calls for a two-pronged import policy which allows a simultaneous pursuit of both ISI and EOI. Luedde-Neurath (1983)⁴⁹ notes that this entails a policy which is “liberal towards inputs for export manufacturing and highly restrictive towards the domestic market.” This is based on the fact that the success of EOI in some of the NICs was based on pursuing a combined strategy of export promotion in some sectors and import substitution in others (Schmitz, 1984:14; Kirkpatrick and Nixon, 1983:41; Todaro, 1997:460). The rationale behind this approach is the desire by the state to play a part in directing investment in some sectors, which although risky, are still essential to the economy. Notable also is the importance of ensuring that liberalisation reflects the competitive strength of the evolving local products.

2.7.6 Criticisms against export orientated industrialisation

It has been argued that EOI is not always feasible for all LDCs as it does not necessarily bring about desirable results to all countries, as countries are unique. Therefore, its success in some LDCs is not always an adequate index to use in showing the benefits of EOI (Todaro, 1997:480, 481; Kirkpatrick and Nixon, 1983:35).

The growth of manufactured exports by LDCs reflects growth in emerging markets, e.g. China, which have opened up market opportunities for LDC suppliers as well as growth in intra-regional trade. However, it is important to note that the prospects of developing countries’ manufactured exports in advanced countries as well as the impact of heightened discriminatory protection in industrialised countries against LDCs’ manufactured exports are still significant in limiting exports from LDCs. Therefore, as already noted in Section 2.7.3.1, EOI does not necessarily lead to an increase in manufactured exports from the LDCs, and in some cases they have fallen. As a

⁴⁸ Among the ASEAN countries (Singapore, Malaysia, Philippines, Thailand and Indonesia), Singapore was the first to shift to EOI and it relied so heavily on foreign capital for the success of its EOI programme (Wie, 2000:3; Schmitz, 1984:14; Lall, 1994:77). Lecraw (1985:393) note that foreign capital accounted for almost 90 percent of the manufactured exports, over 70 percent of capital expenditure, and almost 70 percent of total manufacturing value added (Wie, 2000:3).

⁴⁹ Cited in Schmitz (1984:12).

result, EOI may fail to successfully establish and sustain low-cost product industries in which the LDCs have a competitive advantage.

While foreign investors have been relied on to facilitate export-led manufacturing through investments in export orientated manufacturing activities, it has been argued that minimal backward linkages with the rest of the economy have been created due to a number of reasons, i.e. (i) the footloose nature of some of the investment; (ii) the inability of the host country to absorb technological transfers from the advanced countries due to the absence of local technological skills and capabilities; (iii) the unwillingness on the part of some investors to impart their technological capabilities and skills to the locals; and (iv) continued reliance by the export-orientated activities on imported inputs and technology, thus leading to technological dependence by the host country (UNCTAD, 1999:35-37, 39; Pretorius, 2000:8).

Due to the above limitations of EOI, it can be argued that income distribution under EOI is uncertain and in some cases small. For example, the employment generating effect of export production becomes limited since the TNCs' investments in export-orientated activities tend to employ more capital-intensive technologies and import most inputs from the home country instead of forming stronger linkages with local suppliers. Since most developing countries are still dependent on primary export production, manufacturing export production still represents a small proportion of total production activity, and therefore, income distribution as a result of pursuing EOI may not be as significant as would have been expected.

EOI could increase a country's vulnerability to instabilities on the international markets. For example, in cases where a country relies heavily on export-orientation for its overall economic growth, such instabilities could have significant negative effects unless the country has diversified products and markets. As such, the extent of reliance on export-based industrialisation programmes ought to be cautiously applied and varied between manufacturing branches and export markets since world economies are not always experiencing periods of rapid world economic growth. However, this should not be taken to mean that firms that want to export and have won export orders should be restrained or prevented from doing so.

The discussion presented above has some relevance to the SADC region and as such some of it would be drawn upon or made reference to in the discussions to follow, e.g. Sections 3.2.1; 3.2.3.1; and 7.6.1.2

2.8 CONCLUSION

Theoretical foundations provide some bases upon which countries can develop industrial development strategies. While countries may have similar comparative advantages, they can end up at different levels of industrial development due to the theoretical frameworks upon which their industrialisation strategies are based. This chapter has attempted to outline the major models that are to be relevant to SADC and these are summarised as follows.

The theory of industrial location brings to the fore factors which influence investors' decisions to locate in particular countries or regions. These include profit maximisation, transport costs, labour costs, concentration of raw material supplies, the availability of markets for finished products, and agglomeration economies. However it is important to note that the importance which individual investors attach to these factors is relative.

Other factors also affect foreign investors' locational choices in individual countries or regions. For example, Porter's "Diamond" framework shows that the competitive advantage of a county or a region is an important factor. The manner in which the four attributes in the framework relate to each other and reinforce each other indicates to the investors the industrial environment most likely to be faced. An insight into the competencies within each factor and within the "diamond" as a whole would enable foreign investors to determine whether the potential host country has an environment which is vibrant enough to sustain existing investments and make them viable. This could be an indicator of the safety and profitability of its own future investments.

The Harrod-Domar growth model, Solow's model, and the endogenous growth model constitute economic theories relevant to the importance of savings and investment in economic growth and development. Most developing countries experience "savings gaps" which mitigate further investment, infrastructural development, and human capital formation. They also experience low technological capacities and the ability to innovate. Therefore, irrespective of the industrialisation strategy followed, most countries see the need for foreign capital injections to augment domestic resources so as to facilitate industrial growth.

The theory of industrial policy entails active participation by the government through selective and functional interventionist measures so as to direct trade, investment, technological development and local technological capabilities, the structure and behaviour of industries, as well as human capital development. These areas impact on the industrialisation process and as

such are of relevance to a country's industrial policy. Intervention is justified on the basis that both the product and factor markets are imperfect and as such government intervention could be necessary through an active industrial policy so as to correct such market imperfections. However, while government intervention could succeed in correcting the imperfections and as such help foster industrial development, caution has to be applied on the extent to which such intervention could be applied without creating additional imperfections and constraints which could negatively affect industrial development. Therefore, there is a need for the government to have instruments which can sufficiently and effectively control the speeds of adjustment in all the variables involved and this intervention should also be dependent on the nature and extent of the market failures.

Using ISI as the underlying theoretical framework to an industrialisation programme entails the substitution of domestic production for imports. The country will develop its industrial base behind high protective walls. However, ISI has experienced limitations arising from, among others, the exhaustion of import substitution opportunities, stagnation and failure to progress beyond the first stages of industrialisation, chronic balance of payments problem, and the creation of capital-intensive under-utilised capacities. As a result, countries have either scaled down on the use of ISI as an industrialisation strategy or have abandoned it in favour of export orientated industrialisation strategies.

EOI as a strategy for industrialisation entails liberalising the economy and promoting export-oriented activities. The economic advantages expected relate to efficient allocation of resources and production, technological improvements, improved industrial capacity utilisation and the exploitation of economies of scale. However, it has been observed that liberalisation of the economy has to be done selectively and gradually in line with the country's evolving comparative advantages, and this has often meant periods of simultaneously pursuing ISI and EOI. It has also been noted that the feasibility of EOI as an industrialisation strategy depends on the availability of markets for the country's manufactured products. Given the strong competition on the world markets as well as the developed countries' discriminatory protectionist measures against manufactured products from developing countries, using EOI as an industrialisation strategy can be a big challenge to many developing countries.

The extent of successfully implementing ISI and EOI as theoretical frameworks for industrialisation as well as the significant role of FDI will be analysed in the case studies of

industrial development in the East Asian NICs as will be discussed in the next chapter. The remainder of the study will attempt to assess the current and potential industrial developments within the SADC region in the light of the theoretical foundations considered in this chapter. Locational decisions by foreign investors as well as cross border investors will be assessed in the light of the theory of industrial location as well as Porter's 'Diamond' framework. The extent to which the region has attracted and benefited from FDI will also be discussed.

CHAPTER THREE

SUCCESSFUL INDUSTRIALISATION WITHIN DEVELOPING COUNTRIES

3.1 INTRODUCTION

More and more developing countries show interest in promoting exports of manufactures and semi-manufactures as a strategy for industrialisation. The SADC region is no exception, and through the SADC Industrial Policy and the SADC Free Trade Area, the region intends to transform itself into a self-sustaining industrial developed region. In this regard therefore, an investigation of the East Asian Newly Industrialised Countries (NICs) becomes relevant to the study of industrial development within SADC. The East Asian NICs successfully developed from being some of the world's poorest countries to a success story of sustained economic growth and industrial development. An insight into their industrialisation strategies, problems encountered and solutions would therefore, shed light into the challenges which SADC should expect.

The purpose of this chapter is therefore to present case studies of successful industrialisation within developing countries. However, before discussing the experiences of each country, Section 3.2.2 will give an overview of the industrialisation pattern followed. Section 3.2.3 examines South Korea in relation to its industrialisation strategies and the challenges this put on neo-classical economic theory. South Korea's industrialisation experiences present a challenge to developing countries as will be shown by among other things, the importance and efforts which the country put on the transfer of technology in order to develop local technological capabilities.

Taiwan's industrial development experiences are discussed in Section 3.2.4. The discussion also shows the relevance of the Taiwan experience to developing countries bent on industrialising their economies. The unique contribution of Taiwan to the developing countries was its ability to pursue a decentralised industrial development programme which placed equal importance on both the rural and urban sectors, as well as the understanding that rapid economic growth and greater economic equality were congruent and not conflicting objectives.

Section 3.2.5 explains the very unique industrial development experiences of Hong Kong, indicating the many advantages which the country started off with which are absent in many

developing countries and even free trade centres. Of all the East Asian NICs, Hong Kong is the only one which adopted a *laissez faire* industrialisation policy which came closest to the neo-classical paradigm. While it may be very difficult to recommend Hong Kong's industrial development strategies to other developing countries, many lessons can still be derived from its experiences, especially in terms of the role of the government and the importance of a sound financial infrastructure.

Section 3.2.6 considers the pattern of industrialisation in Singapore. Just like Hong Kong, it is a city-state, had some initial advantages emanating from its colonial period and excellent geographical location, and experienced a rapid growth of the financial sector in the period 1960s to the 1980s. However, it pursued a different approach to industrial development, demonstrating that there is no single path to attain industrial development. Its significant contribution to other developing countries lies in the great role played by the government in facilitating industrial development, the drive towards local technological capabilities, as well as the significant role played by FDI.

Section 3.3 shows how South Korea, Taiwan, Hong Kong and Singapore fit in the World economy today, in terms of FDI outflows, participation in FDI in the form of cross border mergers and acquisitions, and the growing importance of their TNCs. Section 3.4 analyses the experiences from the selected case studies and discusses inferences and lessons for SADC. Section 3.5 concludes, highlighting the extent to which the East Asian NICs conformed to orthodox economic theory in terms of industrial development.

3.2 SELECTED CASE STUDIES: EAST ASIAN NEWLY INDUSTRIALISED COUNTRIES

3.2.1 Introduction

In recent years the neo-classical interpretation of East Asian NICs' success has been challenged. Except maybe for Hong Kong which tended to have a close to pure open neoclassically managed economy, the industrial development strategies experienced were contrary to the often accepted view of market oriented development as government policy was not neutral, but employed interventionist policies to support selected industries. Interventionist policies were also implemented in trade, FDI, technology transfer and in the domestic allocation of resources. However, without denying the important roles played by market oriented policies, the market system was used when deemed appropriate and necessary to achieve national developmental goals. Therefore, the East Asian NICs' development experience was as a result of a mixture of market and non-market forces, with guided

programmes (Stein, 1995:36; Kim, 1995:91; Lindauer and Roemer, 1994:5; Roemer, 1994:235; Wade, 1988:46; Luedde-Neurath, 1988:68; Lall, 2004:13). Lall (2004:13) observes that the objections to the strong neo-liberal position also came from authors like Amsden (1989), Lall (1992), Pack and Westphal (1986), Wade (1990) and Westphal (1982; 1990).

Evans and Alizadeh (1984) also present an argument that questions the neo-classical export orientated industrialisation strategy in as far as it truly represent what occurred in the East Asian NICs during their industrialisation. They show that the experiences of these countries reflect an alternative analytical framework and model which seems to provide a sounder basis on which the East Asian NICs can be assessed.

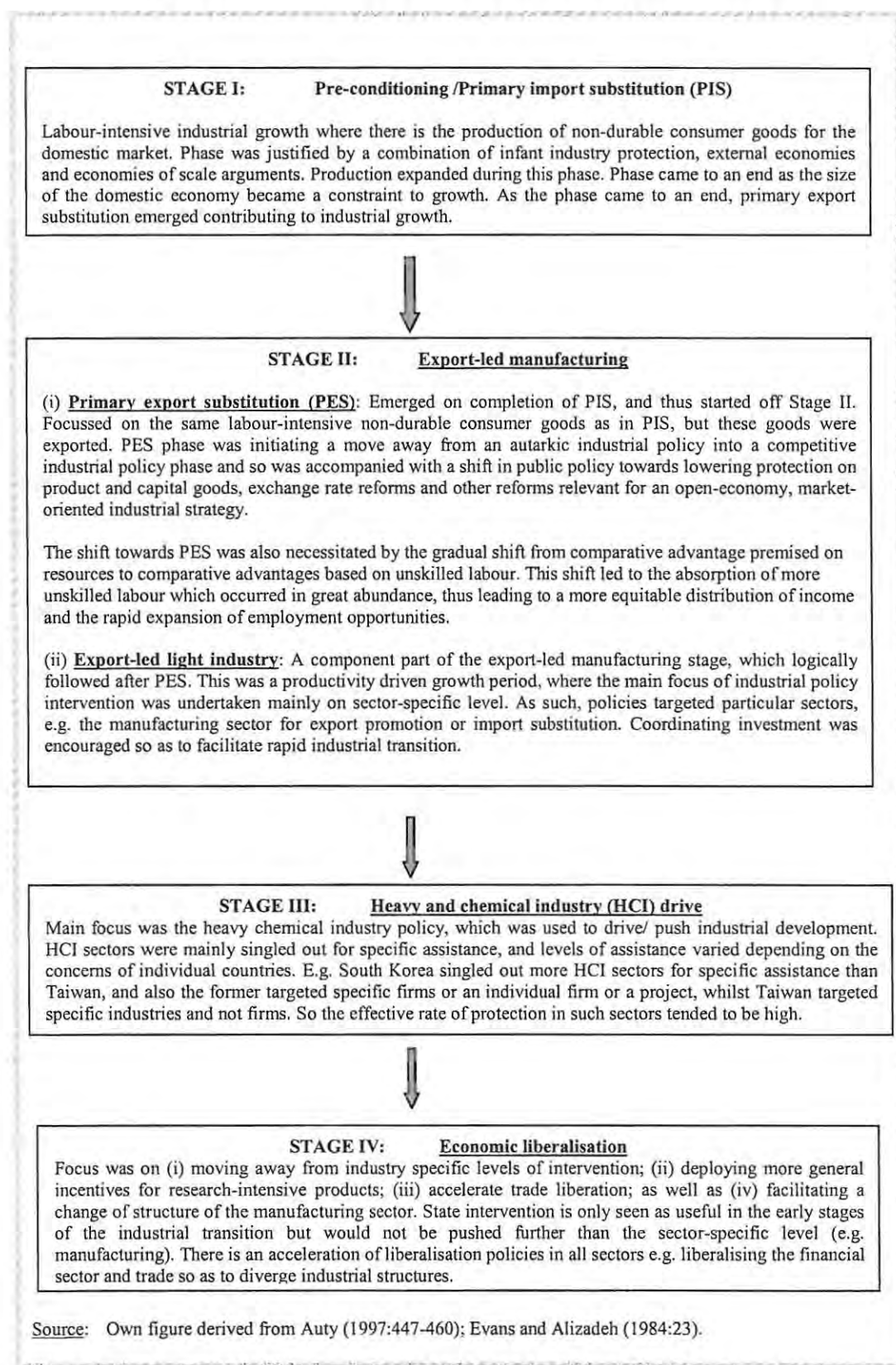
Their argument is based on the fact that the East Asian NICs made unique choices which deviated slightly thus making modifications to the traditional ISI and EOI. These choices thus lead to a unique industrialisation model different from the traditional ISI and EOI (as shown in Sections 2.6 and 2.7), which most developing countries and other NICs tended to follow. As such, Evans and Alizadeh (1984:23) observe that the East Asian industrialisation model can be distinguished from other less developed countries and notably other Latin American NICs. Their unique industrialisation model which has thus distinguished them has been coined Kuznets' East Asian Development Model, which is a four stages development model, as shown in Section 3.2.2.

3.2.2 Kuznets' East Asian Development Model

The industrialisation process of the East Asian NICs, especially South Korea and Taiwan, has been described by Kuznets (1988)¹. His model, which is included in this chapter for easy reference to the individual case studies which follow, is made up of four stages of industrial development. The first stage showing an autarkic industrial policy phase and the other stages showing mainly competitive industrial policy phases in which industrial policy intervention occurred. It is important to note that the duration and emphasis placed on each of these stages differed between the countries, depending on their resource endowments and industrial policies. This model will be made reference to as the discussions on the experiences of the East Asian NICs, i.e. South Korea, Taiwan, Hong Kong and Singapore, are presented in Sections 3.2.3 – 3.2.6 below.

¹ Cited in Auty (1997:447).

Figure 3.1: Kuznets' East Asian development model



An investigation of the East Asian NICs' industrialisation experiences reveals the challenges which the countries faced as they moved from one level of industrialisation onto another. While the East Asian NICs engaged in their industrialisation programmes in an era whose economic and political conditions may not be replicated or wholly replicated, their experiences can still be valuable to SADC countries. Therefore, this insight into their industrialisation experiences is relevant as inferences and lessons for SADC can be drawn and policy proposal contributions can be made to enrich their current initiatives, either as individual countries or as a region, to facilitate industrialisation and as such grow their economies.

SADC countries are categorised as developing countries² and are at different levels of development with significant differences in resource endowments between them, just as the East Asian NICs were when they initiated their industrialisation programmes. However, all the four countries emerged with well developed economies and highly performing industries. As such their experiences could present lessons for SADC such that, despite their differences in resource endowment and levels of industrial development, they too can eventually emerge as successful economies.

3.2.3 SOUTH KOREA

This country advanced from being one of the world's poorest to the threshold of full industrialisation. Today it is regarded as one of the most successful and economically powerful of the NICs. Currently, South Korea is one of the largest exporters among the developing countries, and some regard it as the tenth largest trading economy in the world, making it a major new force in the international economy. South Korea's export development in terms of growth, diversification and capital deepening, has the most impressive record in modern history (Todaro, 1997:451, 452; Kirkpatrick and Nixon, 1983:40; Lall, 1994:75). For example, in 1998, the country was ranked the 10th highest in the world in terms of its share of medium and high technology manufactured exports (UNIDO, 2003a:165). In the period 1985–2000, the country appeared among the world's top 20 export winners, receiving an overall ranking of 3rd highest when considering all the technology categories of the manufactured exports (United Nations, 2002:150). In terms of industrial performance and competitiveness, the country was ranked 25th highest in the world in 1998 (UNIDO, 2003a:177).

² Except for South Africa.

It can be seen from Table A-2 (Appendix 2) that South Korea's economic growth rate rose from an average of 3.0 percent in the period 1950-1960 to 8.8 percent in the period 1981-1990. In the period 1990-1993 it dropped to an average of 7.3 percent, an average it maintained for the period 1994 – 1997. In recent years, its share of investment in national income has been among the highest in the world, thus contributing to the country's rapid growth. The country continues to grow and is approaching full maturity with successful industrial growth and mastery of the wide range of current available technologies. It also represents the most conspicuous example of successful long-term economic development, and Todaro (1997:452) observes that by many standards, South Korea is no longer a developing country and is widely considered a candidate for developed-country status. In 1996 its per capita income of US\$10 610 crossed the US\$8 356 barrier which separated "high income" from "middle income" countries by World Bank classification (World Bank, 1998:13). Its per capita gross national income by 2001 was US \$9 460, ranking 54th highest in the world (World Bank, 2003a:15).

3.2.3.1 Industrial development strategies followed

South Korea began its industrialisation process by following an inward looking, import substitution industrial strategy (see the detailed discussion on ISI in Section 2.6). The country phased in export promotion upon realising the limitations of its small domestic market and the exhaustion of import substitution opportunities. Even though the outward looking, export oriented strategy (discussed in detail in Section 2.7) became the country's dominant industrial policy, selective import substitution was practised, playing a significant role in some sectors. Sections 3.2.3.1.1 – 3.2.3.1.3 will discuss how the country implemented these strategies.

3.2.3.1.1 Import substitution industrialisation

The Korean War was fought in 1950 – 1953 (Evanhoe, 2004; Kim 1995:91; Rimmer, 1995:20). Kirkpatrick and Nixon (1983:41), Kim (1995:96) and Gorkan (1995:22) observe that immediately after this war, industrial development was largely based on the domestic market with active encouragement of import substitution, especially in traditional consumer goods production, as the industrialisation strategy. Since at this level, the country focussed on labour-intensive industrial growth through the production of non-durable consumer goods for the domestic market, Evans and Alizadeh (1984:23) refer to this level of import substitution as Primary Import Substitution (PIS). This industrialisation process, based on comparative advantage premised on land/natural resources and justified by a combination of the infant industry, external economies and economies of scale arguments, is reflected as Stage I of Kuznets' East Asian development model (see Figure 3.1 above).

Until the early 1960s, Westphal (1978:348, 373) and Westphal *et al* (1979:363) observe that textiles played a major role in an industrial expansion still largely oriented towards the domestic market, with import substitution for light manufacturing and non-durable consumer goods. To promote import substitution, Westphal (1978:348), Kirkpatrick and Nixon (1983:41-42) and Watanabe (1972:518) explain that the government increased tariffs on imports having domestically-produced similarities as well as imposing an array of quantitative import restrictions. Kirkpatrick and Nixon (1983:41) and Luedde-Neurath (1988:69) note that import substitution as an industrial development strategy continued as the main policy until 1964/1965, when with a number of reforms undertaken to allow exposure to international market forces, export promotion was fully implemented with an economic environment equivalent to a free trade regime.

3.2.3.1.2 Export oriented industrialisation

Evans and Alizadeh (1984:23) observe that after PIS, which ended in the early 1960s³, South Korea phased in Primary Export Substitution (PES), which according to neo-classical theory is the gradual shift from comparative advantage premised on land/natural resources to comparative advantage based on unskilled labour, and exporting the same labour-intensive non-durable consumer goods. PES, i.e. Stage II in Kuznets' model, became the first step to EOI and was accompanied by a shift in public policy towards lowering protection, exchange rate reforms and other reforms relevant for the open market EOI strategy (see Figure 3.1).

Gokarn (1995:22, 26) notes that South Korea began the export promotion phase in the period of early 1960s to 1973, with exports of labour-intensive products, in line with the country's comparative advantage spearheading economic growth. Westphal (1978:373) observes that the EOI strategy was phased in when the government realised that import substitution opportunities had become exhausted in the areas in which it was being practised, or as Kirkpatrick and Nixon (1983:41) note, upon completion of the first easy stage of ISI. Therefore, the first half of the 1960s began to see policy changes as policy makers began to realise that rapid economic development depended on an export oriented industrial development strategy. Westphal *et al* (1979:364), Kirkpatrick and Nixon (1983:41) and Westphal (1978:348, 350) observe that by 1964/1965, export promotion took a firm hold and by 1966/1967 exporters operated under a virtually free trade regime enjoying free access to imported inputs, and other incentives put in place to promote export activities.

³ Auty (1997:449) observes that South Korea's autarkic industrial policy phase was implemented in the period 1952-1962.

The government used a variety of incentives⁴ to promote exports. Institutional incentives⁵ were also put in place to promote exports. From 1962, the government employed export targeting⁶ as a tool to complement export incentives in stimulating and promoting exports. Some of these targets were ambitious and the protection the firms enjoyed would be removed if the firm failed to meet their targets (Roemer, 1994:248, 250; Agrawal, *et al*, 1995:210; Stein, 1995:40; Lindauer and Roemer, 1994:15-16; Kim, 1995:97, 999; Lall, 2004:24-25; Westphal, 1978:376; Watanabe, 1972:522). Export targeting thus helped the country to develop its export sector further and thus moving to Stage IV of Kuznets' East Asian development model (see Figure 3.1).

South Korean exporters displayed considerable versatility in their response to changing market demands, thus enabling diversification at commodity level. For example, Westphal, *et al* (1979:364) point out that diversification of manufactured exports rose such that by 1975 South Korea became a major exporter of electrical machinery and appliances, transport equipment, various manufactures and also plywood. Apart from light manufacturing and wood products, Gokarn (1995:26) and Roemer (1994:247) observe that textiles and footwear were also leading exports during the EOI phase. Therefore, this ability by the Korean entrepreneurs to be highly responsive to opportunities to export turned the country's export sector into a dynamic sector (Kirkpatrick and Nixon, 1983:43; Westphal, 1978:374). The entrepreneurs' responsiveness to market opportunities also enabled diversification in market destination. For example, in the mid 1960s, Japan and USA were the dominant South Korean trade partners receiving over 70 percent of the country's exports, but this fell to 56 percent in 1976 as South Korea diversified its exports destinations. New and significant markets were

⁴ Incentives included interest and direct tax preferences; tariff exemptions on imported inputs; reduced charges on overhead inputs, e.g. electricity and rail transport; credit preferences, e.g. access to subsidised investment credit; unlimited access to imported intermediate and capital goods; indirect tax exemptions on export sales and intermediate inputs; and accelerated depreciation allowances (Westphal, 1978:350; Westphal *et al*, 1979:364; Kirkpatrick and Nixon, 1983:41; Watanabe, 1972:521-522).

⁵ Government institutions like the Korean Trade Promotion Corporation, Embassies and Trade Missions in a number of foreign countries assisted the export marketing efforts. It also authorised the setting up of the Korean Trade Association, which is a private organisation geared towards promoting exports (Westphal, 1978:376; Watanabe, 1972:522). Factory sites were also provided and these were fully equipped with the necessary facilities for export-oriented firms, e.g. banks, post offices, bonded warehouses, customs, water and electricity supplies. The factory sites were available at low cost. For example, the Korea Export Industrial Estates Corporation had factory sites available to medium and small firms from all branches of industry, sold at low prices payable on a 5-year instalment basis. Up to 30 percent of the firm's output was sold on the domestic market. The Masan Industrial Free Export Zone accommodated foreign firms in the southern coast of the country and all goods produced were for export. A variety of benefits available to firms included non-payment of tax and customs duties, remittance of profits and dividends, repatriation of capital credits and low costs (Watanabe, 1972:520).

⁶ Annual export targets were set with details on commodity, market and domestic exporter, and the government jointly set these targets with the various export associations. The Minister responsible would monitor the performance of each exporter and intercede on event of failing to meet the target, and the President was given a monthly briefing on export performance and prospects. Keeping government informed in this manner ensured that timely changes on policy and incentives could be made as well as giving *ad hoc* assistance to individual exporters (Westphal, 1978:376; Watanabe, 1972:522).

accessed in Latin America, the Middle East, Europe and Africa (Kirkpatrick and Nixon, 1983:43; Westphal *et al*, 1979:384-385).

The availability of both domestic and foreign markets and the growth of such markets made a significant contribution to the development of South Korea's export-based production. The availability and growth of the domestic market propelled industrialisation forward as manufactured exports grew. To promote newly established export-oriented production, the country, for example, created a domestic market for newly established export-oriented consumer goods production so as to promote new export-oriented activities (Kirkpatrick and Nixon, 1983:42; Westphal, 1978:348, 362; Westphal *et al*, 1979:364).

3.2.3.1.3 Simultaneous implementation of import substitution and export orientation

While South Korea actively pursued export-oriented industrialisation as its dominant industrial development strategy, the country also followed a combination of export promotion in some sectors and import substitution in others. Stein (1995:40) and Kim (1995:107) also observe this adoption of a dualistic trade policy which was closely integrated so as to push for exports while at the same time advancing import substitution. As a result, Schmitz (1984:14) and Westphal (1978:365) note that, in the 1970s when EOI was in full swing, the country made remarkable progress in building up its capital goods industries through protective measures. It can therefore be argued that this contributed to the shifts in 1973 observed by Rimmer (1995:23) where the country shifted from an export promotion strategy based on labour-intensive light industries (i.e. Stage II of Kuznets' model) to one of capital-intensive heavy and chemical industries such as iron and steel, machinery, non ferrous metals, petrochemicals and shipbuilding (i.e. Stage III of Kuznets' model).

As a result, as Westphal (1978:350, 366) observes, further import substitution opportunities could now be found in intermediate and durable goods sectors where the limited domestic market of the early 1960s could not justify establishing large plants in these sectors, as technological economies of scale would not be realised. Now, with the increase in the importance of the heavy industrial sectors in facilitating the growth of manufactures for both the domestic and export markets, new import substitution opportunities arose, with such opportunities largely concentrated in the production of intermediate and durable goods. This concentration was largely due to the production of basic steel products and petrol-chemical derivatives in the medium-scale plants.

However, Agrawal, *et al* (1995:208) note that while the government intervened heavily to restructure its economy towards capital-intensive industries, it ensured the efficient allocation

and use of resources. Lall (1994:75) explains that while variable and prolonged periods of protection to selected activities continued, when such industries approached competitiveness, they were forced to export a significant part of their output so as to promote export growth. Lindauer and Roemer (1994:15) observe that it was with the same hope and understanding that large-scale heavy import substituting industries were promoted and some of them eventually became competitive exporters.

Westphal, *et al* (1979:364) and Westphal (1978:366) comment that sectors in which import substitution (fostered by government promotion) played an important role since 1960 included cement, fertiliser, chemicals, metals, transport equipment, machinery, rubber, fibre spinning, and textile fabrics. This level at which import substitution was being employed by the country implies Stage III of Kuznets' East Asian development model (see Figure 3.1). Therefore, it can be deduced that import substitution played an important role in particular sectors at different stages or phases of South Korea's industrialisation process, making it difficult to proclaim that EOI outperformed ISI in the country's industrialisation process.

Therefore, several authors⁷ would agree that although outward looking, South Korea was not the liberal market-orientated economy it appeared to be. The country's export-oriented development success was neither preceded nor accompanied by significant across-the-board import liberalisation, but the reduction of import restrictions was selective and gradual. The market forces were not given a free reign to allocate resources as the government intervened extensively both functionally and selectively in all product and factor markets. A two-pronged import policy was in place, i.e. the import policy was liberal towards inputs of export manufacturing and highly restrictive towards the domestic market, with discrimination in favour of agriculture and those sectors in the manufacturing sector where opportunities for substantial import substitution still remained.

3.2.3.2 FDI and industrial development in South Korea

The country's measures to attract foreign investment emanated from the economic reforms of the 1960s. Such measures included a range of tax concessions⁸, free trade zones, special labour laws that prevented strikes in foreign managed firms, and the removal of limits on the amount and share of total equity held by foreign investors. However, despite the incentives to attract investment, the initial response of FDI was very slow. For example, FDI contributed less than 10 percent of the total net foreign capital inflow in the period 1962-1976. Compared

⁷ These include Schmitz (1984:12); Westphal (1978:373); Kirkpatrick and Nixon (1983:42) and Lall (1994:75).

⁸ These included a five-year tax holiday on all profits, tax concessions on dividends and royalties, no restrictions on dividend remittances, and a low rate of corporate taxation.

to all other NICs, South Korea received the lowest volume of FDI, with its very poor natural resource endowment presenting less attractive investment opportunities in the extractive industry (Kirkpatrick and Nixon, 1983:42; Westphal *et al*, 1979:365-366, 369, Gokarn 1995:29).

3.2.3.2.1 FDI and export promotion

Westphal, *et al* (1979:380-382), Kirkpatrick and Nixon (1983:42) and Kim (1995:103, 140) argue that FDI was not significant in initiating export growth in South Korea. Initially FDI was directed towards import substitution, and made no contribution at all to the expansion of exports during the crucial 1962-1966 period when export expansion replaced import substitution as the prime strategy for industrialisation. It was only in the late 1960s and early 1970s, well after the export boom had begun, and only after export-led industrialisation had been established, that FDI began to be of significance to the export drive in the country⁹, although still in modest volumes.

FDI became a principal source of technology for some sectors, e.g. most of the electronics sectors, through the subcontracted assembly of electronic goods, chemicals, fertiliser, petroleum refining, derivative synthetic fibres and resins. Through FDI, especially from Japan and the USA, South Korea was able to have special links with international trading companies that provided knowledge on orders, product specifications, designs, the necessary know-how, access to markets, and distribution outlets (Kirkpatrick and Nixon, 1983:43; Westphal *et al*, 1979:371, 381, 385; Watanabe, 1972:518, Gokarn, 1995:30).

However, despite the significant involvement by FDI in these sectors, Westphal, *et al* (1979:371, 382) maintains that FDI had limited involvement in most of the products that were South Korea's most important exports. For example, he notes that FDI had no part in the production of other South Korean chemical products of significance like acrylic fibre and yarn, nylon and rayon yarn, all of which were important exports directly or indirectly. Other products that were significant exports in which FDI had very limited involvement included plywood and wigs, transport equipment (especially ships), footwear, iron and steel (especially sheets and plates), manufactures of metal, non-metallic mineral manufactures (notably cement), rubber manufactures, and precision instruments. Furthermore, he observes that domestic sources became more significant than foreign sources in contributing towards export

⁹ For example, in 1971 foreign firms accounted for about 6 percent of South Korea's total commodity exports. Over the 1970s FDI inflows accelerated leading to an expansion of the proportion of exports accounted for by foreign firms such that foreign firms accounted for 17.6 percent of the country's total exports in 1975. Only about 25 percent of the growth of the manufactured exports was due to the operations of foreign firms during the 1970s (Westphal, *et al*, 1979:380, 382).

production due to South Korea's ability to indigenously develop its own technology and to effectively assimilate and adapt technologies from abroad (Westphal *et al*, 1979:376).

In terms of the marketing of exports to international markets, Cohen (1973:191¹⁰) and Westphal, *et al* (1979:381) observe that, whilst multinational corporations (MNCs) may have made contributions through marketing of exports to international markets in some sectors/products like textiles and apparel, cotton yarn, cotton cloth, baseball gloves, wigs, and radios, exports had began growing well before FDI became important in their expansion¹¹. This indicates that there were active marketing efforts on the part of South Korean firms other than solely relying on MNCs. As a result, Westphal, *et al* (1979:383-4) and Kim (1995:98) acknowledge that a lot of exporters were able to successfully export to a number of buyers without necessarily following channels initiated by MNCs. This was done through visits abroad by South Korean firms' staff or representatives, formal sales representation abroad¹², trade fairs, enquiries from other Korean firms, enquiries directed from South Korean Trade Associations and other trade cum industry associations, as well as receiving enquiries and visits from foreign businessmen. Therefore, South Korean initiated contacts led to significant market entries in a number of cases. As a result, initial contacts in 100 percent of the new market entries in Latin America, 54 percent in the Middle East, and 50 percent in Africa, are regarded as having been as a result of South Korean initiatives.

Therefore, the importance which the South Korean firms attached on active marketing efforts instead of solely relying on marketing channels through international subcontracting, should serve as a lesson to other developing countries bent on creating markets for their products. This and other lessons will be discussed in more detail in Section 3.4.

3.2.3.2.2 The development of technological capabilities

In order of importance to South Korea, the important sources for direct acquisition and transfer of industrial technology were as follows: (i) licensing and technical assistance¹³; (ii) experience acquired by personnel through previous domestic and overseas employment; (iii) local know-how; (iv) suppliers of equipment or material; (v) buyers of output; and (vi)

¹⁰ Cited in Westphal, *et al* (1979:382).

¹¹ Except for the exports which went to Japan, all other exports of textiles and apparel to other destinations have been unrelated to FDI (Westphal *et al*, 1979:382).

¹² For example, nearly all export firms had formal sales representation abroad, and of such ones, only 25 percent were represented solely by non-South Korean firms, and Westphal, *et al* (1979:383) regards this as key to the country's ability to market its exports without much reliance on MNCs. See also Kim (1995:98).

¹³ The great significance of licensing and technical assistance in facilitating the acquisition of industrial technology can be seen in that in the period 1977 – 1980, where a total of 1974 such agreements were acquired, with the licensing agreements in the machinery sector accounting for one-third of all agreements in the same period (Lim, 1995:107, 141).

government supported institutions¹⁴ (Westphal *et al*, 1979:363, 376, Gokarn, 1995:30, 31, 32). This shows that the country relied relatively little on FDI for technological development, as will be discussed below.

As indicated in the theory of industrial policy (see Section 2.5.2.4) education plays a major role in facilitating technological transfer and the development of local technological capabilities, and this proved to be so in the case of South Korea. For example, Westphal, *et al* (1979:363, 377) note that through the country's sound relationship with the USA, the American military advisors taught concepts and techniques relating to modern organisation and management as well as how to operate and maintain all types of machinery and equipment to the South Korean military. Through its procurement programme, the US military taught and exposed producers in a number of sectors to "learning-by-doing" so as to meet exact product specifications. It is through this programme that producers of plywood and tyres and construction contractors, eventually became major exporters.

Formal education and training also played a significant role and today South Korea's literacy rate is regarded as one of the highest in the world. Through its own efforts and also from the aid of America, the expansion in education was initiated at home while others got assistance to be trained abroad (Westphal *et al*, 1979:363; Westphal, 1978:375; Rao, 1978:384). Lall (1994:75) observes that the heavy investment in education, especially in technical education, was with strong participation of industrialists, and this ensured the setting of the appropriate curriculum for technical training. Investment in research and development was promoted as well as in the technology infrastructure of institutions

Apart from formal education, Lall (1994:75) points out that firms were encouraged to launch employee-training schemes to improve on their skills as well as to transfer technology. Westphal, *et al* (1979:379) notes that on-the-job training as a mode of transferring technology was enhanced by periodic visits by foreign as well as local buyers to inspect production facilities, on-going quality control and improvement programmes. Through their comments and suggestions this assisted the locals to achieve greater efficiency as well as acquiring new knowledge and techniques. This transfer of know-how through constant monitoring became a significant contributor to minor innovations whose cumulative effect eventually led to major improvements in local technological capabilities. Watanabe (1972:517) observes that subsidiaries or subcontracted work to South Korean firms by private foreign firms also

¹⁴ Kim (1995:94) observes that some of the specialized institutes to facilitate the acquisition and transfer of industrial technology included the Korea Institute of Electronics Technology, Korea Advanced Institute of Science and Technology, and the Electronics Industries Association of Korea for research, adaptation and development.

contributed to the technological promotion of South Korean industries as well as the training of local workers.

The country made deliberate efforts to encourage and facilitate technological learning by putting in place additional and necessary strategies. For example, Roemer (1995:249) observes that apprenticeship and imitatorship programmes were put in place. The former involved starting industries with foreign technology and technicians and have these gradually turned over to the domestic engineers and managers who would in turn become proficient in running them, while the imitatorship programmes entailed acquiring and applying technical information freely available on world markets. Westphal, *et al* (1979:378), take note of a strategy where in some cases, initial plants would be built on a small-scale basis so as to minimise risks and costs related to learning the new technology. Subsequent plants would be built soon after at scales much larger and equal to world scale, with the country's engineers and technicians assuming increasingly greater roles in project design and implementation.

Datta-Chaudhuri (1981)¹⁵ observes that the government directly and indirectly controlled the allocation of more than two-thirds of the investible resources. This enabled the government to make use of extensive development planning so as to address technology and skills market failure problems of development. Todaro (1997:130) notes that the government had to use a wide range of tax breaks and incentives to induce firms to follow government directives and interventions geared towards technological capabilities development, as well as to encourage firms to move more rapidly up the ladder of dynamic comparative advantage. Therefore, as Gokarn (1995:33) observes, there was a significant rise in the ratio of R&D expenditure on GDP, with the bulk coming from private resources. Therefore, by co-ordinating foreign technology licensing agreements and using its monopoly power, the government was able to get the best deals from the competing MNCs (Todaro, 1997:130).

South Korea's heritage from its colonial past also laid the foundation for the country's ability to learn new technologies quickly. For example, Schmitz (1984:13) and Westphal, *et al* (1979:377) note that the advanced industrial experience, technical skills and entrepreneurship, which the country had accumulated, could not be destroyed during the Korean War and this helped in rebuilding the country's economy and facilitated its industrialisation. Gokarn (1995:31) also acknowledges the role of the country's colonial past noting that in the period 1910-1945 when South Korea was a colony of Japan, the latter established a fairly diversified industrial base and after independence, the domestic entrepreneurs and managers "operated

¹⁵ Cited in Schmitz (1978:12).

the enterprises quite successfully". This thus helped to create local technological capability in several industries, thus forming a basis for technology assimilation.

With continued investment in human capital formation, the country yielded a highly skilled productive labour force, which made it easier for the country to initiate innovations and develop its own technology. It also enabled the country to effectively assimilate and adapt foreign technologies to suit local needs. This led to South Korea's very rapid industrial growth, which in turn meant that the country had to ensure further continuous rapid rates of technological learning and development to meet its rapidly changing comparative advantages. However, Gokarn (1995:33) observes that as a result of the country's history of adaptive R&D, acquiring already established technologies, and emphasis on the "acquisition of process management skills rather than product design skills", its ability to generate new technology remained underdeveloped in a number of areas. Westphal, *et al* (1979:378-379, 385) make the same observation noting that in some sectors, especially electronics, there was relatively little mastery of fundamental aspects of basic "production know-how". This relatively lack of mastery of "production know-how" was due to the subcontracting nature of most exports in the sector, which prevented adequate transfer of technology to the locals. They also note that, across the board, South Korea still needed to improve on its ability to innovate, as it still tended to rely a lot on foreign sources as the most important channel of information to product innovation.

3.2.4 TAIWAN

In the 1940s this country had very poor economic conditions but managed to develop from an agricultural based economy into an industrialised economy. Today, as one of East Asian NICs, Taiwan is seen as a prototype for other developing countries because of its great success in generating rapid economic growth with relatively low-income inequalities (Todaro, 1997:639). The country's economic growth rate rose from 4.0 percent in the period 1952-1960 to 7.3 percent in 1970-1981, falling slightly to 6.8 percent in the period 1981-1990, as shown in Table A-2 (Appendix 2).

In 1998, the country was ranked the 11th highest in the world in terms of its share of medium and high technology manufactured exports (UNIDO, 2003a:165). The country also appeared among the world's top 20 export winners for the period 1985-2000, receiving an overall ranking of 8th highest when considering all the technology categories of the manufactured exports (United Nations, 2002:150). In terms of industrial performance and competitiveness, the country was ranked 18th highest in the world in 1998 (UNIDO, 2003a:177).

3.2.4.1 Industrial development strategies followed

Just like South Korea, Taiwan's industrialisation strategy was initiated by import substitution and then shifted to export promotion. Also just like South Korea, Taiwan pursued selective import substitution at a time when export liberalisation was the main industrialisation strategy. Therefore, Taiwan also followed Kuznets' East Asian development model (see Figure 3.1).

3.2.4.1.1 Import substitution industrialisation

This autarkic industrial policy phase was implemented in Taiwan in the period 1950-1958 (Auty, 1997:449; Wade 1988:34). Industrialisation was implemented through the policy package of tariffs, import licensing, low interest rates and other protective measures. However, Evans and Alizadeh (1984:23) and Wade (1988:52) note that, just like South Korea, Taiwan pursued a milder version of import substitution, thereby reflecting a relatively lower effective rate of protection, lower capital intensity in production and less unfavourable policies towards agriculture. Taiwan therefore initiated its industrialisation programme through primary import substitution (PIS), a phase of labour-intensive industrial growth focussing on non-durable consumer goods production for the domestic market (see Figure 3.1). However, Evans and Alizadeh (1984:23) and Ranis (1978:400) observe that, unlike South Korea, Taiwan was more richly endowed in land and natural resources and so the phase of PIS lasted longer than in South Korea.

Just like South Korea, Taiwan selected and promoted local industries through protection, credit allocation, and being selective in allowing FDI in areas of future comparative advantage. However, unlike South Korea, Taiwan did not attempt to create giant private conglomerates or to create industries that relied heavily on advanced technology, which could have led to capital-intensive activities. Instead, it took advantage of the infant industry promotion offered by the government to grow and diversify in skill-intensive activities. Small and medium sized enterprises developed, taking advantage of the country's large base of human capital (Lall, 1994:77; Wade, 2000¹⁶). However, Wade (1990)¹⁷ notes that government closely monitored the local firms and if they became inefficient, the protection being granted to them would be reduced. However, Evans and Alizadeh (1984:23), Auty (1997:448), Lall (2004:26) observe that import substitution as the dominant industrialisation strategy lasted until the beginnings of the 1960s when the supply of foreign exchange and the size of Taiwan's domestic market became a constraint on continued growth.

¹⁶ Cited in Lall (2004:26).

¹⁷ Cited in Wells (1994:349).

Since Taiwan pursued a less interventionist industrial policy by taking a more cautious approach, Auty (1997:446) notes that the country managed to pursue more stable macroeconomic policies, thereby lowering investment risks and increasing investment efficiency. This less interventionist industrial policy also meant incurring fewer costs in terms of misallocation of capital and investment that would outstrip domestic implementation capacity.

3.2.4.1.2 Export-oriented industrialisation

With the completion of the primary import substitution phase at the end of the 1950s, just like South Korea, Taiwan moved onto the primary export substitution (PES) phase, exporting the same labour-intensive non-durable consumer goods. The PES phase was accompanied by a shift in policy towards lower protection on product and capital markets, exchange rate reforms and other reforms. PES thus marked Taiwan's first step towards the open-economy market-orientated EOI strategy (Evans and Alizadeh, 1984:23).

In the late 1950s, the policy makers in Taiwan began to contemplate a more outward looking policy, seeing this as the most practical long-term development strategy. As such, the government began to relax exchange controls, liberalised the import quota system, unified the exchange rate structure and adopted a competitive industrial policy. The initial focus was mainly on the participation of the labour-intensive industrial consumer goods in the international markets (Riedel, 1975:508; Ranis, 1978:404; Auty, 1997:448, 457; Wade, 1988:34-35, 62; Lall, 2004:26).

Taiwan intervened actively to promote exports through concessional credit to exporters and other incentives. The export-led strategy led to a drastic rise in the share of manufactured exports to total exports, e.g. rising from 10 percent in 1955 to 46 percent in 1965 (Auty, 1997:448, 450). The economic policy makers wanted the export industries to account for 80 percent of GDP by 1990, and so, foreign trade became the major important factor for Taiwan's rapid growth. As a result, the value of trade rose three times in each five-year period since 1955 and rose approximately six times between 1975 and 1990, with exports changing from predominantly agricultural commodities to 90 percent industrial goods (Todaro, 1997:640).

Taiwan's ability to source market niches and meeting the demands of such markets, as well as its inherent flexibility in meeting changing demand conditions, also helped export growth and to make such growths sustainable. This is a valuable lesson to developing countries which

often rely on the traditional markets, most of which are already flooded. This and other lessons would be discussed in more detail in Section 3.4.

3.2.4.1.3 Simultaneous implementation of import substitution and export promotion

Even though by the mid 1960s Taiwan actively pursued export-oriented industrialisation as its dominant industrial development strategy; the state through its active, selective and interventionist role, pursued a combination of export promotion in some sectors and import substitution in others (Hamilton, 1983¹⁸; Wade, 1988:32, 43-4, 53). For example, Auty (1997:446) observes that Taiwan's industrial policy was not free of intervention in targeting specific industries and specific firms or projects, although this was done more cautiously, compared to South Korea, with the aim of facilitating a well managed economy.

Auty (1997:450) also observes that despite the incentives to expand exports, substantial import substitution in capital-intensive heavy and chemical industries occurred during Taiwan's export-led light industry phase such that extra manufacturing output resulted from heavy and chemical industries instead of the light industry. Lall (2004:26) notes that increased production of raw materials and intermediates for the use of export industries was also aimed at and experienced during this secondary import substitution phase. During this phase, Wade (1988:43) observes that machinery and electrical machinery together with chemicals and petrochemicals increased their share of industrial production from 24 percent in 1961 to 42 percent in 1970 and eventually to 52 percent by 1978. Furthermore, Auty (1997:454) and Wade (1988:42, 45) argue that during the heavy and chemical industries (HCI) drive phase, i.e. Stage III of Kuznets' model (see Figure 3.1), Taiwan stepped up the scale of intervention signalling out some HCI sectors for specific assistance. Auty (1997:454) further notes that the country still favoured targeted sectors with tariff rates of up to 100 percent as well as using import quotas. For example, during Taiwan's sixth Four-year development plan, (1973-1976), ten major projects were targeted and twelve more in its seventh Four-year development plan, (1977-1980). Rimmer (1995:23) observes that the move to establish the capital-intensive HCI was part of the second IS programme and comprised of 10 major projects in the 1970s.

During the "liberalisation stage", (Stage IV of Kuznets' model in Figure 3.1), state intervention was regarded as useful in the initial stages of the industrial transition, but was not pushed beyond the sector-specific level. General incentives were used to promote industries as well as research-intensive products, with trade liberalisation being accelerated. Also during this stage of the industrialisation process, the efficiency with which capital was deployed

¹⁸ Cited in Schmitz (1984:12).

improved, leading to a change in the structure of manufacturing in Taiwan. For example, the composition of Taiwanese exports shifted such that the share of HCI in total exports increased from 35 percent to 46 percent, while those for high technology products rose from 27 percent to 38 percent (Auty, 1997:457, 458). Therefore, by deploying its investment more efficiently, Taiwan achieved a high level of investment efficiency during its export-led policy phase.

3.2.4.1.4 Encouragement of rural industrial development

Taiwan encouraged growth with equity to both the urban and rural sectors. As such, the growth of industries and services in the rural sector was encouraged, with small landlords participating in industrial activities. By expanding and upgrading the rural infrastructure (physical and institutional), some of which was left by Japan, with particular emphasis on roads, rail system, construction of rural industrial estates, bonded factories and export processing zones, Taiwan was able to decentralise its industrialisation into the rural areas. Constructing a rural electrification grid as well as maintaining equality in power and fuel rates between rural and urban locations also encouraged rural industry. Taiwan encouraged and promoted rural development such that rural industry was able to produce over half the country's consumer goods as well as providing 50 percent of total manufacturing employment in the early 1970s. This provided additional employment opportunities and income to members of the rural household (Ranis, 1978:400, 405).

During the PIS phase, Taiwan embarked on a very successful land reform programme. The reform programme led to changes in farming by a large number of small owner-occupier farms and an increase in agricultural output. Farmers associations' structures were put in place to facilitate inter-sectoral flow of ideas so as to create linkages. These associations enabled the formation of linkages between the agricultural sector and the processing industry, as well as other domestic raw material based industries. The agricultural sector was thus transformed into a dynamic sector leading to an improvement in the standard of living of the ordinary people, an increase in the country's per capita income, as well as providing industry with a bigger domestic market (Ranis, 1978:399, 400; Auty, 1997:447-448).

3.2.4.2 Foreign direct investment

It is often the case that where import substitution is practised, investors who want to circumvent trade barriers locate within the host country. However, in Taiwan, even though the government pursued import substitution in the 1950s, Riedel (1975:508) observes that FDI remained modest, accounting for less than 10 percent of fixed capital formation, even though legislation was in place to attract and give assurances for FDI. The country's very low per capita income, i.e. less than US\$100.00, and a population of less than 12 million, meant that the

country did not have the market potential to attract foreign investors. Therefore, investors who would have wanted to circumvent trade barriers and locate within Taiwan, as is often the case where ISI is practised, did not find the country attractive enough.

Government influence played a very significant role in attracting FDI¹⁹. For example, Riedel (1975:510, 512) notes that by adopting a more outward looking industrialisation strategy and designing measures to explicitly attract foreign investment, there was a dramatic upward shift in the rate of FDI into Taiwan. The investment attraction measures included tax concessions²⁰ and the government's establishment of export processing zones (EPZs)²¹. The government reordered the priority of industries in the EPZs, giving first priority to capital- and skill-intensive industry, thereby encouraging FDI into capital- and skill-intensive export activities, and Wells (1994:349) observes that a number of foreign firms operated export-oriented plants in these EPZs.

The foreign firms in Taiwan willingly used labour-intensive technology, thus benefiting the country by effectively utilising its abundant resource, labour. This was very essential as it also facilitated the country's industrialisation phase of labour-intensive light manufacturing for export markets, as shown in Stage II of Kuznets' model (see Figure 3.1). Compared to the local firms, the foreign firms adopted larger scale production, utilised capacity more intensively and were more export-oriented, thus helping to forge ahead Taiwan's export-oriented development strategy (Riedel, 1975:517, 518). Wells (1994:348) argues that in the 1970s, 20-25 percent of manufactured exports originated with foreign firms and these firms also manufactured locally major inputs for export industries.

3.2.4.3 Technological development

Taiwan experienced an influx of capital as well as people with technical skills and entrepreneurial abilities from Mainland China (Schmitz, 1984:14; Lall, 1994:77; Wade,

¹⁹ FDI was mainly from China, USA, Japan and Western Europe. However, the country took caution not to overly rely on FDI (Auty, 1997:455). The high levels of domestic savings which the country encouraged and experienced contributed towards high investment levels (Auty, 1997:447, 450; Wells, 1994:344).

²⁰ This was the primary incentive comprising of a 5-year business income tax holiday on new investment and expanding investments, reduction of business income tax, income tax exemptions on a variety of items, business tax exemption on exports, commodity tax exemption on exports, and provision for payment on import duties on machinery and equipment by installation. Other incentives in place included the right to repatriate annually all profits as well as 15 percent of invested capital 2 years after completion of the project. Investment in which foreign participation involved 51 percent of paid-up-capital was declared not subject to expropriation for ten years. Legislation was revised in 1965 to provide for further tax reductions and to introduce additional incentives. In 1971, revisions were once again effect, e.g. allowing investors to opt for accelerated depreciation in place of the 5-year tax holiday (Riedel, 1975:508-509).

²¹ These provided additional incentives to tax concessions, e.g. no quantitative control on imports and exports, no foreign currency controls on imports of equipment and materials, exception of all import duties or other excise taxes (Riedel, 1975:510).

1988:36; Wells, 1994:344, 349). This became an advantage to Taiwan in its efforts towards technological development as well as in developing its own technological capabilities.

Taiwan's small size was an inherent disadvantage for technical upgrading, and to partly offset this, Lall (1974:77) and Auty (1997:457) observe that the government provided a wide range of technology support services including research and development, as well as general incentives for research-intensive products to facilitating research and development. Kuznets (1988:S35) notes that the country engaged in "large and efficient investment in human capital" so as to attain "well developed capacities to absorb new technologies". Matthews and Cho (1999)²² argue that the government employed various means to ensure that the TNCs transferred their technology to local suppliers, e.g. government actively helped "SMEs to locate, purchase, diffuse and adapt new foreign technologies" and where it was deemed necessary, government entered "into joint ventures so as to get into technologically very difficult areas, e.g. semiconductors and aerospace".

While Taiwan's industry structure was lighter than that of South Korea, Lall (1994:77) observes that it placed greater emphasis on meeting market niches rather than mass production. This meant that Taiwan had to keep abreast of world technological developments in order meet the requirements of the market niches it had secured and also to keep such markets. As the development of technology in Taiwan continued, this led to changes in the industrial structure of the country. For example, Todaro (1997:639-640) and Auty (1997:458) note that, the country's industrial structure shifted towards one that is more capital-intensive and more energy efficient as it relied on imports to meet 75 percent of its energy needs. This meant changes in the structure of output, with emphasis moving away from the production of light-industry consumer goods for export to the production of more sophisticated heavy industry and technology-intensive products. This shift led to the continued success experienced by Taiwan in the 1980s. This change also meant Taiwan's movement from Stage II to Stage III and eventually Stage IV of its industrialisation process (see Figure 3.1).

3.2.5 HONG KONG

Hong Kong is regarded as a city-state or commercial centre and its national economy mainly geared to exporting. This involves trade in domestically produced goods as well as transit trade (Tanaka, 1980:464). The industrialisation strategy followed catapulted Hong Kong from its unpromising initial conditions to economic success, thereby transforming the country into

²² Cited in Lall (2004:26).

a significant industrial power with a per capita income level of US\$24 581 by 1998 (United Nations, 2001:136). However, by 2001, the per capita income had risen to US \$25 330, ranking as the 13th highest per capita income in the world (World Bank, 2003a:14).

Table A-2 (Appendix 2) shows that the country had an economic growth rate of 4.2 percent in the period 1950-1960, which significantly rose to 8.1 percent in 1960-1965. Thereafter, while the country experienced lower economic growth rates, these were still higher than the 1950-1960 average economic growth rate. During the period 1990-1993, the average economic growth rate was 5.2 percent, falling to 4.7 percent in the period 1994-1997.

In 1998, the country was ranked the 28th highest in the world in terms of its share of medium and high technology manufactured exports (UNIDO, 2003a:165). In the period 1985–2000, the country appeared among the world's top 20 export winners, ranking 16th in resource-based manufactures (United Nations, 2002:150). In terms of industrial performance and competitiveness, the country was ranked 29th highest in the world in 1998 (UNIDO, 2003a:177).

3.2.5.1 Industrialisation strategy

Hong Kong followed a liberal, market-oriented strategy to industrial development, therefore promoting competitive manufacturing. James, *et al* (1989:81, 82) observes that there was a near-complete absence of government regulation and intervention, a macroeconomic environment favourable to savers and investors, as well as financial widening and deepening accompanied by outward-looking trade and industrial policies. Schmitz (1984:12) and Lall (1994:74-75; 2004:21) argue that the liberal and market-oriented strategy the country pursued was facilitated by the advantages which Hong Kong had, but lacked in other developing countries and even free trade centres. For example, the country had a century and half of *entrepôt* trading and this gave it experience in a range of capabilities and infrastructure for trading and finance, thus facilitating the *laissez faire* policy of industrial development.

Krause (1988:S52) observes that the government permitted a *laissez faire* policy having few restrictions on private ownership, both domestic and foreign; allowing free entry into the port; implementing no exchange controls; as well as establishing few public enterprises. Therefore, since the economy was open to external competition, the domestic entrepreneurs had to develop skills to adjust to external forces which enabled the local industry to prosper. Roemer (1994:245) acknowledges the liberal market oriented strategy adding that government “avoided market intervention even encouraging private financing, construction and the

management of infrastructure". Wells (1994:343) observes that the country's early emphasis on exports was due to its very small market.

3.2.5.2 The nature of the industrial structure

Hong Kong had a light labour-intensive manufacturing industry and put considerable efforts to upgrade its quality. The abundant supply of unskilled labour enabled the country to specialise in labour-intensive products, especially clothing (Lall, 1994:75; Tanaka, 1980:423). Although there was little industrial deepening and diversification, the manufacturing industry was very successful due to the country's impressive developments of operational and marketing capabilities²³. With no selective interventions to promote more complex industries, Hong Kong had a natural progression up the ladder of industrial complexity, although industrial complexity was relatively limited compared to the other East Asian NICs (Lall, 1994:75; 2004:21).

Krause (1988:S50) notes some of the important factors about the country's manufacturing industries that contributed to the successful industrialisation of the country. These included developing (i) the capability to produce labour-intensive manufactured goods at low prices; (ii) the ability to provide quick delivery; as well as (iii) being able to fill orders at short notice. As such, Hong Kong's manufacturing was unique for responsiveness and adaptability based on small domestic entrepreneurs.

Lall (1994:75; 2004:22) and Rimmer (1995:27) observe another unique characteristic of Hong Kong's pattern of industrialisation, i.e. as domestic wages and land costs rose; manufacturing was relocated to other countries, especially Mainland China. This meant a significant loss of domestic industrial activity and a considerable slow down of the growth of manufactured exports. Rimmer (1995:24) attributes the relocation by Hong Kong firms to restrictions and trade barriers in overseas market triggered by the very success which the country's export oriented manufacturing had in exploiting market conditions and special niches. Therefore, Hong Kong's pattern of industrialisation was one of moving upmarket in existing light industry and diversifying out of manufacturing altogether instead of taking on the more complex technologies that can enable it to retain a manufacturing base with raising wage costs. However, while Grunsvan, *et al* (1995:160) acknowledge that a substantial amount of Hong Kong's capital flew to China, they point out that some foreign countries continued to

²³ The establishment of trade promotion organisations helped to market exports. The country also had the added advantage in export promotion in that it had been a free port exporting manufactured good for a very long time (Hill, 1994:390).

increase their investment into Hong Kong, e.g. in 1989 investment from the USA grew to US\$7.1 billion while that from Japan rose to US\$8 billion.

However, despite the loss of industries due to the relocation into China, the country's continued growth in services and trade provided recourse for this loss. This was due to its unique location, connections and ability to act as a conduit for Mainland China, as well as events in Mainland China. Therefore, as Rimmer (1995:28) observes, while the country deindustrialised, it had the most highly developed services sector among the four East Asian NICs, with trading, financial and business services being very important. However, Lall (2004:22) notes that the provision of financial and other services to Mainland China, the area in which Hong Kong has its main competitive advantage, is under threat since China is building its own service capabilities.

3.2.5.3 The role of government

The government practised non-selective policies to promote industrialisation and ensured a stable administrative and macroeconomic regime. Productivity centres were set up and these achieved much industrial success and performed various technological services to help producers to improve their technologies. For example, a well-funded textile and garment design and training centre was set up for the clothing sector. Through functional intervention, the government provided education and training, subsidised land to manufacturers, provided export information and support services to producers, as well as establishing a Research and Development scheme with direct government funding (Lall, 1994:74; Krause, 1988:S61).

3.2.5.4 Transfer of technology and local technological capabilities

Schmitz (1984:14), Lall (1994:75) Krause (1988:S49, S50), Lim (1995:210, 236) and Lall (2004:21) note that Hong Kong enjoyed the advantage of a very elastic steady supply of skilled labour into its manufacturing sector, which made the transfer of technology and the development of local technological capabilities much easier. For example, the country experienced a considerable influx of people with engineering, technical and entrepreneurial abilities from Mainland China. Also there was a constant supply of foreign skills and training for local employees enabled by the presence of several British business and finance houses.

Hong Kong therefore had a background where much of the learning for the manufacturing industries had already been done, technologies were sufficiently simple, and subsequent training given to the workforce with a good primary and secondary education. The free trade environment, existing capabilities in trade and finance combined with a supply of cheap labour, enabled the advantages which Hong Kong had, to be fully exploited in facilitating

industrialisation. Therefore, Schmitz (1984:14) and Lall (1994:75) observe that while Hong Kong experienced considerable foreign investment, in manufacturing the lead stayed firmly in local hands, with the textile, garment, and toy industries taking off well.

3.2.6 SINGAPORE

Just like Hong Kong, Singapore is a small city-state or commercial centre, and it lacks the rural hinterland that characterises most developing countries. Despite its small size, poor natural resource base, a negligible domestic market coupled with high domestic unemployment and internal political unrest at its independence, Singapore is now one of the world's most successful developing economies. As a result of the government's strategic industrial efforts, over a period of twenty years, Singapore transformed itself from being a state of economic underdevelopment with a limited industrial base into, a "high-income" country by 1991, according to World Bank's classification. Its per capita income level by 1996 was US\$30 550 (World Bank, 1998:14), although this fell to US\$24 577 by 1998 (United Nations, 2001:146). By 2001, its per capita income had fallen to US \$21 500 to rank as the 26th highest per capita income in the world (World Bank, 2003a:16).

Table A-2 (Appendix 2) shows that its average economic growth rate rose from 2.6 percent in 1960-1965 to 10.8 percent in 1965-1970, falling to 5.6 percent in 1981-1990. In the period 1990-1993 its average economic growth rate was 8.3 percent, rising slightly to an average of 8.5 percent in the period 1994-1997.

Lim (1995:205–206, 216) and Agrawal (1995:54) note that Singapore is widely regarded as fully industrialised and ranks as one of the top fifteen trading nations of the world. For example, in 1998, the country was ranked 3rd highest in the world in terms of its share of medium and high technology manufactured exports (UNIDO, 2003a:165). The country appeared among the world's top 20 export winners for the period 1985–2000, receiving an overall ranking of 8th highest when considering all the technology categories of the manufactured exports (United Nations, 2002:150). In terms of industrial performance and competitiveness, the country was ranked 4th highest in the world in 1998 (UNIDO, 2003a:177).

3.2.6.1 Industrial development strategies followed

Singapore had to diversify its economy away from reliance on the stagnant regional entrepôt trade so as to create new sources of income and employment opportunities for its rapidly expanding labour force. The island lacked land and natural resources and so industrialisation

was the only alternative available. Singapore initially followed import substitution as an industrialisation strategy and then shifted into an export-oriented industrialisation strategy as will be discussed below.

3.2.6.1.1 Import substitution industrialisation

Industrialisation in Singapore was initially intended to be import substitution in nature with the first protective tariffs introduced in 1960 (Lim, 1995:209; Wie, 2000:1). Tariff protection was extended and accelerated in the 1960s such that between 1960 and 1967, real value added in manufacturing doubled (Lim, 1995:209). However, the country had very low levels of protection, averaging 7 percent in 1967 (Wie, 2000:3; Agrawal, 1995:72-73). Lim (1995:208) observes that ISI was effectively implemented in the period 1961-1967.

When import substitution was initiated, Singapore had a limited industrial base²⁴ and apart from entrepôt trade, its industries manufactured bulky, low-value goods for local consumption. Given this and its limited natural resource endowment and abundant labour, it can be argued that it is most likely that primary import substitution (PIS) instead of the traditional ISI programme was followed.

Singapore had a three-year tenure (1963 – 1965) in the Malaysian common market, and when it left, its prospects for continued import substitution industrialisation withered as its market shrank. The market declined even further with the phasing out of British military bases in 1967/8, with unemployment rising, as about 20 percent of Singapore's labour force was employed here (Lim, 1995:209; Wie, 2000:3; Agrawal, 1995:54; Krause, 1988:S53). This called for a new industrial strategy that would sustain growth and absorb the surplus labour.

Apart from the mildness of the import substitution strategy, it is also important to note the short duration of the phase as this impacted on Singapore's ability and the ease with which it shifted into an alternative industrialisation strategy in order to achieve and sustain economic growth and employment. Therefore, as Agrawal (1995:72, 81) observes, "trade liberalisation was fairly painless" as there was no powerful lobbying by previously protected industries as would have been the case in countries where ISI policies would have been followed for a long time. However, Stein (1995:39) argues that although the period of the IS strategy was short, it was important in attracting foreign manufacturing into the city-state.

²⁴ This consisted of industries processing raw materials like rubber, timber, tropical oils and petroleum imported from neighboring countries for re-export, manufacturing of non-durable goods like food and beverages, basic metals, garments and footwear, as well as printing and publishing for the local market (Lim, 1995:208).

3.2.6.1.2 Export-oriented industrialisation

In the period 1967-1979, the government institutions and policies which had earlier on promoted import substitution, turned to focus on a strategy of labour-intensive export manufacturing as an alternative to drive industrialisation. At this stage, Singapore experienced excess labour, absence of a potential domestic entrepreneurial class²⁵, and limited industrial technology (Lim, 1995:210). As such, it is reasonable to argue that, at this stage, primary export substitution (PES), i.e. Stage II of Kuznets' model, was pursued paving the way to subsequently adopting the traditional export-oriented industrialisation strategy, i.e. Stage IV of Kuznets model (see Figure 3.1).

Stein (1995:43) observes that the collapse of the union with a larger Malay market and the resulting loss of access to this market motivated the shift from ISI to EOI. Therefore, left with an extremely small domestic market, this led to an early emphasis on export promotion with state intervention in support of manufactured exports.

As a result of the successful export drive and industrialisation in this period, there was a rise in employment, real wages, GDP growth rates, and exports. A rapid growth in exports was crucial to the success of trade liberalisation policies, and the presence of MNCs facilitated this as they produced much of the industrial output and had ready access to export markets. The government's several export promotion policies²⁶ also encouraged exports. In terms of industrial development, trade liberalisation led to the development of an efficient and globally competitive industrial sector.

However, it is important to note that during the liberalisation period and beyond, Singapore continued to protect some industries which were considered as "infant industries" and had the potential to eventually lead to exports (Agrawal, 1995:57, 71-73, 80-83). Therefore, just like South Korea and Taiwan, Singapore had periods when it simultaneously pursued both ISI and EOI (see Sections 3.2.3.1.3 and 3.2.4.1.3).

3.2.6.2 The role of government

At the end of its colonial period in 1963, just like Hong Kong, Singapore inherited from its colonial past some advantages of a strategic geographical location, efficient port facilities, well-developed commercial and financial infrastructure, as well as a relatively efficient

²⁵ Unlike Taiwan and Hong Kong, Singapore had not experienced a large influx of experienced industrialists from mainland China, and the entrepreneurs there only had prior experience with entrepot trade and commerce and not manufacturing (Agrawal, 1995:54; Lall, 2004:22).

²⁶ Some of the export promotion policies included income tax rebates, exports development and financing schemes, and institutional support (Agrawal, 1995:82-83).

British-style government bureaucracy. However, it has been observed that despite all these intrinsic advantages, rapid industrialisation could not have been induced without active government support and drive through industrial investment promotion (Lim, 1995:205, 208; Agrawal, 1995:56, 102).

Government's support for the export-drive was seen in eliminating tariffs, reducing the number and levels of import quotas, as well as the number of protective duties (Wie, 2000:3; Agrawal, 1995:72-73). Broad and mild sectoral targeting was also done so as to promote and support labour-intensive and export-oriented activities (Lim, 1995:213, 214). Its support was also seen in its active role in persuading foreign investors from advanced countries to set up export-oriented plants within Singapore (Wie, 2000:3; Agrawal, 1995:56; Krause, 1988:S52, S54). Therefore, while Singapore had the inherited advantages, pursued free trade, had an open door policy and abundant labour force which could attract foreign investment; much more foreign investment was needed to upgrade the country's industrial base. To achieve this, the government put in place an active industrial policy²⁷ to systematically and comprehensively augment and fill in the gaps in Singapore's already existing attractiveness to foreign capital.

Government's heavy investment in physical infrastructure (social and industrial), health and education at all levels, contributed significantly to overall efficiency as this lowered costs of operation, increased labour productivity and accumulated human capital (Pang, 1995:114²⁸; Lim, 1995:207-208; Agrawal, 1995:67-68). Investment in training and technical education spanned across secondary schools, vocational institutions, industrial training centres, technical colleges, polytechnics, and at university. Crash training programmes and in-plant training facilities were put in place to upgrade skills, while advisory services and training courses and seminars were put in place for lower and middle management and union officials. In addition, government contributed to the companies' costs of overseas training for their workers through various government schemes and scholarships. Government liberalised the immigration of persons with technical and professional skills so as to encourage the inflow of qualified personnel (Lim, 1995:211; Agrawal, 1995:67, 95).

²⁷ Singapore's industrial development policies of the late 1960s focused on key issues of importance to private investors. For example, one set of policies sought to reduce the capital costs and increase the financial returns on private industrial investment through the use of tax concessions and fiscal incentives. Another set of policies set to ensure labour peace and productivity and to augment the industrial skills of the labour force. The development of industrial infrastructure and facilities, and the provision of information and consultation services were also among the government policies to lure private investment (Lim, 1995:210-212; Agrawal, 1995:56, 67-70, 93-95). The government also committed to ensure a business environment which is transparent and has predictable rules so that both foreign and domestic companies could operate efficiently (Wie, 2000:11; Agrawal, 1995:56; Krause, 1988:S54).

²⁸ Cited in Wie (2000:11).

Through its Second Industrial Revolution launched in 1979, the government facilitated the shift towards capital-intensive high-technology manufacturing. Therefore, established industries were upgraded and new ones developed to employ more capital, high technology and skilled labour in the production of high-value manufactures and services for export. Industrial incentives were given to encourage automation, technological upgrading, as well as research and development. The more technologically sophisticated, capital- and skilled-intensive industries were selectively targeted and identified for priority development, while worker training, other public and public-private sector training and educational programmes and facilities were expanded (Lim, 1995:215). This implied that the country was moving into Stage III of Kuznets' East Asian development model (see Figure 3.1).

With the movement to Stage III, many MNC and locally owned labour-intensive assemblies relocated into neighbouring countries while retaining their capital-intensive high-technology manufacturing processes and technical and commercial operations in Singapore, as well as making Singapore their regional headquarters. The government played a significant role in encouraging and facilitating this relocation²⁹ (Lim, 1995:226; Lall, 2004:23). Encouraging outward foreign investments enabled Singapore to ensure its future role in the globally integrated high-technology industry.

The government's role is also seen in promoting and encouraging savings for the purposes of future investment. For example, Agrawal (1995:88-89, 90, 92) observes that, through the two government owned banks, i.e. The Development Bank of Singapore and the Post Office Savings Bank, target lending (government-directed lending), was facilitated so as to provide priority loans for exporters, new firms, small scale firms, as well as to expand the capacity of existing firms. Loans were available to both private and public corporations and these government banks were operated efficiently, competing with other private commercial banks. Therefore, through the well-conceived and vigorous encouragement given to the banking sector by the government, Singapore developed into a major international banking centre which is highly efficient and internationally competitive.

²⁹ For example, Lim (1995:230) and Wie (2000:7) note that, the government of Singapore developed corporations of labour-intensive industrial estates in Indonesia and Malaysia, while other government corporations invested in venture capital high-technology start-ups in the USA as well as undertaking other strategic outward foreign investments in other sectors like aerospace. Capital-rich Singapore state enterprises like Chartered Semiconductor and Singapore Technologies entered into equity joint ventures with MNCs like Texas Instruments, National Semiconductor and Canon in strategic segments of the semiconductor industry. Lall (2004:23) observes that various incentives have been offered under schemes like the regional headquarters scheme, the international procurement office scheme, the international logistics centre scheme, and the approved trader scheme.

3.2.6.3 The role of FDI

Unlike the other three East Asian NICs, Singapore relied so heavily on foreign investment in its industrialisation such that by 1990, wholly- or majority-owned foreign firms accounted for 60 percent of all employment, 76 percent of all output, and 86 percent of all exports in the manufacturing sector, compared to 1960 when less than 30 percent of total equity invested in manufacturing was foreign owned (Economic Development Board, 1990c:4³⁰; Lecraw, 1985:393³¹; Agrawal, 1995:57, 60, 61, 70).

Huan (1971:238)³² observes that the foreign domination in the country's manufacturing industry was due to the government's pursuit of quite liberal policies towards foreign investment and welcoming FDI, not necessarily for the cash itself, but for the technical know-how, management expertise, and marketing connections which it brought. Wie (2000:13) and Agrawal, *et al* (1995:209) note that, bearing in mind its small size, limited resources and limited experience in manufacturing; Singapore needed FDI to develop its manufacturing sector and as such ended up being so heavily depended on FDI than the more industrially and technologically advanced South Korea and Taiwan. Agrawal (1995:57) notes that the high dependence on FDI was also due to the country's heavy reliance on FDI to develop its financial sectors into a major international banking sector. Therefore, the continued inflow and encouragement of FDI into Singapore was instrumental in the restructuring of industry away from the refining and more labour-intensive industries to higher value added and capital-intensive manufacturing, thereby enabling the country to move up the industrial technology ladder (Wie, 2000:8; UNIDO, 1997:37³³).

Industrial entrepreneurship, international marketing and distributional channels were assets which Singapore tapped from the MNCs and these became instrumental in Singapore's promotion of its export oriented industrialisation strategy (Lim, 1995:222). Of importance too is the observation by Wie (2000:14) and Agrawal (1995:70) that the liberal foreign investment policy which encouraged FDI into Singapore also paved the way for technology transfer to local managers and workers, thereby further facilitating the country's industrial and technological upgrading.

³⁰ Cited in Lim (1995:219).

³¹ Cited in Wie (2000:3).

³² Cited in Lim (1995:219).

³³ Cited in Wie (2000:8).

3.2.6.4 Industrial development and the transfer of technology

MNCs from developed countries generate and control most of the world's new technology and as such are regarded as an important source of technology. Therefore, Singapore's philosophy on FDI was that MNCs were to be tapped for the competitive assets they brought into the country, which had a bearing on its various industrial development stages (Agrawal, 1995:63-64). The government thus emphasised maximum learning and acquisition of technology so as to move rapidly up the industrial ladder as well as to upgrade the skills of its labour force (Lim, 1995:224; Lall, 2004:22). It also shared risks and capital costs of research and development with MNCs as well as giving favourable tax concessions to those firms who facilitated technological development (Lim, 1995:223; Agrawal, 1995:82).

By promoting the development of small- and medium-scale enterprises (SMEs) since 1980, the government successfully improved the technological and managerial absorptive capabilities of these SMEs, thereby facilitating the transfer of technology from the MNCs (Wie, 2000:14). The government also adopted policies to promote clusters of supporting or ancillary industries, which could serve as subcontractors to the MNCs, thus motivating the transfer of technology from the MNCs to the locals (Meyanathan and Munter, 1994:15³⁴).

MNCs helped to nurture local industrial entrepreneurship through providing a market for their local products and provided a training ground for local engineers and technicians, some of whom eventually formed their own companies. MNCs also provided product specifications to local component suppliers thus assisting in upgrading local skills and the quality of local production. This subcontracting relationship between MNCs and the local producers formed backward linkages through which technology transfer was effected leading to the accumulation of human capital (Lee and Low, 1990:31³⁵; Wie, 2000:14, 16).

Training and staff development³⁶ are essential to improve the technological level and the local technological capabilities of the host country. Therefore, as Gohn (1996:3³⁷) observes, the government's emphasis on technical training and extensive intervention to create the specific skills needs, enabled the transfer of technology to occur with much ease leading to an ever-increasing pool of engineers and technicians in the labour force, thereby assuring the rapidly growing industries of a steady supply of the requisite highly skilled trained engineers and

³⁴ Cited in Wie (2000:14).

³⁵ Cited in Lim (1995:225-226).

³⁶ Through on-the-job training programmes, short-term courses and seminars, sending staff to MNC headquarters for training, as well as improving and expanding university education and other training programmes.

³⁷ Cited in Wie (2000:15).

technicians. On the other hand, continued efforts to create a competitive industrial structure so that improved technological know-how could yield commercial gains, further attracted more technology and the willingness of MNCs to transfer technology.

Having discussed how the four East Asian NICs successfully developed their economies, it is important to show how these countries fit into the world economy today. This would be done in Section 3.3 below where insights will be given in terms of their participation in the world FDI outflows, as well as contributions to TNCs coming from the developing world.

3.3 THE EAST ASIAN NICs AND THE WORLD ECONOMY TODAY

As discussed above, South Korea, Taiwan, Hong Kong and Singapore are regarded as success stories of industrial development, and today, these four countries play a significant role in the world economy. As Table 3.1 below shows, since 1991, the four countries together have contributed over 79 percent of Asia's FDI outflows, except in 2001 where their contribution fell to 68.84 percent. To note also is that, except for 1999, together they have contributed over 52 percent of FDI outflows from the Developing World since 1991, with the highest contribution rising to 77.87 percent in 2000. Of the four countries, significantly high FDI outflows have been from Hong Kong followed by Singapore.

The East Asian NICs also participate significantly in foreign direct investment through mergers and acquisitions as shown in Table 3.2 below. In the period 1990 - 1993, on average, the four countries represented 73 percent of Asia's cross border mergers and acquisitions sales. While this fell to an average of 39.5 percent in the period 1994 - 1998, their contribution rose again during the period 1999 - 2001, rising up to an average of 62.9 percent. On average, they represented 29.4 percent of the mergers and acquisitions sales coming from the Developing World in the period 1990 - 1993. While this fell significantly in the period 1994 - 1998, their share rose again in the period 1999 - 2002, contributing an average of 22.1 percent of FDI coming from the Developing World.

Their participation in FDI through cross border mergers and acquisitions purchases has also been significant. Except for 1996, they represented over 53 percent of Asia's purchases in the period 1990 - 2002, with the highest record of 85.88 percent in 1991. Except for 1996, 1998, 1999, and 2002, as a group the East Asian NICs have contributed over 36 percent of cross border merger and acquisitions purchases by the Developing World.

Table 3.1: FDI outflows by home region and economy (US \$million): 1991 – 2002 (most recent data)

Countries/ Region	1991-96 Ave. pa	1997	1998	1999	2000	2001	2002
World	280 550	476 934	683 211	1096554	1200783	711 445	647 363
Developing countries	39 439	76 662	49 837	72 786	99 052	47 382	43 095
Asia's total FDI outflows and its percentage to Developing countries' total FDI outflows							
Total FDI outflows	31 564	49 199	28 839	39 390	84 139	41 827	37 121
% of FDI outflows	80.03	64.18	57.87	54.12	84.94	88.28	86.14
East Asian NICs' FDI outflows (US \$ mn) and percentage (%) of this to Asia's total FDI outflows							
Hong Kong	16 960	24 407	16 985	19 358	59 375	11 345	17 694
% of Asia's outflows	53.73	49.61	58.90	49.14	70.57	27.12	47.67
South Korea	2 446	4 449	4 740	4 198	4 999	2 420	2 674
% of Asia's outflows	7.75	9.04	16.44	10.66	5.94	5.79	7.20
Singapore	2 967	8 955	380	5 397	6 061	9 548	4 082
% of Asia's outflows	9.40	18.20	1.32	13.70	7.20	22.83	11.00
Taiwan	2 683	5 243	3 836	4 420	6 701	5 480	4 886
% of Asia's outflows	8.50	10.67	0.46	11.22	7.96	13.10	13.16
Total for the 4 NICs	25 056	43 054	25 941	33 373	77 136	28 793	29 336
% of Asia's outflows	79.38	87.51	89.95	84.72	91.68	68.84	79.03
% of Dvpg countries	63.53	56.16	52.05	45.85	77.87	60.77	68.07

Source: Own Table derived from United Nations (2003:253, 255).

Notes: Own calculations for the percentages and the total for the four East Asian NICs.
 1991 - 1996 = statistics are annual averages.
 Dvpg countries = Developing countries.
 % of Asia's outflows = the percentage share of the total FDI from the four East Asian NICs to the total FDI outflow from Asia.
 % of Dvpg countries = the percentage share of the total FDI from the four East Asian NICs to the total FDI outflow from the developing countries.

The East Asian NICs, put together, also represent the largest number of TNCs coming from the Developing World³⁸. For example, Table 3.3 below shows that almost half the world's top 50 TNCs from the Developing World comes from the four East Asian NICs put together; i.e. 21 in 1996; 27 in 1998; 29 in 1999; and 24 out of 50 in 2000. Except for 1998, the four East Asian NICs together constituted over 51 percent of the total assets of the top 50 TNCs from the Developing World. Among the Asian countries, Hong Kong contributed the largest share throughout the period 1997 – 2000, whilst South Korea, always ranked second except for 1993 when it had the highest share. Among the East Asian NICs, Singapore and Taiwan tended to rank third and fourth, in that order.

³⁸ The TNCs, which qualify for the top 100 TNCs worldwide, ranked by foreign assets, mainly come from the developed world. In 1996, however, South Korea had one TNC which qualified, ranked by foreign assets (United Nations (2000:72-4; 1998:36-8).

Table 3.2: East Asian NICs' participation in cross border mergers and acquisitions sales and purchases by economy of seller and purchaser respectively (US\$ million); 1990 – 2002 (most recent statistical data)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Total for the World													
Sales	150 576	80 713	79 280	83 064	127 110	186 593	227 023	304 848	531 648	766 044	1143816	593 960	369 789
Purchases	150 576	80 713	79 280	83 064	127 110	186 593	227 023	304 848	531 648	766 044	1143816	593 960	369 789
Total for Developing countries													
Sales	16 052	5 838	8 119	12 782	14 928	15 966	34 700	64 573	80 755	74 030	70 610	85 813	44 532
Purchases	7 035	3 057	4 827	10 439	10 164	12 779	28 127	32 544	19 204	63 406	48 496	55 719	27 585
Total for Asia													
Sales	4 073	2 182	3 614	7 347	4 701	6 950	13 368	21 293	16 097	28 839	22 182	34 452	7 387
Purchases	5 438	2 441	2 624	7 843	6 486	8 755	19 136	21 690	6 399	12 873	22 895	25 298	13 852
Hong Kong													
Sales	2 620	568	1 674	5 308	1 602	1 703	3 267	7 330	938	4 181	4 793	10 362	1 865
Purchases	1 198	1 342	1 263	4 113	2 267	2 299	2 912	8 402	2 201	2 321	5 768	3 012	5 062
South Korea													
Sales	n/a	673	0	2	1	192	564	836	3 973	10 062	6 448	3 648	5 375
Purchases	33	187	72	74	500	1 392	1 659	2 379	187	1 097	1 712	175	98
Singapore													
Sales	1 143	237	276	362	355	1 238	593	294	468	2 958	1 532	4 871	556
Purchases	438	570	294	849	1 174	892	2 018	2 888	530	4 720	8 847	16 516	2 946
Taiwan													
Sales	11	n/a	3	16	16	42	50	601	24	1 837	644	2 493	480
Purchases	1 385	n/a	131	n/a	30	122	4	433	628	408	1 138	161	74
Total for the four East Asian NICs*													
Sales	3 774	1 478	1 953	5 688	1 974	3 175	4 474	9 061	5 403	19 038	13 417	21 374	8 276
% of Total Asia	92.66	67.74	54.04	77.42	41.99	45.68	33.47	42.55	33.56	66.01	60.49	62.04	47.60
% of Dvpg countries	23.51	25.32	24.05	44.50	13.22	19.89	12.89	14.03	6.69	25.72	19.00	24.91	18.58
Purchases	3 054	2 099	1 760	5 036	3 971	4 705	6 593	14 102	3 546	8 546	17 465	19 864	8 180
% of Total Asia	56.16	85.99	67.07	64.21	61.22	53.74	34.45	65.02	55.41	66.39	76.28	78.52	59.05
% of Dvpg countries	43.41	68.66	36.46	48.24	39.07	36.82	23.44	43.33	18.46	13.48	36.01	35.65	29.65

Source: United Nations (2000:240-1, 243-8; 2003:289, 291-295).

Notes: * = Own calculations. Dvpg countries = Developing countries. n/a = statistical data not available

Table 3.3: Country composition of the top 50 TNCs from developing economies by transnationality index and foreign assets: 1993, 1997, 1998, 1999, 2000*

Economies	Average TNI ^a per country (Percentage)					Share in total foreign assets of the top 50 (Percentage)					Number of TNCs that qualified			
	1993	1997	1998	1999	2000	1993	1997	1998	1999	2000	1996	1998	1999	2000
China	n/a	36.5	24.8	n/a	28.5	n/a	10.8	8.8	n/a	3.9	4	3	n/a	3
Hong Kong	36.5	61.4	56.6	45.4	42.0	22.0	24.9	22.0	26.4	38.9	10	10	11	11
India	6.4	17.1	7.7	9.6	n/a	0.4	0.9	0.8	0.7	n/a	1	1	1	n/a
South Korea	20.2	41.0	31.9	27.8	23.9	24.8	19.6	16.7	23.2	13.4	6	6	9	5
Malaysia	20.0	34.0	32.3	24.1	38.1	4.7	2.3	6.3	7.0	7.2	3	6	5	5
Philippines	6.9	33.8	30.1	25.0	28.1	1.4	1.0	1.5	1.1	1.1	1	1	1	1
Singapore	43.0	63.2	58.9	58.9	43.2	5.3	4.5	7.2	11.2	7.4	3	9	7	6
Taiwan	19.6	53.1	44.2	43.9	23.1	12.3	2.2	2.4	2.4	1.4	2	2	2	2
South, East & South-East Asia	21.8	42.5	35.8	39.1	32.4	70.6	66.1	65.7	72.0	73.3	30	38	36	33
East Asian NICs¹	29.8	54.7	47.9	44.0	33.1	64.4	51.2	48.3	63.2	61.1	21	27	29	24
Argentina	n/a	17.2	19.8	24.5	22.6	n/a	3.7	4.1	1.1	1.0	1	1	1	1
Brazil	17.4	17.5	18.5	30.2	24.1	12.0	6.0	7.6	5.6	4.7	5	3	3	4
Chile	12.1	22.5	21.8	35.4	15.8	1.0	3.9	3.4	1.8	0.7	3	1	1	1
Mexico	12.5	39.7	52.6	48.0	42.9	16.9	6.3	5.9	7.3	10.2	4	3	4	5
Venezuela	n/a	44.5	23.7	29.8	35.8	n/a	8.6	7.3	6.2	5.2	1	1	1	1
Latin America	14.0	28.3	27.3	48.3	28.2	29.9	28.5	28.3	22.0	21.8	13	9	10	12
Africa	n/a	31.8	45.0	46.0	41.4	n/a	5.4	6.3	5.9	4.4	4^b	3^b	4	4
Average/Total²	19.8	34.2	36.6	34.5	31.3	100.0	100.0	100.0	100.0	100.0	48^c	50	50	50

Source: United Nations (2000:82-3, 87; 1998:48-9; 2002:108).

Notes: * = the most recent year for which statistical data is available in the most recent publication available.

^a = the abbreviation for "transnationality index", which is calculated, for each country, as the average of the country's three ratios: foreign assets to total assets, foreign sales to total sales, and foreign employment to total employment (United Nations, 2000:87; 2002:108).

^b = all from South Africa.

^c = the other two TNCs were from Bermuda and Colombia.

¹ = own calculations for Hong Kong, South Korea, Singapore and Taiwan.

² = average/total for all the 50 corporations. Numbers may not add up exactly due to rounding.

^c = the other two TNCs were from Bermuda and Colombia.

n/a = statistical data not available.

Table 3.3 also shows that in the period 1993 – 2000, the East Asian NICs also enjoyed high levels of average transnationality index (TNI). Throughout this period, among the South, East and South East Asian countries which appeared on the top 50 TNCs from the Developing World, Singapore always had the highest average TNI whilst Hong Kong always had the 2nd highest. South Korea ranked 3rd in 1993 and 1997, falling down to the 6th position by 2000. Taiwan ranked 3rd in the period 1997 – 1999, falling down to the 7th position in 2000.

The TNCs from the East Asian NICs which have made it onto the world map are involved in a wide range of industries. For example the TNCs from South Korea are involved in trade, electronics and electrical equipment, motor vehicles, engineering/construction, energy and chemicals, metals and metal products. Those from Taiwan are involved in electrical and electronic equipment and other diversified industries. The TNCs in Hong Kong are in the transportation and storage, tourism and hotels, electrical and electronic parts and equipment, electric utilities or services, gas and water, trading/retailing, construction, business services and other diversified industries. Those from Singapore are into transportation and storage, food and beverages, telecommunications, steel and iron, electronics and electrical equipment, hotels, as well as other diversified industries (United Nations, 1998:48-50; 2000:82-4; 2002:100-101, 103; 2003:189-190).

The East Asian NICs also constitute the top 5 TNCs from the Developing World in terms of transnationality, as shown in Table 3.4 below. For example, in 1996 Hong Kong had three of the top 5 TNCs, while in both 1998 and 2000, the entire top 5 TNCs came from Hong Kong and Singapore combined.

Table 3.4: Country composition of the top 5 TNCs from developing economies in terms of transnationality: 1996, 1998 and 2000^a

1996				1998				2000			
Ranking by		Countries	TNI (%)	Ranking by		Countries	TNI (%)	Ranking by		Countries	TNI (%)
TNI	FA			TNI	FA			TNI	FA		
1	28	Hong Kong	90.6	1	50	Singapore	97.9	1	12	Hong Kong	88.2
2	25	Mexico/Panama	81.4	2	30	Hong Kong	84.3	2	16	Hong Kong	81.4
3	26	Hong Kong	75.0	3	21	Hong Kong	77.9	3	20	Hong Kong	80.9
4	4	Hong Kong	71.8	4	46	Singapore	76.2	4	9	Singapore	78.6
5	5	South Africa	61.5	5	47	Singapore	74.8	5	39	Singapore	70.8

Source: United Nations (1998:50; 2000:84; 2002:103).

Notes: ^a = most recent year for which statistical data is available from the most recent publication available.

TNI = Transnationality Index.

F. A. = Foreign Assets.

The East Asian NICs have also gained world market share in a number of manufactured products, appearing among the world's top twenty export winners. As Table 3.5 shows, the countries appear among the world's top twenty major exporters for the period 1985 – 2000.

Table 3.5: The East Asian NICs among the top 20 export winners, by technology category, 1985-2000 (most recent statistical data)

Technology categories of the products	Ranking out of the top 20 export winners			
	South Korea	Taiwan	Singapore	Hong Kong
All sectors	3 rd	8th	9th	
Resource-based manufactures	4 th			16 th
Non-resource-based manufactures	6 th	10th	7th	
High-technology manufactures	4 th	3rd	5th	
Medium-technology manufactures	4 th	5th	14th	
Low-technology manufacture				

Source: United Nations (2002:150).

South Korea appears in the top ten in several categories of manufactured products except in low-technology manufactures. Taiwan appears in the top ten in several product categories except in resource-based and low-technology manufactures. Singapore also appears in the top twenty in several product categories except in resource-based and low-technology manufactures. Hong Kong seems to have gained less market share, only appearing in the top twenty once, i.e. in the resource-based manufactures. Of interest to note also is that all the four countries did not gain enough market share in low-technology manufactures to qualify them to be among the top twenty in this product category.

Section 3.3 has thus shown how the four East Asian NICs have proved to be significant economies in both the developed and developing world. However, it is important to draw inferences from the successes of these countries and discuss the possible lessons for SADC. This will be done in the section below.

3.4 LESSONS FROM THE EAST ASIAN NICs TO SADC COUNTRIES

From the discussions in Section 3.2 above, it has been noted that the success of the East Asian NICs has been due largely to the significant role played by their governments. Through appropriate industrial policies, the governments were able to provide enabling environments. Appropriate orthodox macroeconomic policies and the correction of market failures were used to pave the way to the industrialisation process of the countries. Therefore, while

orthodox economics opposes interventionist industrial policies, the success with which the East Asian NICs implemented such policies in a balanced manner resulting in industrial advancement, puts forward a sound argument for positive economic effects of such policies.

While the East Asian NICs engaged in their industrialisation programmes in an era whose economic and political conditions cannot be replicated or wholly replicated, lessons derived from their experiences could still be valuable to SADC countries. This is because the SADC countries could still duplicate the successful economic policies. Below are the lessons relevant to the SADC region.

3.4.1 The correction of skills shortages

This is a lesson relevant to SADC as the region in general, and some countries in particular, continue to experience skills shortages. The region can learn that through intensive and continuous investment in education, the governments can correct skills shortages by developing high levels of industriousness and literacy leading to increased labour productivity. They can also learn that this would enable them to shift from labour-intensive light industries to skill-intensive, high-quality production as their highly educated labour force would be able to assimilate and adapt foreign technologies more easily.

The East Asian NICs' experiences also teach SADC countries that they should also plan for the rising wages and labour costs by increasing investment in labour productivity through further investment in labour education and training. Therefore, while wages will rise in due course, as the countries move from one stage of industrialisation to another, labour productivity will also be increasing, thus maintaining high levels of industry productivity and profitability. Sound labour policies which ensure a highly competitive labour should also be adopted.

Another lesson in correcting skills shortages lies in promoting research and development schemes and on-job-training programmes, so as to facilitating the transfer of technology thereby promoting local technological capabilities. Therefore, SADC should learn from the experiences of the East Asian NICs to take active steps in acquiring technological capabilities instead of expecting the MNCs to freely give it away to them.

The East Asian NICs' initiatives to address the shortage of skills and to develop the appropriate levels of skills are appropriate lessons for SADC, and these will be drawn upon in Section 4.5 where the human resources development efforts by SADC are discussed.

3.4.2 Infrastructure development

This was achieved through government's investment and expenditure on physical and social infrastructure (e.g. health, public housing, transportation, communication, etc.), and helped to reduce investment costs, promote political and social stability, as well as augmenting investment in education and training in promoting and improving labour productivity and efficiency.

In South Korea, Schmitz (1984:13) and Westphal (1978:375) note that adequate infrastructure of transport and communication supported and helped the success of industrialisation as this reduced market imperfections, non-tariff barriers, and disruptions on the movement of productive resources and end products. This is a valuable lesson to SADC if the implementation of the SADC Protocol on Trade is to facilitate increased intra-regional trade more fully.

Increased investment in infrastructure programmes and projects launched by Taiwan helped to stimulate the whole economy, as such infrastructure investment was both in the urban and rural sectors, thus narrowing the gap between the two. This is a significant lesson to SADC as it is often the case that infrastructure development is normally focussed more on the urban sector, thereby creating a huge development gap between the urban sector and the rural sector. As in the case of Taiwan, equal importance on the infrastructural development of both sectors would enable SADC to achieve a more diversified development-oriented move.

The East Asian NICs' initiatives in infrastructure development are a significant lesson to SADC countries and will be drawn upon in Section 4.4 where the region's efforts in infrastructure development will be discussed.

3.4.3 Resource endowment and the choice of industrialisation strategy

South Korea pursued a more interventionist industrial policy than Taiwan and Singapore, while Hong Kong pursued a *laissez faire* policy which came closest to the neo-classical paradigm. None of these approaches proved to be inferior in its industrialisation results than the other, thereby showing SADC countries that there is no one approach to industrialisation. Each country is unique in terms of its comparative advantages (both static and dynamic) and the pace at which these evolve, and therefore, while the SADC countries are in the same region, each country has to adopt an industrial policy in line with how its comparative advantages evolve. As Lim (1995:235) observes, the industrial policy has to be appropriate so that it can facilitate the realisation of both static and dynamic comparative advantages; promote, enhance and augment such advantages; anticipate and facilitate adjustments to, and

even accelerate, desired or inevitable shifts in comparative advantages. Therefore, countries can industrialise at different paces, each gradually moving from labour-intensive industrial consumer goods into capital-intensive export activities when the situation suits it best. This is of relevance to SADC in that, while balanced development is one of the main aims of the SADC industrial policy and strategies which is currently being formulated (to be discussed in Chapter Seven), this need to be seen as a long term objective as the development of the various countries to a degree which would permit the gradual reduction of intra-regional disparities may differ between countries.

SADC can also learn that it needs to take full advantage of its resources and effectively use them to move up higher levels of development. For example, South Korea and Taiwan took advantage of the unutilised industrial capacity resulting from the relative success of import substitution in building an industrial structure and the population sizes which formed internal demand on their productive capacity, and used these to lay a foundation for their industrialisation process. Within SADC, similar resources exist, i.e. large scale under utilised industrial capacity which resulted from: (i) the countries' import substitution strategies; (ii) investments by MNCs which have either left or have scaled down production due to poor economic conditions; (iii) government-owned firms operating below capacity due to inefficiency; and /or (iv) privately owned local firms also operating below capacity due to either inefficiency or the harsh economic and political conditions. This industrial base could be used to promote industrial development through either country-based industrial projects that will use the region as a market, or to develop regional industrial clusters (see Section 7.3.7) that will benefit the whole region, in cases where huge sums of money are required and an individual country cannot afford to run the project on its own. SADC also has a large population³⁹ and this creates a favourable condition of internal demand that could continue to press upon the region's productive capacity, thereby propelling the region forward to industrial growth.

3.4.4 Pursuing sound macroeconomic policies

This is a lesson SADC can also learn from the experiences of the East Asian NICs as these had far reaching effects to their economic growth, reducing investment risks, and increasing investment efficiency, thus reducing the costs associated with the misallocation of capital. Appropriate industrial policies and political stability also had to be implemented to augment the countries' intrinsic advantages.

³⁹ However, a large population in terms of numbers only, without taking into account the per capita income levels of the population, may not necessarily lead to the desired effective demand necessary to propel industrialisation.

For example, from the observations by Todaro (1997:452) and Westphal (1978:350) on South Korea, SADC can learn that governments should ensure close co-operation between itself and the private sector, be flexible in economic management, always ready to react to signals and incentives coming from the economy, as well as commitment to the success of industrialisation strategy (ies) adopted by instituting the appropriate policies. Riedel (1975:512) notes that the importance of a judicious balance and cooperation between the public and private sector can also be learnt from Taiwan, while the creation of an environment conducive to the exploitation of international comparative advantage, the general liberalisation of economic policy, and setting up the EPZs, are also lessons. From Singapore, SADC can learn that through a constant review of its policies, the government can help established industries and the economy as a whole to adjust to the new situations and changing country comparative advantages.

3.4.5 The role of FDI

From the experiences of the East Asian NICs, SADC can learn that FDI can raise employment opportunities, income and the standards of living, augments domestic resources to increase industrial growth, as well as helping to develop local technological capabilities. It can also be learnt that while industrialisation can be initiated by labour-intensive manufacturing, countries can move into capital-intensive manufacturing as FDI enables the establishment of the industrial bases, leading to a rise in the share of manufactured exports.

Singapore was heavily dependent on FDI for its industrialisation and so its experience could be of importance to SADC countries. SADC can learn that governments should use their industrial policies to focus on shaping the country's competitive advantages so as to attract the desired types of investments that would in the long run move the country up the ladder of industrial technologies and incomes. SADC countries can also learn that despite a country's small size and limited natural resources, it can still attract and extract maximum benefits from foreign capital for the benefit of its national economy through efficient and effective use of the resources. Singapore's success with FDI in facilitating its industrialisation illustrates to the SADC region that FDI can take a small country a long way, if it is carefully selected, guided, and supplied with supportive infrastructure and a disciplined and trained workforce, as well as a competitive and stable investment environment.

3.4.6 Availability of markets

The success of the export-oriented industrialisation strategy adopted by the East Asian NICs depended on the availability of the markets for the manufactured exports. Apart from utilising the long established distribution channels and market networks of the MNCs, the initiatives

by local entrepreneurs to establish new markets enabled the NICs to successfully promote their exports thereby leading to a rise in exports, output and employment levels. This is a valuable lesson to SADC so that it can reduce its continuing dependence on Europe and North America as its export destinations. Initiatives to diversify its export markets could be through visits abroad and other regional countries by staff or representatives of firms, country and regional trade fairs, enquiries to trade associations and trade associations within the region. With the SADC Free Trade Area in place, the countries could use the region as an export destination by increasing intra-regional trade.

Economies are vulnerable to external economic and political circumstances and countries have to develop the ability to adjust to these changing international conditions. A combination of product and market diversification and an intensified export drive often helps to save an export based industrialisation programme from the adverse effects of international slowdowns and problems. South Korea and Taiwan's ability to be flexible in meeting changing international demand conditions shows the importance of diversification in terms of products and markets, if economic growth as well as export growth is to be sustained. This is a valuable lesson to SADC countries which often rely on the traditional markets, most of which are already flooded, and traditional products which already flood many markets.

Another lesson for SADC lies in the importance of the availability of a domestic market and the growth of such a market to facilitate industrial development and growth. The domestic market and its growth made a significant contribution to the development of South Korea and Taiwan's export-based production. For example, in South Korea, to promote newly established export-oriented production, the country created a domestic market for newly established export-oriented consumer goods production, while in Taiwan, the promotion of the agricultural sector helped create domestic demand for manufactured goods and other substantial transfers to support industrialisation.

3.4.7 The development of linkages

The East Asian NICs facilitated the development of linkages between industries and among closely related activities. Therefore, industries which supplied raw materials, intermediate inputs and support services were able to form linkages with both domestic and exporting industries. This could serve as a lesson to SADC as the expansion in one industry may induce growth in others through the purchase of goods and services from them (backward linkages) and through sales of goods and services to them (forward linkages). The development of backward and forward linkages at industry level is also a vital lesson to SADC in that it

would facilitate transfer of technology and help the region to save foreign currency as reliance on foreign inputs will fall.

The promotion of the agricultural sector in Taiwan (see Section 3.2.4.1.4) which turned this sector into a dynamic sector, serves as a valuable lesson to the SADC region where most of the countries are agricultural based. In some of the countries, e.g. Zimbabwe, the sector has suffered from unsustainable and ill-planned land reform programmes which have compromised agricultural productivity and self-sufficiency in food production, while the sector normally suffers discrimination and deteriorating terms of trade as the countries industrialise.

The Taiwan experience also shows the SADC region the importance of linkages between the urban and rural sectors of the economy and the need to develop both sectors in order to propel industrialisation forward. This is a valuable lesson to SADC countries because these they experience significant gaps between the rural and urban sectors, with the former lagging far behind. The significant inequalities which thus arise as a result of this gap and are prevalent within each country, contribute towards hindering industrial development as the much needed effective demand to propel industry is found wanting. Therefore linkages, the complementary role of sectors, as well as the realisation that rapid economic growth and greater economic equality are congruent and not conflicting objectives, as shown in Taiwan's industrialisation experience, could help the SADC countries to decentralise industrialisation programmes so as to be able to cater for both labour-intensive consumer goods production mainly in the rural areas and a more capital-intensive approach in the urban sector.

3.4.8 Internal peace and security

Internal peace and security also contributed to the successful industrial development within the East Asian NICs and this is a valuable lesson to SADC. For example, Lim (1995:228, 231) and Agrawal (1995:97) observe, people benefited in terms of employment opportunities and job security, high and rising wages and a wide range of efficient government-provided social services like public housing, transportation, education, and recreational facilities. As such, this helped to create internal peace and security, a necessary condition for economic growth through increased investment by both domestic and foreign investors. Also to note is that by balancing the implementation of ISI and EOI, the governments also managed to stabilise and improve their economies, thus helping to create and maintain internal peace and security.

3.4.9 The importance of the SMEs

It has been observed that the strength of Taiwan's industrialisation lied in its small and medium-sized enterprises that took advantage of the country's large base of human capital. Industrialists took advantage of the infant industry promotion offered by the government to grow and diversify in skill-intensive activities, and greater emphasis was placed on meeting market niches rather than mass production (Lall, 1994:77). This reveals the importance of small and medium-sized industries, which is something some countries often give less attention to as they focus on heavy and capital-intensive industries to facilitate industrialisation. Also to note from this is the importance of taking advantage of the already existing industries and industrial developments, small as they may be, and building upon that in order to facilitate growth and attaining a more diversified national development-oriented move.

3.4.10 The importance of exports for economic growth

Balassa (1988:S277) observes that the industrialisation experiences of the East Asian NICs "demonstrate the existence of a positive relationship between export expansion and economic growth, thus showing the importance of exports for economic growth". This is a valuable lesson for SADC as it implements the SADC Protocol on Trade.

Thus the resultant benefits of export expansion as experienced by the East Asian NICs during their own industrialisation, could also accrue to SADC if the countries are seriously committed to the implementation of the SADC Protocol on Trade as well as utilising the existing multilateral trade agreements more fully.

3.5 CONCLUSION

The East Asian NICs provide a sound case study in analysing the development of initially poor countries which grew to be the world's success story of industrialising countries. This chapter has attempted to outline the major models of industrialisation followed and how Kuznets' model applies in each case. A summary of the East Asian NICs is going to be given in terms of the industrialisation strategy followed as well as the general lessons SADC could derive from these economies.

Although outward looking, South Korea was not the liberal market-orientated economy it appeared to be. As shown in Section 3.2.3.1.3, market forces were not given a free reign to allocate resources, a two-prong import policy was in place, and the reduction of import restrictions was selective and gradual suggesting awareness by the state that liberalisation had

to reflect the competitive strength of the evolving local products. However, even though South Korea was not the liberal market-oriented economy it appeared to be, its level of protection was quite low by international standards. The country succeeded in having rapid and sustained growth due to a dynamic export sector which resulted from its entrepreneurs who were highly responsive to opportunities to export, the efficiency with which available resources were allocated, and the direction of investment funds into key industrial areas.

Although outward looking, Taiwan, just like South Korea, was not the liberal market-orientated economy it appeared to be. However, unlike South Korea, Taiwan pursued a less interventionist industrial policy as it took a more cautious approach. This meant lowering investment risks, incurring fewer costs in terms of misallocation of capital and investment, and increasing investment efficiency. While Taiwan's industry structure was lighter than that of South Korea, its export-led strategy led to a drastic rise in the share of manufactured exports to total exports. Also of significance is that during the PIS phase, Taiwan embarked on a very successful land reform programme. The reform programme led to changes in farming by a large number of small owner-occupier farms and an increase in agricultural output. This impacted positively on its industrialisation process as it helped to create linkages between the agricultural and manufacturing sectors and to raise incomes and the standards of living among the rural people.

Hong Kong did not intervene in the product markets, i.e. it neither supported particular industries nor protected manufacturing in general. Also, it did not interfere with the allocation of domestic credit or foreign investments, and so did not guide investments in other ways. Its stable administrative and macroeconomic regime enabled an impressive growth performance. This *laissez faire* policy by Hong Kong came closest to the neo-classical paradigm. While the *laissez faire* approach helped promote competitive manufacturing in Hong Kong, this does not necessarily mean that it is applicable everywhere. As already noted in Section 3.2.5.1, Hong Kong had many advantages which are lacking in many developing world countries, and these contributed to the success of the *laissez faire* policy to its industrial development. However, while there were some interventions in Hong Kong, these were predominantly non-selective, and there was no attempt to promote certain sectors at the expense of others. While its functional interventions were impressive by developing world standards, they were not as intense as in South Korea, Taiwan and Singapore.

Singapore's remarkable economic success since its independence in 1965 lead to the elimination of extreme poverty as evidenced by its current high per capita income and the development of a sound and efficient industrial sector and financial sector capable of

competing on an international level. Agrawal (1995:101-102) notes that Singapore's great success is often attributed to the following main factors: market friendly and pro-industry policies, a large inflow of FDI, the export orientation policies which ensured that its firms competed with the best in the world thus forcing them to be efficient, prudent macroeconomic management, good financial markets policies, and productivity oriented labour policies.

Today, the four East Asian NICs are actively involved in the world economy. They make significant contributions to FDI outflows from Asia in particular and the Developing World in general. They actively participate in FDI through mergers and acquisitions, with their TNCs appearing on the top 50 and top 5 TNCs from the Developing World.

The SADC region could benefit from the experiences of the East Asian NICs. For example, the experiences show valuable lessons on how to effectively use FDI to improve manufacturing capacity, how to assimilate foreign technology and adapt it to local needs, and how to use foreign technology and expertise to build up local technological capabilities. Lessons can also be learnt on the importance of the versatility of the country's entrepreneurs, the role of the government in initiating and promoting industrialisation, the importance of developing linkages within and between sectors, and the role of market availability. Important lessons are also learnt on the need for a relationship between the country's resource endowment and the industrialisation programme followed, the importance of sound macroeconomic policies, and the country's ability to adapt to its evolving comparative advantages. The importance of the small and medium-sized enterprises, a well educated and hard working labour force, taking advantage of the existing industrial developments, as well as diversification in terms of products and markets, is also revealed.

Having thus highlighted the lessons for SADC, it is important to present an economic overview of the SADC countries showing how some of the lessons from the East Asian NICs could be applied. This will be done in the next chapter.

CHAPTER FOUR

AN ECONOMIC OVERVIEW OF THE SADC REGION

4.1 INTRODUCTION

The purpose of this chapter is to give an economic overview of the SADC region, providing insight into the region's current industrial sector, investment environment, development strategies, as well as the extent of inequalities in distribution of income and levels of poverty. Section 4.2 discusses the region's current economic sectors. By analysing the contributions towards GDP by the primary, secondary and tertiary sectors, an understanding can be obtained into which sector a particular country and the region as whole depends on for development. This has a significant impact on current and future industrial development.

Section 4.3 analyses the region's investment climate through a review of its political stability, potential markets, economic performance, investment policies, country risk ratings from some major international rating services, and the implications of each of these for industrial development. The domestic business climate has a bearing on the investment climate, and so this is also going to be analysed using the key indicators often used, i.e. entry regulations, contract enforcement, and access to finance. Section 4.4 discusses infrastructural development within the region as it pertains to industrial and financial infrastructure, transport and communication networks and commercial services. A discussion of the region's infrastructure is important as it has a bearing on costs, accessibility of markets, and the ease with which business can be conducted, all of which have a bearing on industrial location.

Human capital resources are crucial for any industrialisation process and for this reason, Section 4.5 explores the efforts the region is making towards human capacity building. This will be done through an insight into the region's educational enrolment at various levels, the extent to which governments fund education, and the implications of this for industrial development. Section 4.6 analyses the current industrial development strategies in place in the various countries and the potential impact on industrial development, while Section 4.7 gives insight into income distribution and poverty in the region. Section 4.8 concludes the chapter.

All the statistical data used in this chapter were collected from secondary sources, viz. statistical tables developed and made available through publications by various organisations like (i) SADC; (ii) the United Nations; (iii) the African Development Bank (ADB); (iv) the World Bank; (v) the Central Statistical Office of various SADC countries; (vi) the United Nations Development Programme (UNDP); (ix) United Nations Educational, Scientific and Cultural Organisation (UNESCO); and (x) United Nations Industrial Development Organisation (UNIDO).

4.2 AN OVERVIEW OF THE ECONOMIC SECTORS

For the purposes of analysing the region's economic sectors, the percentage contributions of the primary, secondary and tertiary sectors to GDP for each individual country were done¹. This gives insight into the extent to which individual countries rely on any of the three sectors for industrial development and the implications of such dependency on current and further industrial development.

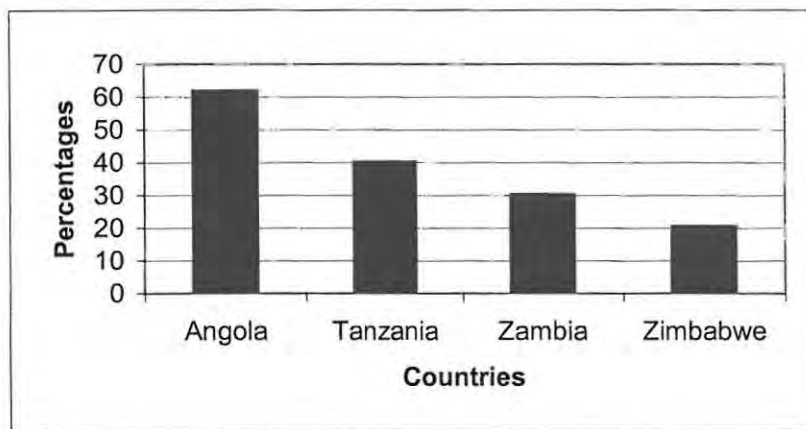
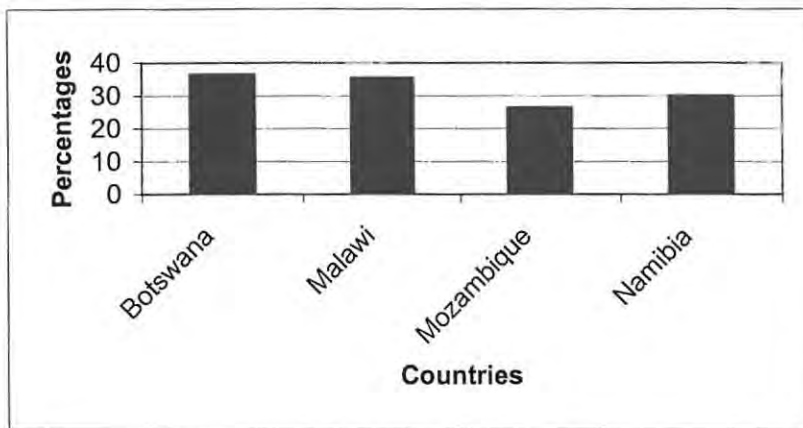
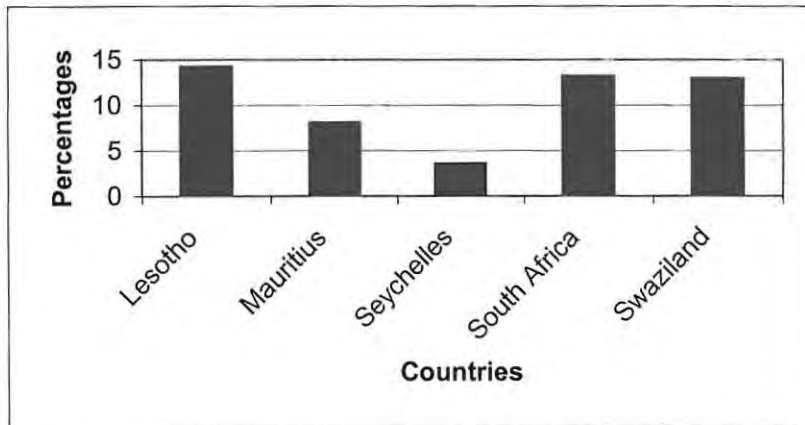
4.2.1 The primary sector

In the period 1990 – 2000, Figure 4.1 below shows that there is significant dependency by the region on the primary sector with half the countries having an annual average of 20 – 41 percent of their GDP originating from this sector. For example, Tanzania (40.33 percent), Malawi (35.46 percent), Botswana (36.50 percent), Zambia (30.37 percent) and Namibia (29.91 percent), show very high dependency, while Mozambique (26.33 percent) and Zimbabwe (20.63 percent) have slightly over one-fifth of their GDP originating from the primary sector. Angola has the highest, i.e. 61.92 percent, most of which is from oil and gas production. Lesotho, South Africa, and Swaziland registered between 12 and 15 percent, while Mauritius and Seychelles have an annual average of less than 10 percent originating from the primary sector.

In the period 1990 – 2000, Figure 4.2 below shows that the primary sector is made up of extractive industries or activities, e.g. agriculture, fishing, forestry, hunting, mining and quarrying. Apart from Botswana, Mauritius and South Africa where agriculture contributes less than 10 percent of GDP, there is significant dominance of agriculture within the primary sector as

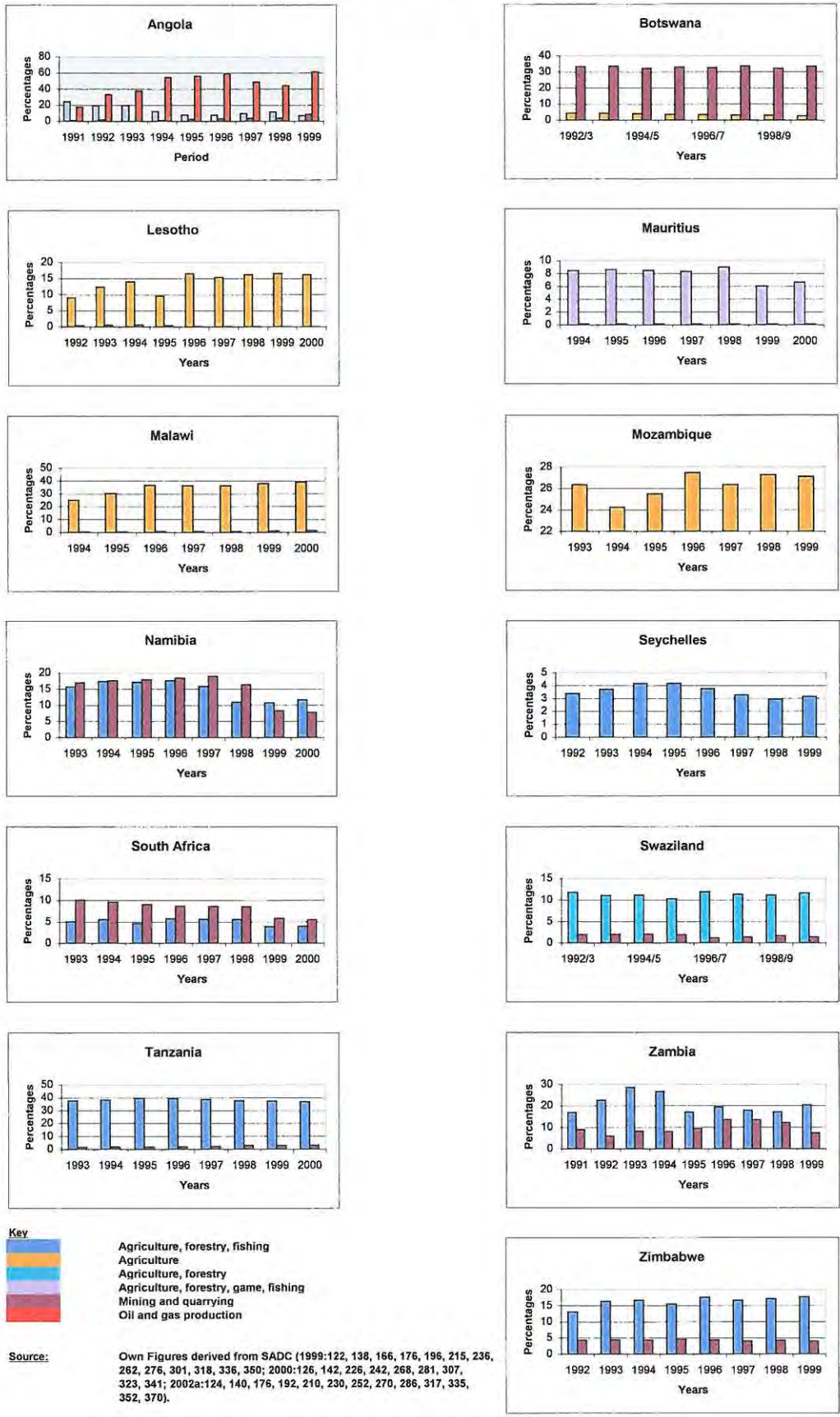
¹ The most recent statistical data varied from one country to another depending on availability of data for the individual countries. From the most recent source available, i.e. SADC (2002a), 1999 is the most recent year for statistical data for Angola, Mozambique, Zambia and Zimbabwe, while 2000 is the most recent year for statistical data for the remaining countries except for the D. R. C. which had statistical data for 1997 only.

**Figure 4.1: Annual average share (%) to GDP by the primary sector (1990 - 2000)
(most recent statistical data)**



Source: Own Figures derived from SADC (1999:122, 138, 166, 176, 196, 215, 236, 262, 276, 301, 318, 336, 350; 2000:126, 142, 226, 242, 268, 281, 307, 323, 341; 2002a:124, 140, 176, 192, 210, 230, 252, 270, 286, 317, 335, 352, 370).

Figure 4.2: Composition of GDP by the components of the primary sector (percentage distribution) (most recent statistical data)



evidenced by its higher percentage contributions in this sector's total contribution to GDP. Therefore it can be deduced that SADC is an agricultural based region.

While the region reflects significant reliance on agriculture, the extent of this and the trends have varied between countries, as shown in Figure 4.2. For example, it is in Malawi and Tanzania where agriculture shows the greatest dominance, with over one-third of GDP originating from that sector throughout the 1990s. However, Malawi is the only country which experienced a continuous rise in agriculture contributions to GDP for the most part of the decade, while Tanzania only experienced such a continuous rise during the first part of the decade, after which there was a continuous fall. Significantly high reliance on the sector is also seen in Mozambique where throughout the decade 24-27 percent of GDP originated from agriculture, but these levels have consistently fluctuated throughout the decade. While Zimbabwe is a strong agricultural economy, only 15-18 percent of its GDP originated from this sector throughout the 1990s, with such contributions fluctuating for most of the decade, except after 1997 when there tended to be a continuous increase. Zambia experienced significantly high agriculture contributions to GDP in 1992-1994, after which such contributions fell to 17-19 percent of GDP until 1999. Swaziland experienced fluctuating levels of agriculture share to GDP throughout the decade, a trend which Lesotho also experienced, although the second half of the decade shows a marked improvement in agriculture share to GDP in the country. After 1996, Namibia experienced a continuous fall in the sector's shares to GDP until 2000 when there was a slight rise.

Apart from little reliance on the agricultural sector throughout the 1990s, Botswana also experienced a continuous fall in this sector's contribution to GDP, while South Africa (which too relies little on the agricultural sector) only tended to experience a continuous fall in the sector's contributions to GDP during the last few years of the 1990s. Seychelles also has little reliance on agriculture, and had a continuous rise in the sector's share to GDP up to 1995, after which there was a continuous fall until 1999.

The importance of the agricultural sector in the region is also illustrated by Table A-4 (Appendix 3) which shows that in most SADC countries, the agricultural sector is the largest employer. While the employment levels in the sector have been falling over the years in all countries, the sector still remains the biggest employer. However, it is important to note that small-scale and informal agriculture characterise part of SADC's agriculture, and these are low productivity areas. This thus has a bearing on industrialisation.

Figure 4.2 also shows that the countries in the region with significant mining sectors are Botswana, Namibia, South Africa, Zambia and Zimbabwe. Amongst these countries, mining and quarrying contributes more than the agricultural sector in Botswana, Namibia, and South Africa. Botswana experiences the greatest reliance on mining and quarrying, with over a third of its GDP originating from this sector throughout the 1990s, but these high levels have consistently fluctuated throughout the decade. Namibia which up to 1998 had 16-19 percent of GDP coming from this sector, has the second highest contribution to GDP, and experienced a continuous rise in the percentage share of the mining sector to GDP up to 1997, after which it has been experiencing a continuous fall in the sector's contribution to GDP. In South Africa, mining and quarrying contribute less than 10 percent of GDP, and the country experienced a continuous fall in mining sector contribution to GDP throughout the decade. The mining sector contributions to GDP in Zambia fluctuated up and down during the first half of the 1990s with the country experiencing a continuous fall after 1996 due to a decline in investment in the sector (see Section 5.4.1.5). In Zimbabwe, the sector's percentage contributions to GDP have fluctuated up and down throughout the decade. In Angola, very high contributions to GDP come from oil and gas production.

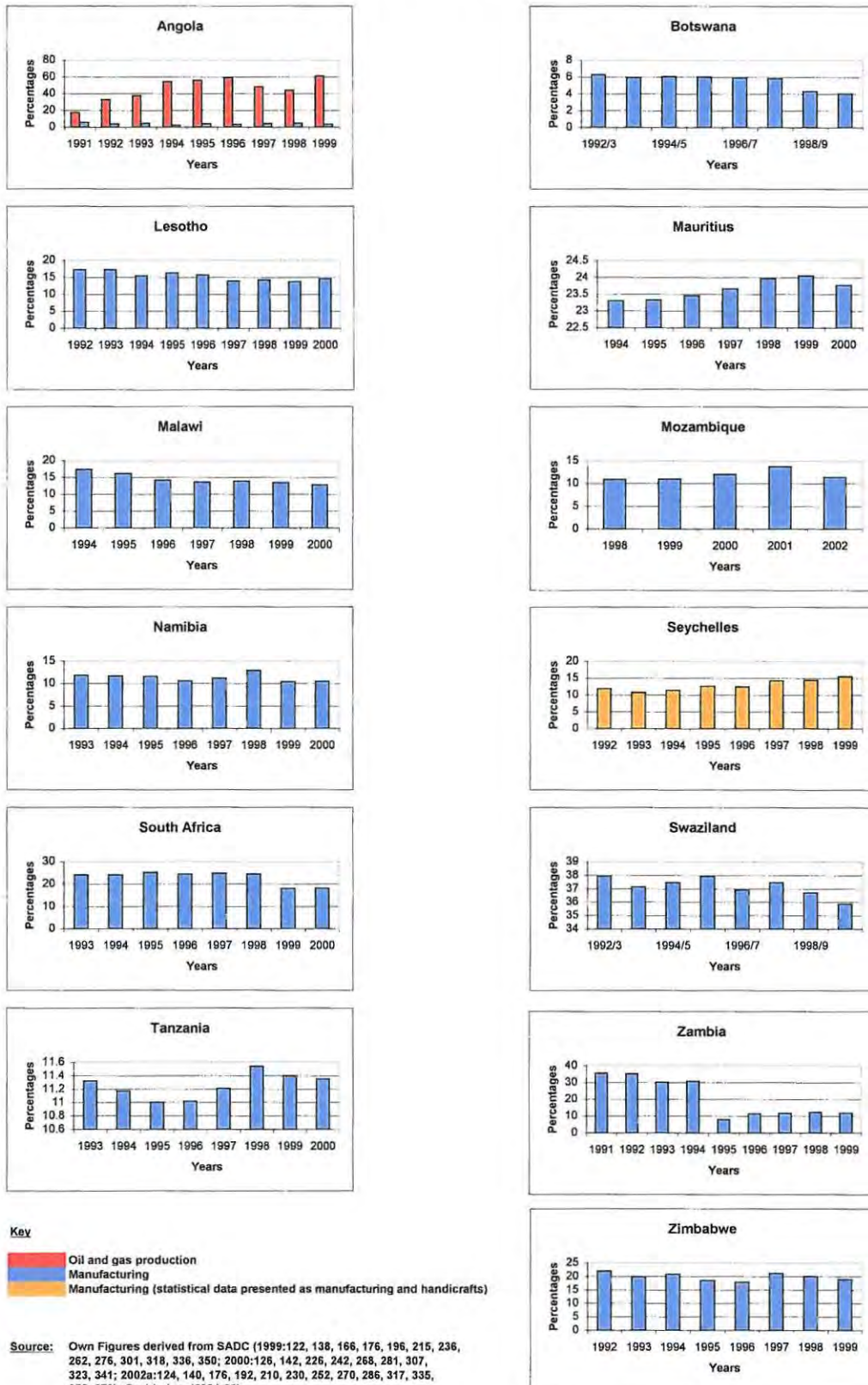
4.2.2 The secondary sector

4.2.2.1 The manufacturing sector

Figure 4.3 below shows that in the period 1990 – 2000, there were little GDP contributions by this sector as only three out of the fourteen SADC countries had over 20 percent of their GDP originating from manufacturing throughout the 1990s. These countries are (i) Mauritius, with 23 – 24 percent, as well as experiencing a continuous rise throughout; (ii) South Africa, with 24 - 25 percent, but after 1997 to the end of the decade, the trend has been a continuous fall; and (iii) Swaziland with 36 - 38 percent, which are the highest shares in the region, but fluctuating up and down during most of the decade, with a continuous fall experienced after 1997/8 to the end of the decade. The manufacturing sector in Zambia had significant contributions to GDP in the first half of the decade, i.e. over 30 percent up to 1994, falling drastically to 7.8 percent in 1995, after which the trend has been a continuous rise until 1999 when it fell slightly. Zimbabwe had an annual average of 20.85 percent of its GDP from the manufacturing sector only in the early part of the decade, i.e. 1992-1994, after which the trend has been a continuous fall, except in 1997.

For the rest of the region, the manufacturing sector contributes less than 20 percent of GDP, with countries like Botswana and Angola having manufacturing sectors contributing less than 10 percent of GDP. In Namibia a continuous fall was experienced during the first part of the decade.

Figure 4.3: Composition of GDP by the manufacturing sector (percentage distribution) (most recent statistical data)



In Botswana and Malawi, the general trend has been a continuous fall in the share of manufacturing sector to GDP throughout the decade, except for rises in 1994/5 and 1998 respectively; while in Angola despite the low levels, these have fluctuated up and down throughout the decade. Seychelles experienced a continuous rise in the manufacturing shares to GDP after 1996.

4.2.2.2 The energy production sector

This sector is a significant drive for all economic sectors and also to note is that energy production is an important component of the secondary sector in some of the SADC countries, viz. Angola, the Democratic Republic of Congo, Mozambique, South Africa, Tanzania, Zambia and Zimbabwe. As Table 4.1(i) shows, there has been an increase in energy production since 1980, i.e. increasing from 120 054 KT oil equivalent in 1980 to 232 164 KT oil equivalent in 1997, and then to 240 028 KT oil equivalent in 2000. South Africa is the largest energy producer followed by Angola, the Democratic Republic of Congo, and Tanzania, in that order, whilst Zambia is the least producer followed by Mozambique.

SADC has a large energy resource base composed of electricity, oil deposits, solid fuels and gas reserves, as shown in Table 4.1(ii). From non-renewable energy sources, most of the energy comes from solid fuels, with South Africa producing most of it. In liquid fuel production, Angola produces most of the energy followed by the Democratic Republic of Congo, making them the most significant oil producing countries in the region. South Africa and Mozambique have huge fuel storage facilities to enable the movement of fuel into landlocked countries of the region, with the largest concentration of the petroleum refineries found in South Africa, as observed by Hess (2004:179).

Angola is a significant gas producing country as large quantities of natural gas are produced with oil production, and in 1997, South Africa was also a significant producer of gaseous fuels. Table 4.1(ii) shows that other gas deposits exist in Mozambique, the Democratic Republic of Congo and Tanzania², but as these have to be fully exploited in order for them to be of more benefit to the region.

² While Table 4.1(ii) reflects a record of zeros for these countries, this does not mean that no production takes place, but that the quantities produced are less than half the unit of measure (see the notes below the Table 4.1).

Table 4.1: Energy production within SADC (most recent statistical data)

(i) Total energy production

SADC countries	Energy production (KT oil equivalent) for selected years				
	1980	1995	1997	1999	2000
Angola	11 301	26 189	41 430	43 644	43 669
Dem. Rep. of Congo	8 697	1 948	14 364	14 860	15 446
Mozambique	7 413	160	6 994	7 067	7 219
South Africa	73 169	116 160	142 139	143 993	144 469
Tanzania	9 502	135	13 529	14 269	14 601
Zambia	4 179	898	5 556	5 784	5 916
Zimbabwe	5 793	3 567	8 152	8 322	8 708
TOTAL	120 054	149 057	232 164	237 939	240 028

(ii) Energy production by source

SADC countries	Energy production in 1997 ^a								
	From all sources ¹			From non-renewable energy sources ²				Total electricity generated	
	(000 metric toe)	% change since 1987	Per capita (kg oil equivalent)	Solid fuels (000 metric toe)	Liquid fuels (000 metric toe)	Gaseous fuels (000 metric toe)	Nuclear fuels (000 metric toe)	(000 metric toe)	% change since 1987
Angola	41 430	89	3 537	0	35 700	465	0	95	37
D. R. C.	14 364	29	299	56	1 315	0	0	517	11
Mozambiq.	6 994	-1	379	0	0	0	0	86	199
S. Africa	142 139	27	3 667	124 678	401	1 543	3 296	17 866	38
Tanzania	13 529	23	431	3	0	0	0	166	52
Zambia	5 556	16	647	106	0	0	0	689	-8
Zimbabwe	8 152	9	727	2 712	0	0	0	628	15
TOTAL	232 164	27.43*	9 687	127 555	37 416	2 008	3 296	20 047	49.14*

Source: World Bank (1998:142-143; 2001a:350, 359; 2002a:349; 2002b:158-160; 2003a:144-146; 2003b:248, 349).

Notes: Countries and years were selected on availability and completeness of statistical data.

Toe (tonnes of oil equivalent) = 41.868 gigajoules. 1 gigawatt-hours of electricity = 86 toe. Energy data is given in this common unit so as to facilitate comparisons of energy sourcing, consumption substitution and conservation (World Bank, 2003b:358).

^a = most recent year with such an analysis.

¹ = energy production from all sources is the amount of energy from all sources in each country and this includes solid, liquid, gaseous fuels nuclear electricity, hydropower, geothermal, solar, wind tidal wave, combustible renewables and waste and indigenous heat production from heat pumps (World Bank, 2003b:358).

² = not all sources are reflected and so sum of those included would not equal total energy production (i.e. ¹).

0 = zero or less than half the unit of measure.

Solid fuels = energy produced from all types of primary coal, including peat.

Liquid fuels = energy produced from fuels such as crude oil, natural gas liquids.

Gaseous fuels = energy produced from natural gas.

Nuclear fuels = primary heat equivalent of the electricity produced by nuclear power plants.

Total electricity generated = electrical energy produced by thermal, nuclear, geothermal, hydropower and other power plants (World Bank, 2003b:358).

* = average percentage change.

The countries in the region are also well endowed with resources for electricity production such that the region has the potential to be self sufficient. As Table 4.2(i) shows, there has been an increase in electricity production since 1980, i.e. increasing from 119.4KWH in 1980 to 211.5KWH in 1995 and up to 238.8KWH by 2000.

Table 4.2: Electricity production within SADC (most recent statistical data)

(i) Electricity production

SADC countries	Electricity production (billion KWH) for selected years			
	1980	1995	1999	2000
Angola	0.7	1.0	1.3	1.4
D. R. C.	4.4	6.2	5.7	5.5
Mozambique	0.5	0.6	6.9	7.0
South Africa	99.0	186.8	200.4	207.8
Tanzania	0.8	1.8	2.3	2.3
Zambia	9.5	7.8	8.1	7.8
Zimbabwe	4.5	7.3	7.1	7.0
TOTAL	119.4	211.5	231.8	238.8

(ii) Sources of electricity¹ (% of all sources)

Sources	Angola				Dem. Rep of Congo				Tanzania			
	1980	1995	1999	2000	1980	1995	1999	2000	1980	1995	1999	2000
Hydropower	88.1	93.8	67.0	63.1	95.5	96.2	99.6	99.7	86.4	85.9	96.5	95.5
Oil	11.9	6.3	33.0	36.9	4.5	3.8	0.4	0.3	13.6	14.1	3.5	3.5
Total	100	100	100	100	100	100	100	100	100	100	100	100
Sources	Zimbabwe				Zambia				Namibia			
	1980	1995	1999	2000	1980	1995	1999	2000	1980	1995	1999	2000
Hydropower	88.3	32.3	41.6	46.6	98.8	99.7	99.5	99.4	..	..	97.6	97.6
Coal	11.7	67.7	58.4	52.5	0.7	0.3	0.5	0.2	..	..	..	0.4
Oil	0.6	0.0	..	0.9	0.5	0.0	0.0	0.4	..	..	2.4	2.1
Total	100	100	100	100	100	100	100	100	100	100	100	100
Sources	Mozambique				South Africa							
	1980	1995	1999	2000	1980	1995	1999	2000				
Hydropower	65.2	8.9	99.6	99.6	1.0	0.3	0.4	0.6				
Coal	17.5	13.0	..	..	99.0	93.5	93.2	93.1				
Oil	17.3	63.6	0.4	0.4	0.0	..	..	..	
Gas	0.0	14.6	0.0	..	..	..	..	..
Nuclear	0.0	0.0	..	..	0.0	6.0	6.4	6.3				
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0				

Source: World Bank (1998:150-152; 2002b:166-168; 2003a:152-154).

Notes: Countries and years were selected on availability and completeness of statistical data.

¹ = inputs used to generate electricity. Shares may not sum up to 100 because some sources of generated electricity, e.g. wind, solar and geothermal, are not shown (World Bank, 2003a:154). Also shares may not sum up to 100 due to the differences in sources used to gather the data.

Hydropower = electricity produced by hydropower plants; Oil = crude oil and petroleum products; Gas = natural gas but not natural gas liquids; Nuclear power refers to electricity produced by nuclear power plants (World Bank, 2003a:155).

South Africa is the largest producer followed by Zambia and Zimbabwe, in that order. Production by Mozambique improved significantly after 1995, rising from 0.6KWH in 1995 to 7.0KWH by 2000. The resources for electricity production include hydropower plants, coal, crude oil and petroleum products, natural gas, as well as nuclear power plants. As Table 4.2(ii) shows, most of the electricity is generated from hydropower plants, and Mutambara (2001:56) observes that if the full potential for hydroelectric power production in the Democratic Republic of Congo were realised, this alone would go a long way to satisfy the hydroelectric power demand of the region. Furthermore, the existing unexploited potential along the Zaire River in the D. R. C., the Zambezi River along the Zambia/Zimbabwe border, the Cunene River in Namibia, the Kwanza River in Angola, and the Cabora Bassa in Mozambique, could generate surplus electricity for the region to export.

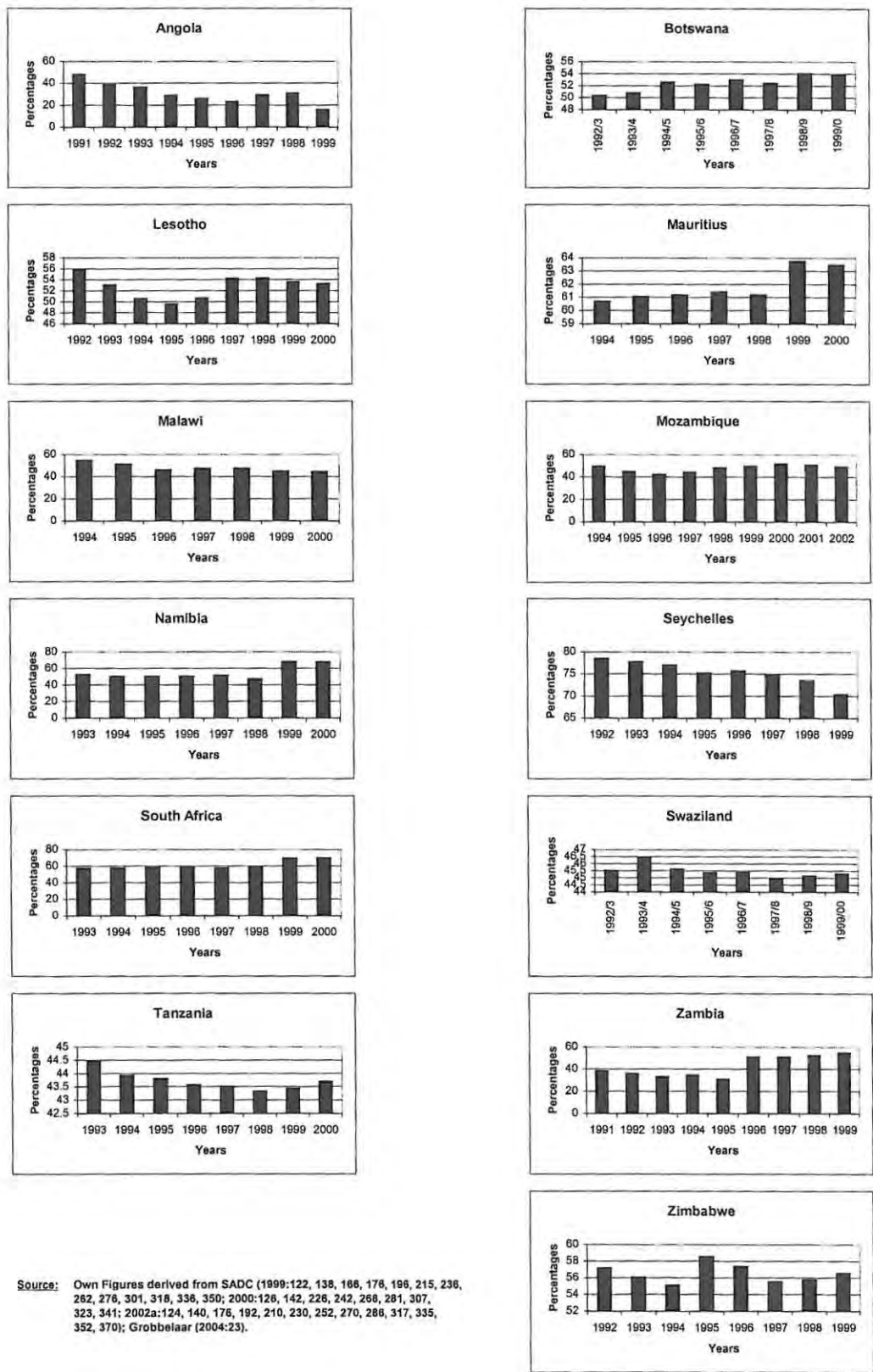
In Zimbabwe and South Africa, coal makes a significant contribution towards the production of electricity, 52.5 percent and 93.1 percent respectively by 2000. South Africa is the only SADC country in which electricity is produced by the use of nuclear power plants. In Angola, oil forms a significant resource for the production of electricity, while in Mozambique and Tanzania, oil made a significant contribution in 1980 and 1995.

4.2.3 The tertiary sector

Naumann (2002:14) argues that a “useful proxy indicator of higher value-added industrialisation is the extent to which each country’s aggregate output (GDP) is comprised of the services sector’s contribution”. This is because this sector plays an important role in relation to manufacturing industries, e.g. an efficient services sector helps to reduce production costs which can arise from delivery delays. Figure 4.4 below shows the sector’s contributions to GDP.

In the period 1990 – 2000, Figure 4.4 below shows that the SADC region has a tertiary sector which makes significantly high contributions to GDP. It has the highest contributions compared to the primary and manufacturing sectors. Mauritius and Seychelles had over 60 percent of their GDP coming from the tertiary sector throughout the decade. Five countries had 50 – 60 percent of their GDP originating from this sector throughout the 1990s, viz. Botswana, Lesotho, Namibia, South Africa and Zimbabwe. Three countries had 45 – 50 percent of their GDP coming from the tertiary sector throughout the decade, viz. Malawi, Mozambique and Swaziland, while Tanzania consistently had 43-45 percent of its GDP from the sector.

Figure 4.4: Composition of GDP by the tertiary sector (percentage distribution) (most recent statistical data)



Source: Own Figures derived from SADC (1999:122, 138, 166, 178, 196, 215, 236, 262, 276, 301, 318, 338, 350; 2000:126, 142, 226, 242, 268, 281, 307, 323, 341; 2002a:124, 140, 176, 192, 210, 230, 252, 270, 288, 317, 335, 352, 370); Grobbelaar (2004:23).

While the sector has the highest contributions to GDP, Figure 4.4 also shows that the trend in the contributions has varied between countries. For example, the general trend in the tertiary sector's contributions to GDP in Angola, Malawi and Tanzania has been a continuous fall except in 1997 and 1998, 1997, and 1999 respectively, where rises were recorded. While Zambia experienced annual fluctuations in the first half of the 1990s, it registered its highest contributions, over 50 percent, as well as a continuous rise from 1996. Swaziland experienced a continuous rise from 1995/6, South Africa did so after 1997, while in Namibia this was after 1994 except in 1998 where there was a slight fall. Annual fluctuations were recorded throughout the decade in Botswana and Mozambique, while Lesotho and Zimbabwe experienced periods of either a continuous fall or rise throughout the decade.

Table A-4 (Appendix 3) supports the strength of the tertiary sector within the region. After agriculture, the sector is the second largest employer, absorbing an average of 21 percent of the total labour force. The largest absorption capacity is in Mauritius, i.e. over 50 percent, with Mozambique showing a stagnant and low labour absorption capacity, i.e. 9 percent. Over the years and across the region, the employment levels of the sector have been steadily growing, although slowly, showing an indication of an overall steady expansion of the sector and its labour-absorption capacity. However, Botswana tends to be experiencing a steady fall in employment levels, while Lesotho, Mozambique and Zambia tend to have stagnant employment levels in the sector. In Namibia, the labour absorption capacity of the sector is high but this fluctuates greatly.

4.2.4 Implications of the economic sectors for industrial development

The extent to which a country or the region depends on any of the three sectors has a significant bearing on industrial development, because that particular sector becomes the driving force behind industrialisation. The following sections will explain the possible implications of each sector on industrialisation.

4.2.4.1 Primary sector

It can be argued that the significance of the primary sector in the region implies positive effects on industrial development as this sector and the manufacturing sector are interdependent. For example, the abundance of agricultural resources could enable the region to produce adequate raw material inputs needed by the region's manufacturing sector. The close proximity of the regional countries as well as the implementation of the SADC Trade Protocol (to be discussed in Section

7.6), would enable those countries which are less endowed with agricultural resources to easily import from other regional countries the raw material inputs needed in their manufacturing industries. The agricultural sector could also serve as a domestic market for agricultural related manufactured products from the manufacturing sector which save as inputs in the agricultural sector. This would therefore create opportunities for backward and forward linkages between the agricultural sector and the manufacturing sector, and such linkages are necessary to propel industrial development. The importance of such linkages can be seen in the experience of Taiwan (see Section 3.2.4.1.4) where the linkages between the agricultural sector and the processing industry and other raw material based industries provided substantial support for industrialisation.

While the agricultural sector is the biggest employer (see Table A-4, Appendix 3), on average, this sector pays the lowest wage levels, after the construction industry (see Table A-5, Appendix 3). Notable also is that the bulk of the population dependent on the agricultural sector in the region engage in peasant farming which does not afford them high levels of disposable income. Therefore, while the sector's high employment figures offer the biggest potential market to the manufacturing sector, it should be noted that the low wage levels negatively affect the ability of this potential market to purchase, thus negatively affecting effective demand on the manufacturing sector. This weak domestic demand would have limitations on output in the manufacturing sector such that local investors may not be easily motivated to reinvest in the domestic market whilst foreign investors could decide to invest more elsewhere where there is more market potential.

The region is richly endowed with mineral resources such that for most countries, the mining sector continues to be a key sector for foreign currency earnings. The abundance in mineral deposits becomes an attraction for investors interested in the mining sector. SADC's vibrant mining sector has the potential to become a regional market for mining equipment production as well as a supplier for inputs needed in mining equipment production. Therefore, this would create backward and forward linkages between the mining sector and the mining equipment producing industries, which could attract or give more confidence in investment in mining equipment production. The significance of such linkages cannot be overlooked as they have a bearing on the volume of output, production costs, production efficiency, delivery of both inputs and end products, as well as the overall performance of both the mining sector and the mining equipment producing industry. Sound linkages in this regard would therefore help to propel 'a mining sector driven industrialisation process'.

Therefore, from the discussions above, it can be seen that the potential exists for the SADC region to utilise resource-intensive industries to industrialise. Through the creation of backward and forward linkages between the primary sector and manufacturing sector, this could propel industrial development as each sector would serve as a market to the other. However, it has to be noted that the extent to which these backward and forward linkages can be formed, maintained, strengthened, and become effective to propel industrialisation forward, depends on the stability of the primary sector. Instability in this sector can arise due to persistent droughts, floods, unplanned and ill planned land reform programmes, and the closure of mines resulting from depleted underground mineral deposits or poor world prices for minerals. Over the years, the primary sector within SADC has often suffered from the above disturbances, thus threatening the opportunities and potentials which exist in the region for cohesive backward and forward linkages necessary for further industrial development.

4.2.4.2 Manufacturing sector

From the statistics and discussion presented in Section 4.2.2.1, it can be argued that the SADC region has managed to create a manufacturing or industrial base. With the aid of an appropriate and properly implemented industrial policy and a conducive investment environment, this industrial base could be used to propel the region to higher levels of industrial development.

However, with in the majority of the countries' the manufacturing sector contributing less than 20 percent of GDP (see Section 4.2.2), the region still has a small manufacturing/or industrial base upon which to build and propel industrial development. Therefore, if foreign investors are to consider the existing manufacturing/or industrial base as the main locational factor in their investment decisions, the region would be found wanting, thus reducing the chances to attract FDI to promote industrialisation.

Since the size of employment in the Industry sector (in which the manufacturing sector is included) is small and has been growing very slowly over the years in all countries (see Table A-4, Appendix 3), the sector cannot adequately create its own demand. While the average wage levels in the sector are highest compared to all other sectors in the economy (see Table A-5, Appendix 3), the overall per capita income within SADC countries is still low³, thereby reducing

³ In 2001, the D. R. C. had the lowest per capita income, i.e. US\$80 followed by Malawi and Mozambique with US\$160 and US\$210 respectively. Tanzania, Zambia, Zimbabwe, Angola and Lesotho had per capita incomes of US\$270, US\$320, US\$480, US\$500 and US\$530, respectively. Mauritius had the highest per capita income, i.e. US\$3

effective demand needed to boost production in the manufacturing sector. Therefore, there is a need to expand the manufacturing sector, as well as to develop and support other sectors in the economy, so as to boost effective domestic demand and subsequently creating the backward and forward linkages necessary to promote industrialisation.

The differences in the individual countries' manufacturing sector's contributions to GDP, as shown in Figure 4.2, imply significant differences in the strength of the individual countries' manufacturing/or industrial base. This, together with the significant variations in the individual countries' annual growth rate of manufacturing value added (to be discussed in Section 6.3), as well as the unequal distribution of resources between the regional countries, create unequal environments and so unequal attraction of either regional or foreign investors. This would open the region to possible uneven industrial development, as investors would tend to favour countries with already established and strong industrial bases, have higher comparative factor intensity, locational and cost advantages, and the potential for economies of scale. This could mean polarised industrial location with some countries industrialising faster than others, and thus, the region could continue to experience uneven industrial development.

4.2.4.3 Tertiary sector

A strong tertiary sector is key to industrial development as it renders the necessary support to industrialisation initiatives. From the statistics available and presented in Section 4.2.3, it can be inferred that the significantly high contributions of the tertiary sector to GDP reflects the presence of relatively strong and up-to-date tertiary industries capable of rendering business and social services necessary and relevant to foster industrial development within the region. The presence of such a services sector also helps to attract FDI as it guarantees support to industries. A strong services sector also has implications for infrastructure development, which as discussed in Section 2.4.1.3, facilitates and integrates economic activities and is also necessary for the efficient and sufficient utilisation of the country's physical capital. The implications of the service sector for infrastructure development will be discussed in Section 4.4.

830, followed by Botswana and South Africa with US\$3 100 and US\$2 820, respectively. Namibia had per capita income of US\$1 960, while Swaziland had US\$1 300 (World Bank, 2003a:14-16).

4.3 THE BUSINESS ENVIRONMENT WITHIN SADC

A vibrant private sector is key to promoting growth and expanding opportunities within an economy. However, in order to encourage firms to invest, grow, create more employment, as well as improve their productivity, a conducive business environment is essential. In this regard therefore, it is important to analyse the environment for doing business in a country or a region.

The World Bank (2003a:269) observes that the key indicators often used to assess the business environment are entry regulations, contract enforcement and access to finance. These help to reveal aspects that could either enhance or constrain business investment, productivity, and growth. Table 4.4 shows the performance of the SADC countries in two of these key indicators, i.e. entry regulations and contract enforcement. An assessment will not be done on access to finance due to inadequate statistical data since for most SADC countries, the statistical data are not available.

4.3.1 Entry regulations

The World Bank (2003a:269) notes that the first obstacles entrepreneurs often face when starting a business are the administrative and legal procedures required to register a new firm. Countries differ widely in how they regulate the entry of new business, with some having processes that are straightforward and affordable, while in some countries, the procedures are so burdensome such that some entrepreneurs opt to run their businesses informally.

Table 4.3 shows that the relatively easiest and cheapest country in which to start a new business is South Africa. The numbers of procedures and days to start up business are relatively short, while there is no minimum capita requirement although the cost to register a business is a bit high, the 4th highest in the region. It is also important to note that in South Africa, the formal entry and exit regulations for 'new money' investment by foreign institutions are classified as "free". As such, there are no significant restrictions on the entry and exist of firms, while the repatriation of income and capital can be done routinely (World Bank, 2003a:264, 265).

In Zambia, while it relatively faster than in Zimbabwe to start up a business (due to the fewer procedures and shorter start-up duration), it is more expensive to start business there than in Zimbabwe due to the high costs to register the business and the extremely high (the highest in the region) minimum capital requirement. Entry of firms into Zimbabwe is classified as "relatively free" indicating that some registration procedures are required so as to ensure repatriation rights.

However, repatriation of income and capital is classified as “free” and so this can be done routinely (World Bank, 2003a:264, 265). However, due to the unavailability of data, a similar analysis of the entry and exit regulations in Zambia cannot be done, and so cannot be compared to that of Zimbabwe.

Table 4.3: Business environment within the SADC region (as at January 2002)

SADC countries	Entry regulations				Contract enforcement ¹		
	Start-up procedures (number of procedures)	Time to start up a business (number of days ²)	Costs to register a business (% of GNI per capita & amount)	Minimum capital requirement ³ (% of GNI per capita and amount)	Procedures to enforce a contract (number of procedures)	Time to enforce a contract ⁴ (number of days)	Costs to enforce a contract (% of GNI per capita & amount)
Botswana	8	70	16 US\$496	0 US\$0.0	20	77	21 US\$651.0
Lesotho	9	92	68 US\$360.4	20 US\$106.0	..	..	..
Malawi	11	56	94 US\$150.4	0 US\$0.0	12	108	521 US\$833.6
Mozambique	16	214	74 US\$155.4	30 US\$63.0	18	540	10 US\$21.0
South Africa	9	32	7 US\$197.4	0 US\$0.0	18	207	55 US\$1 551
Tanzania	13	37	229 US\$618.3	0 US\$0.0	14	127	4 US\$10.8
Zambia	6	40	43 US\$137.6	151 US\$483.2	16	188	16 US\$51.2
Zimbabwe	10	122	27 US\$129.6	0 US\$0.0	13	197	40 US\$192.0

Source: World Bank (2003a:266-268); Own calculations.

Notes: ¹ = derived from structured surveys answered by attorneys at private firms, considering a step-by-step evolution of a commercial case before local courts in the country's largest city (World Bank, 2003a:269).

² = days needed to complete all the required procedures for legally operating a business (World Bank, 2003a:269).

³ = the amount that the entrepreneur needs to deposit in a bank account to obtain a company registration number (World Bank, 2003a:269).

⁴ = the number of calendar days from the moment a plaintiff files the lawsuit in court and the moment of final determination and, in appropriate cases, payment (World Bank, 2003a:269).

Countries were selected on availability of statistical data.

Amounts in US\$ = Own calculations based on the individual country's 2001 GNI per capital obtained from World Bank (2003a:14 - 16).

While there is no minimum capital requirement and the number of procedures to start up a business in Botswana is reasonable, it takes 70 days to start up a business, and also it is very expensive to register the business. However, it is important to note that in Botswana, the formal entry and exit regulations for 'new money' investment by foreign institutions are classified as "free". As such, just as in South Africa, there are no significant restrictions on the entry and exist of firms, while the repatriation of income and capital can be done routinely (World Bank, 2003a:262, 265).

Table 4.3 shows that Mozambique, Lesotho, and Tanzania tend to have restrictive entry regulations. For example, Mozambique has the largest number of start-up procedures and the longest duration to start up a business, although the minimum capital requirement is low and the costs to register a business are not so high compared to other countries in the region. In Lesotho, it takes over three months to start up a business, while both the registration costs and the minimum capital are high. Tanzania has the second highest number of registration procedures and the highest costs to register a business, although it has no minimum capital requirement and it takes just over a month to start up a business.

4.3.2 Contract enforcement

The World Bank (2003a:269) observes that "contract reinforcement is critical to enable business to engage with new borrowers or customers. Without good contract enforcement, trade and credit will be restricted to a small community of people who have developed relationships through repeated dealings or through the security of assets".

As Table 4.3 shows, the efficiency of contract enforcement is reflected in three indicators; the number of judicial procedures to resolve a dispute, the time it takes to enforce a commercial contract, and the associated costs. Of major concern in terms of the efficiency with which countries in the region enforce contracts are the rather very long durations countries take to enforce the commercial contracts. For example, except for Botswana, it takes no less than three and a half months to enforce a commercial contract. This has serious implications on the productivity and growth of firms as they face delays in business engagements like trading and accessing credit.

Also of concern are the relatively high costs of enforcing a contract, especially in South Africa, Malawi and Botswana, in that order. Where a firm has problems in paying the contract

enforcement costs, these high costs could lengthen further the already long durations to enforce the commercial contracts.

4.3.3 Implications from the business environment indicators

Since the indicators have implication on the ability to attract investment, this also has a bearing on the benefits which a country could derive or miss out on, e.g. technology transfer and therefore opportunities to upgrade and modernise local technological capabilities, improvements in managerial and technical skills and as such improving efficiency in production, as well as assistance in the development of the manufacturing sector. With the key role a vibrant private sector holds in any economy and the increasing role that SADC countries would want the private sector to have in all sectors of the economy (see Section 4.6.2), it is essential for countries to build conducive business environments. This is important because with the implementation of the SADC FTA and the easier movement of capital and labour, a country could lose its industries to other countries with better business environments.

4.4 INFRASTRUCTURAL DEVELOPMENT

Infrastructure has a significant impact on industrial development as it provides the much-needed support for industries. As shown in Section 2.4.1.3, infrastructure facilitates and integrates economic activities, and is also necessary for the efficient and effective utilisation of the nation's physical capital. It also has a significant impact on the attractiveness of a country or a region as an investment destination. The impact of infrastructural development is often felt through its effects on costs, efficiency, output levels, and the viability of firms; thus making infrastructure a critical factor for investors in their decisions to locate firms. In this regard therefore, it is important to analyse the infrastructure within SADC and its potential impact on industrial development and the investment environment of the region.

As evidenced by the significantly high contribution of the tertiary sector towards GDP (see Figure 4.4 in Section 4.2.3), SADC countries are service sector driven economies. By analysing the contributions of specific service industries to GDP, one can gain insight into the strength and vibrancy of that industry. A high percentage contribution to GDP by a service industry would not only depict a strong and vibrant activity, but will also imply a strong and sound infrastructure related to the provision of that service.

4.4.1 The industrial infrastructure

As already noted in Section 4.2.2, the region has to some extent developed a manufacturing or industrial base although the strength of such a base differs between countries. It can therefore be argued that the presence of some kind of an industrial base within the region can contribute towards creating an attractive investment environment, as investors would have a basic industrial infrastructure to use. The current industrial base would thus form a basis upon which to launch higher levels of industrial development, with the industrialisation experiences of Taiwan and South Korea serving as lessons that the already existing industries and industrial developments should be built upon in order to facilitate growth and attaining a more diversified national development-oriented move.

The concentration of manufacturing activity establishments helps to show the extent to which a country has developed its industrial infrastructure. However, it is important to note that an increase or growth in manufacturing establishments does not necessarily translate into an increase in the share of the manufacturing sector to GDP (e.g. the case of Botswana). This is not surprising as manufacturing establishments could be grossly underutilised. Table 4.4 below shows the distribution of manufacturing activities within the SADC by showing the number of manufacturing establishments in each country.

Table 4.4: Distribution of manufacturing activities within the SADC region (1980, 1990, 1999)

Selected SADC countries	Number of manufacturing establishments up to the most recent year		
	1980	1990	1999
Botswana	184	310	913
Lesotho	46	688	258
Malawi	116	86	102
Mauritius	529	1 070	927
Mozambique	311	320	1 951
South Africa	18 640	23 612	n/a
Swaziland	131	128	131
Tanzania	705	883	n/a
Zambia	510	434	591
Zimbabwe	1 312	1 020	966

Source: Table derived from Hess (2004:165); United Nations Industrial Development Organisation (2003b:174, 469).

Notes: Countries and years were selected on availability and completeness of statistical data.
n/a = statistical data not available.
Statistical data for 2000 were only available for Botswana and Mozambique. They each had 1 183 and 2 105 manufacturing establishments respectively (UNIDO, 2003b:174, 469).

The largest concentration of manufacturing activities is in South Africa. Zimbabwe and Mauritius also have a high concentration, but at a much lesser extent than South Africa, as the annual total number of their manufacturing establishments put together is less than South Africa's. Therefore, with the highest number of manufacturing establishments, South Africa shows a significantly high level of industrial infrastructure development, posing a significant gap between itself and the rest of SADC.

With such a high number of industrial establishments in South Africa and Mauritius, it becomes logical for these countries to be among the three SADC countries which have over 20 percent of their GDP originating from the manufacturing, as already shown in Section 4.2.2.1. While Zimbabwe also has a high number of industrial establishments, the fact that manufacturing sector contribution to GDP has been falling after 1994 (see Section 4.2.2.1), means that despite high levels of industrial concentration, manufacturing performance has been falling⁴.

The existence of a large number of manufacturing establishments/ or a high concentration of manufacturing activities within a country implies higher levels of infrastructure development and commercial services as these are needed to support the manufacturing activities. In this regard therefore, it could be deduced that South Africa, Mauritius and Zimbabwe already have very sound industrial infrastructures and commercial services, with South Africa leading the way.

However, a high concentration of industries within an area or region leads to agglomeration effects/factors, which in turn lead to a further attraction and concentration of industries in that area or region as the agglomeration factors are part of locational advantages (see Section 2.2.6). Therefore, with the high industrial concentration in South Africa, and to a lesser extent Mauritius and Zimbabwe, it could be argued that these countries have to date developed agglomeration factors capable of attracting in more industries with the full implementation of the SADC FTA. Also to note is that, the industrial infrastructure has a bearing on the size of the market or demand, with high industrial concentrated regions displaying bigger markets. Since markets influence locational decisions (see Section 2.2.5), South Africa, Mauritius and Zimbabwe would be favourable investment destinations, *ceteris paribus*, as the sales potential is sufficiently large enough to induce the location. With reference to Porter's "diamond" framework, industrial infrastructure is a necessary demand condition to determine whether or not to it is profitable for

⁴ An analysis of the performance of the manufacturing sector within the SADC region will be done in Chapter Six of this thesis.

business to locate within a given area (see Section 2.3.1.1). Therefore, with high industrial concentration in South Africa, Mauritius and Zimbabwe, these countries present more favourable investment environments. However, since all this has industrial polarisation effects, SADC has made efforts that in the current initiatives to develop the SADC industrial policy and strategies⁵, serious attention is given to addressing the issue of polarisation of industries.

4.4.2 The financial infrastructure

Table 4.5 shows the percentage contributions of the financial sector to GDP in some of the SADC countries. An annual average of 10 – 18 percent of GDP originates from this sector in Botswana, Mauritius, South Africa and Zimbabwe. While all countries in the region have developed financial infrastructures, SADC Industry and Trade (1998:11, 18, 27, 36) notes that it is countries like South Africa, Zimbabwe, Mauritius and Botswana, who with their relatively strong, stable and modernised financial systems, offer the region's sound financial infrastructure.

Table 4.5: Percentage contribution of financial infrastructures to GDP

Selected SADC countries	Period up to the most recent year for which data is available							
	1993	1994	1995	1996	1997	1998	1999	2000
Botswana	9.28	9.76	10.19	10.05	10.06	9.94	11.36	10.91
Malawi	n/a	8.27	7.97	7.31	7.49	7.43	7.93	7.95
Mauritius	12.13	10.21	10.80	10.98	11.25	16.00	17.20	18.08
Namibia	7.50	7.09	7.01	7.26	7.42	8.30	3.16	3.23
South Africa	15.14	15.19	15.29	15.32	15.44	15.79	17.12	17.41
Swaziland	7.16	7.09	6.96	7.27	7.39	7.79	7.44	7.48
Tanzania	8.24	8.34	7.79	7.48	8.08	8.30	8.20	8.10
Zimbabwe	11.04	11.05	11.45	11.49	10.19	10.57	10.35	n/a

Source: Own calculations from SADC (1999:138, 301; 2000:142, 242, 281, 307, 323; 2002a:140, 192, 210, 252, 270, 286, 317, 335, 370); Mutambara (2001:265, 266, 267, 268, 269).

Notes: Countries and period were selected on availability and completeness of statistical data. Statistical data for financial infrastructure includes Banks, Insurance, Real estate, and Business services.
n/a = Statistical data not available.

The financial system in the region continues to improve as other countries improve their financial infrastructures. For example, the financial system in Malawi is fast expanding, while Namibia now has a well-developed financial sector which is closely linked to South Africa. Tanzania and

⁵ The SADC industrial policy and strategies will be discussed in Chapter Seven of this thesis.

Zambia have liberalised their financial institutions and development funds are being made available, while Swaziland now has a relatively developed financial sector sufficiently tailored to provide investment finance (SADC Industry and Trade, 1998:15, 19, 25, 31, 34). The existence of several stock exchanges⁶ in the region is also of benefit as investors can have insight on the viability of industries within individual countries.

A strong, modernised and efficient financial system is crucial for industrial development because it boosts investor confidence. Any industrialisation programme involves huge sums of money and investors require easy and quick access to funds in order to reduce production costs. Therefore, the ease and efficiency with which the financial system handles monetary transactions could determine the size of investment into a country or region. A sound financial system thus becomes a very strong locational factor, because investors are always concerned about the safety of the funds they keep in the host country after repatriating profits. They are also concerned about the ease with which they will be able to effect international transaction with the main/ or parent company back home for the benefit of the subsidiaries and operations in the host country. Also to note is that, a sound financial infrastructure or system would form an appropriate component of the support and related industries in the Porter's "diamond" framework (see Section 2.3.1.2).

A huge disparity exists between the SADC countries in terms of the infrastructure in the financial system. Few of the countries have very sound financial infrastructures equipped with state-of-the-art transaction equipment and skills to match international standards in expediting both domestic and international monetary transactions. This invariably creates a situation where investors have more confidence in locating their investments in some countries than others; with domestic investors relocating into countries where they feel their investments will be safer. This could result in the industrial location of the more beneficial and long-term investments in the countries with sound financial systems, thereby speeding up industrialisation in such countries. Those countries with less efficient and less up to date financial infrastructures will tend to attract footloose and short-term investments, which in most cases do not contribute much to industrialisation. This would mean that the region could continue to experience unequal industrial development, widening the gap between the region's rich and poor countries.

⁶ Stock exchanges have been established in the following countries: Botswana, Malawi in 1994, Mauritius in 1989, Namibia in 1992, South Africa, Tanzania, Zambia in 1994, and Zimbabwe. The Johannesburg Stock Exchange is the largest in the region followed by the Zimbabwe Stock Exchange (SADC Industry and Trade, 1998:11, 15, 19, 27, 31, 34, 36).

4.4.3 Transport and communication network

In order to support the current industrial base as well as to improve on the investment climate, a community requires a transport and communication system which is adequate in terms of capacity, condition, service standards and efficiency. On a region level, through the SADC transport and communication co-ordinating unit (SATCC), SADC continues to design and implement programmes geared towards maintaining and upgrading the region's road and rail networks, with 1999 seeing the completion of some of SATCC's important projects, while other projects are still underway⁷.

In the SADC region there are a growing number of development corridors⁸, which apart from being regarded as regions with investment potential, have the potential to facilitate transport and communication networks within the region. Since the implementation of the SADC FTA would increase traffic due to the easier accessibility of countries, this would promote more and better utilisation of these corridors as transport and communication networks.

The ultimate effects of the SADC initiatives as well as the individual countries' will be to boost traffic and capacity, improved links, reduced transport and communication costs, and improved transport reliability and efficiency within individual countries as well as between countries. This would help to reduce transport-related investment risks, thereby helping the region to provide the much-needed support to the current industrial base as well as to build a favourable investment climate. It can also be argued that while resources are unevenly distributed between countries, polarised location on the basis of availability of resources could be reduced as firms could locate in countries less endowed with resources but offering other unique advantages, and still access the needed resources from the resource-rich countries through an improved transport system. Also polarised industrial location on the basis of market availability could be reduced as industries could still locate in countries with a limited domestic market but has other advantages,

⁷ Some of these include the completion and opening of the Trans-Kalahari international highway, the re-opening the Sena railway line, and the completion of the Maputo Development, while projects underway included building and rehabilitating the road and rail links along the corridor leading to ports of Dar es Salaam and Maputo and upgrading the Tanzania-Zambia Railway Authority (TAZARA). The rail network is now extensive with railway lines interconnected to form the SADC IRN. Efforts have also been made to upgrade the seaport facilities so as to improve efficiency and capacity utilisation at such ports (Mutambara, 2001:128, 131, 133).

⁸The well-known ones are Maputo Development Corridor, the Tazara Development Corridor and the Walvis Bay Development Corridor. Other linkages within the region include the Dar es Salaam Corridor (this is the Tanzania – Burundi – D. R. C. and Rwanda corridor, which is an important east-west route for transit traffic between the coast and the hinterland), Tanzania – Malawi –Zambia – Zimbabwe, D. R. C. and Angola Corridor, the Trans-Capriivi Corridor to Zambia, the Trans-Kalahari Highway, and the Nacala Corridor (Sowman, *et al*, date unknown:89-92, 94). These inter country transport corridors also form regions with investment potential in rail and road routes.

and still access the required markets in other countries more easily through the improved transport and communication infrastructures. All this is consistent with the traditional theory of industrial location as discussed in Section 2.2.2.

Also to note is that, while increased investment in transport and communication infrastructure programmes and projects have to be encouraged, such infrastructure investment has to be both in the rural and urban sectors. This would serve to narrow the infrastructure and development gap between the two sectors as well as help to create conducive and attractive investment in the rural areas. Therefore, placing equal importance on infrastructural development of both the rural and urban sectors would enable a country to embark on a more diversified national development programme. This is a lesson SADC could learn from the experiences of the East Asian NICs, especially Taiwan (see Section 3.4.2), as it is often the case in most developing countries that infrastructure development is normally focussed on the urban sector.

The importance of providing adequate and efficient infrastructure of transport and communication is a lesson which SADC could learn from the experiences of the East Asian NICs (see Section 3.4.2). Adequate transport and communication infrastructure helped to facilitate successful industrialisation as this reduced market imperfections, non-tariff barriers, and disruptions on the movement of productive resources and end products.

4.4.3.1 Road transport

The region has an extensive road network, but some authors⁹ have observed a number of these networks are in unsatisfactory conditions, with some of them increasingly deteriorating at alarming rates. Evidence of the unsatisfactory conditions of the road network in the region can be seen in the Table 4.6 below where the percentage of roads which are paved in each country is shown.

Within SADC, the road network is a significant communication network structure, and so it becomes key to industrial performance. Paved roads are all weather and reliable, facilitate trade, and reduce transport costs and delays, thus an effective support to industries. However, the general current volume of such roads, as shown by the percentage of paved primary roads in the region (see Table 4.6), is very inadequate. Mauritius has the best road conditions in the region

⁹ These include Sowman, *et al* (date unknown:47, 50-1, 59-60, 68-69), SADC (2002a:58), Mutambara (2001:130, 132).

with over 93 percent of its roads paved since 1991, going up to 96 percent by 1999. Botswana ranks second best followed by Zimbabwe, with 55 percent and 47.4 percent, respectively by 1999. For the rest of the region, 20 percent or less of total roads are paved, with Tanzania having the least volume of paved roads.

Table 4.6: Paved primary roads within SADC (1991 – 1999^a)

Selected SADC countries	Percentage (%) of roads that are paved in selected years up to the most recent year for which data is available									Total road network (km)	% in good condition
	1991	1992	1993	1994	1995	1996	1997	1998	1999	1995 to 2000	1989 ^b
Angola	n/a	25.0	25.0	25.0	25.0	25.0	25.0	25.0	10.4	51 429	n/a
Botswana	34.0	19.9	21.1	22.2	48.0	52.0	54.0	56.0	55.0	10 217	94
Lesotho	17.0	16.0	15.0	15.0	17.9	17.9	16.8	17.3	18.3	5 940	53
Malawi	17.0	17.0	18.0	18.0	20.0	20.0	19.0	n/a	18.5	28 400	56
Mauritius	93.0	93.0	93.0	93.0	93.0	95.0	95.0	96.0	96.0	1 926	95
Mozambique	17.2	17.5	17.8	18.2	18.6	18.7	18.7	18.7	18.7	30 400	19
Namibia	10.9	10.9	7.3	7.9	7.9	11.4	13.2	13.5	13.6	66 467	n/a
South Africa	n/a	n/a	n/a	n/a	41.5	19.7	19.7	19.7	20.3	362 099	n/a
Tanzania	37.0	37.0	4.2	4.2	4.2	4.2	4.2	4.2	4.2	88 200	35
Zimbabwe	15.0	16.0	17.0	54.0	48.0	47.4	47.4	47.0	47.4	18 338	39
Average¹	19.8	20.6	14.6	14.7	19.3	16.7	16.7	16.4	14.9	663 416	41

Source: Own Table derived from World Bank (2003b:253; 2002a:253; 2003a:290-292; 2002b:308-310).

Notes: ^a = most recent year for which statistical data is available from the most recent source available.
n/a = statistical data not available.
Paved roads = those that have been sealed with asphalt or similar road-binding material as a ratio to total roads in the country (World Bank, 2003b:258).
^b = most recent year for which statistical data is available from the most recent publication.
¹ = does not include Botswana, Mauritius and Zimbabwe.
Countries were selected on availability of statistical data.

While the most recent available statistical data on the percentage of roads in good condition is very old (Table 4.6, column 12), some authors, as already mentioned observe that a number of road networks are in unsatisfactory conditions, with some of them increasingly deteriorating at alarming rates. Since the condition of roads has implications on their reliability, ability to reduce transport delays and costs; industry would feel the effects of poor road conditions on its performance and utilisation of installed industrial capacity. It also has effects on the investment attractiveness of the region in general, and in particular those countries with the least road conditions, as transport costs is one of the locational factors as shown in the theory of industrial

location discussed in Section 2.2.2. Therefore, countries with better road conditions, *ceteris paribus*, would present more favourable investment climates and possibly lure investors from those with sub-standard road conditions. Also to note is that, with the implementation of the SADC FTA (to be discussed in Section 7.6), if the current generally poor conditions of the roads continues, it would continue to be a significant non-tariff barrier which would hinder intra-regional trade despite tariff reductions.

As SADC Transport, Communications and Meteorology (1998:3) observes, it is therefore important for SADC countries to continue to “design and carry out major road rehabilitation and reconstruction programmes, especially in those countries where large portions of the road network are not currently in a maintainable state”. It is also important for countries to continue their current efforts¹⁰ in considering encouraging active private sector participation in road network development. In this case, most or all road maintenance, rehabilitation and construction work would be shifted to the private sector, and in so doing improve work quality and lower costs.

4.4.3.2 Railway networks

While the region has an extensive railway network, the conditions for some of them has been deteriorating since track maintenance has been deferred in some countries, e.g. the infrastructure of Zambia Railways, the Nacala Line, Swaziland Railways and Malawi Railways, as observed by SADC Transport, Communications and Meteorology (1998:8).

In order to improve the condition of the railway infrastructure and achieve sustainable commercial viability, governments have taken initiatives¹¹ to invite and encourage private sector participation in railway network development. Governments are encouraging private sector participation by either entering into joint venture partnerships with the private sector or concessioning¹² the railway infrastructure. SADC (2002a:63) observes that active private sector participation is visible in Malawi, Mozambique and Zimbabwe, and as such the efficiency gains

¹⁰ SADC (2002a:58) says that the protocol on Transport, Communication and Meteorology (TCM) and “other on-going reforms define the framework for private sector partnership and participation in infrastructure in the region”.

¹¹ Apart from the protocol on transport, communication and meteorology, the SADC Railway Restructuring Programme is an initiative which SADC has developed so as to increase autonomy of the railways and thereafter increase private sector involvement in the provision, operation and management of the railway systems (SADC, 2002a:61).

¹² The concessionaire will provide the railway services for a specified period, has the responsibility for financing specified new investment, and must transfer the railway infrastructure back to the government on the expiration of the agreement (SADC, 2002a:63).

and benefits resulting from a market-driven rail transport are beginning to be realised. In Zambia, the concessioning of the Zambia Railways is on-going, while for the Tanzania Railway Corporation, Tanzania-Zambia Railway Authority, Swaziland Railways, South African Railways (Spoornet) and the National Railways of Zimbabwe; concessioning is being considered. However, Botswana and Namibia have no plans to privatise their railway networks (SADC, 2002a:63).

4.4.3.3 Telecommunications systems

In terms of telecommunication, impressive progress continues in the adoption of new telecommunication systems as well as legislative reforms so as to provide reliable and affordable telecommunication networks and services. For example, SADC (2002a:64) notes that some of the countries “have adopted new telecommunications policies and legislation which allows liberalised provision of services”, e.g. (i) the privatisation of existing state providers, e.g. Telkom in South Africa and the Post and Telecommunication Corporation in Zimbabwe; and (ii) deregulating the mobile phone sector, leading to considerable investment and access. Also to note is that the region has a comprehensive network of telecommunications systems, linking the various countries. The regional telecommunications network is made up of existing earth satellite stations, earth satellite station projects, existing microwave/fibre optic links, existing troposcatter links and microwave/fibre optic link projects (SADC, 2002a:62).

With such telecommunication infrastructures in place, firms in the less developed parts of the region (the periphery) could access more easily and benefit from information relating to research and development and local innovations from the more developed countries without necessarily relocating. Countries would be able to access more easily information on the existing product markets, their viability and potentials, thus fostering intra-regional trade. The significant improvement in the information network infrastructure is also crucial for lowering information and transaction costs and uncertainties.

4.4.4 Wholesale and retail, hotels and restaurants

The availability of infrastructure to facilitate internal trade as well as tourism also contributes to a country’s investment climate. Wholesale and retail trade infrastructures facilitate both domestic and regional trade, thereby benefiting investors and industries whose major markets are domestic or regional. Tourism aiding infrastructures like hotels and restaurants attract local, regional and foreign tourists, thereby creating additional customers for the manufacturing sector, especially

during the holiday seasons. The availability of hotels and restaurants can also attract investors into the tourism sector.

Since wholesales and retails serve as markets, they help to determine investment location decisions. Therefore, countries with insufficient or weak wholesale and retail infrastructures are often regarded as more risky investment environments because the country's ability and capacity to trade goods locally or regionally is limited. Therefore, investors may be forced to invest in the infrastructure if their products are to reach consumers, thus raising investment costs. Underdeveloped wholesale and retail infrastructures could give foreign investors the impression that the domestic market is weak, thus making the country an unsuitable environment to invest in as the sales potential will not be sufficiently large enough to induce location. Also to note is that, wholesale, retail, hotels and restaurants could serve as 'supporting and related industries' which is one of the attributes of Porter's "diamond" framework (see Section 2.3.1.2). Therefore, where these are strong and highly concentrated, this could lead to higher levels of development as more industries would get attracted to such locations.

While all SADC countries have wholesale and retail trade infrastructures in place, just like all other infrastructures, the strength and vibrancy of the infrastructures vary between countries as shown by the percentage contribution of wholesale and retail to GDP (Table 4.7 below). Tourism promoting infrastructures, hotels and restaurants, also vary between countries, with some of SADC's most prominent tourism destinations, viz. Botswana, Mauritius, South Africa, Tanzania and Zimbabwe, showing significant contributions from hotels and restaurants to GDP (Table 4.7 below). Therefore, as is the case with other infrastructures already discussed, these variations in facilities between countries create different investment climates in countries, with a possible uneven impact on the industrialisation process in the region.

4.4.5 Building and construction

The region continues to devote resources towards the maintenance, construction and upgrading of infrastructure, as evidenced by the building and construction sectors' percentage contributions to GDP in Table 4.7 below. Lesotho registers the highest level, possibly mainly due to its Highlands Water Project. In Mozambique the reconstruction and rehabilitation of the war ravaged infrastructures as well as the damage caused by the 2000 and 2003 floods should see more resources channelled towards building and construction. In Angola, rebuilding the infrastructure damaged by the almost three decade civil war which has just ended should see the country

channelling substantial resources towards building and construction. The severe damages to infrastructure, e.g. roads and bridges, caused by the 2000 and 2003 floods in Zimbabwe, should cause an increase in resources towards building and construction.

Table 4.7: Percentage contribution to GDP by other sectors

Selected SADC countries	Period up to the most recent year for which data is available							
	1993	1994	1995	1996	1997	1998	1999	2000
Angola								
Construction	1.62	0.97	3.40	3.10	4.10	4.80	3.40	n/a
Botswana								
Hotels, trade & restaurants	15.47	15.60	16.31	16.36	16.92	17.24	10.49	10.34
Construction	4.27	9.76	4.20	4.16	4.42	5.06	6.39	6.07
Lesotho								
Wholesale and retail	10.08	10.09	9.89	8.00	8.03	8.12	7.57	7.31
Building and construction	16.79	19.34	24.09	16.95	16.33	15.19	16.04	15.80
Malawi								
Construction	n/a	2.20	1.66	1.87	1.76	2.12	2.25	2.16
Mauritius								
Wholesale and retail	11.46	12.98	13.41	13.37	13.31	12.91	13.20	12.48
Hotels and restaurants	3.70	3.81	3.94	4.32	4.69	5.54	6.04	5.67
Construction	6.04	7.36	6.83	6.71	6.39	5.68	6.03	6.00
Mozambique								
Construction	10.54	11.50	12.22	6.30	6.40	8.87	8.58	n/a
Commerce and services	33.17	36.96	32.57	25.04	24.03	22.18	20.67	n/a
Namibia								
Wholesale and retail	6.16	5.89	5.96	5.90	6.13	6.19	9.45	9.60
Hotels and restaurants	1.25	1.46	1.60	1.45	1.57	1.99	1.72	1.79
Construction	2.71	2.77	2.76	2.87	2.51	1.74	2.49	2.29
South Africa								
Wholesale, retail, hotels*	14.80	15.00	15.52	15.61	15.43	15.47	12.44	12.69
Construction	2.96	2.92	2.88	2.85	2.84	2.84	2.69	2.58
Swaziland								
Hotels, trade and restaurants	8.34	8.84	9.14	9.83	10.40	10.33	10.61	11.04
Construction	2.79	2.79	3.77	3.77	4.64	4.94	5.34	5.85
Tanzania								
Wholesale, retail, hotels*	21.66	21.66	21.72	21.48	21.85	21.82	22.03	22.27
Construction	5.07	5.08	3.99	4.17	4.44	4.75	4.96	5.14
Zimbabwe								
Distribution and hotels	17.01	17.27	18.26	18.37	17.47	17.23	17.44	n/a
Construction	3.29	3.13	2.94	2.94	2.72	2.83	2.79	n/a

Source: Own calculations from SADC (1999:138, 166, 214, 301; 2000:142, 242, 281, 307, 323; 2002a:124, 140, 176, 192, 210, 230, 252, 270, 286, 317, 335, 370); Mutambara (2001:265, 266, 267, 268, 269).

Notes: Countries and period were selected on availability and completeness of statistical data.
n/a = Statistical data not available.
* = includes catering and accommodation.

Devoting resources to building and construction helps the countries to improve their investment environments, as this would help to maintain and upgrade the infrastructures. Domestic investors will be motivated to re-invest within the country as they gain more confidence in the country's ability to provide infrastructure to support their investment, while foreign investment could also be attracted.

4.5 HUMAN CAPITAL RESOURCES

With a population size of 203.1 million people by mid-2001 (World Bank, 2003b:5)¹³, SADC presents abundant labour for either labour-intensive industries or skill-intensive industries. As Table 4.8 shows, over the years, adult literacy has been improving with an average literacy level of 75 percent by 2001.

Table 4.8: Adult literacy rate (% of population 15 years and above) by country

Selected SADC countries	Selected years up to the most recent year for which data is available from the most recent source							
	1990	1993	1995	1997	1998	1999	2000	2001
Botswana	68	68	71	75	76	74	77	78
Dem. Republic of Congo	48	75	66	..	59	60	61	63
Lesotho	88	62	76	82	82	83	83	84
Malawi	52	55	56	58	58	59	60	61
Mauritius	80	82	83	83	84	94	85	85
Mozambique	33	38	40	41	42	43	44	45
Namibia	75	40	61	80	81	81	82	83
Swaziland	72	75	77	77	88	71	80	80
Tanzania	64	66	68	72	74	75	77	76
Zambia	68	76	76	75	76	77	78	79
Zimbabwe	81	84	75	91	87	88	89	89
Average for SADC	66	66	68	73	73	73	74	75
South Africa	81	81	82	84	75	85	85	86

Source: Own calculations from African Development Bank (2002:229; 1999:199; 1998:204; 1997:183); World Bank (2003b:322-323; 2002a:322; 2002c:232-233, 240; 2001a:320; 2000a:272; 2000c:329; 1998:16-18, 33; 1997:341); UNESCO (1999:II-7 – II-8, II-41 – II-44); United Nations (2001:71-73); UNDP (2000:195).

Notes: Countries and years were selected on availability and completeness of statistical data. Average for SADC = Average for the region without South Africa and other countries for which statistical data were not available.

¹³ Own calculations from the most recent statistical data from the most recent source available, i.e. World Bank (2003b:5).

Zimbabwe, South Africa, and Mauritius have over 80 percent literacy levels, while a significant improvement in literacy level was recorded in Namibia where the literacy level rose from 40 percent in 1993 to 80 percent in 1997, after which there has been a continuous rise. Mozambique is a cause for concern with a less than 50 percent literacy level, and this has a bearing on the quality and productivity of its labour. However, despite the low literacy levels, there has been a continuous rise in these levels, rising up to 45 percent by 2001. For the D. R. C., the highest literacy level was in 1993 after which there was a fall. However, from 1998 there has been a continuous rise in the literacy levels, reaching 63 percent by 2001.

While there have been improvements in literacy levels, it is the quality of human resources through education and vocational and technical education, which is key to successful industrial development and attracting FDI inflows. Mbekeani (1999:11-12) observes that, while the cost of labour in southern Africa is low, its quality is still low and there is no efficient supply of skilled labour. The abundance of cheap and unskilled labour force no longer appeals much to foreign investors as they prefer a well-educated, skilled and innovative workforce. This is because highly trained people lead to an increase in production output, efficiency, and adapt to new technologies more easily; thus reducing the MNCs' investment in retraining local labour force to use the imported technology they bring. Investors also regard the presence of skilled labour as a favourable factor for investment location where skill-intensive technologies are involved. Therefore, the region's ability to produce highly skilled manpower which is up to the standard of quality and discipline required by investors, would contribute towards the creation of an attractive investment climate for SADC. It would also present the current industrial base with the appropriate human capital necessary to improve industrial performance.

4.5.1 Human capacity building efforts

Through the SADC Human Resources Development Sector which used to be co-ordinated by Lesotho, the region has taken the initiative to redress human resources development issues by putting in place programmes and projects to address this. For example, the SADC Scholarship and Training Award Programme aims at supporting the training of SADC nationals in the critical areas of the region through financial support for short and long term training courses within and outside the region. The SADC Initiative in Educational Policy Development, Planning and Management programme aims at achieving sustainable educational development in member states. The other programme is the Establishment of Regional Centre of Specialisation for Public Sector Administration and Management (CESPAM). This programme seeks to build the capacity

for regional training institutions to offer education and training programmes in critical and specialised areas so that the region could have an increased pool of qualified people with relevant skills. The programme also offers opportunities for high-level education and training in management skills necessary for improving the performance of SADC public sector management, leading to the creation of a more efficient and investor friendly public sector (SADC, 2000:113, 114).

The already existing manufacturing or industrial base and the private sector have enabled the region to have access to certain modern technologies and to benefit from technical, managerial and entrepreneurial skills from foreign personnel. To some extent, this has enabled the region to develop local technological capabilities, and to some extent developing “created” factor endowments¹⁴ although these factors appear in varying intensities among countries. This is in line with Lall’s (1992:116) observation that entrepreneurial, technical and managerial skills required for industrialisation arise from previous experiences of commerce and industry. The “created” factor endowments would therefore contribute towards creating an attractive environment as they help to reduce investment risks. In this way, SADC has to some extent been rising to the challenge of providing skilled manpower necessary to attract more investment.

However, due to the dynamic nature of economies and the need to perpetually adapt to the new demands of economic development, production structures have to continuously transform and this can be facilitated by continuous investment in both human capital and equipment. Therefore, despite the existing skills within the SADC region resulting from previous and current experiences in commerce and industry, the learning process in entrepreneurial capabilities, technological capabilities and managerial capabilities has to continue through formal vocational and technical education and on-the job-training programmes. This implies adequate funding for education by the government because it is its responsibility to establish the foundation, infrastructure and institutions for capacity building and human resources development. The private sector participation in capacity building should only be seen to complement government efforts and not as a substitute.

¹⁴ “Created” factor endowments are human skills, knowledge, technology and infrastructure. This differs from natural factor endowments which refer to natural resources (Das, 1998:136-137).

4.5.1.1 Funding for education

Table 4.9 below shows that it is only Namibia which consistently maintained over one-fifth of total government expenditure to education. South Africa had around one-fifth of total government expenditure to education, but by the end of the decade, there was a continuous fall of funding, reaching the lowest level in 1999/2000 where only 18.1 percent of total government expenditure was set aside for education. While Zimbabwe started off the 1990s with one-fifth of total government expenditure going to education, this level fell continuously after 1991 to be regained in 1994. Government expenditure going to education once again fell below one-fifth in 1995 and 1999/00. Botswana, Mauritius and Malawi had generally upward trends in government funding for education, but in Mauritius the funding never rose to one-fifth of total government expenditure.

Table 4.9: Investment in education by government (Public expenditure on education as % of total government expenditure) by country (most recent statistical data)

Selected SADC countries	Selected years up to the most recent year for which statistical data are available										
	1980	1985	1990	1991	1992	1993	1994	1995	1996	1998/9	1999/00
Botswana	16.0	15.4	17.0	18.7	17.5	17.6	19.3	20.5	21.8	n/a	n/a
Malawi	8.4	9.6	11.1	12.1	17.4	20.0	18.3	n/a	n/a	24.6	24.6
Mauritius	11.6	9.8	11.8	14.6	15.0	16.2	17.8	16.8	17.4	17.7	13.3
Namibia	n/a	N/a	n/a	23.1	23.2	25.5	27.2	24.6	25.6	n/a	n/a
Seychelles	14.4	21.3	14.8	11.6	14.6	n/a	16.8	16.3	24.1	10.7	n/a
Swaziland	24.6	19.3	19.5	23.0	20.6	17.5	18.3	19.9	18.1	n/a	n/a
Zambia	7.5	13.4	8.7	7.1	7.7	9.2	6.5	7.1	n/a	17.6	17.6
Zimbabwe	15.5	16.0	21.2	22.0	18.8	13.9	20.6	18.5	21.6	22.3	18.2
Average	14.0	15.0	14.9	16.5	16.9	17.1	18.1	17.7	21.4	18.6	18.4
South Africa	n/a	n/a	n/a	n/a	22.1	22.9	21.6	20.5	23.9	22.2	18.1
Other African countries											
Guinea	n/a	13.0	n/a	25.7	25.2	26.0	23.3	27.7	25.6	25.8	25.6
Ghana	17.1	19.0	24.3	n/a	25.0	21.7	19.2	21.4	19.9	n/a	n/a
Morocco	18.5	22.9	26.1	26.3	26.7	25.6	22.6	24.7	24.9	26.1	26.1
The East Asian Newly Developed Countries											
South Korea	23.7	28.2	22.4	n/a	14.8	16.0	17.4	17.5	n/a	n/a	n/a
Singapore	7.3	N/a	18.2	24.9	21.2	23.1	23.5	23.4	n/a	20.0	23.6
Hong Kong	14.6	18.7	17.4	18.1	17.3	17.0	n/a	n/a	n/a	n/a	n/a

Source: Education Foundation (2001:7); Central Statistical Office of Zimbabwe (2000b:50; 2002:50); UNESCO (1999:II-490 – II-496, II-502-503, 505); United Nations (2001:65-66; 1996:66-67; 1995:77-79; 1994:67; 1993:77-78; 1990/91:133-134); UNESCO (2004). World Bank (2001a:327; 2003a:76-78).

Notes: Countries and years were selected on availability of statistical data.
n/a = statistical data not available.

Compared to other African states, the level of funding for education within the region could still be regarded as inadequate (Table 4.9). Increased government expenditure to education is therefore crucial as the current low levels of funding for education would mitigate against the region's human resources/ or capacity building efforts. While funding in some SADC countries compares well with that in the East Asian NICs, there is still need by these countries to devote more resources towards education so as to build human capacity.

Stern's (1991:125) observation that the effectiveness of labour depends on total past investment, further supports the need by the SADC countries to increase investment rates with the view to build up an effective labour force. This observation thus brings concerns on the region in terms of labour effectiveness because during the period under review, most regional countries had, on average, investment rates of less than one-fifth. This thus has implications on the existing quality of labour in the region, as well as its productivity, and should thus motivate SADC countries to increase investment rates in education.

4.5.1.2 Educational enrolments for capacity building

While funding for education is important for capacity building, enrolments in the various levels of education are also important as they also influence the pace at which a country can build its human resources capacity, as well as to depict the educational structure of a country and the suitability of such a structure to industrialisation. Using a sample of SADC countries, Table 4.11 shows the gross enrolment ratios in the three educational levels within the region for the period 1990 – 2000. While the gross enrolment figures do not reflect the quality of the training given, the technical orientation of the courses, or the completion rates in all education levels in general, and in particular those levels and areas relevant to industrialisation, a country's enrolment performance at any level becomes critical in showing the extent to which the country is providing the skills base.

The generally high levels of enrolments at primary school level ensure a labour base with basic literacy. However, some countries like the D. R. C., Tanzania, Zambia and Mozambique, in that order, are still of concern as they have had enrolment figures of less than 100 percent throughout, implying that a significant part of their populations are without any basic education. After 1997, there was a continuous fall in the enrolment ratio in the D. R. C., and this could have been caused by the intensification of the civil war the country has been experiencing. The general trend in Tanzania and Zambia has been a continuous fall in the enrolment ratio and this is of concern.

Table 4.10: Gross enrolment by level of education (% of relevant age group), up to the most recent year for which data is available from the most recent source available

SADC countries	LEVELS OF EDUCATION																							
	Primary								Secondary								Tertiary							
	1990	1992	1994	1996	1997	1998	1999	2000	1990	1992	1994	1996	1997	1998	1999	2000	1990	1992	1994	1996	1997	1998	1999	2000
Botswana	113	114	111	108	108	105	108	108	43	52	55	65	65	77	79	93	3	5	6	6	7	4	4	5
D. R. C.	70	70	72	70	72	46	47	47	22	22	26	30	26	18	n/a	18	2	n/a	2	2 ^a	2	1	n/a	1
Lesotho	112	112	110	108	108	102	104	115	25	26	29	31	31	32	33	33	1	2	2	2	2	2	2	3
Malawi	68	84	134	133	134	n/a	n/a	137	8	9	13	5	17	n/a	42	36	0.6	0.6	0.6	0.6 ^a	1	<0.5	n/a	<0.5
Mauritius	109	107	106	107	107	108	108	109	53	57	60	64	n/a	71	75	77	4	5	6	7	6	7	8	11
Mozambique	67	59	58	62	60	71	85	92	8	7	7	7	7	9	10	12	n/a	0.3	0.4	0.6	1	1	1	1
Swaziland	111	116	118	118	117	117	125	125	44	53	52	54	n/a	56	60	60	4	4	5	6	n/a	5	5	5
Tanzania	70	69	68	66	67	65	63	63	5	5	5	5	6	5	6	6	0.3	0.3	0.4	0.5	1	1	1	1
Zambia	99	99	91	88	89	86	79	78	24	25	27	29	27	27	25	24	2	n/a	2	n/a	3	3	n/a	1
Zimbabwe	116	118	117	113	112	n/a	97	95	50	48	45	49	50	n/a	45	44	5	6	6	7	n/a	n/a	4	4
Average	93.5	94.8	98.5	97.3	97.4	87.5	90.7	96.9	28.2	30.4	31.9	33.9	28.6	36.9	41.7	40.3	2.4	2.9	3.0	3.2	2.9	2.7	3.6	3.3
South Africa	122	127	132	116	133	127	119	111	74	81	91	95 ^a	95	104	90	87	13	14	17	19 ^a	17	17	15	15
Africa	77.7	76.8	79.8	80.7	80.7	n/a	n/a	n/a	30.0	30.8	32.4	33.4	34.0	n/a	n/a	n/a	5.1	5.4	5.7	6.5	6.9	n/a	n/a	n/a
S-S Africa	74.8	73.3	76.2	76.9	76.8	78	n/a	86	22.4	23.1	24.6	25.8	26.2	n/a	n/a	27	3.0	3.3	3.5	3.8	3.9	4	n/a	4
Asia	104	104	104	105	106	n/a	n/a	n/a	46.7	50.0	52.7	56.1	56.9	n/a	n/a	n/a	7.2	7.7	9.0	10.5	11.1	n/a	n/a	n/a
LDCs	98.8	98.5	99.4	101	102	n/a	n/a	n/a	42.2	45.2	47.6	50.9	51.7	n/a	n/a	n/a	7.1	7.5	8.4	9.8	10.3	n/a	n/a	n/a
D. Cs	101	101	102	102	103	n/a	n/a	n/a	93.9	97.0	99.2	99.5	100	n/a	n/a	n/a	44.5	46.9	49.7	51.0	51.6	n/a	n/a	n/a
World	99.2	98.9	99.7	101	102	104	n/a	102	51.8	54.7	57.0	59.4	60.1	60	n/a	67	13.8	14.4	15.6	16.9	17.4	n/a	n/a	22

Source: Own Table derived from UNESCO (1999:II-18 – II-20; II-264, II-270, II-276, II-278, II-280 – II-282, II-286 – 287, II-290 – II-291); ADB (1999:218) World Bank (1998:76-78; 2000b:74-76; 2003a:80-82; 2002b:90-92). UNESCO, Institute for Statistics (2004).

Notes: Countries and years were selected on availability of statistical data.

Gross enrolment = ratio of enrolment, regardless of age, the population of the age group that officially corresponds to the level of education shown (World Bank, 1998:79).

S-S Africa = Sub-Saharan Africa.

S. Africa = South Africa.

LDCs = Less developed countries (Developing countries).

D. Cs = Developed countries.

^a = 1995 figures.

n/a = the statistical data not available.

1999 = reflects statistical data for 1999/2000 as this is the data available.

While Mozambique still had an enrolment ratio of less than 100 percent by 2000, after 1997, the trend has been a continuous rise in this ratio¹⁵. Zimbabwe is also of concern because while it had high enrolment ratios at the beginning of the 1990s, after 1994, there has been a continuous fall in this ratio, reaching the lowest level of 95 percent in 2000.

It is important to ensure high enrolment ratios at primary school level because where a significant part of the population is without basic education; this hampers the creation of a crucial educational background upon which to build secondary school education which in turn is necessary for the building of basic vocational and technical capabilities.

Lall (1992:117) observes that the most critical input for industrial development is secondary education. This is because the operations of easy and low technology activities with which industrialisation starts, and often found within the informal sector as well as the modern small to medium scale enterprises, require higher levels of literacy than primary school and also the basic vocational and technical education and skills introduced at secondary school level. Therefore, high enrolment figures and the inclusion of vocational and technical subjects in secondary education would give the country an opportunity to provide human resources for such levels of industrial activities. It would also provide the country with an opportunity to create a skills base necessary to lay the foundation needed for a country to move away from the initial low technology activities onto a range of basic technical skills and high level technological and managerial activities.

From Table 4.10, while the region on average has been having a gradual and continuous growth in enrolment at the secondary education level, this enrolment ratio of just above 40 percent by 2000 is significantly low. With about 60 percent of the secondary school going age group¹⁶ not receiving any formal secondary school education, this greatly hampers the region's ability to create a human resources base with higher levels of literacy and with basic vocational and technical education and skills. This has several ripple effects¹⁷, e.g. since the informal sector and the modern small-scale sector depend on the vocational and technical education acquired at secondary school level, the significant absence/shortage of such skills would negatively affect the

¹⁵ For Mozambique this corresponds well with the continuous rise in its literacy levels as shown in Table 4.8.

¹⁶ This age group forms the largest part of the population in any country and therefore, a country's ability to educate this age group would have a significant effect on its human resources and its ability to provide industry with an efficient and sufficient supply of skilled labour.

¹⁷ Based on personal experiences in implementing the technical and vocational educational programme at Chinhoyi Technical Teachers College in Zimbabwe in the period 1991 – 1998.

development, growth, sustainability and meaningful contribution of this sector to the economy. Since the informal sector and the modern small-scale sector form a significant part of economic activities in the developing economies, this would have a significant impact on growth. Apart from impacting negatively on the basic human capacity needed in these low level sectors, low enrolment ratios at secondary school level would also have a bearing on the countries' ability to impart higher-level skills at tertiary level, as the secondary school is an input to the tertiary level.

In secondary education enrolment, countries like Tanzania and Mozambique are severely affected with a maximum of 6 percent and 12 percent enrolment ratios, respectively by 2000. Botswana, Mauritius and Swaziland, in that order, have enrolment figures of 60 to 93 percent by 2000, which compares well and in some cases exceeds the average world enrolment ratios. South Africa's enrolment ratios are significantly high and compare very well, *albeit* slightly lower, with those in developed countries. This scenario implies extreme disparities within the region in terms of capacity building at these low but essential levels of technological and vocational skills necessary for higher levels of technological development and competence through either tertiary education or on-the-job-training programmes.

As a country develops industrially, more demanding activities emerge which call for higher levels of learning and technical specialisation in education. Therefore, a country's performance in terms of enrolment in tertiary education in general and in particular, technical and vocational training at tertiary level, becomes critical¹⁸. While the statistical data available (Table 4.10) are gross enrolment figures and do not show the quality of the training at this stage, this gives us an indication of the extent to which regional countries are providing for the diversification and upgrading of technological capabilities necessary to avoid industrial stagnation.

While on average the region has been experiencing a steady rise in enrolment ratios in tertiary education, especially during the first half of the 1990s, the enrolment ratios are extremely low, i.e. an average of 3.3 percent by 2000 (excluding South Africa). Excluding South Africa, the highest ratios are found in Mauritius, whose enrolment ratios grew to 11 percent by 2000, while the ratios of Botswana and Swaziland were at 5 percent by 2000. Therefore, with such extremely low enrolment ratios at the highest level of education, the region would undoubtedly create very

¹⁸ Personal experiences in implementing the technical and vocational educational programme at Chinhoyi Technical Teachers College in Zimbabwe in the period 1991 – 1998.

minimal human capacity to effect technological development. From personal experiences¹⁹, this would adversely affect the region's industrial development efforts because the tertiary level of education is supposed to consolidate and improve on the vocational and technical capabilities initiated and acquired at secondary school level. These are necessary to support and improve on the performance of the small and medium scale industries, which where possible, could expand into large-scale industries. These capabilities are also necessary in providing the existing large-scale industries with a sufficient and efficient wide range of vocational and technical skills, as well as to facilitate the mastery and easier transfer of technology from the MNCs²⁰. Since, the region has extremely low enrolment levels at this level of education, achieving all this is bound to be very limited.

Compared to the rest of the region, Asia, and the average for all developing countries, South Africa's enrolment ratios in tertiary education are high. They compare very well, and in some cases are higher than the world's average ratios, but significantly lower than those in developed countries. Therefore, South Africa has significantly high human capacity, compared to the rest of SADC, to develop local technological capabilities necessary for industrial development. While it would continue to import technology, its ability to effect advanced vocational and technological capabilities would ensure that the imported technology is mastered and transferred with much ease. It would also ensure easier adaptation of the imported technology to local needs as well as to facilitate innovations for domestic consumption and export, mainly to the rest of the region.

4.5.2 Implications for industrial development

The endogenous growth model (see Section 2.4.3.3), the theory of industrial policy (see Section 2.5.2.4), as well as the experiences of the East Asian NICs (see Section 3.4.1), show the importance of investment in human capital as it results in increased labour productivity. A well-educated and highly skilled labour force would make technology transfer by MNCs easier and less costly, thus facilitating local technological capabilities. This would enable the countries to shift from labour-intensive light industries to skill-intensive, high-quality production, as countries would be more able to assimilate and adapt foreign technologies through the highly well educated labour force. Also to note is that technology and technological developments are not static and therefore, as technology gets sophisticated and industrial structures continue to develop, the skills

¹⁹ Based on my personal experiences in implementing the technical and vocational educational programme at Chinhoyi Technical Teachers College in Zimbabwe in the period 1991 – 1998.

²⁰ Comments based on my personal experiences in implementing the technical and vocational educational programme at Chinhoyi Technical Teachers College in Zimbabwe in the period 1991 – 1998.

requirements become more diverse and the range of special skills also widens, thus making advanced technical training more critical. Therefore, the skills acquired could be applied to the ever improving set of production technologies, thus playing a critical role in the long-run growth process.

The informal or small-scale industry is a significant component of developing economies. While this industry may not need much formal technical training, literacy and some familiarity with modern technologies are important. Therefore, investment in education to equip this industry with the relevant technological skills would enable it to make a meaningful contribution to the economy. It would also enable the sector to provide more effective and efficient subcontracting linkages to the modern small-scale industry, which over the years has been evolving within developing countries. The modern small-scale industry involves highly sophisticated operations and in order to sustain, expand and eventually upgrade this industry into the formal large-scale industry, there is a need to expand vocational and high level technical education. This means increased investment in tertiary education so as to provide the industry with inputs of well-trained and quality workers, technicians, managers, engineers and scientists. By raising the level of skills and know-how to that required for the more modern industrial engineering activities, a dynamic sector could be created within the industrial sector and this in turn would facilitate the growth of other sectors as well²¹.

The currently extremely low enrolment ratios at tertiary level imply that the region's capacity and capabilities to build local technological capabilities which are key to industrial development will continue to be greatly limited. This would imply continued dependence on imported technologies, limited transfer of technology from the existing MNCs to the locals as this exercise would be very expensive for the MNCs, limited ability by the locals to choose appropriate technology to benefit the host country, as well as the continued occurrence of white elephants upon foreign investors leaving or relocating. Therefore, from personal experiences²², the tertiary level of education needs critical attention not only in terms of increasing the general enrolment ratios and funding, but also in terms of its orientation towards technical fields which are more directly relevant to industrial skills, e.g. engineering and science, as these would do well to form the region's human capital base for industrialisation. Therefore, this would entail strong participation by industrialists in

²¹ Comments based on personal experiences in implementing the technical and vocational educational programme at Chinhoyi Technical Teachers College in Zimbabwe in the period 1991 – 1998.

²² Based on personal experiences in implementing the technical and vocational educational programme at Chinhoyi Technical Teachers College in Zimbabwe in the period 1991 – 1998.

setting the appropriate curriculum for technical and vocational education²³. This is also a lesson SADC could learn from the experiences of South Korea (see Section 3.2.3.2.2) where heavy investment in education, especially in technical education, was with strong participation of industrialists to ensure an appropriate curriculum for technical training.

There are significant differences in human resources development between countries, and in line with the theory of new economic geography (see Section 2.2.9), this has the potential to lead to uneven industrial development. The economies with highly productive factors of production and better established local technological capabilities would be able to attract more industrial investment leading to increased economic growth and capacity. This would in turn attract additional inflows of private investment including FDI, thus propelling industrialisation faster than in the rest of the region. Therefore, South Africa's better position in technological capabilities could attract foreign investment away from the rest of the region as investors seek for a location with a more efficient and technological aware labour force.

However, on the other hand, South Africa's better position in local technological capabilities could be of benefit to the rest of the region. With the SADC FTA, the rest of the region would be able to access more easily South Africa's technical capacity through imports and use these to improve their local/domestic technical capacities. The SADC FTA could also benefit the rest of the region with the flow of technical and entrepreneurial skills and an influx of capital from South Africa, an experience Taiwan and Hong Kong (see Sections 3.2.4.3 and 3.2.5.4 respectively) had during their industrialisation process. On the part of South Africa, it would benefit by having a wider regional market for its technological complex products which may not be competitive on the world market; while through its cross border investment (to be discussed in Section 5.5.2.1), it would have markets to invest its domestic innovations. Therefore, this availability of a ready market for its innovations and capital products would enable South Africa to continue to innovate and improve on its technological capacity.

However, since SADC continues to face a challenge in developing human resources so as to bring it up to the standard of quality that can drive and sustain industrialisation, this implies an industrial policy to adequately address this. The regional grouping is aware of this challenge and has made proposals on how to address this issue in the proposed SADC industrial policy and

²³ Comments based on personal experiences in implementing the technical and vocational educational programme at Chinhoyi Technical Teachers College in Zimbabwe in the period 1991 – 1998.

strategies currently under discussion. Such proposals as well as those relating to human resources development will be discussed in Chapter Seven.

4.6 INDUSTRIAL DEVELOPMENT STRATEGIES BEING PURSUED

This section gives some insight into the current industrialisation strategies the region is following as well as the industry-related institutions which have been set up to facilitate the functioning of markets and firms.

From as far back as the early 1990s, through the SADC Industry and Trade Sector then coordinated by Tanzania, SADC came up with the Industrial Policies and Strategy programme²⁴ which focussed on industrial development so as to raise production levels within the region. The regional group's continued commitment to pursue industrialisation is shown by its overall industrial development framework since 1990, as well as the current initiatives to develop the SADC industrial policy which is expected to guide the region towards industrial development (this policy will be discussed in more detail in Chapter Seven).

As will be shown in the discussions below, SADC countries have adopted and continue to implement positive national policies and programmes for industrialisation. By realising that key to industrial development is economic stabilisation, active private sector participation, removal of unnecessary impediments to business, providing industrial investment incentives, and protecting private investment through investment guarantees; countries have come up with favourable industrial development policy frameworks.

4.6.1 Current industrial development strategies

4.6.1.1 Market-driven approaches

As Table A-6 (Appendix 3) shows, SADC countries have adopted market-driven approaches to industrial development. Import liberalisation and privatisation of state-owned enterprises and parastatals are initiatives to deregulate the economies. In cases where a large number of sectors are still owned by government, for example in Botswana, efforts are being made to run these sectors commercially.

²⁴ The programme included the following activities: (i) a programme aimed at facilitating, harmonising and improving investment policies and mechanisms; (ii) a framework for implementing Regional Industrial Projects (RIPs); and (iii) a study on the development of the fertiliser industry in the SADC region so as to improve local fertiliser manufacturing facilities (Mutambara, 2001:144).

The market-driven approach to industrialisation has led to the encouragement of active private sector participation in economic activities as evidenced by the attractive investment incentives being offered to investors by governments as well as the investment guarantees which seek to, among other things, protect private investments. Private investment is considered to play a pivotal role in economic development, with both local and foreign investment seen to be significant²⁵. As a result, in most countries, there is no discrimination on incentives to investors as either form of private investment is considered to be essential in injecting additional capital to re-vitalise existing industries as well as to create new industrial activities. However, foreign private investment is considered to be the main source of industrial investment.

By promoting active participation by the private sector, SADC countries are building a strong domestic private sector necessary to facilitate industrial development. The presence of such a sector creates an environment conducive for industrialisation as the sector provides partners to foreign investors interested in joint ventures with local investors. One can argue that the presence of a successful domestic private sector attracts FDI as it (i) acts as an indication of the presence of efficient factors of production within the host country which the foreign investors can utilise; (ii) reflects positively on the level of skills and general technological capabilities and development within the host country which will be of advantage to the foreign investors; and (iii) gives evidence of the extent to which the host country has liberalised its economy thereby attracting those foreign investors who regard this as a key factor in determining their investment location.

Economic theory shows that large welfare gains can only arise from an increase in competition (Lipsey, *et al*, 1999:207-313)²⁶. Therefore, while SADC countries have adopted economic reforms and have embarked on privatising their state-owned enterprises, simply changing ownership from public to private hands does not necessarily guarantee increased welfare gains for the country. For example, where the investment opportunities opened by the wave of privatisation are seized by private investors (domestic or foreign) who in turn form monopolies, the production outcomes would no more be efficient or equitable than those associated with previously state-owned enterprises. This is because a firm with market power could restrict output, raise price and exclude potential competitors. Therefore, to ensure that while privatisation proceeds, monopolistic or oligopolistic tendencies are prevented or minimized, SADC countries need to

²⁵ The extent of private investment in individual countries is discussed in detail in Chapter Five of this thesis.

²⁶ See Part Four of the textbook, i.e. Markets, Pricing and Efficiency.

have in place competition policies with an independent regulator or regulators²⁷. This would have a positive impact on industrial development within the host country because the small and medium-sized enterprises which could be used for technological development at lower and medium levels would have an equitable opportunity to participate in the economy. Also, within the competition framework, broader development priorities can be promoted as well as efficiency in the industrial concerns.

4.6.1.2 Export-oriented industrial development strategies

Table A-6 (Appendix 3) shows that SADC countries are also pursuing export-oriented industrial activities to facilitate industrialisation. Export promoting activities are being fostered through the establishment of EPZs and other export promoting bodies like export promotion councils and institutes of export promotion. Through the additional and more attractive investment incentives offered in the EPZ programme, the countries seek to attract more foreign investment into manufacturing export activities into the EPZ programme.

Since export-oriented industrialisation is an outward looking policy, it creates a more conducive investment environment thereby attracting more investors (local and foreign), leading to more investment capital injections to facilitate industrialisation. An export-led strategy also motivates the expansion of the manufacturing sector leading to industrial development as supporting industries and other sectors would grow so as to meet the needs of the manufacturing sector, with the backward and forward linkages between the manufacturing sector and the rest of the economy strengthening.

However, the success of the export-oriented industrialisation strategy would depend on the availability and growth of the markets (both domestic and foreign) for the manufactured exports (see the experiences of the East Asian NICs in Section 3.4.6). The SADC FTA seeks to create a large market in order to turn the export sector into a dynamic sector capable of facilitating EOI. This means countries would have to fully utilise the SADC FTA as an export destination through increased intra-regional trade. SADC countries would also have to learn to be highly responsive

²⁷ For example, in South Africa, the Competition Act, number 89 of 1998 forms the country's competition policy, with the Competition Commission, Competition Tribunal and the Competition Appeal Court as the independent regulatory institutions to effect the competition policy. In Zambia, the Zambian Competition Law forms the competition policy with the Zambian Competition Commission established in 1997 as the institution to enforce the policy. The Zimbabwean Competition Act, number 7 of 1996, with the amendment introduced in 2001 forms that country's competition policy, while the Industry and Trade Competition Commission together with the Tariff Commission are the regulators. Other countries are still in the process of drafting legislation so as to come up with competition policies (Hartzenberg, 2002:7-12).

to opportunities to export and to take initiatives to diversify market destinations through aggressively marketing products (see the experiences of South Korea and Taiwan in Section 3.4.6). Therefore, while the region has strong trade ties with Europe and North America, it needs to diversify and strengthen its trade ties with East Asian NICs as well as the whole Asian region so as to expand its market to make the export-led industrialisation programme successful. The regional countries would also need to source market niches (within and outside the region) and to meet the demands of such markets, as well as being flexible in meeting changing demand conditions, as learnt from the experiences of Taiwan (see Section 3.2.4.1.2).

4.6.1.3 Import substitution industrial development strategies

While the region has by and large adopted market drive industrialisation strategies, Table A-6 (Appendix 3) also shows that import substitution is still practised in selected industries in some countries. Drawing from the infant industry protection argument (see Section 2.6.4.1) as well as the experiences from the East Asian NICs (see Chapter Three), periods of protection to selected activities could be beneficial. However, this could only lead to sustainable industrial development if the protected industries grow to be efficient, profitable and competitive so as to outgrow the need for continued protection.

For example, in Angola, in order to reduce imports and thus protect local industries, the government institutes punitive duties on products which can be or are being manufactured in the country. The establishment of an industrial base is critical as the country experienced a civil war for almost three decades. Its investment environment is highly risky and so, taking initiatives to create high protective walls so as to reduce imports on products being manufactured or can be manufactured within the country, could enable the country to develop its own local industrial base.

In Lesotho, import substitution is restricted to brick making, pharmaceuticals, candles, beer, beverages, canned foods, bread, and milled products. In Mauritius import substitution is practised in some selected sectors (see Table A-6, Appendix 3). By taking advantage of the infant industry promotion offered by the government to grow and diversify in skill-intensive activities, the small and medium sized enterprises which the country attaches a lot of importance on, could be developed further taking advantage of the country's large base of human capital.

Namibia practices import substitution in some selected sectors. SADC Industry and Trade Sector (1998:23) notes that this would help the country to increase manufacturing value added and to stimulate productivity. It would also help to protect and support the new industries, thus helping the country to achieve its objective of developing small and medium business enterprises. With the current foreign currency problem in Zimbabwe, Gono (2004:4)²⁸ argues that a deliberate import substitution programme is appropriate so as to bridge the foreign currency exchange gap and achieve immense foreign exchange savings. As such, local industries are encouraged to identify niches for import substitution. Cassim, Onyango and van Seventer (2004:9) note that in South Africa, the scope for ISI is limited thus calling for a shift towards EOI. In this regard therefore, protection is to be lowered and this is to be achieved by replacing “formula duties with more specific anti-dumping measures, and supplemented by the gradual downward adjustment of tariffs to pre-determined levels within a 4 to 5 year timeframe”. However, the only exceptions will be those industries that still qualify “for protection at similar levels to those prevailing in more established industries”.

4.6.2 Progress in privatisation of the economies

In showing the progress in the privatisation of economies, it is essential to analyse the size of the transactions. However, such statistical data is not easily available and were not available from the sources used. Therefore data on the number of privatisation transactions by sector (i.e. the number of enterprises privatised) were used, although it should be acknowledged that this kind of data has its own limitations.

Table 4.11 shows the progress which the regional countries are making in privatising the various sectors of their economies. For example, the SADC countries whose privatisation data are available show a general increase in the total number of privatisation transactions of public enterprises in the period 1995 – 2000. An average increase of 61.48% percent was recorded from end of 1995 to end of 2000.

As Table 4.11 shows, privatisation has been effected across most sectors of the economy, i.e. agriculture production and processing, financial, manufacturing, services, trade and others. In all the countries in the table except Angola, there has been a move to increase privatisation in all these sectors as evidenced by the significant increases in the number of privatisation transactions

²⁸ Cited in Chipoyera (2004:4).

Table 4.11: Summary of privatisation of public enterprises within SADC countries (1995- 2000)

Countries	Privatisation transactions by sector by the given year																		Total number of privatisation transactions by		
	Agriculture production and processing			Financial			Manufacturing			Services			Trade			Other					
	1995	1998	2000	1995	1998	2000	1995	1998	2000	1995	1998	2000	1995	1998	2000	1995	1998	2000	1995	1998	2000
Angola	77	9	9	0	n/a	1	102	29	29	11	9	9	73	9	9	6	275	275	269	331	332
D. R. C.	0	20	3	0	5	1	0	13	6	0	21	10	0	1	1	2	2	n/a	2	61*	21
Lesotho	0	n/a	2	1	2	6	1	2	3	3	2	18	0	3	4	0	n/a	n/a	8*	9	33
Malawi	27	28	38	1	3	5	7	12	14	0	2	9	0	n/a	n/a	0	n/a	3	35	45	69
Mozambique	47	74	75	0	2	2	211	243	256	128	132	120	123	122	126	1	6	n/a	510	579	579
South Africa	0	n/a	n/a	3	n/a	n/a	0	3	6	0	3	10	0	n/a	n/a	0	1	n/a	3	7	16
Tanzania	30	77	98	1	1	3	20	69	109	11	24	46	5	17	27	6	10	1	93*	198	284
Zambia	15	69	71	2	6	6	29	41	70	18	66	103	8	20	20	3	50	n/a	75	253*	270
Zimbabwe	0	4	3	2	1	1	0	1	1	0	n/a	1	1	n/a	n/a	0	n/a	n/a	2*	6	6
Total	196	281	299	10	20	25	370	413	494	171	259	326	210	172	187	18	344	279	997	1 489	1 610
S-S Africa	378	655	762	121	120	155	695	826	1062	339	636	781	290	299	333	114	182	445	2 040*	3 165*	3 538

Source: World Bank (1997:276; 2000c:265; 2002a:261; 2003b:261).

Notes: Countries and years were selected on availability of statistical data.

* = The statistical data presented by the source classifying 'privatisation by sectors' do not add up to the 'total number of privatisations'.

S-S Africa = Sub Saharan Africa.

n/a = Statistical data not available.

in each sector in the period 1995-1998. By 2000, some countries continued to experience increases in privatisation transactions while others recorded fewer transactions than in the previous period. In Angola, from 1995 to 1998, there were significant reductions in the number of privatisation transactions across all sectors except in “others”.

In general, most of the privatisation took place in the manufacturing sector as countries tended to record the highest number of privatisation transactions in this sector. Significant improvements in privatising the agriculture production and processing sector as well as the service sector are evidenced by the generally significant increases in the number of privatisation transactions in these sectors by each country between 1995 and 2000. The lowest numbers of privatisation transactions are recorded in the financial sector and this could be explained by the fact that most of the financial institutions in the region are already privately owned.

Mozambique, Tanzania and Zambia, in that order, reflect significant progress in privatisation as shown by their very high numbers of privatisation transactions in each sector. Mozambique recorded the highest number of privatisation transactions in the region showing the seriousness with which it has been pursuing the market-driven economic policies it adopted from as early as 1987, as shown in Table A-6 (Appendix 3). Apart from high transaction figures, Tanzania and Zambia recorded significantly high increases in the number of transactions in all sectors for the period 1995-2000. The Democratic Republic of Congo recorded the highest increase in privatisation transactions, i.e. from 2 transactions by the end of 1995 to 61 transactions by end of 1998, a 2 950 percent increase. However, despite this keen interest in deregulating its economy, its privatisation transaction figures are still low across all sectors.

Zimbabwe shows the least privatisation efforts for the period 1995-2000. This shows that despite having acknowledged the importance of deregulating its economy, as shown in Table A-6 (Appendix 3), the country has not committed itself much to privatising its public enterprises. South Africa and Lesotho, in that order, also show less progress in privatisation of public enterprises.

It is important to analyse the outcome of the privatisation transactions shown in Table 4.11 above, on the ownership and control changes of enterprises. As World Bank (2003b:265) observes, “ownership changes are important in indicating the effect that privatisation transactions may or may not have on the enterprises and in indicating the extent of a government’s willingness and/or

ability to exit from equity participation in commercial activity". Since SADC countries are geared towards opening up their economies and allowing the private sector to play a significant role in the domestic economy, it is interesting to see the extent to which the different governments are actually putting this into practice.

Table A-7 (Appendix 3) shows progress in privatisation through the various ownership and control changes taking place and the forms of transactions being used to effect such changes in some of the SADC countries. Since 1995, in most cases or in general, governments have effected ownership and control changes through the transfer of majority ownership to private shareholders. While the nature of transactions to effect ownership and control changes varied between countries and over the years, the form of transactions mainly used were those that involved selling enterprise shares rather than dissolution or other forms of transactions like debt conversion, leases, management employee buyouts, etc. Transactions that involved total asset sales and liquidations tended to be more frequent in some countries from 1998 to the 2000, but in Malawi, Mozambique and South Africa, total share transactions continued to be the most common nature of transactions to effect ownership and control changes.

While in some of the SADC countries, there was no change in progress in privatisation from end of 2000 to end of 2001, World Bank (2003b:263) shows that there was significant growth in the transfer of majority ownership to private shareholders in some of the countries, viz. Lesotho, Malawi, Mozambique, Tanzania, Zambia and Zimbabwe. In this period, the number of such transfers rose from 11 to 15 in Lesotho, 33 to 39 in Malawi, 461 to 536 in Mozambique, 208 to 241 in Tanzania, 205 to 231 in Zambia, and from 1 to 6 in Zimbabwe.

4.6.3 Institutions in place to support industry

The development of industry-related institutions to facilitate the functioning of markets and firms, as well as the development of capabilities to effectively run such institutions is central to a broad-based industrialisation process. Since firms cannot function as isolated units, these institutions would serve to establish a variety of linkages amongst the firms and also between the firms and the rest of the economy. Where widespread structural deficiencies result in failure to furnish the needed linkages and services, the private sector should be allowed to respond to the market signals to establish institutions, thus remedying the deficiencies. Where deficiencies require government intervention, government should ensure that the institutions set up have autonomous status and specialised skills so that they can operate efficiently.

In line with SADC's focus on industrialisation, individual countries have taken measures to put in place mechanisms and industry-related institutions to promote industrialisation. For example, Table A-8 (Appendix 3) shows that all countries have put in place associations and institutions that provide support and services to industry and trade sectors. The setting up of such institutions and association contributes towards the creation of an investor friendly environment, as potential and existing investors would be afforded all the help and support they need with much ease. A brief explanation of five common institutions found in most of the countries is given below.

Industrial Development Corporations (IDC) are the government's main agents in executing its industrial development programmes. They identify investment opportunities for exploitation by both local and foreign investors and provide developed industrial sites as well as factory buildings. They also offer a range of financing facilities to small, medium and large scale industries to establish and expand viable industrial concerns, as well as giving advice to investors (SADC Industry and Trade Sector, 1998:10, 13, 15, 24, 27, 28).

Investment Promotion Centres²⁹ (IPC) can be regarded as the focal point for implementing national investment policies of countries as they promote, regulate and monitor foreign and local investment by facilitating all aspects of the investment process. For example, a centre provides investment information to potential investors in terms of areas of investment; compliance with requirements, formalities or regulations; feasibility and market studies to assess viability of projects; and partners in or outside the country for joint venture business opportunities. It also advises on benefits from the government package of incentives and how to maximise such benefits, works with local and international financial institutions for the benefit of investors in terms of investment capital, and simplifies and speeds up the processing of investment applications. A centre also consults with the private sector organisations and other interested parties with regards to the investment climate so that better-informed recommendations can be forwarded to government (SADC Industry and Trade Sector, 1998:10, 15, 21, 24, 29; SADC 1999:168, 180, 218-9, 320, 338).

Chambers of Commerce and Industry represent the interests of the business communities on a wide range of industrial and commercial issues and provides advisory services to the industrialists who are their members. The Chambers also act on an advisory role to the government through the

²⁹ In some countries the terms Investment Promotion Agency (IPA), Investment Centre (IC), or Industrial Development and Investment Centre (IDIC) are used (SADC Industry and Trade Sector, 1998:26, 36; SADC, 1999:180, 218, 338).

Ministries or Departments of Industry and Trade (SADC Industry and Trade Sector, 1998:11, 24; SADC, 1999:202). The Confederation of Industries also plays an important role in giving a voice to the private sector (SADC Industry and Trade Sector, 1998:31; SADC, 1999:320).

Development Banks are instrumental in providing funds to promote small to medium sized projects in key areas (SADC Industry and Trade Sector, 1998:18; SADC, 1999:263). Other organisations to augment the Development Bank's efforts in giving support to small, micro and medium enterprises (SMMEs) have also been established³⁰. This support promotes the sound development of a modern, efficient, profitable and competitive SMME sector. Competitive and sustainable SMMEs cannot only create employment opportunities, but also create vertical and horizontal linkages with other industries, thereby promoting the participation of the SMMEs in industrial development projects. Also to note is that small-scale industrial investment, often regarded as high risk and low profit making ventures by large-scale investors, can possibly grow into large-scale industrial operations, thus further promoting industrialisation.

The Export Processing Zone (EPZ) Authorities have been established, e.g. in Malawi, Mauritius, Mozambique, Namibia and Zimbabwe, in order to encourage the expansion of exports and investment in export-oriented industrial activities. The very generous incentives offered by the authorities have succeeded in attracting both local and foreign industrial investment within the EPZ programmes (SADC Industry and Trade Sector, 1998:16, 24). Advisory services for companies in the EPZ aim at improving operational efficiency through technical assistance in modern production and management techniques and this support will help the existing and new EPZ enterprises to reach international standards of competitiveness (SADC, 1999:201; SADC Industry and Trade Sector, 1998:18).

The setting up of these institutions and associations to support potential and existing investors has the potential to promote industrial development as this helps to reduce the frustrations and delays which often force investors to seek alternative investment locations. With the SADC FTA in

³⁰ Some of these include the Small Business Development Corporation in South Africa, the Small Scale Industries Organisation in Zambia, the Indigenous Business Development Centre in Zimbabwe, the Small Enterprise Development Organisation in Malawi, the Small and Medium Industries Development in Mauritius, the Small Industries Development Organisation in Tanzania, and the Basotho Enterprise Development Corporation in Lesotho. Support programmes are provided to meet the needs of the small businesses in terms of finance, business training and entrepreneurial skills development, information and advice, counselling, marketing and technical assistance, leased workshop space and others (SADC Industry and Trade Sector, 1998:13, 15, 18, 27, 34).

place, the much needed support which these institutions could render to industry and commerce could go a long way in improving the industrial investment climate in the region.

However, it is also important to note that while several institutions have been put in place, individual countries should note that proper institutional development and the ability of such institutions to adequately deliver and support industry would depend on availability of trained manpower, good management and adequate funding. This implies the importance of human capacity building as discussed in Section 4.5 above.

4.7 INCOME DISTRIBUTION AND POVERTY WITHIN THE SADC REGION

SADC countries experience acute unequal distribution of income, with most of the income accruing to a very small subgroup of the population (Table 4.12). While countries cannot be adequately compared due to the distinct differences in the most recent years for which statistical data is available (as shown by the survey year), it is however clear that in each country, the richest 20 percent enjoys most of the income (column seven) while the poorest 20 percent enjoy less than 10 percent of income (column five).

Apart from creating social imbalances, such skewed distribution of income has a significant impact on domestic demand as it often leads to insufficient domestic demand. Sections 2.6.5.1 and 6.7.1 show that there is a relationship between insufficient domestic demand and the underutilisation of industrial capacity, and as such, while there is a need to generate more and sufficient income through industrial development, there is also a need to distribute it more equally. Failure to do so would mean that the already established industrial capacities would continue to be underutilised and establishing new ones would not necessarily lead to development. While the implementation of the SADC FTA could create demand as the region opens up and markets become more accessible (See Section 7.6), there is still a need to correct the current skewed distribution of income. Otherwise, the SADC region would continue to look outside itself for effective and sustainable levels of demand for its products.

Table 4.12: Income distribution in selected SADC countries (1993 – 1998)

Selected SADC countries	Survey year ¹	Gini index ²	Percentage share of income held by population groups ³			
			Poorest 10%	Poorest 20%	Richest 10%	Richest 20%
Botswana	1993	63.0	0.7	2.2	56.6	70.3
Lesotho	1995	56.0	0.5	1.4	53.6	70.7
Malawi	1997	50.3	1.9	4.9	42.2	56.1
Mozambique	1996 – 97	39.6	2.5	6.5	31.7	46.5
Namibia	1993	70.7	0.5	1.4	64.5	78.7
South Africa	1995	59.3	0.7	2.0	46.9	66.5
Swaziland	1994	60.9	1.0	2.7	50.2	64.4
Tanzania	1993	38.2	2.8	6.8	30.1	45.5
Zambia	1998	52.6	1.1	3.3	41.0	56.6
Zimbabwe	1995	56.8	1.8	4.6	40.3	55.7

Source: World Bank (2003a:64-66).

Notes: Countries were selected on availability of statistical data.

¹ = year in which the underlying data were collected and is also the most recent year for which data were available from the most recent source available (World Bank, 2003a:67).

² = measure of degree of inequality, i.e. measures the extent to which the distribution of income among individuals/ or households within an economy deviates from perfectly equal distribution. Thus a Gini index of 0 represents perfect equality, while an index of 100 implies perfect inequality (World Bank, 2003a:67).

³ = the share that accrues to subgroups of population (World Bank, 2003a:67).

Section 2.6.5.4 observes that as industrialisation proceeds and national incomes increase, such rising income shifts demand towards products with high-income elasticities of demand and higher import intensities than products with lower income elasticities of demand. When this is coupled with skewed distribution of incomes, as is the case in SADC, this would reduce effective demand for domestic products further. The regional manufacturing sector concentrates mostly in the production of resource- and labour-intensive products and imports most of the more value added products (see Sections 6.4 and 6.5). With skewed income distribution, the rising national income resulting from industrialisation would therefore fail to adequately stimulate the manufacturing industries in which the region has comparative advantages since those with high incomes would resort to importing the high value added products.

Therefore, it has to be noted that the national income increases resulting from industrialisation if accompanied with the redistribution of income, would not only stimulate the current manufacturing industries in which the region has comparative advantages, but would also

stimulate the current industries involved in the production of high-value added manufactured products as these would be motivated to improve their performance so as to meet domestic demand arising from income shifts towards products with high income elasticities of demand as well as to compete with imports. Income redistribution could also motivate the capacity for the region to develop further and respond accordingly to the intra-industry trade potentials within the region.

Coupled with skewed income distribution is the prevalence of poverty in the region as shown in Table 4.13 below. While it is difficult to compare countries due to the distinct differences in the survey years for which statistical data is available, most of the population in the region lives in poverty, with the depth and incidences of such levels of poverty quite high in some of the countries. SADC (2002b:52) notes that approximately 40 percent of the region's population are thus estimated to be living in extreme poverty in terms of the international poverty line of below US\$1 a day.

In terms of the HPI in 1998, South Africa ranks very favourably with an index of 20.2 percent and ranks second after Mauritius in terms of a low index. Mozambique and Malawi show very high levels of deprivation with 50.7 percent and 41.9 percent, respectively. However, if one considers the average HPI of the region, 32.2 percent of the people in the SADC region were living in poverty in 1998.

Such high levels of poverty among the large portions of the population have a bearing on effective demand. The high incidences of severe poverty coupled with acutely skewed distribution of income would have significant implication on the region's ability to create its own demand. Therefore, while the SADCFTA would create a wider market, its ability to absorb local products could continue to be limited unless efforts are put in place to reduce both the unequal distribution of income and poverty.

Porter's "diamond" framework (see Section 2.3.1.1) illustrates that the ability of local demand to absorb products is an important determinant of whether or not it is profitable for industries to locate within a given area. Therefore, while a country or region may experience high-income levels, skewed income distributions and extreme poverty on the majority of the population would weaken this "demand condition", thus preventing the location of would-be-viable industries. Lipsey, *et al* (1999:735, 755) argues that poverty reduction is necessary as it has growth effects,

as poverty stricken people will not be able to develop the skills to provide an attractive labour force. He also argues for active intervention in eliminating poverty because while “economic growth tends to reduce the incidence of poverty, it does not eliminate it.” All this serves to emphasise the importance and urgency with which SADC needs to address the issues of redistribution of income and reducing poverty if it wants to improve its image as an attractive destination for foreign investment.

Table 4.13: Prevalence of poverty within SADC (1993 – 1998)

Selected SADC countries	Survey year ¹	Population below the national poverty line	International poverty line at 1985 prices adjusted for purchasing power parity				Human poverty index (HPI) for SADC, 1998 ^a	
			Population (%) below US\$1 a day	Poverty gap at US\$1 a day (%)	Population (%) below US\$2 a day	Poverty gap at US\$2 a day (%)	Value (%)	Rank within SADC
Botswana	1993	n/a	23.5	7.7	50.1	22.8	28.3	8
Lesotho	1993	49.2	43.1	20.3	65.7	38.1	23.3	10
Malawi	1997-8	65.3	41.7	14.8	76.1	38.3	41.9	3
Mozambique	1996-7	69.4	37.9	12.0	78.4	36.8	50.7	2
Namibia	1993	n/a	34.9	14.0	55.8	30.4	28.6	7
South Africa	1995	n/a	< 2	<0.5	14.5	2.8	20.2	11
Tanzania	1993	41.6	19.9	4.8	59.7	23.0	29.2	6
Zambia	1998	72.9	63.7	32.7	87.4	55.4	37.8	4
Zimbabwe	1995-6	34.9	36.0	9.6	64.2	29.4	30.0	5

Source: Adapted from World Bank (2003a:58-60; 2002b:68-70); SADC (2002b:51, iv); UNDP (2000:169-171).

Notes: Countries were selected on availability and completeness of statistical data.

¹ = year in which the underlying data were collected and is also the most recent year for which data were available from the most recent source available (World Bank, 2003a:61)

Poverty gap = mean shortfall from the poverty line expressed as a percentage of the poverty line. This measure reflects the depth of poverty as well as its incidence (World Bank, 2003a:61).

HPI = measures the extent of deprivation in terms of survival, knowledge and economic provision. Mauritius had the lowest human poverty index, i.e. 11.5 percent. Angola had the highest index, i.e. 54.7, thus ranked highest in terms of population deprivation (SADC, 2002b:iv).

^a = the most recent year for which this data is available

Imani Development (2001a:8, 23) observes that SADC recognises the importance of poverty reduction, such that, one of the key requirements of the proposed SADC industrial policy and strategies is to “generate the level of growth required by the region to raise the standards of living

of all people". As such, the development target set by SADC to achieve a sustainable GDP growth rate of between 6 and 8 percent has as its underlying aim to stimulate rapid improvement of the standard of living and poverty eradication. The importance attached to poverty reduction is also evident in that this forms one of the measurable targets in the proposed regional policy and strategies review mechanism (see Section 7.4.2.6). Masiza (2004:4, 6) also notes the inclusion of measures to eradicate poverty in the proposed SADC industrial policy and strategies and argues that this would be of great benefit to the whole region as the majority of the SADC population experience poverty. However, it is important to note that the successful implementation of such measures is critical as that is what would reduce poverty.

4.8 CONCLUSION

This chapter has attempted to give an economic overview of the SADC countries and the possible implications of their nature on industrial development. This section would thus give a summary of the characteristics of the SADC countries.

A summary of the contributions by the economic sectors to GDP is given in Table 4.14 below. While the primary and tertiary sectors' contributions to GDP are significantly higher than the contribution from the secondary sector, they all have important implications on industrial development within SADC. As learnt from South Korea and Taiwan, industrial expansion can be facilitated through linkages between the different sectors of the economy as the expansion in one industry induces growth in others through backward and forward linkages. Therefore, within SADC countries, with the primary sector supplying raw materials, the secondary sector supplying both intermediate inputs and finished products, and the tertiary sector providing support services, linkages could be formed with both domestic and exporting industries, thus significantly contributing to industrial expansion.

While the region is richly endowed with natural resources, there are significant differences in human resources development between countries as evidenced by differences in investment in education and the level of technological capabilities as evidenced by the current differences in industrial base. This has a bearing on the speeds with which the countries are able to shift from labour-intensive light industries to skill-intensive and high-quality production. This creates an uneven investment climate which could lead to uneven industrial development with investors preferring to locate their industries in those countries with more conducive environments.

Table 4.14: Summary of the key industries in SADC countries

SADC Countries	Contribution to GDP (Annual average % for the 1990s)		
	Primary sector	Secondary sector	Services sector
Angola	14.66	51.00	33.34
Botswana	36.50	11.06	52.44
D. R. C*	18.00	38.00	44.00
Lesotho	12.27	32.93	52.80
Malawi	35.46	16.44	48.11
Mauritius	8.09	30.08	61.84
Mozambique	26.33	28.01	45.66
Namibia	29.91	13.38	56.71
South Africa	13.20	25.72	61.08
Swaziland	12.96	41.56	45.48
Tanzania	40.33	15.95	43.72
Zambia	30.37	25.07	44.56
Zimbabwe	20.63	22.85	56.52

Source: Calculations derived from Figures 4.1 – 4.4.

Notes: * Statistics derived from Naumann (2002:14).

SADC countries have adopted market-driven approaches to industrial development, *albeit* to different levels, and this has led to the encouragement of active private sector participation in economic activities. While the countries encourage both local and foreign private investment, the latter is considered to be the main source for industrial investment. However, if investment is to be beneficial to the region, it has to be supported by well-developed infrastructure, a well-disciplined and trained workforce with the necessary technological absorptive capacity, a competitive and stable investment environment, a competent and efficient bureaucracy, and a state entrepreneurial class capable of deriving and implementing prudent policies

SADC countries are also pursuing export-oriented industrial activities to facilitate industrialisation. Export promoting activities are being fostered through the establishment of EPZs and other export promoting bodies like export promotion councils and institutes of export promotion. In order to have a successful export-based industrial development strategy, SADC countries would have to turn the export sector into a dynamic sector supported by a wide and growing export market.

While the region has by and large adopted market drive industrialisation strategies, import substitution is still practised in selected industries in some countries as the industrialists take advantage of the infant industry promotion offered by the government to grow and diversify in skill-intensive activities. As the industries mature, they would be able to dispense off the protection and meet both local and foreign demands. The infant industries could also form the basic industrial base upon which industrial developments could be built in order to facilitate growth and attaining a more diversified national development-oriented programme.

Resource endowment, infrastructural development, the business environment, availability of markets, as well as government policies towards industrialisation, all help to constitute the investment climate in a country. Due to the significant differences between countries in some of these factors, the SADC region experiences an uneven investment climate. It is therefore important to see how the countries have succeeded in attracting FDI. This analysis will be done in the next chapter.

CHAPTER FIVE

INVESTMENT PATTERNS WITHIN SADC AND IMPLICATIONS FOR INDUSTRIAL DEVELOPMENT

5.1 INTRODUCTION

This chapter gives an overview of the SADC region's investment patterns with relation to the different origins of investment. Analysing the extent to which a country relies on any of these forms of investment is important because investment has a significant impact on current and future industrial development, as shown in the economic growth models (see Sections 2.4).

Section 5.2 will explain how the data used in this chapter was obtained. It is often argued that domestic investment provides for sustainable investment within a country and Section 5.3 thus focusses on this form of investment giving insight into the region's investment rates, the extent of both private and public sector participation, as well as the savings rates by individual countries and how this affects investment. The section also highlights the sectoral distribution of domestic investment and the implications this has on industrial development.

Section 5.4 discusses the region's current investment patterns as they relate to foreign direct investment (FDI) and the possible implications of such investment for industrial development. Section 5.5 examines cross border investment within the region. This is important as this form of investment has a significant bearing on facilitating deeper regional economic integration within SADC through its ability to foster investment interdependence between SADC countries, thus forming closer bonds. With the SADC FTA in place, the region is expected to experience more regional cross border investment and this is bound to impact on industrial operations within the region. Section 5.6 concludes the chapter, and by drawing on statistical data presented in Sections 5.3 and 5.4, a concise comparison of country performance, through ranking, is made.

5.2 DATA COLLECTION

This chapter relies heavily on the availability of a variety of statistical data which was then used to conduct comparative statistical analyses. The data presents empirical evidence through tables that will be used to compare, evaluate, establish trends or contrast countries. Most of the statistical data was collected from secondary sources, viz. statistical tables developed and made available through publications by various organisations like (i) SADC;

(ii) the United Nations; (iii) the African Development Bank (ADB); (iv) the World Bank, (v) the Zimbabwe Investment Centre; (vi) the Central Statistical Offices in the various member states; (vii) the South Africa Reserve Bank; and (viii) the Development Bank of Southern Africa. Online statistical databases like (i) UNCTAD World Investment Directory on-line, an on-line statistical database by UNCTAD, and (ii) World Development Indicators, an on-line statistical database by the World Bank for selected statistical data, were also accessed. Statistical data was also obtained from earlier research conducted by other researchers, e.g. (i) Kolala (2000); (ii) Vickers (2002); (iii) Consumer Unity and Trust Society (2003a); (iv) Visser (2001); (v) Wolfe (2002); and (vii) Cassim (2000). Collecting statistical data from secondary sources was helpful where direct requests to member states, through electronic mail or postal mail, for such statistical data did not yield positive results.

Apart from collecting information from secondary sources, some of the statistical data used in some sections, e.g. Sections 5.3.4, 5.4 and 5.5 was primary data obtained directly from member states through written requests sent through electronic or postal mail, as such data was country specific and was very difficult to find in secondary sources. The responses from members states where the required statistical data were available varied, e.g. in the form of either (i) the provision of the hard copy of the publication produced by the country containing the required statistical data, (ii) faxed copies of the statistical data extracted and compiled by the concerned officer, (iii) compiled statistical data sent in by e-mail, or (iv) being granted permission and directions to access the country's on-line databases and obtain the required statistical data. However, where statistical data could not be obtained directly from some of the member states, secondary sources, where available, would be used, otherwise the country was left out of the sample.

The requests for statistical data for Section 5.3.4 made to the SADC member states were responded to by Zimbabwe, Namibia, Botswana and Malawi. Zimbabwe and Namibia responded by providing hard copies of the publications of their National Accounts, while Botswana and Malawi responded by giving permission and directions to access their online National Accounts databases. The required statistical data for South Africa were obtained from the readily available South Africa Reserve Bank publications, while for Mauritius statistical data were obtained from the country's readily available National Accounts publication as well as the freely available online National Accounts database.

The requests for statistical data for Section 5.4 made to the SADC member states were responded to by only three countries, viz. Namibia, Tanzania and Zimbabwe. The compiled data on the sectoral distribution of FDI from the investment centres in Namibia and Tanzania

were sent in as e-mail attachments and faxes while the investment centre in Zimbabwe responded by giving permission and directions to access the required statistical data from its newly constructed online investment database on its website. Secondary sources were sought in order to present data on the sectoral distribution of FDI in other countries which had not responded to the requests sent out. Statistical data on the sectoral distribution of FDI in Botswana, Mauritius and Mozambique were obtained from UNCTAD World Investment Directory on-line, an on-line statistical database by UNCTAD; while the statistical data for Swaziland was available from the SADC (1999; 2002a) publications. Statistical data for South Africa and Zambia were obtained from earlier research by a number of other researchers.

5.3 AN OVERVIEW OF DOMESTIC INVESTMENT WITHIN SADC AND ITS IMPLICATIONS FOR INDUSTRIAL DEVELOPMENT

Domestic investment, whether public or private, is of great significance because it can provide sustainable investment as well as ensuring the provision of appropriate domestic firms needed as partners for foreign investors. This section will thus analyse this form of investment, public and private sector participation, savings rates, and the investment preference sectors. In each case, the implications for industrial development will be discussed.

5.3.1 Gross domestic investment trends

Gross domestic investment (GDI) comprises the outlays by the public sector and the private sector. It consists of gross fixed capital formation plus net changes in the level of inventories, e.g. improvements in land, dwellings, machinery, and other equipment, etc (World Bank, 2001a:39). Therefore GDI¹ could be used to reflect the level of investment within a country. GDI as a percentage of gross domestic product (GDP) reflects the extent to which a country channels its resources towards investment. Therefore, high levels of GDI as a percentage of GDP would imply high levels of investment by a country.

Table 5.1 shows the GDI:GDP ratios for SADC countries. At the regional level, an average of one-fifth to one-quarter of GDP is channelled towards domestic investment so as to help improve the region's productive capacity. At country level, the channelling of resources towards domestic investment differs greatly between countries, with Lesotho having the

¹ The available sources for GDI statistical data do not show the composition of the investment, i.e. infrastructure, machinery and equipment, mergers and acquisitions. Therefore it is not possible to shed light on the nature of this investment.

Table 5.1: Gross domestic investment and real economic growth in SADC countries (1990-2001)

Countries	Period up the most recent year for which statistical data is available											
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Angola												
GDI:GDP (%)	11.7	12.9	3.6	11.2	16.6	28.1	34.7	25.5	35.5	46.8	35.4	34.0
Growth rate (%)	-0.4	-1.6	1.2	-21	1.4	11.3	11.7	6.6	1.0	2.7	3.0	3.3
Botswana												
GDI:GDP (%)	31.7	30.4	30.4	28.8	26.5	24.6	25.0	28.1	33.5	26.9	17.0	22.0
Growth rate	5.5	8.7	6.3	-0.1	4.2	2.7	6.6	7.1	8.0	4.1	8.1	9.2
The Democratic Republic of Congo												
GDI:GDP (%)	9.1	5.6	6.9	1.8	7.9	9.4	27.9	27.9	20.0	21.6	4.2	5.1
Growth rate (%)	3.0	-12	-10	-13	-3.9	0.7	0.9	-5.7	-5.7	-5.0	1.0	-4.0
Lesotho												
GDI:GDP (%)	53.2	64.7	66.0	54.6	55.5	60.5	58.5	54.0	47.1	43.3	39.5	36.8
Growth rate (%)	6.2	3.8	4.8	3.8	3.4	4.5	10.0	8.0	-5.5	2.0	2.1	2.6
Malawi												
GDI:GDP (%)	19.7	20.2	19.9	15.2	29.1	17.0	11.6	12.2	13.5	14.8	12.5	10.9
Growth rate (%)	4.6	7.2	-8.9	9.6	15.7	4.6	-2.5	6.5	3.1	4.2	2.3	2.8
Mauritius												
GDI:GDP (%)	30.9	28.7	28.9	30.0	30.9	28.8	25.3	27.2	27.6	26.0	25.7	24.4
Growth rate (%)	7.2	4.1	6.2	5.6	3.9	4.7	5.8	5.8	5.3	2.8	8.2	5.4
Mozambique												
GDI:GDP (%)	15.6	16.0	15.6	12.7	19.8	22.8	21.8	20.6	24.2	36.9	39.6	41.6
Growth rate (%)	0.9	1.9	-1.9	17.2	5.7	2.0	6.4	7.9	5.9	7.3	1.5	13.9
Namibia												
GDI:GDP (%)	33.8	19.3	21.6	16.5	21.7	21.7	23.1	20.7	26.4	24.4	24.0	24.5
Growth rate (%)	2.0	8.2	7.1	-1.7	6.4	3.7	2.1	2.6	2.4	4.3	3.9	1.6
South Africa												
GDI:GDP (%)	11.8	11.9	12.0	14.0	15.6	18.2	16.9	16.0	15.4	14.5	14.8	14.7
Growth rate (%)	-0.3	-1.0	-2.1	1.2	3.2	3.1	4.2	2.5	0.6	1.9	3.4	2.2
Swaziland												
GDI:GDP (%)	19.6	19.7	25.3	23.1	21.5	20.0	31.9	20.6	22.4	18.8	19.8	18.6
Growth rate (%)	8.9	2.5	1.3	3.3	3.5	3.0	3.6	3.7	3.0	2.0	2.2	1.5
Tanzania												
GDI:GDP (%)	26.1	26.3	27.2	25.1	24.6	19.8	16.6	14.9	13.8	15.5	17.6	17.0
Growth rate (%)	4.5	5.7	3.5	4.2	3.0	5.1	4.6	3.0	3.8	4.8	5.0	5.1
Zambia												
GDI:GDP (%)	17.3	11.0	11.9	15.0	8.2	16.0	12.8	14.6	16.4	17.6	18.7	20.0
Growth rate (%)	-0.5	0.0	-1.7	6.8	-3.5	-2.3	6.5	3.5	-2.0	2.4	3.0	3.9
Zimbabwe												
GDI:GDP (%)	17.4	19.1	20.2	22.8	23.7	19.7	18.5	18.1	17.1	16.1	12.6	7.8
Growth rate (%)	7.0	5.5	-9.0	1.3	6.8	-0.6	7.3	3.2	1.6	-6.8	-4.1	-8.0
Average for SADC*												
GDI:GDP (%)	22.9	22.0	22.3	20.8	23.2	23.6	25.0	23.1	24.1	24.9	22.8	22.7
Growth rate (%)	3.7	2.5	-0.2	1.3	3.8	3.3	5.2	4.2	1.7	1.5	3.1	3.0

Source: Table derived from World Bank (2001a:25; 2002a:22; 2003b:22); United Nations (2001:133, 135, 137, 141-143, 146-147, 148-149); SADC (2003b:4).

Notes: GDI:GDP is the percentage of GDI to GDP.
The investment rates were from the World Bank publications while the real growth rates were from the United Nations publication as well as SADC Trade, Industry and Investment Review 2003.

* = Own calculations.

highest GDI:GDP ratios in the region. It had ratios of over 53 percent for the period 1990 – 1997, after which there has been a continuous steady decline to 36.8 percent by 2001.

Mauritius, a relatively well developed country in the region has the second highest GDI:GDP ratios in the region, with ratios of over 24 percent throughout the period. However, after 1998, despite the high investment rates, the country has been experiencing a continuous steady fall in the investment rate, reaching the lowest level of 24.4 percent in 2001. On average, Angola has the third highest GDI:GDP ratios in the region. A significant increase in this ratio was experienced, rising from 11.7 percent in 1990 to 34.0 percent in 2001. The significant rise in the investment rate occurred after 1994, and since then the country has been experiencing high investment rates. While Botswana also has high investment rates, ranking fourth in the region, it experienced a steady continuous fall during 1990 – 1995, after which there was a continuous steady rise for the next three years. Its lowest investment rate, i.e. 17 percent, was in 2000.

In Mozambique, investment rates of less than 20 percent were experienced only up to 1994, and after 1997 there was a continuous rise of this rate attaining the highest rate of 41.6 percent in 2001. Zimbabwe experienced a gradual continuous rise in its GDI:GDP ratios in the period 1990 – 1994 after which there has been a continuous gradual fall reaching the lowest rate of 7.8 percent in 2001. The Democratic Republic of Congo has the lowest GDI:GDP ratios in the region, less than 10 percent for most years, except in 1996 – 1999, when the country recorded very high rates, i.e. 20 – 27.9 percent. Despite being the most developed country in the region, South Africa has the second lowest GDI:GDP ratios in the region, always less than 20 percent. It had a continuous rise in these ratios during the period 1990 – 1995, after which there was a continuous fall to 1999, then a small rise thereafter. Zambia has the third lowest investment rates, with such rates always less than 20 percent except in 2001. However, despite the low rates, the country has had a continuous gradual rise in the investment rate since 1997. Tanzania had its highest GDI:GDP ratios in the first half of the 1990s, and a continuous fall in these ratios in the period 1992 – 1998. For the rest of the countries, i.e. Malawi, Namibia and Swaziland, the GDI:GDP ratios have tended to fluctuate over the years with no particular trends observed for long periods of time.

From the above discussion, it can be seen that in some countries the current levels of domestically funded investments are too low to support required levels of economic growth. Therefore, efforts must be made to mobilise resources both internally and externally. ADB (2000:39) therefore argues that for significant increases in the volume of investment, among other things, there is a need for deepening the financial sector reforms in order to mobilise

additional domestic resources. For example, these could include improving the banking infrastructure, restructuring the banking system, developing non-bank financial instruments, and supporting micro-finance initiatives. However, since most countries in the region are low-income countries, there is a limit to which efficient domestic resource mobilisation can generate sufficient resources to finance required rates of investment. As a result, the funds likely to be obtained from improved resource mobilisation are likely to be only modest, given the already low levels of domestic savings/GDP rates, as will be shown in Section 5.3.3. The prospects for increasing the mobilisation of investment resources from external sources through large private capital inflows are also limited for the low-income countries. This is partly due to the smallness of the markets, poor infrastructure, and the often-inadequate skill-base.

However, despite the problems that may be faced in mobilising resources to increase investment rates, it is imperative for the SADC countries to maintain high investment rates as this has a bearing on economic growth through its impact on the rate of capital accumulation², improvements in technology, the state of technical knowledge, and technological progress (see Section 2.4.3.3). This would enable SADC countries to gradually and continually build up industrial structures to facilitate increased worker productivity, industrial efficiency and output, as well as full employment of industrial capacities. Also to note is that the spillovers that may occur in the course of investment could sustain economic growth if a country continuously accumulates inputs that generate the positive externalities (see Section 2.4.3.3). This would imply seeking and financing appropriate investment projects which generate the externalities needed to sustain growth and industrial development, and when attracting and accepting technological investments from foreign investors, host countries should ensure that such investment is relevant and directed towards priority projects that would yield high levels of external economies. On the other hand, improvements in investment rates should also be necessitated by the need to adapt to the new demands of economic developments as countries need to continuously transform/adapt their production structures in line with the evolving demands resulting from economic developments like globalisation and the opening up of world economies (Prebisch (1961:24)³). If the region could develop flexible and adaptable production structures, the implementation of the SADC FTA could help individual countries to produce in line with their comparative advantages, improve inter-industry trade, and also intra-industry trade where such opportunities exist.

² The equipment share of investment has a more than proportionate effect on output growth.

³ Cited in Arndt (1988:220).

It is also important to note that Table 5.1 shows the relationship between real GDP growth and gross domestic investment ratio for the SADC countries. For the period 1990-2001, the table shows that countries with higher investment rates have been growing faster than those with low investment rates. For example, high investment rate-and growth-countries included Mauritius and Botswana, while the low investment rate-and growth-countries included the Democratic Republic of Congo, South Africa, Malawi, Tanzania and Zambia. However, it should also be noted that, while in general, sustained high investment rates lead to better economic performance, a country may fail to translate the high investment rates into stronger economic growth due to low investment productivity. For example, within the SADC region Lesotho has the highest investment rates but its growth rates over the decade have not been exceptionally high. Therefore, as ADB (2000:39) observes, to achieve higher rates of economic growth, a country needs to increase both the volume and productivity of investment.

5.3.2 Gross private and public investment

Table 5.2 below shows that both the private and public sector in the region contributed towards domestic investment. However, of interest is that in general, the private sector took the lead in domestic investment during the period 1990 - 2001. This is evidenced by the higher levels of the region's average gross private investment to GDP ($GP_pI:GDP$) compared to the average gross public investment in relation to GDP ($GP_cI:GDP$) during this period. Economic reforms within SADC have been characterised by a steady decline in public sector investment, as a result of cutting down overall government expenditure, and the reversal of the previously held negative attitudes towards the private sector. This could help to explain the tendency by most countries to rely more on private sector than public sector investment. The extent to which individual countries relied on either type of investment varied as will be discussed below.

It was noted in Section 5.3.1 above that the GDI:GDP ratios for Lesotho are very high. This is due to the extremely high levels of investment originating from the private sector as shown by the high $GP_pI:GDP$ ratios compared to the $GP_cI:GDP$ ratios. In the region, the country therefore shows the highest levels of dependence on the private sector for investment. After 1996 the country experienced a continuous fall in $GP_cI:GDP$ ratios up to 2000 after which there was a rise, *albeit* still lower than the levels before 1998 as well as the $GP_pI:GDP$ ratios. While the country experienced extremely high levels of investment originating from the private sector and showed the highest levels of dependence on the private sector for investment in the region, after 1995, $GP_pI:GDP$ ratios have been on a continuous fall (*albeit*

Table 5.2: Gross public investment (% of GDP) and Gross private investment (% of GDP) by country, 1990-2001

	Period for most recent statistical data											
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Angola												
GP _c I	10.0	2.4	3.5	-8.6	-11.8	-17.2	-26.9	4.7	5.9	12.9	6.3	5.4
GP _p I	1.7	10.5	0.1	19.8	28.4	21.1	21.7	20.8	29.6	33.9	29.1	28.6
Botswana												
GP _c I	n/a	n/a	12.9	12.8	13.0	11.0	11.4	12.4	13.2	13.1	12.3	10.8
GP _p I	n/a	n/a	16.7	14.1	12.6	14.6	13.4	12.5	14.2	14.7	12.2	14.4
The Democratic Republic of Congo												
GP _c I	4.0	2.6	2.8	0.9	0.6	4.4	0.5	0.9	0.1	1.1	0.2	0.1
GP _p I	8.9	3.5	4.3	1.4	7.0	5.3	26.6	27.0	19.9	20.5	4.0	5.0
Lesotho												
GP _c I	n/a	0.0	15.3	14.8	14.5	15.6	19.6	18.4	12.0	8.7	8.1	10.0
GP _p I	n/a	64.7	50.7	39.8	41.0	44.9	38.9	35.5	35.1	34.6	31.4	26.7
Malawi												
GP _c I	8.0	8.3	10.2	8.4	15.1	9.4	6.1	7.1	8.7	10.6	10.0	8.1
GP _p I	8.6	8.7	6.9	4.6	11.6	7.6	5.4	2.7	2.4	2.3	2.6	2.8
Mauritius												
GP _c I	11.4	8.2	8.9	8.5	8.2	8.4	8.6	7.6	6.2	6.3	6.5	6.9
GP _p I	19.2	20.4	19.3	19.3	20.6	18.7	16.4	18.4	18.7	19.1	19.1	16.6
Mozambique												
GP _c I	12.0	11.4	12.8	12.3	14.0	12.0	10.3	12.1	9.8	11.6	13.3	14.0
GP _p I	3.6	4.7	11.7	10.3	16.5	14.6	15.8	12.5	18.6	15.7	16.0	16.2
Namibia												
GP _c I	8.2	6.6	9.9	6.1	5.2	7.1	7.3	8.2	7.9	8.7	8.0	8.3
GP _p I	13.1	8.6	11.7	10.3	16.5	14.6	15.8	12.5	18.6	15.7	16.0	16.2
South Africa												
GP _c I	7.0	6.1	5.2	4.4	4.1	4.3	4.4	4.5	5.4	4.7	4.1	3.6
GP _p I	12.2	11.0	10.4	10.3	11.0	11.6	11.7	11.8	11.2	10.4	10.5	11.9
Swaziland												
GP _c I	7.2	10.6	11.8	9.5	8.6	5.9	5.2	4.9	6.5	7.3	7.5	7.1
GP _p I	11.7	8.2	13.4	13.5	12.9	14.1	26.7	15.7	15.9	11.4	12.3	11.5
Tanzania												
GP _c I	10.5	8.8	9.2	7.5	6.0	3.4	3.5	2.9	3.3	3.1	3.4	3.7
GP _p I	15.3	17.2	17.8	17.4	18.5	16.2	13.0	11.8	10.3	12.3	14.1	13.1
Zambia												
GP _c I	6.2	7.8	6.7	4.5	4.0	5.1	6.0	5.4	11.3	10.6	10.0	11.8
GP _p I	7.2	3.5	8.5	8.5	9.2	10.2	11.3	11.7	11.0	13.7	13.1	13.3
Zimbabwe												
GP _c I	3.4	3.5	3.8	3.7	3.1	2.9	2.3	2.8	1.8	4.1	0.0	1.0
GP _p I	14.8	17.1	18.6	19.9	18.3	21.7	15.7	15.3	15.7	10.8	12.4	6.7
Average for SADC*												
GP _c I	8	6.4	8.7	6.5	6.5	5.6	4.5	7.1	7.1	7.9	6.9	7.0
GP _p I	10.6	14.8	14.6	14.6	17.2	16.6	17.9	16.0	17.0	16.5	14.8	14.1

Source: Table derived from World Bank (2001a:23-24; 2002a:23-24; 2003b:23-24).

Notes: Gross Domestic Investment = Gross Public Investment + Gross Private Investment. However, in some cases, this sum does not add up to GDI, reflected in Table 5.1 above, due to statistical discrepancies (World Bank, 2001a:39).

GP_cI = Gross public investment as a percentage of GDP.

GP_pI = Gross private investment as a percentage of GDP.

n/a = the statistical data not available.

* = Own calculations

maintaining higher levels than $GP_cI:GDP$ ratios), reaching the lowest level of 26.7 percent in 2001.

The high investment rates in Angola (see Table 5.1 in Section 5.3.1), are also due to significant private sector investment as shown by the significantly high $GP_iI:GDP$ ratios compared to the $GP_cI:GDP$ ratios in Table 5.2. After 1992 up to 1996, $GP_cI:GDP$ ratios were on a continuous fall, with the same trend repeated after 1999 to 2001. After 1993, the country began to experience significantly high $GP_iI:GDP$ ratios, with the highest ratio recorded in 1999, after which there was a continuous fall, although the ratios remained very high. The high investment rates in Mauritius, as shown in Section 5.3.1, are also due to significant private sector investment as shown by the significantly high $GP_iI:GDP$ ratios compared to the $GP_cI:GDP$ ratios in Table 5.2. While the $GP_cI:GDP$ ratios tended to fluctuate, after 1998, there was a continuous gradual rise in the ratios although they never rose to levels before 1997 and were still significantly lower than the $GP_iI:GDP$ ratios.

An active private sector also exists in Tanzania, Zimbabwe, South Africa and Swaziland as evidenced by higher $GP_iI:GDP$ ratios compared to the $GP_cI:GDP$ ratios. In Tanzania, $GP_iI:GDP$ ratios were on a continuous decline after 1992 to 1995 and then were on a continuous gradual rise after 1998 to 2001, although they never got to the levels experienced in the period 1990 – 1994. While the $GP_iI:GDP$ ratios were always higher than the $GP_cI:GDP$ ratios after 1994, Tanzania experienced a continuous decline in the former, reaching the lowest level of 10.3 percent in 1998 after which there was a continuous rise in the next two years. In Zimbabwe, there was a gradual continuous fall in the $GP_cI:GDP$ ratios after 1992 to 1996, after which the ratios fluctuated. $GP_iI:GDP$ ratios were on a continuous rise in 1990 – 1993, after which they fluctuated. In South Africa, $GP_iI:GDP$ ratios were on a continuous decline in 1990 – 1994, after which there was a gradual continuous rise up to 1998, and then a continuous fall until 2001. $GP_iI:GDP$ ratios were on a continuous fall in 1990 – 1993 after which they gradually rose continuously up to 1997 and also between 1999 and 2001. In Swaziland, after 1992, the $GP_cI:GDP$ ratios were on a continuous decline up to 1997 after which there was a continuous rise till 2000, although the levels never got to those experienced in the period 1991 – 1994. While the $GP_iI:GDP$ ratios were always higher than the $GP_cI:GDP$ ratios, they fluctuated, with the highest level of 26.7 percent recorded in 1996.

Namibia also has active private sector participation in domestic investment, with the $GP_iI:GDP$ ratios always higher than the $GP_cI:GDP$ ratios throughout the period. The $GP_iI:GDP$ ratios fluctuated on an annual basis, while the $GP_cI:GDP$ ratios had periods of either a continuous decline or rise, e.g. 1992 – 1994 and 1994 – 1997, respectively. While the

D.R.C. is the region's country with the lowest GDI:GDP ratios (see Table 5.1 in Section 5.3.1), over half of this GDI originates from private investment. However, the levels of GP_I :GDP ratios, for most years, show that the country still has a very weak private sector. Both the GP_c :GDP and GP_I :GDP ratios tended to fluctuate annually. GP_I :GDP ratios rose significantly after 1995 allowing the country to experience unprecedented very high GP_I :GDP ratios in the period 1996 – 1999, after which the ratio dropped drastically.

However, there are some countries in the region which relied more on public sector investment than private sector investment. GP_c :GDP ratios remained relatively higher than the GP_I :GDP ratios in some SADC countries, thus making public investment a large component of total investment. For example, Mozambique relied more on public investment than private sector investment in the period 1990 – 1993 after which, while the GP_I ratio began to exceed the GP_c I ratio, the country still relied heavily on public sector investment as there were no big differences between the GP_I and GP_c I ratios, except in 1998. In Malawi, except for the first two years, the country shows more reliance on public sector investment as evidenced by significantly higher GP_c :GDP ratios than GP_I :GDP ratios. Investment participation by the private sector fell continuously after 1994, reaching significantly low levels.

While Zambia tended to rely more on private sector investment after 1992; after 1997, there was a significant increase in the GP_c I ratio, such that there was a very small difference in investment participation by both sectors as seen by the very small differences between the GP_I and GP_c I ratios after 1997. Therefore, as Kolala (2000:15, 17, 18) observes, despite the withdrawal of the government from the economy in 1992 and continuously ensuring the effective transfer of economic activities to the private sector so as to promote a market based economy, this has not led to a surge in private investment as expected. In Botswana, while the GP_I :GDP ratios tended to be higher than the GP_c :GDP ratios in most years, in most cases there were no significant big differences between the sizes of the ratios. This implies a balanced dependence by the country on both types of investment.

Therefore, since in most countries GP_I :GDP ratios are significantly higher than the GP_c :GDP ratios, it can be argued that the region now has in place an active private sector. However, while in general, the region's reliance on domestic public sector investment has been less compared to the domestic private sector investment, the significant reliance by Mozambique, Malawi, Zambia and Botswana on this form of investment shows the potential which exists within this sector to support domestic investment. With the use and support of

appropriate policies, the sector could be stimulated to do more in terms of participating in domestic investment so as to help boost the industrial capacity of the region.

Although economic literature traditionally emphasise the crowding out effect of increased government expenditure, ADB (2000:27) notes that a number of studies have shown that in developing countries, public and private investment are complementary. For example, numerous findings have shown that public investment, especially in infrastructure development, has a “crowding in” effect on private investment. In this regard therefore, sub-optimal public investment would not only have negative effects on private investment rates, but would also hinder the country’s ability to lower individual firm’s production costs and transaction costs in general, thus reducing its competitiveness in both domestic and export markets. Therefore, for SADC countries, despite the need to implement economic reform programmes and stabilisation as well as structural adjustment programmes meant to liberalise the economies and facilitate the share of private investment, public investment should still be regarded as necessary.

In the years that follow, $GP_cI:GDP$ ratios could remain relatively high in some SADC countries, thus making public investment a large component of total investment. Muradzikwa (2002a:6) observes that this could be due to the insufficient levels of FDI as the countries could be regarded as less attractive, constraining factors on domestic private investment in those countries, low savings rates, and the absence of a large enough entrepreneurial class which would make it imperative for public investment to create indigenous businesses that will form partnerships and joint ventures with foreign investors. Also to note is that $GP_cI:GDP$ ratios could remain relatively high in some SADC countries as such countries would be pursuing public investment as a stimulant of economic growth, a view and approach most developing countries adopt. As Ashipala (2003:1) and Ashipala and Haimbodi (2003:30) observe, this is based on economic theory which suggests that where public investment is channelled towards goods and services which facilitate the smooth functioning of the market⁴, this form of investment will not only promote economic growth but will also generate positive spill over effects that serve as incentives for private sector investment.

With the majority of the regional countries showing more reliance on domestic private investment during the period under study, and with such investment contributing over 50 percent of GDI in each year, it shows the great significance of the private sector in the region.

⁴ Such goods and services include education, health, research and development, housing, water and sewage, fire services, transport and communication.

Section 4.7.2 shows that the privatisation exercise within SADC is being effected across most sectors of the economy, with the region experiencing an increase in the total number of privatisation transactions of public enterprises, i.e. an average increase of 63.5 percent from end of 1995 to end of 1998. Therefore, with many countries in the region privatising state-owned enterprises, private investment would account for a growing share in domestic investment than public investment.

Romer (1994:15)⁵ notes the importance of the private sector investment in that the spillovers from private research efforts by the sector often lead to improvements in the public stock of knowledge, thus impacting positively on labour effectiveness and productivity. Therefore, it can be argued that those countries with significantly high GPI:GDP ratios would benefit from accumulating increased industrial knowledge necessary for improved industrial development. Grossman and Helpman (1994:24) argue that most technological progress requires, at least at some stage, the intentional investment of resources by the private sector, and such improvements in technology are often regarded as the real force behind economic growth and increased standards of living. In this regard therefore, private sector participation in domestic investment within the SADC region could help to facilitate industrial innovation and exposing the region to new technologies necessary to improve the local industrial capacities. Wolf (2002:1) observes that some empirical evidence has shown that in the Sub-Saharan Africa, private investment has a significantly stronger effect on growth than public investment, and this is attributed to the higher efficiency in the private sector. This observation can therefore be used to argue for more support and encouragement for the private sector participation in domestic investment.

Also to note is that developing countries are often criticised for lack of a business culture, and therefore the development of a strong local private sector through encouraging and promoting private domestic investment, could help to improve this image. The presence of a local investor community and a well-established class of entrepreneurs could serve as an attraction for increased domestic investment and foreign investment, as the host country would be able to provide local investment partners and competent managers. Furthermore, in most SADC countries the scale of investment required to rehabilitate and develop infrastructure is too huge for the public sector alone (see Section 4.4.3), thus calling for private sector participation to bridge the infrastructure deficit.

⁵ In his contribution to the Endogenous growth model.

However, in order for the region to either maintain or improve the current investment rates by the private sector and benefit from the large proportions of scientific research conducted and financed by the private industry; the institutional, legal, and economic environments that determine the profitability of these investments should be conducive. Therefore, the need to improve and create enabling investment environments which encourage private sector initiatives cannot be overlooked. However, while private sector participation in domestic investment could be of benefit as discussed, Section 4.6.4.1, shows that in order to achieve gains that maximise welfare, it is necessary to allow for competition. Therefore, while SADC countries are keen on increasing private sector participation in domestic investment, competition policies with an independent regulator(s) should be in place so as to ensure competition.

5.3.3 Gross domestic saving and investment

In every economy, there is a need for a proportion of present income to be saved for future investment because the new investments representing net additions to the capital stock are necessary for growth to occur (see Section 2.4). In this regard therefore, it is necessary to analyse the savings rates in the region and the extent to which they can finance investment in SADC.

Table 5.3 shows that on average, the region only saves slightly more than one-tenth of its GDP. This may not be surprising bearing in mind the fact that most of the countries have low per capita income levels, and that as SADC Industry and Trade Sector (1999:4) observes, some SADC countries have negative real interest rates which discourage domestic savings for investment. This has implications for the availability of resources to facilitate future/additional investment needed for improved industrial capacity. This therefore, implies the existence of a savings gap in the region, which can be supported further by the existence of the negative Resource:GDP ratios⁶ (see Table 5.3), where the regional average ratio ranged between -7 and -19 percent.

Only Botswana and South Africa did not experience any negative resource balance ratio during 1990 - 2001. Therefore, while the size of the savings gaps differed from one country to the other, as shown by the differences in the Resource balance:GDP ratios, foreign investment inflows into the region were necessary to alleviate the savings gap, as observed by the

⁶ Resource balance is given by the difference between GDS and GDI (World Bank, 2001a:39). Therefore, it shows the resources which remain from savings after a country has channelled some of its savings towards investment. A negative resource balance thus shows that $GDI > GDS$. So while the country is able to save, its savings are still not enough to facilitate further investment and so the country has to rely on external sources for investment.

Table 5.3: Gross domestic savings (% of GDP) and Resource balances (% of GDP), 1990-2001

Countries	Period for most recent statistical data											
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Angola												
GDS:GDP	29.7	16.2	1.7	9.9	26.1	26.9	48.7	26.7	18.5	41.2	63.1	45.7
Res. bal:GDP	18.0	3.2	-1.9	-1.3	9.5	-1.2	14.0	1.2	-17	-5.6	27.7	11.7
Botswana												
GDS:GDP	37.1	37.7	37.0	36.8	37.0	37.5	41.3	43.0	39.8	38.4	39.0	38.2
Res. bal:GDP	5.3	7.3	6.6	8.0	10.5	12.9	16.4	14.9	6.3	11.5	22.1	16.2
The Democratic Republic of Congo												
GDS:GDP	9.3	1.8	0.0	0.0	0.0	0.0	27.5	25.9	16.9	17.8	5.4	6.2
Res. bal:GDP	0.3	-3.7	-0.8	2.2	2.7	4.8	-0.3	-2.0	-3.1	-3.8	1.2	1.1
Lesotho												
GDS:GDP	-51	-50	-35	-45	-36	-38	-30	-25	-27	-24	-20	-15
Res. bal:GDP	-105	-115	-101	-100	-91	-99	-88	-78	-74	-67	-60	-52
Malawi												
GDS:GDP	9.7	14.2	0.7	-0.9	-3.0	-0.3	3.1	-0.7	7.5	-0.2	0.5	-1.0
Res. bal:GDP	-10	-6.0	-19	-16	-32	-17	-8.5	-13	-6.0	-15	-12	-12
Mauritius												
GDS:GDP	23.6	24.9	25.4	25.2	23.6	23.4	23.8	24.3	24.9	23.8	23.7	25.3
Res. bal:GDP	-7.2	-3.8	-3.5	-4.7	-7.4	-5.5	-1.5	-2.9	-2.7	-2.2	-2.0	0.9
Mozambique												
GDS:GDP	-12	-11	-17	-22	-14	-1.9	-1.8	1.1	6.8	9.3	11.9	19.2
Res. bal:GDP	-28	-27	-33	-35	-34	-25	-24	-20	-17	-28	-28	-22
Namibia												
GDS:GDP	18.2	11.3	7.0	6.0	12.6	11.2	13.4	8.7	13.4	11.8	12.3	11.9
Res. bal:GDP	-16	-7.9	-15	-11	-9.1	-11	-9.7	-12	-13	-13	-12	-13
South Africa												
GDS:GDP	17.6	16.9	16.1	17.6	17.9	19.1	18.3	17.1	16.6	17.2	17.7	17.5
Res. Bal:GDP	5.8	5.0	4.0	3.7	2.3	0.9	1.4	1.1	1.2	2.7	2.9	2.5
Swaziland												
GDS:GDP	20.4	8.8	0.2	-2.1	3.5	1.3	5.9	3.3	3.3	3.9	4.5	6.3
Res. bal:GDP	0.8	-11	-25	-25	-18	-19	-26	-17	-19	-15	-15	-12
Tanzania												
GDS:GDP	1.3	3.0	0.3	-4.6	1.6	1.9	3.6	4.9	-0.8	3.4	9.2	8.3
Res. bal:GDP	-25	-24	-27	-30	-23	-18	-13	-10	-15	-12	-8.4	-8.7
Zambia												
GDS:GDP	16.6	8.4	0.3	8.2	7.4	12.2	5.3	9.4	3.9	-1.1	8.3	9.8
Res. bal:GDP	-0.7	-2.6	-16	-14	-10	-9.0	-12	-7.4	-12	-12	-13	-14
Zimbabwe												
GDS:GDP	17.4	15.8	11.0	21.0	21.8	17.0	18.7	11.1	15.3	15.7	14.8	9.8
Res. bal:GDP	0.1	-3.3	-9.3	-1.7	-1.9	-2.7	0.2	-7.0	-1.8	-0.4	2.2	1.2
Average for SADC*												
GDS:GDP	10.6	7.5	3.7	3.9	7.6	8.5	13.7	11.5	10.7	12.1	14.6	14.0
Res. bal:GDP	-12	-15	-19	-17	-15	-15	-12	-12	-13	-12	-7.3	-7.7

Source: Table derived from World Bank (2001a:25, 27; 2002a:25, 27; 2003b:25, 27).

Notes: GDS = Gross domestic savings.
 Gross domestic savings = GDP - Total consumption.
 Res. bal:GDP = Resource balance: GDP ratio.
 * = Own calculations.

Harrod-Domar growth model (see Section 2.4.2.1), thus providing a necessary source for investment resources for the countries.

Botswana has the highest consistent savings rate in the region, over 37 percent throughout the period 1990 - 2001. Section 2.4 shows the importance of savings to finance additions to the national capital stock, and so the country's high levels of savings could help explain the high GDI:GDP ratios the country experiences (see Table 5.1 in Section 5.3.1). Also the country's positive resource balance ratios show the country's ability to fund its own investment from the savings, although this does not mean that foreign capital injections are not necessary to augment its savings and boost its industrial investments. However, to note is that despite the very high savings rates, GDI:GDP ratios were on a steady decline in the period 1990 – 1995 (see Section 5.3.1) and as such during this period, some of the high domestic savings may not have been used as resources for productive domestic investment.

Angola has the second highest savings rates although there has been no consistency in the savings rate. A significant rise was experienced after 1993, and since then, except for 1998, there has been a continuous rise in the savings rate, reaching the highest rate, i.e. 63.1 percent in 2000, falling to 45.7 percent in 2001. This corresponds very well with the country's investment rates (see Table 5.1 in Section 5.3.1), where just like the savings rate, the investment started to rise and continued to do so after 1993. So it could be argued that the country's improved savings rates could have contributed to the improved domestic investment. The country's Resource balance:GDP ratios also support the observations that the country's ability to save helped improve domestic investment. This is of interest as the country has been involved in a civil war for almost three decades, with peace initiatives embarked on since mid 2002. It also shows the potential the country has in managing and creating resources so as to provide itself with resource balances to facilitate and improve its industrial capacity. With peace in the country, this potential could be utilised fully for the benefit of the country. However, the country still needs foreign capital injections to augment its own resources.

Mauritius has a more or less consistent/ stable savings rate and ranks third highest in the region. This implies the country's consistency in effecting savings, which is necessary in order to provide for productive resources. This consistency in savings could have contributed to the country's relatively high GDI:GDP ratios. However, as the Table shows, the country registered negative resource balance:GDP ratios, *albeit* small levels, thus implying that the country also experienced savings gaps, thus making foreign capital injections necessary. South Africa's savings rates ranged between 16 and 19 percent. Even though South Africa

managed to register positive resource balances throughout 1990 – 2001, the Resource balance:GDP ratios were very low, i.e. ranging between 1 and 6 percent. Therefore, while the country is able to finance domestic investment from its own domestic savings, foreign capital inflows into the country are still necessary in order to provide an additional source for investment resources for the country. While Zimbabwe experienced savings rates of more or less the same magnitude as South Africa, it experienced negative resource balances like the other countries, implying the need for foreign capital injections into the country.

Lesotho and Mozambique, in that order, showed significantly high levels of domestic dis-savings as shown by their negative GDS:GDP ratios. While there was a reduction on the levels of dis-savings by these countries during the course of the period, with Mozambique registering positive GDS:GDP ratios after 1996, these two countries implied significantly high levels of savings gaps in the region. This is supported further by the significant absence of resource balances in the two countries as shown by significantly low levels of Resource balance:GDP ratios. This therefore, implies that Lesotho and Mozambique needed foreign capital inflows most among the regional countries, so as to alleviate the savings gap and help the countries to facilitate investment. Swaziland, Tanzania, Malawi had savings rates of less than ten percent throughout 1990 – 2001. They also show high levels of savings gaps since they have high negative Resource balance: GDP ratios. While the D. R. C. had low savings rates in most years just as with its GDI:GDP ratios, it recorded very high savings rates in 1996 – 1999, just as its GDI:GDP ratios did (see Table 5.1 in Section 5.3.1).

As would be expected, SADC countries categorised as “low income”⁷ (except Angola and Zimbabwe, as well as the D. R. C. in the period 1996 – 1999), registered significantly low levels of savings rates, i.e. less than ten percent of GDP. Also these countries are the ones which registered the widest savings gaps. SADC’s “upper-middle income” countries are Botswana, Mauritius and South Africa; and except for South Africa, these countries registered significantly high savings rates. Among them, Mauritius registered savings gaps although at lower levels than the “low-income countries”. However for all countries, irrespective of the size of the savings gap, foreign investment inflows are necessary to help alleviate the savings gaps, thus providing an additional necessary source for investment resources for the countries, as suggested by growth models in Section 2.4.

⁷ Using the World Bank classification, these countries are Angola, Lesotho, D.R.C., Malawi, Mozambique, Tanzania, Zambia and Zimbabwe (World Bank, 2001a:33).

With the current levels of per capita income, and the negative real interest rates in some of the countries, it would be difficult for most SADC countries to increase their savings rates without any external help. Therefore, it is important for the countries to attract foreign capital inflows so as to augment their own savings initiatives and close the savings gap. It is important for the SADC countries to have higher savings rates because as the economic growth models show (see Section 4.2), national growth rates depend on, among other things, national savings. For example, as Robinson (1964:417) and Park (1994:56) observe, more investment matched by more savings out of profits yields positive results for a country. This is because savings positively impact on industrial capacity as they would be able to facilitate more investment and spark additional growth for some time. On the other hand, as Grossman and Helpman (1994:25) note, savings finance additions to the national capital stock. Therefore, by continuing to have low savings rates, the rate at which the SADC countries' capital stock grows would continue to be low, thus hampering the region's ability to improve its industrial and human capital. Since both physical and human capital present the engine for growth, this would imply that the region would continue to experience low growth rates.

The inadequate investment performance undoubtedly reflects the low-income levels and the related weak domestic savings rates in many countries, but it also reflects the increasingly intense competition in emerging markets for global capital inflows. ADB (2000:2) notes that further strengthening market-oriented economic reforms that emphasise the private sector as the prime force of investment in productive capacity, would help sustain high levels of investment, while privatisation and market deregulation will also contribute to a strong and sustained investment recovery through attracting FDI. The extent to which countries have attracted FDI so as to close the savings gaps will be discussed in Section 5.4.

5.3.4 Sectoral composition of domestic investment

An analysis of the sectoral composition of gross fixed capital formation (GFCF)⁸ will be used to show the extent to which countries invest towards capital formation in the various sectors of their economies. This has implications for industrial development in that where more resources are channelled into productive sectors or into services which have a direct impact on industries, this would boost industrial capacity and performance.

The analysis made in Table A-9 (Appendix 4) shows in great detail how some of the countries within SADC locate investment for capital formation between the various sectors of the

⁸ Gross fixed capital formation (GFCF) is measured by the total value of a producer's acquisitions, less disposals, of fixed assets during an accounting period plus certain additions to the value of non-produced assets such as land realised by the productive activity of institutional units (Central Statistical Office of Zimbabwe, 2000b:20).

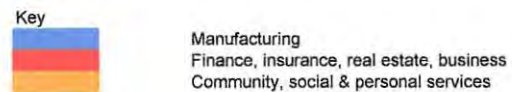
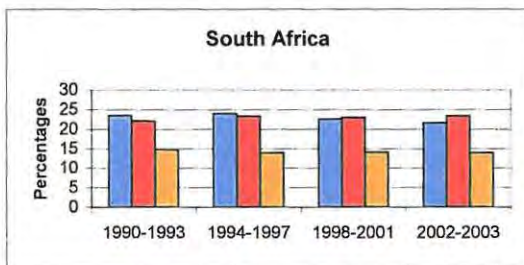
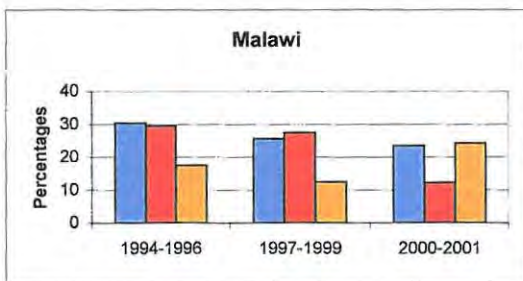
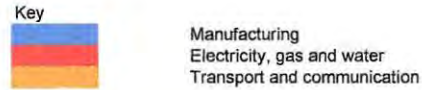
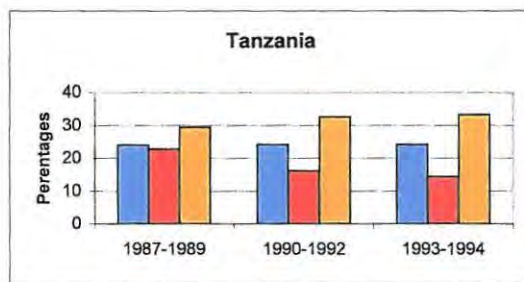
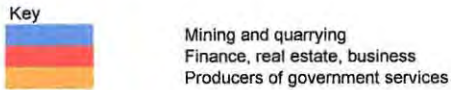
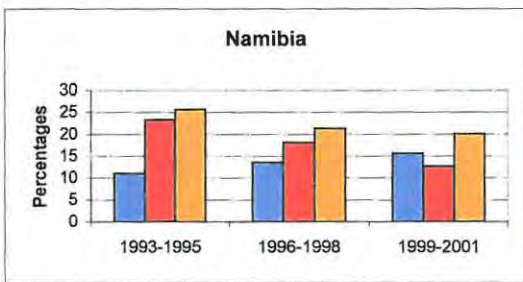
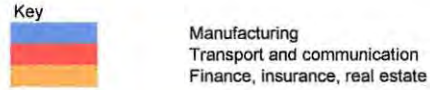
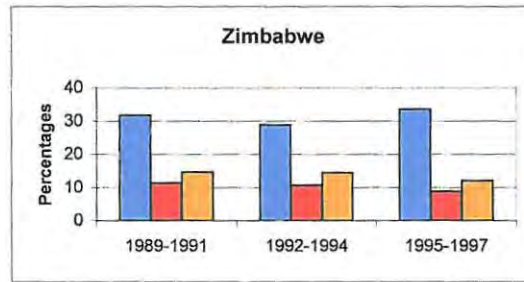
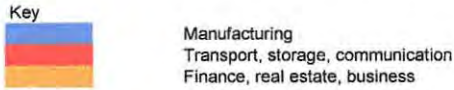
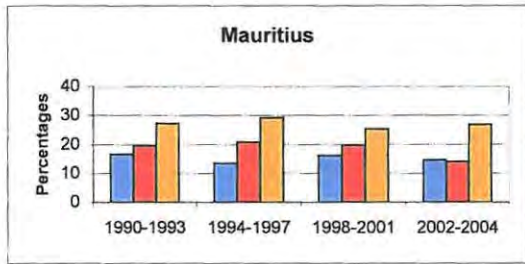
economy, while Figure 5.1 below (derived from the aforementioned table) shows the top three sectors into which most of GFCF is channelled in these selected countries. In Mauritius for example, the top three sectors are the financial sector, transport, storage and communications, and manufacturing, in that order. In South Africa, this investment tended to be concentrated in the manufacturing, financial, and community, social and personal service sectors, in that order, with the tendency for equal preference to promote investment in the manufacturing and financial sectors.

Most of Zimbabwe's capital formation investment went into the manufacturing sector, the financial sector, and the transport and communication sector, in that order. In Namibia, the top three priority investment areas were producers of government services, finance, and mining, in that order. However, after 1998, there was more priority towards capital formation in the mining sector than in the financial sector, while producers of government services continued to receive top investment priority. In Tanzania, the transport and communication sector, manufacturing, and electricity, gas and water sectors were the top three priority sectors. In Malawi, the top three priority investment areas were manufacturing, electricity and water, and distribution.

The manufacturing and financial sectors are therefore most important in domestic investment towards capital formation, while on average, the transport and communication sector ranked third. Investment priorities in the manufacturing sector would enable the development of a domestic manufacturing sector or industries with modern and up to date technology, leading to improvements in the industrial capacity and performance in the sector, as well as creating a solid base for industrialisation programmes. This would also serve as an attraction to foreign investors who, through more capital injections and/or additional and more advanced technical and managerial skills inputs, could help the sector to develop further.

Priorities in fixed capital formation investment towards the financial sector would help to develop a functioning and up-to-date credit market and financial systems which are essential in giving effective and efficient support to all sectors of the economy. Such an effective financial system with state of the art technology to handle huge financial transactions with minimum delays would help to boost investor confidence, thus attracting more investment from both domestic and foreign investors. With the SADC FTA in place, the presence of effective and efficient financial systems within member countries will become more critical as stiff competition could arise between countries in attracting business into their domestic economies. In this regard therefore, countries with more efficient financial systems would

Figure 5.1: The top 3 priority economic sectors for GFCF in selected SADC countries



Source: Derived from Table A-9 (Appendix 4).

tend to be viewed more favourably, *ceteris paribus*, as business would tend to flow more smoothly as monetary transactions would be carried out with minimum delays.

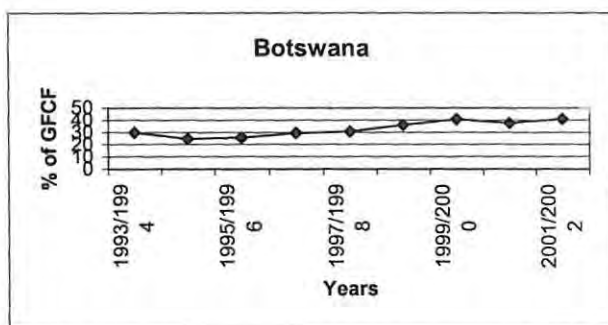
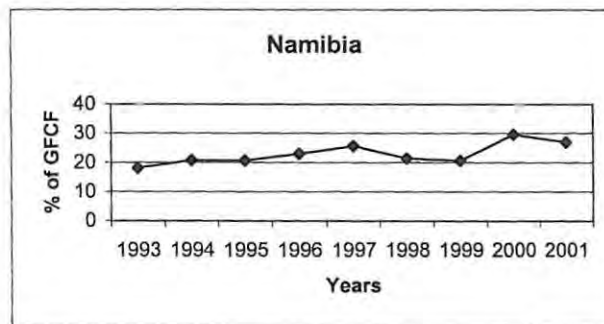
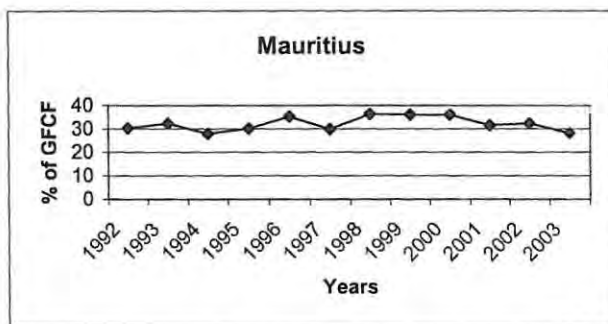
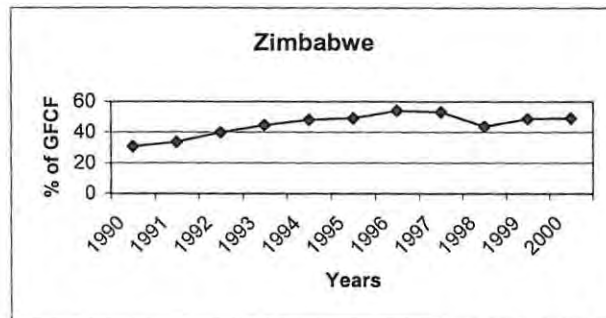
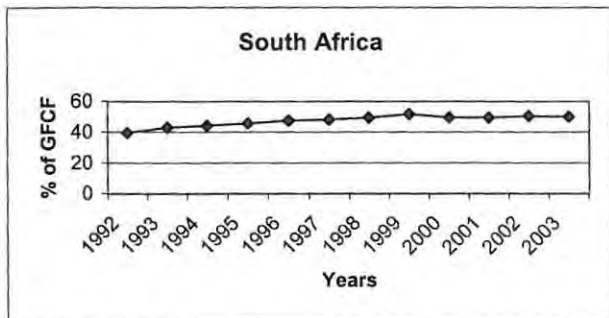
Priorities in fixed capital formation investment in the transport and communication sector would help to develop a functioning, efficient/reliable and up-to-date infrastructure necessary to reduce costs and to promote the ease with which products are transported. With the implementation of the SADC FTA, such a transport system will become more essential as there is a need for countries to access each other more easily and benefit from increased intra-regional trade. Transport and communication problems currently form some of the non-tariff barriers within SADC and therefore, investment preferences in this sector would help reduce these barriers, which if left unattended, would continue to hamper intra-regional trade despite tariff reductions.

It is also important to note that there has been domestic investment towards building capital stock. Buildings (residential and non-residential), Construction (or Civil engineering works), Transport equipment, and Machinery and equipment are the four classes of capital stock⁹ often used to analyse total capital stock within an economy. However, Fedderke, *et al* (2000:2) note that machinery and equipment is considered the more appropriate measure of capital stock. Therefore, the proportion of real output which is re-invested in productive capacity in the form of machinery and equipment, becomes an important consideration. The extent to which countries invest towards the formation of these essential capital producer goods will be considered through the available statistical data presented in Table A-10 (Appendix 4) and analysed in text through Figure 5.2.

Domestic investment in productive capacity in the form of machinery and equipment is of great importance in the sample countries presented. For example, in Zimbabwe, over forty percent of GFCF was in this category by 2000 and over the years, there has been a continuous rise in this percentage except in 1997-1998 when there was a fall. In South Africa, there was also a continuous increase in investment of this type up to 1999, after which there was a continuous steady decline up to 2001. Zimbabwe and South Africa show the highest levels of investment towards the acquisition of these producer capital goods. In Mauritius, 30 – 36 percent of GFCF goes towards acquiring machinery and equipment although the ratios fluctuate always. The acquisition of machinery and equipment in Namibia accounts for 20-29 percent of GFCF, with the ratios fluctuating always. In Botswana, the acquisition of

⁹ These form the fixed assets, whose values together with that of certain additions to the value of non-produced assets, e.g. land, are used to measure total gross fixed capital formation during an accounting period.

Figure 5.2: Machinery and equipment as a percentage (%) of gross fixed capital formation at current prices (up to the most recent year for which statistical data is available)



Source: Figures derived from Table A-10 (Appendix 4).

machinery and equipment accounts for 25 – 41 percent of GFCF, and over the years, from 1995/1996 to 1999/2000, there was a continuous increase in channelling resources towards the acquisition of producer capital goods in the form of machinery and equipment.

However, while the investment in machinery and equipment presented does not show the sectoral differences of the investment, it however indicates active involvement by the countries in productive investment for the purposes of upgrading industrial capacities. In the long run, this would lead to a rise in the aggregate growth of capital stock in the countries. Active domestic investment in productive capacity also helps to create investor confidence, as the industrial sectors within the economy become equipped with adequate and modern machinery and equipment. Also to note is that the local capital goods sector of a country is an essential part of its technological capacity and progress (see Sections 2.4.3.3, 2.6.4.4), and as such, it is important for countries to make deliberate investments towards the development of this sector. Furthermore, as De Long and Summers (1991)¹⁰ observes, investment in capital is critical to the growth performance of a country as the equipment share of investment has a more than proportionate effect on output growth. However, where countries have little or no domestic capacity to produce machinery and equipment, they would have to import and also to encourage FDI so as to improve the average technology level within the country.

5.4 FOREIGN DIRECT INVESTMENT FLOWS WITHIN SADC

With regional countries experiencing low savings rates and negative resource balances (see Table 5.3 in Section 5.3.3), additional capital inflows would be required to fill the savings gaps experienced. FDI is often regarded as the source for additional capital inflow necessary for developing countries to cover their savings gaps (see Sections 2.4.1.3, 2.4.2.3), and therefore, it would be interesting to see the FDI inflow patterns in the region.

5.4.1 Foreign direct investment inflows into SADC

Table 5.4 shows that while the SADC region receives less than 1 percent of the world's FDI, except in 1997 and 2001, it receives most of the FDI flowing into Africa. For example, since 1996, the region has been receiving more than one-third of the FDI into Africa, receiving 53.35 percent by 2001, although this fell to 30.39 percent in the following year. This shows the significant presence of FDI and its importance in the region. Since SADC countries face significant savings constraints, and hence the limited capacity to generate domestic investment (see Section 5.3.3), successfully attracting FDI into their economies becomes key.

¹⁰ Cited in Pack (1994:57).

The interest of foreign investors in the SADC region in the 1990s could be attributed to a number of factors. For example, the improved political situation with Namibia's independence in 1990, the end of civil war in Mozambique, and the end of apartheid in South Africa. The adoption of liberalisation policies by the beginning of the decade and the commitment by most SADC countries to pursue such policies throughout the decade (see Table A-6, Appendix 3), could also have helped to create an environment conducive enough to attract more foreign investment.

Table 5.4: SADC's share of FDI inflows (1990-2002), US\$ billion (most recent data)

	1990-1995 ^a	1996	1997	1998	1999	2000	2001	2002
World's total FDI inflows								
US \$ billion	225.321	386.140	481.911	686.028	1 079.1	1 393.0	823.825	651.188
Africa's share of FDI inflows								
US \$ billion	4.320	5.835	10.667	8.928	12.231	8.489	18.769	10.998
% of World ¹	1.92	1.51	2.21	1.30	1.13	0.61	2.28	1.69
SADC's share of FDI inflows								
US \$ billion ¹	1.165	2.032	5.004	2.740	5.381	3.058	10.013	3.342
% of Africa ¹	26.97	34.82	46.91	30.69	43.99	36.02	53.35	30.39
% of World ¹	0.52	0.53	1.04	0.40	0.50	0.22	1.22	0.51

Source: United Nations (2003:249-250; 2002:303-304).

Notes: ^a = Annual average for that period.
¹ = Own calculations.

During the second half of the 1990s, new richer members were admitted into SADC, e.g. South Africa, Mauritius and Seychelles. These countries have high per capita incomes and their manufacturing sectors are well developed, and this could thus have helped to attract foreign investment into the region. The inclusion of more countries, including the Democratic Republic of Congo, meant creating a wider market for potential investors, while increased bilateral trade agreements between countries and the trade and regional integration arrangements made the SADC market more accessible, thus opening potential investment opportunities for both regional and foreign investment.

5.4.1.1 Foreign direct investment inflows into South Africa

Table A-11a (Appendix 4) shows that except for 1998, 1999 and 2002, South Africa received the highest levels of FDI inflows into the region, and even though the country did not receive the highest levels of FDI inflows in the years mentioned, it was still a significant recipient, ranking second after Angola. South Africa has a favourable investment environment as shown

by the International Country Risk Guide (ICRG) risk rating and this environment has continued to improve as shown by the continued improvements in the country ratings by the leading international banks (see Table A-11b, Appendix 4), and this could help to explain the significantly high absolute FDI the country experiences. One could attribute the interest of foreign investors in South Africa to the country's new political dispensation after 1994, the high per capita income levels, i.e. US\$2 820 by 2001 (World Bank, 2003a:16), and the large size of the domestic market, i.e. 43 million people by 2001 (World Bank, 2003a:16). South Africa can easily access all the other regional markets, is the most developed country within the region, and has a fine institutional environment, and all this contribute in making it an attractive investment destination. Trade and Industry Policy Secretariat (2000:109) observes that in the 1990s, the major determinants of FDI in South Africa have been the privatisation and restructuring of state assets, as well as greater economic activity and growth within the domestic economy. However, while South Africa tends to receive the region's largest FDI inflows, these fluctuated up and down throughout the period and also the FDI:GFCF ratio is quite low, except in 1997 and 2001, where it was 15.5 percent and 40.5 percent respectively.

The sectoral distribution of FDI in South Africa (see Table A-12(a), Appendix 4) shows the manufacturing sector and commercial services as major attractions for FDI. Within the manufacturing sector, significant FDI goes into the food, beverages and tobacco processing sector, followed by the motor vehicle and components sector, transport and equipment sector, and the chemicals, plastics and rubber sector, in that order. The significant FDI into the manufacturing sector implies significant gains for the country in terms of technology transfers and more advanced technical and managerial skills inflows necessary to upgrade the performance of the sector. This would thus present opportunities for developing the manufacturing sector further, thus improving the industrial locational advantages the country currently enjoys due to its already well-developed and diverse industrial base.

Significant FDI inflows into the commercial services sector, especially telecommunication and information technology as well as the financial sector, presents opportunities for further development and modernisation of the country's already advanced communication infrastructure and banking system as shown in Section 4.4.2. The improved efficiency that results in these commercial services areas would improve the current industrial locational advantages the country enjoys which in turn could help to lure industries from other SADC countries as per the theory of industrial location (see Section 2.2). The energy and oils sector

is the third significant FDI attraction¹¹ and such investment could help to improve capacity utilisation and production within the sector which would enable the sector to fully satisfy local demand, thus giving adequate support to the rest of the economy, as well as presenting opportunities to improve the country's ability to effectively produce, deliver and supply energy and oils to other regional countries that depend on South Africa as a supply route. From 2000/2001 onwards, Vickers (2002:21, 30-31) observes that South Africa's priority investment sectors which have therefore been targeted for foreign investment, in order of priority, are: automotive components/metal based industries; chemicals and pharmaceuticals; textiles and clothing; electronics and information technology; tourism; agri-business; and forestry.

5.4.1.2 Foreign direct investment inflows into Angola

Table A-11a (Appendix 4) shows that Angola ranks second in receiving the highest FDI inflows in the region, except in 1998, 1999 and 2002 when it ranked first. While the country received high FDI inflows throughout the period 1990-2002, a significant increase in FDI inflows was experienced after 1996, and thereafter, the country has been receiving significantly high FDI inflows, accounting for 39.26 percent of total SADC FDI inflows by 2002. Also to note is that from 1996, the country has been experiencing a continuous rise in FDI inflow levels up to 1999. The significant presence of FDI into the country can also be reflected in the very high FDI:GFCF ratios which are the highest within the SADC region, especially after 1996. Therefore, while Angola has been experiencing a civil war for almost three decades and ranks as one of the most risk countries in the SADC region, as shown in Table A-11b (Appendix 4), the significantly high levels of FDI inflow show that foreign investors still regard the country as a viable country to locate their investments. Also to note is that the investment climate in the country as measured by ICRG risk rating has been on a gradual improvement (see Table A-11b, Appendix 4), and this could have helped to attract FDI into the country.

As shown in Table 5.2 in Section 5.3.2 above, there is increased private sector participation in domestic investment in Angola, and this acts as an attraction for increased foreign investment because a lively and active domestic private sector gives confidence to foreign investors. Also as Table 5.1 shows (see Section 5.3.1), the country has been experiencing sound real economic growth rates in the second half of the decade, i.e. 1995 – 1997. This could surely

¹¹ Possibly due to the regulatory reforms and the restructuring exercise which the country has been doing so as to attract greater private sector investment (SADC, 2002a:287).

have motivated and attracted more foreign investment into the country, since a growing economy tends to attract more investment by both domestic and foreign investors.

Table A-6 (Appendix 3) shows that FDI is considered by the country to be crucial for the reconstruction process and as a result, the promotion of foreign investment is considered a priority as evidenced by the Foreign Investment Law passed in 1995. The availability of natural resources is still a major locational factor to investors, and with Angola richly endowed with natural resources, the bulk of FDI in SADC in absolute terms goes to the country to exploit the opportunities that exist in offshore petroleum and natural gas exploration and production. However, currently such resources had not been exploited fully due to the just ended war. Therefore, with peace and stability returning to the country, and with investment opportunities existing in almost all sectors of the economy, the country regards FDI as significant in facilitating the full exploitation of such resources, thus helping the country to develop its industrial capacities more.

5.4.1.3 Foreign direct investment inflows into Mozambique

After 1997, Mozambique experienced a very high increase in FDI inflows, and since then the country has been receiving significantly high levels of FDI, with generally high FDI:GFCF ratios, especially in the period 1998 - 2002 despite a significant fall in this ratio in 2000 (Table A-11a, Appendix 4). Table 5.3 in Section 5.3.3 implies significantly high levels of savings constraints in Mozambique, and therefore, the significantly high levels of FDI inflows into the country, are necessary to help the country with the resources needed to promote future investment. The very high levels of FDI could have resulted from the country's conscientious implementation of its Economic Rehabilitation Programme (PRE) of 1987, the Investment Law (1993) aimed at boosting investor confidence by guaranteeing and protecting private investments, as well as liberalising its economy through the pursuit of market-driven economic policies, as shown in Table A-6 (Appendix 3). Also to note is that, after 1994, Mozambique started experiencing increasing domestic private investment (see Table 5.2 in Section 5.3.2) showing the development and existence of an active and lively private sector in the country, and this could also have acted as a motivation factor for increased FDI inflows in the country. Furthermore, in the second half of the decade, the country has been experiencing sound real economic growth rates, averaging 6 percent (see Table 5.1 in Section 5.3.1), and thus helping to create a sound and favourable investment destination since a dynamic and growing economy tends to attract more investment, domestic and foreign. Also to note is that Table A-11b (Appendix 4) shows that the investment environment in the country has been improving as shown by the continuous improvement in all the three risk indicators, although

the country was still categorised as very high risk according to the institutional investor credit rating and the euromoney credit worthiness rating.

Table A-12(b) (Appendix 4) shows that in the early 1990s, most of the FDI inflows into Mozambique were towards the primary sector, with such an investment priority continuously falling after 1993. Agriculture has been the main primary sector investment beneficiary as it is a very vibrant sector in the economy (see Figure 4.2 in Section 4.2.1), and as observed by SADC (2002a:237), has immense potential¹². The secondary sector was the priority FDI destination during the second half of the 1990s, thus showing the growing importance of this sector in the economy. It is interesting to note that the improved performance by the manufacturing sector (see Figure 4.3 in Section 4.2.2) coincides with the continuous significant rise in FDI shares into the secondary sector after 1994, although there was a continuous FDI fall in 1998 and 1999. Some of the huge investments into the secondary sector have been due to the Mozal aluminium smelter¹³, the redevelopment of the sugar industry¹⁴, as well as the country's prawn industry which now accounts for about 40 percent of the total value of the country's exports. The tertiary sector received 1st FDI priority in 1994 and 1999, which corresponds to the years in which the sector had its highest contribution to GDP (see Figure 4.4 in Section 4.2.3).

5.4.1.4 Foreign direct investment inflows into Tanzania

From Table A-11a (Appendix 4), Tanzania is the third highest recipient of FDI inflows in the SADC region. After 1995, the FDI inflows into Tanzania rose substantially and continued to rise until 1999 after which despite the still high levels, there has been a continuous fall in FDI inflow levels. The significant presence of FDI in the country can also be seen by the generally high FDI:GFCF ratios, with the highest ratio in 1999 (Table A-11, Appendix 4). Tanzania actively courts FDI because as Table A-6 (Appendix 3) shows, the country regards this form of investment as its solution to recover and boost the operations of its manufacturing concerns which continue to operate below installed capacity. With many MNCs regarding Tanzania as an attractive FDI destination, as observed by Wolf (2002:3), this also explains the increase and significantly high FDI inflows into the country. With Table 5.3 in Section 5.3.3 implying

¹² For example, only 10 percent of its estimated 36 million hectares of arable land is in productive use, while immense opportunities and potential exist in livestock production as the existing supply does not meet domestic demand and the country currently depends on imports (SADC, 2002a:237, 238).

¹³ This has seen FDI funding from South Africa's conglomerate, Billiton (47 percent); Japan's Mitsubishi Corporation (25 percent), the Industrial Development Corporation of South Africa (24 percent). The Government of Mozambique has 4 percent shareholding (Games, 2003:33; Muradzikwa, 2002b:11).

¹⁴ This has seen FDI funding from the Tongaat Hulett Inc., the Arab Bank for Economic Development in Africa (BADEA), the OPEC Fund and the Credit Guarantee Insurance Corporation from South Africa (SADC, 2002a:238).

high levels of savings constraints in Tanzania, the high levels of FDI inflows into the country, are set to play an important role in efforts to push up levels of investment.

Table A-12 (c) (Appendix 4) shows that FDI into Tanzania shows preference towards the manufacturing sector, with significantly high shares experienced in the period 1996 – 1999, after which the sector became FDI's 2nd priority after Telecommunications and Construction in 2000-2001 and 2002, respectively. FDI preferences into the manufacturing sector would help to develop a modern and up-to-date industrial base in the country as this sector, as observed by SADC (1996:61), is adversely affected by aged machinery, shortage of working capital, and erratic supply of water and electricity. FDI into the telecommunication sector would help to upgrade and modernise this support structure which is very essential to industry. Energy production is a component of the secondary sector in Tanzania (see Section 4.2.2), and so FDI into the petroleum and mining sector, at its highest in 1997, is essential to help the country to continue to harness these existing energy resources, and thus continue to make a meaningful contribution to the energy needs in the region.

While the country has a weak mining sector, i.e. less than 4 percent of GDP (see Figure 4.2 in Section 4.2.1), SADC (2002a:340) observes that the government aims to improve the sector's share of GDP so that it grows to 10 percent over the next 25 years. This is to be achieved through further investment and development with active participation by FDI in gold mining and other minerals¹⁵. Therefore, with the government taking strong measures to increase mining activity in the future, it is expected that the current FDI shares the sector receives are bound to rise significantly. Table A-12(c) (Appendix 4) shows other FDI investment preference areas as tourism and construction where SADC (2002a:342) notes the construction of new hotels, lodges and restaurants, as well as establishing modern conference facilities, especially in Dar es Salaam. The agricultural sector, which is the backbone of the Tanzanian economy (see Figure 4.2 in Section 4.2.1), is also an investment preference sector which SADC (2002a:340) argues has been opened up to private investment through macro-economic reforms.

The United Nations (2002:75) argues that as FDI into Tanzania increases, its "qualitative impact on the economy has also become noticeable, especially in the industries in which it is concentrated". For example, in banking, FDI has contributed to the modernisation of the

¹⁵ E.g. gold production by Resolute of Australia and Ashanti Goldfields which commenced in November 1998, Sutton Resources which opened its gold mine in mid-2000, and the Ashanti Goldfields mine at Geita which came into operation during 2001. Outside gold mining, other mining potentials include the Kabanga nickel deposits, the large coal reserves in the Ruhuhu area, as well as the iron reserves in Liganga (SADC, 2002a:340).

industry, while foreign investors have helped to restructure the privatised enterprises, boosting their competitiveness as well as transferring technology and skills. Other noticeable effects include: a contribution to the inflow of external resources, a change from a negative to a positive contribution to the balance of payments, the contribution of foreign affiliates to overall exports and inflows of hard currency from tourism, an increased share of FDI in capital formation leading to growth, and the diversification of the economy away from agriculture towards mining and services.

5.4.1.5 Foreign direct investment inflows into Zambia

Table A-11a (Appendix 4) shows that Zambia tends to be the fifth largest recipient of FDI inflows in the SADC region. While the country experienced high FDI inflows throughout the period except in 2001, there was a continuous fall in FDI levels after 1997, reaching an all time low in 2001, thereafter recovering sharply. The significant presence of FDI in the country can also be seen by the high FDI:GFCF ratios, especially after 1997, although this dropped in 2001. By putting in place a private-sector led development strategy, investment guarantees, and the privatisation of state run enterprises (see Table A-6, Appendix 3), Zambia has created an environment which seeks to encourage private sector participation including attracting FDI inflows.

With Table 5.3 in Section 5.3.3 implying high levels of savings constraints in Zambia, the high levels of FDI inflows into the country, as shown in Table A-11a (Appendix 4), are set to play an important role in efforts to push up levels of investment in the country. However, as observed by Consumer Unity and Trust Society (2003a:6), despite the efforts to attract FDI, "FDI inflows still constitute only a small fraction of the overall net resource flows into Zambia". Factors which discourage FDI in Zambia include endemic corruption and high costs of investment due to poor and costly infrastructure, underdeveloped financial services sector, limited access to world class communications services, and low productivity and levels of skills in workforce (Consumer Unity and Trust Society, 2003a:8). Also to note is that the investment climate in the country has been on a continuous decline since 1997, as shown by the continuous fall in the ICRG rating (see Table A-11b, Appendix 4).

However, despite the lack of an upsurge in private investment as would have been expected with the liberalisation efforts, Table A-12(d) (Appendix 4) shows that the manufacturing sector had the highest total number of FDI projects followed by the services sector in the period 1995-2001. However, the former ranked second (except in 1996, 2000, 2001), after the services sector, in attracting FDI inflows; while after 1998 the services sector experienced a continuous fall in both its FDI shares and projects. FDI inflows into the services sector are

important as this sector provides the much needed support to industry, facilitates and integrates economic activities, and is also necessary for the efficient and effective utilisation of the nation's physical capital. The significant FDI into this sector coupled with investment into the manufacturing sector could help Zambia to resuscitate its manufacturing sector which is currently under pressure.

The agricultural sector attracted a total of 232 projects, with most investors in this sector having been attracted by the good agricultural conditions in the country as well as by the abundance of grossly underutilised agricultural land¹⁶. With the current measures the government is implementing, e.g. the Agricultural Sector Investment Programme (ASIP), liberalisation of the sector, introducing appropriate policy measures and incentives to further the growth of the sector, as observed by SADC (2002a:360), it is hoped that the sector could become more attractive to private investors, FDI included. The mining sector attracted the least number of projects and FDI inflows, except in 1998. However, the sector continues to play a significant role in the economy, e.g. copper still accounts for more than 70 percent of the country's foreign currency earnings while the sector provides critical inputs for agriculture, agro-chemicals, industrial manufacturing for a wide range of products, the electricity industry, building industry, and the road and telecommunication infrastructure (Consumer Unity and Trust Society, 2003a:16; 2003b:26, 27). Therefore, a decline in the mining sector due to inadequate investment would impact on the livelihood of a lot of people who are directly and indirectly beneficiaries of this sector, and so it can be argued that despite the fall of FDI flows into Zambia and the inability of the country to attract more FDI irrespective of its liberalisation efforts, the sector should not be marginalised and has to continue to benefit from the available resources.

5.4.1.6 Foreign direct investment inflows into Lesotho

From Table A-11a (Appendix 4), in the period 1990 – 1996, Lesotho received very high FDI inflows such that given the small size of its economy, it experienced high FDI:GFCF ratios, 52.0 percent by 1996. After 1996, the country experienced a significant fall in FDI inflows, never to recover to its very high FDI receipts of the early 1990s. After 1999, there has been a consistent fall in FDI inflows with the lowest inflows received in 2002. The country attaches extreme importance on FDI, and Table A-6 (Appendix 3) shows that the country regards FDI as essential to facilitate government industrial development programmes as new capital would be injected into the economy, as well as helping the country to exploit the current investment

¹⁶ SADC (2002a:360) observes that out of the 60 million hectares of arable land in the country, only 9 million are under cultivation.

opportunities in the manufacturing sector, tourism, agro-industries and furniture making, as well as in further infrastructure development essential for industrial development.

The country experienced improved real economic growth rates during the second half of the decade (see Table 5.1 in Section 5.3.1) and so this could have helped to attract FDI inflows (despite lower levels compared to the early 1990s), since growing economies tend to attract more investment, both domestic and foreign. The country has an aggressive private sector driven industrialisation programme with a view to promote industrial investment, which would capitalise on the country's access to consumer markets within and outside the region (see Table A-6, Appendix 3), and this also helps to create a favourable investment destination conducive to increased foreign investment inflows. Table 5.3 in Section 5.3.3 implies significantly high levels of savings constraints in Lesotho, and therefore, FDI inflows into the country are necessary to help the country with the resources needed to promote future investment.

By 1999, the primary beneficiaries of FDI into the country were agro-business, construction and engineering, services, as well as well as the manufacturing sector, especially clothing and textile and footwear (SADC Finance and Investment Coordinating Unit, 1999:11).

5.4.1.7 Foreign direct investment inflows into Mauritius

Before 1997, the FDI inflow into Mauritius fluctuated up and down annually. After 1997, there was a continuous rise in the levels of FDI inflows till 2000 after which there was a continuous fall. Mauritius is often regarded as Africa's success story in terms of export-oriented industrialisation, through its export processing zones, and General Brokerage (1999:9) observes that FDI was instrumental to the take off and success of these export-processing zones. However, despite the economic growth and development, economic stability, and the favourable ratings the country experiences from the leading international banks (see Table A-11b, Appendix 4), Table A-11a (Appendix 4) shows that, compared to other SADC countries, FDI into the country has been a trickle, receiving its highest FDI inflows in 2000. General Brokerage (1999:9) attributes the generally low FDI inflows to a number of factors, viz. high local wages and rigid labour regularities which thus form serious deterrents to capital inflows, fiscal incentives which used to lure investors in the past have ceased to be an efficiency decoy, lack of support industries, and a poor technical base and technological infrastructure.

Despite the generally low levels of FDI inflows into the country, Table A-12(e) (Appendix 4) shows FDI preference in the tertiary sector with its shares increasing to 99.41 percent by

2000. This is not surprising bearing in mind that this sector is the most vibrant in the economy (see Figure 4.4 in Section 4.2.3). Within the tertiary sector, FDI inflows tended to concentrate mainly in trade and hotels and restaurants, except for 1997, 1998 and 2000. Both the trade and tourism sectors are very vibrant and this could explain this investment preference. After 1995, the financial sector became a significant attraction for FDI flows, receiving most of the FDI flows in the period 1996 – 1998. Investment preferences into the financial sector is essential so as to help to develop a strong, stable and modernised financial systems, which would contribute towards the region's sound financial infrastructure.

5.4.1.8 Foreign direct investment inflows into Namibia

The country ranks 6th in FDI inflows. From 1996 to 1998, the country experienced a continuous fall in FDI inflows but had a very big rise in FDI inflows after 1998 and thereafter experienced a continuous rise till 2001 after which the FDI levels fell slightly. As such, after 1998, FDI:GFCF has been on a continuous rise (Table A-11a, Appendix 4). SADC (2002a:254) observes that Namibia is very much aware that foreign investment into the economy is needed in order to increase the levels of both of gross fixed investment and capital formation. As such, the government regards investment promotion as a high priority activity, providing attractive incentive packages. The country's solid transport infrastructure, support for a mixed economy, as well as a strong natural resource base, have served to attract significant levels of foreign investment. Also to note is that the country has a very favourable investment environment as measured by the IRCG ratings (see Table A-11b, Appendix 4).

Table A-12(f) (Appendix 4) shows that the country's top four FDI receiving sectors are the mining and quarrying sector, wholesale and retail trade and catering and accommodation, the financial sector, and manufacturing, in that order. While the mining and quarrying sector is the priority FDI investment sector, after 1998, the sector experienced a continuous fall in its share, rising in 2001. Therefore, while the country was experiencing a continuous rise in FDI inflows after 1998 to 2001 (see Table A-11a, Appendix 4), the FDI shares for the sector did not necessarily rise until 2001, despite the fact that mining is a very important sector to the country. While the manufacturing sector tends to receive small shares of FDI, both SADC (2002a:254) and Table A-6 (Appendix 3) indicate that the country is keenly aware of the need for FDI into this sector so as to develop it more and thus reduce the country's reliance on mining and primary exports. Investment opportunities in the manufacturing sector are in food processing, textiles and garments, tanning of hides and skins, as well as ostrich hatchery, abattoir and processing (SADC, 2002a:255). Therefore, more FDI into the sector could help the country to fully realise these opportunities.

5.4.1.9 Foreign direct investment inflows into Zimbabwe

Table A-11a (Appendix 4) shows that Zimbabwe ranks seventh and experienced a continuous rise in FDI inflows in the period 1990-1998, with a very big rise after 1996. After 1998, when it had its largest FDI inflows, the country experienced its biggest fall in FDI receipts. Since then there has been a continuous fall in FDI, reaching the lowest levels in 2001. The economic and political instability in the country which started in 1999 and worsened by the land invasions and the 2002 Presidential election disputes, have tarnished the country's image. As such, this could help to explain the significant fall and continuous fall in FDI inflows into the country after 1998. Also to note is that the country is amongst the top three most risky countries in SADC, with the investment environment continuously deteriorating, and the leading international banks rate the country very poorly (see Table A-11b, Appendix 4).

Table A-12(g) (Appendix 4) shows that on average, the manufacturing sector, commercial services, mining¹⁷ and the tourism sectors, in that order, emerge as the major economic sectors into which FDI flows. The significant FDI inflows into the manufacturing and commercial services sectors are highly recommended as this provides the much-needed resources to revitalise these two sectors which have significant spill over effects into the rest of the economy. For example, FDI into the commercial services would help the country to develop more reliable and efficient commercial services infrastructures like banking, telecommunication, and information technology, which are necessary to boost investor confidence. It would also reduce the cost of doing business for the current investors in the country, thus enabling them to operate more efficiently. The significant FDI inflows into the manufacturing sector present the sector with opportunities to modernise its technological base as well as to upgrade the technical and management skills. This would also assist in improving the sector's industrial capacity, capacity utilisation, and the ability to meet domestic demand for manufactured goods. A strong manufacturing sector would assist development in the other sectors (e.g. the agricultural sector, the mining sector, and/or the construction sector) in that it will be able to adequately respond to their stimuli, thus improving the supply chain of inputs into these sectors.

However, it is important to note that despite the FDI inflows into Zimbabwe, the economic sectors in the country continue to be negatively affected by the poor macroeconomic

¹⁷ This sector was the priority investment destination in only 1996 and 2001. The US\$2 billion investment by the Australian company BHP in the platinum project in Zimbabwe undertaken in 1995/6 could explain the huge investment in the sector. However, the project lasted only a few years with the company withdrawing in 1999/2000 (Muradzikwa, 2000b:18).

environment in the country, e.g. some companies within the manufacturing sector are scaling down or closing, the mining sector has faced viability problems leading to mine closures and sharp declines in mineral output and export earnings, the well diversified tourism sector has been in a further downward spiral, especially after 1999, as the country became a very risky holiday destination, and the violent land invasions adversely affected the agriculture sector. Therefore, it is important to stabilise the economy and return investor confidence into the country. This would thus help any investment, FDI included, to be more effective and efficient in growing the various economic sectors into which they are located.

5.4.1.10 Foreign direct investment inflows into Botswana

Botswana is among the region's five lowest recipients of FDI (Table A-11a, Appendix 4). This is despite the fact that the country has the least risky investment environment in the SADC region, as shown by the ICRG ratings in Table A-11b (Appendix 4), and that there has been a continuous rise in the ratings the country receives from the leading international banks as well as the Euromoney credit worthiness ratings, as shown in Table A-11b (Appendix 4). However, despite the generally low levels of FDI inflows into the country, Table A-12(h) (Appendix 4) shows that the sectoral distribution of FDI into Botswana shows investment preference in the primary sector, with all the FDI inflows into this sector going into mining and quarrying. Over 75 percent of FDI has gone into this sector since 1997 and the FDI shares into the sector have been on an upward trend, except for 1999 when there was a fall. UNCTAD (2004f:1) notes that the mining activities which particularly attract FDI into the country are diamonds, and as such, as SADC (2002a:154) observes, the country has "become firmly established as one of the most powerful diamond producers in the world".

The Bank of Botswana (2000)¹⁸ argues that the services sector (including financial and business services and tourism) is an area where the country Botswana has a comparative advantage, and as such, deserves favourable treatment under any incentive scheme. It can thus be argued that this has contributed to FDI preference in the sector, such that the tertiary sector became the country's second FDI priority, although after 1999 there has been a continuous decline in the FDI shares into the sector. Within this sector, priority investment is in trade and the finance sector, although after 1998 there has been a continuous gradual fall in its shares for FDI. Preference investment in the financial sector is essential to facilitate the development of a high technology and up-to-date financial system capable of handling transactions more efficiently. Other areas of FDI interest in the tertiary sector are telecommunication, especially cellular network, fast food outlets, and filling stations as observed by (SADC Finance and

¹⁸ Cited in SADC (2002a:158).

Investment Sectoral Co-ordinating Unit, 1999:7), as well as hotels and restaurants, transport, storage and communication, business and real estate (Table A-12(h), Appendix 4).

5.4.1.11 Foreign direct investment inflows into Swaziland

Table A-11a, (Appendix 4) shows that Swaziland is among the SADC countries that received little FDI inflows, but given the size of the economy, it tended to have high FDI:GFCF ratios. SADC (2002a:318) observes that FDI is regarded as the country's engine to economic growth (see also Table A-6, Appendix 3), and throughout the 1990s, the Swaziland Investment Promotion Authority (SIPA) recorded significant success in attracting this investment into the manufacturing sector. Table a-12(i) (Appendix 4) shows that over 50 percent of FDI was channelled into the manufacturing sector throughout the 1990s and SADC (2002a:320) notes that of particular importance were "manufacturing concerns with high export potential capable of boosting the economy with new jobs and additional foreign earnings".

Priority FDI into the manufacturing sector would help the country to further realise harnessing the abundant investment opportunities in the processing of the country's natural resources both in the mining and agricultural sectors. For example, SADC (2002a:320) observes that while agricultural products like tobacco, pineapples and vegetables grown in the country are currently canned locally, there is "scope for further processing of these goods". Also to note are the opportunities in producing ceramic ware, paper, pharmaceuticals and glass from mineral resources like kaolin and limestone, while coal could be processed to make chemicals, cement and fertilisers (SADC, 2002a:320, 322), which FDI could help the country to realise. Other manufacturing sector beneficiaries would be textiles, soft drink concentrates, wood and pulp, as well as refrigerators, as observed by SADC Finance and Investment Sectoral Coordinating Unit (1999:26).

Priority investment in the manufacturing sector has to date helped the country to install additional manufacturing capacity, e.g. SADC (2002a:320) notes that during 2000, four new major manufacturing companies were set up, six other companies are expected to be set up by the end of 2002, while existing industries are also being rehabilitated, as shown in Table A-6 (Appendix 3).

FDI has also been channelled into the services sector, and this would help in improving the capacity of the sector to support the other economic sectors in the country. While the mining sector has been receiving the least share of FDI, SADC (2002a:320) notes that the country is actively promoting this sector so as to exploit fully the available rich mineral and coal deposits. The agricultural sector has also benefited from FDI inflows, with the sector

experiencing a continuous rise in its FDI share after 1994, although this fell slightly in 1998. Since the manufacturing sector in the country is heavily dependent on the agricultural sector, FDI into the latter is essential in order for the sector to be able to meet the demands of the manufacturing sector. For example, SADC (2002a:320) observes that the sugar cane scheme at Ntondozi has been receiving a lot of support and this could in turn provide the much needed sugar inputs into the country's sweets and confectionaries industries.

5.4.1.12 Foreign direct investment inflows into the remaining SADC countries

The D. R. C. is the lowest recipient of FDI (Table A-11a, Appendix 4). Despite its vast resources in diamonds, forestry and the potential for hydro-electricity production, the country is regarded as a very risky investment destination, as shown by all the three risk ratings in Table A-11b (Appendix 4). This could help explain the reduced FDI inflows into the country. Also to note is that the country has very low real economic growth rates (see Table 5.1 in Section 5.3.1) and this could also have contributed in creating an unfavourable investment climate. SADC Finance and Investment Sectoral Co-ordinating Unit (1999:9) note that by 1999, the mining sector was the primary beneficiary of the low levels of FDI the country receives, thus showing that despite the low FDI inflows, the country's rich endowment in minerals still serves as the major attraction for FDI.

Malawi is the 2nd lowest recipient of FDI in the region and these fluctuate annually (Table A-11a, Appendix 4). The investment climate in the country has been on a continuous decline since 1997 as shown by the ICRG rating, while the leading international banks rank the country poorly (see Table A-11b, Appendix 4). SADC Finance and Investment Sectoral Co-ordinating Unit (1999:13) notes that by 1999, the primary beneficiaries were retailing, manufacturing (especially clothing and cigarettes), as well as hotels.

5.4.2 Concluding remarks

It can be observed that, except for South Africa, the SADC countries which received significant high levels of FDI inflows during the period under discussion, i.e. Angola, Tanzania, Mozambique and Zambia, are categorised as low income countries, with some of them included among the poorest countries in the world. The upper middle-income countries (the highest category in the region with countries with the highest per capita incomes) viz. Botswana and Mauritius, received low to moderate FDI inflows. This is encouraging because it shows that countries with low incomes can also become increasingly attractive to foreign investors. This could imply that the poor countries in the region have an opportunity to catch up with the rest of the region.

At regional level, the sectoral composition of FDI in SADC has changed in recent years as FDI is no longer exclusively directed towards the primary sector but also the services and manufacturing sectors. Muradzikwa (2002a:5) agrees noting that for the period 1998–2000, the sectoral distribution of FDI in southern Africa shows that there were significant increases in investment in services, viz. tourism and telecommunication, while mining and quarrying and petroleum, gas and related products still attracted significant FDI inflows. He notes that the manufacturing related industries/activities, which received FDI investment in order of priority, are pharmaceuticals and chemicals, food and beverages, metal and metals products, motor vehicles, textiles, leather and clothing. Agriculture still received relatively high FDI inflows, higher than the individual manufacturing related activities. Finance and insurance, an essential sector in facilitating the manufacturing sector and other sectors in the economy, has increasingly been attracting FDI inflows into the region. As such, DPRU (2000c:5) argues that the financial services sector has ranked second, after mining and quarrying, in attracting the highest shares of total FDI activity within the SADC region. The sector has also ranked second, after mining and quarrying, in both positive FDI activity and real FDI activity¹⁹.

FDI would, for some time, continue to flow into the extractive and other natural resources activities, because these are the areas in which countries have comparative advantage and both the host and investing countries would like to maximise benefits. However, primary product prices often fluctuate widely, making countries vulnerable, and many natural resources are non-renewable which means that FDI quickly dries up once the resources are exhausted. In this regard therefore, as Consumer Unity and Trust Society (2003a:4) observes, promoting FDI in these natural resources sectors should be accompanied by “enforceable policies aimed at industrial diversification, the promotion of research and development, and the development of backward linkages from natural resource-based industries to local industrial companies.” This would help countries to shift from only focussing on static comparative advantages to developing and promoting the potentials for dynamic comparative advantages within their industries.

The significant presence of FDI in the region and the interest foreign investors have shown in the SADC region in the period 1990 – 2002, led to SADC countries appearing among Africa’s top ten recipients of FDI inflows, as shown Table 5.5 below. According to average FDI inflows for the period 1991 – 1994; Angola, the Democratic Republic of Congo, South Africa, Namibia, Zimbabwe and Swaziland, appeared among Africa’s top ten recipients of

¹⁹ Positive FDI activity is all activities which have led or will lead to an inflow of investment into the target country. Real FDI activity is all activities which have been implemented or have already led to an inflow of investment (DPRU, 2000c:5).

FDI. In the period 1995 –1998, South Africa ranked 1st among Africa’s top ten recipients. Other SADC countries among Africa’s top ten recipients in this period are Angola, the Democratic Republic of Congo, Zambia, Lesotho, Tanzania and Namibia. The SADC countries appearing in the top ten recipients in both periods are Angola, the Democratic Republic of Congo, South Africa and Namibia, implying significant investor interest in these countries, not only within the SADC region, but also in Africa as a whole.

Table 5.5: FDI performance by SADC countries: 1991 – 2001 (most recent data)

The top ten recipients of FDI in Africa				Top 10 world’s LDC recipients of FDI		
Countries	Ranking according to average 1991-1994	Countries	Ranking according to average 1995-1998	Countries	Ranking according to 2000 FDI	Ranking according to 2001 FDI
Nigeria	1 st	South Africa*	1 st	Angola*	1 st	1 st
Angola*	2 nd	Nigeria	2 nd	Sudan	2 nd	2 nd
Cameroon	3 rd	Angola*	3 rd	Myanmar	3 rd	8 th
D. R. C.*	4 th	D. R. C.*	4 th	Uganda	4 th	4 th
South Africa*	5 th	Guinea ¹	5 th	Tanzania*	5 th	5 th
Ghana	6 th	Cote d’Ivoire	6 th	Cambodia	6 th	10 th
Namibia*	7 th	Zambia*	7 th	Mozambique*	7 th	3 rd
Guinea	8 th	Lesotho*	8 th	Lesotho*	8 th	9 th
Zimbabwe*	9 th	Tanzania*	9 th	Benin	9 th	6 th
Swaziland*	10 th	Namibia*	10 th	Senegal	10 th	7 th

Source: Adapted from SADC (2002b:v); United Nations (2002:74).

Notes: ¹ = Equatorial Guinea. * = SADC countries. While SADC (2002b:v) ranks the Democratic Republic of Congo as Africa’s 4th largest recipient of FDI, Table A-11a (Appendix 4) shows that this country is SADC’s second least recipient of FDI.

The significant presence of FDI in the region and the foreign investors’ interest in the SADC region is also seen in some of the SADC countries appearing on the world’s top LDC recipients of FDI. As Table 5.5 shows, four SADC countries, viz. Angola, Mozambique, Tanzania and Lesotho, appear amongst the world’s top ten LDC recipients of FDI for 2000 and 2001. Angola ranked 1st in both years, Tanzania ranked 5th in both years, whilst Mozambique moved from the 7th position in 2000 to 3rd position in 2001. As such, some of LDCs within SADC have the potential to attract more FDI and can compete on an equal footing with other LDCs. Therefore, despite their very low levels of development, the LDCs within SADC are still very attractive destinations for FDI, and they put in tremendous effort to harness FDI to facilitate their development processes.

5.4.3 Implications of FDI for industrial development

FDI has implications for industrial development as: (i) it helps to close the technology gap which thus leads to realising high total factor productivity (Arndt, 1988:226-227; Pack, 1994:67); (ii) effective utilisation of the various resources from abroad helps to build local technological capabilities, paving the way for sustained long-run economic growth and industrial development (see Section 2.2.2.3); (iii) it helps to develop the technological capability of the local manufacturing sector thus helping to build international reputation for local industries; (iv) introducing new knowledge and techniques in production and the transfer of technology and managerial skills, helps to improve production efficiency which in turn would help to break supply bottlenecks in the host country. It would also help to strengthen local competitiveness in terms of product offering and efficiency; and (v) where the foreign exchange gap is quite large, FDI can help to fill that gap so as to help the country to attain reasonable target growth rates. However, it is important to note that FDI alone cannot be sufficient to promote the region's industrial development, and so, governments need to intervene where appropriate/necessary, with the experiences of the East Asian NICs (see Section 3.4) serving as a lesson.

SADC in general, and some countries in particular, may have a lower stock of capital per worker, and in theory should provide higher returns to capital which in turn should attract more FDI to help the region/host countries to develop their industries (see the neo-classical theory in Section 2.4.3.3). However, due to the high risks associated with some of these countries²⁰, FDI inflows into the SADC region could concentrate in a few countries. This would not only have a bearing on the pace at which countries would industrialise, but could also lead to polarisation of industries, thus widening further the industrial development gap between the regional countries.

It has also been argued that FDI may not necessarily lead to the intended objectives which have the necessary effects/ impact on industrial development. For example, (i) falling to close the "savings gap" and raising the investment rates as expected (see Sections 2.4.1.3 and 2.4.2.3), by stifling domestic competition, failure by MNCs to invest much of their profits in the host country, or generating income for groups with lower propensities to save (Section 4.6.4.1; Todaro, 1997:539); (ii) constraining the development and growth of indigenous entrepreneurship by dominating the local market with the imported management and entrepreneurial skills and technology as well as inappropriate technology (Todaro, 1997:540;

²⁰ E.g. uncertainty over the sustainability of reforms, the threat of policy reversals, political and civil unrest, inadequate and deteriorating physical infrastructure and the absence of high quality human resources.

Kolala, 2000:9); and (iii) promoting short-term FDI which leaves the host country with short lived benefits and uncertainties surrounding the future of the organisation²¹.

Therefore, while the region has on average experienced increased FDI inflows, it is the size of the net benefits of these investment inflows which matters. This can be shown by the extent to which these investment inflows have been successful in helping the host countries and the region as a whole to increase domestic investment and savings rates, generate resource balances, create a local supply/source of local technological capabilities, as well as narrowing the industrial imbalances.

Since the services and manufacturing have also become key sectors for FDI, this presents opportunities for improved production and technological advancement as foreign investors bring new technical and managerial skills. Since currently the manufacturing sector in most countries mainly focusses on the production of resource- and labour-intensive products (as will be discussed in Section 6.3), FDI could therefore have a facilitating role in helping the region to fully utilise these industries and use them as a stepping-stone to higher levels of industrial development. This could be possible where TNCs relocate their labour-intensive assembly and processing operations in LDCs so as to take advantage of the abundant resources and lower labour costs, which are sufficient to outweigh any labour productivity differential and additional transport costs, as observed in Section 2.7.3.3. This is a lesson SADC could learn from the experiences of the East Asian NICs (see Section 3.4.5) where, while industrialisation in these countries was initiated by labour-intensive manufacturing, FDI helped the countries to move into capital-intensive manufacturing as it enabled the establishment of the industrial bases, leading to a rise in the share of manufactured exports.

While the region has a smaller industrial base for scale-intensive products and differentiated and science-based manufactured products²², as will be shown in Section 6.4, the improved technological capabilities and managerial skills in the manufacturing sector as a result of FDI would help the sector to improve and venture into producing more efficiently products in

²¹ Cases in point include Anglo American (a South African firm), whose investment in the copper mines of Zambia, lasted from 1997/8 to 2001, leaving the country with a lot of uncertainty about the future of the Zambia Copperbelt. The US\$2 billion investment by the Australian company BHP in the platinum project in Zimbabwe undertaken in 1995/6 and was to become one of the leading platinum mines in the world, but lasted only a few years with the company withdrawing in 1999/2000, leaving behind a huge and expensive plant currently operating below capacity (Muradzikwa, 2000b:18).

²² Steel, automobiles, paper and chemicals are examples of scale-intensive products, where the major competitive factor is length of production runs. Advanced machinery and power-generating equipment are examples of differentiated manufactured products where the major competitive factor is producing products tailored to varied demands. Electronics, biotechnology and pharmaceuticals are examples of science-based products where the major competitive factor is rapid science technology application (Wilde *et al*, 1999a:5).

these high technology and technologically complex manufacturing activities. FDI would thus have a facilitating role in both broadening the manufacturing base in the region and improving installed capacity utilisation, thus providing opportunities to process further the raw materials which occur in great abundance in the region, into products of more value and capable of fetching more on the market. This is a lesson SADC could learn from Singapore (see Section 3.2.6.3), where FDI was instrumental in restructuring industry to higher value added and capital-intensive manufacturing, thereby enabling the country to move up to higher levels of industrial development.

The current high investments in the mining sector if coupled with improvements in both the technical and managerial capability and capacity utilisation in the sector, could help countries to propel industrialisation through a mining sector-led industrial development programme. With the improved technological capabilities and managerial skills in the manufacturing sector as a result of FDI, as discussed above, the raw materials from the mining sector would have a ready market in the manufacturing sector where they would serve as inputs to the production of high value products. Since the manufacturing sector would now be capable of producing high technology and technologically complex differentiated and science based products, these would serve as inputs into the mining sector. While the region would need to continue to import the high technology and technologically complex products in order to satisfy local demand, establishing a manufacturing sector capable of efficiently producing some of such products would contribute towards industrialisation. It is also important to note that since the mining sector has received significant export-oriented FDI inflows, e.g. oil in Angola, gold in Tanzania, e.t.c., this would facilitate the sector's exports.

It is also important to note that if inputs are sourced from domestic producers/suppliers in the host country, FDI could lead to a rapid expansion of the sector in which the investment is located as well as the other sectors dependent on that sector. The increased economic activity as well as the creation and strengthening of the backward and forward linkages between sectors that result could act as a catalyst to kick-start growth and sustainable development within the host country. FDI into the untapped sectors or under-utilised investment opportunities leads to the creation of new employment opportunities, thus helping the host country to reduce unemployment levels, while FDI in response to the closure or privatisation of a state-owned enterprise helps to re-employ people who would have lost their jobs, thus maintaining effective demand. By expanding domestic production, this helps to broaden the tax revenue base for the host country as well as creating employment. Benefits to the host country could also be in terms of the construction of infrastructure and improving the reliability of such infrastructure, e.g. railways, ports, bridges and roads, electric power

generation. Where investors simply take over existing infrastructures operating below capacity, significant infrastructural development could be felt more through additional capital injections to upgrade and modernise the existing manufacturing infrastructure and use it to full capacity. It is also important to note that the developments and improvements in the any form of infrastructure would thus help to reduce supply bottlenecks, as the products, some of which serve as inputs in other industries, would be made more easily available.

In analysing investment trends within the SADC region, it is always important to bring in the regional cross border dimension of investment because this is a significant component of investment within the region. Section 5.5 will thus analyse this form of investment and how beneficial it is to both the host and investing countries.

5.5 REGIONAL CROSS BORDER INVESTMENT PATTERNS WITHIN SADC

As SADC (2002b:31) and SADC (2004) observe, “the outlook and pattern for investment in SADC would not be complete without bringing into the picture the dimension of regional cross border investment”. With the initiatives for greater cooperation and the move towards deeper integration within the SADC region, regional cross border investment is emerging as a significant form of investment as countries seek to form closer bonds with each other, as well as to link trade and industrial production. Also to note is that Article 22 of the SADC Protocol on Trade encourages countries to take advantage of the existing opportunities for regional cross border investment by urging countries to adopt policies and implement measures that promote an open cross-border investment regime. This therefore, makes it necessary to analyse this form of investment, its trends, as well as the possible implications for industrial development initiatives within the region.

5.5.1 Motivating factors for cross border investment within SADC

Various motivating factors have been given for regional cross border investment within the SADC region. These include: (i) exchange control relaxation, liberalisation and deregulation, as well as privatisation initiatives in many of the SADC countries (see Sections 4.6.1 and 4.6.2), which opened up the untapped/ and or underutilised lucrative business and investment opportunities within the domestic markets to other SADC countries; (ii) the need by firms to cease opportunities to expand their own domestic firms into other countries in the region so as to enjoy a wider market for their products as well as the high-returns low-cost destinations (Muradzikwa, 2002b:6; 2001:23); (iii) the improvements in the region’s transport and communications network which have made it easier for countries to access each other more easily, reduce transport costs, and reduce investment risks (see Section 4.4.3); (iv) the need to

serve better the existing customers in other countries within the region; and (v) the proximity to other markets, political and socio-economic stability, as well as a good supply of skills (Kolala, 2000:10-13).

5.5.2 Regional cross border investment patterns

Due to the problems with the availability of information on cross border investment within the SADC region, this section will tend to look mostly at cross border investment by South Africa and Zimbabwe, as well as cross border investment into Zimbabwe by the SADC countries. However to note is that, Wolf (2002:5), SADC (2002b:31) and SADC (2004) observe that South Africa, Mauritius and Zimbabwe²³ are the countries that have significant outward FDI, thus being the major sources of regional cross border investment in the SADC region.

5.5.2.1 South Africa's cross border investments within SADC

South Africa is the leading foreign investor in the SADC region, accounting for about a quarter of FDI activity (Wolf 2002:5; McCarthy, 1999:389; DPRU, 2000b:4; Financial Mail, 2003). Hartzenberg (2002:6) and Muradzikwa (2002a:5) note that in 2000, South Africa accounted for approximately 85 percent of total FDI in all other SADC countries. Several reasons have been given for South Africa's significant cross border investment into the SADC countries. These include (i) the removal of exchange controls in South Africa (Hartzenberg, 2002:6; Muradzikwa, 2002a:5; Muradzikwa, 2002b:6, 8); (ii) few other SADC countries are regarded as viable sources of investment and so South Africa faces no fierce investment competition (Maringa, 1999); (iii) South Africa has a better understanding of regional industrial trends and policy environments than the overseas investors and this works to its advantage (Vickers, 2002:9); (iv) South African firms' risk taking and aggressive nature in seeking investment opportunities; and (v) South Africa's bilateral trade agreements with a number of SADC countries which enables it to produce at relatively low costs and export back to the South African market²⁴.

²³ It has been observed that some of the financial flows out of Zimbabwe could be described as capital flight (SADC, 2002b:31).

²⁴ For example, Muradzikwa (2002b:12,13) notes that the 1995 bilateral trade agreement between South Africa and Malawi motivated the Pep Clothing, a leading South African clothing retail chain to set up its clothing manufacturing operations in Blantyre, Malawi in 1996. The trade agreement allowed the opportunities to import cotton materials duty free from Asia, and manufacture for export to the South African market duty free. However, when the trade agreement was renegotiated, significant changes were effected to the rules of origin, curtailing the company's competitive advantage, leading to its closure in March 2001. McCarthy (1999:394) and DPRU (2000a:2) observe that apart from wanting to take advantage of the South Africa-Malawi trade agreement, the relocation of Pep Clothing into Malawi in 1996 from its factory in Butterworth in the Eastern Cape was to take advantage of the lower unit costs. Other South African firms in clothing production have relocated to Mozambique in response to increased global competition and the search for low cost labour.

However, since accessing the sectoral investment figures from the recipient countries was difficult, an analysis of sectoral investment by South Africa will only be done for few countries, viz. Zambia, Zimbabwe, Namibia and Mozambique, as will be shown Sections 5.5.2.1.1 – 5.5.1.1.5.

5.5.2.1.1 Cross border investment by South Africa into Zambia

Phiri (1999) points out that during the decade, Zambia has aggressively engaged in economic reforms, adopting market-friendly policies through privatisation, trade and exchange control liberalisation. This together with ensuring political stability and putting in place investment incentives has managed to create an attractive investment climate in the country. As Muradzikwa (2002b:8) observes, this and the central location of the country has attracted South African firms into the country as they regard the country to be strategic for further expansion into the rest of the African continent.

Kolala (2000:20) notes that South Africa has steadily risen in importance with regard to cross border investment into Zambia. For example, she observes that during the period 1993-1999, South Africa was the largest regional investor in Zambia, with investments amounting to US\$239 million, which was 19 percent of the total investment pledges the country received from the whole world. Vickers (2002:10) also observes the predominance of South Africa's investment in Zambia, noting that this investment rose from US\$4.50 million in 1996 to US\$186.24 million in 1997 and then to US\$ 212.39 million in 1998.

SADC (2002b:31-32), observes that there is a strong presence by South Africa in almost all economic sectors in Zambia, and as such this could help to explain why the country receives significant volumes of investment from South Africa. Investment into the Zambian economy can be found in electric power, banking, brewing, manufacturing, mineral exploration, retailing, tourism and mining. Kolala (2000:33, 35) notes that this investment in the various economic sectors has led to the transfer of knowledge, skills and technology through on-the-job training programmes, while some firms have sent their staff for six months or more intensive training programmes in South Africa.

Table 5.6 shows the major South African investors (i.e. the top 20) who by May 2000 had risen to take up business opportunities in Zambia. Most of these investors went into the manufacturing sector, enabling the sector to receive the highest investment pledge, i.e. US\$56.58 million. The services sector received the second largest number of investors, receiving a total investment pledge of US\$21.14 million. While the tourism sector received only 2 major investors, it experienced the 2nd highest investment pledge, i.e.

US\$50.40million. The construction sector also received a significantly high investment pledge, i.e. a total of US\$29.33 million, even though it only got two major investors.

Table 5.6: Top twenty South Africa investors in Zambia by May 2000

Economic Sectors	Name of company	Pledged investment (US\$ mn)
Agriculture	Senzile Limited	2.86
	Mkango Ranching Limited	2.87
Construction	Stanley Mining Services	4.33
	Manda Hill Developments	25.00
Engineering	Elmar Engineering	4.42
Manufacturing	Milkwood Limited	3.96
	Zambia Oxygen Limited	4.99
	Kafironda Limited	7.73
	Unimills Limited	11.00
	National Milling Company	12.20
	Louvet Distillers Limited	16.70
Mining	Maamba Collieries Limited	5.53
Services	Africa Retail Properties Limited	3.83
	Africa Supermarkets Limited	7.60
	Engen (Z) Limited	5.00
	Pep Stores Limited	4.71
Tourism	Eco Tourism Development	4.80
	Sun International Limited	45.60
Transport	Presto Investment Limited	4.83
	Conan Investment Limited	13.50
TOTAL	Top 20 companies	191.46

Source: Kolala (2000:21–22).

Zambia has received significant cross border investment from South Africa into its retail sector. Kolala (2000:28) argues that profit has been the main motive behind the cross border investment into Zambia by the South Africa retail firms. Other factors have been the political stability of the country, the ease with which capital and profits can be repatriated, as well as the geographical position of the country. The investment into the retail sector by the South African firms is shown in Table 5.7 below.

Most of the investment is in clothing and footwear, with a total of 26 branches in the country by May 2000 and employing a total of 232 full time employees, 8 part time and 3 expatriates. Pep Stores has a dominant market share in clothing and footwear retailing, having a total of 19 branches and 203 full time employees and 3 expatriates. The retail activity to receive the second largest investment is furniture and household requisites, with a total of 20 branches in the country and 575 full time employees, 1 part time and 1 expatriate by May 2000. Most of the investment in this retail activity is by Supreme Furnishers, which owns 17 branches and

employs a total of 536 full time employees. Grocery/ supermarket is a retail activity in which Shoprite/Checkers has a dominant market share, having 18 branches in the country and employing 726 full time employees, 182 part time employees and 8 expatriates.

Table 5.7: Investment by South Africa into the retail sector in Zambia by May 2000

Retail companies investing in Zambia	Start-up date of operations	Type of retail activities the company is involved in	Number of branches in the country	Distribution of employees		
				F/T	P/T	Exp
Dunns	1996	Clothing and footwear	3	18	0	0
Pep Stores	1996	Clothing and footwear	19	203	0	3
Shoprite/Checkers	1996	Grocery/ supermarket	18	726	182	8
Smart Centre	1997	Clothing and footwear	4	15	0	0
Steers	1998	Fast food products	5	70	3	0
Supreme Furnishers	1998	Furniture and household requisites	17	536	0	0
Barnetts	1999	Furniture and household requisites	1	11	0	0
Carnival Furnitures	1999	Furniture and household requisites	1	13	0	0
Ellerines	1999	Furniture and household requisites	1	15	1	1
Guys and Girls	1999	Clothing and footwear	3	11	8	0
Nandos	1999	Fast food products	1	40	0	1
Game	2000	Clothing and household requisites	1	38	57	3
TOTAL			74	1 696	251	16

Source: Own Table derived from Kolala (2000:28, 30, 33-34).

Notes: F/T = Full time; P/T = Part time; Exp = Expatriates

Investment by South Africa into the retailing sector has led to the rapid expansion of this sector in Zambia, and with new firms continuing to emerge this has created new employment opportunities for the locals. This has also led to the absorption of thousands who had lost their jobs due to the collapse of the state-owned supermarkets chains. Investment into the retail sector has also led to competitiveness in the sector, keeping prices low, increasing quality of products, productivity, as well as variety of products. It has also led to the modernisation of the retail sector as the foreign companies have brought in new technology and products, with the technology transfer taking place (Kolala, 2000:24, 25, 31-32).

However, it is important to note that Hartzenberg (2002:6) and Muradzikwa (2002b:9) argue that, while South Africa has significant cross border investment in the retailing sector in Zambia, this has not led to any significant encouragement to local manufacturing activity because the South African retail firms source most of the products they sell in Zambia from

South Africa. Basic agricultural products, e.g. tomatoes and potatoes, which can be readily found in Zambia the host country, are sourced from the home country, South Africa, thus impacting negatively on local business in this sector.

5.5.2.1.2 South Africa's cross border investment into Zimbabwe

Table 5.8 shows that South Africa's investment into Zimbabwe rose from Z\$401.6 million in 1995 to Z\$2 857.3 million in 1999. After 1999, its investment into Zimbabwe has been falling continuously, possibly due to the current unstable socio-economic and political situation in Zimbabwe. Investment into Zimbabwe by South African firms is spread over all economic sectors, e.g. manufacturing, mining, agriculture, tourism, commercial services, construction, and transport. However, as Table 5.8 shows, investment tends to be more concentrated in manufacturing and commercial services. The mining and tourism sectors ranked 3rd and 4th respectively, in terms of receiving investment from South Africa, while the transport sector received the least investment.

Table 5.8: Investment into Zimbabwe by South Africa (1995 –2002) (most recent data)

Economic Sectors	Start up date and size of investment (Z\$ million at market price)							
	1995	1996	1997	1998	1999	2000	2001	2002
Manufacturing	431.8	282.2	54.4	1 017.9	94.8	14.4	84.0	52.9
Mining	54.9	35.8	40.7	275.1	1 436.4	69.2	94.0	0.0
Agriculture	4.6	15.2	2.3	14.5	28.1	0.0	20.0	0.0
Tourism	23.2	311.5	15.0	121.0	1 219.8	6.5	20.2	32.2
Commercial services	168.9	46.2	62.3	1 219.7	61.5	0.0	22.8	44.6
Construction	0.0	1.8	15.1	32.2	3.9	269.7	0.0	0.0
Transport	0.0	1.0	0.0	0.9	12.8	0.0	0.0	0.0
TOTAL	683.4	693.7	189.8	2 681.3	2 857.3	359.8	241.0	129.7

Source: Maringa (1999), Zimbabwe Investment Centre (1996:16; 2003a).

South Africa's investments in the banking sector in Zimbabwe are through Absa and Nedcor. For example, Absa has a 26 percent stake in the Commercial Bank of Zimbabwe, while Nedcor has 29 percent stake in Merchant Bank of Central Africa in Zimbabwe (Games, 2003:14). Through Telkom, South Africa invested in the telecommunication sector of Zimbabwe, e.g. the digitisation of the Zimbabwe telecommunication microwave route link with South Africa (Games, 2003:18). Investment in retail and food is through Pick 'n Pay, which has a stake in the 54-store TM chain in Zimbabwe (Games, 2003:21). Investments into the mining sector in Zimbabwe continues despite the current economic problems the country

faces, e.g. De Beers has investments in Zimbabwe through DebZim, while Anglo Platinum also has investments in Zimbabwe (Games, 2003:23, 24).

5.5.2.1.3 Cross border investment by South Africa into Namibia

Most of the foreign investment into all the economic sectors of Namibia, except construction, comes from South Africa. As Table 5.9 below shows, in most economic sectors, South Africa accounts for over 50 percent of total foreign investment in these sectors. The top four sectors into which investment from South Africa is mostly directed are the financial sector, transport, storage and communication sector, manufacturing sector, and the wholesale and retail trade and catering and accommodation services sector, in that order. Investment into the banking sector has been through Absa, Nedcor and the First National Bank. Absa has a 36 percent stake in a Namibian bank while Nedcor has a 44 percent stake in the Commercial Bank of Namibia (Games, 2003:14).

Table 5.9: Sectoral investment by South Africa in Namibia (1998 –2001) (most recent data)

Economic sectors	Investment by South Africa, as a percentage of total foreign investment in the sector			
	1998	1999	2000	2001
Agriculture, Hunting, Forestry and Fishing	22.62	68.79	60.22	16.38
Manufacturing	55.93	85.04	89.58	98.26
Electricity	0.00	0.00	92.23	0.00
Construction	11.35	37.73	37.30	0.00
Wholesale and retail trade, Catering and accommodation services	62.01	79.45	81.76	78.09
Transport, storage and communication	100.00	82.35	100.00	54.86
Finance, Insurance, Real estate and Business services	81.96	98.74	88.81	91.14
Community, Social and Personal services	58.92	61.72	94.56	0.00

Source: Own Table derived from Nuyoma (2003:2-5).

5.5.2.1.4 Cross border investment by South Africa into Mozambique

The Financial mail (2003:1) observes that while South Africa is the second largest investor in Mozambique after Britain, it is involved in four times as many projects and employs six times as many people as Britain. More than 250 South African companies are located in Mozambique and are engaged in over 320 projects and partnerships. Table 5.10 shows the levels of investment by South Africa into Mozambique.

During 1990 – 1999, South Africa was a significant investor in this country with its highest contribution in 1997 where it accounted for 92.78 percent of the world's total FDI into Mozambique. In 1990, most of the investment went into agriculture followed by tourism; whilst by 1995 most of the investment went into tourism followed by agriculture. In 1999, priority investment was in fishing followed by transport and communications. In broader categories, investment priorities changed between economic sectors, e.g. in 1990, investment priorities were the primary sector, tertiary sector and the secondary sector in that order; in 1995, the tertiary sector received most of the investment followed by the secondary sector; whilst in 1999, the secondary sector was the priority sector followed by the primary sector.

Table 5.10: South Africa FDI into Mozambique and the sectoral distribution

South Africa's FDI into Mozambique for selected years up to the most recent year										
(Thousands of Meticals)										
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999*
FDI inflows	5 383	4 277	2 854	10129	19375	13584	4 997	333294	22031	2 068
% of total ¹	25.10	25.91	3.96	58.63	21.70	27.17	5.81	92.78	14.00	5.77
Sectoral distribution of South Africa's FDI into Mozambique (Thousands of Meticals)										
Economic sectors	Selected years									
	1990	1995	1999							
Primary sector	3 422	3 075	360							
Agriculture	3 422	2 886	110							
Fishing	0	189	250							
Mining	0	0	0							
Secondary sector	771	5 109	1 088							
Tertiary sector	1 190	5 400	223							
Construction	30	50	50							
Transport and telecommunication	110	1 105	173							
Tourism	1 050	4 245	0							
Grand Total	5 383	13 584	2 068^a							

Source: Own Table derived from UNCTAD (2004d:8, 10, 11, 12)

Notes: Statistical data relate to approved projects (UNCTAD, 2004d:8, 10, 11, 12).

* = most recent year for which statistical data is available from the source used.

¹ = Own calculations from UNCTAD (2004d:8, 10, 11, 12) and is the percentage of the total world FDI into Mozambique.

^a = Contains FDI of 397 thousand meticals classified as 'unspecified' (UNCTAD, 2004d:12).

South Africa's investment into Mozambique has taken advantage of some of the investment opportunities shown in Section 5.4.1.3 as well as maintaining a strong presence in other economic sectors like natural gas production, retailing, and the Mozal Aluminium Smelter, which is the single largest investment in the country to date. Muradzikwa (2002b:11, 13)

observes that this project alone created over 9000 jobs, 64 percent of which were allocated to the Mozambicans. He also argues that the Mozal Aluminium Smelter project has led to significant transfer of skills and technology to develop local technological capabilities with 5 300 people trained in construction skills, while the 70 local business enterprises which participated directly and indirectly also learned during the process.

In the banking sector, Games (2003:13, 14, 15) notes that Absa, Nedcor, African Bank Corporation and the First National Bank have been South Africa's major players with Absa taking an 80 percent stake in the troubled Banco Austral; while African Bank Corporation bought Nedcor's 40 percent stake in BNP Mozambique. In the telecommunications sector, the Development Bank of Southern Africa approved US\$14.2 million for Telecom Network Maputo, while Vodacom paid US\$15 million for the second cellular licence. Other investments include Pick 'n Pay and Pep Stores who have invested in the retail and food sector, SA Breweries investing US\$50 million in beer factories in Maputo and Beira, Sasol which invested US\$1.1 billion towards a gas pipeline, while Eskom has a US\$130.5 million project in Montraco.

5.5.2.1.5 Cross border investment by South Africa into the remaining countries

Table 5.11 shows the levels of investment by South Africa into the remaining SADC countries. Due to the problems in accessing complete investment data, investment for a limited period of time in selected countries would be presented. Tanzania tended to receive most of the investment from South Africa during the period 1996 – 1998, followed by Angola, Swaziland and Botswana, in that order. However, the general trend is a continuous rise in the investment inflows into the countries.

Table 5.11: South Africa's FDI in the remaining SADC countries, 1996 – 1998 (US\$ million)

Target country	1996	1997	1998	Total
Angola	n/a	0.78	103.00	103.78
Botswana	8.35	9.99	57.25	75.59
Lesotho	n/a	2.43	n/a	2.43
Malawi	1.62	n/a	41.30	42.92
Mauritius	n/a	n/a	7.30	7.30
Swaziland	n/a	32.61	48.77	81.38
Tanzania	0.83	26.30	443.29	470.42
Total	10.80	72.11	700.91	783.82

Source: Vickers (2002:10).

Notes: n/a = statistical data was not available.

South Africa's investments have spread over a wide range of sectors in these countries. However, since accessing the actual sectoral investment figures from these recipient countries was difficult, only the areas into which the investment inflows shown in Table 5.11 were directed will be given. For example, despite the civil war in the D. R. C., the country managed to attract South African firms into seven lucrative investment areas, viz. water treatment, electric power, banking, sewage, railways, mineral exploration, and diamond sales. With peace returning to the country, more firms could be attracted to the investment potentials within the country. The same could be said of Angola, which despite the almost three-decade-old civil war which has just ended, managed to attract South African firms into some of its most lucrative investment areas. The keen interest South Africa has in Angola can be seen by the significant increase in investment inflows into the country, i.e. rising from US\$0.78 million in 1997 to US\$103.00 million in the following year (Table 5.11). Investment has been channelled into electric power, mineral exploration, banking, retailing, brewing and national parks. SABC 2 Morning Live Business News (2003) notes that more investment ventures will follow from many South African companies with peace and stability in the country. Botswana, Lesotho and Swaziland, fellow members with South Africa in the Southern African Customs Union (SACU), have benefited from investment from South Africa in some of their industrial sector. The areas of common interest by South African firms in these three countries were the financial sector, tourism, brewing and mineral exploration. In Malawi, investment has been in retailing, banking, tourism, mining, as well as textiles and clothing manufacturing. It is in Mauritius that South African firms have located in the least number of investment areas, i.e. Banking, Tourism, and Reinsurance brokering (Ahwireng-Obeng and McGowan, 1998:26-28; Muradzikwa, 2002a:5; 2002b:7-9, 11-13; SABC 2 Morning Live Business News, 2002; SADC Finance and Investment Sector, 1999:7, 13, 15, 18; SADC, 2002b:31-32).

The major South African players in some of the sectors within the remaining SADC countries mentioned above include Absa, Nedcor and the First National Bank, who have been active investors within the banking sector, e.g. Absa has invested in Tanzania; Nedcor has invested in Mauritius as well as having subsidiary companies in Lesotho, Swaziland and Malawi; the First National Bank focuses on Namibia, Botswana and Swaziland, while also considering expanding into Angola; while the Rand Merchant Bank finances fuel deals in the Democratic Republic of Congo (Games (2003:14-15). Shoprite, Pep Stores and Pick 'n Pay have been active investors within retailing and food, e.g. Pep Stores has establishments in Botswana, Lesotho, Swaziland, Namibia, Malawi and Tanzania (Games, 2003:20-21).

In mining, the main investors have been De Beers, Anglo-gold, Randgold Resources and African Gem Resources. De Beers has also invested in Angola, while Anglo-gold has invested in Tanzania. Randgold Resources is involved in exploration activities in Tanzania, while African Gem Resources mines the rare tanzanite stone in Tanzania (Games 2003:22-25). South African companies have also played a part in telecommunications within the remaining SADC countries. Games (2003:16-18) observes that the main investors in this sector are: Vodacom with investments in Tanzania and the Democratic Republic of Congo, MTN with investments in Swaziland, while Siemens Telecommunications has investment interests in Botswana, Zambia, Lesotho and Tanzania. Telkom has been actively participating in installing and managing the Angolan national VSAT network, as well as the digitisation of Lesotho and Swaziland's domestic network for managed data services.

5.5.2.2 Zimbabwe's cross border investment within SADC

Table 5.12 shows that the early 1990s saw the bulk of regional cross border investment by Zimbabwe into mainly Botswana, Mozambique and Malawi, with the bulk of the outward investment into the financial sector. While Zimbabwe may not have invested in many sectors within South Africa during this period, a significant amount of its investment went into South Africa's manufacturing sector. African Development Bank, *et al* (1995:305) notes that potential large single investments were for Angola, Botswana, Mozambique, Namibia and South Africa; with most of the investment being in manufacturing and engineering sectors. However, most companies were interested in investing smaller amounts and engaging in joint-venture investments with companies within the region.

Table 5.12 Cross border investment by Zimbabwe: 1989-1993

Sectors	Total size of investment (US \$)	Countries in descending order of the size of investment
Banking, finance and insurance	9 205 886	Botswana, Malawi, Mozambique
Manufacturing	2 281 548	South Africa, Mozambique, Namibia, Botswana, Malawi
Transport, storage and freight	888 440	Mozambique, Malawi, Botswana
Retailing	426 045	Botswana, Malawi
Tourism	99 401	Mozambique
Mining	59 271	Mozambique
Construction	5 812	Botswana
TOTAL	12 966 403	5 countries

Source: Adapted from African Development Bank, *et al* (1995:304).

Although a strong interest existed within the business community in Zimbabwe to invest in neighbouring countries, African Development Bank, *et al* (1995:305-306) observes that for a number of reasons, many Zimbabwean companies were not able to apply and invest within the region. These reasons include, lack of financial and managerial capacity to locate and access possible opportunities in neighbouring countries²⁵; lack of confidence and as such adopting a “wait and see” attitude while monitoring the results of other companies’ experiences in the neighbouring countries; pre-occupation with solving problems which their domestic companies were facing within Zimbabwe; and foreign currency shortages.

Currently, it is still argued that despite increasing interest, regional cross-border investment by Zimbabwean companies needs to improve. For example, Maringa (1999) observes that not many Zimbabwean companies have invested in the SADC region except banks. He attributes this to a general lack of initiative on the part of business. He points to the opportunities which have arisen since 1990 in the construction and manufacturing sectors in Mozambique which companies in Zimbabwe did not exploit, despite Zimbabwe’s efforts in ensuring that the Beira Corridor is operational. These and other opportunities were taken up by South Africa, and Zimbabwe now complains of stiff competition for its exports into Mozambique from South African companies located in Mozambique.

However, Zimbabwe has made inroads with respect to investment in other SADC countries. For example, Salama (1999) reports that UDC Zimbabwe and Dairy Marketing Board (DMB) Zimbabwe have invested in Malawi. Mufute (1999) points out that Chibuku Breweries has invested in Mozambique and that a poultry company has invested in Zambia. Chipeta (1999:36) notes that other flows of cross border investment from Zimbabwe are into the financial sectors of Malawi and Tanzania, and into the dairy industry of Malawi. Maringa (1999) observes that significant investment from Zimbabwe will be going into Angola’s mining and agricultural sectors, with the potential for more cross border investment into the country once the political environment has stabilised. The D. R. C. has also been a lucrative investment destination for Zimbabwean companies. SADC (2002b:31, 32) observes that Zimbabwe has invested in telecommunications in Botswana and Zambia, whilst Zimbabwean banks, i.e. Standard Chartered Zimbabwe, Barclays Bank Zimbabwe, and First Banking Corporation of Zimbabwe, have invested in Tanzania, Botswana, Zambia, and other SADC countries. In order to boost Zimbabwe’s investment in Mozambique, ZimTrade (2000:23) notes that a nucleus of Zimbabwean exporters has already set up offices in the Mozambique

²⁵ This applied mainly to indigenous companies, as the TNCs located in Zimbabwe were more likely to invest in the region as they are in a better position to move capital and expertise to where it is needed.

International Trade Centre, so as to develop a sound reputation and promoting goodwill towards Zimbabwe, thereby preparing the groundwork for more investment by Zimbabwean companies into Mozambique. In Namibia, several Zimbabwean companies have been invited for joint ventures in a wide range of pharmaceutical products, hardware, office furniture, stationery, household items, food, cloth, footwear, as well as cleaning materials (Kamati, 1999:1).

5.5.2.3 Cross border investment into Zimbabwe by SADC member states

Mufute (1999) argues that the country had put a lot of effort in creating an environment conducive to investment of any nature, before the onset of the current economic and political instability in Zimbabwe. For example, he notes that the country had: (i) signed a number of multilateral agreements guaranteeing that investment will not be subject to expropriation by the State, with the aim of giving confidence to both regional and overseas investors; (ii) signed bilateral investment agreements with a number of countries with the aim of protecting investment that comes into Zimbabwe from such countries; and (iii) put in place investment incentives to attract investors into both the urban and rural areas. However, the invasion into some of the private companies by the so called war veterans in early 2001 on the grounds that they were settling wage disputes between the employees and the employers, and the subsequent threat by the Zimbabwean government to take over private companies and mines, damaged investor confidence in the country, thus damaging the potential for regional and overseas investment.

Maringa (1999) attributes the substantial regional cross border investment in the 1990s into Zimbabwe to a number of factors. Firstly, the geographically central location of the country within the SADC region, usable and relatively modern infrastructure, a highly educated workforce and wide market, as well as a dynamic and modern banking sector, attracts some countries to locate their investments in Zimbabwe and then market their products elsewhere in the region using Zimbabwe as their base. Secondly, Zimbabwe had taken steps to reduce restrictions on foreign investment to specific areas, with positive results for the inflow of investment from member states into sectors like manufacturing, which has traditionally enjoyed high levels of protection. Finally, exchange control regulations had been made more flexible and foreign investors are able to repatriate their profits automatically. For example, 100 percent of after tax profits could be repatriated, as could disinvestment proceeds as long as the investment had lasted for two years. However, the current foreign exchange constraints which the country has been experiencing since 2000 have made it very difficult for companies to do business in Zimbabwe, damaging the potential for regional and overseas investment.

Maringa (1999) also notes, however, that while Zimbabwe has the potential to be a viable investment destination for both regional and international investors, it is not always their first choice as an investment location due to the macroeconomic context of high inflation and interest rates, a high budget deficit, and the devaluation of the local currency. On the whole therefore, business optimism in the country has failed to be lifted sustainably to a level where investment is attracted enough not to leave the country. The current economic and political problems in the country are damaging the potential for regional and overseas investment further.

Throughout the 1990s, South Africa has been the most significant investor in Zimbabwe. Even in the early 1990s, before South Africa gained its independence, most investment into Zimbabwe was from South Africa. As Table 5.13 shows, South Africa was the source of funds for 11 projects in Zimbabwe in the period August 1989 – July 1993, participating in most of the economic sectors.

Table 5.13: Approved investment from regional investors (August 1989 – July 1993)

Economic sectors	Value (US\$000)	Number of projects	Source of funds
Mining	5 385	5	Kenya, South Africa
Manufacturing	2 166	4	Botswana, Germany, South Africa
Transport	469	1	South Africa, Local Zimbabwean MNCs
Tourism	54	1	Malawi, Zambia, Local MNCs, South Africa
Commerce	17	1	South Africa
Services	Not available	1	Malawi, Local Zimbabwean MNCs
Miscellaneous	139	2	South Africa
TOTAL	8 230	15	South Africa (11 projects); Malawi (2 projects); Botswana (1 project); Zambia (1 project)

Source: African Development Bank, *et al* (1995:303).

More investment was expected from South Africa as interest from South African investors increased significantly since the end of 1992, with the Zimbabwe Investment Centre receiving more investment proposals from South Africa than from the rest of the world put together. Other regional countries, e.g. Zambia and Malawi, also invested in Zimbabwe, but these were mainly interested in small joint venture projects (African Development Bank *et al*, 1995:303).

After becoming a democracy in 1994, South Africa continued to be the dominant investor in Zimbabwe, as shown in Table 5.14 below. The dominance of South Africa's cross border investment into Zimbabwe can be seen in all sectors of the economy throughout the remainder

of the 1990s. South Africa's investment rose from Z\$683.4 million in 1995 to Z\$2 857.30 million in 1999, despite a fall in 1997. However, after 1999, investment into Zimbabwe by South Africa fell sharply and has continued to fall, possibly due to the continued unstable political and economic situation in Zimbabwe.

Table 5.14: Three major regional investors in Zimbabwe, 1995 – 2002 (most recent data)

South Africa								
Economic Sectors	Period and the size of investment, i.e. Z\$ million @ current market prices							
	1995	1996	1997	1998	1999	2000	2001	2002
Manufacturing	431.8	282.2	54.4	1 017.9	94.8	14.4	84.0	52.93
Mining	54.9	35.8	40.7	275.1	1 436.4	69.2	94.0	0.0
Agriculture	4.6	15.2	2.3	14.5	28.1	0.0	20.0	0.0
Tourism	23.2	311.5	15.0	121.0	1 219.8	6.5	20.2	32.2
Comm services	168.9	46.2	62.3	1 219.7	61.5	0.0	22.8	44.6
Construction	0.0	1.8	15.1	32.2	3.9	269.7	0.0	0.0
Transport	0.0	1.0	0.0	0.9	12.8	0.0	0.0	0.0
TOTAL	683.4	693.7	189.8	2 681.3	2 857.3	359.8	241.0	129.73
Mauritius								
Economic Sectors	Start-up date and size of investment: Z\$ m @ current market price							
	1995	1996	1997	1998	1999	2000	2001	2002
Manufacturing	36.3	6.5	76.4	16.7	0.0	5.1	0.0	0.0
Mining	0.0	0.0	0.0	0.0	11.5	0.0	2 049.2	0.0
Tourism	0.6	0.0	0.0	1 804.3	0.0	0.0	0.0	0.0
Commercial services	1.3	3.8	9.7	34.1	9.4	16.7	0.0	0.0
Construction	0.0	0.0	840.0	0.0	0.0	0.0	0.0	0.0
TOTAL	38.2	10.3	926.1	1 855.1	20.9	21.8	2 049.2	0.0
Zambia								
Economic sectors	Start-up date and size of investment: Z\$ m @ current market price							
	1995	1996	1997	1998	1999	2001	2002	
Manufacturing	6.90	15.40	6.00	9.80	0.00	28.10	3.74	
Tourism	0.00	1.90	2.10	0.00	9.40	0.00	0.00	
Commercial services	13.00	1.50	7.30	2.20	25.90	0.00	0.00	
Transport	0.00	6.80	20.70	22.90	0.00	0.00	0.00	
TOTAL	19.90	25.60	36.10	34.90	35.30	28.10	3.74	

Source: Own Table derived from Maringa (1999); Zimbabwe Investment Centre (1996:16); Zimbabwe Investment Centre (2003a; 2003b).

Table 5.14 also shows that significant cross border investment into Zimbabwe is from Mauritius, with total investment rising from Z\$38.2 million in 1995 to Z\$1 855.1 million in 1998. Although investment fell significantly after 1998, it rose sharply in 2001 reaching Z\$2 049.20 million. Investment from Mauritius is concentrated in the manufacturing and commercial services sectors. Significant cross border investment has also come from Zambia, rising from a total of Z\$19.90 million in 1995 to a peak of Z\$36.10 million in 1997, with the

main areas of investment being the manufacturing, commercial services and transport sectors. However, after 1999, investment from Zambia into Zimbabwe has been falling continuously, reaching an all time low of Z\$3.74 million in 2002. This could possibly be due to the unstable political and economic situation in Zimbabwe.

Other regional countries which have shown interest in investing in Zimbabwe are Tanzania, Botswana, Malawi, Angola, Mozambique, and the Democratic Republic of Congo, as shown in Table 5.15 below.

Table 5.15: Cross border investment into Zimbabwe by other SADC countries (1995 – 2002)

Tanzania									
Economic sectors	Year and size of the investment (Z\$ million at market prices)								
	1995	1997	1998	1999	2000	2002			
Manufacturing	2.20	1.90	0.00	0.00	0.00	12.25			
Commercial services	0.00	2.30	6.40	0.80	0.00	385.00			
Total	2.20	4.20	6.40	0.80	7.00^a	397.25			
Botswana									
Economic sectors	Year and size of the investment (Z\$ million at market prices)								
	1995	1996	1998	1999	2000				
Manufacturing	0.00	0.00	2.90	0.00	9.20				
Tourism	0.00	9.00	0.00	0.00	0.00				
Commercial services	17.60	0.00	0.00	0.00	0.00				
Transport	0.00	0.00	25.00	22.10	0.00				
Total	17.60	9.00	27.90	22.10	15.70^b				
Angola				Malawi					
Economic sectors	Size of the investment (Z\$ million at market prices)				Economic sectors	Size of the investment (Z\$ million at market prices)			
	1996	1997	1999	2001		1996	1997	1999	2002
Com. services	0.80	1.90	0.00	0.00	Manufacturing	1.30	1.80	5.90	21.90
Transport	0.00	0.00	0.00	17.00	Com. services	0.00	6.10	0.00	0.00
Tourism	0.00	0.00	31.10	0.00	Total	1.30	7.90	5.90	21.90
Total	0.80	1.90	31.10	17.00					
Democratic Republic of Congo				Mozambique					
Years	Sector & size of investment (Z\$ m at current market prizes)			Years	Sector & size of investment (Z\$ m at current market prizes)				
2000	Tourism 5.80			1996	Manufacturing 1.70				
2001	Construction 15.60			1997	Manufacturing 5.00				
2002	Manufacturing 9.85			2001	Manufacturing 25.40				
Namibia				Swaziland					
Years	Sector & size of investment (Z\$ m at current market prizes)			Years	Sector & size of investment (Z\$ m at current market prizes)				
1995/6	Agriculture 1.10			1995/6	Manufacturing 9.00				

Source: Own Table derived from Maringa (1999); Zimbabwe Investment Centre (1996:16); Zimbabwe Investment Centre (2003a; 2003b).

Notes: ^a = this investment was in the Tourism sector.

^b = this investment includes an investment of Z\$6.5 million in the Mining sector.

Among these, Tanzania is a more regular investor, concentrating her investment in the manufacturing and commercial services sectors. Total investment into Zimbabwe has been on a continuous rise except for 1999 when it fell drastically to Z\$0.80 million. The country had its highest investment contribution into Zimbabwe in 2002, investing a total of Z\$397.25 million. Investment from Malawi and Mozambique is concentrated in the manufacturing sector. Malawi had its highest investment in the manufacturing sector in Zimbabwe in 2002 when it invested Z\$21.90 million. Mozambique invested its highest amount in the manufacturing sector in 2001, investing Z\$25.40 million. There is no consistency on the sectors into which the D. R. C. invests, as it tends to invest in a different sector each year. To some extent, the same could be said of Botswana and Angola, except for 1998 - 1999 and 1996 - 1997 respectively. While the total investment into Zimbabwe by Botswana fluctuated during 1995-1998, it continuously fell after 1998. Angola had its highest total investment into Zimbabwe in 1999, investing Z\$31.10 million.

5.5.2.4 Regional cross border investment into and out of Zambia

The African Development Bank, *et al* (1995:279) observe that due to the current foreign currency regimes in the region which encourage regional cross border investment, Zambia is set to benefit from investment from other regional countries. The country encourages investment from the private sector in the region, with joint venture investment between Zambia businessmen and regional investors encouraged in all sectors, especially in the small and medium sized enterprises, so as to fully exploit the existing potential within the country.

Investment by regional country for the period 1995 - 2001, as shown in Table 5.16 below, shows the importance which the country attaches to investment from domestic sources, joint ventures between locals and foreigners, regional cross border investment, as well as investment from outside the SADC region. South Africa, Zimbabwe and Tanzania were among the sources of investment from SADC. When all sources of investment into Zambia are considered for this period, South Africa ranks as the dominant investor. The dominance of FDI from South Africa into Zambia has also been shown in Section 5.5.2.1.1.

Chipeta (1999:36) and SADC (2002b:31) observe that Zambia has received investment from Malawi into the retail trade and insurance industry, while African Development Bank, *et al* (1995:279) notes the country also receives significant investment from South Africa (see also Section 5.5.2.1.1), Botswana, and to a lesser extent, Zimbabwe (see also Section 5.5.2.2). However, due to difficulties in accessing statistical data on these investment inflows, a more detailed analysis of cross border investment into the country by other SADC countries could not be made. However, African Development Bank, *et al* (1995:280) and the Zambian

Investment Centre (Date unknown:1) observe that sectors into which investors have shown keen interest are the manufacturing sector (food processing, textiles, chemicals and plastics), agriculture²⁶, transport, electrical and mechanical equipment, wood products and furniture, and mining (especially in mining gem stones). Other areas in which interest has also been shown, although to a lesser extent are construction, metal products, and paper and printing.

Table 5.16: Investment certificates by country of origin, 1995 –2001

Origin	Total (US\$ mn)	% of total FDI
Zambia	535.0	26.1
Joint-ventures between Zambia and foreigners	302.0	14.7
African countries		
South Africa	241.4	11.8
Zimbabwe	48.2	2.4
Uganda	23.0	1.1
Tanzania	11.7	0.6
Developed countries		
United Kingdom	218.0	10.6
United States	183.8	9.0
Australia	113.0	5.5
Others, i.e. Netherlands, France, Germany, Canada, Italy	140.3	6.7
Developing countries		
People's republic of China	91.2	4.4
India	25.4	1.2
Others	119.2	5.9
Total	2 052.2	100.0

Source: Consumer Unity and Trust Society (2003a:15).

Cross border investment from Zambia into the region is largely through its parastatal sector. For example, the joint national enterprise like Tazara, which is a joint railway line with neighbouring Tanzania, and Zambia parastatal ZCCM which has established/bought offices in South Africa and Zimbabwe. The private sector cross border investment is mostly in real estate and trading business in South Africa, as well as some trucking companies in Zimbabwe and Botswana. The country also has potential in cross border in professional services, e.g. architect, consulting engineers, as well as in import and export trade (African Development Bank *et al*, 1995:280). Other flows of cross border investment are from Zambia into the financial sector of Malawi (Chipeta, 1999:36).

²⁶ Farmers from South Africa and Zimbabwe have shown a lot of interest in this sector attracted by the very good agricultural conditions in the country (SADC Finance and Investment Sector, 1999:30).

One of Zambia's major investment destinations is Zimbabwe (see Table 5.14, Section 5.5.2.3), where Zambia was the third largest investor after South Africa and Mauritius, with its main areas of investment being the manufacturing, tourism, commercial services, and transport sectors. Kolala (2000:18) argues that some of the cross border investment by Zambian firms into the SADC region is actually relocation by such firms. For example, she notes that some MNCs that have been operating in Zambia for decades are relocating to Malawi and Zimbabwe, e.g. Dunlop, Lever Brothers, Colgate, and Rickett & Colman, which relocated to Zimbabwe; while Rothmans relocated to Malawi. The reasons cited for such relocations are high operating costs in Zambia compared to other countries in the region and the shortages of foreign currency. Another reason often cited is the fact that the country is donor driven, thus impacting heavily on the country's balance of payments, debt and the general stability of the economy.

5.5.2.5 Regional cross border investment into Mozambique

Table 5:17 shows cross border investment into Mozambique by other SADC countries. During the period 1990 – 1999, eight SADC countries showed interest in investing in Mozambique, viz. Botswana, Malawi, Mauritius, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe. South Africa and Zimbabwe have invested into the country on a yearly basis throughout the decade, while Swaziland was a consistent investor in the period 1995-1998. Since becoming a member of SADC in 1995, Mauritius has also shown a keen interest in investing in Mozambique. It is in 1998 that Mozambique saw the largest number of SADC countries investing into its economy, viz. Botswana, Mauritius, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe. Among the SADC countries investing in Mozambique, South Africa is the most dominant (see also Section 5.5.2.1.4) followed by Zimbabwe, Mauritius and Swaziland, in that order.

Investment priorities have differed between years, e.g. in 1990, priority investment was in the primary sector followed by the tertiary sector and secondary sector in that order, whilst in 1995, the secondary sector received most of the investment followed by the tertiary and primary sector, in that order. In 1999, the tertiary sector received priority followed by the secondary sector and the primary sector, in that order. In the selected years, investment within the primary sector has mainly been in agriculture, while in the tertiary sector it has mainly been in tourism.

Table 5.17: Cross border investment into Mozambique by SADC countries, (Thousands of Meticals) (most recent statistical data)

SADC countries	FDI inflows (Thousands of meticals)									
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Botswana	0	0	0	0	0	0	4 000	0	116	0
Malawi	0	0	0	0	0	0	0	0	0	45
Mauritius	0	0	0	0	0	1 062	0	0	21138	9 559
South Africa	5 383	4 277	2 854	10129	19375	13584	4 997	333294	22031	2 068
Swaziland	647	0	0	0	0	1 404	173	418	13050	0
Tanzania	0	0	0	0	0	0	0	0	50	0
Zambia	0	0	0	0	0	0	0	0	100	0
Zimbabwe	325	649	3	188	957	1 222	1 712	705	6 407	753
Sectoral distribution of regional cross border investment into Mozambique (Thousand Meticals)										
SADC countries	Primary sector				Secondary sector	Tertiary sector				GRAND TOTAL
	Agric	Fish	Min	Total	Total	Const	Trans	Tourm	Total	
1990										
S. Africa	3 422	0	0	3422	771	30	110	1 050	1 190	5 383
Swaziland	0	0	61	61	0	0	586	0	586	647
Zimbabwe	225	0	0	225	0	0	0	100	100	325
Total	3 647	0	61	3708	771	30	696	1 150	1 876	6 355
1995										
Mauritius	0	0	0	0	1 062	0	0	0	0	1 062
S. Africa	2 886	189	0	3075	5 109	50	1 105	4 245	5 400	13 584
Swaziland	0	0	0	0	1 404	0	0	0	0	1 404
Zimbabwe	1 222	0	0	1222	0	0	0	0	0	1 222
Total	4 108	189	0	4297	7 575	50	1 105	4 245	5 400	17 272
1999										
Malawi	0	0	0	0	45	0	0	0	0	45
Mauritius	61	0	0	61	1 085	1 300	0	5 800	7 100	9 559 ^a
S. Africa	110	250	0	360	1 088	50	173	0	223	2 068 ^b
Zimbabwe	603	50	0	653	0	0	50	0	100 ^c	753
Total	774	300	0	1074	2 218	1 350	223	5 800	7 423	12 425

Source: Own Table derived from UNCTAD (2004d:8, 10, 11, 12).

Notes: Statistical data relate to approved projects (UNCTAD, 2004d:8, 10, 11, 12).

Agric = Agriculture Fish = Fishing Min = Mining

Const = Construction Trans = Transport and communication Tourm = Tourism

^a = includes investment of 1 313 thousand meticals recorded as 'unspecified' (UNCTAD, 2004d:12).

^b = includes investment of 397 thousand meticals recorded as 'unspecified' (UNCTAD, 2004d:12).

^c = includes investment of 50 thousand meticals recorded as 'unspecified' (UNCTAD, 2004d:12).

South Africa has shown significant investment interest in all the three economic sectors, i.e. the primary sector especially agriculture and fishing, secondary and tertiary sectors, although priority investment into these sectors differed each year. Zimbabwe's interest has mainly been

in the primary sector, especially agriculture, and the tertiary sector. By 1999, investment interest by Mauritius had broadened to include all the three economic sectors, with priority investment being the tertiary sector followed by the secondary sector. General Brokerage (1999:5) notes that Mauritius has also invested in the banking sector, while SADC Finance and Investment Sector (1999:18) and SADC (2002b:32) add that Mauritius has also invested in the sugar processing industries.

5.5.2.6 Regional cross border investment by Mauritius

Wolf (2002:5) notes that Mauritius has significant outward FDI in other African countries. In the SADC region, apart from its investments in Zimbabwe and Mozambique, (see Sections 5.5.2.3 and 5.5.2.5, respectively), it also has investment interest in Seychelles and South Africa. SADC (2002b:31) observes that there is a Mauritian presence in the sugar mills in Tanzania.

However, due to problems in accessing statistical data from the other SADC countries which receive investment from Mauritius, a comprehensive analysis of cross border investment into these SADC countries by Mauritius could not be done. However, General Brokerage (1999:14) observes that Mauritius is well placed to expand regionally in terms of manufacturing and transferring its know-how to the rest of the African continent. The service sector in Mauritius is regarded as “well positioned to leverage off ” the country’s regional expansion.

5.5.3 Benefits from regional cross border investments and implications for industrial development

Regional cross border investment initiatives have the potential to create benefits to both the host country and the investor(s), and these will be discussed in Sections 5.5.3.1 and 5.5.3.2 below. However, it is important to also note the disadvantages which could arise as will be shown in Section 5.5.3.3.

5.5.3.1 Economic benefits to the host country

Since the principles for regional cross border investment are generally similar to those of FDI in general, the benefits which accrue to the host country are in most cases similar, e.g. expansion of domestic economic activities, employment creation, transfer of technology, infrastructure development, and widening the tax base (see Section 5.4.3).

However, there are some benefits which regional cross border investment has to member states which FDI cannot provide. Due to the close proximity of countries and the close

personal friendships that develop between regional Heads of States, regional cross border investment is less likely to be deterred by wrong information about investment conditions in a region unlike non-regional FDI. Therefore, while foreign investors may shy away from investing in a country, e.g. Zimbabwe, regional investors may continue to invest, therefore performing a “pioneering” function to non-regional and non-African investors. With increased regional cross-border investment, other investors will be attracted to the region and specific countries, as other foreign companies would already be there.

Greater cooperation and the move towards deeper integration within the SADC region entail linking trade and industrial production, and regional cross border investments could facilitate the development of this link. For example, where the domestic economic activities expand due to investment by a partner country, this motivates increased intra-regional trade since the host country would require more resource inputs from its regional trade partners so as to meet the now increasing domestic demand. The expansion in domestic economic activities would also enable the host country to meet its regional export quotas, thus increasing intra-regional trade. Furthermore, by helping to develop more competitive industries in the host country, regional cross border investment helps to develop cheaper-high-quality goods and thus increase intra-regional trade, as more competition would arise.

5.5.3.2 Economic benefits to the investors

Cross border investment also benefits the investing country. For example, the foreign enterprises earn net economic rents from the use of their exclusive assets, i.e. superior technology, administrative and entrepreneurial skills. The enterprises would produce at a lower costs and earn pure or quasi rents, measured by producer surplus. In this respect therefore, countries with significant investments in other SADC countries, e.g. South Africa would benefit.

Also to note is that the host countries could be better markets with prospects for growth and profitability for the investing country. For example, Games (2003:14) argues that regional investment in banking by South Africa offers “a return on equity of above 30 percent compared to 20 – 23 percent in South Africa, and a return on assets of three to four compared with South Africa’s 1.4 to 1.9”. In telecommunications, better markets than South Africa exist which are of benefit to the investors, e.g. Games (2003:16, 17) notes that South African mobile operators MTN and Vodacom derive better benefits from markets outside South Africa, while in the D. R. C., despite the poverty and high levels of unemployment, “average revenue per user is nearly three times higher than it is in South Africa”, with its subscriber base growing at 1 200 a day, much higher than in South Africa.

The investors also benefit in that they would have new markets once their own home country markets get saturated or if they lose market share at home due to stiff domestic competition. Since consumer patterns are different, benefits would accrue to the investors when the same retail chain attracts a higher income market in the host country unlike back home where the same chain would be attracting a lower income market. Furthermore, the investing country would also benefit in that their companies which are already located in the host country form a ready-made client base for new investors, thus reducing client risk. These ready markets also enable the parent company to expand, as its domestic products would be absorbed into the subsidiary industries located in the host countries. Also, where a significant number of the employees are from the home country, this would help to create employment for the home country as well as reducing the costs faced in training locals.

5.5.3.3 Possible disadvantages

However, while the potential for cross border investment exists in the region and exploiting this potential could be beneficial to both the host and investing country, Salama (1999) argues that some disadvantages may be experienced by the less developed countries in the region which do not have much to offer in terms of areas for lucrative investment. He observes that cross border investment is likely to be concentrated in those countries where investment opportunities are plenty and less risky. He therefore suggests that industrial polarisation may still emerge and perpetuate the industrial imbalances which currently exist within the region.

However, it is important to note that some of the poorest countries with the least investment opportunities and those with the most risky investment environment, have some of the lowest wage rates across all sectors in the region (see Table A-5, Appendix 3), and this could work as an incentive to lure cross border investment. Therefore, as McCarthy (1999:393) argues, when there is a sufficiently large wage gap between the developed centre and the underdeveloped periphery, a point can be reached when this will steer the location of industries into the low wage country. In this way, polarised development may be minimised.

Cross border investments by South African firms into the SADC region have spread over a range of sectors, and with such huge investments into most sectors in other SADC countries, Vickers (2002:9) observes that South African firms are beginning to dominate and crowd out certain industries in some of the southern African countries. This, it is argued, could reinforce the traditional division in the region; where South Africa would continue to supply SADC countries with manufactured goods and inputs through trade and the location of some of its industries in the host countries, whilst the rest of the region would continue to be South Africa's source of mostly raw materials or low-value added goods. Therefore, SADC

countries need to utilise their competition policy instruments in the same manner as they would with other forms of FDI, so that regional investors do not impact negatively on competition within the host country.

5.6 CONCLUSION

Having analysed the investment patterns within the SADC region, it is proper to conclude by giving a concise comparison, through some form of ranking, on how country performances compare between countries. Table 5.18 below therefore compares performances by countries in terms of investment rates (GDI:GDP), economic growth rates, private sector participation (GPI:I:GDP), savings rates (GDS:GDP) and the sufficiency of such savings to facilitate further investment, volume of FDI stock, and the size of FDI in relation to the size of GFCF as shown by the FDI:GFCF ratios. While a discussion was presented in Section 5.5 on regional cross border investment, a comparison between country participation, through some kind of ranking, cannot be done because statistical data for all countries was not available.

Table 5.18: Comparison of performance between SADC countries

Countries	Ranking in terms of:						
	Investment rate, i.e. GDI:GDP	Real economic growth	Private sector ¹ participation	Savings rate, i.e. GDS:GDP	Sufficiency of savings, Res. Bal.	Volume of FDI stock	FDI:GFCF ratio
Angola	3	11	2	2	3	2	1
Botswana	4	1	9	1	1	11	13
D. R. C.	13	13	11	7	6	13	11
Lesotho	1	5	1	13	13	8	6
Malawi	10	4	13	11	9	11	12
Mauritius	2	1	3	3	5	9	10
Mozambique	7	3	8	12	12	4	5
Namibia	5	6	6	6	8	6	7
South Africa	12	10	10	4	2	1	8
Swaziland	6	6	7	9	10	10	4
Tanzania	8	8	5	10	11	3	3
Zambia	11	12	12	8	7	5	2
Zimbabwe	9	9	4	5	4	7	9

Source: Own Table derived from Tables 5.1 – 5.3, and Table A-11a (Appendix 4).

Notes: Res. Bal. = Resource balance.

¹ = private sector participation in domestic investment as reflected by GPI:I:GDP

In terms of investment rate, sound real economic growth, private sector participation, and savings rate, on average, Mauritius is the best performing country in the region, as it ranks highly in all these aspects. On average, Botswana ranks second, with the highest rankings in

real economic growth rate, savings rate and the sufficiency of savings to facilitate future investment though it performs poorly on domestic private sector participation. The D. R. C., Zambia, South Africa and Malawi, are the top four least performing countries in the region in terms of investment rates and private sector participation in domestic investment. These countries, except for Malawi, also perform poorest in terms of real economic growth rates.

A clear pattern emerges, except in Angola, Malawi and Mozambique, between a country's performance in terms of investment rates and real economic growth rates, with a country receiving more or less the same ranking in these categories. For example, if a country is ranked lowly in the former it also receives a low ranking in the latter, and if it is ranked favourably in investment rate, it tends to be ranked favourably in economic growth as well. This simply shows the relationship which exists between investment and economic growth as discussed in the economic growth theories (see Section 2.4). Since high investment rates have a positive bearing on real economic growth, and growing economies tend to present a more conducive climate for more investment, it is therefore important for SADC countries to make efforts to mobilise resources both internally and externally so as to improve their investment rates.

An obvious pattern also emerges between the rankings for the savings rate and those for sufficiency of savings to facilitate future investments. A country which ranks highly in the former tends to also rank highly in the latter, e.g. Angola, Botswana, Mauritius, South Africa and Zimbabwe. On the other hand, a country which has a poor ranking in the savings rate also ranks poorly in the sufficiency of savings to fund future investments, e.g. Lesotho, Malawi, Mozambique and Tanzania. This is an obvious pattern because a high savings rate would enable a country to accumulate more resources for future investment.

Only South Africa and Botswana had positive resource balances throughout 1990 – 2001. This shows the inability by most SADC countries to save in order to facilitate further investment, and this may not be surprising bearing in mind that most of the countries have low per capita income levels, and some of the countries have negative real interest rates. Therefore, this leaves the countries with no choice but to rely on external sources to cover their "savings gaps" in order to facilitate further investment.

This therefore brings us to the next pattern displayed in Table 5.18 where, the countries which are ranked poorly in the sufficiency of savings tend to rank favourably on dependency on FDI as reflected by the FDI:GFCF ratios. For example, Tanzania, Swaziland, Mozambique and Lesotho rank very poorly in sufficiency of savings, but rank very favourably on FDI:GFCF,

ranking 3rd, 4th, 5th and 6th respectively. Some of these countries, i.e. Tanzania and Mozambique, also rank very favourably in the volume of FDI, ranking 3rd and 4th respectively.

Angola and South Africa rank very highly in both the savings rate and sufficiency of savings, but they are the ones which receive the highest FDI inflows in the region. This shows that despite one's ability to save, a country would still need FDI to augment its own savings. All countries in the region need FDI to supplement their domestic savings, because as already shown in Section 5.3.3, all countries except Botswana and South Africa experienced periods of negative resource balances during the course of 1990-2001.

With different investment rates and savings rates, SADC countries could continue to experience different levels of technological development and growth rates, with countries experiencing high levels of investment and savings rates, growing faster. In countries like Botswana and Mauritius, which also have high per capita incomes, this would accelerate growth even faster as the high per capita incomes would provide a market for increased productivity output, especially in those product categories targeted by high income consumers. However, it is also important to note the possible mitigating factor presented by the small nature of these economies.

Section 5.3.2 shows that both the private and public sector in the region contributed towards domestic investment. On a country level, some countries, e.g. Malawi, relied more on public sector investment throughout 1990 – 2001, while others like Mozambique, Zambia and Botswana had periods in which both private and public investment were significant. However, since most of the countries in the region tended to rely more on private sector investment, this shows the significance which the SADC countries attach on the importance of private sector participation in economic development.

The sectoral composition of domestic investment shows that the manufacturing sector and the financial sector are most important in domestic investment towards capital formation. A solid domestic manufacturing sector would in turn attract foreign investors who, through more/ additional capital injections and more advanced technical and managerial skills inputs, could help the sector to develop further and improve industrial capacity utilisation. Priorities in fixed capital formation investment towards the financial sector would help to develop a functioning and up-to-date credit market and financial systems, which are essential in giving effective and efficient support to the manufacturing sector and other sectors of the economy. With the SADC FTA in place, increased business would be expected and so, effective and

efficient financial systems capable of handling huge financial transactions with minimum delays would help to reduce investment risks and attract more business into the region.

FDI is no longer exclusively directed towards the primary sector, with services and manufacturing becoming key sectors for FDI. This therefore, presents the manufacturing sector with opportunities for improved production and technological advancement as foreign investors bring in new technical and managerial skills. The improved technology and managerial skills would enable the further processing of the raw materials which occur in great abundance in the region, into products of more value and capable of fetching more on the market, thus helping to broaden the manufacturing base as well as to improve industrial capacity utilisation.

Regional cross border investment is another form of investment within the region, with South Africa and Mauritius being regarded as significant sources of investments into other SADC countries. Cross border investment from these relatively more developed countries in the region facilitates the transfer of technologies, management and entrepreneurial skills to the rest of the region. This also helps to develop the industrial base of the host country, provide new markets for investors' products, and expand production. With the SADC FTA in place, cross border investments is bound to increase as countries become more accessible. However, as countries become more accessible, there is a need for a regional competition policy so as to guard against unfair competition that could arise.

CHAPTER SIX

EMPIRICAL ANALYSIS OF THE MANUFACTURING SECTOR WITHIN SADC

6.1 INTRODUCTION

Since the manufacturing sector is regarded as the basis and engine for industrial development within countries, an empirical analysis of the manufacturing sector within SADC becomes important. This chapter will therefore attempt to do this in terms of analysing the growth of the sector, the nature of industries making up the sector, trade performance, installed industrial capacity utilisation, the constraints the sector faces, and opportunities and potential within the sector.

Section 6.2 explains how the statistical data required in this chapter were obtained from both secondary and primary sources. Where statistical data were requested from SADC member states, the section highlights the extent to which countries responded and what measures were taken to find data for those countries that did not respond.

Section 6.3 analyses and compares manufacturing growth in the member states. Section 6.4 examines the structure of the manufacturing sector so as to give some insight into the manufacturing activities which the region tends to concentrate on. Section 6.5 discusses the trade performance of the sector in terms of the nature of its exports, imports, and the intra-industry trade potentials within the sector. Section 6.6 examines the industrial performance of the SADC economies as measured by some basic indicators so as to give insight into the competitiveness of the sector. Section 6.7 evaluates the extent to which the current installed industrial capacity is being utilised, while Section 6.8 discusses the constraints which the sector faces. Section 6.9 considers how the existing potential and opportunities within the manufacturing sector can be fully harnessed so as to improve the performance of the sector. In each section, the implications for industrial development are also discussed. Section 6.10 concludes the chapter.

6.2 DATA COLLECTION

This chapter relies very heavily on the availability of a variety of statistical data from both secondary and primary sources. A comparative statistical analysis will use the collected data to present empirical evidence through figures and tables so as to compare, evaluate, establish

trends or contrast countries, as well as to oppose or support views expressed by some authors. The comparative statistical analysis is also instrumental in ascertaining manufacturing value added (MVA) growth rates, the nature /or level of development of the manufacturing sector in the region, as well as its trade performance.

Most of the statistical data were collected from secondary sources, viz. statistical tables developed and made available through publications by various organisations like (i) SADC; (ii) the United Nations; (iii) the Development Bank of Southern Africa; (iv) the World Bank; (v) the Central Statistical Office of Zimbabwe; and (vi) United Nations Industrial Development Organisation (UNIDO). Online statistical databases like (i) Statistics South Africa statistical databases; and (ii) World Development Indicators, an on-line statistical database by the World Bank for selected statistical data, were also accessed. Statistical data were also accessed from earlier research by other researchers like (i) Trade and Industry Policy Secretariat (2000); (ii) Cattaneo and Fryer (2002); and (ii) Hess (2004).

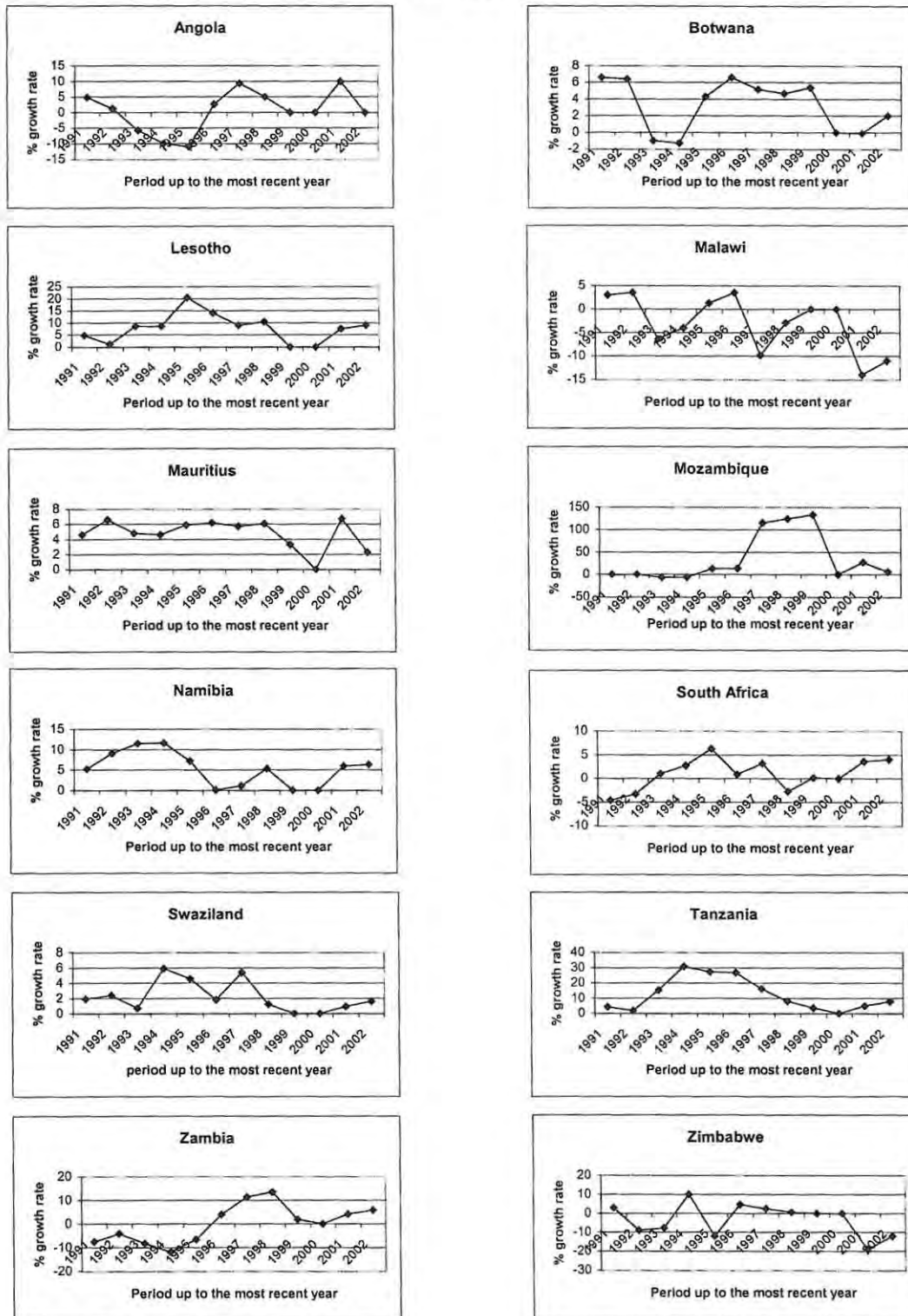
Apart from collecting statistical data from secondary sources, some of the statistical data used in this chapter were primary data obtained directly from member states through written requests sent through electronic or postal mail, e.g. statistical data required for Section 6.7 on the utilisation of production capacity within the manufacturing sector in member states, needed to come from member states as such data was country specific and very difficult to find in secondary sources. Five countries responded to this request, i.e. Botswana, Mauritius, South Africa, Zambia and Zimbabwe. However, statistical data were only available for South Africa and Zimbabwe as these are the only SADC countries which currently compile such statistical data.

6.3 GROWTH PERFORMANCE OF THE MANUFACTURING SECTOR

Figure 6.1 below will give an insight into the growth of the manufacturing sector throughout the 1990s and into the early years of the 21st century. The discussion on the share of manufacturing sector to GDP highlighted in Section 4.2.2.1 during an overview of economic sectors will be drawn upon where necessary to augment the discussion.

The annual growth of MVA has varied between countries. In Angola, there was a continuous fall in the MVA growth rate in the first half of the 1990s, with the rate falling to -11 percent by 1995. However, it is interesting to note that despite the poor performance of the manufacturing sector in terms of its contribution to GDP (see Figure 4.3 in Section 4.2.2), and the civil war which the country experienced for twenty-seven years thus devastating economic

Figure 6.1: Growth of manufacturing value added (MVA) (% annual average growth rate) (up to the most recent year for which statistical data were available)



Source: Own Figures derived from Table A-13 (Appendix 5)

sectors and the supporting infrastructures, the country experienced a continuous rise in the manufacturing sector's MVA growth rate after 1995 to 1999, reaching its highest level of 10.0 percent in 2001. SADC (2003c) observes that with capital injection, improved technology, training, and the privatisation of some of the state-run enterprises, there is potential to significantly expand the manufacturing sector.

While Botswana started off the 1990s with high MVA growth rates, these were on a continuous fall up to 1994 after which there was a continuous rise in the next two years followed by a continuous fall in the next two years. Thereafter, the growth rates have been fluctuating. For most years, the MVA growth rates have been between 4 and 6 percent. However, it is hoped that with the country re-orienting its industrial policy towards encouraging higher levels of productivity by employing highly skilled workers and modern technology, this could improve both the share of the sector to GDP as well as the annual growth rate of MVA.

Lesotho experienced a continuous rise in MVA growth rates after 1992 to 1995 followed by a continuous decline with a recovery experienced after 2000. Also to note is that after 1992, its MVA growth rates have been very high (7 – 20 percent) with the highest rate in 1995. SADC (1996:21) attributes this sound growth to the lifting of quotas by North America on the country's clothing and textiles exports, more foreign investment as a result of business confidence, and the relocation of textiles industries to the country by firms which formerly operated in South Africa so as to take advantage of the country's assured export market for exports. SADC (2003c) attributes the improved performance of the sector to increased demand for manufactured exports due to the depreciation of the local currency, i.e. the loti. Furthermore, the country is set to benefit from the African Growth and Opportunity Act (AGOA) (see Section 6.9.2.1), and this would help to increase textile manufacturing and thus help to improve the performance of the manufacturing sector¹ as a whole.

The MVA growth rates in Malawi are very low with negative growth rates experienced in some of the years. The growth rates fluctuate greatly with the country experiencing a continuous rise in the growth rate after 1993 to 1996 and from 1997 to 1999. The very low and sometimes negative growth rates could help to explain county's continuous fall in the annual average manufacturing sector percentage contribution to GDP (see Figure 4.3 in Section 4.2.2). SADC (1996:33) observes that, while the manufacturing sector is the second largest economic sector after agriculture, the stiff competition from imported manufacturing

¹ The manufacturing sector in Lesotho is highly concentrated such that a few firms in the textile industry account for the bulk of total production in the manufacturing as well as total manufactured exports (SADC, 2003c).

goods adversely affects the local manufacturing sector thus constraining its development. In addition SADC (2003c) cites low domestic demand, rising costs of production, macroeconomic instability, and the slowdown in agricultural production as other significant contributory factors such that they caused manufacturing output to fall by 13.4 percent in 2001.

In Mauritius, the manufacturing sector is the driving force behind the economy with the sector contributing well over one-fifth of the country's GDP (see Figure 4.3 in Section 4.2.2). Up to 1998, the country tended to have steady MVA annual growth rate, ranging between 5 and 6 percent. After the big fall in 1999, the growth rates have fluctuated greatly. SADC (2003c) attributes half of the value added in the sector to the country's export processing zone (EPZ) sector where Textiles and clothing continues to be the dominant industrial activity, with almost half the EPZ enterprises being in this sector.

After 1993 to 1999, Mozambique experienced a continuous rise in MVA annual growth rates with significantly high rates in the period 1997 – 1999. However, these could not be sustained with levels falling to 6.2 percent by 2002. This growth performance could be explained by the massive and successful privatisation of industries since 1995 which induced a sharp increase in production within the manufacturing sector, the stabilisation of the macroeconomic situation, changes in the import tariff structure which have lowered the costs of intermediate and capital goods, rapid demand as a result of massive foreign investment, and increased economic growth, as observed by SADC (2003c) (see also Table A-6, Appendix 3). The Mozal project has also had a significant impact on industrial growth.

Except for the period 1995 – 1996 where Namibia experienced a continuous decline in MVA growth rates, such growth rates have been on a continuous rise. Except for 1996 and 1997, its MVA growth rates have been high, i.e. between 5 and 12 percent. In South Africa, the annual average percentage growth rate of MVA has been significantly low and negative in some years, although the sector is the largest single income-generating sector and contributes an annual average of over one-fifth of GDP (see Figure 4.3 in Section 4.2.2). There was a continuous rise in MVA growth from 1991 where it was –4.6 percent to 1995 where the highest growth rate, 6.3 percent, was attained. A continuous gradual recovery was experienced after 2000, which coincides with the devaluation of the South African rand experienced in that period.

While the manufacturing sector in Swaziland shows the highest percentage contribution to GDP (see Figure 4.3 in Section 4.2.2), the annual average growth rates of MVA are low

(except for 1994, 1995 and 1997) and fluctuate greatly between periods. However, these growth rates have always been positive. Despite the generally poor growth rates, SADC (2002a:326) notes that “the sector is the major employer, second to agriculture, and is expected to continue showing positive growth.” The good export performance of zippers, canned fruit products, cotton yarn, wood products and wood pulp, is credited with the increase in manufacturing production, while the positive growth of South Africa which is the major trading partner for Swaziland, serves to stimulate the sector more. Furthermore, SADC (2002a:326) observes that the re-admission of Swaziland on the list of AGOA beneficiaries would, among other things, attract new investment inflows into the manufacturing sector, especially in textiles and clothing, thus helping the sector to continue to grow. By the end of 2004, manufactured goods exports (except electronic products) traded through AGOA had risen by more than 100 percent from 2002², while the extension of the third-country fabric provision (which was set to expire in September 2004) by a further three years, as in the AGOA III legislation, would motivate textiles and clothing manufacturing further.

The manufacturing sector in Tanzania is still small (see Figure 4.3 in Section 4.2.2), with aged machinery, shortage of working capital and the erratic supply of water and electricity adversely affect the manufacturing sector, as observed by SADC (1996:61), while UNIDO (2003a:88-89) cites additional constraints as skills shortages, poor infrastructure, import competition from Asia, and a fragmented and ineffective institutional framework for supporting industry. However, the country has always experienced positive MVA annual growth rates. High growth rates have been experienced (except for 1992 and 1999), with the period 1993 – 1997 experiencing significantly high growth rates. Such growth rates are essential for the development of a stronger manufacturing sector. However, it is important to note that after 1994, when the highest growth rate (30.9 percent) was recorded, there was a continuous fall in the growth rates reaching a low level of 3.6 percent in 1999. The growth rates showed some recovery after 2000.

While Zambia had a strong manufacturing sector during the first half of the 1990s (see Figure 4.3 in Section 4.2.2), the MVA growth rate was on a continuous fall in this period, falling to its lowest level of -12 percent in 1994. After 1994, MVA growth rate was on a continuous rise up to 1998 where the highest level of 13.5 percent was recorded. After 2000, the MVA growth rate was again on a continuous rise. Coopers and Lybrand (Date unknown:8), Price Waterhouse (Date unknown:7) and SADC (2002b:21) argue that economic liberalisation has added pressure to the manufacturing sector, as the sector has been facing growing fierce

² Own calculations based on AGOA trade data accessed from the AGOA website, i.e. <http://www.agoa.info>

competition from an influx of imported cheaper finished products from the rest of the sub-region. This lack of competitiveness could therefore help to explain the poor performance of the sector after 1994, in terms of its annual percentage contribution to GDP (see Figure 4.3 in Section 4.2.2).

In Zimbabwe, the annual average growth rate of MVA has been low and in some years negative. The highest growth rate (10 percent) took place in 1994 with sharp declines experienced in 1995 and 2001. It is important to note the impact of the post Economic Structural Adjustment Programme (ESAP) deindustrialisation which the country experienced, thus having a bearing on the low and decline in the average growth rate of MVA in 1991-1993 (see Figure 6.1). Also to note is the emergence of South Africa as a strong competitive neighbour, thus contributing to the sharp decline in MVA growth rate experienced in 1994-1995 and the subsequent continuous decline in MVA after 1996, with the lowest attained in 2001. ZNCC (1999:27) and Mufute (2000:11) argue that high inflation and interest rates, the critical shortage of foreign currency, low business confidence, low aggregate demand and unrealistic price controls have contributed to the decline of the manufacturing sector, while SADC (2002b:21) notes high input costs and the influx of cheaper foreign goods, as additional causes to the poor performance of the sector. The current economic problems the country is facing have also had an impact with 2001 and 2002 experiencing negative annual MVA growth rates. The gross underutilisation of the agricultural sector upon which the manufacturing sector relies, will depress the manufacturing sector further.

6.4 THE STRUCTURE OF THE MANUFACTURING SECTOR

As Table 6.1 shows, the SADC region has a well-diversified manufacturing sector with 28 major 3-digit ISIC³ industries. ISIC: 311/2: Food products, is the most diversified industry with eleven 4-digit ISIC sub-industries, followed by ISIC 321: Textiles, ISIC 382: Non-electrical machinery and ISIC 384: Transport equipment with six 4-digit ISIC sub-industries each. ISIC industries 313, 323, 331, 341, 351, 352, 381, 383, and 390 have each four 4-digit ISIC sub industries each (United Nations Industrial Development Organisation, 1999:466-7, 610-1, 686-7). Therefore, it can be deduced from the 4-digit ISIC sub-industries in each 3-digit ISIC industry that within the manufacturing sector, the industries, in broad categories, which tend to dominate the sector, are Food, beverages and tobacco; Textiles and Clothing; Machinery and Transport equipment.

³ ISIC is the International Standard for Industrial Classification which through the use of codes classifies industries or product categories.

Table 6.1: SADC manufacturing sector by ISIC industry

ISIC	Industry	ISIC	Industry
311/2	Food products	354	Miscellaneous petroleum, coal products
313	Beverages	355	Rubber products
314	Tobacco	356	Plastic products
321	Textiles	361	Pottery, china, earthenware
322	Wearing apparel, except footwear	362	Glass and products
323	Leather and fur products	369	Other non-metallic mineral products
334	Footwear, except rubber or plastic		
		371	Iron and steel
331	Wood products, except furniture	372	Non-ferrous metals
332	Furniture and fixtures, excluding metal		
		381	Fabricated metal products
341	Paper and products	382	Non-electrical machinery
342	Printing and publishing	383	Electrical machinery
		384	Transport equipment
351	Industrial chemicals	385	Professional and scientific equipment
352	Other chemicals		
353	Petroleum refineries	390	Other manufacturing industries

Source: Own Table derived from United Nations Industrial Development Organisation (1999:170-1, 465-468, 610-613, 686-690).

Notes: Other manufacturing industries = includes jewellery and other articles, musical instruments, sporting and athletic goods, and manufacturing industries n.e.c.

However, while the region has quite a diversified manufacturing sector, the strength of each industry varies between countries, depending on the individual country's level of industrial development, resource endowment, competitive advantage and revealed comparative advantage. The performance of these industries, shown by their manufacturing value added (MVA) as a percentage of total MVA, helps to give some insight into the level of development of the manufacturing sector as a whole, as well as the extent to which the sector is technologically complex. In the light of the broad industrial categories, Table 6.2 below gives this insight in some of the SADC countries for which statistical data were available.

While the significance of these industrial categories in the manufacturing sector differs between countries, Table 6.2 shows that in general, the Food, beverages and tobacco industry, 'Other manufacturing', and Textiles and Clothing, are very significant and strong sectors while Machinery and Transport equipment and Chemicals, in that order, tend to rank lowest in order of strength, although they are important to the region. In this regard therefore, it can be deduced that the manufacturing sector in the region is dominated by industrial processes which are more of low technology, resource- and labour-intensive in nature than industrial

Table 6.2: Structure of manufacturing (selected countries within the SADC region)

	Sectors and corresponding percentages to total manufacturing value added (% MVA)				
	Food, Beverages and Tobacco	Textiles and Clothing	Machinery and Transport Equipment	Chemicals	Other Manufacturing
Mauritius					
1980	36	30	5	6	23
1990*	30	46	2	4	17
1992	23	51	3	5	18
1995	31	46	1	4	18
1998	31	46	2	4	17
1999	30	48	2	4	16
2000*	31	48	2	5	15
South Africa					
1980	13	9	21	9	48
1990*	14	8	18	9	50
1992	16	8	19	10	47
1995	15	8	20	9	48
1998	16	7	19	10	48
1999	15	7	20	10	48
2000	14	7	20	9	50
Zambia					
1980	44	13	9	9	25
1990	44	11	7	9	29
1992	45	12	7	11	25
1995	44	10	5	16	25
1998	36	13	10	4	37
1999	n/a	N/a	n/a	n/a	n/a
2000	31	12	17	21	19
Zimbabwe					
1980	24	17	8	9	42
1990	28	19	9	6	38
1992	34	14	11	5	36
1995	38	13	8	5	36
1998*	31	15	8	9	36
1999	34	15	7	5	39
2000	32	15	7	10	36

Source: Own Table derived from World Bank (1995:172-173; 1998:185-186; 2000b:190-192; 2002b:212-214; 2003a:194-196).

Notes: Countries were selected on availability and completeness of statistical data.

* = the statistical data for % MVA provided by the source does not add up to 100.

processes of scale-intensive, differentiated and science based⁴ in nature, implying a less technologically complex manufacturing sector. This is consistent with the Heckscher-Ohlin

⁴ Aluminium, food processing and oil refining are examples of resource-intensive production, where the major competitive factor is access to natural resources. Garments footwear and toys are labour-intensive where the major competitive factor is the cost of unskilled labour. Steel, automobiles, paper and chemicals are examples of scale-intensive products, where the major competitive factor is length of production runs. Advanced machinery and power-generating equipment are examples of differentiated manufactured products where the major competitive factor is producing products tailored to varied demands. Electronics, biotechnology and pharmaceuticals are

Theorem, where with the given set of assumptions, the capital abundant country will be able to produce relatively more of the capital-intensive good, while the labour-abundant country will be able to produce relatively more of the labour-intensive good (Appleyard and Field, 2001:120⁵).

Therefore, since some of the SADC countries are both resource-abundant and labour-abundant countries, they should rightly produce relatively more of the resource-intensive and labour-intensive goods, thus having a manufacturing sector dominated by resource-and labour-intensive industrial processes. This is thus consistent with/ or confirms the common observations that SADC countries tend to have relatively more revealed comparative advantage in less processed commodities or commodities of low MVA, while showing higher revealed comparative disadvantages in manufactured goods of a higher MVA category.

South Africa is the only country which shows a significantly strong machinery and transport and equipment sector, with 20 percent of total MVA originating from that sector by 2000, while for the rest of the countries, less than 10 percent came from that sector. This shows the significant depth to which the manufacturing sector in the country has grown, thus the industrial gap that exists with the rest of the region. This is not surprising bearing in mind that South Africa is most developed country in the region.

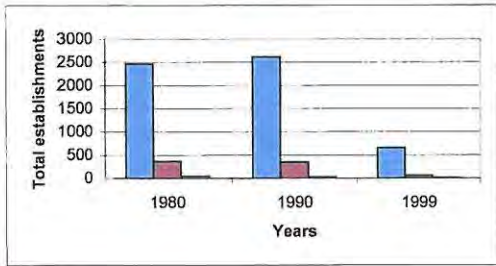
The distribution of the establishments for manufacturing activities between the different industries within the manufacturing sector would also give additional insight into the structure of the manufacturing sector in the region. It should however be noted that: (i) statistical data for industrial establishments by industrial sector for the SADC countries is very difficult to find, and as such for some years and countries, such data is not even available in the sources⁶ responsible for presenting such data; (ii) the years for which statistical data were available for most countries were 1980, 1990 and 1999, and as such it is the data for these years which is going to be used in this discussion; and (iii) for 1999, the statistical data for South Africa was not available and this would thus explain the very low total establishment figures for the year in all industrial sectors, as would be seen in Figure 6.2 below.

examples of science-based products where the major competitive factor is rapid science technology application (Wilde *et al*, 1999a:5).

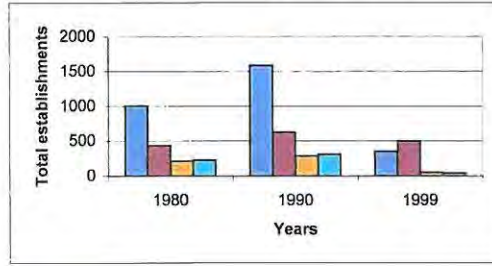
⁵ See Chapter 8 of the textbook, i.e. The Basis for Trade: Factor Endowments and the Heckscher-Ohlin Model, pages 117 – 124 for a detailed discussion on the assumptions, factor abundance, commodity factor intensity, and the Heckscher-Ohlin Theorem.

⁶ The International Yearbook of Industrial Statistics, which is an annual publication by UNIDO.

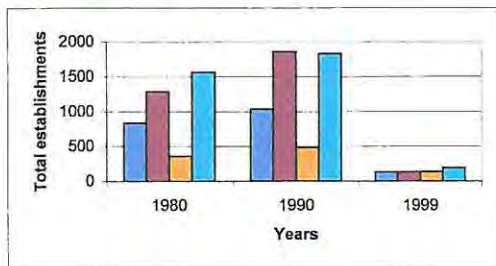
Figure 6.2: Distribution of establishments for manufacturing activities between the different industries



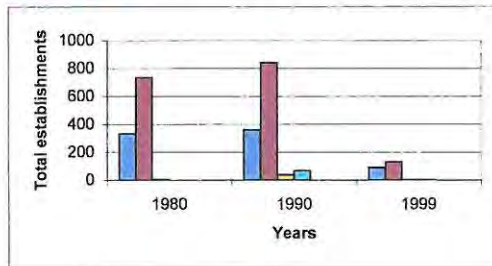
Key
 Food products (311)
 Beverages (313)
 Tobacco (314)



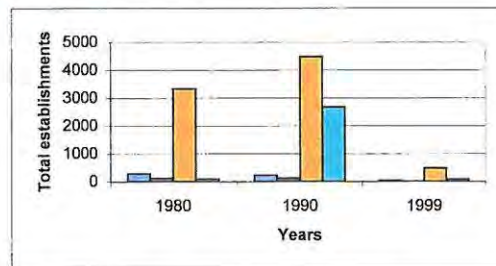
Key
 Textiles (321)
 Wearing apparel, except footwear (322)
 Leather products (323)
 Footwear, except rubber or plastic (324)



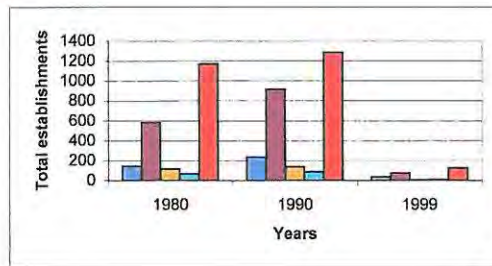
Key
 Wood products (331)
 Furniture, except metal (332)
 Paper & paper products (341)
 Printing & publishing (342)



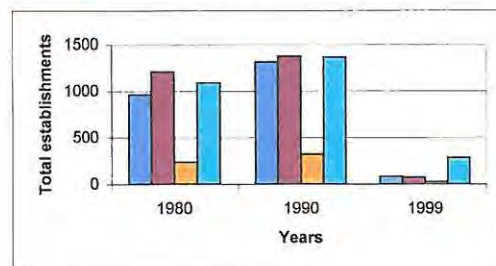
Key
 Industrial chemicals (351)
 Other chemicals (352)
 Petroleum refineries (353)
 Misc. petroleum & coal products (354)



Key
 Iron and steel (371)
 Non-ferrous metals (372)
 Fabricated metal products (381)
 Machinery, except electric (382)



Key
 Rubber products (355)
 Plastics (356)
 Pottery, china & earthenware (361)
 Glass products (362)
 Other non-metallic (369)



Key
 Machinery electric (383)
 Transport equipment (384)
 Professional & scientific equipment (385)
 Other manufactured products (390)

Source: Own figures derived from Table A-12 (Appendix 4)

Notes: Statistical data for South Africa for 1999 was not available for all industrial establishments

However, despite the above limitations, Figure 6.2 (derived from Table A-14, Appendix 5), presents a distribution of manufacturing establishments between the different industries within the manufacturing sector, thus giving more insight into the nature of the manufacturing sector. In 1990, the highest number of manufacturing activity establishments tends to be in ISIC 381: Fabricated metal products, followed by ISIC 382: Machinery, except electrical; ISIC 311: Food products, ISIC 332: Wearing apparel, except footwear; ISIC 321: Textiles and ISIC 384: Transport equipment, in that order. Except for ISIC 381, 382 and 384, these industrial sectors are low technology, resource- and labour-intensive.

However, by 1999, the low technology, resource- and labour-intensive industrial activities tended to dominate the top 6 industrial sectors with the highest number of establishments. As Figure 6.2 shows, ISIC 311: Food products ranked highest followed by ISIC 322: Wearing apparel, except footwear, ISIC 381: Fabricated metal products, ISIC 321: Textiles, ISIC 390: Other manufactured products, and ISIC 342: Printing and publishing, in that order. As such, compared to 1990, 1999 saw a significantly larger number of manufacturing establishments involved in low MVA activities in the top six industrial sectors with the highest number of manufacturing establishments. While most of the SADC countries had these establishments, as shown in Table A-14 (Appendix 5), their concentration differed between countries. These industrial sectors are most concentrated in South Africa, Botswana⁷, Mauritius, Zambia and Zimbabwe, with South Africa always having the highest concentration.

The region also has medium technology manufacturing activities, e.g. ISIC 351: Industrial chemicals, ISIC 352: Other chemicals, ISIC 355: Rubber products, ISIC 356: Plastics, and ISIC 369: Other non-metallic products. However, these had fewer establishments than the low MVA activities, in both 1990 and 1999. From Table A-14 (Appendix 5), the concentration of medium technology manufacturing industries is mainly in South Africa, Zimbabwe, Mauritius and Zambia, with South Africa always having the highest concentration. High technology manufacturing activities could be regarded as ISIC 371: Iron and steel, ISIC 372: Non-ferrous metals, ISIC 381: Fabricated metal products, ISIC 382: Machinery, except electric, ISIC 383: Electric machinery, ISIC 384: Transport equipment, and ISIC 385: Professional and scientific equipment. Except for ISIC 381, these industrial sectors reveal very few establishments, and from Table A-14 (Appendix 5), the manufacturing establishments in these areas were mainly in South Africa, Zimbabwe, Zambia and Mauritius, although in the latter there was no statistical data for non-ferrous metal production. Among them, South Africa always has the highest concentration.

⁷ However, there were no statistical data for ISIC 322 and 342 for Botswana and as such, the country does not fall among those in which these industrial sectors are most concentrated in the SADC region.

Figure 6.2 shows that the number of manufacturing establishments in all the industrial sectors (except ISIC 311, 314 and 371), grew from 1980 to 1990. Industrial sectors like ISIC 321, 332, 353, 354, 356, 381 and 382, experienced exceptionally high increases in the number of establishments in this period. However, a discussion on the growth trends in the number of establishments in the various industrial sectors cannot be done for the period 1990 – 1999, as the statistical data for South Africa is not available for 1999.

From the distribution of manufacturing activity establishments, it can therefore be concluded that most of the manufacturing establishments are involved in low technology, resource- and labour-intensive manufacturing. While both medium and high technology manufacturing activities occur in the region, such activities tend to be concentrated more in South Africa, Zimbabwe, Zambia and Mauritius, as these countries tend to have higher concentrations of such establishments. However, the highest concentration of most establishments, irrespective of industrial technology category, is in South Africa.

6.5 TRADE PERFORMANCE BY THE MANUFACTURING SECTOR

By analysing the trade performance of the manufacturing sector, one would be able to show the extent to which the manufacturing sector is competitive. It would also be possible to see the extent to which a manufacturing sector concentrates on domestic-oriented manufacturing activities *vis-à-vis* export-oriented manufacturing activities. While countries may not be self sufficient in producing manufactured products, and as such need to import, the extent to which a country depends on manufactured imports, as shown by the percentage of manufactured imports to total imports, reflects on the strength of the local manufacturing sector. The sections below will thus analyse the trade performance of the manufacturing sector within the region and the implications on the level of industrial development.

6.5.1 The export performance of the manufacturing sector

Table 6.3 shows the contributions of the manufacturing sector to total merchandise exports in the various SADC countries on which statistical data were available. These contributions vary between countries in the SADC region, with countries like Angola, Mozambique and Swaziland having manufactured products contributing very little to total merchandise exports. This is because, as the table shows, low MVA products form the main manufactured exports from these countries, e.g. refined petroleum products for Angola; sugar, tyres and inner tubes for Mozambique; and soft drink concentrates, sugar, canned fruit, and meat products for Swaziland. While Section 4.2.2.1 shows that Swaziland has the highest shares of the manufacturing sector to GDP, the significantly low levels of manufactured exports by the

Table 6.3: Manufactured goods exports: 1991-2000 (US\$ million, current prices) and as a percentage (%) of total merchandise exports (up to the most recent year for which data was available)

Selected countries		1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	Main manufactured exports
Angola	US \$m	56	66	63	72	78	105	101	62	75	132	Refined petroleum products
	%	1.62	1.72	2.17	2.39	2.10	2.06	2.02	1.75	1.45	1.69	
Malawi	US \$m	23	28	32	39	49	69	74	63	56	56	Sugar
	%	4.83	7.05	9.97	11.93	12.13	14.29	13.73	11.69	12.53	8.97	
Mauritius	US \$m	804	861	887	1 004	1 104	1 098	1 034	1 135	1 171	1 177	Clothing and textiles, sugar, chemicals, watches & clocks, jewellery, goldsmith ware
	%	66.28	66.08	66.49	71.36	70.54	64.89	61.92	69.08	73.05	75.02	
Mozambique	US \$m	40	14	7	3	5	8	20	14	14	14	Sugar, tyres and inner tubes, other manufactured products
	%	24.69	10.07	5.30	1.83	2.87	3.54	8.70	5.71	4.93	3.85	
Namibia	US \$m	394	501	500	579	618	540	525	595	575	522	By products of livestock, prepared and preserved fish, food and beverages
	%	34.71	39.70	40.32	44.27	43.86	38.11	39.21	48.14	41.88	35.27	
South Africa	US \$m	6 021	5 653	5 972	6 794	8 504	8 205	9 455	10 170	10 018	12 517	Machinery, transport equipment, consumer goods, chemicals, jewellery, textiles, clothing
	%	25.29	23.09	24.13	25.79	28.27	27.09	30.29	34.89	35.00	39.75	
Swaziland	US \$m	13	26	56	52	66	87	81	76	69	67	Soft drink concentrates, sugar, refrigerators, canned fruit, meat products
	%	2.19	4.07	8.18	6.57	7.60	10.16	8.42	7.77	7.32	7.35	
Tanzania	US \$m	74	64	52	77	109	123	111	30	22	34	Petroleum products, manufactured goods
	%	18.78	15.46	12.65	15.84	18.38	17.67	13.98	5.20	3.91	5.13	
Zambia	US \$m	46	62	103	129	155	168	180	194	189	163	
	%	4.24	5.54	10.36	12.09	13.07	16.92	16.09	23.77	25.00	21.85	
Zimbabwe	US \$m	587	579	652	750	829	846	900	655	640	567	Machinery, transport equipment, chemicals, mineral fuels, edible oils, consumer goods
	%	32.89	37.84	40.50	38.52	37.41	33.89	37.13	34.04	33.26	31.66	

Source: World Bank (2002a:104); Own calculations from World Bank (2002a:72); SADC (2002a:122, 126, 136, 167, 170, 179, 148, 174, 188, 208, 217, 228, 235, 248, 256, 268, 273, 282, 295, 314, 320, 332, 338, 350, 358, 368, 374).

Notes: Countries were selected on availability and completeness of statistical data.

country indicates that the country concentrates more on domestic oriented manufacturing activities than export-oriented manufacturing activities.

The export performance of Malawi and Tanzania was low by 2000 despite having been more than 10 percent in preceding years, and low MVA products also form their major manufactured exports, i.e. sugar and petroleum products, respectively. In Zambia, despite the decline in the manufacturing sector, especially after 1994 (see Sections 4.2.2.1 and 6.3), the export performance of the country's manufacturing sector has been improving, rising from 4.24 percent in 1991 to 21.85 percent by 2000.

As a result of a well structured, consolidated and well supported EPZ sector, Mauritius has a very strong export-oriented manufacturing sector, with 75.05 percent of its total merchandise exports originating from the manufacturing sector by 2000, which is the highest in the SADC region. SADC (2003c) observes that most of the merchandise exports are wearing apparel since the country is the third largest knitwear exporter in the world. It is also important to note that the industry has relatively favourable access to international markets through agreements like the Cotonou Agreement, AGOA⁸, and others. UNIDO (2004:12) notes that when the multi-fibre agreement ends, the country "is likely to remain a successful economy because it has diversified into products such as top-of-the-market knitwear in which quality, reliability and market responsiveness, rather than low cost, provide competitive advantage. Table 6.3 shows that chemicals, sugar, and jewellery also form part of the country's manufactured exports. Actively pursuing such product diversification initiatives would help the country to cease to depend on a narrow production line, i.e. clothing and textiles. The country's initiatives to pursue diversification within the EPZ sector, modernising production, as well as allowing information technology to penetrate all business sectors, as observed by SADC (2003c), would help to improve manufacturing performance further.

Namibia, Zimbabwe and South Africa also have strong export-oriented manufacturing sectors, with over one-third of their total merchandise exports coming from the manufacturing sector in 2000. The establishment of export processing zones to promote export-oriented manufacturing activities in these countries as well as the measures they are taking to promote manufacturing investment could help to explain this (see Table A-6, Appendix 3). Only products of low MVA form the main manufactured exports in Namibia, while in South Africa and Zimbabwe, apart from low MVA products, the countries also export products of high MVA, e.g. machinery, transport equipment and chemicals. The presence of high MVA

⁸ It is excluded from the Lesser Developed Beneficiary Countries in AGOA III.

products in the manufactured exports for Zimbabwe and South Africa shows that in these two countries, the sector is now more developed and more complex. This is in support of the observations made in Section 6.4 in relation to South Africa.

However, in general, the majority of SADC countries currently reflect low manufactured exports:total export merchandise ratios, thus a reflection of the region or the countries' inability to make significant inroads in the development of alternative products/ or manufactures, which command stronger international demand. This therefore shows that there is a need by countries to undertake investments for the further development of the manufacturing sector so as to improve its capacity as well as its competitiveness. There is also a need for investment towards the development of adequate physical infrastructure necessary to support and strengthen domestic manufacturing institutional capacity.

6.5.2 Technological structure of manufactured exports

An analysis of the technological structure of the manufactured exports from the SADC region would give further insight into the nature and level of development of the manufacturing sector within the region, and Table 6.4 will help to do this.

If we consider complex exports, we find that South Africa and Zimbabwe produce the highest levels, producing 25.9 percent and 15.3 percent respectively by 1998. Even in 1985, these two countries still produced the highest volumes of complex exports. The huge difference between the total complex exports of these two countries and the rest of the region reflects the significantly high levels of industrial development within the two countries, as well as the wide industrial gap between them and the rest of the region. However, between them, South Africa reflects significantly higher levels of industrial development than Zimbabwe as shown by the much higher levels of both high technology and medium technology manufactured exports it produces compared to Zimbabwe by 1998.

In all countries, most of the complex manufactured exports are classified as medium technology. This shows that while the region has the manufacturing base necessary for the production of complex manufactured exports, this base is still more inclined towards the production of medium technology products. The manufacturing base relevant for the production of high technology products is still small and needs to be developed further so as to improve both the production and the competitiveness of high technology manufactured products.

Table 6.4: Technological structure of SADC manufactured exports: 1985, 1998* (percent)

Selected SADC countries	Complex exports (% of total manufactured exports)					
	1985			1998		
	High technology	Medium technology	Total	High technology	Medium technology	Total
South Africa	4.9	11.6	16.6	4.7	21.2	25.9
Zimbabwe	0.6	18.2	18.7	0.9	14.4	15.3
Mozambique	0.3	0.8	1.1	1.1	2.3	3.4
Zambia	0.1	0.9	1.1	0.1	1.7	1.8
Tanzania	0.6	1.6	2.3	1.1	0.4	1.5
Mauritius	0.1	3.3	3.4	0.2	1.2	1.4
Malawi	n/a	0.5	0.5	n/a	0.9	1.0
Selected SADC countries	Simple exports (% of total manufactured exports)					
	1985			1998		
	Low technology	Resource based	Total	Low technology	Resource based	Total
South Africa	9.0	29.4	38.4	12.3	29.9	42.2
Zimbabwe	8.8	10.2	19.0	11.4	16.7	28.1
Mozambique	17.1	22.9	40.0	2.7	19.1	21.8
Zambia	0.2	11.3	11.5	3.7	6.2	9.9
Tanzania	3.9	10.7	14.6	3.2	11.9	15.1
Mauritius	40.0	46.2	86.2	64.8	28.0	92.8
Malawi	3.8	13.3	17.1	5.8	7.3	13.1

Source: United Nations Industrial Development Organisation (2003a:165 – 166).

Notes: Countries were selected on availability of statistical data.

* = 1998 is the most recent year for which this kind of analysis is available in the most recent source available.

In terms of simple exports, in all countries, most of them are classified as resource-based in both years, except in Mauritius where in 1998; most of its simple exports were classified as low technology. In both years, Mauritius ranked highest in producing low technology manufactured exports as well as in producing total simple exports. In 1998, South Africa and Zimbabwe ranked 2nd and 3rd respectively, in producing low technology exports as well as total simple exports. Mauritius, South Africa and Zimbabwe, thus have well developed manufacturing bases to handle the production of simple exports using low technology modes of production. However, among them, by 1998, Mauritius had the best-developed manufacturing infrastructure for the production of very competitive low technology manufactured exports.

In considering both complex exports and simple exports, it can be deduced that the region performs better in the production of the latter. This implies that the manufacturing sector is more inclined towards the manufacturing of low technology, resource-based and labour-

intensive products. This is consistent with the observation already made in Section 6.4, that despite the existence of a well diversified manufacturing sector, the region still has more comparative advantages in the production of low MVA products than with high MVA ones.

After 1998, due to the absence of adequate statistical data, a comprehensive analysis of the technological structure of manufactured exports, as done in Table 6.4, could not be made. However, an analysis could only be done using statistical data for exports categorised as high technology, and Table 6.5 shows that while in 1999, all countries showed a rise in high technology exports as a percentage of total manufactured exports, this fell in all countries in 2000, with both South Africa and Zimbabwe experiencing a continuous fall into 2002 and 2001 respectively. However, despite this trend in South Africa for the period 1999 – 2002, the country continued to export the highest ratio of high technology exports, maintaining its position as the country with the most developed and complex manufacturing sector. Only Mauritius continued to recover into 2002 after the slight fall in 2000.

Table 6.5: High technology manufactured exports (1999 – 2002)

Selected SADC countries	Percentage (%) of total manufactured exports			
	1999	2000	2001	2002
Botswana	n/a	0.5	0.3	n/a
Malawi	0.8	0.4	2.9	n/a
Mauritius	1.1	1.0	1.2	2.3
Mozambique	2.3	N/a	3.5	n/a
Namibia	n/a	1.9	0.8	n/a
South Africa	8.2	7.0	5.6	5.1
Swaziland	n/a	0.4	0.9	0.5
Tanzania	5.8	1.2	1.6	n/a
Zambia	1.0	0.6	9.0	1.7
Zimbabwe	2.0	1.7	0.5	2.7
Average	3.0	1.6	2.6	2.5

Source: Own Table derived from World Bank (2002c:238-239; 2001b:310; 2000b:305-306; 1999:226-227); World Bank (2004) online database.

Notes: Countries and years were selected on availability of statistical data in the reports available. High technology exports = products with high research and development intensity. They include high technology products such as in aerospace, computers, pharmaceuticals, scientific instruments, and electrical machinery (World Bank, 2002c:247).
n/a = statistical data not available.

While in 2000 the countries experienced a fall in their ratios of high technology exports to total manufactured exports, the ratios never went below the 1998 levels. Where statistical data were available after the fall in 2000, countries showed that they continued to record high

technology export ratios which are higher than the ones they had in 1998. This implies that it could be possible that since 1998 countries have continually improved on the levels of development and the competitiveness of their manufacturing sectors. However, efforts to develop the sector further and make it more competitive need to continue. Focus on investment towards the development of a stronger and more competitive manufacturing base capable of producing more high technology products should also be a priority, as on average, these products continue to contribute less than 4 percent of total manufactured exports.

With the SADC FTA in place, the vibrant export-oriented manufacturing sector in some of the SADC countries could benefit from the wider and more easily accessible regional market. These export-oriented manufacturing sectors would also benefit from trade concessions through COMESA, AGOA and other trade agreements, thus presenting countries with the opportunities to industrialise further through the export-led industrialisation programme.

6.5.3 Manufactured imports into the SADC region

Manufactured goods constitute a significant volume of imports to the SADC region, thus helping to augment the domestic manufacturing sector in satisfying local demand for manufactured goods, as well as providing a wider variety of such goods. Table 6.6 shows the extent to which the different SADC countries rely on manufactured goods imports. The table shows that countries like Malawi, Mozambique and Swaziland show significant reliance on manufactured imports with one-quarter to one-third of their total merchandise imports being manufactured goods. Zambia's reliance on manufactured imports continues to rise, i.e. from 3.99 percent in 1994 to 11.86 percent in 2000, and this should be expected bearing in mind the observations in Section 6.3, that the country has been experiencing a decline in manufacturing sector performance, especially after 1994.

After 1995, Botswana shows a continuous rise in the ratio of manufactured goods as a percentage of total manufactured imports, rising from 11.21 percent in 1995 to 13.53 percent in 1999, falling slightly to 13.17 percent by 2000. In Zimbabwe, reliance on manufactured imports rose from an average of 14 percent in the early 1990s to an average of over 16 percent for the rest of the decade. With the current pressure under which the manufacturing sector is operating, it is reasonable to conclude that the country is going to depend more on manufactured imports. However, with the current acute foreign currency problems, acquiring the much-needed manufactured imports would be very difficult. In the case of South Africa, after 1995, the country has been experiencing an increase in reliance on manufactured imports, as shown by the constant increase in the ratio of manufactured imports to total

Table 6.6: Manufactured goods imports, 1991-2000 (US \$ million, current prices), and as a percentage (%) to total merchandise imports (up to the most recent year for which data was available)

Selected countries		1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	Main manufactured imports
Angola	US \$m	91	135	72	71	94	343	400	N/a	N/a	N/a	Machinery and transport equipment, food and beverages
	%	6.76	6.79	4.92	4.88	5.08	16.81	15.40	-	-	-	
Botswana	US \$m	174	175	163	159	177	178	188	198	211	227	Machinery, electrical equipment, vehicles/transport equipment, fuels, chemicals, textiles, footwear, etc
	%	10.85	11.24	11.20	11.78	11.21	12.40	12.97	13.32	13.53	13.17	
Malawi	US \$m	171	226	214	176	122	169	230	106	160	190	Industrial inputs, petroleum, transport equipment, food
	%	27.76	31.74	34.08	32.84	25.74	27.08	29.37	18.31	23.77	33.75	
Mozambique	US \$m	109	75	87	64	185	229	221	237	348	257	Machinery, transport equipment, fuel, consumer goods, petroleum, intermediate goods
	%	13.78	10.07	10.48	7.25	25.45	29.25	29.08	29.01	29.00	22.21	
South Africa	US \$m	899	883	884	1 156	1 377	1 536	2 136	2 112	3 836	4 848	Machinery, transport equipment, chemicals, fuels textiles/clothing, jewellery, consumer goods
	%	5.23	4.85	4.77	5.28	5.02	5.57	7.40	7.75	15.67	17.80	
Swaziland	US \$m	166	169	211	229	321	275	333	318	306	294	Machinery and equipment, chemicals, mineral fuel and lubricants, edible oils, food and beverages
	%	26.14	21.67	26.74	27.52	30.17	25.89	30.55	28.80	28.81	28.97	
Tanzania	US \$m	116	102	60	48	80	72	63	75	N/a	N/a	Machinery and transport equipment, fertilizers, consumer goods
	%	8.40	7.06	4.08	3.02	5.30	5.26	4.54	4.94	-	-	
Zambia	US \$m	N/a	N/a	N/a	40	54	55	116	108	103	116	Machinery, chemicals, fertilizer, petroleum, foodstuffs
	%	-	-	-	3.99	4.52	5.21	9.52	11.12	11.83	11.86	
Zimbabwe	US \$m	244	256	212	290	364	369	447	365	189	257	Machinery, transport equipment, chemicals, petrol, mineral fuels, edible oils, food and beverages
	%	14.35	14.37	14.02	16.31	17.11	16.42	16.84	18.07	11.28	16.91	

Source: World Bank (2002a:114; 1997:115), Own calculations from World Bank (2002a:73; 1997:74); SADC (2002a:122, 126, 136, 167, 170, 179, 148, 174, 188, 208, 217, 228, 235, 248, 256, 268, 273, 282, 295, 314, 320, 332, 338, 350, 358, 368, 374).

Notes: Countries were selected on availability of statistical data.
Statistical data for manufactured imports does not include capital goods imports (i.e. machinery and equipment).

merchandise imports, rising to 17.80 percent by 2000. This is despite its well established and complex manufacturing sector, as shown in Section 6.5.2.

While it has been established that the region tends to focus more on low technology, resource-intensive and labour-intensive manufacturing activities (see Sections 6.4 and 6.5.2), these same products are still significant components of manufactured goods imports into the region. For example, Table 6.6 shows that animal and vegetable oils, beverages and other foodstuffs, wood and wood products, textiles, clothing and footwear, are part of the main manufactured imports into the region. Since the region still has a small technologically complex manufacturing sector (see Sections 6.4 and 6.5.2), high MVA products form a significant component of manufactured imports into the region. For example, Table 6.6 shows that scale-intensive manufactured products, e.g. chemicals and automobiles/transport equipment, and differentiated products tailored to varied demands, e.g. advanced machinery and power generating equipment, constitute imports into all SADC countries.

The high level of capital goods as a percentage of total merchandise imports, as shown in Table 6.7, further supports the great need by the region to rely on high technology imports and technologically complex goods imports, due to the existence of a small/or less complex manufacturing sector. Countries showing weaker manufacturing sectors in Sections 4.2.2 and 6.3, e.g. Botswana, Malawi and Tanzania, reveal very high dependence on capital goods imports. In Botswana, this fluctuated between 34 and 41 percent in the first half of the 1990s, and thereafter continuously fell until 2000 when it rose to 33.87 percent. In Malawi, this dependence fluctuated between 39 and 45 percent in the early 1990s, with a continuous increase in the period 1995–1999. While Table 6.6 shows that Tanzania has very low levels of manufactured imports (excluding capital goods) as a percentage of total merchandise imports, Table 6.7 shows that the country has significantly high levels of reliance on capital goods imports. This reliance was on a continuous rise in the period 1996-2000.

While Zimbabwe possesses a diversified and relatively well developed and complex manufacturing sector (see Section 6.5.2 and ZNCC, 1999:27), Table 6.7 shows that the country has been heavily dependent on capital goods imports. The steady decline in the country's manufacturing sector (see Sections 4.2.2 and 6.3), makes these imports very essential to the country. With the economic problems the country continues to experience, it is expected that dependence on capital goods imports is going to increase. The weak manufacturing sector in Zambia (see Sections 4.2.2 and 6.3), also makes reliance on capital goods import by the country very essential, thus constituting almost one-third of total merchandise imports.

Table 6.7: Capital goods imports, 1991-2000 (US \$ million, current prices), and as a percentage (%) to total merchandise imports (up to the most recent year for which data was available)

Selected countries		1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	Main capital goods imports
Angola	US \$m	269	378	322	327	327	303	354	N/a	N/a	N/a	Machinery, transport equipment
	%	19.97	19.02	22.01	22.49	17.66	14.85	13.63	-	-	-	
Botswana	US \$m	642	536	542	485	657	523	502	487	500	584	Machinery, electrical goods, vehicles and transport equipment
	%	40.02	34.43	37.25	35.93	41.61	36.42	34.64	32.77	32.07	33.87	
Malawi	US \$m	280	278	272	199	164	259	326	250	305	166	Transport equipment
	%	45.45	39.04	43.31	37.13	34.60	41.51	41.63	43.18	45.32	29.48	
Mauritius	US \$m	384	378	381	529	412	493	548	498	653	465	Machinery and equipment
	%	27.06	25.66	24.18	30.83	21.45	24.74	27.17	24.52	32.46	22.86	
Mozambique	US \$m	276	260	277	333	166	170	154	166	243	410	Machinery, transport equipment
	%	34.89	34.90	33.37	37.71	22.83	21.71	20.26	20.32	20.25	35.44	
Seychelles	US \$m	40	40	60	48	67	166	75	90	91	96	Machinery, transport equipment
	%	24.69	22.22	27.78	25.53	31.31	63.12	24.67	25.57	24.01	26.59	
Swaziland	US \$m	170	193	172	213	249	284	286	280	269	259	Machinery and equipment
	%	26.77	24.74	21.80	25.60	23.40	26.74	26.24	25.36	25.33	25.52	
Tanzania	US \$m	579	639	628	597	602	461	503	733	710	770	Machinery, transport equipment
	%	41.93	44.25	42.66	37.52	39.87	33.65	36.24	48.26	52.55	57.68	
Zambia	US \$m	285	349	328	296	396	361	388	284	253	284	Machinery
	%	29.94	26.80	32.19	29.51	33.17	34.19	31.86	29.25	29.05	29.04	
Zimbabwe	US \$m	611	640	508	743	901	930	1148	784	773	480	Machinery, transport equipment
	%	35.94	35.94	33.60	41.79	42.34	41.39	43.26	38.81	46.15	31.58	

Source: World Bank (2002a:116; 1997:117), Own calculations from World Bank (2002a:73; 1997:7); SADC (2002a:122, 126, 136, 167, 170, 179, 148, 174, 188, 208, 217, 228, 235, 248, 256, 268, 273, 282, 295, 314, 320, 332, 338, 350, 358, 368, 374).

Notes: Countries were selected on availability of statistical data.

While the manufacturing sector in Swaziland has the highest manufacturing contribution to GDP (see Sections 4.2.2), Table 6.7 shows that the country is still heavily dependent on capital goods imports as these constitute over a quarter of total merchandise imports, stabilising around 25 percent in 1998-2000. While Mauritius has a strong manufacturing sector (see Sections 4.2.2 and 6.3), it relies significantly on capital goods imports, with such imports fluctuating between 21 and 32 percent of total merchandise imports. The strong reliance on capital goods imports by Mauritius is not surprising because, while the country has a strong manufacturing sector, Section 6.5.2 shows that its manufacturing sector is most suitable in producing low technology and resource based manufactured goods, although complex manufactured products categorised as high technology and medium technology can be produced in very low levels in relation to total manufactured products.

While Section 2.6.4.4 observes that in the majority of less developed countries, less than one third of capital goods have a domestic origin, it is also emphasised that for any country, the capital goods sector is an essential part of a country's technological capacity and progress. Therefore, when countries cannot be self-sufficient in producing capital goods and capital imports become essential, as is shown in Table 6.7, this should be accompanied with investment in human capacity to utilise such technology as well as to modify and adapt such imports to the local environment, therefore helping to build the technological capabilities of the country.

Table 6.7 shows that machinery and transport equipment form the main capital goods imports in the SADC region, and investment and acquisition of this capital is essential for the purposes of upgrading industrial capacities, raising the aggregate growth of capital stock in the long run, as well as improving investor confidence as industrial sectors become equipped with adequate and modern machinery and equipment. Therefore, where countries have little or no domestic capacity to produce machinery and equipment, imports and encouraging FDI become necessary.

6.5.4 Intra-industry trade potentials within the SADC region

Intra-industry trade is principally a feature of bilateral trade between countries of similar industrial (manufacturing) development and per capita income. The share of intra-industry trade in bilateral trade increases with similarities in relative factor supplies between countries, the smaller the differences in market size between the two countries, as well as the greater the average market size of countries. Scale economies, overlapping demand and product differentiation are also important for intra-industry trade to take place (Behar, 1991:532; Appleyard and Field, 2001:179-181).

Intra-industry trade could be used to assess the nature and performance of the manufacturing sector within countries by analysing the product categories in which significant intra-industry trade takes place between countries. To assess the extent to which the manufacturing sector is involved in intra-regional intra-industry trade, intra-industry trade between SACU and selected non-SACU SADC countries is used. Since complete sectoral trade data is often difficult to get and the already calculated intra-industry trade statistical data is not easily available for all countries, the discussion which follows will be based on the available intra-industry trade between SACU and Malawi, Mauritius, Mozambique, Zambia and Zimbabwe, as shown in Section 6.5.4.1 below, using the limited available statistical data.

6.5.4.1 Intra-industry trade between SACU and selected non-SACU SADC countries

Table A-15 (Appendix 6) shows significant intra-industry trade changes taking place between SACU and selected non-SACU SADC countries, viz. Malawi, Mauritius, Mozambique, Tanzania, Zambia and Zimbabwe, which as a group are the most active trading partners within the SADC region. The intra-industry trade changes are for the period 1994 – 2000 at constant 1995 prices, and are depicted by the marginal intra-industry trade (MIIT) index⁹ using ISIC-4 digit statistical data. Brülhart's (1994) measure is used. 2000 is the most recent year for which ISIC trade data was available to the researcher¹⁰.

Table 6.8 (derived from Table A-15, Appendix 6) will only show the major sectors with increasing intra-industry trade in order of importance in each country. This will thus be used to give brief highlights on the product categories in which significant intra-industry trade changes occurred during the period 1994 – 2000.

6.5.4.1.1 SACU – Malawi trade

While Table A-15(a) (Appendix 6) shows that the SACU-Malawi trade has seven MIIT sectors, only 4 product categories were matched with increasing trade, viz. ISIC 3033: Prepared animal feeds; ISIC 3129: Other textiles, n.e.c.; ISIC 3229: Other products of wood, articles of.; and ISIC 3576: Machinery of textiles, apparel and leather production. Of these, only ISIC 3576 and ISIC 3129 are major sectors with increasing intra-industry trade, as shown in Table 6.8. Therefore, the SACU-Malawi trade has few MIIT sectors and the product categories mainly include resource- and labour-intensive manufactured goods.

⁹ Details on this measure are presented as Appendix 6 before Table A-15 (Appendix 6).

¹⁰ Several e-mail requests were sent to Trade and Industry Policy Secretariat (TIPS) for permission to access their statistical database so as to get more recent data, but such requests did not yield any positive response.

Table 6.8: Major sectors with increasing intra-industry trade¹, in descending order of importance² (1994 – 2000)

Countries and their corresponding major sectors					
Mauritius	Malawi	Mozambique	Zambia	Zimbabwe	SADC ³
Other Electrical Equipment, n.e.c.	Machinery for Textile, Apparel and Leather Production	Machinery for Mining, Quarrying and Construction	Basic Precious and Non-ferrous Metals	Basic Chemicals, except Fertilisers and Nitrogen Compounds	Machinery for Mining, Quarrying and Construction
Fertilisers and Nitrogen Compounds	Other Textiles n.e.c.	Lifting and Handling Equipment	Insulated Wire and Cable	Glass and Glass Products	Wearing Apparel, except Fur Apparel
Medical and Surgical Equipment and Orthopaedic Appliances		Rubber Tyres and Tubes; Retreading and Rebuilding of Rubber Tyres	Bodies (Coachwork) for Motor Vehicles; Trailers and Semitrailers	Veneer Sheets; Plywood, Laminboard, Particle Board and Other Panels and Boards	Lifting and Handling Equipment
Other Special Purpose Machinery		Wearing Apparel, except Fur Apparel		Machinery for Food, Beverage and Tobacco Processing	Meat products
Jewellery and Related Articles		Machine Tools			Machine Tools
Electricity Distribution and Control Apparatus		Knitted and Crocheted Fabrics and Articles			Bearings, Gears, Gearing and Driving Elements
Non-structural Non-refractory Ceramicware		Ovens, Furnaces and Furnace Burners			Medical and Surgical Equipment and Orthopaedic Appliance
					Recycling of Metal Waste and Scrap, n.e.c.

Notes:

¹ = increasing intra-industry trade is defined as (i) MIIT lying between -0.65 and 0.65, (ii) provided that the change in exports and the change in imports are positive. Condition (ii) ensures that scores with matched decreases in trade are excluded. Matched decreases in trade over the period 1994 – 2000 are particularly important SACU's trade with Zimbabwe.

² = Exports plus imports (X + M) in 2000 is the measure of used for "importance". Sectors with less than 25 percent of average X+M for that country were omitted, as were sectors with matched decreases in trade (declining exports and imports).

³ = Tanzania did not have any significant MIIT sectors.

Source:

Cattaneo and Fryer (2002:30).

6.5.4.1.2 SACU – Mauritius trade

Table A-15(b) (Appendix 6) shows that this trade has a very large number of MIIT sectors, i.e. 14 sectors. However, the importance of some of these sectors in total trade is still fairly low, while some of the MIIT sectors are marked with decreases in trade. Intra-industry trade takes place in low technology, labour-and resource-intensive manufactured goods as well as in medium and high technology product categories. However, the major sectors with increasing intra-industry trade in order of importance, as shown in Table 6.8, are Other electrical equipment, n.e.c., Fertilisers and nitrogen compounds, Medical and surgical equipment and orthopaedic appliances, Other special purpose machinery, Jewellery and related articles, Electricity distribution and control apparatus, and Non-structural non-refractory clay and ceramicware. This clearly distinguishes the country from the rest of the non-SACU SADC countries and thus reflects a more developed and diversified manufacturing sector, which is consistent with the observations in Sections 6.5.1 and 6.5.2.

6.5.4.1.3 SACU – Mozambique trade

Table A-15(c) (Appendix 6) shows that the SACU – Mozambique trade has seven sectors in which significant intra-industry trade changes took place, and all these sectors were matched with increases in trade. This took place in resource-and labour-intensive manufactured goods as well as medium and high technology product categories. These sectors in descending order of importance are: Machinery for mining, quarrying and construction, Lifting and handling equipment, Rubber tyres and tubes, re-treading and building of rubber tyres, Wearing apparel, except fur apparel, Machine tools, Knitted and crocheted fabrics and articles, and Ovens, furnaces and furnace burners.

6.5.4.1.4 SACU – Tanzania trade

While Table A-15(d) (Appendix 6) shows that this trade has six sectors in which intra-industry trade changes took place, the country did not have any significant MIIT sectors as the volume of this trade is still very low.

6.5.4.1.5 SACU – Zambia trade

Table A-15(e) (Appendix 6) shows that the SACU – Zambia trade has few MIIT sectors, i.e. only five sectors, and all these are in the intermediate production sectors. The major sectors with increasing intra-industry trade in descending order of importance are: Basic precious and non-ferrous metals, Insulated wire and cables, and Bodies (coachwork) for motor vehicles, trailers and semitrailers (Table 6.8).

6.5.4.1.6 SACU – Zimbabwe trade

Table A-15(f) (Appendix 6) shows that this trade has the largest number of MIIT sectors, i.e. 20, in the non-SACU SADC region. The sectors involve low technology, resource-and labour-intensive product categories, medium technology, high technology, as well as the technologically complex product categories. Therefore, as in Mauritius, significant intra-industry trade changes occurred in more diverse product categories than the rest of the non-SACU SADC region, thus reflecting a more developed and diversified manufacturing base which is consistent with the observations already made in Section 6.5.2.

However, it is important to note that, despite the large number of MIIT sectors, most of these, i.e. 14 sectors, were matched with decreases in trade. Such decreases in trade could be explained by the economic and political problems the country has been experiencing. Among the remaining six sectors which experienced increasing trade, the major sectors in descending order of importance are: Basic chemicals, except fertilisers and nitrogen compounds, Glass and glass products, Veener sheets; Plywood, Laminboard, Particle Board and other Panels and Boards; and Machinery for food, beverages and tobacco processing (Table 6.8).

The importance of intra-industry trade in manufacturing between Zimbabwe and SACU (*albeit* some of the sectors being matched with declining trade), where it is absent in the intra-industry trade between SACU and the other non-SACU SADC countries, points to greater similarity in the levels of industrialisation in these two countries.

6.5.4.2 Implications of the intra-industry trade analysis for industrial development

The analysis of intra-industry trade between SACU and the selected non-SACU SADC countries shows that in general, there are few MIIT sectors. This implies that trade expansion between SACU and its SADC partners was primarily inter-industry in nature in 1994 – 2000. It can therefore be recommended that, the region has to actively pursue policies that encourage intra-industry specialisation in the identified sectors if the region wishes to take advantage of the potential to develop its manufacturing sector through intra-industry trade.

Also to note is that while there were even fewer sectors with increasing intra-industry trade, as shown in the Table 6.8, these tended to be mainly concentrated in medium and high technology product categories. Therefore, the regional industrial policy has to be carefully explored so as to implement policies that would continue to stimulate intra-industry specialisation in these product categories and thus promote the development of higher value manufacturing activities. This could imply a regional industrial policy where such technologically sophisticated, capital- and skilled-intensive industries are identified and

targeted for priority development. This is a lesson SADC could learn from the approach Singapore took in its industrialisation strategy, as shown in Section 3.2.6.2.

The SADC FTA would make it easier for countries to pursue intra-industry trade in more earnest and benefit from this kind of trade. It is also expected that there will be more sectors with increasing intra-industry trade as countries become more accessible and intra-regional trade increases. As intra-industry trade becomes a significant part of bilateral trade between countries, technology diffusion becomes more possible through the consumption of similar but differentiated products. Joint research also increases as firms seek to share ideas and to seek better ways of producing high technology and technologically complex products. This in turn would help the region to develop its industries further.

Due to the differences in the levels of industrial development between the regional countries, intra-industry trade could enable the relatively more developed and capital intensive countries, e.g. South Africa, Zimbabwe, Mauritius to specialise in and exporting relatively high quality differentiated and value added manufactures. This could thus provide these countries with the opportunities to consolidate and develop further their manufacturing sectors in such high value added manufacturing activities¹¹. The relatively less developed and labour abundant countries in the region would specialise in low-value added manufactures, thus providing them the opportunities to consolidate and utilise their industrial capacities in these product categories more fully. Therefore, with different countries focussing on different manufacturing activities, this would stimulate and increase trade to the benefit of both groups of countries.

6.6 INDUSTRIAL PERFORMANCE OF SADC ECONOMIES AS MEASURED BY BASIC INDICATORS

Having thus analysed the nature and strength of the manufacturing sector in the region through examining various aspects as shown in Sections 6.4 – 6.5 above, it is important to see how the regional economies are rated and ranked using some of the basic industrial indicators. These indicators (see Table 6.9) will show the general industrial performance and competitiveness within a country and how this compares with other countries within the SADC region.

¹¹ However, it is also important to note that the opportunities for intra-industry trade could be constrained by the contraction of the Zimbabwean economy, while in Mauritius, the concentration of the manufacturing sector in textile and clothing, could limited intra-industry trade opportunities to that sector.

Table 6.9: Ranking of economies by basic indicators of industrial performance and by composite index of competitive industrial performance (1985, 1998)

1998								
Rank	Economy	Manufacturing value added per capita index ¹	Economy	Manufactured exports per capita index ²	Economy	Share of medium- and high tech activities in manufacturing value added index ³	Economy	Share of medium-tech and high-tech products in manufactured exports, the final CIP index ⁴
1	Mauritius	0.088	Mauritius	0.065	Mauritius	0.048	South Africa	0.108
2	South Africa	0.066	South Africa	0.038	South Africa	0.037	Zimbabwe	0.052
3	Zimbabwe	0.009	Zimbabwe	0.005	Zimbabwe	0.006	Mauritius	0.041
4	Zambia	0.004	Zambia	0.002	Mozambique	0.004	Mozambique	0.013
5	Mozambique	0.002	Mozambique	0.001	Zambia	0.002	Zambia	0.007
6	Malawi	0.002	Malawi	0.001	Malawi	0.001	Tanzania	0.005
7	Tanzania	0.001	Tanzania	0.001	Tanzania	0.000	Malawi	0.003
1985								
1	South Africa	0.093	South Africa	0.057	South Africa	0.059	South Africa	0.096
2	Mauritius	0.045	Mauritius	0.049	Mauritius	0.035	Zimbabwe	0.071
3	Zimbabwe	0.030	Zimbabwe	0.018	Zimbabwe	0.017	Mauritius	0.037
4	Zambia	0.018	Zambia	0.010	Zambia	0.009	Zambia	0.010
5	Tanzania	0.006	Tanzania	0.003	Tanzania	0.002	Tanzania	0.009
6	Malawi	0.003	Malawi	0.002	Malawi	0.002		

Source: United Nations Industrial Development Organisation (2003a:177 – 180).

Notes: Final CIP index = final competitive industrial performance index.

No African country had indices for indicators ¹ to ³ which ranked above Mauritius and South Africa in 1998. However, for the final CIP index, Tunisia had an index which ranked 2nd after South Africa. In 1998, the African countries which had indices for indicators ¹ to ³ which ranked, 3rd, 4th and 5th were Tunisia, Egypt and Morocco respectively. In 1985 there was no Africa country with any indicator whose indices were above those of South Africa.

In both 1985 and 1998, SADC countries had very low industrial indices across the board, which may not be surprising given that they are developing countries. The very low industrial indices show the general poor performance of SADC industries at international level. However, among the SADC countries themselves, South Africa, Mauritius and Zimbabwe have the best performing industries in terms of manufacturing value added per capita, manufactured exports per capita, and the share of medium and high technology activities in manufacturing value added per capita.

In 1998 Mauritius and South Africa still had the best performing industries in terms of manufacturing value added per capita, manufactured exports per capita and the share of medium and high technology activities in manufacturing value added per capita. However, the performance of the industry in Mauritius improved greatly from 1985 to outperform South Africa, thus ranking 1st whilst South Africa ranked 2nd. However, in terms of industrial competitiveness, as depicted by the final CIP index, South Africa still had the most competitive industry, Zimbabwe's industry still ranked the 2nd best competitive industry, while the industry in Mauritius was still the 3rd best competitive as was the case in 1985.

In 1998, the competitiveness of industry in both South Africa and Mauritius improved from 1985, as shown by the improvements in their CIP final indices, i.e. from 0.096 to 0.108 and from 0.037 to 0.041, respectively. Also to note are both industrial performance and competitiveness in Mozambique. In 1998, the country's industry ranked no less than 5th across all indices. The country eventually emerged 4th in terms of the competitiveness of its industry. Such a remarkable result is evidence of improvements in the country's economy, e.g. sound real economic growth rates, as shown in Table 5.1 in Section 5.3.1, and having a favourable investment climate in which industry can thrive from both increased domestic and foreign investment, as shown in Sections 5.3.1 and 5.4.1.7.

Another observation to note is that, the performance of industry as well as its competitiveness in Zimbabwe, Zambia and Tanzania was lower in 1998 compared to 1985, as shown by an across the board reduction in the industrial indices in these countries in 1998 compared to 1985. This is not surprising given the poor performance of the manufacturing sectors in these countries; especially after the first half of the 1990s (see Sections 4.2.2.1 and 6.3).

6.7 INDUSTRIAL CAPACITY UTILISATION

It is important to note on the onset that while each industry or industrial sub-sector experiences seasonal variations in terms of capacity utilisation during the course of the year,

the statistical data which is used to evaluate the annual capacity utilisation in each industry or industrial sub-sector is an annual average which will have taken into account the seasonal variations.

The extent to which existing industrial capacity is utilised has an impact on the performance of the industry as a whole as it has a bearing on output and sales, which in turn have an impact on investment. Therefore, higher rates of capacity utilisation could to some extent spur investment demand, thus creating opportunities for industry to grow. The relevance of capacity utilisation to industrial performance therefore makes the analysis of capacity utilisation within the SADC manufacturing sector important.

However, at country level, the statistical information on the extent to which various industrial sub-sectors within the manufacturing sector are utilising existing facilities, is not easily available. In this regard therefore, the information on industrial capacity utilisation in South Africa and Zimbabwe is going to be used¹². While these two countries have well established industrial bases and are relatively more developed than most countries in the region such that their industrial capacity utilisation results may not be representative for the region, such results are still of great interest. This is because more developed countries are expected to display high levels of capacity utilisation and where this is not the case, it could be seen as an indication of low levels of industrial capacity utilisation even by the less developed countries in the region. This is so because the less developed countries often have even far less technical and human resources and expertise than the more developed countries. Industrial capacity utilisation in the more developed countries of a region would also be of interest because they tend to mirror the strength and performance of industry in the region. Since the more developed countries would tend to dominate industrial activities within the region, low industrial capacity utilisation in these countries would mirror a weak and poorly performing regional manufacturing sector.

6.7.1 Industrial capacity utilisation in South Africa

Table 6.10, shows that South Africa's basic industries, i.e. upstream industries or industries at the lower end of the 'value chain', run at relatively high levels of capacity utilisation, thus implying relatively strong upstream industries. For example, paper and paper products, basic iron and steel products, wood and wood products, and wearing apparel consistently operate

¹² These are the only SADC countries which through their statistical offices compile comprehensive and up to date statistical data on the utilisation of manufacturing capacity within all the industrial sub-sectors within the manufacturing sector. While countries like Zambia and Tanzania had occasions where attempts to compile such statistical data were made, this was done for them by the UNDP for particular years in limited manufacturing sub-sectors, e.g. 1987 and 1983 for Zambia and Tanzania respectively for the textiles and clothing sector.

above 85 percent of full capacity. Basic precious and non-ferrous metals show outstanding performance, utilising 90-93 percent of its industrial capacity throughout the 1990s up to 2002. Over 80 percent of industrial capacity has been utilised in glass and glass products, with a continuous rise since 1997 to 97.2 percent in 2002.

Table 6.10: Capacity utilisation by sector in South Africa for selected years

Industrial sectors	Capacity utilisation (%)							
	1971	1980	1990	1997	1999	2000	2001	2002
Motor vehicles, parts and accessories	68.6	68.1	85.1	70.4	68.7	74.6	74.2	78.2
Other chemicals and man-made fibres	74.2	76.0	75.8	76.6	75.7	76.2	79.8	79.9
Other transport equipment	74.2	68.9	68.8	73.5	73.7	70.0	68.9	70.2
Other industries	77.8	81.9	84.6	77.8	78.9	77.7	77.8	78.6
Machinery and equipment	80.0	76.5	75.2	78.9	74.9	76.1	77.7	79.5
Furniture	80.0	88.1	82.9	82.3	81.0	79.5	80.5	81.6
Electrical machinery and apparatus	82.1	77.1	76.2	80.3	79.3	80.2	79.5	83.0
Television, radio and communication	82.1	77.1	76.2	80.4	73.5	70.8	67.4	67.2
Metal products excluding machinery	82.4	79.9	79.9	78.8	76.1	77.4	78.2	78.6
Tobacco	83.0	84.2	92.1	71.0	78.9	77.7	77.8	78.6
Food and food products	83.5	84.5	81.8	79.5	76.0	76.5	78.3	78.2
Beverages	83.8	81.1	75.3	72.4	77.1	76.0	75.3	72.4
Coke and refined petroleum products	84.4	86.5	85.3	92.8	82.3	81.2	78.1	81.2
Textiles	84.6	86.9	79.3	80.8	81.6	79.7	81.8	83.0
Leather and leather products	84.8	88.8	88.8	85.6	80.3	76.5	78.2	84.3
Non-metallic minerals	85.0	76.7	80.2	79.2	75.6	77.7	76.3	77.0
Plastic products	86.0	82.4	80.8	75.4	76.1	73.8	75.0	77.6
Printing, publishing, recorded media	87.9	86.9	82.2	83.6	83.3	80.6	80.1	79.4
Glass and glass products	88.1	75.3	88.9	83.1	86.9	88.8	94.3	97.2
Professional and scientific equipment	88.2	85.3	77.4	85.5	84.3	80.6	82.6	81.9
Rubber products	88.4	81.5	81.3	86.5	76.3	77.1	78.0	79.4
Wearing apparel	88.6	85.7	86.7	84.9	86.6	86.4	85.0	86.4
Wood and wood products	89.1	85.1	86.9	88.4	82.5	84.1	83.2	85.5
Basic chemicals	89.6	87.0	78.1	84.7	82.9	80.7	82.2	78.7
Basic precious & non-ferrous metals	90.1	78.9	93.2	90.3	92.5	93.1	92.7	91.6
Basic iron and steel products	90.2	88.7	85.8	89.5	85.7	91.4	89.4	89.4
Paper and paper products	90.3	91.1	89.8	85.3	85.5	87.2	85.2	88.7
Footwear	92.4	86.5	86.7	86.7	82.3	81.9	77.6	83.6
Average total manufacturing	84.3	82.0	82.3	81.6	79.0	79.5	79.7	80.7
Capacity utilisation (average % and standard deviations for the selected periods)								
	Average (%) for periods			Standard deviations				
	1970s	1980s	1990s	1970s	1980s	1990s		
Average total manufacturing	82.2	81.5	80.3	2.2	2.2	2.2		

Source: Adapted from Trade and Industry Policy Secretariat (2000:74, 75); Statistics South Africa (2001:4-10; 2002:4-10).

Notes: The period covered was selected on availability of statistical data.
The seasonal fluctuations were taken into account.

There is relatively less capacity utilisation in downstream industries, e.g. Motor vehicles, parts and accessories, Other chemicals and man-made fibres, Other transport equipment producers, Machinery and equipment, TV, radio and communication, and Metal products, all of which have been utilising 68 – 79 percent of installed capacity. By technological category, these industries fall within the scale-intensive, differentiated, and the science-based manufacturing activities. Since South Africa, the strongest and most developed economy in the region, is running at relatively low levels of capacity utilisation in the technological more complex industries, it cannot be expected that the rest of the regional countries could be performing any better in this category of manufacturing industries. Therefore, it could be inferred that SADC has a weak and under-performing industry in terms of high manufactured value-added products, thus agreeing with the observations already made in Section 6.5.2.

It can also be seen that for the manufacturing sector as a whole, capacity utilisation declined from the 1970s to the 1980s and continued to do so during the 1990s. In the 2000–2002 period, capacity utilisation in the sector began to rise slowly, reaching an average of 80.7 percent by the end of 2002. The main reason for underutilisation of industrial capacity in South Africa is insufficient demand, with the shortage of raw materials cited as the second major reason. The shortage of labour, especially skilled labour, has also often been cited (Statistics South Africa, 2001:1; 2002:1).

The SADC FTA could help to improve industrial capacity utilisation within the country as the wider SADC market could create more demand for South African products, while the easy availability of raw materials that results from the FTA could help solve the problem of shortages of raw materials. By putting in place favourable immigration laws, South Africa could attract the excess skilled labour from the other SADC countries, e.g. Zambia and Zimbabwe, thus improving the capacity at which its industries operate.

6.7.2 Industrial capacity utilisation in Zimbabwe

With respect to Zimbabwe, Table 6.11 shows that in general, the manufacturing sector shows low levels of industrial capacity utilisation. After 1991, when 37.3 percent of firms in the manufacturing sector produced at full capacity, the next four years saw very low levels of capacity utilisation in the sector, with the lowest levels recorded in 1995. While industrial capacity utilisation rose in 1996 and 1997, this fell continuously to only 15 percent of firms operating at full capacity in 2000, rising slightly to 17.0 percent in 2001.

Table 6.11 also shows that during the decade (1990-1999), relatively high rates of capacity utilisation tended to be consistently concentrated in very few industries, viz. non-metallic

Table 6:11: Industrial capacity utilisation in Zimbabwe (1990-2001)

Industrial sectors	Are you working at full capacity now? (Percentage of firms in the industrial sector answering: YES)											
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Foodstuff	21.0	28.0	16.0	9.5	15.0	7.3	28.0	23.7	30.0	11.5	7.0	13.0
Drink and tobacco	43.5	48.0	18.5	7.0	16.3	8.7	36.3	31.3	17.7	18.5	28.0	20.5
Textiles, including ginning	57.0	47.0	7.5	20.0	23.0	8.3	38.3	36.7	20.7	25.5	10.0	15.5
Clothing and footwear	45.5	41.7	19.5	8.5	11.3	1.7	35.7	35.3	27.7	20.5	10.0	17.5
Wood and furniture	55.0	56.0	30.5	23.0	16.7	9.0	53.7	40.3	24.7	32.5	21.0	17.5
Paper, printing and publishing	37.5	36.0	6.5	10.0	21.0	7.7	36.7	27.0	44.3	40.5	21.0	12.5
Chemicals and petroleum products	32.5	45.0	7.5	19.0	31.0	3.7	39.0	38.0	26.7	30.5	16.0	14.5
Non-metallic mineral products	77.5	64.0	37.5	34.0	38.0	20.3	47.3	31.0	34.0	32.5	15.0	12.0
Metals and metal products	27.0	26.0	2.0	4.5	17.0	13.3	31.0	34.3	40.0	16.5	11.0	20.5
Transport equipment	48.0	17.7	26.5	13.0	9.7	3.3	8.7	40.0	23.0	16.5	10.0	25.0
Other groups	31.5	36.0	7.5	22.5	13.0	8.3	31.3	32.7	22.7	20.5	15.0	30.5
All manufacturing	43.3	40.5	16.3	15.5	19.3	8.3	35.1	33.7	28.3	24.1	14.9	18.1
Mining	35.0	41.3	20.5	14.0	23.7	15.3	30.0	30.7	31.0	29.0	33.0	43.5

Source: Own Table and calculations from Central Statistical Office of Zimbabwe (2001a:2, 2001b:2; 2000c:2; 1999a:2, 1999b:2; 1998a:2, 1998b:2, 1998c:2; 1997a:2, 1997b:2, 1997c:2; 1996a:2, 1996b:2, 1996c:2; 1995a:2, 1995b:2, 1995c:2; 1994a:2, 1994b:2, 1994c:2; 1993a:2, 1993b:2; 1992a:2, 1992b:2; 1991a:2, 1991b:2, 1991c:2; 1990a:2, 1990b:2).

Notes: Due to seasonal fluctuations in industrial capacity utilisation, the annual average for each year was calculated and used.

mineral products, wood and furniture, textiles including ginning, and chemicals and petroleum products. This does not only imply gross underutilisation of the currently installed capacity in the whole manufacturing sector, but the fact that, except for chemicals and petroleum products, these are low technology, resource- and labour-intensive industries, implies very weak downstream industries. This poor performance was carried into the beginning of the 21st century, as seen by the extremely low levels of industrial capacity utilisation in all the manufacturing industries. Drink and tobacco is the only sector which showed a rise in the percentage of firms operating at full capacity and this was in the period 1999-2000.

In the past few years, especially after 1999, the Zimbabwean economy in general and the manufacturing sector in particular, has progressively weakened against the background of foreign exchange shortages, weak domestic market demand, conditions and shortages of essential raw materials, imported inputs and machine spare parts. Industries have also been constrained by cash flow difficulties, high domestic inflation felt through high transport costs and costs of raw materials, weak export market demand and heavy competition abroad. Shortages of fuel, high interest rates, as well as government price controls, have also been cited as other major constraints preventing firms from achieving the full potential of their plant capacity (SADC, 2002a:379; Reserve Bank of Zimbabwe, 2001:1, 3, 11; Central Statistical Office of Zimbabwe, 2001a:1, 2; 2000c:1, 2; 1999a:1,2; 1998a:1,2; 1997a:1,2; 1996a:1,2; 1995a:1,2; 1994a:1,2; 1993a:1,2).

Industrial trends (i.e. past, present and future) in terms of profit margins, the general situation in the industry and investment rates, are not encouraging and this has worsened especially after 1996. For example, the industrial trends show that in most cases, the firms within the manufacturing sector experienced and continue to experience falling profit margins, pessimism about the general situation in their industry, reduced investment compared to the previous year, and would expect their investment for the following year to be less than for the current year (Central Statistical Office of Zimbabwe, 2001a:2; 2000c:2; 1999a:2; 1998a:2; 1997a:2; 1996a:2; 1995a:2; 1994a:2; 1993a:2; 1992a:2; 1991a:2; 1990a:2).

The combined effect of the constraints and the negative industrial trends on producers' viability has been several company closures and/or scaling down of operations within the manufacturing sector, thus inevitably leading to widespread industrial capacity underutilisation. This in turn has inevitably led to decreased output, rising unemployment and falling disposable income, thus creating a vicious cycle leading to more widespread capacity underutilisation.

6.8 CONSTRAINTS ON THE SADC MANUFACTURING SECTOR

SADC Industry and Trade Sector (1998:5; 1999:5; 2000:5; 2001:7, 8) and SADC (2000:36) note that the general slow growth of the manufacturing sector is attributed a number of factors, viz. (i) high production costs which result from expensive working capital and investment capital mainly due to high interest rates for borrowers and high inflation (see Table A-3, Appendix 3), price hikes in the price of petroleum products on the world market which increase transport costs, and the relatively high utility tariffs due to the lack of low cost economic infrastructure like transport, communication and other utilities; (ii) the erratic provision of water and electric power in some countries; and (iii) dumping, especially in those countries with limited technical capacity to handle this problem. The net effect of all these problems is reduced production in the local manufacturing industries, as well as failure to compete favourably with the cheaper imported manufactured goods.

SADC (2000:38) and SADC Industry and Trade (1999:6; 2001:7) observe that the shortage and loss of skilled and qualified human resources due to HIV/AIDS, the brain drain to developed countries, and difficulties in getting work permits and licenses have also constrained the manufacturing sector in the region. Lack of improved technology and a weak private sector in some countries have also been cited as constraints. In some countries, the infrastructure for the provision of industry support services is yet to be developed, while poor infrastructure in the form of transport, communication and other utilities in some countries, hamper industrial growth. Political instability in some countries negatively affects the manufacturing sector as resources, human and non-human, are diverted towards conflict resolution and security. Political conflicts also results in the physical destruction of economic infrastructure and erosion of investor confidence, thus negatively affecting the manufacturing sector.

SADC Industry and Trade (2001:10) argues that, in some countries, government is the major domestic consumer and where government spending falls due to the restructuring processes, domestic demand falls, thus impacting negatively on the manufacturing sector. Furthermore, it has been argued that the local manufacturing sector has also been affected by intense competition as a result of liberalisation of trade and the presence of imported manufactured goods, resulting in scaling down of operations and in some cases closures. With unemployment rising due to the scaling down of operations and company closures, this has led to depressing local demand, which in turn has depressed the manufacturing sector further. Muradzikwa (2001:21) notes that higher labour costs, especially in Mauritius and South Africa (see Table A-5, Appendix 3), low labour productivity, low disposable incomes among SADC consumers, high cost of imported machinery, lack of adequate training in the

necessary technological capabilities relevant in manufacturing, and the absence of good governance, are also contributory factors.

6.9 OPPORTUNITIES AND POTENTIAL WITHIN THE MANUFACTURING SECTOR

However, irrespective of the many constraints which the manufacturing sector faces, as shown in Section 6.8 above, and the generally weak performance of the sector (see Sections 4.2.2.1 and 6.3) there is potential and opportunities for the sector to improve its current performance. It is therefore important to identify the existing opportunities and potentials within the sector and harness them fully in order for the sector to develop further to form a more solid base for industrial development. This is also important, even though the benefits could be long term, so as to avoid a situation where, as UNIDO (2001:66) observes, industrial development is neglected because “benefits are only reaped over the medium to long term”. The sections below attempt to identify such opportunities, how they could be utilised more fully, and the possible constraints that could be faced.

6.9.1 Investment opportunities within the manufacturing sector

Investment opportunities abound within the manufacturing sector and Table 6.12 shows that the opportunities are concentrated in the low technology, resource- and labour-intensive manufacturing activities. Agro-based manufacturing presents most of the investment opportunities, e.g. food processing investment opportunities are available in all countries, garments and textiles production forms significant investment opportunities in Botswana, Lesotho, Malawi, Mauritius, South Africa, Tanzania and Zimbabwe, while wood and wood products investment opportunities are available in Lesotho, Malawi, Mozambique, South Africa and Zimbabwe. Harnessing these investment opportunities would help the region to develop its resource- and labour-intensive industries more fully and thus derive competitive advantage.

Since SADC countries are agricultural based and most of the exports are still in primary form (see Section 6.5.1), the existing opportunities for manufacturing activities based on agriculture present significant scope for increasing value addition within individual countries for both domestic and export markets. This calls for investment in processing plants or fully utilising the existing processing facilities which are underutilised due to lack of technical and managerial skills, so that the countries do not continue to lose the opportunity to add value to the domestic crops. Such opportunities could also be utilised through joint ventures between manufacturers and growers, where the latter would produce specific crops for canned, frozen

Table 6.12: Investment opportunities within the manufacturing sector in the SADC region

Countries	Investment opportunities within the manufacturing sector
Angola	Construction: three pharmaceutical plants in Luanda, Benguela and Dondo; a shipyard and seaport in Cabinda province; and a brewery; construction materials industries. Rehabilitation of infrastructure: Somar fishing processing factory in Namibe; expand the Luanda steel complex. Installation; a local assembly line for military trucks; a television assembly line. Others: wood products and many other areas of manufacturing activity as the sector is being restructured.
Botswana	Technology-related: electronics components and product manufacturing; engineering plastics and packaging; Other manufacturing: food processing; garments and textiles; assembly/automotive; consumer products; pharmaceuticals; leather and leather related products.
D. R. C.	Agro-based manufacturing: food and related products; wood and related products; textiles, clothing and footwear; Mineral processing: basic metals and metal products. Technology-related manufacturing: machinery; chemicals and chemical products.
Lesotho	Manufacturing: garments and textiles; footwear; consumer products; furniture production.
Namibia	Mineral processing: cutting and polishing diamonds and dimension stone; production of granite and marble; cutting and processing sodalite. Small scale industry: plastic injection moulding; cement and fertiliser production; light industries; processing of fish and fish products; fish canning packaging; production of cans and packages. Agro-based manufacturing: cotton ginning; weaving; milling/pressing cotton seeds for oil; tomato paste for the fishing industry; cakes for animal feeds; leather tanning and processing.
Swaziland	Manufacturing: processing of sugar cane; manufacturing of sweets and confectionaries; canning and further processing of tobacco, pineapples and vegetables; production of ceramic ware, paper, pharmaceuticals and glass; processing of coal; production of chemicals, cement and fertiliser.
Malawi	Agro-based manufacturing: processing of agricultural produce, e.g. milling of sugar, food processing. Textiles, clothing and footwear: production of yarn, garment manufacturing, production of variety of shoes. Wood, wood products, pulp, paper: saw milling, plywood, veneer, pulp and paper production; downstream wood products. Fertilisers and pesticides: pesticide formulation and production of chemical fertilisers. Mining and mineral products: manufacture of ceramics and glassware; production of cement, iron and steel, sponge iron, steel billets, ignots, slabs, blooms, steel sheets. Machinery, transport equipment and electrical engineering: production of a variety of machine tools; production of diesel powered generating equipment, e.g. diesel engines and generators; production of agricultural equipment, construction equipment, transport equipment, automotive components, motorcycles and bicycles, electrical and electronic products.
Mauritius	Manufacturing sector: information technology, printing and publishing, electronics, precision engineering, jewellery, pharmaceuticals and health care, agro-based industry, textiles and apparel.
Mozambique	Agro-based manufacturing: production and processing agricultural products e.g. cashew nuts, coconuts, sugar, cotton and sisal; industrial processing of wood products. Other manufacturing: cement production.
Seychelles	Agro-based manufacturing: stock-feed production, fish processing. Light industry: boat building for export to states around the Indian Ocean.
South Africa	Export-oriented industries: food and related products, textiles and clothing, wood-related products, chemicals, non-metallic mineral products, basic metals.
Tanzania	Manufacturing: animal feed processing, agro-based industries, pharmaceuticals, textiles and leather goods, cement, paints and ceramics, packaging, electrical and electronic engineering, steel, metal and automotive engineering, printing and publishing; production of oil, gas, metallic and non-metallic products. Computers and high technology: assembly, marketing and service.
Zambia	Agro-based-manufacturing: tobacco processing, cotton ginning, other crops. Other manufacturing: production of consumer goods, fertilisers and soil conditioners.
Zimbabwe	Manufacturing: retooling and expansion projects, food, beverages, chemicals, stone and leather products. EPZs: export oriented manufacturing activities and services (variety of areas).

Source: Own Table derived from SADC (2003c; 2002a:126, 146, 170, 178, 196, 215-216, 233, 255, 272, 292, 337, 357, 374; 1999:124, 141, 168, 179-180, 198, 218, 234, 263, 281, 302, 319-320, 338, 354).

and dried grocery items by the manufacturing sector. The existing gaps in the agricultural chain would also provide for fully utilising opportunities within the manufacturing sector, e.g. locally processing tobacco to manufacture cigarettes instead of exporting it for processing and re-importing it to manufacture cigarettes as is the current practice.

Another resource-and labour-intensive manufacturing activity which presents investment opportunities in the region is mineral processing, e.g. jewellery production mainly in Mauritius and South Africa, cutting and polishing diamonds and other precious metals mainly in Namibia and South Africa, while the production of iron and steel and steel products is an opportunity mainly in Malawi, South Africa and Zimbabwe. If such investment opportunities are utilised fully, this could help to improve the performance of the manufacturing sector, e.g. SADC (2003c) observes that in Zambia, 85 percent of fertilisers are imported and yet the country has good deposits of phosphates which can be used to produce fertiliser. The great deposits of peat and limestone in the country could be exploited to manufacture soil conditioners for agriculture and horticulture in Zambia instead of importing these products, as is the current practice.

For Angola and the Democratic Republic of Congo, the utilisation of existing investment opportunities within their manufacturing sectors is most urgent. SADC (2003c) notes that as a result of the civil wars the two countries experienced, their manufacturing sectors have been devastated by damage to infrastructure, while foreign currency shortages, depressed demand, and massive looting, seriously depressed the utilisation of manufacturing capacity. While the levels of risk in these countries are still regarded as very high, there is still a need for investment opportunities in these countries to be utilised so that their industrial sectors can be restructured so as to meet international standards. For example, in the case of Angola, this would imply harnessing the investment opportunities in the construction of physical infrastructures necessary for the manufacturing of pharmaceuticals, rehabilitating infrastructure for somar fishing processing as well as facilitating the establishment of construction materials industries (see Table 6.12). This would help the country to improve its manufacturing sector contributions to GDP which is less than 5 percent (see Figure 4.3 in Section 4.2.2), as well as to improve the annual MVA growth which, by 2002, was at 0 percent (see Figure 6.1 in Section 6.3).

As depicted in Section 6.4, high technology and technologically complex manufacturing activities are limited, leading to heavy reliance on capital goods imports. As such, Table 6.12 shows that investment opportunities in scale-intensive, differentiated, and science-based manufacturing activities are also limited to just a few countries (e.g. Botswana, Malawi,

South Africa, Tanzania, Mauritius and Zimbabwe), and these opportunities have to be utilised fully so as to develop further the manufacturing sector in these high MVA product categories. However, it is important to note that countries will have to first of all build the capacities to take on, at competitive levels, these more complex manufacturing activities. Building such capacities can be difficult and slow, but efforts should be made otherwise countries would be stuck with simple and low technology manufacturing activities that do not lead to sustained diversified growth.

In Botswana, building capacities to harness the high technology-related manufacturing investment opportunities in electronics components and product manufacturing, and engineering plastics and packaging, could help in raising the manufacturing sector contributions to GDP which are currently very low, i.e. 4.04 percent by 1999/2000 (see Figure 4.3 in Section 4.2.2) as well as helping to raise the annual MVA growth which is low, i.e. 2 percent by 2002 (see Figure 6.1 in Section 6.3). Malawi has investment opportunities in scale-intensive manufacturing activities (viz. fertilisers and pesticides), and differentiated manufacturing activities, viz. machinery, transport and electrical engineering (Table 6.12). If these opportunities could be utilised, it would help to reverse the continuous fall in the manufacturing sector contributions to GDP (see Figure 4.3, Section 4.2.2), as well as improving the annual MVA growth rates which are currently negative (see Figure 6.1 in Section 6.3). However, it is important to note that the country is one of the least recipients of FDI within the SADC region, its investment climate has been on a continuous decline since 1997 (see Section 5.4.1.12), and has a small domestic market. These factors would thus pose limitations to the utilisation of the identified investment opportunities.

Tanzania has investment opportunities in science-based manufacturing, i.e. pharmaceuticals, electrical and electronic engineering, assembling (Table 6.12), and this is also supported by UNIDO (2001:64-65). With the constraints which the country faces (see Section 6.3), UNIDO (2003a:89) notes that there is a need for “capabilities to design and implement the necessary strategies” to reduce these constraints in order for these opportunities to be utilised. The country regards FDI as a solution to recover and boost its manufacturing concerns and receives significantly high levels of FDI (the third highest in SADC) with FDI preference in the manufacturing sector (see Section 5.4.1.4). This could be used to utilise more fully the identified manufacturing potentials and investment opportunities where viability is established. This would thus help to raise the current low manufacturing sector contributions to GDP as well as reversing the current continuous decline in the sector’s shares to GDP (see Figure 4.3 in Section 4.2.2). It may also help to sustain the continuous gradual rise in the annual MVA growth rate which the country has been experiencing after 2000 (see Figure 6.1

in Section 6.3). UNIDO (2001:64-65) observes that some of the manufacturers already have plans in place to expand capacity in the next 1 to 5 years so as to harness/utilise investment opportunities in the various identified areas. Mauritius has investment opportunities in science-based manufacturing, i.e. pharmaceuticals, information technology, electronic and precision engineering (Table 6.12). By harnessing the investment opportunities in Mauritius, the country would be able to strengthen further its already relatively well-developed and strong manufacturing sector (see Figure 4.3 in Section 4.2.2; Section 6.6), as well as to help broaden its manufacturing base which is currently dominated by textiles and clothing.

Zimbabwe has investment opportunities in (i) scale-intensive manufacturing activities, e.g. paper and paper products production, and the production of various chemicals; (ii) differentiated manufacturing activities, e.g. the production of advanced machinery and power-generating equipment; as well as (iii) science-based manufacturing, e.g. electronics, biotechnology, and the production of pharmaceuticals (Table 6.12). However, it is doubtful as to whether these investment opportunities would be utilised fully given the pressures under which the manufacturing sector is operating, i.e. shortages of foreign, very high inflation, and chronic shortages of both domestic and foreign inputs. However, if these investment opportunities could be fully harnessed, this could help to reverse the current poor performance of the sector as depicted by the continuous decline in manufacturing sector contributions to GDP after 1997 (see Figure 4.3 in Section 4.2.2), as well as the negative annual MVA growth rates, i.e. -12 percent by 2002 (see Figure 6.1 in Section 6.3). South Africa presents the widest range of high technology and technologically complex manufacturing investment opportunities within the region. Some of its best performing manufacturing sectors, as observed by SADC (2002a:292-3), are in the scale-intensive, differentiated and science-based categories, e.g. basic iron and steel, fabricated metal products, industrial chemical products; industrial and other machinery, electrical appliances; pharmaceuticals; respectively. By harnessing these investment opportunities fully, the country would be able to continue to develop its already well developed and strong manufacturing sector (see Figure 4.3 in Section 4.2.2; Section 6.6) as well as improving its economic growth rate, i.e. 3.0 percent by 2001 (see Table 5.1 in Section 5.3.1).

6.9.2 The importance of a market for the manufacturing sector

The presence of a wider market for manufactured goods would provide opportunities for the SADC's manufacturing sector to grow because this would provide the incentive to increase the capacity of domestic and regional industrial production as firms actively seek and take up opportunities to exploit the potentials within the manufacturing sector, and derive maximum benefit from the market. Agreements like AGOA, Cotonou, the SADC FTA, and other

bilateral trade agreements would create a wider market for SADC manufactured products, thus creating opportunities for the potentials within the manufacturing sector to be harnessed.

6.9.2.1 Realising manufacturing potentials through AGOA and the Cotonou Agreement

The USA African Growth and Opportunity Act (AGOA) would provide qualifying countries the opportunity to expand their markets into the USA, thus motivating increased investment outlays (foreign and domestic) in the manufacturing sector, and in the textiles and clothing industry in particular.

Some have argued that due to AGOA, some manufacturing potentials and opportunities have already been identified and are being utilised within SADC, e.g. Muradzikwa (2000b:14) observes that investors from the Far East have shown a keen interest in clothing and textiles investments in Lesotho. United States (2001)¹³ argues that due to AGOA, eleven new factories and four expansions were reportedly awaiting allocation of space by the Lesotho National Development Corporation, with plans already underway by an Asian investor to invest US\$100 million in the construction of a denim mill and two garment factories. United States (2001) further points out that AGOA led to the utilisation of the potential within the clothing enterprise in Malawi where foreign investment was channelled in at least two major clothing enterprises in that country, while during 2001/2, Namibia received a major investment of US\$100 million in its textile and clothing industry through the construction of a vertically integrated textile mill by a Malaysian company Ramatex (Tralac, 2004c). Also to note is that there has been a rise in manufactured goods exports through AGOA. For example, a more than 100 percent rise in manufactured products exports through AGOA, from 2002 to 2004, was experienced by Angola, Malawi, Mozambique, Swaziland, Tanzania and Zambia; while Lesotho had a 40.81 percent rise, Mauritius a 38.28 percent rise, and South Africa a 16.59 percent, in the same period¹⁴.

However, it has to be noted that some factors could limit/or constrain the expected benefits of AGOA. For example, where the tariffs are already very low, the benefits of improved access in terms of boosting exports may not be much. Revised lists may not include other products previously in the old lists, and if such products are from sectors which a country would have targeted for improved performance in total trade or targeted for development through export oriented production, then such efforts would be defeated. Also to note is that the current total market share reserved for Africa is small and also Africa still has to compete against other

¹³ Cited in Naumann (2002:18),

¹⁴ Own calculations from the AGOA trade data derived from the AGOA website (<http://www.agoa.info>).

exports from other non-African countries which may have the same or better access to the US market under other trade agreements. Non-tariff barriers, e.g. quotas and rules of origin, could also limit free trade under AGOA, while the duty free treatment can be suspended if the imports are considered a threat to US industries (Stern and Netshitomboni, Date unknown: 3, 6, 7, 8). The benefits of AGOA could also be limited/ or constrained as duty free treatment can be suspended if a country fails to continue to meet the pre-defined criteria¹⁵, while the halving of the LDC quota as foreseen in AGOA III for the period 2006 – 2007 would adversely affect the regional clothing sector (Tralac, 2004b).

Therefore, as Lupupa (2004)¹⁶ observes, the US market could remain difficult to penetrate despite AGOA. However, Sunday Times (2004)¹⁷ argues that the AGOA benefits could be made more permanent, especially for the SACU countries, by concluding the current negotiations for a Free Trade Agreement with the United States.

The Cotonou Agreement¹⁸ has and will continue to motivate the identification and utilisation of potentials within the manufacturing sector in SADC. For example, Jhamna (2000)¹⁹ and Naumann (2002:18) note that the spectacular success of the textile and clothing sector of Mauritius has been largely attributed to the industry's relatively favourable access to international markets as a result of agreements like the Lome Convention and the Cotonou. The clothing and textiles industry in Zimbabwe regards the Lome Convention as having played a critical role in enabling the industry to break into export markets and expanding export initiatives (Muradzikwa, 2002b:13).

However, while the SADC region thus has relatively easier access to major markets in Europe, the USA and Asia, through these and other various trade agreements, the long distance between the region and these markets could constrain the performance of the regional manufacturing industries as this means high transport costs which could make the regional products less competitive. The relatively underdeveloped and inefficient road network, port and harbour facility, insufficient air cargo, higher communication costs, as well

¹⁵ This includes progress towards a market-based economy, respect of rule of law, embracing and enforcing general democratic principles of human rights issues (Tralac, 2004a).

¹⁶ Cited in Times of Zambia (2004) online in the Tralac Newsletter.

¹⁷ Presented online in the Tralac Newsletter.

¹⁸ It was concluded in June 2000 and is the successor to the Lome Conventions, which provide qualifying 77 African, Caribbean and Pacific (ACP) countries with preferential access to 15 member states of the European markets. The agreement will be maintained in its current state until 31 December 2007, after which it will undergo significant transformation where a set of reciprocal economic partnership agreements and alternative trade agreements will be introduced (Naumann, 2002:18).

¹⁹ Cited in Muradzikwa (2002b:11).

as low teledensity, create other costs which could also make the regional manufactured products less competitive.

6.9.2.2 The importance of regional agreements

The current bilateral trade agreements between SADC countries would continue to contribute towards the development of the regional supply chains which are crucial for utilising the existing and new potentials within the manufacturing sector.

The implementation of the SADC FTA provides the manufacturing sector with the scope to improve its performance and competitiveness so as to take advantage of the large regional market without the hindrance of tariffs. The SADC FTA would also present a regionally integrated economic structure which would make it more cost effective to produce and sell from within the region than from outside the region. As such, this would present opportunities for increased capacity utilisation in the existing manufacturing industries as well as identifying new potentials and opportunities within the manufacturing sector, as investors would seek to access the regional market by locating within the region than by export.

However, while market size and regional access are improved by implementing the SADC FTA, the extent to which the FTA would present a regional market with an adequate absorptive capacity necessary to motivate the current manufacturing potential and to identify and utilise new manufacturing potentials, is subject to debate. For example, some argue that the SADC market is still small in terms of the total population, by international standards²⁰. Apart from the smallness of the regional market in terms of the total population, it can also be regarded as small in terms of the per capita income as this is low in most of the countries, and its annual average growth rate is also low. The regional market's absorptive capacity is compromised and complicated further by the high incidences of poverty, unequal distribution of income, wealth and opportunities (see Section 4.7). Also to note is that, generally, the region experiences low economic growth rates due to low investment rates (see Table 5.1 in Section 5.3.1), and this inevitably impacts negatively on the regional market's absorptive capacity. It is also important to note that despite the implementation of the SADC FTA, the performance of the manufacturing sector could be constrained by the relatively underdeveloped and inefficient road network, port and harbour facility, insufficient air cargo,

²⁰ By 2000, the Association of South East Asian Nations (ASEAN) had 10 members with a total population of 525.1 million. The Central European Free Trade Association (CEFTA) had 6 members and a total of 104.6 people. The European Union had 15 members and a total population of 379.5 million. The Mercosur had 4 members and a total population of 216.5 million, while the North American Free Trade Association (NAFTA) had only 3 members and a total population of 411.8 million. SADC has 14 members and a total population of only 187.7 million (CIA, Factbook, 2000 cited in Muradzikwa, 2002b:15; Muradzikwa, 2001:21).

higher communication costs, as well as low teledensity, which still characterise the SADC region. These would thus create costs which could make the regional manufactured products less competitive.

It is also important to note that SADC countries are at different levels of industrial development and as such, in some countries, infant industries and SMMEs are significant in helping to utilise more fully the potentials within their manufacturing sectors (see Sections 4.6.1.3 and 7.3.3). Therefore, the increased competition due to the SADC FTA could, in such countries, hamper and even destroy opportunities to utilise these industries to help to harness fully the existing opportunities and potentials within the manufacturing sectors. This would thus imply applying Article 3 Paragraph 1(c) and Article 21 Paragraph 1 of the SADC Trade Protocol (see Section 7.3.1) as well as the need for effective competition policies at both regional and national level (see Section 4.6.1.1).

6.9.3 The availability of human resources

Harnessing the potential and opportunities within the manufacturing sector also rests on the availability of appropriate human resources. Some of the SADC countries have resources bases with highly skilled human resources which are currently benefiting some of the less endowed countries. For example, Coughlin (2001)²¹ notes that the clothing and textiles industry in Mozambique has benefited from quite a number of technicians and middle-level supervisors from South Africa and Zimbabwe. Also to note is that a pool of well trained and underutilised manpower is developing within some of the SADC countries due to industrial closures/ and or scaling down of companies due to severe competition from cheaper manufactured imports, foreign currency shortages and other economic hardships. Zimbabwe and Zambia are cases in point, as observed by Price Warehouse (Date unknown:7) and the Zimbabwe Investment Centre (1998:2). This growing pool of underutilised expertise could help to boost capacity utilisation within the manufacturing sectors of recipient countries if the region could relax or ease the current difficulties in obtaining work permits and licenses so as to facilitate productive labour mobility²². Taking advantage of the excess and underutilised skilled human capacity from other SADC countries and use it to benefit domestic industries, is a lesson which SADC can learn from the experiences of Taiwan and Hong Kong (see Sections 3.2.4.3 and 3.2.5.4).

²¹ Cited in Muradzikwa (2001:7).

²² This recommendation is not without criticism as countries may fear an influx of foreign employees, a situation which could reduce employment opportunities to the locals.

Since most of the manufacturing activities within SADC are resource- and labour-intensive in nature (see Section 6.4), the abundant pool of labour (skilled and unskilled) available in the region has to be exploited fully so as to enhance full utilisation of the capacity in these industries²³, and thus lay a more solid manufacturing base necessary for moving onto higher levels of industrialisation. This is a lesson which SADC can learn from experiences of the East Asian NICs (see Chapter Three), where the use of the abundant supply of unskilled labour to specialise in labour-intensive products during the early industrialisation stages enabled the countries to successfully launch the manufacturing industries, as well as laying a solid manufacturing base before moving onto higher levels of industrialisation.

6.9.4 Realising opportunities through improvements in infrastructural facilities

The theory of industrial location (see Section 2.2), illustrates that a region with the lowest production costs (including transport costs) enables profit maximisation, thus making it a more favourable choice for industrial location. With markets and input sources not subject to movement, and the latter located in great abundance in various countries within the SADC region, transportation becomes a very important and major cost to significantly determine industrial location. In this regard therefore, improvements in transport infrastructure become significant to the region, as this would present opportunities for the manufacturing sector to realise its potentials through attracting in new industrial investments. Also to note are the implications of improvements in the transport infrastructure as discussed in Section 5.3.4.

The benefits of a sound financial system (see Section 5.3.4) enable the system to be an effective support structure that would help the manufacturing sector to realise its potential more fully. Infrastructural improvements in telecommunication system would help to cheapen communication between distant places and facilitate the immediate interchange of new ideas, information and technological breakthroughs between distant places. This would thus encourage new industrial investments in remote parts (either within the domestic economy or other regional economies) where manufacturing opportunities exist without fear of isolation and missing out on new technological development, thus helping a country to harness more fully existing and potential manufacturing opportunities.

²³ However, it has to be pointed that the labour cost advantage that can be experienced from the abundant pool of labour, might not turn into a competitive advantage due to non-labour production costs like poor transport, unreliable power and water supplies, e.t.c., which can thus fully erode the labour cost advantage. These cost disadvantages can, however, be rectified by appropriate government policies (UNIDO, 2004:12-13).

6.9.5 Realising manufacturing potential through intra-industry trade

With regional integration, the basic conditions provided for in preferential trading arrangements create a market structure within which intra-industry trade can increase to a greater extent than otherwise (Appleyard and Field, 2001:182; Behar, 1991:532). For example, a country can simultaneously reduce the number of products it produces and increase the variety of goods available to domestic consumers by engaging in intra-industry trade. By producing fewer varieties, a country can produce each variety at a larger scale with higher productivity, thus having the opportunity to increase capacity utilisation within the manufacturing sector as it just focusses on a few varieties and import the rest. Intra-industry trade would also present the firms with the opportunity to exchange information and technology necessary to improve the industrial capacities of their countries, with the less developed countries benefiting especially more from the relatively more developed countries like South Africa and Mauritius.

However, the potential for extensive intra-industry trade induced opportunities to develop the manufacturing sector further could be limited by South Africa's higher degree of industrialisation than the rest of the other regional countries and the contraction of Zimbabwe's manufacturing sector.

6.9.6 Other observations on how to realise manufacturing potential

Since the performance of the manufacturing sector in the region still needs to be improved, SADC Industry and Trade Sector (2001:10-11) argues that increased investment in new plant and machinery and advanced technical skills would help to modernise the sector, thus increase its productivity and competitiveness. The creation and support of small-scale manufacturing industries could also help to rejuvenate the whole manufacturing sector as these are capable of taking advantage of specific resources in particular locations which are often underdeveloped, and supply larger companies with inputs. SADC Industry and Trade Sector (1999:6) observes that the implementation of economic reforms, introducing new investment incentives, and earmarking some of the several manufacturing enterprises for technical modernisation/ and or privatisation, could rejuvenate the manufacturing sector.

The focus on industrialisation within SADC is driven by a desire to stimulate the manufacturing sector (see Chapter Seven), thus showing that the region regards this sector as significant for long term and sustained economic growth, employment creation and industrial development. However, it is important to note that economic sectors are interdependent and so, rejuvenating the manufacturing sector should be done without necessarily disadvantaging

the rest of the economy, as this would only result in unequal development and failure to develop the necessary effective backward and forward linkages between sectors.

6.10 CONCLUSION

This chapter has attempted to analyse the nature of the SADC manufacturing sector through discussing its various aspects, viz. growth in MVA, the structure of the sector, its trade performance, capacity utilisation, the constraints the sector experiences, as well as potentials and opportunities within the sector.

The structure of the manufacturing sector shows that the SADC region has a well diversified manufacturing sector, with Food products as the most diversified industry followed by Textiles, Non-electrical machinery, and Transport equipment. South Africa is the only country which shows a significantly strong machinery and transport and equipment sector. Therefore, these are the industries which tend to dominate the manufacturing sector, although the strength of each industry varies between countries, depending on the individual country's level of industrial development, resource endowment, competitive advantage and revealed comparative advantage. Despite a well diversified manufacturing sector, it can be deduced that the manufacturing sector in the region is dominated by industrial processes which are more of low technology, resource- and labour-intensive in nature than industrial processes of scale-intensive, differentiated and science based in nature, implying a less technologically complex manufacturing sector.

The distribution of the establishments for manufacturing activities between the different industries within the manufacturing sector would also give additional insight into the structure of the manufacturing sector in the region. From the distribution, it can therefore be concluded that most of the manufacturing establishments are involved in low technology, resource- and labour-intensive manufacturing. By 1999, the low technology, resource- and labour-intensive industrial activities tended to dominate the top 6 industrial sectors with the highest number of establishments. While most of the SADC countries had these establishments, their concentration differed between countries, with these industrial sectors mostly concentrated in South Africa, Botswana, Mauritius, Zambia and Zimbabwe, with South Africa always having the highest concentration. The concentration of medium technology manufacturing industries is mainly in South Africa, Zimbabwe, Mauritius and Zambia, with South Africa always having the highest concentration. High technology manufacturing activities reveal very few establishments and were mainly in South Africa,

Zimbabwe, Zambia and Mauritius, with South Africa always having the highest concentration.

Since the structure of the manufacturing sector implies a less technologically complex manufacturing sector, manufactured exports are largely products of low MVA, while manufactured imports (especially capital goods) form a significant component of the region's imports. However, other SADC countries, e.g. South Africa, Mauritius and Zimbabwe have well developed industrial bases capable of producing medium-, high- and technologically complex products, *albeit* at a lesser scale than the low-technology, resource- and labour-intensive products. As such, on average, the high MVA exports contribute less than 4 percent of total manufactured exports.

While it was difficult to analyse capacity utilisation within the manufacturing sector in other SADC countries besides South Africa and Zimbabwe, the data available show that upstream industries or industries at the lower end of the 'value chain' run at higher levels of capacity utilisation than the downstream industries. With the implementation of the SADC FTA, it is hoped that this underutilised industrial capacity could be harnessed as resources become more easily accessible; a bigger market is created, and possibly increased FDI inflows.

In general, the manufacturing sector in the region has been growing slowly and this has been attributed to various factors, e.g. high production costs, the erratic provision of water and electric power in some countries, dumping of goods by other countries, the shortage and loss of skilled and qualified human resources, lack of improved technology and a weak private sector in some countries, inadequate and underdeveloped infrastructure for the provision of industry support services, political instability, reduced government spending in countries where it is the major domestic consumer, and the intense competition resulting from the presence of cheaper imported manufactured goods. In some of the SADC countries, these factors have led to company closures and scaling down operations which have led to a rise in unemployment, thus depressing local demand and depressing the manufacturing sector further.

Therefore, it is important to take measures to rejuvenate the manufacturing sector, e.g. encouraging new capital injections in plant and machinery, new technical and managerial expertise, and earmarking some of the several manufacturing enterprises for privatisation could help modernise the sector, thus increase its productivity and competitiveness. The creation and support of small-scale manufacturing industries could also help to rejuvenate the

whole manufacturing sector, as these are capable of taking advantage of specific resources in particular locations and supply larger companies with inputs.

The potential and opportunities within the manufacturing sector could also be harnessed more fully and thus rejuvenate the sector by identifying and fully utilising the various investment opportunities within the sector, creating and expanding markets, investment in human resources as well as optimal utilisation of the current human resource base, improving infrastructural facilities so as to improve the supply chains and reduce non-tariff barriers, as well as utilising the intra-industry trade potentials within the region.

Since it is important to utilise fully the existing potentials within the manufacturing sector and achieve industrialisation, the next chapter will deal with policy recommendations to achieve industrialisation. It will also discuss the current efforts by SADC to develop an industrial policy which adopts a regional approach to facilitate industrial development in the region.

CHAPTER SEVEN

THE INDUSTRIAL POLICY IMPLICATIONS AND THE FACILITATING ROLE OF THE SADC FREE TRADE AREA

7.1 INTRODUCTION

Following the empirical analyses in Chapters Four to Six, it is important to derive or develop industrial policy proposals necessary to facilitate industrial development in the region. Also of importance is to evaluate the progress SADC has made in its efforts in formulating the SADC industrial policy and strategies which is one of its current major projects.

Supporting qualitative data was required for this chapter and Section 7.2 will therefore explain how this information was gathered and also presents a summary of the responses to the questions raised in the questionnaires used to gather this data.

Section 7.3 examines the industrial policy proposals/ and or recommendations that can be derived from the empirical analyses and discussions presented in Chapters Four to Six of this thesis, with the support of the theories presented in Chapter Two as well as the lessons from the East Asian NICs presented in Chapter Three. Where necessary, the information gathered through the questionnaires will be used in support of some of the suggested policy recommendations.

Section 7.4 highlights the current efforts by SADC in formulating the SADC industrial policy and strategies, a project which has been on the regional grouping's agenda since 1996. This discussion centres on progress in developing this policy as well as the main concerns SADC has to address while drafting this policy. Supporting qualitative data was required and this was gathered by sending out questionnaires to some of the stakeholders who have been actively involved in this initiative.

Section 7.5 examines the possible challenges SADC could face during the implementation of the SADC industrial policy and strategies once it has been finalised and adopted. This is important because while a policy may appear sound on paper, its implementation may be difficult. Section 7.6 analyses the facilitating role of the SADC Free Trade Area in implementing the SADC industrial policy and strategies, while Section 7.7 concludes the chapter.

7.2 METHODOLOGY USED TO OBTAIN INFORMATION ON THE SADC INDUSTRIAL POLICY AND STRATEGIES

Finding information on the SADC industrial policy and strategies was difficult since the development of the regional policy is still ongoing and other member states seem not to be clear as to what is really going on in terms of developing the policy. As such, when approached for information, a number of member states could not provide any and would advise that questions be referred to the SADC Secretariat, as they are the ones developing the policy.

Questionnaires (see Appendices 7 – 8) were used to try and obtain information on the SADC industrial policy and strategies. Two kinds of questionnaires were used and the responses to each will be discussed below.

7.2.1 Questionnaires to SADC contact points in member states

Each SADC member state has a SADC Contact Point and a questionnaire was sent to each one of them (Appendix 7), resulting in fourteen questionnaires being sent out. The questionnaire sought to obtain qualitative information on the finalisation of the proposed regional industrial policy, how the policy is to be implemented, and how it is going to address industrial development issues within the SADC region. Only four responses were received, i.e. from the Democratic Republic of Congo, Namibia, South Africa and Zimbabwe. However, except for the response from Namibia, the responses from the other three countries could not be used as the countries indicated inability to answer the questions¹.

The response from the SADC Desk in Namibia, in the form of a copy of the final report on the proposals for the SADC industrial development policy and strategies prepared by Imani Development in May 2001 for SADC Industry and Trade Co-ordinating Division (SITCD) and financed by the Commonwealth Secretariat, was extremely useful in this research². The information in this draft confidential final report will be drawn upon in some of the discussions presented in Sections 7.3; 7.4 and 7.5.

¹ While the National Contact Point for the D. R. C. acknowledged receipt of the questionnaire, they indicated that they could not answer the questions and as such information on such questions should be obtained from the SADC secretariat. While the Ministry of Trade and Industry in South Africa acknowledged receipt of the questionnaire, both telephonic and e-mail follow-ups with them yielded no positive result. The SADC National Contact Point in Zimbabwe acknowledged receipt of the questionnaire, but forwarded it to the Ministry of Industry and international trade due to inability to complete it. However, several telephonic follow-ups with the Ministry yielded no positive results.

² Due to time constraints, Mr Willem Nekwiyu, the Chief Trade Promotion Officer at the SADC Desk in Namibia, indicated that he could not complete the questionnaire but would instead provide the still confidential copy of the proposed industrial policy in which all answers to the questionnaire were contained.

7.2.2 Questionnaires to SITCD in Tanzania and the SADC secretariat

Since the response from the SADC Contact points was poor, the same questionnaire was sent to the SITCD in Tanzania and the SADC Secretariat. These are significant players in the development of the SADC industrial policy and strategies and so adequate answers on the questions in the questionnaires were expected.

Since the 1980s up to August 2001, Tanzania was coordinating the SADC Industry and Trade Sector before the SADC Summit decision of March 2001 to centralise the coordination of the SADC Programme of Action to the SADC Headquarters in Gaborone. Therefore, since 14 June 1996 when a decision was made at the tenth meeting of the SADC Industry and Trade Sector Ministers held in Pretoria, South Africa, to prepare the Industrial Development Policy and Strategies for SADC, SITCD in Tanzania has been heavily involved in this process. Therefore sending a questionnaire to them (Appendix 7) requesting for information on the nature of the regional policy, its finalisation and how it intends to address industrial development in the region was appropriate.

Since SITCD in Tanzania continues to actively participate in the meetings and workshops coordinated by the SADC Secretariat to develop an appropriate regional industrial policy, their responses to the questionnaire were quite detailed and very beneficial to this research. The responses to this questionnaire supplied by A. S. Ngassa in 2003 on behalf of SITCD in Tanzania (see Table 7.1 below), will be drawn upon in discussing a variety of issues raised in Sections 7.3; 7.4 and 7.5.

Through the restructuring exercise, the SADC industrial policy and strategies is now the responsibility of the SADC Secretariat under the SADC Directorate for Trade, Industry, Finance and Investment Unit. Since the Directorate has in-depth knowledge on the progress in developing the proposed SADC industrial policy and strategies, it was important to send them a questionnaire (Appendix 7) to gather up-to-date information on the current status of the policy and how it seeks to address industrialisation within the region. The detailed information provided in their responses to the questionnaire (see Table 7.1 below) was very beneficial to this research and will be drawn upon in some of the discussing presented in Sections 7.3; 7.4 and 7.5.

7.2.3 Questionnaires to the Ministries of industry and trade

This questionnaire sought mainly to evaluate country awareness of the proposed regional industrial policy, involvement of member states in giving inputs in the policy document, expected benefits by countries, and member states preparedness to implement the SADC

Table 7.1: Analysis of questionnaire responses from SITCD in Tanzania and the SADC Secretariat

Questions asked in the questionnaire	Responses to questions	
	SITCD in Tanzania	SADC Secretariat
Finalisation of the SADC industrial policy and strategies		
(i) has the industrial policy document been finalised?	No	No
(ii) when is it likely to be finalised?	Ask SADC Secretariat	December 2003
The current outstanding issues which the policy document should address		
(i) polarisation of industries	Yes	Yes
(ii) identification of industrial investment potential in the region	Yes	Yes
(iii) the effectiveness of current national industrial policies and their harmonisation at regional level	Yes	Yes
(iv) the legal framework required to underpin the industrial policy and strategies	Yes	Yes
(v) the review and adjustment mechanism of the policy framework	Yes	Yes
(vi) targets and a timeframe for the implementation of the strategies	Yes	Yes
(vii) harmonise the industrial policy in line with the Regional Indicative Strategic Development Plan	Yes	--
How SADC intends to implement the industrial policy		
(i) harmonise national industrial policies	--	Yes
(ii) create a development fund to support industrial development strategies	--	Yes
(iii) setting realistic goals and targets	--	Yes
(iv) harmonise the implementation with the aims of the Regional Indicative Strategic Development Plan	Yes	--
(v) ensure equitable distribution of industrial activities	Yes	--
Programmes of action set to implement the proposed SADC industrial policy and strategies		
(i) Standardisation, Quality Assurance, Accreditation and Metrology (SQAM)	Yes	Yes
(ii) Technology, industrial research and development programmes	Yes	Yes
(iii) Small and medium scale industries and technology development programmes	Yes	Yes
(iv) Industry and trade information exchange systems	Yes	Yes
(v) Management and skills development programmes	Yes	Yes
(vi) Regional property rights, Regional industrial partnership council, and Environmental standards for industry	Yes	--
(vii) Private sector institutional development to support regional networking	Yes	--
(viii) Development of regional venture capital funds, Spatial development corridor programmes	Yes	--
How the industrial policy intends to treat pertinent issues that form important components of an industrial policy		
(i) adopt the SADC Protocol on Trade, harmonise the fiscal and monetary policies, remove restrictive bureaucratic regulations	--	Yes
(ii) create a conducive investment environment by ensuring a stable political and social environment, stable macro-economic environment, appropriate infrastructure, good finance and banking environment, availability of human capital and technology	--	Yes
(iii) attend to capacity building through human resources development as well as technological improvements	--	Yes
(iv) development and support for SMMEs through sub-contracting and other linkages and provision of finance	--	Yes
(v) possibility of setting up regional industries or industrial clusters	No	Yes

Source: Ngassa (2003:1- 3); SADC Secretariat (2003:2 – 5).

industrial policy and strategies. The questionnaire (Appendix 8) was sent to the Ministries of Industry and Trade in ten SADC countries³ by fax, postal mail or e-mail, depending on the facility available in the respective ministries.

This questionnaire is important as it reveals the extent to which member states have or display a sense of ownership of the SADC industrial policy and strategies. This is important if the policy is to be readily accepted as well as willingly and effectively implemented so as to achieve the desired/proposed objective, i.e. promoting industrial development within the region.

When telephonic follow-ups were made, seven out of the ten countries, (i.e. Botswana, South Africa, Swaziland, Tanzania, Namibia, Zambia and Zimbabwe) confirmed receipt of the questionnaire and willingness to respond. Telephonic follow-ups could not be made with Malawi and Mauritius, and so several postal mails were sent to Malawi as follow-ups and several e-mails were sent to Mauritius, but both countries did not respond. When telephonic follow-ups were made to Lesotho, the country indicated no interest in participating in the research.

However, when further telephonic follow-ups were made so as to obtain responses to the questionnaires from the seven countries which had expressed willingness to respond, only four countries were willing to give their responses, i.e. Mr Z. Masiza for the Department of Industry and Trade in South Africa, Mr H. Chimboza for the Ministry of Industry and International Trade in Zimbabwe, Mr F. Yamba for the Ministry of Commerce, Trade and Industry in Zambia, and The Ministry of Economic Planning and Development in Swaziland, as shown in Table 7.2 below. Botswana gave no reasons for its unwillingness to respond to the questionnaire, while Namibia indicated that they were too busy to attend to the questionnaire. Tanzania indicated that they could not answer the questions and as such the researcher should refer the questions to the SADC Secretariat.

The inability and/ or unwillingness by some member states to respond to questions on a policy that has a direct impact on their economies could mean that (i) some member states are still not aware of the draft SADC industrial policy and strategies proposal document; or (ii) while countries maybe aware of the SADC initiatives in developing a regional industrial policy, they have not been actively involved in the development of this industrial policy; or

³ The questionnaire could not be sent to Angola, the Democratic Republic of Congo, and Mozambique, as contact addresses of their Ministries of Industry and Trade were not available.

Table 7.2: Analysis of questionnaire responses from the Ministries of Industry and Trade in South Africa, Swaziland, Zambia and Zimbabwe

Questions asked in the questionnaire	South Africa	Swaziland	Zambia	Zimbabwe
Availability of draft document of proposed SADC industrial policy and strategies to countries				
Has your country received a copy of this document	Yes	Yes	No	Yes
Finalisation of the SADC industrial policy and strategies				
(i) has the industrial policy document been finalised?	No	No	No	No
(ii) when is it likely to be finalised?	July 2004	Do not know	--	Dec '04/ early '05
The current outstanding issues which the policy document should address				
(i) polarisation of industries	Yes	Yes	--	Yes
(ii) identification of industrial investment potential in the region	Yes	Yes	--	Yes
(iii) the effectiveness of current national industrial policies and their harmonisation at regional level	Yes	Yes	--	Yes
(iv) the legal framework required to underpin the industrial policy and strategies	Yes	Yes	--	Yes
(v) the review and adjustment mechanism of the policy framework	Yes	Yes	--	Yes
(vi) targets and a timeframe for the implementation of the strategies	Yes	Yes	--	Yes
(vii) harmonise the industrial policy in line with the Regional Indicative Strategic Development Plan	Yes	Yes	--	Yes
Acceptability of the proposed industrial policy and strategies				
(i) the general thrust of the proposals is acceptable	Yes	Yes	--	Yes
(ii) improvements still need to be made in line with outstanding issues raised above	Yes	Yes	--	Yes
Expected benefits from implementing the proposed regional industrial policy once finalised				
(i) SADC countries will move to higher levels of industrial development	Yes	--	--	Yes
(ii) promote cross-border investment	--	Yes	--	Yes
(iii) improve industrial competitiveness	Yes	Yes	--	Yes
(iv) presents the region as a large enough market and conducive investment environment	Yes	Yes	--	Yes
(v) more equitable industrial development	Yes	--	--	Yes
Concerns on the possible negative impact the proposed policy could have				
(ii) the above mentioned areas of concern if not attended to will cause problems		Yes		
The establishment of regional industries pursued jointly but located in specific member states				
(i) will perpetuate uneven industrial development and polarisation of industrial activities	Yes	Yes		Yes
(ii) sounds good but free enterprise and national competitiveness should not be compromised		Yes		
(iii) good idea but allocate industries according to the country's comparative advantages			Yes	
(iv) boosts investment in countries well endowed with diverse resources				Yes
Preparedness to implement the proposed industrial policy				
(i) have established institutions, i.e. the Ministry of Trade and Industry to play a key role	Yes	Yes	Yes	Yes
(ii) the Chambers of Commerce can also play a role in implementing the proposed policy	Yes			
(iii) other mechanisms for the implementation of the proposed policy are still being developed	Yes	Yes	Do not know	Yes
Involvement of domestic private sector				
(i) the private sector is aware of the current efforts to develop the SADC industrial policy and strategies	Yes	Yes	No	Yes
(ii) the private sector has given inputs into developing the proposed industrial policy	Yes	No	No	Yes
(iii) the government has encouraged the private sector to be involved in developing the policy	Yes	Yes	No	Yes
(iv) the private sector is envisaged to play a significant role in implementing the policy	Yes	Yes	--	Yes
(v) public and private sector partnerships and consultations are to be encouraged during implementation	Yes	Yes	--	Yes

Source: Masiza (2004:1 – 10); Swaziland Ministry of Economic Planning and Development (2004:1 – 2); Yamba (2004:1 – 2); Chimboza (2004a:2-3; 2004b:1 – 3).

(iii) during the six months in which follow-ups were made to have the questionnaire completed, i.e. January – June 2004, countries were too busy to attend to the questionnaire.

Depending on the reasons why some of the member states were not able to respond to the questionnaires, this could have a bearing on the extent to which the proposed SADC industrial policy and strategies would be able to effectively promote industrial development within the SADC region. For example, where the reasons are that (i) these member states are still not aware of the draft SADC industrial policy and strategies proposal document; or (ii) are not sure of the current status/position of the proposed SADC industrial policy and strategies proposal; or that (iii) while they maybe aware of the SADC initiatives in developing a regional industrial policy, they have not been actively involved in the development of this industrial policy; this would adversely affect their sense of ownership of the proposed regional industrial policy. This in turn would have adverse effects on the extent to which they will be willing to implement a regional industrial policy for which they have little or no sense of ownership, as would be discussed in Section 7.5.5. The information obtained from the Ministries/ departments of industry and trade, as shown in Table 7.2, will be drawn upon in for some of the discussions in Sections 7.3; 7.4 and 7.5.

7.3 INDUSTRIAL POLICY RECOMMENDATIONS FOR THE SADC REGION

Issues relating to trade, investment, technology development and local technological capabilities, the structure and behaviour of industry, and human resources development, are important components of an industrial policy (see Section 2.5.2). Also to note is that the need to develop the competitiveness of industries further has implications for industrial policy and this thus brings to the fore industrial policy issues relating to the possibility of focussing on and promoting selected industrial sub-sectors as well as possibly implementing industrial clusters as an industrialisation strategy. Drawing on the discussions presented in Chapters Four to Six, the experiences of the East Asian NICs (see Chapter Three), and the responses from the questionnaires; industrial policy proposals and recommendations on the above mentioned issues will be discussed in Sections 7.3.1 – 7.3.7. Since SADC is an agricultural region and most of its population lives in the rural areas, discussions on industrial policy recommendations for SADC will not be complete without addressing how agriculture and rural development could impact on industrialisation. Section 7.3.8 will discuss this.

7.3.1 Trade policies to support industrial development

As shown in Section 2.5.2.1, the influence of trade on an industrial policy and strategies is often felt through the views on the free trade versus protectionism debate. In the case of

SADC, the implementation of the SADC Protocol on Trade, which commenced in September 2000, implies the region's adoption of the neo-classical economists' argument in favour of free trade. This has implications for the industrial policies and strategies within SADC as such policies and strategies should be complementary such that they enable the region to fully utilise optimum allocative efficiency due to the operations of free markets, as well as production and trade based on a country's comparative advantage.

There is an ongoing privatisation exercise in the individual countries (see Section 4.6.2) in a bid to increase private sector participation, promote industrial efficiency and competitiveness as well as industrial expansion and productivity. This would serve as an appropriate industrial policy to complement the implementation of the SADC Protocol on Trade, since increased production of goods and services as a result of industrial expansion and efficiency would help to facilitate intra-regional trade.

Implementing the SADC FTA also implies an outward looking or export oriented industrial policy where the structures of incentives are geared at promoting industries to produce for the export markets. Such an industrial policy would therefore encourage regional countries to adopt EOI as the industrialisation strategy. It is important to note that as Section 4.6.1 and Table A-6 (Appendix 3) show, to date all SADC countries have adopted EOI as the main industrialisation strategy and are at various stages in deregulating their economies. Countries should thus benefit from production increases through economies of scale resulting from increased intra-regional trade, producing for the world markets, as well as gaining foreign currency through exports.

SADC countries have installed industrial capacity, most of which was established before and during the 1980s when ISI was the dominant mode of industrial development. With economic liberalisation, more industries have been established, boosting the region's industrial capacity. However, most of this capacity is heavily underutilised due to constraints resulting from, among other things, insufficient demand, high costs of production, disinvestment due to unstable socio-political and economic situations in some countries, shortages of skilled labour, shortages of imported inputs due to lack of foreign currency, and old machinery (see Sections 6.7.1, 6.7.2 and 6.8). Therefore, implementing the SADC FTA could to some extent help improve capacity utilisation, as there would be a wider market, thus creating more effective demand. The wider market would also attract more market-seeking foreign investors who would find it cheaper to utilise the currently installed industrial capacity to satisfy both internal and external demand for their products. The easier access of inputs/resource markets

and the easier movement of productive resources between countries would also improve industrial capacity utilisation as inputs become more readily available.

However, it has to be recognised that with the SADC FTA, imperfect competition and allocative inefficiencies could arise due to stiff competition on local industries from stronger regional countries as well as from international companies. In this case therefore, this implies industrial policies and strategies that give provision for government intervention through granting some form of limited protection to local industries until they mature to face the competition from industries abroad or from other stronger regional countries. This would thus imply inward looking industrialisation as a component of the industrial policy at country and regional level. It is important to note that at country level, Section 4.6.1 and Table A-6 (Appendix 3) show that import substitution in selected industries is already a component of some of the regional countries' industrial policies and strategies, and this is quite commendable. However, as shown in Section 2.6.5.6, there should be adequate grounds that the industry or industries being fostered will eventually grow and dispense of the protection. Therefore, the duration of protection, viability, and spill over effects of such industries are all important because during protection the economy incurs costs.

At the regional level, the provisions to protect selected industries, irrespective of the countries in which they are located, have been included in the SADC Protocol on Trade. For example, Article 21 Paragraph 1 of the SADC Trade Protocol gives provision for the protection of infant industries, where upon application to the Committee of Ministers of Trade⁴ and subject to the provisions of the World Trade Organisation, "member states can be allowed to suspend certain obligations of the SADC Trade Protocol in respect of like goods imported from other member states" (SADC, 2003e). Furthermore, tariff reduction is not across the board as products have been divided into categories, each with different tariff reduction deadlines, as shown in Table 7.3 below.

Since countries have the right to determine the products they put in category C, and the liberalisation of products in this category can continue beyond the eight years from entry into force of the Protocol, this gives countries a significant amount of time to protect the selected crucial domestic industries until they can withstand competition better.

⁴ The Committee of Ministers of Trade imposes terms and conditions to which authorisation to protect infant industries shall be subject so as to prevent or minimise excessive disadvantages, e.g. trade imbalances, to other member states. As such the Committee of Ministers of Trade regularly reviews the protection of the infant industries by the member state (SADC, 2003e).

Table 7.3: The proposed tariff reduction schedule

Category	Type of goods	Treatment
A Immediate liberalisation	Capital goods, raw materials	This is the immediate liberalisation list, under which tariffs have to be reduced to zero immediately upon entry into force of the SADC Trade Protocol.
B Gradual liberalisation	Majority of other goods apart from the sensitive products, e.g. the intermediate goods	This is the gradual liberalisation list, and the goods will have their tariffs reduced gradually, starting immediately upon entry into force of the SADC Trade Protocol.
C Sensitive products	Nationally sensitive goods to be defined by each country, e.g. finished products	This is the sensitive products list, deemed to be sensitive to immediate tariff liberalisation for a variety of reasons. Liberalisation may start within the agreed phase out period, i.e. five years after entry into force of the Trade Protocol, but can continue beyond the eight years.

Source: Adapted from Mutambara (2001:21).

Since SADC member states are at different levels of industrial development (as already shown in Chapter Six) and the implementation of the SADC FTA would most likely lead to unequal industrial costs and benefits, provisions were made within the SADC Trade Protocol to minimise the resulting conflicts that may occur; thus helping to achieve balanced development. This was done, in part, through the asymmetric tariff reduction schedule as shown in Table 7.4 below.

The relatively well-developed SACU group is to front load its tariff phase down programme starting as soon as the trade agreement comes into force. The developing countries, viz. Mauritius and Zimbabwe, will mid-load their tariff phase down programme, implementing a programme that starts in the middle of the eight-year process. The rest of SADC, categorised as least developed, will begin their phase down schedule in the 5th or 6th year of implementation, which is towards the end of the process. This asymmetric tariff reduction only applies to goods in categories B and C, while those in category A are for immediate liberalisation (Mutambara, 2001:21; SADC 2002a:22).

Allowing Mauritius and Zimbabwe to implement a programme that starts in the middle of the eight-year process gives industries within these countries an opportunity to develop and consolidate themselves more before being exposed to the more competitive industries within SACU. The provision for the rest of SADC to begin their phase down schedule towards the end of the process, allows the industries within these weak economies more time to adjust and

develop before being exposed to the stiff competition from industries within SACU and Mauritius and Zimbabwe.

Table 7.4: Implementation of the SADC Protocol on Trade

SADC countries & their categories	Asymmetric phase down for the category of goods		Tariff reduction by 2008	Date of completion
	Category A	Category B and C		
First SACU ¹	Immediate liberalisation of goods in this category.	Front load tariff phase down. i.e. phase down tariffs earlier and faster.	97 percent coverage.	2012 with 100 percent coverage.
South Africa	Immediate liberalisation of goods in Category A. Phase down tariffs earlier and faster for Categories B & C. 99 percent of tariff lines consisting of 97 percent of imports from SADC will qualify for duty free access into South Africa by 2005.		97 percent coverage	2012 with 100 percent coverage.
Second Mauritius Zimbabwe	Immediate liberalisation of goods in this category.	Mid-load tariff phase down, i.e. start tariff phase down in the middle of the 8-year process.	Zimbabwe to have 86.7% coverage for SADC; 90% coverage for South Africa.	2012 with 100 percent coverage.
Third Malawi Mozambique Tanzania Zambia	Immediate liberalisation of goods in this category.	Back-load tariff phase down. i.e. start their tariff phase down in the 5 th or 6 th year of implementation.	60 – 80 percent of proposed tariff reductions.	2012 with 100 percent coverage.
All SADC countries	Immediate liberalisation of goods in Category A.	Principle of asymmetric tariff reduction applies.	85% liberalisation.	2012 with 100 percent coverage.

Source: Own Table derived from Hess (2004:7, 8); Table 7.1 above; SADC (2002a:22); Cassim, Onyango and van Seventer (2004:11).

Notes: The D. R. C. although currently excluded, have initiated processes to join the FTA, while Seychelles has given notice to withdraw its SADC membership (Hess, 2004:7). Angola has recently acceded to the Protocol and is in the process of preparing tariff reduction offers that would be taken to other SADC members for their consideration (Mmegi/The Reporter, 2004).

¹ = South Africa, Botswana, Lesotho Namibia and Swaziland.

Apart from implementing the asymmetric tariff reduction schedule; minimising conflicts which could arise as a result of the unequal industrial costs and benefits was also, in part, done through lengthening the phasing-in periods during the implementation of the SADC Trade Protocol. For example, while SACU already has well developed industries, it was given time to phase out its tariff and non-tariff barriers. This provision to gradually open up even the well-developed industries in the region would ensure less harm to these industries as they

face competition. Once implementation begins, countries are allowed different levels of tariff reduction coverage, e.g. 97 percent for SACU while 60 – 80 percent for the least developed countries, as shown in Table 7.4. Therefore, while it is expected that by 2008 a free trade area would have been achieved, provision is given for extending the full implementation of the SADC FTA to 2012. The subsequent four years after 2008 in which a few sensitive products may still call for duty, would be beneficial to countries as that gives more time for the very sensitive domestic industries to adjust and become more focussed, in anticipation of the stiff competition that results with the full implementation of the SADC FTA.

Article 3 Paragraph 1(c) of the SADC Trade Protocol also gives provisions which can reduce unequal industrial costs and benefits to member states as a result of the implementation of the Protocol. A member state who would have been “adversely affected by the removal of tariffs and non-tariff barriers to trade may, upon application to the Committee of Ministers of Trade, be granted a grace period to afford them additional time for elimination of tariffs and non-tariff barriers” (SADC, 2003e). Article 21, through provisions to protect infant industries, would also minimise unequal industrial costs and benefits.

Therefore, by recognising that while encouraging EOI, the implementation of such an industrialisation programme has to be selective on the basis of the competitive strength of the local products, the industrial policies and strategies the SADC region should employ would imply the selective and concurrent implementation of both EOI and ISI. The joint but selective implementation of EOI and ISI is an industrialisation approach which successfully helped South Korea, Taiwan and Singapore to industrialise, as shown in Sections 3.2.3.1.3, 3.2.4.1.3 and 3.2.6.1.2 respectively.

7.3.2 Recommendations for industrial investment

In most SADC countries, the manufacturing sector is still weak (see Sections 4.2; 6.3, and 6.5). Only a few countries, i.e. South Africa, Zimbabwe and Mauritius, have strong manufacturing bases (see Sections 6.4 and 6.5) but these, especially for Zimbabwe and Mauritius, still have to grow and require significant investment in plant and equipment as well as the adoption of new competitive technology. All this calls for the need to develop the manufacturing sector in the region further, thus presenting industrial policy implications for industrial investment from both domestic and foreign sources. This implies recommending an interventionist industrial policy that targets specific forms of investment (domestic or FDI) into the sector. This is a lesson for SADC from the experiences of the East Asian NICs (see Chapter Three), where there was selective intervention in FDI and directing such resources into priority areas.

While the priority FDI sectors in the individual SADC countries have differed, FDI is no longer exclusively directed towards the primary sector as the services and manufacturing sectors have also become key sectors for FDI (see Section 5.4). This presents both sectors with opportunities for improved production/ performance, as well as technological advancement since foreign investors bring new technical and managerial skills. Since there is such active foreign investment participation, industrial policy issues in relation with industrial investment from foreign sources inevitably arise. Therefore, this implies recommending an industrial policy which enables encouraging specific forms of FDI into these two sectors so that the region can gain maximum benefits.

While FDI inflows are encouraged so as to develop the region's industrial sector further, industrial policies which equip countries to be actively involved in the choice of investments and where that investment should be located are highly recommended since such policies would enable countries to protect the interests of their already existing competitive national firms and those with potential and thus avoid disrupting their operations. In this regard therefore, as observed in Section 2.5.2.2, FDI would be viewed as complementary to a country's own savings and local investment initiatives, and as such, would not be allowed to weaken existing national firms.

7.3.3 Proposal for the structure and behaviour of industries

The current regional industrial activities are such that there is a high concentration in just a few SADC countries, e.g. South Africa, Mauritius and Zimbabwe (see Sections 4.4.1 and 6.4), although in the latter the industrial capacity is very much underutilised due to the economic problems the country is experiencing (see Section 6.7.2). This tends to create the "core" and "periphery" countries in the region, thus presenting a great challenge to SADC as a region. Therefore, it can be recommended that industrial policies and strategies at both national and regional levels should have provisions for stimuli and incentives for industrial development in the "periphery" countries⁵ so that they do not continue to lag behind. The stimuli should be able to impact positively on manufacturing activities, services industries, as well as other areas that have a bearing on costs. For example, the reduction of regional costs (both transport and transaction) is a vital incentive for the creation of linkages between the "core" and "periphery" countries so that both categories of countries can benefit. This would also enable industries to be spread between countries, with locational decision strongly based on the individual country's other locational advantages and not market size, as observed in the

⁵ Section 4.2.2 shows a weak very manufacturing sector in Angola, Botswana, Malawi, Namibia, Tanzania, and Zambia. These together with the D. R. C., could thus form part of the periphery countries.

theory of industrial location (see Section 2.2). Other stimuli and incentives for investment location for industrial development in the “periphery” countries so as to close the gap between countries could include facilitating equitable promotion of the region as an investment destination, as well as putting in place a financial support system that could assist the identified competitive areas, especially in the weaker states.

While individual countries may want to develop their industrial bases, adopting industrial policies that enable them to steer away from industrial activities that are not sustainable but to focus on those with identified potential, is quite commendable as this would free resources for alternative allocation in more viable and beneficial industrial projects within the country. On the other hand, other countries in the region with better opportunities for sustainability would have opportunities to receive industrial investment which would otherwise have been located in less sustainable ventures. Therefore, freeing up resources could thus lead not only to spreading industries between countries, but also to industrial diversity which would lead to robust economies.

There is a need to improve the performance of the manufacturing sector in general and the high technology and technologically complex industries in particular (see Section 6.5). In this regard therefore, it is highly recommended that selective intervention industrial policies be used to target such sectors for development because if left to markets, such industries may not successfully attract investment as they are more risky.

Selective intervention industrial policies are also recommended to SADC in terms of developing and promoting small to medium scale industries since these industries continue to be of great significance to the countries⁶. An industrial policy that promotes and supports SMMEs would be beneficial as small firms (i) could help to create employment as they tend to be more labour-intensive than the large firms; (ii) have natural economic advantage over large firms, e.g. knowledge of local low-income markets and thus are more able to develop products to suit their needs, are more flexible, and adapt to change faster; (iii) would help to raise incomes and improve the distribution of wealth since small firms broaden participation in industrial activities as well as ownership of assets; and (iv) could complement the activities of large firms through subcontracting links.

⁶ Mechanisms and industry-related institutions to promote SMMEs which SADC countries have put in place (see Section 4.6.3) form part of the industrial policy measures to support these industries.

SADC Secretariat (2003), SADC (2002a:46) and Ngassa (2003) agree with fostering SMMEs as an important component to an industrial policy and strategies (see also Table 7.1). They observe that the provision of financial facilities to SMMEs and strengthening horizontal integration of linkage networks amongst the SMMEs and between the SMMEs and other industries, form components of the proposed regional industrial policy and strategies and constitute some of the main programmes and projects that will underpin the proposed regional policy. Chimboza (2004b:2) also supports the importance of supporting SMMEs, noting that during the implementation of the proposed SADC industrial policy and strategies, the Ministry of industry and trade should, among other things, ensure that strategies that overcome the constraints on SMMEs are enforced and an enabling environment for these enterprises to thrive in must be created. The promotion of small and medium scale enterprises in countries where such industries exist is also supported by the SADC Declaration on Productivity⁷, while the industrialisation experiences of Taiwan, as shown in Sections 3.2.4.1.1 and 3.2.4.3, could serve as lessons.

It is also important to note that countries should be allowed and encouraged to focus on industrial policies that enable them to foster levels of industrial activities in which they have comparative advantages, and proceed up the ladder of industrialisation at their own pace, a lesson from the experiences of the East Asian NICs (see Chapter Three). Therefore, it can be recommended that industrial policies and strategies (at both national and regional levels) should adopt a twin track strategy to ensure growth with equity. The first track could be aimed at promoting industrialisation and growth through the promotion and support of large-scale enterprises. The second track would address issues relating to the development and support of the small and medium scale enterprises. Through fostering subcontracting and other forms of linkages, the two tracks would be complementary to each other, thus mutually reinforcing and extending the industrialisation process.

7.3.4 Recommended human resources development policies

Investment in human resources is a significant part of any industrial policy (see Section 2.5.2.4), and for SADC, this is critical because as the region opens up with the implementation of the SADC FTA, it is going to be inundated with new forms of technology, knowledge, skills and organisational forms. Therefore, the region has to have the capacity to master all this as well as to form interlinkages between enterprises relevant to facilitate further technological capabilities.

⁷ Details of this declaration are available in SADC (2003g).

While the region is making efforts towards human capacity building (see Section 4.5), a lot still needs to be done, and so it is highly recommended that human capacity building be a critical component of the industrial policies at both national and regional levels. This would lead to high levels of industriousness, leading to increased labour productivity. It would also make technology transfer easier and less costly thus facilitating local technological capabilities which will eventually shift the region from labour-intensive light industries to skill-intensive and high-quality production. Also to note is that the skills acquired by individuals could be applied to an ever-improving set of production technologies, resulting in the value of human capital continually rising over time.

The SADC Secretariat (2003), Ngassa (2003) and Imani Development (2001a:18) acknowledge the importance of adequately addressing human capacity building in the proposed regional industrial policy and strategies (see also Table 7.1). They argue that human resources development issues would be addressed by putting in place programmes⁸ that facilitate practical training, appropriate skills upgrading, and technological improvements, so that a broad range of expertise needed for industrial development (e.g. managerial, entrepreneurial and technical skills) would be developed. Masiza (2004:9) notes that South Africa would play a significant role by assisting in building the capacity of other SADC countries to deal with issues relating to standards, quality assurance, accreditation and meteorology (SQAM), technical regulations, and handling technical barriers to trade. Expertise and capacity building in these areas is essential as these are some of the components of industry and trade support services, which SADC (2002a:46) argues require significant improvement in order to sustain the development process.

It is also recommended that the already developed SADC structures and programmes within the SADC Human Resources Development Sectoral Unit (see Sections 4.5.1) should be utilised fully so as to facilitate human resources development issues. Imani Development (2001a:14) recommends that some of the current excellent educational centres in the SADC countries should be developed into regional academic centres so as to facilitate the co-operation and co-ordination of regional human resources development. One would also recommend strong participation by industrialists in investing in education, especially technical education (see Section 3.2.3.2.2), as it ensures setting an appropriate curriculum for technical training, research and development, as well as getting assistance in acquiring the technology infrastructure for institutions.

⁸ These will take various forms like formal and in-house training as well as the secondment of personnel to other enterprises within and outside the SADC region.

Since the SADC region is labour abundant, it may want to use its labour-intensive industries to kick start the labour-intensive phase of export orientated industrialisation, taking advantage of foreign investors who are attracted to the region by the abundant low-wage labour force. However, it should be noted that as the available surplus labour gets quickly absorbed, wages will rise, and therefore, if the industries are to remain competitive, there is a need for continuous human resources development so as to ensure increasing productivity over time.

It is also important to note that South Africa, Zimbabwe and Mauritius are the regional countries with relatively stronger and more developed industrial bases (see Sections 6.4; 6.5 and 6.6). This implies the presence of advanced technology, technical and managerial skills in these countries, which the region could do well to harness and utilise before looking outside the region for experts to facilitate human resources development. This could be realised by (i) facilitating more regional cross border investment by these countries; (ii) putting in place exchange programmes where the skilled personnel from the relatively well endowed countries could be attached to companies in other regional countries so as to effect on-the-job training programmes for a period of time; (iii) periodic visits by other regional countries to those with stronger and more advanced industrial bases so as to receive training; and (iv) willingness by regional countries to have periodic evaluation visits by industrial experts from other member countries so as to receive advice and further training in on-going quality control and improvement programmes as well as plant management techniques.

Industrial policy recommendations to address human resources development (at both national and regional level) are complementary to the SADC Declaration on Productivity, in which member states acknowledge the importance of human resources development and are thus urged to formulate appropriate policies and strategies to “enhance human resources development and technological capabilities at enterprise, sectoral, national and regional levels” (SADC, 2003g).

7.3.5 Recommendations for technology development

For any country, the local capital goods sector is an essential part of its technological capacity (see Section 2.5.4.4), and therefore, it is important for SADC countries to adopt industrial policies that expand this sector, although countries may not attain this at the same speed and levels. This therefore implies recommending industrial policies that promote investment in both human and non-human capital to help develop this sector, because as Lim (1995:224) observes, “in high-tech industry, human skills and patent capital are the most important ingredients along with state-of-the-art publicly-provided infrastructure.” However, it is also important to note that this strategic industrial policy has to be devised and constantly

reviewed in consultation with both local business and MNCs so as to ensure appropriate human and non-human capital to develop the local capital goods sector.

SADC is very much aware of the importance of private sector participation in the development of industrial policies and it is therefore quite commendable that some countries, e.g. South Africa, Zimbabwe and Swaziland, as observed by Masiza (2004:9), Chimboza (2004a:3) and Swaziland Ministry of Economic Planning and Development (2004:2), respectively, have been encouraging their domestic private sectors to be actively involved in the current exercise to revisit and formulate the regional industrial policy. It is equally commendable that these countries would want the private sector to be fully involved during the implementation process (see also Table 7.2).

Country needs⁹ have an influence on the industrial policy (see Section 2.5.2.3), and since these needs differ between the SADC countries (due to the different levels of industrial development), it is recommended that the regional industrial policy and strategies should be flexible and allow countries to develop and advance technologies at their own pace, using industrial policies that suit them best. It would also be recommended that industrial policies (at both national and regional levels) that promote, as much as possible, local technological capabilities through supporting research and development, the transfer of technology by MNCs to the locals, as well as encouraging active participation by both private and public sector to allocate resources towards technology advancement; be in place. This is important because, as observed by Porter's "diamond" framework, the more richly a country or region is endowed with 'advanced factors' the more attractive it becomes as an investment destination, and in the long run, it becomes more competitive (see Section 2.3.1.3).

It is highly commendable that some of the SADC countries are already seriously putting effort towards investment in productive capacity through the acquisition of machinery and equipment (see Section 5.3.4). Industrial policies that help to foster this are highly recommended as they are crucial in raising the aggregate growth of capital stock in the countries, help to create investor confidence as the industrial sectors within the economy become equipped with adequate and modern machinery and equipment, and increase productivity and competitiveness, thus enabling SADC industries to operate more comfortable in the global economy. Masiza (2004:4) acknowledges that improvements in

⁹ Country needs include developing ones own technology and technology capabilities, depending on importing technology from abroad or a combination of the two, extensive government intervention in technological development, private sector based approach to technology development, or public and private sector partnership in technology development.

productivity would result from industrial policies that upgrade technology and technical skills in the regional industrial policy. Furthermore, he argues that member states would then be able to move from dependence on primary exports to value-added and globally competitive manufactured exports, thus enabling the region to become an integral part of globally competitive manufacturing processes (Masiza, 2004:5, 7).

At regional level, SADC recognises the importance of technology development, e.g. SADC Secretariat (2003), Ngassa (2003), SADC (2002a:46) and Imani Development (2001a:14, 18) observe that industrial research and development, technology development, as well as application and transfer, form part of the proposed programmes and projects set for the implementation of the regional industrial policy and strategies (see also Table 7.1). The already established programme on industrial research and development (IR&D) will be the driving tool for developing and strengthening technology and industrial research so that SADC can achieve a sustainable industrialisation process¹⁰. All this is highly commendable because globalisation dictates that SADC industries should be able to compete effectively both in the domestic and international markets.

7.3.6 Focussing on promoting selected industrial sub-sectors as an industrial policy

Achieving competitiveness would demand specialisation and focus so that the resources available can be best utilised. In this regard therefore, SADC should not expect to be internationally competitive in all industrial sub-sectors, and so the available resources should be directed towards those sectors with proven/ demonstrable or perceived competitiveness. Ngassa (2003) agrees noting that there is a need for an in-depth analysis on areas of comparative advantage and competitiveness and use this as a basis to promote industrial activities.

Since SADC is a labour-abundant region, liberalised controls on the importation of foreign labour from member states would enable the region to focus on helping the labour-intensive industries within the region to maintain their export competitiveness longer. However, since wages rise as the labour surplus gets quickly absorbed; the labour-intensive industries could cease to be competitive and therefore, countries should take care not to expect to rely on low-wage labour forever, instead they should anticipate and plan for the rising wages and labour costs by investing in human resources development as this would ensure increasing

¹⁰ A regional workshop was held in 2001 to deliberate on the key issues of IR&D, which include: (i) increasing stakeholder participation in IR&D work at both national and regional level; (ii) facilitating inter/intra-country transfer of technology; (iii) facilitating the implementation of specific collaborative projects that will enhance the relevance of IR&D institutes; and (iv) establishing an institutional mechanism for coordinating industrial research and technology activities in the region (SADC, 2002a:48).

productivity over time. This would also make the labour-intensive industries less vulnerable to possible footloose behaviour by MNCs. In this way the labour-intensive industries would continue to be competitive, ensuring high productivity and maintaining regional competitiveness.

Being an agricultural and natural resources abundant region enables SADC the opportunities to develop competitive advantage further in the existing resource-intensive industries. To date, SADC has developed relevant sectoral programmes within agriculture and natural resources¹¹ which if adequately funded and properly implemented, could assist in facilitating sustainable competitive advantage in the resource-intensive industries within the region.

Some of the SADC countries, e.g. South Africa, Mauritius and Zimbabwe have relatively more developed industrial bases (see Sections 6.4 and 6.5.2), and this presents SADC with the opportunity to focus also on developing these industrial bases further so as to improve the efficiency with which high technology and technologically complex products are being produced in these countries. Therefore, it can be recommended that such technologically sophisticated, capital- and skilled-intensive industries have to be identified and targeted for priority development. This is a lesson SADC could learn from the approach Singapore took in its industrialisation strategy, as shown in Section 3.2.6.2.

Therefore, in focussing on selected sub-sectors to develop competitive advantage further, it is highly recommended that that the region pursues a two pronged approach, where focus should be given to industries with identifiable competitive advantage from both categories, i.e. (i) labour- and resource-intensive industries, and (ii) medium-, high- and technological complex industries. This could thus provide countries with the opportunities to consolidate the industries in which they have competitive advantage and prepare the groundwork to develop their manufacturing sectors further into the required high value added manufacturing activities. However, focussing on selected industries (i.e. those with identifiable competitive advantage) does not necessarily mean neglecting the remaining manufacturing concerns.

Masiza (2004:4, 5) notes that it is important to the region to achieve increased shares of manufactured exports in the world market as well as having a dynamic regional economy capable of effectively competing in the global economy. He argues that the SADC industrial

¹¹These sectors are Food, Agriculture and Natural Resources (FANR) and the Crop Sector, Agricultural Research and Training and the Livestock Production and Animal Disease Control, Marine Fisheries and Resources, Inland Fisheries, Forestry, and Forestry, Environment and Land Management as well as Water, and Mining (SADC, 2002b:67, 72, 74, 76, 80, 82, 84, 86, 89, 93, 98) are now under the SADC Directorate for Food, Agriculture and Natural Resources (SADC, 2002a:15).

policy and strategies provide the requisite framework for achieving this, and thus implementing this policy will in the long-run help the region to achieve this objective.

7.3.7 Industrialisation through regional industrial clusters

As shown in Section 2.3.2, Dunning (1995:466-467) and Fountain (1997:8) justify developing industrial clusters so as to minimise transaction and co-ordinating costs, enhance skills and experiences of firms within the cluster, protect existing/ and or gaining new proprietary ownership specific advantages, as well as to enhance assets through gaining access to new and complementary technologies so as to improve efficiency. One can also argue that industrial policy proposal on regional industrial clusters could also be recommended on the basis that countries would use such cooperative strategies with their regional neighbours so as to attract investment that may locate different parts of an integrated production process in neighbouring countries according to different national comparative advantages, and then supply a regional market.

The SADC region is well endowed with a wide range of resources (from the mining, agriculture and energy sectors), with individual countries capable of being either short-term, medium term or long-term suppliers of specific inputs. The region also has underutilised industrial capacity some of which was developed during its ISI phase as well as during the SADCC regional industrial programme of the 1980s¹², and therefore, such already installed capacity could well be utilised to facilitate industrial clusters instead of allowing it to continue to lie idle or underutilised. Therefore, planning, coordination and cooperation in production through industrial clusters could help rationalise the region's productive capacity and help countries to utilise their resources more fully and more efficiently.

However, the industrial cluster policy implementation should be on a sub-sector-by-sub-sector basis, with particular attention given to the major competitive factor(s) in each sub-sector to ensure that the cluster meets the required competitiveness criteria. Table 7.5 below shows some of the possible industrial clusters which SADC could develop and implement as a strategy for regional industrial development. Within these clusters are groups of interrelated

¹² For example, the currently huge but underutilised paper milling industry which was established in Tanzania, could be a significant integral part of the pulp and paper industry cluster as much of the equipment is already in place, albeit underutilisation. The pulp and paper industry established in Mozambique, though it did not report much progress then, could still be beneficial as that already installed capacity could be harnessed to help develop the cluster. In Tanzania, the pesticide and insecticide plant received considerable financial support, forming a facility which could be used together with the resources available in the other countries, to set up a strong and viable industrial cluster. The significant financial backing to the fertiliser industry in Malawi and Mozambique, during that period, helped to install invaluable industrial capacity which the region should now take advantage of in establishing the chemicals and fertiliser industrial cluster (Mutambara, 2001:148-149).

Table 7.5: Possible regional industrial clusters

Industrial cluster	Technological category/ or activity group	Major competitive factors	Major countries to be involved	Resource endowments
The pulp and paper	Resource-intensive, Scale-intensive	Access to natural resources, Length of production runs.	Mozambique, Swaziland, Tanzania, Zambia, Zimbabwe	Pulp and paper raw materials; existing pulp and paper industries
The building materials	Resource-intensive, Scale-intensive	Access to natural resources, Length of production runs	Angola, Mozambique, South Africa, Zambia, Zimbabwe	Cement, steel and other raw materials for the building industry
Clothing and textiles	Resource-intensive, Labour-intensive	Access to natural resources. Cost of unskilled labour.	Mauritius, South Africa, Zimbabwe, Botswana, Lesotho	Installed cotton and ginning industrial capacity; existing clothing and textile production capacity; retail outlets, cotton
Oil industry/ refineries	Resource-intensive	Access to natural resources	Angola, the D. R. C., South Africa, Mozambique	Oil deposits. Fuel storage facilities in South Africa and Mozambique
Beef industry	Resource-intensive, Labour-intensive	Access to natural resources. Cost of unskilled labour	Botswana, South Africa, Namibia, Zimbabwe	Cattle; already installed facilities, e.g. abattoirs
Gas producing industry	Resource-intensive	Access to natural resources	Angola, the D. R. C., Namibia, South Africa, Tanzania	Gas resources
Jewellery and special metals	Resource-intensive, Differentiated	Access to natural resources, Products tailored to varied demands	Botswana, South Africa, Namibia, Angola, the D. R. C.	Diamonds and other special metals; already existing industrial facilities
Electricity	Resource-intensive, Scale-intensive, Science-based	Access to natural resources, Length of production runs, Rapid science technology application	Angola, the D. R. C. Malawi, Mozambique, South Africa, Tanzania, Zambia, Zimbabwe	Hydro-power installed facilities; rivers
Industrial equipment	Differentiated	Products tailored to varied demands	Namibia, South Africa, Zambia, Zimbabwe	Already installed facilities
Medicines and pharmaceuticals	Science-based	Rapid science technology application	South Africa, Zimbabwe	Already installed industrial capacity, skilled labour
Chemicals and pesticides	Scale-intensive	Length of production runs	South Africa, Tanzania, Zimbabwe	Already existing industrial facilities
Fertiliser	Scale-intensive	Length of production runs	Malawi, Mozambique, South Africa, Zimbabwe	Raw materials; already existing facilities
Automobile	Scale-intensive	Length of production runs	Botswana, South Africa	Already installed facilities

Source: Own Table derived from Naumann (2002:16); Mutambara (2001:150, 245); Wilde, *et al* (1999a:5).

industries that could drive wealth creation. The set of industries within each cluster is related through both buyer-supplier and supplier-buyer relationships, or by common technologies, common buyers, distribution channels, common labour pools, or common raw materials and easy access to such materials. Therefore, with countries directing most of the limited resources they have towards those sub-sectors or cluster activities in which they have comparative advantage as well as demonstrable or potential competitiveness, this would ensure stronger and more solid clusters. The overall effect on the region will be achieving sustainable competitive advantage in the selected sectors.

It is also important to note that the relatively more developed countries should participate in the various industrial clusters so that the clusters can benefit by accessing and utilising more easily the high technologies and advanced technical and managerial skills in these countries, and thus improve efficiency. Also to note is that the experience South Africa has had since the introduction of industry clusters in 1997 would be utilised to benefit the region.

However, the potential of clustering as a powerful industrial policy and strategy in increasing manufacturing performance and consequently competitiveness depends on the need for the governments to adopt policies that are in support of the clusters in which they are involved. It would also depend on the possible polarisation of industries effects which the industrial policy could have, thus preventing balanced development. Therefore, implementing industrial clusters as an industrialisation tool is not without some challenges.

7.3.7.1 The textiles and clothing cluster

This is an example of a cluster the region could develop, as shown in Table 7.5. The major countries proposed for this manufacturing cluster (i.e. Mauritius, South Africa, Zimbabwe, Botswana and Lesotho), have significant industrial bases ideal for the location of the more advanced and technical operations of the cluster as evidenced by the existence of a high concentration of textiles and wearing apparel manufacturing establishments needed to drive this cluster (see Table A-14, Appendix 5).

Mauritius has the strongest textiles and clothing sector in the region (see Section 6.4) which would be an advantage to this cluster. Also, the textile and clothing sector of Mauritius has favourable access to international markets through the Lome Convention and the Cotonou Agreement (see Section 6.9.2.1), and thus having Mauritius in this cluster presents additional benefits through exposing the whole cluster to these already established international markets. In Zimbabwe, the textiles industry broke into new export markets through the Lome Convention (see Section 6.9.2.1), and therefore, such markets and initiatives could work to

the advantage of the cluster. However, it should be noted that the country's participation may be limited due to some constraints which its textiles industry has been experiencing. Also to note is that the country is currently excluded in AGOA and therefore, where textile output from the cluster is to be exported through AGOA, Zimbabwe will not be able to participate. The presence of South Africa in this cluster would also present additional benefits to the cluster through the easier access the country has to the rest of the world through its many seaports. Due to AGOA, the clothing and textiles industry in Lesotho, Malawi and Namibia have expanded (see Section 6.9.2.1), and increased industrial capacity would be greatly beneficial to the textile and clothing cluster.

7.3.7.2 Clusters for high technology and technologically complex products

This is an industrial cluster which the region could consider developing (see Table 7.5). High technology and technologically complex manufacturing activities are limited, resulting in the region relying heavily on capital goods imports (see Sections 6.4; 6.5.2 and 6.5.3). Investment opportunities in scale-intensive, differentiated and science-based manufacturing activities are limited to just a few countries, e.g. Botswana, Malawi, South Africa, Tanzania, Mauritius and Zimbabwe (see Sections 6.9.1) and these countries could therefore form the basis for regional industrial clusters in these product categories. For example, based on Section 6.9.1, (i) Tanzania, Mauritius, South Africa and Zimbabwe could form an industrial cluster for medicines and pharmaceuticals since these countries have investment opportunities in this science-based manufacturing activity, although South Africa and Zimbabwe would tend to be the dominant countries; (ii) Malawi, Zimbabwe and South Africa have investment opportunities in differentiated manufacturing activities and as such could form a cluster for manufacturing activities like machinery, transport and electrical engineering; (iii) Botswana, Tanzania, Mauritius, Zimbabwe and South Africa could form an industrial cluster in science-based manufacturing activity involving electronic components and/ or electronic engineering; while (iv) Malawi, Zimbabwe and South Africa could form the industrial cluster for scale-intensive manufacturing activities like industrial chemicals, fertilisers and pesticides. Other possible industrial clusters for scale-intensive, science-based and differentiated manufacturing activities can be found in Table 7.5.

South Africa, Zimbabwe and Mauritius have significantly well developed industrial bases (see Section 6.5.2), while the concentration of both medium- and high technology manufacturing activity establishments is mainly in South Africa, Zimbabwe, Zambia and Mauritius (see Section 6.4; Table A-14, Appendix 5). It can therefore be argued that, the high technology manufacturing cluster activities which are going to be located in these countries would benefit from the already installed industrial capacity, and thus help to improve output performance

and the competitiveness of the clusters. South Africa and Mauritius have the best performing and competitive industries in the region (see Section 6.6)¹³ and this presents opportunities for the high technology and technological complex manufacturing clusters in which these countries will be major players to develop and improve their output performance as well as competitiveness. Also to note is that utilising fully the intra-industry trade potentials between SACU and the non-SACU SADC countries in the limited high technology-related and technologically complex manufacturing activities (see Section 6.5.4.1), could also help to develop and strengthen such high MVA industrial clusters.

SADC (2003a:4) observes that during the implementation of the proposed SADC industrial policy and strategies, among other things, decision makers will be requested to ensure increasing the share of medium and high technology in their industrial sectors, favour up-to-date management procedures in their industrial sectors, as well as to support learning and innovation processes. The region would thus do well to harness the existing expertise in South Africa, Zimbabwe and Mauritius which already have stronger medium, high technology and technologically complex manufacturing activities. They could benefit from their up-to-date management procedures as well as the learning and innovative processes which they employ.

South Africa experiences relatively less capacity utilisation in its downstream/ or high MVA industries (see Section 6.7.1), and therefore, involving this country in the industrial clusters of higher levels of production will not only benefit itself in terms of access to raw materials to improve capacity utilisation in its downstream industries and demand for its products, but would also benefit the science-based and scale-intensive industrial clusters through accessing the already installed high-technology industrial capacity in South Africa.

7.3.7.3 The facilitating role of the SADC FTA and other trade agreements

Since an industrial cluster may have activities located in different countries (see Table 7.5), easier accessibility to each other by the countries involved is essential due to the various stages of the supply chain within the cluster. With the SADC FTA (see Section 7.6) in place, such access could be improved through the reduction of tariff and non-tariff barriers, while the growing numbers of inter-country transport corridors (see Section 4.4.2), would also help to network industrial clusters located in the various countries. All this would help to strengthen linkages between cluster activities, thus helping to ensure sustainable competitive

¹³ Zimbabwe excluded due to the current economic problems it is experiencing which have a bearing on the competitiveness of its industries.

advantage within clusters. Therefore, countries should necessarily benefit from the industrial cluster(s) they focus and specialise in.

Section 6.5.4 shows that significantly high intra-industry trade potentials exist in some product categories between SACU and some of the non-SACU SADC countries. Since intra-industry trade may be stimulated further by economic integration, the implementation of the SADC Free Trade Area could therefore enable the region to take advantage of the existing opportunities for intra-industry trade more easily and fully, as preference diversity and overlapping demand become more pronounced as economies open up more. In this regard therefore, the SADC FTA could have a facilitating role in promoting industrial clusters as well as making them more viable as the identified existing common industries in which significantly high intra-industry trade potentials exist could form clusters which would thrive through harnessing the intra-industry trade potentials between the countries. The mutual interdependence by countries on the differentiated products and on the markets for the differentiated products would provide the opportunity for each industrial cluster to prosper and produce at lower costs.

With the implementation of the SADC FTA, the wider market created as well as the easier access to higher levels of income in some of the SADC countries (e.g. Mauritius, South Africa and Botswana) would help create effective demand for cluster products. However, since the region is not yet experiencing the full implementation of the SADC Trade Protocol, the country-to-country bilateral trade agreements could also help propel industrial clusters. For example, the significant bilateral trade agreements between South Africa and Malawi, Mozambique, Tanzania and Zambia (MMTZ countries) as well as its bilateral agreements with Zimbabwe, could work as / or improve supply chains for inputs into the industrial clusters these countries are involved.

The region also enjoys easier access to international markets through the Africa Growth and Opportunity Act (AGOA) and the Cotonou Agreement. These agreements could also facilitate cluster competitiveness as clusters strive to produce products which can compete internationally. Easier access to other African countries outside the SADC region would be through regional integration arrangements like the Common Market for Eastern and Southern Africa (COMESA) and Cross Border Initiatives (CBI), to which most SADC countries are members. This would help to promote manufacturing performance and competitive advantage within the industrial clusters as products will have to compete with similar products in these other regional groups.

7.3.7.4 The facilitating role of regional cross border investment

Increased cross border investment by the relatively more developed SADC countries, especially South Africa (see Sections 5.5.2.1.1 - 5.5.2.1.5), could possibly facilitate regional industrial clusters where South African companies locating in other SADC countries could help strengthen the cluster supply chains in those particular countries. Furthermore, increased cross border investment in the manufacturing sector by the relatively more developed countries could enable the weaker countries to host industrial cluster activities involving higher levels of manufacturing activities as they benefit from the industrial capacity injections by the more developed regional countries. Such industrial capacity injections could be in the form of advanced industrial skills and technology, qualified engineers, technicians and middle-level supervisors, into the existing but underutilised industries or the newly constructed industries. In this regard therefore, the weaker states would cease to only participate in the regional industrial clusters as merely sources for raw materials.

7.3.8 Agriculture and rural development as complements to industrial policy

It has been argued that the preoccupation with industrialisation often leads to the neglect of other sectors of the economy, especially the agricultural sector (see Section 2.6.5.3). SADC is an agricultural region (see Section 4.2.1), and this sector plays a significant role in whatever form of industrialisation the region could adopt. There is mutual interdependence between the agricultural sector and manufacturing since either serves as a market to the other. Therefore, it is important for SADC that, in its quest for industrial development, it balances the attention and channelling of resources between the agriculture and manufacturing sectors.

Implementing agricultural policies that facilitate appropriate land reform programmes and giving adequate support to both the small holder farmers and the large-scale commercial farmers would create a bigger and more dynamic agricultural sector. Such a sector would lead to an increase in agricultural output, thus broadening the resource base for the raw material inputs for the manufacturing sector as well as providing industry with a more effective domestic market and foreign currency. Growth in the agricultural sector also implies an increase in disposal income, as the sector will be able to employ more people, thus increasing domestic demand for the manufacturing sector. In supporting agricultural development, Pincus (1961:219-220) argues that this is the most practical way to contribute towards “modest industrial development in the form of agricultural processing industries”. In the case of SADC, such industries could therefore include some of the resource-intensive industries in which the region has potential for increased competitive advantage, thus benefiting the region. Focussing on creating a more dynamic agriculture sector so as to facilitate industrial development is a lesson SADC region could learn from Taiwan (see Section 3.2.4.1.4)

In many SADC countries, there exists a very wide gap between the rural and urban sector, as can be deduced from the much skewed income distribution (see Section 4.7). Therefore, policies that focus on and encourage rural development should be part of the industrial policy and strategies within SADC if this gap is to be bridged. Since this encourages growth with equity in both sectors, it would mean growth in income in both rural and urban households, leading to a faster growing domestic demand, thus creating a bigger market for the manufactured sector. Government intervention so as to 'crowding in' private sector investment in specific regions in the rural sector is necessary if rural industrial development is to be realised, and this could be by expanding and upgrading rural infrastructure (physical and institutional), implementing rural electrification programmes, maintaining equality in utility rates between rural and urban locations, and providing investment incentives to those who decide to locate in such areas. Focussing on facilitating rural industrial development as part of the industrialisation process is a lesson SADC region could learn from Taiwan (see Section 3.2.4.1.4)

7.4 SADC INITIATIVES TO DEVELOP THE SADC INDUSTRIAL POLICY AND STRATEGIES

Instead of relying solely on the national industrial policies to facilitate industrial development within the region, SADC is in the process of developing/formulating a regional industrial policy and strategies which seek to facilitate a coherent regional approach to industrial policy so as to promote and support sustainable industrial growth across the region. In this regard therefore, it is important to evaluate how far the region has gone in formulating this regional policy. In this discussion, the responses from the questionnaires (see Tables 7.1 and 7.2), the telephonic and e-mail communication with Mr C. J. Chanda at the SADC Secretariat, and views by Imani Development (2001), will be drawn upon.

7.4.1 Progress in developing the policy since inception

Table 7.6 gives a summary on the progress in formulating the industrial policy and strategies from 1996 to 2004. Due to the different levels of industrial development between SADC countries (see Chapter Six), and the need for the this industrial policy to be of benefit to all regional countries, it is inevitable that coming up with an industrial policy which will be of equal benefit to all countries has been very challenging.

As can be seen from Table 7.6, tremendous effort has been put and continues to be put into formulating this industrial policy. Since 1996 when the mandate for the preparation of the

Table 7.6: Progress in formulating the proposed SADC industrial policy and strategies

Dates	Comments	Sources
1996	The mandate for the preparation of the SADC Industrial Development Policy and Strategies arose from a decision made at the 10 th meeting of the SADC Industry and Trade Sector Ministers held in Pretoria, South Africa, on 14 June 1996. At this meeting the SADC Industry and Trade Coordinating Sector, then coordinated by Tanzania, was directed to prepare the Industrial Development Policy and Strategies for SADC, which would attempt to best promote spontaneous industrial development in the region.	SADC Industry and Trade Sector (1998:47), SADC (2000:36, 40), Imani Development (2001a:1).
1997	The first draft of the policy framework was completed in mid October 1997. This was discussed at a workshop of SADC stakeholders in Zanzibar in November 1997 so that contributions could be made towards the preparation of the regional industrial policy and strategies document.	SADC Industry and Trade Sector (1998:47), Imani Development (2001a:1).
1998	The second draft was completed end of March 1998 and was discussed at a regional workshop of stakeholders in Windhoek in August 1998. It was suggested that a third draft be made including proposals made by the UNIDO-sponsored study.	
1999	On 14 July 1999, the draft industrial policy proposal was presented and considered at the 13 th Industry and Trade Ministers Committee meeting in Gaborone, Botswana. At this meeting, as well as the one held in 2000, the Trade and Industry Ministers observed that some pertinent issues were still outstanding and as such the draft policy proposal still had to be worked on.	SADC Industry and Trade Sector (2000:10), SADC (2002b:46), Imani Development (2001a:1)
2000	At the Industry and Trade Ministers Committee meeting held in 2000, the Trade and Industry Ministers observed that some pertinent issues were still outstanding and as such the draft policy proposal still had to be worked on. Such pertinent issues related to the polarisation of industries, identification of industrial investment potential in the region, the effectiveness of current national industrial policies and their harmonisation at regional level, the legal framework required to underpin the industrial policy and strategies, the review and adjustment mechanism of the policy framework, targets and a timeframe for the implementation of the strategies.	SADC (2002a:46), Imani Development (2001a:1) SADC Secretariat (2003), Ngassa (2003), SADC Industry and Trade Sector, 2000:10, 11; 1998:47), SADC (2000:36, 40, 42).
2000-2001	With funding from the Commonwealth Secretariat (COMSEC), January-March 2001 saw commissioned consultants carrying out deskwork and field visits to obtain information to draft the revised industrial policy and strategies proposals.	SADC (2002a:46).
2001	SADC industrial development policy and strategies (final report) was produced by Imani Development financed by the Commonwealth Secretariat.	Imani Development (2001a).
2002	A workshop was held in Dar es Salaam, Tanzania from 25 to 27 November 2002 aimed at giving the stakeholders an opportunity to "influence the programme and projects that will underpin the policy and strategy." SADC Industry and Trade Ministers adopted the recommendations of this workshop and tasked the SADC Secretariat to improve the policy and ensure that the above-mentioned concerns, i.e. those raised in 2000, are addressed.	SADC (2003d:25), Ngassa (2003).
2003	A revised SADC industrial development policy and strategies document exists which takes into account the issues of concern. However, due to the SADC restructuring process, which has been going on since 2001, workshops to discuss the proposals in the revised SADC regional development policy and strategies were being delayed.	SADC (2003c:1).
	The proposed SADC industrial development policy and strategies is thus not finalised. However, SADC Directorate for Trade, Industry, Finance and Investment Unit (2003) hopes that this would be so by December 2003. The current regional industrial policy and strategies document has to be revisited with categories of industries and how they are to be dealt with spelt out. As such, a workshop involving selected stakeholders was scheduled for mid-November 2003 to be held in Malawi so as to attend to these pertinent issues on the policy framework. However, the workshop could not take place and was rescheduled to a future date yet to be announced.	SADC Secretariat (2003), Ngassa (2003). Chanda (2003a), Chanda (2003b).
2004	The proposed SADC industrial development policy and strategies document has not been finalised. The project to refine and complete this document is still ongoing with experts from the SADC Secretariat, United Nations Industrial Development Organisation and the SADC member states working on this project. Furthermore, the issues of concern raised by the Ministers of Industry and Trade in 2000 continue to be of great concern and need to be addressed so as to improve the document before it can be adopted.	Swaziland Ministry of Economic Planning and Development (2004:1), Masiza (2004:1, 2), Chimboza (2004a:1; 2004b:1).

SADC Industrial Development Policy and Strategies arose until the SADC Summit decision of March 2001 to centralise the coordination of the SADC Programme of Action to the SADC Headquarters in Gaborone, the SADC Industry and Trade Sector has been presenting a draft policy at each meeting of the SADC Industry and Trade Ministers and revising the draft policy as per the inputs by the Ministers. Since 2001, efforts to formulate the industrial development policy under the auspices of the SADC Secretariat have continued.

The project to refine and complete the SADC industrial policy and strategies is still ongoing with experts still working on this project. Also to note is that the proposed SADC industrial policy and strategies has to be formulated in line with the SADC Regional Indicative Strategic Development Plan (RISDP¹⁴). Pamucheche (2003)¹⁵, SADC (2003a:1) and Ngassa (2003) observe that the SADC Secretariat together with the experts from UNIDO were in the process of improving the SADC industrial policy and strategies to ensure that the document is in line with the RISDP. Furthermore, the Swaziland Ministry of Economic Planning and Development (2004:1), Chimboza (2004b:1), Masiza (2004:3), Ngassa (2003), and SADC Secretariat (2003) argue that apart from ensuring that the document is in line with the RISDP, (i) polarisation of industries; (ii) industrial investment potential; (iii) harmonisation of national industrial policies and strategies; (iv) legal frameworks; (v) mobilisation of funds; (vi) the legal framework and implementation mechanisms; and (vii) targets and time frameworks, continue to be issues of concern which thus have to be addressed so as to improve the document before it can be adopted (see also Tables 7.1; 7.2 and 7.6).

SADC (2003a:12) and Masiza (2004:2) observes that a proposed road map for the completion of the formulation of the revised SADC industrial policy and strategies, as shown in Table 7.7, has been designed and approved¹⁶. Industrial policies and strategies will be developed on how to develop the sectors included in the road map (see Column 1) as these sectors are key within the SADC region. The developed policies to address these sectors adequately will thus become components of the proposed SADC industrial development policy and strategies.

This road map is to help to monitor progress in revising the current policy document and formulating a revised one. Masiza (2004:4) and SADC (2003a:12) note that the SADC Secretariat, SADC member states and other experts would focus on preparing public-private

¹⁴ A summary of this development plan is given in Appendix 9. Masiza (2004:1) and Mafaiti (2004) observe that the RISDP was officially launched by President Benjamin Mkapa of Tanzania at the SADC Council of Ministers on 12 March 2004 in Arusha, Tanzania.

¹⁵ Cited in SADC (2003a:2).

¹⁶ Masiza (2004:2) observes that this was approved at the 15th Special Committee of Ministers of Trade and Industry's meeting held on 27 February 2004 in Dar es Salaam, Tanzania.

sector partnership action plans for each of the eight sectors during the course of February – May 2004. The review of sectors in the road map is in line with (i) Chanda’s (2003a) comments that categories of industries have to be reflected in the industrial policy and strategies document; (ii) the observations by Ngassa (2003) on the specific categories of industries the SADC Industry and Trade Ministers directed the SADC Secretariat to consider as part of their recommendations at the regional workshop held on 25 – 27 November 2002 in Dar es Salaam, Tanzania; as well as (iii) with the RISDP (see Appendix 9 for a list of the areas of intervention) which reflects all sectors giving details on the specific strategies that will be used to develop each sector.

Table 7.7: Road map for completing the second industrial policy and strategies draft

Sector reviews	September 2003 to May 2004
Agro-food	Done
Processing of mineral and metallic products	Done
Leather and leather products	February to May 2004
Forestry (wood and wood products)	February to May 2004
Fisheries	February to May 2004
Chemicals and petroleum	February to May 2004
Textiles and garments	February to May 2004
Machinery and equipment	February to May 2004
Symposium on the consolidation of the policy	Mid – May 2004
Submission of the industrial policy and strategies document	Mid – June 2004

Source: Masiza (2004:2); SADC (2003a:12).

Even though the formulation of the SADC industrial policy and strategies is still ongoing, the SADC Secretariat (2003) and Ngassa (2003) indicate that: (i) national industrial policies will have to be harmonised; (ii) a development fund has to be created to support the industrial development strategies; and (iii) realistic goals and targets have to be set (see also Table 7.1). Furthermore, the SADC Secretariat (2003), SADC (2002a:46, 48), Imani Development (2001a:17-18), and Ngassa (2003) note that a regional programme of action and projects that will underpin the implementation of the regional industrial policy and strategies has been set, and this would mainly involve industry and trade support services, development and promotion of small and medium scale enterprises, and management and skills development (see also Table 7.1).

Since the formulation of the SADC industrial policy and strategies is still ongoing, it is difficult to say when this policy will be finalised. For example, as Tables 7.1 and 7.2 show, the SADC Secretariat (2003) had expected that this would be so by December 2003, but this

failed. While Chimboza (2004b:1) notes that the revised SADC industrial policy and strategies document will be discussed at a meeting of experts on industrialisation in May 2004, he further points out that the policy is most likely to have been finalised by December 2004 or early 2005 (Chimboza, 2004a:2), while Masiza (2004:4) suggests that the second policy draft is likely to be completed by July 2004.

7.4.2 Main areas of concern to be addressed

Table 7.6 shows that in 1999 and 2000, the Ministers of Industry and Trade raised issues of concern which needed to be addressed, and in 2004, these issues continue to be raised, as shown in Tables 7.1 and 7.2. It is important therefore to discuss these pertinent issues which the member states continue to raise so as to gain insight into their significance to the region. By discussing their possible implications for industrial development (see Sections 7.4.2.1 - 7.4.2.5 below), one would gain insight into why member states need these issues to be addressed adequately before the industrial policy can be adopted.

7.4.2.1 Identification of industrial investment potentials in the region

It can be argued that this concern is important because, as shown in Section 6.9.1, investment potentials differ between countries and as such countries have specific industrial policies to address specific industrial needs. This concern is also important in that it would enable SADC to identify industries which would particularly need attracting FDI into, as regional resources (human and non-human) may not be adequate to effectively and efficiently run such industrial concerns. Furthermore, this would enable SADC to identify industries which could possibly be developed into regional industrial clusters to benefit all member states, with member states serving as short-term, medium term, or long term sources of inputs to such industries. It can also be argued that, identifying industrial investment potentials within the region gives SADC an insight into the industries in which the region currently has competitive advantage as well as those in which there is potential to develop competitive advantage. This knowledge would help the region to work towards maintaining its current competitive advantage industries as well as devising appropriate industrial policies and strategies to help develop competitive advantage in the potential industries.

It can also be argued that identifying investment potential in the region would help in coming up with a composite document reflecting the industrial investment opportunities and potentials within the region by country. This could form a marketing tool/ or investment promotion tool which SADC could use to market the region as a viable investment destination. Individual countries would thus benefit from equitable promotion, as marketing would be done at regional level covering all investment potentials in individual countries.

7.4.2.2 The effectiveness of current national industrial policies

SADC countries have adopted market-driven approaches to industrial development, while selective import substitution is also part of the industrialisation programme in some countries (see Section 4.6.1). It can therefore be reasoned that, an evaluation of the extent to which these policies have been effective in facilitating industrialisation should be done. Such an examination will be beneficial to the SADC region as it could bring out plausible industrial policies and strategies which some of the countries have successfully used to develop some of their industries. This would therefore, present SADC with the opportunity to adopt and incorporate such policies, or components thereof, into the proposed regional industrial policy and strategies.

Furthermore, knowledge of the current national industrial policies and strategies presents SADC with the basis upon which to work towards harmonising these policies and strategies at regional level because as SADC Secretariat (2003), Ngassa (2003), Imani Development (2001a:3) and Masiza (2004:6) argue, national industrial policies and strategies will have to be harmonised (see also Table 7.1). While the full industrial policy harmonisation is a long-term objective, the regional industrial policy and strategies should ensure a steady progress towards this objective through a broad framework¹⁷ in which national and regional interests can be reconciled so that all member states can subscribe to it. Chimboza (2004b:2) adds that the harmonisation of national industrial policies and strategies should benefit countries through equitable industrial development because different levels of industrialisation in the member states has been a result of different development policies and focus by the individual countries.

7.4.2.3 The need for balanced development

Despite the fact that the wide differences in industrialisation mean that industrial development in the region will only take place more equitably in the long run, the proposed SADC industrial policy and strategies should include policies and programmes that would help the region to move towards this. Imani Development (2001a:7) agrees noting that the policies and programmes that could facilitate balanced development could include (i) the development of appropriate infrastructure; (ii) increased access to export markets; (iii) equitable promotion of the region as an investment destination; (iv) human resources development; and (v) financial support that could assist in identified competitive areas, especially in the weaker states.

¹⁷ Issues which generate both national and regional interest and as such should be in the broad framework could include policy measures that address improving productivity, enhancing competitiveness, upgrading technology and technical skills, increasing participation in international trade and investment, promoting regional development, developing private sector enterprises, eradicating poverty and generating employment (Imani Development, 2001a:3).

Furthermore, it can be argued that faster growth rates could result in the poorer countries due to access to capital and technology of the richer countries through increased cross-border investment as well as easier access to markets through increased intra-SADC trade. Such faster growth rates could in turn enable the poorer countries in the region to catch up or converge towards the larger economies.

To South Africa, the need for balanced development is of particular concern because as Masiza (2004:5) argues, if the economies of other SADC countries remain less developed and constrained, South Africa's own economic development would not be sustained in the long run. Therefore, all SADC countries need to move to higher levels of development and industrial activity so as to sustain economic growth and development in the whole region. In this regard therefore, he points out that since 1994, South Africa has consistently sought to contribute to restructuring the regional arrangements that have a bearing on promoting industrialisation of the SADC region. Furthermore, Masiza (2004:7) observes that South Africa recognises the need to intensify its efforts in helping the SADC region to attain regional integration and development because this would help in removing the current trade imbalances between itself and its trade partners.

7.4.2.4 Possible polarisation of industries

This is of concern to the region due to the possible polarisation of industries effects that could arise as a result of the SADC FTA. SADC Industry and Trade Sector (2000:10; 1998:47) and SADC (2000:36, 40) note that given the different levels of development, industrial investment potentials, negotiating skills and other factors, the SADC FTA may render other countries unattractive to investors while others become more attractive. Given this, it therefore becomes imperative that the proposed SADC industrial development policy and strategies complements trade liberalisation in the region so that balanced development across the region can be achieved. The industrial policy should be complementary to the SADC Protocol on Trade on enforcing market rules, discouraging monopolistic and cartel type operations, as well as administering rules of origin and customs control.

Imani Development (2001a:6) observes that polarisation could arise due to "lack of reliable information to international investors concerning the smaller economies, such as investment opportunities and potential". In this regard therefore, one can argue that as part of the proposed regional industrial development policy and strategies, a composite document should be produced regularly reflecting the identified industrial investment opportunities and potentials within the region by country. This could form part of the proposed regional industrial policy and strategies document as an Annexure, or form part of the tools with which

the SADC Directorate of Trade, Industry, Finance and Investment Unit markets the region. As an alternative, the SADC Secretariat (2003), Ngassa (2003), Chimboza (2004b:1) and Imani Development (2001a:11, 13) suggest putting in place development finance instruments that will be used to promote investment in utilities and infrastructure and other public services in the lesser-developed countries as well as providing capital for industrial projects (see also Table 7.1).

7.4.2.5 Legal framework and implementation

Other areas to which more research is needed are: (i) the legal framework within which the regional industrial policy and strategies will be executed and implementation mechanisms; and (ii) the review and adjustment mechanisms to evaluate the performance of the policy instruments.

The most appropriate legal framework is needed given the goal of the proposed regional policy as well as the need for the regional policy to complement the SADC Protocol on Trade. Imani Development (2001a:25) observes that three options of legal frameworks have been proposed; viz. (i) adopting a separate Protocol; (ii) an annexure to the SADC Protocol on Trade; and (iii) having a Memorandum of Understanding among member states. While Ngassa (2003) and Imani Development (2001a:25-26) note that it has been recommended that a Memorandum of Understanding is the most appropriate policy instrument, the final position on this can only be known once the proposed regional industrial policy has been finalised.

Concern on the implementation mechanism is important because this has a bearing on costs (both at national and regional levels), the need for consistency between national and regional activities, and how the regional policy would adequately complement the SADC Protocol on Trade. Imani Development (2001a:21) proposes an implementation mechanism where the SADC national working group (a national co-ordinating body on industrial development) and the working group that deals with trade issues, will form a single body called the National Committee on Industrial Development (NCID), to be established in each country. Therefore, one can reason that, having the working group that deals with trade issues to also handle industrial development issues ensures that the industrial policy adequately complements the SADC Protocol on Trade.

In implementing the regional industrial policy and strategies, Masiza (2004:8, 9), Chimboza (2004b:3) and Swaziland Ministry of Economic Planning and Development (2004:2) argue for private sector participation, dialogue between the private and public sectors, as well as private-public sector partnerships. They also note the importance of departments or Ministries

of industry and trade during the implementation of the regional policy and strategies. They argue that these will perform a co-ordinating function as well as to facilitate consultative processes during implementation. Masiza (2004:8) notes that the chambers of commerce as well as the departments of labour would also have a role to play during the implementation of the SADC industrial policy and strategies (see also Table 7.2).

In terms of implementation at regional level, Imani Development (2001a:22) proposes that representatives of the NCID from each country would form the SADC Regional Committee on Industrial Development (SRCID). By engaging stakeholders and co-operating partners, this body would facilitate, monitor and ensure the effective implementation of the regional aspects of the industrial policy. Since there would be national representatives in the SRCID, these would “facilitate coherence and consistency between national and the regional activities and to ensure a smooth exchange of information between stakeholders involved in the industrial development programme”.

7.4.2.6 Monitoring and performance evaluation

Since every policy implementation has to be followed through with regular monitoring and performance evaluation, it is proper for SADC to be concerned about how this is to be done. Since the choice of suitable benchmarks aid regular monitoring and performance evaluation, setting up quantifiable targets and timeframes for the implementation of the adopted regional industrial policy is needed.

Having quantifiable targets in place is necessary so as to improve the performance of the region in a number of areas. For example, having in place quantifiable targets to (i) increase the share of manufacturing to regional GDP from the current low levels in most countries as shown in Section 4.2; (ii) reduce /or eradicate poverty in the region since Section 4.7 shows the prevalence of poverty in the SADC region accompanied with skewed distribution of income; (iii) increase the savings ratios from the current low levels (see Section 5.3.1) to levels required for self-sustaining growth; (iv) increase the investment ratios from the current low levels (see Section 5.3.3) to levels required to accumulate adequate resources to facilitate future/additional investment needed for improved industrial capacity; and (v) to achieve sustainable GDP growth rates. Quantifiable targets should also be put in place to raise industrial capacity utilisation in lagging industries /or industrial sub-sectors through rehabilitating such facilities as well as reducing the constraints that could be currently faced. Targets could also be set on raising the ratio of intra-regional trade so as to foster more trade within the region as well as to stimulate regional production.

As the formulation of the SADC industrial policy and strategies continues, it is important to note that once the policy has been finalised, adopted and is ready for implementation, the region would inevitably face challenges in implementing it. It is therefore necessary to give an insight into some of these challenges and how they can be overcome. This will be done in Section 7.5 below.

7.5 POSSIBLE CHALLENGES IN IMPLEMENTING THE PROPOSED SADC INDUSTRIAL POLICY AND STRATEGIES

A number of factors could pose possible challenges to the implementation of the SADC industrial policy and strategies. Such factors could include: reducing disparities between member states, the adequacy and suitability of regional institutions responsible for the implementation of the policy, as well as need for cooperation by member states. The manner in which each of these could pose challenges to the implementation of the regional policy will be discussed in Sections 7.5.1 - 7.5.5 below.

7.5.1 Reducing industrial disparities between member states

While this is one of the main objectives of the programme (see Section 7.4.2.3), this process would not only take long, but also requires a thorough and careful study of (i) existing productive capacities in the regions; (ii) the long run viability of the various sectors of the region, i.e. current ones as well as those potentially introduced; (iii) the necessary economic infrastructure to develop such productive activities; (iv) the possibilities of expanding various productive activities into these regions; as well as (v) the endowment of the specific countries with natural resources and the possibility of creating industries for the processing of local raw materials, as observed by the Greek Delegation (1961:46, 47) and United Nations Department of Economic and Social Affairs (1964:428). This study is expensive and requires adequate funding and well-trained personnel, but is essential if resources are to be allocated most efficiently and effectively to attain balanced development.

Implementing the SADC industrial policy and strategies in order to attain balanced development would also face challenges in that investment preferences by investors may not be consistent with regional areas of priority. For example, Friedmann (1966:15) and Lefebvre (1964:642) observe that in most cases, private investors always show preference in investing at the centre relative to the periphery¹⁸. It therefore presents a challenge to the SADC

¹⁸ This is often due to lack of objective knowledge about production opportunities in the periphery, the relative ease of making new investment in the centre, a strong preference for a metropolitan environment, as well as

institutions responsible for the implementation of the regional industrial policy in terms of marketing the less developed regions so as to bring out their existing production opportunities, constantly watching out for and marketing important latent locational advantages emerging in such regions over time due to changing economic structures, so that such opportunities do not pass unnoticed.

Where industrial clusters (see Section 7.3.7), are used as part of the industrialisation strategy, this could present challenges in achieving balanced industrialisation. This could arise from the observations by Pincus (1961:218) that the presence of natural resources in a region may not necessarily lead to the development of local processing industries, but that, decisions may be made to locate such industries nearer markets and developed infrastructure. As such, it could mean that some countries may only participate in most or all the clusters they are involved in as resource sources with no prospects of establishing their own processing industries. In this regard therefore, while such countries may continue to participate in their respective clusters as resource sources, they may take measures to develop their own processing industries, which would only lead to unprofitable competition and duplication.

Masiza (2004:6), Chimboza (2004b:2) and Swaziland Ministry of Economic Planning and Development (2004:2) therefore argue that policies that would have the unintended effect of perpetuating uneven economic development within the region should not be employed. Therefore, if implementing industrial clusters is going to foster uneven economic development within the region, then they would not be an acceptable approach to promote industrial development within the SADC region (see also Table 7.2).

7.5.2 Suitable and adequate institutional arrangements

The need for adequate institutions which are well staffed with appropriately well-trained personnel also presents challenges in implementing the SADC industrial policy and strategies. SADC should ensure the capacity to undertake the organisation and management of all functions that ensure the smooth and successful implementation of the programme so as to achieve set objectives. For example, Mulcahy (1990:21-22) argues that the institutions should be able to analyse regional strengths and weaknesses to ensure optimum utilisation of regional resources, as well as to appropriately stimulate and exploit local entrepreneurship. They should also be competent to promote the region, its enterprises, products and exports, as well

external economies like sharing the same social overhead facilities, service industries, skilled labour pools and expert management (Friedmann, 1966:15; Lefeber, 1964:642).

as ensuring comprehensive services necessary for the creation of new business and the expansion of existing ones.

It is also important to note that even though the decisions on regional distribution of resources are not non-political, regional development institutions should be well equipped to make recommendations that reflect cost-benefit analyses of all alternatives because to achieve the long-term viability of regional industries, industrialisation investment has to be efficient. Also to note is that, each industrial development policy goal and its set of objectives should be arrived at in various stages, but economic environment changes could require that the regional development institutions devise alternative steps to reach the same goals. So the institutions should have the capacity to do this so as to accommodate the existence of such exogenous forces that could have a greater influence on the industrialisation of the region than factors the governments/ and or the SADC Secretariat have control over.

Each SADC country has a Ministry or department of Industry and Trade, Chambers of Commerce, and a working group dealing with trade and industrial development issues. Masiza (2004:8), Chimboza (2004b:2), Swaziland Ministry of Economic Planning and Development (2004:2) and Yamba (2004:2) note that all these are going to be involved in implementing the proposed SADC industrial policy (see also Table 7.2). However, it is important to enhance capacity in these institutions so as to harmonise the implementation of the SADC Protocol on Trade with the regional industrial development strategies and programmes so that, as Ngassa (2003) and Pamucheche (2003)¹⁹ argue, the improvements in market access resulting from the SADC FTA could translate into new investment opportunities.

7.5.3 The paradox

There is a paradox which could present a challenge to the implementation of the SADC industrial policy and strategies. Pincus (1966:219) argues that "it is in some sense preferable that industrialisation should proceed most rapidly in regions best adapted economically and institutionally to industrial growth". Lefeber (1964:642, 645) agrees indicating that, accelerating the future development of retarded regions is dependent on encouraging the growth of industrially more advanced regions. He argues further that stifling the latter by insufficient investment diminishes the overall regional capacity to save and as such the advancement of the retarded regions will be delayed even longer. Therefore, since poor

¹⁹ Cited in SADC (2003a:2).

regions are less able to raise their own savings, they would thus benefit from the surpluses that will come from accelerated growth in the already advanced regions.

The challenges this paradox present to the implementation of the SADC industrial policy and strategies are, as observed by Lefeber (1964:642, 648, 649) that: (i) while growth in the more industrially advanced regions is encouraged, retarded regions should not be neglected; (ii) “the less industrialised states should be persuaded to believe that faster industrial growth in some areas would in turn enhance their own economic development”; and (iii) a comprehensive long run plan has to be developed for the entire region which shows how individual countries would benefit in terms of meeting their own goals, phases of development and resources development. Therefore, addressing adequately the challenges the paradox presents is essential because regional governments would not be willing to sacrifice their own economies or patiently wait long periods for the advancement of their own areas, which is an event that may never come.

Masiza (2004:6) and Chimboza (2004b:2) sound warnings on pursuing policies that could have the unintended effect of perpetuating the current uneven economic development prevalent in the SADC region. In this regard therefore, Chimboza (2004b:2) argues that there is a need for the region to come up with a Regional Investment Guideline and that Ministries of industry and trade should ensure that during the implementation of the SADC industrial policy and strategies, the interests of their local strategic industries are protected.

7.5.4 Cooperation by member states

There is a need by SADC countries, as individuals and as a region, to cooperate towards ensuring a business environment relevant for the smooth implementation of the SADC industrial policy and strategies by facilitating sustaining stable macro-economic fundamentals, implementing legal and regulatory reforms in line with regional best practices, maintaining good governance, political stability and obeying the rule of law and property rights, developing adequate socio-economic infrastructure for support services, and effecting resource skills development.

The SADC industrial policy and strategies emphasises the role of governments as facilitators of industrial development, lessening their role in implementing industrial projects by giving way to private sector led industrial development. It is important for governments to cooperate and willingly accept this new role so that the private sector role in policy implementation can be promoted as well as the chance to maximise efficient allocation of resources. Masiza (2004:8), Chimboza (2004b:2), the Swaziland Ministry of Economic Planning and

Development (2004:2), Yamba (2004:2) and Ngassa (2003) acknowledge and agree with the role of government as facilitators, and they also commend active private sector participation in policy implementation. For example, Chimboza (2004b:3) observes that the private sector would complement the Zimbabwean government efforts by taking the lead in implementing the policy, and would invest in the areas identified in the country as well as in opportunities created in other member countries. Masiza (2004:9) notes that the South African government encourages private sector participation in not only the domestic economy but also in investment within the rest of the SADC region. He also observes the importance of active participation by the Chambers of Commerce and Industry (bodies which represent the interests of the business communities on a wide range of industrial and commercial issues), noting that they will assume a coordination function during the implementation of the policy.

However, despite a private sector led industrial development, the industrial policy should still emphasise the need for consultation and consensus between the public and private sector on policies, priorities and incentives for specific sectoral or regional development. This thus brings in the challenge of establishing functioning structures (at both national and regional level), which can effectively cooperate and facilitate public-private sector consultations and implementation mechanisms at all levels. In facing this challenge, SADC would do well to learn from the experiences of South Korea and Taiwan (see Section 3.4.4), where the governments showed strength and motivation to ensure close cooperation with the private sector.

The Swaziland Ministry of Economic Planning and Development (2004:2) agrees with the need for public-private sector cooperation and consultations during implementation noting that the country would have consultative structures in place so as to facilitate a healthy dialogue between the two sectors. Chimboza (2004b:2) also agrees with private-public sector cooperation and dialogue noting that during implementation in Zimbabwe, the Ministry of industry and trade should facilitate the consultative process with all stakeholders, especially the private sector. Masiza (2004:10) also agrees with the need for open dialogue between the public and private sector and observes that for South Africa, the success in implementing the industrial policy and strategies entails “a coordinated approach across government departments, state-owned enterprises and the private sector”.

Since the implementation of the SADC industrial policy involves harmonising industrial development and performance by promoting regional and sectoral approaches, this inevitably entails deeper regional and sectoral integration. However, SADC (2003a:3, 4) observes that such moves to deepen integration need consensus on the policy tools to be used, peer review

mechanisms, and real commitment to reduce transaction costs and to improve the environment conducive to attract investment as well as to promote trade. In this regard therefore, it is inevitable that cooperation by all member states is crucial, while willingness to be reviewed by peers on progress in implementing the agreed policy tools should be unquestionable.

A challenge is also presented by the need for effective co-operative networking within and between the regional development organisations so that knowledge and experiences in implementing the regional policy within the various member states can be shared. Co-operative networking also needs to be established with regional development organisations outside the region so that knowledge and experiences by other regions on global strategies and initiatives can be exchanged. This would enrich SADC in the overall coherence, efficiency and implementation of its regional planning and approaches. Therefore, just as the SADC Secretariat has been involving experts from UNIDO in formulating the SADC industrial policy and strategies, such partnerships and consultations with experienced external bodies should thus continue during the implementation of the regional industrial policy and strategies.

7.5.5 Sense of ownership of the proposed regional industrial policy

It is important for the SADC member states to have a strong sense of ownership of the proposed SADC industrial policy and strategies if at all this policy is going to succeed in promoting industrial development within the region. This is crucial especially if this policy is not to be implemented as a protocol where compliance is compulsory once the policy is adopted. If, for example, the policy is implemented as a Memorandum of Understanding among member states, then successful implementation would depend on goodwill and voluntary willingness to comply by member states. Therefore, where member states have no sense of ownership of the regional policy, it would be difficult to persuade them to voluntarily and willingly comply with the policy. Instead, some members could adopt and implement national industrial policies they feel would address their industrial needs more adequately, policies which may be in conflict with proposed regional industrial policies and strategies.

In this regard therefore, the SADC Secretariat faces a challenge to ensure that member states develop a sense of ownership for the SADC industrial policy and strategies by: (i) effectively consulting with all member states at all stages whilst still formulating the policy; (ii) consistently and constantly giving feedback to all member states on the progress in developing the policy; (iii) where selected stakeholders are invited for consultations, feedback of discussions and updates to the old policy proposals should be made available to all

uninvited stakeholders in all member states so that they too can be kept up-to-date with the current developments in the regional industrial policy proposals. It is therefore quite commendable that, apart from consulting with experts from UNIDO, the SADC Secretariat is working closely with the Ministries or departments of industry and trade in the various member states in formulating the SADC industrial policy and strategies as this helps countries to develop a sense of ownership of the policy. Also to note is that the current draft document has been made available to most countries so that they are well informed about the details of the proposed policy.

However, indications from some countries, e.g. Zambia, are that they have not been adequately involved and consulted in the formulation of the policy, and this would have implication for such a country's sense of ownership and willingness to implement the policy and strategies. For example, Yamba (2004:1) indicates that the country has not received a copy of the current industrial policy and strategies document, and as such, has no knowledge about the outstanding issues concerning the policy, and cannot say whether or not the policy would be of any benefit to the country. Also the indications by Maselle (2004) that the Ministry of industry and trade in Tanzania cannot answer the questions in the questionnaire and that they can only be best addressed by the SADC Secretariat, when in actual fact the questions are country specific and require responses from an individual country (see the questionnaire in Appendix 8), could also imply that the country has not been actively involved in the current formulation of the regional policy and strategies. This would thus have implications on the country's sense of ownership of the policy and willingness to implement it once it is finalised.

The SADC industrial policy and strategies proposals emphasise the importance of private sector participation in implementing the regional policy. In this regard, it is important to involve the private sector and have them onboard whilst still formulating the industrial policy. This would enrich the policy with contributions from the private sector as well as enabling the sector to develop or acquire a sense of ownership of the policy. During implementation, the private sector would therefore willingly participate.

Chimboza (2004a:3) notes that in Zimbabwe the private sector is aware of the SADC initiatives to formulate a regional industrial policy and strategies, and the government has been encouraging the private sector to participate. As a result, the sector has been actively involved in the formulation of the policy, thus developing a sense of ownership for the policy. In South Africa, Masiza (2004:9) observes that some of the participants in the private sector, e.g. the clothing and textile industry, are aware of the SADC initiatives to formulate a

regional industrial policy and strategies. The government has been encouraging the private sector to participate and give inputs because it recognises the importance of private sector participation in economic development. He also notes that private sector participation is also expected in May-June 2004 when the symposium on the consolidation of the SADC industrial policy and strategies as well as its submission are expected (see the road map in Table 7.7 in Section 7.4.1). In Swaziland, the Ministry of Economic Planning and Development (2004:2) notes that the private sector is aware of the SADC initiatives to formulate the regional policy and the government has been encouraging the sector to actively participate and give inputs. However, the private sector has not been willing to participate and as such, has not given any inputs towards the formulation of the policy. Such a negative attitude towards a regional initiative which would equally affect them would have implications on their willingness to cooperate once the SADC industrial policy and strategies is in force.

Successful regional economic integration within the SADC region would depend upon strategic implementation of both trade and industrial policy initiatives. Since the SADC Protocol on Trade is already in place and the SADC industrial policy and strategies is still being formulated, the latter thus has to be complementary to the former so that improvements in market access resulting from the SADC FTA would necessarily translate into new investment and industrial development opportunities. The SADC FTA would have a facilitating role to the implementation of the SADC industrial policy and strategies, and this will be discussed in the section below.

7.6 THE FACILITATING ROLE OF THE SADC FREE TRADE AREA IN IMPLEMENTING THE SADC INDUSTRIAL POLICY AND STRATEGIES

The implementation of the SADC Protocol on Trade, which commenced in September 2000, would bring into place the SADC FTA. This would lead to deeper integration among SADC countries as countries become more open and easily accessible to each other through the gradual reduction of tariff and non-tariff barriers.

The SADC FTA has a facilitating role to the implementation of the SADC industrial policy and strategies which the region is formulating. This role could be felt through the following: creating a larger market size and easier access, increased regional competitiveness, improved utilisation of regional corridors, opportunities for utilising identified intra-industry trade potentials, opportunities for increased regional cross-border investment, and the possible emergence of skewed investment patterns. Each of these roles will be discussed in Sections 7.6.1 - 7.6.6 below.

7.6.1 Market size and access

Through regional integration, the size of the domestic market, an important determinant of market-seeking investment, is increased. The large market would thus present better opportunities for increased domestic and foreign investment, the exploitation of economies of scale, and increased competitiveness, thus fostering efficient-scale industrialisation.

Through deeper regional integration, apart from the creation of a larger market, new markets can now be easily discovered and accessed, with investment opportunities in these markets becoming easily available to the rest of the region. This could motivate more regional cross border investment and other forms of FDI, thus helping in industrially developing the host country. With individual countries able to easily access new regional markets, increased production could occur resulting in industrial expansion and specialisation as countries seek to utilise the now easily available new markets.

7.6.2 Regional competitiveness

Deeper regional integration gives rise to potential gains from reduced administrative and transaction costs due to improved institutions. This would lead to a reduction in production costs, thus helping to create a favourable investment climate which would encourage both regional and foreign investment. As countries become more open, this leads to increased internal competition, which in turn leads to higher competitiveness. Higher competitiveness reduces monopoly rents, and induces increased efficiency in investment location within the region and operations of industries. This increases welfare gains to the host country as well as benefits to the investors. ADB (2000:174-175) notes that, apart from the rapid and extensive improvements in allocative efficiency resulting from enhanced competition among participating countries, regional integration could also benefit from the increased incentives for the adoption of new technologies and methods of production alongside rapid innovation brought about by enhanced competition.

Competition also stimulates regional exports as well as exports to the rest of the world. This in turn could motivate increased investment and industrial expansion, as the now cheaper exports can access more markets and become more competitive on international markets. However, as observed in Section 2.7.3.1, the extent to which processing for export can drive industrialisation can be limited by a variety of market imperfections and constraints which processed exports from the developing countries often face from the developed countries.

7.6.3 Utilisation of regional corridors

In the SADC region, there are a growing number of development corridors (see Section 4.4.2), and the implementation of the SADC FTA enables more and better utilisation of these corridors as traffic increases due to the easier accessibility of countries. These SADC inter-country transport corridors impact on transport costs of both inputs and end products, communication networks and costs, business uncertainties and other risks, which all affect both regional and foreign investors, while harmonising the rules and regulations for the use of such infrastructure would reduce non-tariff barriers. This would thus assist the SADC industrial policy and strategies to be more effective in industrial location.

SADC (2002a:19) and SADC (2003d:36) observe that all the traditional SADC transport corridors are being transformed into Spatial Development Corridors, with Beira, Trans-Kalahari, and Maputo Development Corridors being at the forefront. This is expected to achieve long term development within SADC as the corridors are deemed to have the potential to generate sustainable economic growth in the presently underdeveloped areas of the region. For example, other development activities from other sectors along the corridors, e.g. agriculture, mining, tourism, commerce, etc, would be developed as the corridors would be instrumental in facilitating investment in these sectors, thereby exploiting their locational advantages in relation to the corridors.

7.6.4 Utilising intra-industry trade potentials

While the bulk of intra-SADC trade is inter-industry, intra-industry trade opportunities do exist in the region (see Section 6.5.4). Since intra-industry trade may be stimulated by economic integration, the implementation of the SADC FTA could enable the industries generated by the SADC industrial policy and strategies to take advantage of the opportunities for intra-industry trade more easily and fully, as preference diversity and overlapping demand could become more pronounced as economies open up more.

Utilising intra-industry trade opportunities has a bearing on industrial development as it provides opportunities for identified industries in specific countries to develop more, as each country lowers the number of products it produces, and produces each variety on a larger scale with increased productivity and lower costs. The overall benefits on industries would be well structured and focussed industries, improvements in industrial performance, an increase in the emergence and growth of new business, increased innovation, and the ability to attract knowledge-based investment.

7.6.5 Increased regional cross-border investment

As member states become more accessible to each other with the implementation of the SADC FTA, Article 22 of the SADC Protocol on Trade encourages countries to take advantage of the existing opportunities for regional cross border investment by urging countries to “adopt policies and implement measures within the Community that promote an open cross-border investment regime” (SADC 2003e). This could help the SADC industrial policy and strategies in facilitating balanced industrial development as member states benefit from industrial investment and the transfer of technology from the relatively more advanced countries in the region. However, it has to be noted that increased capital mobility as countries seek to invest in lucrative markets, could have a bearing on fair competition in the host countries and the region as a whole. Since Article 25 of the SADC Protocol on Trade requires that member states “implement measures within the Community that prohibit unfair business practices and promote competition” (SADC, 2003e), it is therefore imperative for SADC to incorporate within the regional industrial policy and strategies measures that are complementary to this Article.

7.6.6 Possible emergence of skewed investment patterns

It is also important to note the problems which could result from the SADC FTA. For example, new investment resulting from the SADC FTA as well as implementing the SADC industrial policy and strategies could more likely locate where already substantial economic activity, especially in industry, is existent. In this way, not all members of the SADC regional integration scheme would benefit in the same way, in terms of investment, as it is likely that the more advanced countries would attract more investment due to agglomeration effects, as discussed in Section 2.2.6. Vaitsos (1978:748) argues that this becomes a central problem in cases where countries at different levels of development are within the same regional grouping. Therefore, such locational effects within SADC, with investment locating mostly in the already development countries, would impact negatively on industrial development within the poorer countries. The current more industrially developed countries would continue to develop faster, leading to widening the economic disparities between countries such that, while the regional group as whole might benefit from increased investment, integration could make some member states worse off than if they were outside the regional grouping. This inevitably makes balanced development a very pertinent issue in the SADC industrial policy and strategies, as shown in Sections 7.4.3.3 and 7.5.1.

However, as shown in Table A-5 (Appendix 3), some of the less industrially developed countries, which may not have agglomeration advantages to attract investment, are low wage countries. This together with the inter-country transport corridors that help to reduce transport

costs and make countries more easily accessible to each other could motivate industrial investment to also locate even in the underdeveloped, less industrialised areas with good resources and investment potentials. The investors would then access markets in the developed areas through use of the improved infrastructure. Therefore, with barriers to trade (tariffs, quantitative restrictions, and transport costs) substantially reduced, as the process to creating the SADC FTA proceeds, the peripheral countries where wages are lower, need not lose their industries to the core. Therefore, polarisation need not be inevitable.

7.7 CONCLUSION

With regard to the issue of industrial development, the key challenge facing the SADC region is how to promote and support industrial growth across the region and how to ensure that more value addition to the region's natural resource output happens within the region. To this end therefore, the formulation of a regional industrial policy and strategies was deemed necessary.

Issues relating to trade, investment, technology development and local technological capabilities, the structure and behaviour of industry, and human resources development are important components of any industrial policy. Industrial policy recommendations have thus been proposed to address these issues. Since the need for regional competitiveness has a bearing on the industries which SADC should focus on, this means the industrial policy may not necessarily promote the development of all industries, but those in which the region has or can develop competitive advantage. Therefore, the regional industrial policy will have to be selective on which industries to promote so that adequate resources can be channelled towards such industries. Developing and implementing industrial clusters could be used to create regional competitiveness, given the small nature of some of the SADC member states, the different levels of industrial development between member states, and the need for balanced development. The implementation of the SADC FTA would benefit industrial clusters as it makes industrial cluster activities located in different countries more accessible.

However, while the focus of SADC in terms of industrialisation is driven by the desire to stimulate the manufacturing sector, it is important to note that attention should also be given to non-manufacturing activities. This is important because different sectors of the economy are interlinked and non-performance by one negatively affects the other. For example, agriculture and rural development policies and the regional industrial policy should be complementary since SADC is an agricultural region and the majority of the population is located in the rural areas. Developing the agricultural sector would positively impact on the

manufacturing sector, as the former is a source for inputs as well as a market for output from the manufacturing sector. Rural development empowers the rural population and increases effective demand for manufactured goods as more people gain the capacity to purchase.

Since 1996, SADC has been working on coming up with a regional industrial policy and strategies framework which will turn the region into an integrated industrial economy with internationally competitive industries capable of promoting sustainable economic development. The coming into effect of the SADC Protocol on Trade in September 2000 made it imperative that the SADC industrial policy and strategies be in tune with this Protocol. This is because not only is the industrial policy expected to facilitate the regional industrial development process, but is also expected to complement and strengthen the implementation of the SADC Protocol on Trade, as well as contributing more effectively to the regional integration process. However, once the proposed SADC industrial policy and strategies has been finalised and adopted, its implementation could face challenges arising from the need for adequate institutional frameworks to effectively implement the policy, the paradox, the need for cooperation by member states as well as the private sector, the need for a sense of ownership of the industrial policy.

The SADC FTA has a facilitating role in the implementation of the SADC industrial policy and strategies. This role is through the creation of a larger market and easier access, promoting regional competitiveness, increasing the utilisation of regional corridors, increasing cross-border investment, as well as stimulating and utilising intra-industry trade more. However, it has to be noted that not all members of the regional integration scheme would benefit in the same way with the SADC FTA, as polarisation of industries could occur with the already more advanced countries attracting more industrial investment. However, polarisation need not be inevitable.

CHAPTER EIGHT

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH

8.1 INTRODUCTION

The chapter seeks to summarise and conclude this research by giving an evaluation of the nature of the SADC manufacturing sector, its receipt of investment inflows and the facilitating role of FDI, existing potential in the sector, the facilitating role of the SADC FTA, as well as possible ways to fully harness the potential within the manufacturing sector.

Section 8.2 evaluates the current nature of the SADC industrial base. This is done by discussing a number of aspects, viz. (i) the share of manufacturing sector to GDP and growth of the sector; (ii) the structure of the sector as shown by the distributional pattern of manufacturing establishments between the various manufacturing activities; (iii) the trade performance of the sector; as well as (iv) the current utilisation of installed industrial capacity. Section 8.3 presents an evaluation of the extent to which the manufacturing sector has been the main recipient of investment inflows from both domestic and foreign sources. This is important because while heavy investment is necessary to expand economic capacity and output, it may not be sufficient for rapid growth if allocated to activities that do not increase production.

Section 8.4 evaluates the facilitating role of the SADC FTA in industrial development by discussing the FTA's ability to improve current industrial capacity utilisation, protection to infant industries with the potential to develop and dispense off the protection through the provisions in the SADC Protocol on Trade, ability to foster and promote industrial clusters, and attracting in new industrial investment into the region. Section 8.5 explores the possible ways of harnessing more fully the potentials within the manufacturing sector in order to improve the performance of the sector. Section 8.6 comments on the main industrialisation strategies the region has adopted, while Section 8.7 recommends areas for further research.

8.2 EVALUATION OF THE CURRENT NATURE OF THE SADC INDUSTRIAL BASE

Evaluating the share of manufacturing to GDP, the structure of the sector, its export and industrial performance would help to give some insight into the current nature of the industrial base of the SADC region. The sections below will give this evaluation and the possible policy implications.

8.2.1 Share of manufacturing to GDP

Over the decade, the share of the manufacturing sector to GDP has varied between countries, implying significant differences in the strength of the countries' manufacturing/or industrial bases. In the majority of the countries, the manufacturing sector contributes less than 20 percent of GDP. Mauritius, South Africa and Swaziland are the only countries with over 20 percent of their GDP originating from the manufacturing sector throughout the 1990s. Zimbabwe only experienced a manufacturing sector contribution of 20 percent during the first half of the 1990s, with this share falling thereafter. Therefore, while the SADC region has managed to develop a manufacturing/ industrial base, it can be argued that this base is still small.

The manufacturing/industrial base, *albeit* currently a small one, which SADC has managed to develop, thus lays down a foundation for higher levels of industrial development. It is therefore necessary for prudent industrial policies to be developed and properly implemented so as to fully utilise this industrial base and capacity and thus propel the region to higher levels of industrial development.

8.2.2 Growth of the manufacturing sector

The annual growth of manufacturing value added (MVA) has varied between countries, also implying significant differences in the strength of the countries' manufacturing/or industrial bases. However, in general, the region's manufacturing sector has been growing slowly. The reduced growth and production in the local manufacturing sector has been attributed to a number of factors: viz. (i) high production costs in most countries; (ii) the erratic provision of water and electric power, in some countries; (iii) the shortage and loss of skilled and qualified human resources due to HIV/AIDS, the brain drain to developed countries, and difficulties in getting work permits and licenses to employ skilled manpower from other countries; (iv) lack of improved technology and a weak private sector in some countries; (v) the underdevelopment of infrastructure for the provision of industry support services, poor infrastructure in the form of transport, communication and other utilities, and political instability in some countries; (vi) intense competition as a result of the liberalisation of trade and the presence of imported

manufactured goods, resulting in scaling down of operations and in some cases company closures; and (vii) a fall in government spending due to the restructuring processes in countries where government is the major domestic consumer has led to a fall in domestic demand, thus impacting negatively on the manufacturing sector. It is therefore important for these constraints to be removed or reduced if the sector is to grow.

The current small size of the sector and its slow growth rate implies the need to design industrial policies that would not only increase investment to expand the sector but also investment to develop and support other sectors in the economy upon which the manufacturing sector depends. As the support sectors develop, this boosts effective domestic demand for the manufacturing sector, thus stimulating growth in the manufacturing sector so as to meet this demand. This subsequently creates the backward and forward linkages necessary to stimulate growth and promote industrialisation.

8.2.3 The structure of the manufacturing sector

The SADC region has quite a diversified manufacturing sector with 28 major 3-digit ISIC industries. The food products industry is the most diversified, followed by textiles, non-electrical machinery and transport equipment, in that order. However, the strength of each industry varies between countries, depending on the individual country's level of industrial development, resource endowment, competitive advantage, and revealed comparative advantage.

While the significance of the industrial categories and the extent to which they dominate the manufacturing sector differs between countries, in general and in order of significance, the food and beverages industry is the most dominant. This is shown by the fact that in most countries, this industry has the highest number of manufacturing establishments and makes significant contributions to total MVA. The textiles and clothing industry tends to rank the second most dominant manufacturing sector activities as it has the second highest total number of manufacturing establishments in the region and its contributions to total MVA are quite substantial. Machinery, transport equipment, and chemicals, in that order, are also significant manufacturing activities although as individuals, each is less dominant than either the food and beverages industry or the textiles and clothing industry, except possibly in South Africa.

In this regard therefore, it can be deduced that the manufacturing sector in the region is dominated by industrial processes which are more of resource-and labour-intensive in nature than

those processes of scale-intensive, differentiated and science based in nature. Since SADC countries are both resource-abundant and labour-abundant countries, the dominance of resource- and labour-intensive industrial processes is consistent with the Heckscher-Ohlin Theorem. This thus is consistent with the common observations that SADC countries tend to have relatively more revealed comparative advantage in less processed commodities or commodities of low MVA, while showing higher revealed comparative disadvantages in manufactured goods of a higher MVA category.

While the manufacturing sector in the region is dominated by industrial processes that are more of resource- and labour-intensive in nature this does not necessarily have to be a disadvantage to the region. The predominance of these industries implies areas in which the region has existing and potential competitive advantage. Therefore, by implementing appropriate industrial policies, these industrial activities could be developed further and thus attain regional competitiveness in such industries.

It can also be argued that industrial policies that promote full and efficient utilisation of the resource-intensive industrial processes would help advance resource-based industrialisation programmes, while promoting resource-based export production would yield benefits to the host country due to comparative factor intensity, locational and cost advantages, as well as due to economies of scale. The implementation of the SADC Protocol on Trade would help by making it easier for countries to access the agricultural and natural resources abundant in the region.

Since the SADC region is labour abundant, taking advantage of this large human capital base could be used to kick-start and promote the labour-intensive phase of export orientated industrialisation, taking advantage of foreign investors who are attracted to the region by the abundant low-wage labour force. Harnessing abundant labour could also be used to promote and develop SMMEs (a common feature in SADC economies) bearing in mind that these small firms will for a long time continue to play a significant role in the SADC economy. The need and importance in harnessing the abundant labour so as to facilitate labour-intensive industrial activities would imply policy recommendations that liberalise controls on the importation of labour from member states. FDI could help the countries to utilise these industries more fully by upgrading their quality so as to move onto the next levels of industrial development, a lesson to SADC from the East Asian NICs.

While machinery, transport equipment, chemicals and fabricated metal products are also significant manufacturing industries (but of less dominance); this implies the existence of an industrial base for such medium and high technology product categories in some of the countries in the region. However, the strongest, best performing and most competitive of such industries tend to be in South Africa, Zimbabwe¹, and Mauritius. This is evidenced by the higher concentration of such manufacturing establishments in these countries, while the industrial performance and competitiveness ratings by UNIDO on the medium and high technology manufacturing activities within the SADC region tend to favour these three countries mostly. However, of the three countries, South Africa ranks highest.

The presence of scale-intensive, differentiated and science based industrial activities, *albeit* in few countries, implies the presence of an already installed industrial base to diversify and deepen high MVA industrial activities. This affords the region an opportunity to create dynamic comparative advantages which would help to avoid stagnation once the region has attained a certain level of industrialisation. This implies industrial policies of active intervention where technologically sophisticated, capital- and skilled-intensive industries could be selectively identified and targeted for priority development. This is a lesson SADC should adopt from the experiences of the East Asian NICs as they moved to higher levels of industrial development.

Therefore, it can be argued that the SADC industrial policies and strategies (at both national and regional levels) should adopt a twin track strategy to ensure growth with equity. The first track could be aimed at promoting industrialisation and growth through the promotion and support of resource- and labour-intensive industries. The second track would address issues relating to the development and support of the technology and science-based industries, by selectively identifying and targeted such industries for priority development.

8.2.4 Trade performance of the sector

While the contributions of the manufacturing sector to total merchandise exports varies between countries, the majority of SADC countries reflect low manufactured exports/total export merchandise ratios. However, some countries (*viz.* Mauritius, South Africa, Namibia and Zimbabwe), have recorded high manufacturing sector/total merchandise exports ratios, thus reflecting the presence of stronger manufacturing bases. Also to note is that, in these countries,

¹ Due to the macro-economic problems the country continues to experience since 2000, industrial performance has been falling.

i.e. South Africa, Mauritius and Zimbabwe, most of the manufactured exports are technologically categorised as simple exports since they are made up of low technology and resource-based manufactures. This supports the observations already made about the existence of still a generally small manufacturing/ industrial base in the region, and thus the inability/ and or constraint on the region to make significant inroads in the development of alternative products/ or manufactures which command stronger international demand.

Also to note is that, in South Africa, Zimbabwe and Mauritius, significant ratios of some of their manufactured exports are also technologically categorised as complex exports since they are composed of medium and high technology manufactures. This supports or confirms the already made observations about the existence of a stronger industrial base for the production of higher MVA products in these three countries. However, the significantly huge differences between the high technology manufactured exports/total export merchandise ratios of South Africa and those of Zimbabwe and Mauritius, confirm or support the already made observations that while all the three countries have strong industrial bases for the manufacturing higher MVA products, among them South Africa has the strongest industrial base. The industrial bases in Mauritius and Zimbabwe still have to grow further and require significant investment in plant and equipment as well as the adoption of new competitive technology.

However, since the ratio of manufactured exports categorised as complex exports continue to lag behind those categorised as simple exports, this supports or confirms the already made observation that despite the presence of stronger industrial bases capable of producing significant volumes of medium and high technology manufactured products in some countries, the manufacturing/industrial base in the region is still generally small and less technologically complex.

Manufactured goods constitute a significant volume of imports to the SADC region, thus augmenting the domestic manufacturing sector in satisfying local demand for manufactured goods as well as providing a wider variety of such goods. While it has been established that the region tends to focus more on resource- and labour-intensive manufacturing activities, such products are still significant components of manufactured goods imports into the region, e.g. animal and vegetable oils, beverages and other foodstuffs, wood and wood products, textiles, clothing and footwear, are part of the main manufactured imports into the region. Also to note is that high MVA products in general and capital goods in particular, constitute a very high

percentage of total merchandise imports, showing the need to rely on high technology and technologically complex goods imports due to the generally less technologically complex manufacturing sector in the region. Machinery and transport equipment form the main capital goods imports in the SADC region. Since investment and acquisition of this capital is essential for the purposes of, among other things, upgrading industrial capacities and raising the aggregate growth of capital stock in the long run, where countries have little or no domestic capacity to produce machinery and equipment, imports become necessary.

8.2.5 Utilisation of current industrial capacity

An empirical evaluation of the current industrial capacity utilisation was only possible for South Africa and Zimbabwe, the only countries that compile such data and so could provide information on industrial capacity utilisation. The empirical evaluation of the current industrial capacity utilisation in these two countries, especially South Africa, would tend to mirror industrial capacity utilisation in the region since the more developed countries tend to dominate industrial activities within the region; and low industrial capacity utilisation in these countries would tend to mirror a weak and poorly performing regional manufacturing sector.

In South Africa, it is the basic industries (i.e. upstream industries or industries at the lower end of the 'value chain'), which run at the highest levels of capacity utilisation, i.e. over 80 percent. There is relatively less capacity utilisation (68–78 percent) in downstream industries, those industries which by technological category fall within the scale-intensive, differentiated, and the science-based manufacturing activities/ or the medium and high technology industries. The main reason for underutilisation of industrial capacity in South Africa is insufficient demand, with the shortage of raw materials cited as the second major reason. The shortage of labour, especially skilled labour, has also often been cited as a reason for the underutilisation of the current industrial capacity within the country.

Since South Africa (the strongest and most developed economy in the region and the one which tends to dominate industrial activities within the region), is running at relatively low levels of capacity utilisation in the technological more complex industries, it cannot be expected that the rest of the regional countries could be performing any better in this category of manufacturing industries. Therefore, it could be inferred that SADC still has a weak and under-performing industry in terms of high manufactured value-added products.

While Zimbabwe has a significant industrial base which is well diversified, in general, the manufacturing sector shows significantly low levels of industrial capacity utilisation. Throughout the 1990s, relatively high rates of capacity utilisation tended to be consistently concentrated in very few industries (viz. non-metallic mineral products, wood and furniture, textiles including ginning, and chemicals and petroleum products), thus implying gross underutilisation of the currently installed capacity in the whole manufacturing sector. This poor performance was carried into the beginning of the 21st century, where extremely low levels of industrial capacity utilisation in all the manufacturing industries were recorded. While levels of industrial capacity utilisation are very low for most of the period under study, more capacity utilisation tended to be recorded mainly in the low technology, resource- and labour-intensive industries, implying very weak downstream industries.

In the past few years, especially after 1999, the Zimbabwean economy in general, and the manufacturing sector in particular, has progressively weakened due to foreign exchange shortages, weak domestic market demand, conditions and shortages of essential raw materials, imported inputs and machine spare parts. Industries have also been constrained by cash flow difficulties, high domestic inflation felt through high transport costs and costs of raw materials, weak export market demand and heavy competition abroad. Shortages of fuel, high interest rates, as well as government price controls, have also been cited as other major constraints preventing firms from achieving the full potential of their plant capacity. Industrial trends (past, present and future) in terms of profit margins, the general situation in the industry, and investment rates are not encouraging and worsened especially after 1996. The net effect of all this has been several company closures and/or scaling down of operations within the manufacturing sector, inevitably leading to widespread industrial capacity underutilisation. This in turn has inevitably led to decreased output, rising unemployment and falling disposable income, thus creating a vicious cycle leading to more widespread industrial capacity underutilisation.

While statistical data on industrial capacity utilisation was not available for the other SADC countries, the general slow growth rate of the sector imply below optimal industrial capacity utilisation. The sector faces many constraints which negatively affect its performance, as shown in Section 8.2.2.

8.3 EVALUATION OF INVESTMENT IN THE MANUFACTURING SECTOR

Investment has a bearing on economic growth through its impact on the rate of capital accumulation, improvements in technology, the state of technical knowledge and technological progress. This improves productive capacity utilisation through enabling the productive employment of unutilised and underutilised factors of production as well as increasing output per worker per hour. High positive investment rates on a yearly basis would enable a gradual and continual building up of industrial structures as well as to continuously transform production structures in line with the evolving demands resulting from economic developments, e.g. globalisation, world economies opening up more, as well as the SADC FTA. In this regard therefore, it is important to evaluate the extent to which both domestic and foreign investment has been directed towards the manufacturing sector.

8.3.1 Domestic investment and implications for industrial development

At regional level, an average of one-fifth to one-quarter of GDP is channelled towards domestic investment so as to help improve the region's productive capacity. However, at country level, channelling of resources towards domestic investment differs greatly between countries, and it has been noted that in some countries the current levels of domestically funded investments are too low to support the required levels of economic growth.

While recommendations could thus be made for countries to increase efforts to mobilise additional domestic resources through, e.g. deepening financial sector reforms, there is a limit to which efficient domestic resource mobilisation can generate sufficient resources to finance required rates of investment since most countries in the region are low-income countries. This would thus call for increasing the mobilisation of investment resources from external sources although the success in attracting such investment could be limited partly due to the smallness of the markets, poor infrastructure, and the often-inadequate skill-base in the low-income countries.

An analysis of the sectoral composition of domestic investment shows that the manufacturing and financial sectors have both been a priority. Investment priority in the manufacturing sector would enable the development of a sector with modern and up-to-date technology, leading to improvements in the industrial capacity and performance of the sector. Since the manufacturing sector is regarded as the engine for growth and industrial development, investment priorities towards capital formation in the sector would thus provide countries with a solid base for industrialisation programmes. A solid domestic manufacturing sector would also serve as an

attraction to foreign investors who, through more capital injections and/or additional and more advanced technical and managerial skills inputs, could help the sector to develop further.

However, it is important to also note that due to the interdependence of economic sectors, while the manufacturing sector could receive investment priority; this should not be at the detriment of the other economic sectors. The rest of the economy needs to be equally developed so that sectors will be able to improve their ability to adequately respond to each other's stimuli, and thus remove the existing supply bottlenecks between sectors.

Priorities in fixed capital formation investment towards the financial sector would help to develop a functioning and up-to-date credit market and financial system. This is essential in giving effective and efficient support to the manufacturing sector and other sectors of the economy. An effective financial system with state of the art technology to handle huge financial transactions with minimum delays would help to boost investor confidence, thus attracting more investment from both domestic and foreign investors.

Machinery and equipment is considered the more appropriate measure of capital stock and therefore, it is important for a considerable proportion of real output to be re-invested in productive capacity in this form. The sampled SADC countries for which statistical data were available attach great importance in investment in machinery and equipment. While domestic investment towards the acquisition of machinery and equipment varied between them, on average, such acquisition accounted for over 36 percent of GFCF. Although the statistical data on investment in machinery and equipment did not show the sectoral differences of the investment, it however indicates active involvement in productive investment for the purposes of upgrading industrial capacities. In the long run, this would lead to a rise in the aggregate growth of capital stock in the countries, thus benefiting the region. Active investment in productive capacity also helps to create investor confidence as the industrial sectors within the economy become equipped with adequate and modern machinery and equipment.

It is also important to note that the local capital goods sector of a country is an essential part of its technological capacity. Therefore, while currently the region is heavily dependent on capital goods imports and may never be self-sufficient in capital goods, current domestic investment efforts towards the acquisition of machinery and equipment are commendable and it is important for countries to continue to make deliberate investments towards the development of this sector.

The investment in capital is critical to the growth performance of a country as the equipment share of investment has a more than proportionate effect on output growth.

8.3.2 Foreign direct investment and implications for industrial development

While the SADC region receives less than 1 percent of the world's FDI, it receives most of the FDI flowing into Africa, i.e. 30.39 percent in 2002. The interest of foreign investors in the SADC region in the 1990s could be attributed to a number of factors, e.g. the improved political situation in the region, the adoption of liberalisation policies by the beginning of the decade and the commitment by most SADC countries to pursue such policies, trade and regional integration initiatives, and the admission of new members into the regional grouping which widened the regional market.

While on an individual country basis, FDI inflows varied with some countries showing significantly high levels with others much lower, it is important to note that the regional manufacturing sector has benefited from such FDI. The sectoral distribution analysis of available FDI statistical data on SADC countries, viz. South Africa, Namibia, Zambia, Zimbabwe and Tanzania, shows that the manufacturing sector was a priority sector for FDI, although the sector may not have received first priority in some of these countries. The significant FDI into the manufacturing sector implies significant gains for the countries in terms of advanced technology transfers and more advanced technical and managerial skills inflows necessary to upgrade the current performance of the sector. This thus presents opportunities for the development of the sector, thus improving further the industrial locational advantages in the countries.

The sectoral composition of FDI at regional level in general shows that while metal products, minerals and mining still tend to be the most important sectors into which FDI flows, it also shows that the manufacturing sector has also benefited from FDI. Within the manufacturing sector, FDI has been mainly located in sectors that produce food and beverages, footwear, clothing and textiles. Therefore, the sectoral composition of FDI in SADC has changed in recent years, as FDI is no longer exclusively directed towards the primary sector. With the manufacturing sector becoming one of the key sectors for FDI, this presents the sector with opportunities for improved production and capacity utilisation, thus broadening the manufacturing base as well as facilitating the technological advancement of the sector.

However, it is important to note that, as much as possible, inputs should be sourced from the domestic producers/suppliers in the host country, if FDI in the manufacturing sector is to have more impact on the domestic economic activities. This is because sourcing input from the host country creates and strengthens backward and forward linkages between sectors, and the increased economic activity could act as a catalyst to kick-start growth and sustainable development within the host country.

8.3.3 Regional cross border investment and its implications for industrial development

South Africa is the leading foreign investor in the SADC region because it has a better understanding of regional industrial trends and policy environments than the overseas investors, and this works to its advantage. Regional cross border investment by South Africa is also prominent within SADC because few other SADC countries are regarded as viable sources of investment.

In general, South Africa's investments are located mainly in Mozambique, Zimbabwe, Zambia, the D. R. C., Angola and Namibia, in that order. The regional manufacturing sector has been one of the beneficiaries of South African investment mainly through its investment in the clothing and textiles sector and the food and beverages sector. Among the top twenty South African investors in Zambia in 2000, six companies pledged a total of US \$56.58 million into the manufacturing sector. In Zimbabwe, the manufacturing sector ranks favourably to investment from South Africa, and the sector has also benefited from significant regional investment flows from Mauritius, Zambia and Mozambique. In Namibia, the manufacturing sector has benefited greatly from South Africa's investment with over 85 percent of FDI into the sector coming from South Africa since 1999. Over the years, the manufacturing sector in Mozambique has become a priority for South Africa's investment, with the sector receiving over half of the investment in 1999. While the statistical data on the level of investment by South Africa into the manufacturing sectors of the remaining SADC countries could not be obtained, manufacturing investment by South Africa into Angola, Botswana, Lesotho, Swaziland and Tanzania, is mainly concentrated in brewing, while in Malawi it is particularly in the textile and clothing sector.

Regional cross border investment from South Africa greatly benefits the manufacturing sector in the region in terms of transfer of technology, technical and administrative skills and capacity, and capital. This helps to promote the development of industrial capacities within the region, thereby

creating surpluses for export within and outside the region. This could thus help to ensure equitable industrialisation in the region, thus redressing existing imbalances.

Zimbabwe has also participated in regional cross border investment, *albeit* at a much lower scale than South Africa since Zimbabwean companies mainly serve regional markets by export than by establishing/locating their companies in such countries. Notable investment is mainly located in Botswana, Mozambique, Malawi and South Africa. While Zimbabwe may not have investments in many sectors as South Africa and the size of investment may be lower than South Africa's, a significant amount of Zimbabwe's investment goes into the manufacturing sector in the other SADC countries.

The manufacturing sectors in the host countries could benefit from regional cross border investment just as they could from investment from overseas. However regional investors experience some advantages, which overseas investors may not, which could make host countries benefit more from regional cross border investment. For example, the close proximity of countries, a better understanding of regional industrial trends and policy environments, informal communications about investment opportunities, and personal friendships which develop between regional leaders; are some of the advantages the regional investors have over overseas investors, which could motivate regional cross border investment into otherwise risky ventures, thus creating potential benefits for the host countries. For example, due to a better understanding of regional industrial trends and policy environments, regional investors could more easily investment in the small and medium sized enterprises in a regional country, ventures often regarded as very risky by overseas investors, thus providing resources and opportunities to fully exploit and unleash the existing manufacturing potential within the host country. Some of the investment could be into untapped sectors or under-utilised investment opportunities, possibly communicated by word of mouth through friends, or regarded as too risky by overseas investors, thus creating new employment opportunities which help the host country to reduce unemployment levels and to boost effective domestic demand as more people will have access to disposable income.

However, it is important to note that just as with investment from overseas, local sourcing of inputs from domestic producers should be encouraged as this boosts domestic economic activity through forming and strengthening backward and forward linkages between sectors. Increased

economic activity would thus act as a catalyst to stimulate growth and sustainable development within the host country.

8.4 THE FACILITATING ROLE OF THE SADC FTA

The SADC FTA could facilitate industrial development within the SADC region in various ways; e.g. improving current industrial capacity utilisation, protection to infant industries with the potential to develop and dispense off the protection through the provisions in the SADC Trade Protocol, ability to foster and promote industrial clusters, and attracting in new industrial investment into the region. The manner and extent to which implementing the SADC FTA could facilitate industrial development through these various mentioned ways is discussed below.

8.4.1 Improving industrial capacity utilisation

The FTA could to some extent help improve industrial capacity utilisation through creating more effective demand as a result of a wider market. Therefore, instead of focussing on the small domestic markets, domestic industries will have the wider and easier to access regional market to cater for, thus improving their current industrial capacity utilisation. Improvements in industrial capacity utilisation would also be realised due to the attraction the wider market has on more market-seeking foreign investors who would find it cheaper to utilise the currently installed industrial capacity to satisfy both internal and external demand for their products. The easier access of inputs or resource markets and the easier movement of productive resources between countries would also improve industrial capacity utilisation as inputs become more readily available.

Improved industrial capacity utilisation could also be facilitated through increased intra-regional trade which the SADC FTA would facilitate through the static effects of economic integration². As trade between countries improves due to the trade-creation effects of regional integration, this would stimulate industrial production leading to improved industrial capacity utilisation in the particular lower resource cost countries. The trade-diversion effects of regional integration would

² Trade creation and trade diversion are the static effects of economic integration. Trade creation takes place when economic integration leads to a shift in product origin from a domestic producer whose resource costs are higher to a member producer whose resource costs are lower. This shift is therefore presumably beneficial for welfare. Trade diversion takes place whenever economic integration leads to a shift in product origin from a non-member producer whose resource costs are lower to a member country whose resource costs are higher. Member states are therefore required to purchase high cost, low quality manufactured imports from within, rather than maximising their welfare by importing lower-cost, quality products from outside the region (Appleyard and Field, 2001:354).

help accelerate industrial growth in the region, although this could be only temporary and at the expense of long-term viability. However, such an industrialisation pattern that would jeopardise long-term viability could be avoided, leading to long run efficiency and viability if industrial investment is efficient and the economic environment is such that the prices and costs of factors of production reflect prevailing market conditions.

Intra-industry trade opportunities do exist in the region and the implementation of the SADC Protocol on Trade could enable the region to take advantage of these opportunities more easily and fully, as preference diversity and overlapping demand become more pronounced as economies open up more. Utilising intra-industry trade opportunities would improve industrial capacity utilisation as it provides opportunities for identified industries in specific countries to develop more and produce each variety at a larger scale with increased productivity and lower costs.

Deeper regional integration could result in reduced administrative and transaction costs due to improved institutions and the reduction of tariff and non-tariff barriers. This would lead to a reduction in production costs, which in turn leads to higher competitiveness at both regional and international level. As production costs fall and the industries become more competitive, industrial output rises as industries utilise their capacities more. Higher competitiveness resulting from deeper regional integration often leads to rapid and extensive improvements in allocative efficiency as well as increased incentives for the adoption of new technologies and methods of production as well as rapid innovation. The net effect of all this would be improvements in current industrial capacity utilisation.

8.4.2 Protection of industries with demonstrable potential

The facilitating role of the SADC Protocol on Trade to industrial development can also be seen in provisions within the Protocol to help infant industries with demonstrable potential to develop, subject to the provisions of the World Trade Organisation (Article 21 Paragraph 1 of the SADC Protocol on Trade). Protection of industries can also be seen in that tariff reduction is not across the board as products have been divided into categories, each with different tariff reduction deadlines. Since countries have the right to determine the products they put in category C, and the liberalisation of products in this category can continue beyond the eight years from entry into force of the Protocol, this gives countries a significant amount of time to protect the selected crucial domestic industries until they can better stand fierce competition.

The SADC Protocol on Trade also facilitates industrial development through granting a grace period for eliminating tariffs and non-tariff barriers, thus reducing unequal industrial costs and benefits to member states as a result of the implementation of the Protocol (Article 3 Paragraph 1(c) of the SADC Protocol on Trade). This therefore allows countries time to keep and develop further those industries whose potential could have been destroyed, thus avoiding losing such industries to other countries.

8.4.3 Fostering regional industrial clusters

If SADC adopts the development of regional industrial clusters as an industrialisation strategy, the SADC FTA could facilitate the viability of such a strategy. For example, since an industrial cluster may have activities located in different countries, the SADC FTA could facilitate easier accessibility of countries through the reduction of tariff and non-tariff barriers. The utilisation of the growing numbers of inter-country transport corridors which improves with the implementation of the SADC FTA would help to network countries, thus strengthening linkages between cluster activities and helping to ensure sustainable competitive advantage within clusters.

With the implementation of the SADC FTA, the presence of and easier accessibility to relatively more developed countries in the region, e.g. South Africa and Mauritius, would help facilitate the implementation of the clusters as such countries would more easily provide industrial skills and technology to the relatively less developed through increased cross border investment. The wider market which the SADC FTA creates as well as the higher levels of income in some of the SADC countries, e.g. Seychelles, Mauritius, South Africa and Botswana, would help create effective demand for cluster products.

8.4.4 Attracting new industrial investment

The facilitating role of the SADC FTA in industrial development can also be seen in its ability to attract new industrial investment into the region. This is because the process of regional integration through the SADC FTA increases the size of the local market (i.e. the SADC market) which is an important determinant of investment that aims to serve the local market. The large market presents better opportunities for the exploitation of economies of scale and increased competitiveness, thus attracting in new investment to foster industrialisation. Also through deeper regional integration, new markets can now be more easily discovered and accessed, with investment opportunities in these markets becoming more easily available to the rest of the

region. This could motivate more investment, thus helping in industrially developing the host country and the whole region.

SADC has a growing number of regional corridors and the implementation of the SADC FTA enables more and better utilisation of these corridors as traffic increases due to the easier accessibility of countries. The increased use of these corridors helps to open up the region more, exposing more investment opportunities as well as providing means to access such potentials. This could in turn attract investment into areas which otherwise would have been unknown and inaccessible. Also all the traditional SADC transport corridors are being transformed into Spatial Development Corridors, which are regions with investment potential. Such potential will be exposed with the opening up of the region through implementing the SADC FTA, thus serving as an attraction to new industrial investment in these corridors and other sectors along the corridors that enjoy locational advantages in relation to the corridors.

Article 22 of the SADC Protocol on Trade promotes cross border investment as countries are urged to adopt policies and implement measures that promote an open cross-border investment regime. Implementing this Article would therefore have a facilitating role to industrial development within the region as increased regional cross border investment means opportunities for industrial expansion and capacity utilisation.

While polarisation effects could arise as a result of the SADC FTA, this need not be inevitable with the implementation of the SADC industrial policy and strategies in place since facilitating balanced development is one of its major objectives.

8.5 POSSIBLE WAYS TO HARNESS FULLY THE POTENTIAL OF THE MANUFACTURING SECTOR

SADC already has an industrial base, *albeit* its current size, and so an infrastructure exists upon which the region can build and expand the manufacturing sector. The diversified industrial base provides for different industrial sectors which have potential and appropriate industrial policies have to be devised to fully harness such potential.

By taking advantage of the diversified industrial base, various industrial clusters could be developed where, through planning, coordination and cooperation in production, the region could

rationalise its productive capacity, thus help countries to utilise their resources more fully and more efficiently. Since within these clusters are groups of interrelated industries that drive wealth creation, industrial clusters could therefore present opportunities to reveal and exploit the potentials within the manufacturing sector, as long as such clusters are well structured and implemented to provide the most equitable benefits to member states.

Comparative and competitive advantage is currently in resource- and labour-intensive industries, and there is potential for these industries to grow and become more competitive as the region is resource and labour abundant. With the SADC FTA, there would be increased mobility of resources between countries, thus providing opportunities to unleash the potential of the resource- and labour-intensive industries, and thus promote industrial growth within the region.

SMMEs form a significant component of the industrial structure in SADC and are also an important component of the SADC industrial development policy and strategies. Giving adequate support to these industries could thus help to rejuvenate the whole manufacturing sector by exploiting otherwise hidden potentials since SMMEs are capable of taking advantage of specific resources in particular locations which are often underdeveloped and regarded as risky by large enterprises, and supply larger companies with inputs. The experiences of Taiwan where small and medium sized enterprises were used to harness the potential within the manufacturing sector and facilitate the industrialisation process could be a lesson for SADC.

To ensure maximum exposure and utilisation of the potential within the manufacturing sector, the SADC industrial policy and strategies should therefore adopt a twin track strategy. The first track could be aimed at promoting the full realisation of potential within the large-scale enterprises by promoting and giving support to growth in such industries. The second track would address issues relating to the development and support of the small and medium scale enterprises so as to unleash their full potential. Through fostering subcontracting and other forms of linkages, the two tracks would be complementary, thus mutually reinforcing each other to unleash the full potential within the manufacturing sector.

The implementation of the SADC FTA could also help to bring out and harness the potential of the manufacturing sector within the region. For example, with the SADC FTA: (i) new investment opportunities would be revealed and made more easily accessible due to the reduction of tariff and non-tariff barriers and increased utilisation of development corridors; (ii) the wider

market thus created would motivate industrial growth and expansion, thus improving the utilisation of existing potential within the manufacturing sector; (iii) the trade creation and trade diversion effects on industrial growth would also help unleash the potential in the sector; while (iv) improved utilisation of IIT potentials would facilitate the realisation of potentials within both the low and high value added manufacturing activities. Trade agreements like the AGOA, Cotonou, and other bilateral trade agreements between member states as well as initiatives by individual countries to expand domestic markets would also present opportunities to reveal and exploit the potential of the manufacturing sector.

FDI could help to reveal and harness the potential within the SADC manufacturing sector through exposing the sector to new and advanced technology, management expertise as well as marketing and packaging techniques. The exposure which the sector would get to international markets through MNC trade links, would also help to develop and strengthen the sector so as to realise its full potential.

Currently the manufacturing sector experiences constraints which limit the sector to reach its full potential. The removal or reduction of these constraints would help to realise the full potential within the sector. Also to note is that as regional industrialisation proceeds, important latent advantages would emerge in the underdeveloped regions over time, due to changing economic structures. By being alert and taking note of such emerging advantages, they will not pass away relatively unnoticed by entrepreneurs; while providing a system of incentives to enable effective utilisation of such advantages would enable SADC to realise both existing and emerging potential within the manufacturing sector.

Implementing the proposed SADC industrial policy and strategies would also help to utilise the existing potential within the region's manufacturing sector as well as unleashing other hidden potentials within the sector. However, implementing the regional industrial policy to achieve this is not without its challenges. The challenges SADC faces in an effort to implement the regional industrial policy and strategies include (i) financial support to establish some programmes and projects which underpin the implementation of the industrialisation programme; (ii) continued brain drain from the region to developed countries, thus limiting the capacity at both national and regional level to implement industrialisation policies; (iii) cooperation by member states in ensuring stable economic environments, involving private sector participation, and (iv) working

towards full harmonisation of national industrial policies which is the long-term goal of the regional policy.

8.6 THE SADC INDUSTRIALISATION STRATEGY

While EOI is the main industrialisation strategy for the region through the implementation of the SADC Protocol on Trade which came into force in September 2000; the tariff reduction schedule, Article 3 Paragraph 1(c) and Article 21 of the SADC Protocol on Trade ensure that ISI also forms a significant component of the regional industrialisation strategy so as to harness as much potential for industrialisation as possible. The joint/and or simultaneous pursuit of both industrialisation strategies by SADC is not an anomaly, but a viable lesson from the industrialisation experiences of South Korea, Taiwan and Singapore which are now well-developed East Asian NICs.

With the SADC Protocol on Trade in place and its implementation already underway, serious focus on regional industrial development is inevitable, as goods have to be produced for meaningful intra-regional trade to take place through both inter-industry and intra-industry trade. Therefore, it becomes important to formulate and implement appropriate industrial policies so as to stimulate the development of industries in the region. Such industrial policies should address key issues like human resources development, technology development, industrial investment and infrastructural development. Therefore, the development and proper implementation of the proposed SADC industrial development policy and strategies becomes essential. It is also important that the implementation of the proposed SADC industrial policy and strategies be complementary to the SADC Protocol on Trade so as to ensure that industries are developed to harness more fully the opportunities which the SADC FTA would create.

The implementation of the SADC Protocol on Trade and the SADC industrial policy and strategies would lead to deeper regional integration and cooperation within the SADC region. However, with deeper regional integration and cooperation there is a loss of some degree of country freedom in policy making and policy instruments in exchange of some future benefits which are unknown. Therefore, it is imperative that SADC has the appropriate institutional structures and expertise to ensure that the most effective regional trade and industrial policies and strategies are implemented and well monitored so that the future unknown benefits can accrue to all member states in as most equitable a manner as is possible. This is important otherwise

member states would resort to replacing regional policies with national policies so as to counter losses, e.g. loss of domestic industries which leads to increased unemployment levels.

Since SADC countries are at different levels of development and as such the availability of expertise is bound to differ between countries, it is important for SADC countries to consider sharing expertise, where countries could employ well-qualified personnel from countries with excess capacity in order to effectively implement the regional trade and industrial policies.

Most SADC countries are still underdeveloped in terms of industrial capacity and capability. In this regard therefore, most countries would, in isolation, find it extremely difficult to develop capabilities to achieve competitive advantage. This brings to the fore the importance of a regional industrial development policy which promotes the building of regional competitiveness by putting in place a regional/joint approach to addressing the key determinants to competitiveness; viz. human resources development, technology, finance, infrastructure and incentives.

8.7 RECOMMENDATIONS FOR FURTHER RESEARCH

An empirical evaluation of the current industrial capacity utilisation was only possible for South Africa and Zimbabwe, as these are the only countries which compile such data and so could provide information on industrial capacity utilisation. Further research could be done on the remaining SADC countries so as to have more insight on industrial capacity utilisation in the region. Since there are constraints in obtaining statistical data to measure industrial capacity utilisation, other methods could be used. Further research on industrial capacity utilisation would thus bring out the possible challenges individual countries experience in utilising the existing industrial capacity and appropriate policies could be formulated so as to address such problems, and thus improve the performance of the manufacturing sector.

Further research could also be done on the current performance of the manufacturing sector as measured by the basic industrial indicators. Through the various industrial indices, it would be interesting to see how SADC countries currently compare with the rest of the world and with each other. It will also be interesting to see whether the first half of this century has seen any improvement in the competitiveness of the manufacturing sector, both at national and regional level.

Further research could also be done on the progress in the formulation of the SADC industrial policy and strategies and when implementation could commence. It is also important to note that in implementing the SADC regional industrial policy and strategies there is a need for adequate institutions which are well staffed with appropriately well-trained personnel as operational cooperation and efficiency is essential at all levels. Therefore, further research could also be done to ascertain the extent to which this is being attended to by the member states.

In a bid to analyse the nature of the manufacturing sector further, future research could be done in the following areas: the production characteristics of the different industries, the demand characteristics of the different industrial activities, and where future comparative advantage lies and what conditions are necessary to acquire comparative advantages in new activities. Future research could also be in establishing the relationship across SADC countries between industrial growth and GDP and the extent to which balance of payments is a constraint on industrial growth.

APPENDIX 1: ADDITIONAL INFORMATION FOR CHAPTER TWO

CONSTRUCTION OF THE HARROD-DOMAR GROWTH MODEL

Savings, S , are a proportion, s , of national income, Y . This gives rise to the equation

$$S = sY$$

Investment, I , is the change in the capital stock, K , thus given by ΔK .

$$I = \Delta K$$

Total capital stock, K , has a direct relationship to total national income (output), Y , as expressed by the capital-output ratio, k .

$$K/Y = k \quad \text{or} \quad \Delta K/\Delta Y = k \quad \text{or} \quad \Delta K = k\Delta Y$$

Total national savings, S , must equal total national investment, I ,

$$S = I; \quad \text{where:} \quad I = \Delta K \quad \text{and} \quad S = sY \\ = k\Delta Y$$

Therefore: $sY = k\Delta Y$

$$s/k = \Delta Y/Y \quad \text{where: } \Delta Y/Y \text{ represents the rate of change or rate of growth of} \\ \text{GNP (percentage change or proportionate increase in GNP)}$$

Or:

$$G_y = s/k \quad \text{where: } G_y \text{ represents } \Delta Y/Y$$

Source: Todaro (1997:72-73); Stoner and Hague (1972:593-595, 597); Jones (1975:47-48, 63); Hamberg (1971:5, 8); Stern (1991:124).

CONSTRUCTION OF THE SOLOW NEO-CLASSICAL GROWTH MODEL

The model is derived from the linear homogenous production function:

$$Y = A_{(t)} F(K, L).$$

Where:

$A_{(t)}$ is the neutral technological improvement factor and is equal to Ae^{at}

There are two factors of production, K and L i.e. capital and labour respectively, with capital being accumulated stock of Y .

Output produced by the two factors of production is given by a production function:

$Y = F(K, L)$, giving rise to the Cobb-Douglas function, $Y = K^b L^{1-b}$.

To reflect the level of technology in production we come up with following:

Cobb-Douglas function of the form: $Y = A_{(t)} K^b L^{1-b}$

Solow's growth model becomes:

$$Y = Ae^{at} K^b L^{1-b}$$

Where: Y = gross domestic product

K = the stock of human and physical capital

L = unskilled labour

A = a constant which reflects the level of technology

e^a = the constant exogenous rate at which technology grows

b = the elasticity of output with respect to capital, i.e. the percentage increase in in GNP resulting from a 1% increase in human and physical capital

NB

(1) b is assumed to be less than 1 (2) private capital is assumed to be paid its marginal product so that there are no external economies

Therefore, the Solow neo-classical growth model yields diminishing returns to capital and labour.

Source: Todaro (1997:88-89); Stonier and Hague (1972:607); Hamberg (1971:38-39, 42-44); Sato (1964:381); Solow (1956:66-67, 76, 85); Romer (1994:4); Pack (1994:55-56).

APPENDIX 1: ADDITIONAL INFORMATION FOR CHAPTER TWO**Table A-1: Foreign Direct Investment inflows by region, (1990 - 2001) percentages**

Region	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	Annual average
Asia and the Pacific	11.2	14.7	17.1	26.3	25.0	20.5	23.8	21.8	13.9	9.5	9.0	13.9	17.2
Latin America and the Caribbean	7.1	9.6	10.0	7.9	11.8	9.6	13.0	14.0	11.8	10.0	6.4	11.6	10.2
Africa	2.2	1.7	1.8	1.7	2.3	1.6	1.4	1.2	1.3	1.2	0.9	2.3	1.6
Developing countries	20.5	26.0	28.9	35.9	39.1	31.7	38.2	37.0	27.0	20.7	14.0	27.8	29.0
Central and Eastern Europe	0.2	1.7	2.6	2.8	2.4	4.3	3.7	4.6	3.3	2.3	1.8	3.7	2.8
Developed countries	79.3	72.3	68.5	61.3	58.5	64.0	58.1	58.4	69.7	77.0	82.2	68.5	68.2
World (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
World FDI inflows US \$ billion	..	159.4	175.8	217.6	243.0	331.2	337.5	400.5	694.5	1 088	1 492	735.1	534.1

Source: Own percentage calculations from United Nations Conference on Trade and Development (1999:61; 2004a); United Nations (1998:5).

Notes: Years were selected on availability and completeness of statistical data in the most recent publications available.

APPENDIX 2: ADDITIONAL INFORMATION FOR CHAPTER THREE**Table A-2: Rates of growth (1950 –1998)**

Economies	Rates of growth (%) of GDP per capita					Real economic growth rates		
	1950-1960	1960-1965	1965-1970	1970-1981	1981-1990	1990-1993	1994-1997	1998
Hong Kong	4.2	8.1	6.0	7.4	5.2	5.2	4.7	-5.2
South Korea	3.0	3.8	7.8	7.2	8.8	7.3	7.3	-5.8
Singapore	n/a	2.6	10.8	6.9	5.6	8.3	8.5	1.5
Taiwan	4.0 ^a	6.3	7.2	7.3	6.8	n/a	n/a	n/a
Average	3.7	5.2	8.0	7.2	6.6	6.9	6.8	-3.2

Source: Pack (1994:61). Own calculation from United Nations (2001:136, 141, 146).

Notes: a = 1952 – 1960 growth rate.

APPENDIX 3: ADDITIONAL INFORMATION FOR CHAPTER FOUR

Table A-3: The rate of inflation and the prime lending rates within SADC

SADC countries	Variables	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Angola	Inflation rate	495.8	1 837.9	972.0	3 784.0	1 650.2	221.5	107.4	248.2	344.0	169.3	110.0	130.0
	Prime lending rate	n/a	n/a	n/a	n/a	210.0	50.0	55.0	95.0	100.0	94.0	99.0	99.0
Botswana	Inflation rate	16.1	14.4	10.6	10.5	10.1	8.6	10.5	7.2	8.9	n/a	n/a	n/a
	Prime lending rate	14.5	15.0	14.5	14.5	14.5	14.0	14.0	14.0	n/a	n/a	n/a	n/a
Lesotho	Inflation rate	16.5	12.0	7.9	9.6	9.0	8.5	12.4	8.9	6.2	6.0	12.1	10.0
	Prime lending rate	16.0	14.0	15.0	15.0	18.3	17.1	18.0	18.0	17.1	16.7	17.0	16.4
Malawi	Inflation rate	23.3	22.8	34.6	83.3	37.6	9.1	36.1	44.9	29.5	27.4	14.8	9.5
	Prime lending rate	22.0	29.5	31.0	47.0	27.5	22.0	36.0	54.0	47.1	49.6	44.8	44.3
Mauritius	Inflation rate	4.6	10.5	7.3	6.0	6.6	6.6	9.0	6.9	4.2	n/a	n/a	n/a
	Prime lending rate	10.0	10.0	10.0	10.0	10.0	10.0	20.5	21.0	n/a	n/a	n/a	n/a
Mozambique	Inflation rate	54.5	43.7	70.1	54.1	16.6	5.8	7.2	6.2	12.7	9.1	17.2	15.0
	Prime lending rate	n/a	n/a	n/a	42.5	45.0	30.0	25.0	22.0	20.2	28.4	34.3	29.6
Namibia	Inflation rate	17.7	8.5	10.8	10.0	8.2	8.9	7.0	8.6	9.2	9.3	11.3	9.6
	Prime lending rate	17.5	15.5	16.5	19.0	19.9	20.2	21.0	16.4	16.0	15.0	16.4	15.7
South Africa	Inflation rate	13.9	9.7	9.0	8.7	7.4	8.6	6.7	5.2	5.3	5.7	10.0	9.2
	Prime lending rate	18.8	16.7	15.6	17.9	19.3	20.1	21.6	20.0	14.5	13.8	15.8	15.0
Swaziland	Inflation rate	11.0	12.4	13.7	7.9	6.5	7.3	8.0	8.0	7.3	7.4	11.9	10.5
	Prime lending rate	15.0	14.0	15.0	18.0	19.8	18.8	21.0	14.5	14.0	13.3	15.3	14.6
Tanzania	Inflation rate	21.8	25.3	34.1	27.5	21.0	16.1	13.0	7.7	5.1	5.9	4.6	4.2
	Prime lending rate	31.0	39.0	39.0	48.0	32.0	21.5	26.0	21.3	21.0	20.0	16.5	15.0
Zambia	Inflation rate	185.2	183.8	54.6	34.9	35.2	18.6	29.6	20.6	25.9	21.7	22.2	22.0
	Prime lending rate	54.6	113.3	70.6	45.0	39.4	39.0	38.0	41.0	47.9	54.4	53.1	48.3
Zimbabwe	Inflation rate	42.1	27.6	22.3	22.6	21.7	18.8	24.7	58.5	55.7	74.5	135.0	275.0
	Prime lending rate	34.6	37.9	36.4	35.0	33.5	34.7	41.0	52.0	68.2	32.1	33.8	91.9

Source: SADC Industry and Trade Sector (1999:4; 2000:6; 2001:6, 7); SADC (2002b:27); Standard Bank (Johannesburg), Economics Division (2004); Bunyi (2004a:4; 2004b:4). Own calculations from Flint (2004); Duvenage (2004).

Notes: Inflation rate = Average annual inflation rate. Prime lending rate = Average annual primary lending rate.
n/a = statistical data not available.

Table A-4: Industrial structure of the labour force (% of total employment) (most recent data available)

Countries	Agriculture							Industry							Services						
	1980	1985	1990	1992	1994	1996	Ave.	1980	1985	1990	1992	1994	1996	Ave.	1980	1985	1990	1992	1994	1996	Ave.
Angola	74	72	70	69	68	68	70	10	10	11	11	11	11	11	17	18	19	20	20	21	19
Botswana	70	61	52	52	47	42	54	13	19	28	33	38	41	29	17	20	20	18	17	17	18
D. R. C.	71	68	64	62	61	60	64	13	14	16	16	17	17	16	16	18	20	21	22	23	20
Lesotho	86	84	82	82	81	81	83	4	5	5	6	6	6	5	10	11	12	13	13	13	12
Malawi	83	78	75	73	72	70	75	7	10	13	15	16	17	13	9	11	12	12	13	13	12
Mauritius	28	25	23	22	21	20	23	24	24	23	23	23	23	23	48	51	54	55	56	57	54
Mozambique	84	83	82	82	81	81	82	7	8	9	9	10	10	9	8	8	9	9	9	9	9
Namibia	43	44	43	42	42	40	42	22	20	27	31	35	37	29	36	6	31	27	25	23	25
Swaziland	74	71	67	66	65	64	68	9	10	12	12	13	13	12	17	19	21	21	22	23	21
Tanzania	86	84	81	81	80	79	82	5	5	6	6	7	7	6	10	11	12	13	13	14	12
Zambia	73	71	70	69	68	68	70	10	11	11	11	12	12	11	17	18	19	20	20	20	19
Zimbabwe	73	70	68	67	67	66	69	10	12	13	13	14	14	13	17	18	19	19	20	20	19
SADC*	70	68	65	64	63	62	65	11	12	15	16	17	17	15	19	17	21	21	21	21	20
Africa	70	67	65	64	63	62	65	11	12	13	14	15	15	13	22	22	22	22	23	23	22

Source: African Development Bank (2002:243; 2000b:227; 1999:213; 1997:210; 1996:A-51, A-52, A-53).

Notes: The countries and years were selected on availability and completeness of statistical data.

* = Own calculations on the average contribution of each sector to total employment for the SADC region.

Agriculture includes forestry, hunting, and fishing, and corresponds to ISIC divisions 00 – 10 (World Bank, 2000b:280).

Industry includes mining (ISIC divisions 10 – 14), manufacturing (ISIC divisions 15 – 37), construction (ISIC division 45), electricity, gas, and water supply (ISIC divisions 40 and 41) (World Bank, 2000b:280).

Services correspond to ISIC divisions 50 – 96 (World Bank, 2000b:280).

Ave. = Annual average.

Table A-5: Wages by industrial sector for selected SADC countries: monthly earnings (current US dollars) for the period 1980 – 1996 (most recent data available)

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	Ave. P/a
Agriculture											
Botswana	55	54	71	80	97	97	90	90	90	80	80
Swaziland	310	n/a	437	423	496	533	512	550	483	n/a	468
Zimbabwe	74	76	71	75	56	34	38	35	34	n/a	55
Manufacturing											
Botswana	166	181	171	206	199	242	250	200	210	186	201
Malawi	75	53	53	65	55	47	40	21	13	n/a	47
Mauritius	160	181	184	209	235	258	250	287	326	333	242
South Africa	513	535	548	642	685	770	749	n/a	n/a	n/a	635
Swaziland	507	414	397	533	513	512	351	524	588	556	490
Zimbabwe	318	327	314	325	256	220	192	191	221	230	259
Mining and quarrying											
Botswana	291	287	319	450	424	436	496	430	428	372	393
Malawi	20	17	17	20	30	23	59	30	18	n/a	26
Mauritius	202	245	231	256	272	302	280	374	436	457	306
South Africa	371	397	403	477	514	561	541	n/a	n/a	n/a	466
Swaziland	560	483	309	395	367	395	379	387	523	485	428
Zimbabwe	240	254	242	254	204	180	153	153	187	204	207
Construction											
Botswana	149	148	159	182	196	211	220	214	228	197	190
Malawi	29	29	29	30	31	34	33	22	17	n/a	28
Mauritius	170	220	245	255	297	364	324	368	481	507	323
South Africa	347	367	348	394	437	475	424	n/a	n/a	n/a	399
Swaziland	335	267	192	247	283	470	211	333	227	246	281
Zimbabwe	209	200	182	179	144	110	102	88	114	124	145
Transport, storage and communication											
Botswana	192	239	296	346	417	457	434	468	435	376	366
Malawi	47	49	62	63	70	66	63	37	25	n/a	54
Mauritius	231	290	289	307	339	380	353	376	422	453	344
S. Africa	571	583	577	702	794	1 110	1 075	n/a	n/a	n/a	773
Swaziland	243	242	192	364	442	357	393	480	539	455	371
Zimbabwe	400	425	429	465	334	289	284	258	275	289	345

Source: Own Table derived from World Bank (2001a:272 – 277; 2002c:274-278).

Notes: Countries were selected on availability of statistical data.
n/a = statistical data was not available.
Ave p/a = annual average.

Table A-6: A summary of government policies on industrial development and the current industrialisation strategies within the SADC region (selected countries)

Country	Summary of policies	Theory behind industrialisation	Industrialisation strategies in the country	Role of private investment in industrialisation
Angola	Government embarked on a programme for economic recovery and stabilisation (Nova Vida) in 1996. The programme sought to build and boost the country's economic capacity with incentives for industrial development.	<p>Transition from planned economy to market-driven economy through the Nova Vida programme of 1996.</p> <p>Export promotion programmes since 1991.</p> <p>Import substitution through protection of local industries capable of producing imported products.</p>	<p>Industrial strategies aim at reversing the decline of the manufacturing sector, and elements of the strategies include:</p> <p>(i) restructuring and privatising state enterprises;</p> <p>(ii) modernising industrial production through acquiring new technologies and developing human resources;</p> <p>(iii) improving productivity and quality of industrial products with emphasis on increasing value added;</p> <p>(iv) concentrating industrial investment in specific areas</p> <p>(v) promoting export industries;</p> <p>(vi) rehabilitating sustainable and competitive industrial enterprises, especially the small and medium scale industries; and</p> <p>(vii) promoting high technology and capital intensive industries.</p>	<p>FDI is considered by the country to be crucial for the reconstruction process and as a result, the promotion of foreign investment is considered a priority as evidenced by the Foreign Investment Law passed in 1995.</p> <p>Angola is richly endowed with natural resources and currently such resources are not being fully exploited due to the on going war. Therefore, with peace and stability, investment opportunities exist in almost all sectors of the economy and FDI is significant in facilitating the full exploitation of such resources.</p>
Botswana	The operational environment for manufacturing continues to be improved with national policies and programmes for industrial development being implemented. There is active encouragement of private sector development through a variety of investment incentives.	<p>Market-driven industrial policies with active participation of the private sector.</p> <p>Though a market-oriented economy, a large number of sectors are still owned by government but are run commercially.</p> <p>Export-oriented industrialisation through establishing EPZs.</p>	<p>Facilitate industrial development through national policies and programmes that:</p> <p>(i) promote export industries with emphasis on processing raw materials in which the country can achieve international competitiveness; and</p> <p>(ii) provide support to small and medium manufacturers.</p>	<p>There is a steady strengthening of dialogue between public and private sector so as to encourage private-public partnerships in investment.</p> <p>There is active FDI promotion.</p>

Source: Own Table derived from SADC Industry and Trade Sector (1999:6, 8, 9, 10); SADC (1999:123, 124; 2000:127).

Country	Summary of policies	Theory behind industrialisation	Industrialisation strategies in the country	Role of private investment in industrialisation
Lesotho	The country has put in place an aggressive private sector driven industrialisation programme with a view to promote industrial investment which would capitalise on the country's access to consumer markets within and outside the region.	Export-oriented industrialisation. Import substitution in some sectors, e.g. brick making, candles, beer, pharmaceuticals, canned foods, beverages, bread, and milled products	The industrial strategies are designed to: (i) promote industrial investments which would take advantage of the already established markets in the region; (ii) develop industries to process domestic raw materials; (iii) promote assembly operations using imported materials; and (iv) support and promoting small scale projects.	Private foreign investment is considered important to facilitate government industrial development programmes as new capital would be injected into the economy. FDI in the form of firms relocating from South Africa into Lesotho would help the country to fully take advantage of its assured export markets for its products, thus facilitating the country's export-oriented industrialisation strategy. FDI is essential to help the country exploit the current investment opportunities in the manufacturing sector, tourism, agro-industries and furniture making. FDI is also regarded as essential in further infrastructure development essential for industrial development.
Malawi	There is emphasis on the removal of unnecessary regulations and impediments to business so as to create an enabling investment climate. Since 1990 economic reforms aimed have been stepped up with incentives for local and foreign investors introduced so as to attract investment.	Export-oriented growth strategy after independence, further import liberalisation and economic reforms since 1990. EPZs introduced in 1995 to further promote the export-oriented growth strategy.	Industrialisation is going to be focused on: (i) taking advantage of the country's resource endowment in agriculture and thus continue to promote large-scale agriculture and agro-based manufacturing using foreign capital and managerial skills; (ii) introducing new products and technologies so as to diversify and broaden the production base; (iii) supporting the small and medium enterprises so as to enhance their role in industrial development; (iv) induce efficiency and competitiveness in production by continuing to foster trade liberalisation; and (v) encouraging foreign investment into the country.	There are specific projects and investment opportunities in which financial and technical partners are being sought, thus showing the significance of private investment. Such areas include textiles, clothing and footwear, wood, wood products, pulp and paper, mining and mineral products, etc. Financial and technical partners are also needed in machinery, transport equipment and electric engineering, as well as the production of diesel powered generating equipment so as to help the country to realise its aim of introducing new products and technologies to diversify and broaden its production base. Since the country's main exports are agricultural commodities, investment is needed in developing related industries to support the agricultural sector, e.g. agro-processing industries, fertiliser and pesticide manufacturing, agricultural machinery and equipment.

Source: Own Table derived from SADC Industry and Trade Sector (1999:12, 13, 14, 16); SADC (1999:168, 176, 179-180).

Country	Summary of policies	Industrialisation theory	Industrialisation strategies in the country	Role of private investment in industrialisation
Mauritius	Emphasis is on industrial consolidation and diversification with the 1993 Industrial Expansion Act consolidating the industrial incentives law. Creation of a conducive investment climate and good relations with private sector as free enterprise and the private sector are pivotal to economic development. Investment Protection Agreement signed with several countries so as to promote industrial investment.	Free market economy with export-led industrialisation. The development of EPZs with export-oriented companies within the EPZs since the early 1970s. Import substitution in some sectors.	Industrialisation will be fostered by strategies which with the support of the Industrial Act (1993) will: (i) accelerate the process of consolidating, diversifying and modernising the existing industrial structure; (ii) promote export-led industrialisation; (iii) promote the transfer of technology from private investors; (iv) encourage ecologically sustainable industrial development through investment in antipollution and environment protection technology; (v) promote diversification of products and markets; (vi) promote the manufacturing sector, integrate it into the vibrant EPZ, and encourage companies to operate within the EPZ programme; and (vii) promote small and medium scale enterprises	Private investment is considered to play a pivotal role in economic development, with both local and private investment seen to be significant. As a result, there is no discrimination on incentives to investors. Private investment is significant in promoting the expansion and modernisation of information technology, printing and publishing, light engineering, electronics, jewellery, pharmaceuticals and health care, as well as agro-industry.
Mozambique	Restore macro-economic balances, foster private sector development, and encourage the expansion of efficient production in agriculture and industrial sector through the Economic Rehabilitation Programme (PRE) of 1987. Boosting investor confidence and thus facilitate industrial development through the Investment Law (1993) which guarantees and protects private investments.	Market-driven economic policies adopted in 1987. Established EPZs and Industrial Free Zones (IFZ) to promote export-oriented industries.	Industrialisation is going to be realised through: (i) manufacturing sector driven industrialisation through developing the existing diverse manufacturing base as well as the distinct agro-industry; (ii) developing and rehabilitating infrastructure projects in all sectors of the economy; and (iii) private investment in the areas in which investment potentials exist, e.g. mining, agriculture, forestry, fishing, manufacturing and tourism.	Private investment is of great significance to Mozambique as evidenced by the 1993 Investment Law aimed at attracting local and foreign investors and guaranteeing their investments. Private investment is important in rejuvenating some of the former state owned medium to large scale operations which are of strategic importance to the country. As the country continues its reconstruction and economic rehabilitation process, private investment continues to be of significance in infrastructure development, mining, agriculture and forestry, manufacturing and tourism.

Source: Own Table derived from SADC Industry and Trade Sector (1999:16, 17, 20, 21); SADC (1999:196, 198, 199, 201, 214, 218, 219).

Country	Summary of policies	Industrialisation theory	Industrialisation strategies in the country	Role of private investment in industrialisation
Namibia	Macro-economic and sectoral policies are consistent with industrial development, e.g. providing and maintaining economic infrastructure, efficient services, industrial development incentives, creating partnership with private enterprise, support to small and medium sized enterprises.	Import substitution in some sectors. EPZ programme in place since 1995 so as to promote export-oriented industrialisation.	The industrial development policy will facilitate industrialisation by focusing on: (i) stimulating and increasing exports; (ii) increase value added in the manufacturing sector by stimulating productivity; (iii) promoting the diversification of manufacturing investment so that the economy can cease to heavily rely on mining and primary sector exports; (iv) accelerating the growth of the industrial sector and giving it support through technological development and provision of technical skills; and (v) stimulating and supporting small and medium scale business enterprises and informal economic activities.	The significance of foreign investment is embodied in the country's Foreign Investment Act which prevents any restrictions in the business activities in which foreign investors can participate in. Foreign investment is seen as crucial in promoting export-led industrial growth, with particular emphasis on manufacturing investment so as to diversify the economy and reduce the country's reliance on mining and primary exports.
South Africa	Moving away from being a highly protected, inward looking economy towards an internationally competitive economy. So changes to both trade and industrial policies. Export promotion with Trade and Investment South Africa (TISA) being the major government agency to market the country.	Outward looking with measures put in place to open up the economy, as shown in items (i) to (vii) in the next column. Industrial Development Zones (IDZs), which aim to boost exports and employment creation.	Fundamental changes in trade and industrial policy include: (i) market-related and competitive exchange rate (ii) no restrictions on type or extent of investment available to foreigners; (iii) strengthening of competition policy and development of industrial clusters; (iv) removal of exchange controls; (v) reduction in tariff barriers; (vi) introduction of greater labour market flexibility; (vii) availability of attractive investment incentives	Significance of foreign investment evidenced by the following: (i) establishing TISA whose core business apart from facilitating the growth of South Africa's exports, is attracting of investment into the country; (ii) signing 28 bilateral investment treaties by March 1999, as well as being a signatory to international investment protection agreements including the Multilateral Investment Guarantee Agency (MIGA) of the World Bank. (iii) putting in place measures not to restrict on the type and extent of investments available to foreigners; and (iv) having a proactive strategy to attract foreign strategic equity partners into the process of restructuring state assets.

Source: Own Table derived from SADC Industry and Trade Sector (1999:23); SADC (1999:262, 263, 264); SADC (2002a:287, 292).

Country	Summary of policies	Industrialisation theory	Industrialisation strategies in the country	Role of private investment in industrialisation
Swaziland	National policy objectives and strategies are to create an investment environment which encourages both local and foreign investment. The Investment Protection Agreement is in place to benefit all investors.	A largely export-oriented manufacturing sector, with private sector domination. Overall industrial policy is to promote export-oriented industries.	The focus of the country's industrial policy to facilitate industrialisation is to: (i) promote resource-based labour intensive and export-oriented industries; (ii) continue to rehabilitate existing industries; and (iii) government to continue to play a supportive and regulatory role while the private sector actively participates manufacturing industries.	While the country encourages both local and foreign private investment, the later is considered to be the main source of industrial investment. Although in recent years the country has experienced a significant reduction in new foreign investment, it continues to create a conducive investment climate to enable the country to fully harness investment opportunities found mainly in the processing of the country's natural resources. There is some potential in the country's tourism and capital injections are needed for that potential to be fully realised.
Tanzania	The development of the industrial sector is key so as to enable local industries to increase productivity and efficiency. Investment guarantees are in place so as to attract private investment.	Market-based reforms to rehabilitate the economy and to sustain growth. Import liberalisation and export promotion.	The development of the industrial sector would be facilitated by: (i) assisting the local industries to raise their productivity and efficiency so that they can be more competitive in both the local and international markets; (ii) providing support services to industry through institutions and associations set up; (iii) continuing to encourage private sector participation in manufacturing investment; and (iv) to promote productivity within the manufacturing sector so that current manufacturing enterprises operating below installed capacity can fully utilise such capacities.	Although the manufacturing sector is recovering, most of the manufacturing concerns are still operating below installed capacity. Financial problems are the root problem for the sector and private foreign investment would significantly revive the sector. The sector also suffers from inability to acquire imported inputs, spare parts and equipment necessary to boost industrial production. FDI would be of benefit as imported inputs and equipment would become more accessible through the MNCs international connections. The manufacturing sector has also been negatively affected by import liberalisation as is not competitive enough. With improved productivity, efficiency, and standard of products through the use of improved technology, Tanzania's manufactured products would become competitive, thus regaining their share of both the domestic and international market.

Source: Own Table derived from SADC Industry and Trade Sector (1999:28, 30, 32); SADC (1999:301, 302, 319).

Country	Summary of policies	Industrialisation theory	Industrialisation strategies in the country	Role of private investment in industrialisation
Zambia	National policies aim at increasing investment through improving investment conditions. Private sector involvement is encouraged and incentives for a profitable environment for improved domestic industrial growth in place, as well as investment guarantees.	Private sector-led development through privatisation of various parastatals leading to increased private sector participation. Export promotion strategies to be further supported through the establishment of EPZs.	Industrialisation is going to be driven through: (i) encouraging industrial investment so as to achieve increased industrial growth; (ii) allowing and encouraging the private sector to be the driving force behind increased national productivity and economic growth; and (iii) establishing and promoting EPZs and locating some of these in areas where currently there is little industrial activity.	Private investment is essential in revitalising the state-owned enterprises being privatised and the government is relying on the private sector to be the driving force behind increasing economic growth. Zambia plans to locate several EPZs in areas where there is currently little industrial activity, thus presenting an opportunity for private investment to initiate industrial development in disadvantaged areas.
Zimbabwe	Investment protection through the country's constitution guarantees right to private property and prohibits expropriation without adequate compensation, but the 2000-2002 private farm invasions by war veterans, and the 2001 invasion of private firms by the war veterans to solve labour disputes, violates this constitutional right of private investors. The 2000-2002 socio-political instability has eroded investor confidence. Some sectors are still restricted to only local investors, and are only open to foreign investors through a joint venture with a Zimbabwean, with the foreign partner taking a maximum of 35 percent shareholding.	Economic reforms leading to import liberalisation and export promotion measures. An export-led industrial development programme to be supported by the establishment of the EPZ programme.	Industrialisation could be driven by: (i) resource-based industrial activities as the country has great potential for such activities; (ii) agro-based activities so as to take advantage of the agricultural sector which is the backbone of the country's economy; (iii) promoting small and medium sized businesses; (iv) expanding export-oriented manufacturing activities, taking full advantage of the EPZ programme; and (v) improving the current hostile investment environment so as to halt investment flight and to benefit from new industrial investments.	While few sectors are still reserved for local investors only, foreign investment is very essential to the country in a wide range of sectors. While the manufacturing sector is diverse with well-developed linkages within itself and with other sectors, the machinery is old, thus making FDI necessary in re-equipping, upgrading and expanding the sector. FDI is also of significance to the country because there is need for new capital injections, technological and product and production process changes in many sectors so as to improve quality and competitiveness of the country. With the establishment of EPZs, new avenues have been opened for export-oriented manufacturing activities, a well-developed industrial sector capable of offering all the necessary linkages is essential. FDI could be necessary to support the provision of such an industry.

Source: Own Table derived from SADC Industry and Trade Sector (1999:34, 37); SADC (1999:336, 337, 350, 351, 352, 354).

Seychelles	Government continues to development and promotes an enabling investment climate, with the legislation to create an environment for increased private sector involvement set since 1995. Guaranteed industrial investment incentives are in place.	Transformed from a central planned economy to a free market economy with greater private sector involvement. Establishment of export-oriented units and the Seychelles International Trade Zone (SITZ) to promote export-oriented activities.	While tourism is the backbone of the economy, central to government's plans is economic diversification and of importance is to facilitate the following: (i) developing the country as an International Business and financial Centre (IBC) through, among other things, establishing the Seychelles International Trade Zone (SITZ), International trusts, and offshore company registration; and (ii) promoting small to medium sized projects.	Since the early 1990s, investment by the private sector has been regarded as key to future of the economy, leading to the drafting of legislation in 1995 to attract FDI. FDI is essential in assisting the country to fully realise its investment opportunities as such opportunities abound in a range of sectors. For example, in order to support the agricultural sector, there is need for investment in agro-industry, livestock and animal production, as well as fishing and fish processing. Further investment in light industry and oil exploration helps to diversify the economy. While the country's aim is to diversify, investment in tourism is still essential so that the country can continue to benefit from its comparative advantage in this sector of its economy.
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Source: Own Table derived from SADC Industry and Trade Sector (1999:23); SADC (1999:262, 263, 264).

Table A-7: Progress in privatisation: ownership and control changes

Countries	Ownership and control changes												Nature of transactions											
	Transfer of majority ownership to private shareholders (1)			Government retention of majority ownership (2)			Government retention of minority interest (3)			Sales of minority government interests (4)			Total share transactions (5)			Total asset sales and liquidations (6)			Other transactions (7)			Total transactions (8)		
	1995	1998	2000	1995	1998	2000	1995	1998	2000	1995	1998	2000	1995	1998	2000	1995	1998	2000	1995	1998	2000	1995	1998	2000
Angola	192	56	56	77	n/a	n/a	0	n/a	1	0	275	n/a	269	0	0	0	57	57	n/a	274	275	269	331	332
D. R. C.	n/a	60	16	2	1	1	n/a	1	n/a	n/a	n/a	n/a	2	1	1	n/a	53	15	n/a	7	5	2	61	21
Lesotho	4	8	11	n/a	1	5	n/a	1	3	n/a	n/a	1	4	5	9	n/a	3	9	4	1	4	8	9	33
Malawi	18	39	33	n/a	1	n/a	n/a	7	7	2	5	5	20	29	29	12	13	13	3	3	27	35	45	69
Mozambique	466	536	461	44	43	43	n/a	75	75	n/a	n/a	n/a	510	509	509	n/a	22	22	n/a	48	48	510	579	579
South Africa	2	5	6	n/a	2	7	n/a	n/a	2	n/a	n/a	n/a	2	6	10	n/a	1	1	1	0	5	3	7	16
Tanzania	20	170	208	23	22	30	20	31	33	n/a	6	3	63	66	79	27	94	157	3	38	48	93	198	284
Zambia	24	217	205	2	30	30	6	21	28	8	5	4	40	59	61	35	126	133	n/a	68	74	75	253	270
Zimbabwe	2	4	1	n/a	1	n/a	n/a	3	5	n/a	1	n/a	2	6	6	n/a	0	0	n/a	0	0	2	6	6
Total	728	1095	997	148	101	116	26	139	154	10	292	13	912	681	704	74	369	407	11	439	486	997	1489	1610
S-S Africa	1027	2235	2070	216	195	229	159	341	388	85	702	221	1487	1243	1339	469	1110	1252	n/a	812	947	2040	3165	3538

Source: World Bank (1997:278; 2000c:267; 2002a:263; 2003b:263).

Notes: Countries and years were selected on availability of statistical data.

(1) = the government sells all its shares to the private sector, and a complete privatisation is achieved;

(2) = the transactions dilutes government ownership and maybe control, but still the government still holds 50 percent of the shares. Methods that bring this situation include share dilution, joint ventures, leases, and management contracts;

(3) = the government maintains minority interest (e.g. for political reasons). This type of transaction produces partial privatisation of ownership, but not necessarily of control. Joint ventures are such examples;

(4) = the government sells off all its minority shares, and thus full privatisation is achieved;

(5) = transactions that involve selling enterprise shares;

(6) = transactions that eliminate the enterprise completely (or dissolution); and

(7) = other forms of transactions or divestiture methods employed to effect privatisation, e.g. debt conversion, leases, management employee buyouts, management contract, trustees, or restitution (World Bank, 1997:281-282).

(8) = sum of (5) – (7), and is the same as the column “Total number of privatisation transactions” in Table 4.8 in Chapter 4.

n/a = the statistical data was not available.

Table A-8: Institutions in place to support industrial development within the SADC region

Country	Institutions in place
Angola	Ministry of Commerce and Industry; The Institute of Small and Medium Enterprises (INAPEM), Cabinet of Information and Industrial Promotion, The Angolan Institute for Normalisation and Quality, Foreign Investment Institute, Industrial Development Institute of Angola (IDIA), Cabinet of Privatisation (CARE) and Angolan Institute of Industrial Property.
Botswana	Botswana Development Corporation (BDC), Botswana Technology Centre (BTC), Rural Industries Promotions Botswana (RIPCO), The Development of Trade and Investment Promotion (TIPA), Botswana Confederation of Commerce Industry and Manpower (BOCCM).
Lesotho	Lesotho National Development Corporation (LNDC), Basotho Enterprise Development Corporation (BEDCO).
Malawi	The Malawi Development Corporation (MDC), The Export Processing Zones (EPZs), The Malawi Investment Promotion Agency (MIPA), Malawi Entrepreneurship Development Institute (MEDI); Malawi Export Promotion Council (MEPC), Development of Malawian Entrepreneurs Transfer (DEMAT), Small Enterprise Development Organisation (SEDOM), Malawi Bureau of Standards (MBS), Malawi Chamber of Commerce, Malawi Industrial and Technology Development Centre, Investment and Development Bank, the Reserve Bank of Malawi.
Mauritius	The Mauritius Standards Bureau (MBS), The Mauritius Export Development and Investment Authority (MEDIA), The Development Bank of Mauritius, The Export Processing Zone Development Authority (EPZDA), The Small and Medium Industries Development Organisation (SMIDO), Industrial and Vocational Training Board (IVTB), Ministry of Industry and Commerce.
Mozambique	Industrial Free Zones, The Investment Promotion Centre (CPI), The Technical Unit for Enterprise Restructuring (UTRE), Business Associations Working Commission (CTA), National Institute of Standardisation and Quality (INNOQ), Local Industry Development Institute (IDIL), The Mozambique Institute of Export Promotion (IPEX).
Namibia	The Namibia Investment Centre (NIC), The Namibian Development Corporation (NDC), The Namibian Export Processing Zone (EPZ), The Bank of Namibia, The Namibian Chamber of Commerce and Industry (NNCCI), Namibian Development Fund, Development of Research and The Polytechnic of Namibia.
South Africa	Industrial Development and Investment Centre (IDIC), Council for Scientific and Industrial Research (CSIR), Industrial Development Corporation (IDC), Small Business Development Corporation (SBDC).
Swaziland	Swaziland Industrial Development Company (SIDC), Tibiyo Taka Ngwane, The Swaziland Investment Promotion Authority (SIPA), Swaziland Chamber of Commerce, and the Trade Promotion Unit (TPU).
Tanzania	Tanzania Bureau of Standards (TBS), Board of External Trade, Tanzania Engineering and Manufacturing Design Organisation (TEMDO), Tanzania Industrial Studies and Consultancy Organisation (TISCO), Tanzania Industrial Research and Development Organisation (TIRDO), Centre for Agricultural Mechanisation and Rural Technology (CAMARTEC), The Tanzania Chamber of Commerce, Industries and Agriculture, The Tanzania Confederation of Industries, Tanzania Exporters Association, Tanzania Textile Association, Dar es Salaam Chamber of Commerce, the Investment Promotion Centre (IPC).
Zimbabwe	Confederation of Zimbabwe Industries (CZI), Zimbabwe National Chamber of Commerce (ZNCC), Indigenous Business Development Centre (IBDC), Zimbabwe Investment Centre (ZIC), Indigenous Business Women Organisation (IBWO), the Zimbabwe Export Processing Zone (EPZ), Zimbabwe Development Bank.
Seychelles	The Investment Development Advisory Services (IDEAS), The Development Bank of Seychelles (DBS), The Islands Development Company (IDC), The Seychelles International Business Authority (SIBA).
Zambia	The Zambia Privatisation Agency (ZPA), Zambia Investment Centre (ZIC), Zambia Development Corporation (ZDC), Zambia Small Scale Industries Organisation, Zambia Bureau of Standards.

Source: Own Table derived from SADC Industry and Trade Sector (1998:7-8, 10-11, 13, 15, 18, 21, 24, 26-29, 31, 34, 36); SADC (1999:124, 168, 180, 201, 218-9, 263, 302, 320, 338, 354-5).

APPENDIX 4

ADDITIONAL INFORMATION FOR CHAPTER FIVE

Table A-9: Gross fixed capital formation (GFCF) by kind of activity of owner in selected SADC countries (% of Total GFCF at current prices)
Mauritius

Economic sectors	Period												
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Agriculture, hunting, forestry and fishing	4.3	3.8	3.2	3.9	3.1	2.9	3.4	2.9	2.5	2.2	2.6	2.4	2.7
Manufacturing	13.9	16.7	12.8	13.4	13.6	14.3	19.6	14.6	15.9	14.7	15.5	13.8	14.5
Electricity, gas and water supply	8.9	3.5	5.8	7.2	9.6	4.3	6.5	8.8	6.8	5.3	4.4	4.7	5.2
Construction	2.2	2.6	2.2	2.3	1.4	2.1	2.3	1.8	2.2	1.7	0.8	2.0	1.8
Wholesale, retail, hotels and restaurants	11.6	11.2	11.8	14.5	14.5	12.4	14.4	16.1	18.4	17.0	21.0	15.8	19.6
Transport, storage and communication	16.6	18.4	23.4	15.7	16.0	28.1	16.3	24.7	16.1	22.0	14.8	15.6	11.7
Finance, real estate, business services	31.8	33.6	31.6	32.4	29.2	23.6	27.6	23.1	26.7	24.2	25.8	28.1	26.8
Community, social and personal service	2.9	2.9	2.6	3.2	3.0	3.2	2.1	1.4	3.8	4.1	4.5	6.5	4.7
Others	7.8	7.3	6.6	7.4	8.6	9.1	7.8	6.6	7.6	8.8	10.6	11.1	13.0
All sectors	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

South Africa

Economic sectors	Period													
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Agriculture, forestry and fishing	4.0	3.4	3.0	3.6	4.0	3.8	4.3	3.7	3.1	3.0	3.1	3.2	4.0	3.5
Mining and quarrying	13.2	12.9	11.1	8.3	9.1	8.5	8.0	8.5	8.9	9.2	10.0	10.2	10.8	11.9
Manufacturing	24.8	22.8	23.3	23.2	23.3	25.1	24.3	23.4	21.5	23.1	23.0	22.9	22.2	20.9
Electricity, gas and water	9.1	7.5	7.9	7.2	7.5	8.1	8.3	7.6	5.4	4.9	4.1	3.8	3.9	4.4
Construction	1.4	1.5	1.3	1.2	1.1	1.0	1.0	1.0	0.9	0.9	0.9	1.0	1.0	1.0
Wholesale, retail trade and hotels	5.6	6.1	6.6	6.6	6.4	6.1	6.5	5.8	5.7	7.0	7.2	6.7	6.7	6.6
Transport, storage and communication	7.3	9.1	8.8	12.2	11.1	10.7	10.6	12.1	18.4	14.7	14.1	14.3	13.9	14.3
Finance, insurance, real estate, business	21.7	21.6	22.5	22.8	23.4	23.0	23.3	23.7	22.3	22.0	23.7	24.0	23.6	23.3
Community, social and personal service	12.9	15.1	16.4	15.0	14.1	13.8	13.8	14.2	13.9	15.2	13.9	13.9	13.9	14.1
All sectors	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Own calculations from South African Reserve Bank (2004:S-120; 2003:S-116; 2001:S-116; 1999:S-116); United Nations (1999:1561); Central Statistical Office of Mauritius (1999:83; 2000:83); Central Statistics Office of Mauritius (2004a; 2004b) [online]. Available: <http://ncb.intnet.mu/cso.htm>

Gross fixed capital formation (GFCF) by kind of activity of owner in selected SADC countries (% of Total GFCF at current prices)

Zimbabwe

Economic sectors	Period								
	1989	1990	1991	1992	1993	1994	1995	1996	1997
Agriculture and forestry	12.4	12.0	14.8	13.6	8.8	10.4	10.0	8.4	5.6
Mining and quarrying	5.9	4.3	4.5	6.7	5.2	6.5	13.2	15.4	7.9
Manufacturing	34.6	26.0	34.9	28.1	27.2	31.4	28.2	32.2	40.7
Electricity and water	5.0	4.3	3.1	4.9	4.7	6.0	9.0	7.1	8.7
Construction	10.4	13.2	9.8	9.5	6.1	4.8	2.8	2.5	2.5
Distribution, hotels & restaurants	6.1	5.2	4.8	7.5	10.5	12.1	10.1	9.5	5.8
Transport and communication	11.5	11.5	11.3	12.0	12.5	7.8	8.8	8.1	10.0
Finance, insurance and real estate	12.1	19.5	12.5	13.1	15.6	14.7	11.6	13.5	11.5
Others	2.0	4.0	4.3	4.6	9.4	6.3	6.3	5.3	7.3
All sectors	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Namibia

Economic sectors	Period								
	1993	1994	1995	1996	1997	1998	1999	2000	2001
Agriculture and fishing	7.4	5.7	7.6	7.4	7.9	8.7	8.5	9.6	8.9
Mining and quarrying	13.1	9.6	10.7	16.0	13.3	11.6	13.9	18.6	14.4
Manufacturing	12.9	9.8	8.2	7.0	8.9	10.1	6.5	8.7	6.5
Electricity and water	3.1	2.8	2.3	4.2	4.2	6.0	9.5	3.1	20.1
Construction	2.6	4.8	4.2	3.7	4.4	5.4	3.4	3.5	2.8
Wholesale, retail, restaurants, hotels	2.9	6.9	11.2	6.0	5.4	4.5	3.2	5.0	4.8
Transport and communication	6.8	10.2	7.4	7.9	14.5	22.0	23.6	15.4	10.2
Finance, real estate, business services	23.1	24.1	22.8	26.9	15.5	12.0	11.3	14.4	12.5
Community, social & personal services	1.0	0.9	0.9	0.6	0.8	1.1	0.5	0.4	0.3
Producers of government services	27.1	25.2	24.7	20.3	25.1	18.6	19.6	21.3	19.5
All sectors	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Central Statistical Office of Zimbabwe (2002:22). Own calculations from Republic of Namibia National Planning Commission and Central Bureau of Statistics (2002:19).

Gross fixed capital formation by kind of activity of owner in Tanzania (current prices)

Economic sectors	Period of time							
	1987	1988	1989	1990	1991	1992	1993	1994
Agriculture, hunting, forestry and fishing	3.0	2.6	2.5	3.2	4.8	4.6	4.1	4.3
Mining and quarrying	0.3	0.7	0.2	0.2	0.2	0.3	0.3	0.3
Manufacturing	27.7	21.3	22.9	25.5	23.7	23.5	24.0	24.4
Electricity, gas and water	18.2	24.8	25.6	17.8	16.1	14.8	15.2	13.6
Construction	11.1	9.5	9.8	12.0	11.1	11.5	11.9	12.2
Wholesale & retail trade, restaurants, hotels	1.5	5.1	2.2	1.0	1.0	0.8	0.9	1.0
Transport and communication	31.4	28.3	28.8	34.0	31.4	32.4	33.1	33.5
Finance, insurance, real estate & business	1.6	3.8	4.0	2.1	6.8	5.8	4.2	4.4
Community, social & personal services	5.2	3.9	4.0	4.2	4.9	6.3	6.3	6.3
All industries	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Own calculations from United Nations (1999:2442).

Percentage shares of annual capital investments (fixed assets) by industry in Malawi (current prices)

Economic sectors	Period of time							
	1994	1995	1996	1997	1998	1999	2000	2001
Agriculture	5.7	8.3	5.6	4.8	5.6	5.0	5.4	3.5
Mining and quarrying	0.2	0.2	0.3	0.4	1.0	0.1	0.5	0.1
Manufacturing	38.8	25.5	27.1	28.8	29.3	18.9	27.0	20.1
Electricity and water	23.4	33.0	32.4	37.9	35.8	8.9	6.0	18.5
Building and construction	1.2	0.7	0.6	0.4	0.7	1.4	3.0	7.2
Distribution	17.2	18.1	17.6	12.8	12.5	12.3	20.1	28.5
Transport and communication	4.7	3.5	4.6	3.4	2.4	45.8	25.1	4.0
Finance and real estate	6.6	6.3	7.1	7.4	6.6	7.2	12.1	17.7
Community and social services	2.2	4.4	4.8	4.0	6.0	0.4	0.8	0.4
All industries	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: National Statistical Office of Malawi (2004a; 2004b) [online]. Available: <http://www.nso.malawi.net>

Table A-10: Producer capital goods as a percentage (%) of gross fixed capital formation at current prices (up to the most recent year for which statistical data were available)

South Africa

The components of capital stock	Period											
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Transport equipment	14.60	15.19	15.02	15.89	14.11	14.15	15.18	12.24	13.39	13.33	12.27	12.56
Machinery and other equipment	39.63	43.01	44.24	45.68	47.44	48.13	49.50	51.62	49.68	49.42	50.41	49.96
Total machinery and equipment	54.23	58.20	59.26	61.57	61.55	62.28	64.68	63.86	63.07	62.75	62.68	62.52

Source: Own calculations from Own calculations from South Africa Reserve Bank (1999:S-120; 2001:S-120; 2004:S-124).

Mauritius

The components of capital stock	Period											
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Transport equipment	13.02	11.65	18.61	8.90	9.74	23.29	11.54	18.25	9.95	15.14	10.51	12.65
Other machinery and equipment	30.15	32.30	27.82	30.08	35.23	29.79	36.34	36.00	36.02	31.39	32.27	28.10
Total machinery and equipment	43.17	43.95	46.43	38.98	44.97	53.08	47.88	54.25	45.97	46.53	42.78	40.75

Source: Own calculations from Central Statistical Office of Mauritius (1999:83; 2000:83); Central Statistical Office of Mauritius (2004a; 2004b) [Online] Available: <http://ncb.intnet.mu/cso.htm>.

Zimbabwe

The components of capital stock	Period										
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Transport equipment	16.30	17.28	14.24	12.95	13.66	13.83	14.68	11.02	9.31	6.94	9.41
Other equipment, plant and machinery	30.76	33.65	39.92	44.58	48.16	49.13	54.06	53.25	43.75	48.71	49.16
Total machinery and equipment	47.06	50.93	54.16	57.53	61.82	62.96	68.74	64.27	53.06	55.65	58.57

Source: Own calculations from Central Statistical Office of Zimbabwe (2000b:21; 2002:21).

Namibia

The component of capital stock	Period								
	1993	1994	1995	1996	1997	1998	1999	2000	2001
Transport equipment	15.05	12.86	13.95	12.39	14.48	21.99	30.23	15.74	14.34
Machinery and other equipment	18.05	20.71	20.62	22.94	25.55	21.34	20.59	29.55	26.94
Total machinery and equipment	33.10	33.57	34.57	35.33	40.03	43.33	50.82	45.29	41.28

Source: Own calculations from Republic of Namibia National Planning Commission and Central Bureau of Statistics (2002:20).

Botswana

The component of capital stock	Period								
	1993/1994	1994/1995	1995/1996	1996/1997	1997/1998	1998/1999	1999/2000	2000/2001	2001/2002
Transport equipment	9.39	16.31	16.26	13.99	15.83	11.41	9.57	10.25	9.20
Machinery and other equipment	29.96	24.61	25.70	29.24	30.74	35.96	40.73	37.56	40.91
Total machinery and equipment	39.35	40.92	41.96	43.23	46.57	47.37	50.30	47.81	50.11

Source: Own calculations from Central Statistical Office of Botswana (2003) [Online] Available: <http://www.gov.bw/cso>; Central Statistical Office of Botswana (2004) [Online] Available: <http://www.cso.gov.bw>.

Notes: Countries were selected on availability of statistical data.

Table A-11a: Foreign direct investment inflows into individual SADC countries (US \$ million) and the corresponding FDI:GFCF ratios (%) (most recent statistical data)

SADC countries	Period for most recent statistical data							
	1990-1995 ^a	1996	1997	1998	1999	2000	2001	2002
Angola								
FDI inflow	260	181	412	1 114	2 471	879	2 146	1 312
FDI:GFCF	39.3	9.0	21.1	48.6	86.8	28.0	66.7	n/a
Botswana								
FDI inflow	-24	70	100	90	37	54	26	37
FDI:GFCF	-2.4	6.4	8.6	7.4	2.7	4.2	2.2	3.0
The Democratic Republic of Congo								
FDI inflow	-3	25	-44	61	11	23	1	32
FDI:GFCF	-0.3	5.9	-8.7	13.5	1.2	1.8	0.1	n/a
Lesotho								
FDI inflow	213	286	32	27	33	31	28	24
FDI:GFCF	44.4	52.0	5.6	6.1	7.5	8.2	8.7	11.2
Malawi								
FDI inflow	15	44	-1	-3	46	-33	-20	n/a
FDI:GFCF	5.5	19.6	-0.4	-1.4	20.7	-14.3	-10.5	n/a
Mauritius								
FDI inflow	21	37	55	12	49	277	32	28
FDI:GFCF	2.4	3.3	5.0	1.3	4.2	25.9	3.2	2.7
Mozambique								
FDI inflow	28	73	64	235	382	139	255	406
FDI:GFCF	6.3	13.1	10.5	27.4	30.0	10.8	23.0	24.0
Namibia								
FDI inflow	96	129	84	77	111	153	275	181
FDI:GFCF	16.7	15.7	11.7	9.9	14.3	23.8	39.9	n/a
Swaziland								
FDI inflow	63	22	-15	152	100	39	78	107
FDI:GFCF	26.6	6.1	-3.5	34.6	20.5	10.4	34.0	n/a
Tanzania								
FDI inflow	39	149	158	172	517	463	327	240
FDI:GFCF	3.7	13.9	14.0	12.8	38.9	29.3	20.8	14.5
Zambia								
FDI inflow	122	117	207	198	163	122	72	197
FDI:GFCF	26.9	8.2	14.1	41.3	32.5	21.2	10.1	25.8
Zimbabwe								
FDI inflow	34	81	135	444	59	23	4	26
FDI:GFCF	2.1	4.2	8.0	44.0	7.2	2.6	0.5	7.5
Total excluding South Africa								
FDI inflow	861	1 214	1 187	2 179	3 879	2 170	3 224	2 588
FDI:GFCF	14.3	13.1	7.2	20.5	22.2	12.7	16.6	7.4
South Africa								
FDI inflow	301	818	3 817	561	1 502	888	6 789	754
FDI:GFCF	1.3	3.5	15.5	2.5	7.4	4.7	40.5	4.8
Total for SADC including South Africa								
FDI inflow	1 165	2 032	5 004	2 740	5 381	3 058	10 013	3 342
FDI:GFCF	14.4	13.4	8.4	20.7	22.8	13.0	19.7	7.8

Source: United Nations (2003:249-250, 269-271; 2002:303-304, 320-322).

Notes: ^a = Annual average for the period 1990 - 1995.
GFCF = see footnote 8 in the previous page for definition.

Table A-11b: Investment climate within the SADC region (1997, 2001 and 2002)

SADC countries	Composite ICRG risk rating ¹			Institutional investor credit rating ²			Euromoney credit worthiness rating ³		
	December			September			September		
	1997	2001	2002	1997	2001	2002	1997	2001	2002
Angola	44.8	50.5	53.8	13.6	12.1	14.0	22.7	20.1	23.6
Botswana	81.0	78.5	79.3	51.2	56.7	59.0	53.4	60.7	64.7
D. R. C.	35.3	50.3	47.3	..	7.5	8.7	..	6.5	14.1
Lesotho	..	..	..	..	23.9	26.8	32.1	34.5	33.5
Malawi	66.5	60.0	53.5	21.0	17.9	19.6	30.5	26.1	28.8
Mauritius	..	..	..	51.9	53.9	53.5	71.3	57.4	58.8
Mozambique	48.5	59.0	61.3	14.6	18.1	19.1	24.1	30.0	32.7
Namibia	81.0	76.3	76.5	..	39.1	40.8	33.0	22.8	26.6
South Africa	73.8	68.8	68.8	46.4	49.5	52.7	67.8	57.7	59.1
Swaziland	..	..	..	..	27.0	28.2	..	34.3	33.6
Tanzania	63.3	57.5	58.0	18.7	20.6	21.3	32.6	31.7	34.2
Zambia	64.3	53.5	48.0	16.0	16.0	15.8	24.0	26.5	26.0
Zimbabwe	63.3	39.0	37.0	33.8	13.0	11.9	40.9	23.2	22.3
Average	62.2	59.3	58.4	29.7	27.3	28.6	39.3	33.2	35.2

Source: World Bank (2003a:262-264; 2002b:284-286; 1998:262-264).

Notes: A higher number means lower risk, i.e. a good prospect.

¹ = International Country Risk Guide (ICRG) collects information on 22 components of risk, groups it into three major categories (politics, financial, and economic), and converts it into a single numerical risk assessment ranging from 0 to 100 (highest risk to lowest). Ratings below 50 indicate very high risk, and those above 80 very low risk. Ratings are updated monthly (World Bank, 2003a:265).

² = the credit ratings are based on information provided by leading international banks. Responses are weighed using a formula that gives that gives more importance to responses from banks with greater worldwide exposure and more sophisticated country analysis systems. Ratings are on a scale 0 to 100 (highest risk to lowest), and are updated every six months (World Bank, 2003a:265).

³ = based on 9 weighted categories (covering debt, economic performance, political risk, and access to financial and capital markets) that assess country risk. Ratings on a scale 0 to 100 (highest risk to lowest) are based on polls of economists and political analysts supplemented by quantitative data such as debt ratios and access to capital markets (World Bank, 2003a:265).

.. = statistical data not available.

Assessment using the composite ICRG risk rating

The most favourable investment environments were Botswana, Namibia and South Africa, in that order. While the rest of the region was categorised as very high risk investment environments, countries with the worst investment environments were Zimbabwe, the Democratic Republic of Congo, and Angola, in that order.

Assessment using the institutional investor credit rating

Botswana and Mauritius, in that order, were the only least risky (with ratings above 50). South Africa's performance continued to improve from 1997, achieving a rating of 52.7 in 2002. Countries with the worst investment climate according to leading international banks were the Democratic Republic of Congo, Angola and Zimbabwe.

Assessment based on the euromoney credit worthiness rating

Botswana, South Africa and Mauritius, in that order, were the least risky economies with ratings above 50 throughout this period. While the rest of the region was regarded as very high risk, the Democratic Republic of Congo, Angola and Zimbabwe, in that order, were extremely risky, as such portraying the worst investment environments.

Table A-12: Sectoral distribution of FDI in the SADC region

(a) Sectoral distribution of FDI in South Africa (1994-2000)

Sectoral distribution of FDI in 1994	
Economic sectors	% of total FDI
Agriculture, Forestry and Fishing	0.87
Mining	5.44
Manufacturing	41.32
Construction	1.56
Trade and Accommodation	18.59
Transport and Communication	1.29
Finance, Insurance and Business services	30.81
Social services	0.12
Total	100.00
Sectoral distribution of FDI in 1998	
Industries and economic sectors	% of total FDI
Other Manufacturing	5.35
Metal products and mineral beneficiation	5.55
Hotel, Leisure, Gaming	6.03
Chemicals, Plastics and Rubber	7.18
Mining and Quarrying	8.13
Transport and Equipment	9.32
Motor vehicle and Components	11.37
Food, Beverages and Tobacco	11.58
Energy and Oil	17.49
Telecommunication and Information technology	18.00
Total	100.00
Sectoral distribution of FDI in 1994-1999	
Industries and economic sectors	% of total FDI
Transport and Telecommunication	18.11
Energy and oil sector	17.49
Motor and components sector	11.73
Food, Beverages and Tobacco	11.52
Transport and Transport equipment	9.26
Mining and Quarrying	8.02
Chemicals, Plastics and Rubber products	7.00
Hotel, Leisure and Gaming	5.97
Metal products and mineral fabrication	5.55
Other manufacturing	5.35
Total	100.00
Sectoral distribution of FDI in 2000	
Industries and economic sectors	% of total FDI
Food, Beverages and Tobacco	22.72
Motor and Components	18.65
Professional services	18.15
Telecommunication and Information technology	10.56
Mining and Quarrying	10.75
Textiles, Leather and Footwear	5.91
Hotel, Leisure and Gaming	5.10
Transport and Transport equipment	3.80
Financial services	2.82
Media, Print and Publishing	1.54
Total	100.00

Source: Own calculations from Development Bank of Southern Africa (1997); Cassim (2000:14); Vickers (2002:8); Trade and Industry Policy Secretariat (2000:106).

(b) Sectoral distribution of FDI in Mozambique (1990 – 1999)

Economic sectors	Sectoral distribution of FDI (% of total FDI flows into the country up to the most recent year for which statistical data is available)									
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Agriculture	42.15	55.88	11.56	2.09	4.47	13.12	13.51	6.82	17.54	7.82
Fishing	13.57	0.59	1.31	26.76	1.51	3.10	0.60	1.08	1.21	1.12
Mining	6.55	0.00	0.00	22.17	21.60	0.00	0.00	0.00	0.03	0.00
Total primary sector	62.27	56.47	12.87	51.02	27.58	16.22	14.11	7.90	18.78	8.94
Secondary sector	9.00	9.15	65.57	11.43	28.02	49.70	56.87	87.92	42.47	23.51
Construction	3.77	2.95	0.00	0.47	29.34	0.30	4.09	0.99	0.21	14.61
Transport, communication	5.85	17.17	0.65	9.83	0.40	9.75	4.22	0.69	6.90	1.81
Tourism	18.68	0.45	0.00	15.04	5.18	22.21	18.85	1.69	4.18	17.17
Finance	0.00	0.00	20.54	4.34	9.10	0.00	0.99	0.43	24.87	0.67
Total tertiary sector	28.30	20.57	21.19	29.68	44.02	32.26	28.15	3.80	36.16	34.26
Unspecified	0.43	13.81	0.37	7.87	0.38	1.82	0.87	0.38	2.59	33.29
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Own calculations from UNCTAD (2004d:7).

Notes: Statistical data relate to approved projects (UNCTAD, 2004d:7).

(c) Sectoral distribution of FDI in Tanzania (1996–2002)

Economic sectors	Percentage (%) of total annual FDI up to most recent year						
	1996	1997	1998	1999	2000	2001	2002
Agriculture and Livestock	1.12	2.71	23.88	10.06	4.28	4.87	4.66
Natural resources	3.43	20.59	3.56	2.42	1.79	0.90	1.27
Tourism	5.34	6.81	9.05	5.70	2.66	3.63	8.36
Manufacturing	48.97	29.97	36.33	30.24	9.00	11.43	19.04
Petroleum and Mining	1.24	28.77	5.49	6.90	1.64	3.57	3.77
Construction	2.00	3.44	4.10	22.28	7.66	3.02	55.09
Transportation	2.39	2.11	7.27	3.57	4.14	2.76	2.35
Services	5.74	5.35	2.91	6.73	5.38	2.07	2.53
Computers	0.00	0.00	0.00	0.04	0.14	0.48	0.26
Financial institutions	1.69	0.25	1.43	1.19	1.08	0.58	0.27
Telecommunication	2.14	0.00	5.63	1.75	61.69	66.56	1.78
Energy	25.94	0.00	--	--	0.00	0.00	0.06
Human resources	--	--	0.35	9.12	0.54	0.13	0.56
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: Own calculations from Kuwite (2003).

(d) Sectoral distribution of FDI in Zambia (1995 - 2001)

Economic sectors	Percentage (%) of total foreign direct investment and number of projects up to the most recent year for which statistical data is available						
	1995	1996	1997	1998	1999	2000	2001
Agriculture (% FDI)	25.83	54.81	10.73	4.28	19.66	10.94	23.93
Number of projects	79	39	33	25	20	21	15
Mining (% FDI)	0.97	0.00	2.10	24.18	6.75	2.80	13.15
Number of projects	5	0	1	1	4	3	6
Manufact. (% FDI)	29.69	28.83	40.89	14.36	19.59	48.30	31.91
Number of projects	87	39	61	53	43	47	28
Services (% FDI)	43.51	16.36	46.28	57.18	54.00	37.96	31.01
Number of projects	69	35	49	55	44	40	26
Total (% FDI)	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Number of projects	240	113	144	134	111	111	75

Source: Own calculations from Consumer Unity and Trust Society (2003a:15).

(e) Sectoral distribution of FDI in Mauritius (1990 – 2000)

Economic sectors	FDI flows (% of total FDI) up to the most recent year										
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Tertiary	69.29	83.84	93.04	90.04	47.22	96.92	21.43	98.11	75.00	43.60	99.41
Unspecified	30.71	16.16	6.96	9.96	52.78	3.08	78.57	1.89	25.00	56.40	0.59
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Sectoral distribution within the tertiary sector (% of total FDI flows into this sector)											
Trade	63.98	52.21	94.86	37.70	24.12	77.78	36.17	0.00	12.33	55.35	0.11
Hotels, restaurants	36.02	27.31	3.74	62.30	75.88	22.22	24.82	1.75	34.25	4.98	0.14
Finance	0.00	20.48	1.40	0.00	0.00	0.00	39.01	98.25	53.42	39.67	0.00
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0^a

Source: Own calculations from UNCTAD (2004g:8).

Notes: ^a = Transport, storage and communications received FDI in 2000, i.e. 7 204 million rupees, thus accounting for 99.75 of the FDI into the tertiary sector (UNCTAD, 2004g:8).

(f) Sectoral distribution of FDI in Namibia (1998 – 2001*)

Economic sectors	Percentage (%) of total FDI inflows			
	1998	1999	2000	2001
Agriculture, Hunting, Forestry, Fishing	5.24	8.90	5.43	3.68
Mining and quarrying	67.85	47.06	38.27	52.18
Manufacturing	4.99	8.02	6.59	9.57
Electricity	0.00	0.00	0.25	0.00
Construction	0.38	0.29	0.34	0.28
Wholesale & Retail trade, Catering and Accom. services	13.45	26.73	31.49	27.97
Transport, Storage and Communication	0.27	0.82	1.43	2.42
Finance, Insurance, Real estate, Business services	7.76	8.13	16.11	3.90
Community, Social and Personal services	0.06	0.05	0.09	0.00
Total	100.00	100.00	100.00	100.00

Source: Own calculations from Nuyoma (2003:2-5).

Notes: * = most recent years for which statistical data were available and presented by the country upon request.

(g) Sectoral distribution of FDI in Zimbabwe (1995-2002)

Economic sectors	Percentage (%) of total annual FDI up to most recent year							
	1995	1996	1997	1998	1999	2000	2001	2002
Manufacturing	41.7	7.7	28.9	9.6	54.2	55.2	14.7	47.4
Mining	13.0	36.7	10.9	7.1	8.2	11.3	62.3	4.1
Agriculture*	6.3	7.1	1.3	0.1	0.3	1.3	2.0	0.0
Tourism	19.5	27.6	6.3	5.2	7.3	8.1	4.6	5.7
Construction	0.4	9.9	26.4	18.2	1.0	1.3	0.2	0.0
Commercial services	19.1	10.5	25.7	57.9	28.5	19.2	15.6	42.8
Transport	0.0	0.5	0.5	1.9	0.5	3.6	0.6	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Own Table derived from Zimbabwe Investment Centre (2003c).

Notes: * = includes forestry and fishing.

(h) Sectoral distribution of FDI in Botswana (1997-2001)

Economic sectors	Selected years up to most recent year (% of total FDI stock)				
	1997	1998	1999	2000	2001
Primary sector	77.29	79.97	75.29	78.95	80.78
Mining and quarrying	77.29	79.97	75.29	78.95	80.78
Secondary	7.03	5.43	3.72	3.49	2.63
Tertiary sector	15.20	13.78	19.94	17.56	16.58
Unspecified	0.48	0.82	1.05	0.00	0.01
Total	100.00	100.00	100.00	100.00	100.00
Sectoral distribution of FDI within the tertiary sector (% of total FDI stock in this sector)					
Electricity, gas and water	1.31	0.95	0.00	0.00	0.00
Trade	29.51	46.39	45.80	44.60	37.72
Hotels and restaurants	8.27	7.10	5.67	4.33	7.82
Transport, storage & communication	5.83	5.56	2.94	6.06	5.56
Finance	42.86	26.75	35.75	35.72	42.24
Business activities and real estate	12.22	13.25	9.84	9.29	6.66
Total	100.00	100.00	100.00	100.00	100.00

Source: Own calculations from UNCTAD (2004e:7).

Notes: Years were selected on availability of statistical data.

(i) Sectoral distribution of FDI in Swaziland (1991 – 2000)

Economic sectors	Percentage (%) of total FDI inflows in selected years up to most recent year									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Manufacturing	52.30	53.08	54.95	53.52	60.03	56.18	54.40	59.46	66.09	64.29
Services	14.04	14.45	14.45	12.37	12.68	12.90	15.56	13.80	10.76	10.83
Investment	15.52	13.84	13.89	20.59	13.23	13.86	10.31	9.46	6.20	5.53
Agriculture	13.20	14.11	10.67	8.08	10.22	11.59	13.29	12.23	13.63	14.98
Finance	3.51	3.02	4.47	3.74	3.52	5.10	5.79	3.40	2.28	3.16
Mining	1.43	1.50	1.57	1.70	0.32	0.37	0.65	1.65	1.04	1.21
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Own calculations from SADC (1999:302; 2002a:318).

(j) FDI into SADC by industry, 1996 - 1998 (% of total FDI)

FDI into SADC (only years for which data were available from source)			
Economic sectors and industries	1996	1997	1998
Metal products and minerals	0.0	58.2	56.4
Mining	17.8	26.9	27.8
Energy and oil	69.1	0.5	0.4
Food, beverages and tobacco	5.9	8.7	2.4
Agriculture, forestry and fishing	4.3	1.2	2.1
Telecommunications and Information technology	0.0	0.1	2.1
Hotel, leisure and gaming	0.8	0.2	3.6
All other combined	2.1	4.2	5.2
Total	100.0	100.0	100.0

Source: Wolf (2002:4).

Notes: Amounts include intentions and actual investments.

APPENDIX 5: ADDITIONAL INFORMATION FOR CHAPTER SIX

Table A-13: Share of manufacturing sector to GDP (%) and growth of manufacturing value-added (MVA) (% annual growth rate)

	Selected years up to the most recent year for which statistical data is available											
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Angola												
% GDP	12.8	12.5	5.7	4.9	4.0	3.4	4.4	6.5	3.5	2.9	n/a	4.3
MVA	4.8	1.2	-5.8	-10	-11	2.6	9.3	5.0	n/a	n/a	10.0	n/a
Botswana												
% GDP	4.0	4.0	4.9	4.5	4.9	5.0	4.9	4.8	4.5	5.0	n/a	4.4
MVA	6.6	6.4	-1.0	-1.3	4.3	6.6	5.2	4.7	5.4	n/a	-0.1	2.0
Lesotho												
% GDP	12.8	12.5	14.6	13.8	15.2	15.3	15.7	17.0	16.6	15.2	n/a	16.5
MVA	4.8	1.2	8.6	8.6	20.4	14.1	9.0	10.4	n/a	n/a	7.5	8.9
Malawi												
% GDP	13.0	15.0	11.8	17.4	16.1	14.2	13.6	13.2	-0.4	1.6	n/a	0.9
MVA	3.0	3.5	-6.4	-4.0	1.3	3.5	-9.8	-2.9	n/a	n/a	-14	-11
Mauritius												
% GDP	23.1	12.5	23.2	23.3	23.7	24.2	24.4	24.7	25.0	23.6	n/a	22.5
MVA	4.6	6.6	4.8	4.6	5.9	6.2	5.7	6.1	3.3	n/a	6.7	2.3
Mozambique												
% GDP	n/a	11.3	15.5	11.2	13.3	14.5	15.4	14.7	9.8	12.0	14.2	n/a
MVA	n/a	n/a	-6.7	-6.0	13.3	13.6	115.1	124.9	133.0	n/a	27.2	6.2
Namibia												
% GDP	n/a	7.4	13.2	12.5	12.4	10.1	14.2	10.8	16.5	10.2	9.6	n/a
MVA	5.2	9.1	11.5	11.6	7.2	0.1	1.1	5.3	n/a	n/a	5.9	6.3
South Africa												
% GDP	25.0	25.0	23.5	23.4	24.3	23.7	23.9	23.7	18.2	18.6	n/a	18.8
MVA	-4.6	-3.3	1.0	2.7	6.3	0.9	3.2	-2.7	0.2	n/a	3.6	4.0
Swaziland												
% GDP	n/a	n/a	27.4	27.6	27.8	25.8	25.9	35.9	36.9	24.9	25.1	n/a
MVA	1.9	2.4	0.7	5.9	4.6	1.8	5.4	1.2	n/a	n/a	0.9	1.6
Tanzania												
% GDP	8.2	8.1	7.5	7.4	7.2	7.4	6.9	8.4	8.3	7.5	7.4	n/a
MVA	4.3	1.9	15.2	30.9	27.4	26.8	16.1	8.0	3.6	n/a	5.0	7.8
Zambia												
% GDP	36.0	36.0	26.4	24.7	9.9	11.8	11.8	12.0	10.7	10.0	10.0	n/a
MVA	-7.6	-4.2	-8.3	-12	-6.6	3.9	11.4	13.5	1.9	n/a	4.2	5.8
Zimbabwe												
% GDP	20.0	20.1	21.0	19.1	19.2	15.7	15.4	15.2	n/a	17.4	17.7	n/a
MVA	2.9	-8.9	-7.8	10.0	-12	4.6	2.5	0.7	n/a	n/a	-19	-12

Source: Own Table derived from SADC Industry and Trade Sector (1999:7; 2000:8; 2001:9); SADC (2002a:43); Hess (2004:12, 13).

Notes: GDP = Percentage (%) share of manufacturing sector to GDP.
MVA = Growth of manufacturing value added (% annual growth rate).
n/a = statistical data not available.
- = statistical figure is between 0 and +/- 0.5 (SADC, 2002a:43).

Table A-14: Number of industrial establishments by industrial sector (1980 – 1999*)

Selected SADC countries	Food products (311)			Textiles (321)			Leather products (323)			Fabricated metals products (381)			Machinery, except electrical (382)			Other manufactured products (390)		
	1980	1990	1999	1980	1990	1999	1980	1990	1999	1980	1990	1999	1980	1990	1999	1980	1990	1999
Botswana	26	51	140	40	72	189	16	17	18	21	43	144	n/a	n/a	n/a	42	56	178
Lesotho	11	26	90	8	351	30	n/a	55	1	4	74	13	n/a	n/a	5	3	29	n/a
Malawi	27	12	20	8	6	7	n/a	1	3	12	9	10	1	4	5	n/a	n/a	n/a
Mauritius	162	223	114	13	42	50	5	10	9	n/a	39	37	10	5	13	19	70	51
Mozambique	51	69	46	18	21	4	4	3	4	22	17	11	8	13	n/a	1	2	1
South Africa	1 786	1 881	n/a	705	911	n/a	161	180	n/a	2 958	3 955	n/a	1 894	2 569	n/a	932	1 130	
Swaziland	11	9	n/a	35	16	n/a	n/a	n/a	1	23	27	17	3	5	n/a	6	4	4
Tanzania	145	147	n/a	79	87	n/a	12	8	n/a	43	85	n/a	15	31	n/a	13	20	n/a
Zambia	90	105	149	28	31	28	3	4	3	61	67	77	18	9	18	15	8	8
Zimbabwe	159	99	97	71	50	45	14	13	16	206	171	175	37	42	36	63	46	42

Source: Hess (2004:166,169, 171, 188-9, 193).

Notes: * = in the most recent publication available, 1999 is the most recent year for which this statistical data is available.
 Countries were selected on availability of statistical data.
 Countries were grouped according to the industries they have in common.

Selected SADC countries	Pottery, china and earthenware (361)			Glass products (362)			Iron and steel (371)			Machinery electric (383)			Transport equip (384)			Professional & scientific equip (385)		
	1980	1990	1999	1980	1990	1999	1980	1990	1999	1980	1990	1999	1980	1990	1999	1980	1990	1999
Mauritius	1	3	2	1	1	3	36	8	8	10	23	17	5	6	11	9	13	16
Mozambique	1	1	n/a	1	3	1	10	10	5	5	9	3	5	9	2	n/a	1	1
South Africa	81	123	n/a	58	76	n/a	211	178	n/a	845	1 201	n/a	1 099	1 258	n/a	215	288	n/a
Tanzania	23	3	n/a	n/a	1	n/a	5	2	n/a	7	9	n/a	26	40	n/a	n/a	4	n/a
Zambia	2	4	1	2	n/a	1	5	5	10	20	12	10	16	8	11	n/a	n/a	1
Zimbabwe	7	5	4	5	5	5	26	22	19	77	60	53	58	56	50	14	13	9

Source: Hess (2004:183-4, 186, 190-2, 181-2).

Notes: Countries were selected on availability of statistical data.
 Countries were grouped according to the industries they have in common

Selected SADC countries	Tobacco (314)			Wearing apparel ¹ (322)			Footwear ² (324)			Rubber products (355)			Plastics (356)		
	1980	1990	1999	1980	1990	1999	1980	1990	1999	1980	1990	1999	1980	1990	1999
Malawi	6	4	1	12	8	5	2	1	1	2	7	5	5	n/a	6
Mauritius	1	1	1	99	401	352	9	16	14	9	10	9	11	35	32
Mozambique	5	4	2	35	23	7	14	8	5	6	5	3	13	6	4
South Africa	13	11	n/a	1 231	1 631	n/a	166	264	n/a	95	185	n/a	507	837	n/a
Tanzania	3	3	n/a	63	53	n/a	13	9	n/a	9	7	n/a	5	8	n/a
Zambia	1	n/a	2	108	34	46	6	n/a	9	4	8	6	10	9	13
Zimbabwe	19	8	5	118	111	91	19	14	14	20	12	14	31	22	20

Source: Hess (2004:168, 170, 172, 181, 182)

Notes: ¹ = except footwear. ² = except rubber or plastic.
 Countries were selected on availability of statistical data.
 Countries were grouped according to the industries they have in common.

Selected SADC countries	Furniture, except metal (332)			Printing & publishing (342)			Other chemicals (352)			Other non-metallic (369)		
	1980	1990	1999	1980	1990	1999	1980	1990	1999	1980	1990	1999
Lesotho	8	92	12	3	6	20	3	14	2	6	41	21
Malawi	3	n/a	n/a	7	n/a	n/a	8	7	13	4	3	2
Mauritius	17	33	32	41	30	49	16	28	24	27	15	33
Mozambique	31	27	10	25	24	13	5	18	10	4	10	10
South Africa	1 092	1 516	n/a	1 338	1 627	n/a	597	663	n/a	1 073	1 155	n/a
Tanzania	60	133	n/a	49	53	n/a	32	39	n/a	n/a	17	n/a
Zambia	18	12	33	25	23	41	23	25	37	15	13	24
Zimbabwe	60	44	45	77	69	70	52	47	45	43	33	35

Source: Hess (2004:174, 176, 178,185).

Notes: Countries were selected on availability of statistical data.
 Countries were grouped according to the industries they have in common.

Selected SADC countries	Beverages (313)			Wood products (331)			Paper and paper products (341)			Industrial chemicals (351)		
	1980	1990	1999	1980	1990	1999	1980	1990	1999	1980	1990	1999
Botswana	2	7	7	16	25	59	10	18	75	11	21	48
Malawi	4	4	5	4	5	5	2	9	11	3	6	3
Mauritius	14	13	14	7	17	11	3	15	16	4	11	8
Mozambique	16	17	6	1	8	11	4	4	3	23	6	3
South Africa	258	258	n/a	684	845	n/a	283	386	n/a	247	267	n/a
Swaziland	4	3	n/a	14	14	n/a	13	20	5	10	17	1
Tanzania	13	20	n/a	72	80	n/a	8	8	n/a	10	11	n/a
Zambia	10	18	9	6	12	20	12	12	13	7	10	15
Zimbabwe	46	15	20	34	29	26	26	15	13	18	12	11

Source: Hess (2004:167, 173, 175, 177).

Notes: Countries were selected on availability of statistical data.
Countries were grouped according to the industries they have in common.

Selected SADC countries	Petroleum refineries (353)			Selected SADC countries	Non-ferrous metals (372)			Selected SADC countries	Misc. petroleum & coal products (354)		
	1980	1990	1999		1980	1990	1999		1980	1990	1999
Mozambique	2	2	1	Mozambique	1	n/a	n/a	South Africa	n/a	69	n/a
South Africa	n/a	32	n/a	South Africa	111	116	n/a	Zambia	1	n/a	3
Tanzania	n/a	1	n/a	Tanzania	n/a	4	n/a				
Zambia	2	3	1	Zambia	2	2	2				
				Zimbabwe	12	7	6				

Source: Hess (2004: 179-180, 187).

Notes: Countries were selected on availability of statistical data.
Countries were grouped according to the industries they have in common.

APPENDIX 6: ADDITIONAL INFORMATION FOR CHAPTER SIX

Marginal intra-industry trade (MIIT) using Brülhart's (1994) measure

The measure is as follows

$$\text{MIIT} = (dX_i - dM_i) / (|dX_i| + |dM_i|)$$

and takes on a value from -1 to +1.

NB

If MIIT = 0, then all new trade is intra-industry (matched) trade ($dX_i = dM_i$). If MIIT is between 0 and -1, then new trade is increasingly inter-industry (unmatched), and the country has specialised *out of* that industry ($dX_i < dM_i$). If MIIT is between 0 and 1, then new trade is increasingly inter-industry (unmatched), but the country has specialised *into* that industry ($dX_i > dM_i$) (Parr, 2000:320).

Critical values of MIIT

These serve as a dividing line between significant intra-industry trade changes and marked inter-industry specialisation into or out of an industry. With an MIIT of 1 corresponding to a Grubel-Lloyd index of 0, the critical values of MIIT become +/- 0.65. Therefore:

MIIT from -1 to -0.65, there has been specialisation *out of* that industry;

MIIT from -0.65 to 0.65, significant *intra-industry* changes have taken place; and

MIIT from 0.65 to 1, there has been a specialisation *into* that industry (Parr, 2000:302 – 303).

Notes

d (Exports) = change in the volume of exports.

d (Imports) = change in the volume of imports.

GL 2000(%) = the unadjusted Grubel-Lloyd index of intra-industry trade for 2000.

MIIT (94 – 00) = the marginal intra-industry trade for the period 1994 – 2000.

A number of common criticisms of any MIIT can be overcome by accompanying the results by as much explicit information as possible, e.g. the actual trade figures (or the share of each sector in total trade), and the actual size and direction of dX and dM to assist in interpreting the index accurately.

Source: Cattaneo and Fryer (2002:26 – 27).

NB: The significant intra-industry trade changes within the SADC region for the period 1994 – 2000 are presented in Table A-15 overleaf.

Table A-15: Significant intra-industry trade changes taking place within the SADC region (1994 – 2000) (at constant 1995 prices, R000s)

(a) Trade between SACU and Malawi

ISIC 4 digits	Products	Exports in 1994	Imports in 1994	Exports in 2000	Imports in 2000	GL 2000 (%)	d (Exports)	d (Imports)	MIIT for (94 – 00)
3033	Prepared animal feeds	803	0	876	108	22	72	108	-0.2
3041	Bakery products	1 560	176	1 346	124	17	-215	-51	-0.61
3129	Other textiles, n.e.c.	1 929	0	3 359	399	21	1 430	399	0.56
3229	Other products of wood; articles of ...	352	193	719	564	88	367	371	-0.01
3353	Pharmaceuticals medicinal chemicals	9 316	4	9 307	0	0	-9	-4	-0.33
3576	Machinery for textiles, apparel and leather production	1 192	14	3 408	567	29	2 215	554	0.6
3922	Musical instruments	166	28	154	0	0	-12	-28	0.39

(b) Trade between SACU and Mauritius

ISIC 4 digits	Products	Exports in 1994	Imports in 1994	Exports in 2000	Imports in 2000	GL 2000 (%)	d (Exports)	d (Imports)	MIIT for (94 – 00)
3241	Publishing books, brochures, musical	476	26	727	236	49	252	210	0.09
3249	Other publishing	48	461	252	734	51	203	273	-0.15
3252	Services activities related to printing	36	17	15	1	7	-21	-17	-0.11
3342	Fertilisers and nitrogen compounds	3 223	0	5 239	1 211	38	2 017	1 211	0.25
3421	Non-structural non-refractory clay and ceramicware	3 136	8	3 316	76	4	180	67	0.46
3423	Structural non-refractory clay and ceramicware	363	0	1 192	508	60	829	508	0.24
3575	Machinery for food, beverages and tobacco processing	1 837	735	1 578	49	6	-259	-686	0.45
3579	Other special purpose machinery	3 702	55	4 723	344	14	1 021	288	0.56
3620	Electricity distribution and control apparatus	2 378	5	3 406	227	13	1 028	222	0.64
3720	Other electrical equipment, n.e.c.	294	19	5 746	2 290	57	5 452	2 271	0.41
3741	Medical and surgical equipment and orthopaedic appliances	790	45	2 319	3 286	83	1 528	3 241	-0.36
3872	Bicycles and invalid carriages	0	8	88	48	71	88	40	0.37
3921	Jewellery and related articles	1 962	0	3 716	665	30	1 754	665	0.45
3922	Musical instruments	24	0	31	3	16	7	3	0.41

(c) Trade between SACU and Mozambique

ISIC 4 digits	Products	Exports in 1994	Imports in 1994	Exports in 2000	Imports in 2000	GL 2000 (%)	d (Exports)	d (Imports)	MIIT for (94 – 00)
3130	Knitted and crocheted fabrics and articles	3 390	1 230	4 769	3 266	81	1 379	2 036	-0.91
3140	Wearing apparel, except fur apparel	7 415	3 148	17 325	13 904	89	9 911	10 757	-0.04
3371	Rubber tyres, Retreading and building of rubber tyres	18 788	8 338	21 049	13 099	77	2 260	4 761	-0.36
3564	Ovens, Furnaces and Furnace burners	404	0	5 516	1 346	39	5 112	1 346	0.58
3565	Lifting and handling equipment	12 444	635	22 473	43 371	68	10 029	42 736	-0.62
3574	Machinery for mining, quarrying and construction	15 934	1 067	28 970	40 089	84	13 035	39 022	-0.5
3922	Musical instruments	128	0	208	150	84	79	150	-0.31

(d) Trade between SACU and Tanzania

ISIC 4 digits	Products	Exports in 1994	Imports in 1994	Exports in 2000	Imports in 2000	GL 2000 (%)	d (Exports)	d (Imports)	MIIT for (94 – 00)
3161	Tanning and dressing of leather	0	0	18	37	66	18	37	-0.34
3229	Other products of wood; articles of....	4	8	69	25	54	65	17	0.58
3426	Stone cutting, shaping and finishing	0	0	8	9	93	8	9	-0.07
3573	Machinery for metallurgy	0	0	8	11	86	8	11	-0.14
3921	Jewellery and related articles	0	0	128	447	45	128	447	-0.55
3951	Recycling of metal waste and scrap, n.e.c.	0	0	1 103	338	47	1 103	338	0.53

(e) Trade between SACU and Zambia

ISIC 4 digits	Products	Exports in 1994	Imports in 1994	Exports in 2000	Imports in 2000	GL 2000 (%)	d (Exports)	d (Imports)	MIIT for (94 – 00)
3520	Basic precious and non-ferrous metals	9 962	33 787	18 706	62 891	46	8 744	29 104	-0.54
3630	Insulated wire and cable	740	7 480	7 873	16 119	66	7 133	8 639	-0.1
3820	Bodies (Coachwork) for motor vehicles; Trailers and Semitrailers	8 614	266	14 048	1 846	23	5 433	1 580	0.55
3929	Other manufacturing, n.e.c.	6 234	248	6 124	57	2	-11	-191	0.27
3952	Recycling of non-metal waste and scrap, n.e.c.	784	2 211	1 217	2 434	67	433	223	0.32

(f) Trade between SACU and Zimbabwe

ISIC 4 digits	Products	Exports in 1994	Imports in 1994	Exports in 2000	Imports in 2000	GL 2000 (%)	d (Exports)	d (Imports)	MIIT for (94 – 00)
3031	Grain mill products	4 103	3 668	1 867	1 013	70	-2 235	-2 655	0.09
3033	Prepared animal feeds	9 598	7 133	4 857	975	33	-4 741	-6 158	0.13
3041	Bakery products	1 390	3 929	612	558	95	-777	-3 371	0.63
3130	Knitted and crocheted fabrics and articles	38 408	17 960	3 751	874	38	-34 658	-17 086	-0.34
3221	Veneer sheets; Plywood, Laminboar	9 267	12 672	12 385	15 075	90	3 118	2 402	0.13
3229	Other products of wood; Articles of.....	1 038	339	1 438	1 081	86	401	742	-0.3
3241	Publishing of books, brochures,	11 270	946	10 723	164	3	-547	-782	0.18
3341	Basic chemicals, except fertilisers and nitrogen compounds	145 117	9 779	167 507	15 216	17	22 390	5 437	0.61
3359	Other chemical products, n.e.c.	108 884	3 450	104 145	1 135	2	-4 740	-2 315	-0.34
3411	Glass and glass products	17 329	2 835	29 584	6 366	35	12 255	3 531	0.55
3421	Non-structural non-refractory ceramicware	4 811	1 223	2 727	95	7	-2 084	-1 128	-0.3
3510	Basic iron and steel	250 340	40 250	232 045	33 184	25	-18 294	-7 066	-0.44
3553	Cutlery, Hand tools and General hand tools	29 177	2 204	26 598	145	1	-2 579	-2 059	-0.11
3571	Agricultural and forestry machinery	22 277	10 612	14 820	5 499	54	-7 457	-5 114	-0.19
3575	Machinery for food, beverages and tobacco processing	15 410	351	15 640	967	12	230	616	-0.46
3579	Other special purpose machinery	40 585	866	39 976	421	2	-609	-445	-0.16
3610	Electric motors, Generators	21 898	1 528	17 710	254	3	-4 189	-1 273	-0.53
3620	Electricity distribution and control apparatus	28 863	2 062	24 422	317	3	-4 441	-1 745	-0.44
3630	Insulated wire and cable	19 988	11 945	17 297	6 639	55	-2 691	-5 306	0.33
3760	Watches and clocks	424	100	655	208	48	232	108	0.37

(g) Trade between SACU and SADC

ISIC 4 digits	Products	Exports in 1994	Imports in 1994	Exports in 2000	Imports in 2000	GL 2000 (%)	d (Exports)	d (Imports)	MIIT for (94 – 00)
3011	Meat products	31 208	9 113	51 573	36 329	83	20 365	27 216	-0.14
3033	Prepared animal feeds	21 240	7 133	11 209	1 083	18	-10 031	-6 050	-0.25
3130	Knitted and crocheted fabrics	44 101	30 550	18 920	16 961	95	-25 181	-13 588	-0.3
3140	Wearing apparel, except fur apparel	24 585	76 096	64 800	89 536	84	40 215	13 441	0.5
3222	Builders' capentry and joinery	36 702	10 080	16 886	410	5	-19 817	-9 670	-0.34
3229	Other products of wood; Articles of.....	3 534	586	9 165	1 836	33	5 631	1 250	0.64
3542	Tanks, reservoirs and simi....	20 844	1 215	18 970	550	6	-1 874	-665	-0.48
3563	Bearings, gears, gearing and driving elements	37 558	594	44 245	2 331	10	6 687	1 738	0.59
3565	Lifting and handling equipment	91 899	1 171	110 046	43 604	57	18 146	42 432	-0.4
3572	Machine tools	50 924	1 446	68 302	7 245	19	17 377	5 798	0.5
3574	Machinery for mining, quarrying and construction	154 460	4 401	292 932	63 819	36	138 472	59 418	0.4
3741	Medical surgical equipment and orthopaedic appliances	30 416	822	38 284	3 777	18	7 868	2 955	0.45
3760	Watches and clocks	1 027	116	2 460	817	50	1 433	701	0.34
3951	Recycling of metal waste and scrap, n.e.c.	183	18 392	3 789	22 211	29	3 606	3 819	-0.3

Source: Cattaneo and Fryer (2002: Appendix A-13).

APPENDIX 7

Questionnaire on the SADC Industrial Policy and Strategies Project

Respondents: (i) the SADC Contact Point in each member state;
(ii) SADC Secretariat; and
(iii) SITCD in Tanzania

I am sincerely requesting for your inputs on the current state of the SADC Industrial Policy and Strategies.

Finalisation of the Project

1. Whether or not this document/project was ever finalised

2. The current outstanding issues, if the project has still not yet been finalised

3. When the project is most likely to be finalised

Implementation of the Project

4. How SADC intends to implement this project bearing in mind the different levels of industrial development among member states

5. Whether there is any programme set for the implementation of the programme

How the SADC Industrial development policy and strategies addresses some of the pertinent issues

6. In what ways does the SADC Industrial development policy and strategies address the following pertinent issues which often form important components of an industrial policy

- a. Trade

b. Investment

c. Technology development

d. The structure of industry

e. Human resources development

Possibilities for regional industries

7. In the 1980s, the SADC Industry and Trade Sector had identified various regional industries, but located in specific countries, which SADC countries could pursue together as a region with various countries identified as possible sources for raw materials on short-term, medium term, or long term basis. Would the SADC Industrial Policy and Strategies seek to set up and implement a regional industrialisation programme along these lines?

8. If there are possibilities for regional industries, have such industries been identified and the possible countries into which they would be located.

I would greatly appreciate your assistance in shedding some light on these issues. Thank you very much.

Yours Faithfully,

Mutambara, Tsitsi Effie (Miss)

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APPENDIX 8

Questions on the SADC Industrial Policy and Strategies Project

Respondents: Ministries of Industry and Commerce (or their equivalencies)

I am sincerely requesting for your inputs on the current state of the SADC Industrial Policy and Strategies, expected benefits by member states as well as the extent to which countries are prepared to implement the policy.

The SADC Industrial policy and strategies proposal document

1. Has your country received a copy of this document? YES/ NO
2. Whether or not this document/project was ever finalised? YES/ NO
3. The current outstanding issues, if the project is still yet to be finalised

4. When the project is most likely to be finalised _____
5. How acceptable to your country are the policy document proposals to facilitate industrial development within the region (even if the document is not yet finalised)

Expected benefits from implementing the proposed regional industrial policy

1. Given the level of industrialisation in your country, how do you think implementing the regional policy would benefit your country?

2. Does your country have any concerns on any possible negative impact the policy could have on your industries.

3. How would you feel about the establishment of regional industries: industries located in specific countries, which SADC countries could pursue together as a region with various countries identified as possible sources for raw materials on short-term, medium term, or long term basis.

Implementation of the Project

(i) Preparedness of the country to implement the project

1. The SADC Industrial Policy and Strategies proposes that countries should establish suitable institutional mechanisms to coordinate the implementation of the policy. Below are some of the mechanisms suggested. Has your country established any of these?
 - (a) The National Co-ordinating body on industrial development: YES/ NO
 - (b) The SADC National working groups, which are suppose to work in close collaboration with the proposed Directorate of SADC Secretariat: YES/ NO

(c) The National Committee on Industrial Development (NICD) to serve as a forum for public-private sector dialogue: **YES/ NO**

2. Any other measures the country has taken in preparing for the implementation of the regional industrial policy

3. The role of the Ministries of Industry and Commerce/ or Departments of Trade and Industry in the implementation of the project?

(ii) Involvement of the domestic private sector in this project

1. Since the SADC Industrial policy and strategies emphasises the importance of private sector participation,

(a) Is your private sector aware of the proposal for the SADC Industrial policy and strategies?

YES/ NO

(b) Has the domestic private sector had any inputs into the current draft regional industrial policy?

YES/ NO

(c) Has the government encouraged private sector participation? **YES/ NO**

(d) What private sector role does your country envisage during the implementation of the regional industrial policy?

I would greatly appreciate your assistance in shedding some light on these issues. Thank you very much.

Yours Faithfully,

Mutambara, Tsitsi Effie (Miss)

Student number: g99m0304

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APPENDIX 9

THE REGIONAL INDICATIVE STRATEGIC DEVELOPMENT PLAN

The Regional Indicative Strategic Development Plan (RISDP) is a very bulky document composed of seven chapters, i.e. (1) the SADC Framework for Integration, (2) Socio-economic Situation in SADC, (3) Review of the Existing Social and Economic Policies and Strategies, (4) Priority Intervention Areas, (5) Sustainable Financing of the RISDP, (6) Implementation and Coordination Mechanism, and (7) Monitoring and Evaluation Mechanism. Only a brief summary of the this document will be given highlighting (i) its scope and purpose, and (ii) the key areas of intervention/ or programmes and their respective overall goals¹

The RISDP was officially launched by President Benjamin Mkapa of Tanzania in Arusha in March 2004. It is a 15-year development plan.

Scope and purpose of the RISDP

According to the Agreement Amending the SADC Treaty, the RISDP is based on the strategic priorities of SADC and its Common Agenda. It is designed to provide strategic direction with respect to SADC programmes, projects and activities.

The RISDP is indicative in nature and outlines the necessary conditions that should be realised towards the attainment of SADC's regional integration and development goals. In order to monitor and measure progress, the RISDP sets targets that indicate major milestones towards the attainment of agreed goals. In this regard therefore, the RISDP sets up a logical and coherent implementation programme of the main activities necessary for the achievement of the region's broader goals with a reasonable, feasible and agreeable time frame that takes into account the region's resource constraints.

While the RISDP maintains a "development integration" strategy, it is cognisant of the significant discrepancies existing among SADC Member States, and as such opts for a flexible approach towards deeper integration and the implementation of various policy reforms and recommendations.

Most of the policies, strategies and programmes of SADC were designed independently by individual Sector Coordinating Units before they were grouped into clusters which are now being managed through Directorates at the SADC Secretariat. For this reason, the various policies, strategies and programmes were not properly co-ordinated leading to weak intersectoral linkages. The RISDP identifies and strengthens the linkages, programmes and the policies of the various sectors with a view to improving efficiency and delivery of the SADC Programme of Action.

The RISDP provides SADC Member States, with a coherent and comprehensive development agenda on social and economic policies over the next fifteen years. It also provides the Secretariat and other SADC institutions with clear guidelines on SADC's approved social and economic priorities and policies, so as to enhance their effectiveness in discharging their facilitating and coordinating role.

In view of the SADC vision of a common future within a regional community and its mission to promote sustainable and equitable economic growth and socio-economic development, the ultimate objective of the RISDP is to deepen the integration agenda of SADC with a view to accelerating poverty eradication and the attainment of other economic and non-economic development goals. To

¹ In the RISDP document apart from indicating the areas of intervention/ or programmes, the document is specific on the reasons as to why such intervention is needed, the specific areas of focus, the specific strategies to be employed and the targets to achieve the overall goals of each area of intervention. The targets take into account the Millennium Development Goals and other internationally agreed parameters and will be reviewed every two years.

attain this objective, the RISDP takes stock of the current political, social and economic situation in the region with a view to provide a way forward for SADC to attain its objectives.

Priority intervention areas and their respective overall goals

The selection of the intervention areas presented is based on their contribution to the overarching objectives and priorities identified in the Report of the Review of SADC Institutions, approved by SADC Heads of State and Government in Windhoek, Namibia in March 2001. The intervention areas are divided in two main groups, namely those of a cross-sectoral nature and those related to specific areas of cooperation and integration.

The criteria used to select the priority intervention areas include contribution to poverty reduction and eradication; development integration; balanced and equitable development; integration into the continental and global economy; sustainable development and gender equality. The interventions provide a broad strategic framework. A number of assumptions have been identified as critical for the attainment of the goals and achievement of the targets. These include the existence of strong political will, good governance, availability of human and financial resources, and effective management of inter-sectoral linkages and synergies. The priority intervention areas presented in the RISDP are as follows:

1. Cross-Sectoral Intervention Areas

Poverty eradication; Combating of the HIV and AIDS pandemic; Gender equality and development; Science and Technology; Information and Communication Technologies; Environment and Sustainable Development; Private Sector; Statistics

2. Sectoral cooperation and integration Intervention Areas

Trade/economic liberalization and development; Infrastructure support for regional integration and poverty eradication; Sustainable food security; and Human and social development.

Poverty eradication

The overall goal of the poverty intervention area is to promote sustainable and equitable economic growth and socio-economic development that will ensure poverty alleviation with the ultimate objective of its eradication

Combating the HIV and AIDS pandemic

The overall goal of the SADC HIV and AIDS intervention is to decrease the number of HIV and AIDS infected and affected individuals and families in the SADC region so that HIV and AIDS is no longer a threat to public health and to the socio-economic development prospects of Member States.

Gender equality and development

The overall goal is to facilitate the achievement of substantive equality between women and men in the SADC region, through mainstreaming gender into all national and regional policies, programmes and activities, and the adoption of positive measures to accelerate progress in this regard.

Science and technology

The overall aim of the intervention in Science and Technology in the region is to develop and strengthen national systems of innovation in order to drive sustained socio-economic development and the rapid achievement of the goals of the SADC Common Agenda including poverty reduction with the ultimate aim of its eradication.

Information and Communication Technology

The overall goal of the ICT intervention is addressing structural bottlenecks such as reinforcement of citizens' connectivity and ability to effectively use ICT, and be involved in ICT planning and national development; development of skills at individual and institutional levels to increase ICT use and

capitalise on innovative ICT applications; strengthening of governments' capacity to develop effective policy and regulatory frameworks to create conducive environments to ensure market development and public participation in the information and knowledge-based society; and building a self-sustaining process with the positioning of the community as an effective participant in the information and knowledge-based society - i.e. transition from e-readiness to e-participation.

Environment and Sustainable Development

The overall goal of the environment intervention is to ensure the equitable and sustainable use of the environment and natural resources for the benefit of present and future generations.

Private Sector

The overall goal of the intervention is to integrate the private sector - the engine of growth - in policy and strategy formulation, and programme implementation in the SADC new development model in order to accelerate and achieve sustainable regional economic integration.

Statistics

SADC has placed the strengthening of structures to deal with regional integration high on its agenda. For these structures to function efficiently and effectively there is a need to improve the capacity of national and regional statistical systems to provide the required statistical data needed for regional integration.

Trade/economic liberalisation and development

The overall goal of this intervention is to facilitate trade and financial liberalisation, competitive and diversified industrial development and increased investment for deeper regional integration and poverty eradication through the establishment of a SADC Common Market.

Infrastructure support for regional integration and poverty eradication

The overall goal of infrastructure support intervention is to ensure the availability of a sufficient, integrated, efficient and cost effective infrastructure system and provision of sustainable services that will support and sustain regional economic development, trade, investment, and agriculture thus contributing towards poverty eradication.

Sustainable food security

The overall goal of co-operation in food security is to achieve sustainable access to safe and adequate food at all times by all people in SADC for an active and healthy life.

Human and social development

The overall goal of the Social and Human Development Intervention is to contribute to the reduction of human poverty and to improve the availability of educated, well informed, skilled, healthy, flexible, culturally responsive, productive and efficient human resources for the promotion of SADC's equitable economic growth, deeper integration and its competitiveness in the global economy. The intervention will also contribute towards the reduction of human poverty, combating of the HIV and AIDS pandemic, development and utilisation of science and technology and ICT and the empowerment of women.

Source: SADC (Southern African Development Community), 2004. **Regional Indicative Strategic Development Plan.** (Chapters 1 and 4) [online]. Available: <http://www.sadc.int> [Accessed 10 July 2004].

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