agriculture,
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Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA

ECONOMIC PROFILE OF THE AGRO-PROCESSING INDUSTRY IN SOUTH AFRICA: 1970-2010

DIRECTORATE: AGRO-PROCESSING SUPPORT

DEPARTMENT OF AGRICULTURE, FORESTRY AND FISHERIES

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ABBREVIATIONS AND ACRONYMS USED

DAFF	Department of Agriculture, Forestry and Fisheries
the dti	Department of Trade and Industry
EU	European Union
FAO	Food and Agriculture Organization
GDP	Gross Domestic Product
IDC	Industrial Development Corporation
IPAP	Industrial Policy Action Plan
NESOI	Not Either Specified Or Included
NGO	Non-Governmental Organisation
NAFTA	North Atlantic Free Trade Agreement
R	Rand
SA	South Africa
SADC	Southern African Development Community
SME	Small and Medium Enterprise
SMFE	Small and Medium Forestry Enterprise
TAC	Total Allowable Catch
USA	United States of America

EXECUTIVE SUMMARY

The agro-processing industry is among the sectors identified by the Industrial Policy Action Plan (IPAP), the New Growth Path and the National Development Plan for its potential to spur growth and create jobs owing to its strong backward linkage with the primary agricultural sector. DAFF has established a Directorate: Agro-processing Support to complement the interventions undertaken by several government departments, notably the Department of Trade and Industry (the dti), by focusing on supporting the establishment and growth of SMEs (Small and Medium Enterprises) for agro-processing. To assist informed decision-making by stakeholders in the industry, the Directorate conducted a situational analysis of the agro-processing industry.

In this study, the economic profile of the agro-processing industry in South Africa is analysed. The general trend of most economic indicators shows that the agro-processing industry makes a significant contribution to the manufacturing sector. On average its contribution to the output and value added of the manufacturing sector was 29.3% and 29.1%, respectively, during 2006-2010. Its contribution to domestic fixed investment and export was also 28.5% and 13.6%, respectively, during the same period. The employment trend also shows that despite shedding more jobs during 2006-2010, the agro-processing industry is still the largest employer in the manufacturing sector (40% of total manufacturing employment during 2006-2010). Disaggregating the share of total employment also reveals that the agro-processing industry contributed 37% and 57% of formal and informal employment, respectively, in the manufacturing sector during the same period.

A review of the relative importance of divisions within the agro-processing industry shows that the food division remained dominant in its share of the total output (42.4%), employment (31.3%), value added (36.6%), domestic fixed investment (32.1%) and exports (28.8%) of the agro-processing industry during 2006-2010. The paper and paper products division is also becoming the second significant contributor to the total output (14.3%), domestic fixed investment (29.5%) and exports (18.7%) of the agro-processing industry, followed by the beverages division whose output (11.9%), domestic fixed investment (15.9%) and exports (17.3%) are third largest. The beverages division, however, is the second largest contributor to the value added (15.9%) of the agro-processing industry.

A review of the total employment generated by the agro-processing industry shows that during 2006-2010, a significant number of jobs were generated by the wearing apparel division (18.4%), after the food products (31.3%), followed by the wood (11.8%), textiles (10.2%) and beverages (9.6%) divisions. Still, a considerable share of formal employment was generated by the food division (34.2%), followed by wearing apparel (17.8%), textiles (10.5%), wood (9.9%) and the furniture division (8.1%). In terms of informal employment, however, wearing apparel is the largest employer (34.3%), followed by textiles (14.8%), food (9.9%), wood (7%) and beverages (7%).

During the periods of 2001-2005 and 2006-2010 most divisions, especially wearing apparel, textiles and food, shed a significant number of jobs, with the exception of beverages, whose employment has increased substantially. The growth in value added in most divisions was marginal and it declined in the rubber division. Domestic fixed investment also fell significantly in the textiles, wearing apparel, rubber and leather divisions. However, remarkable growth was observed in the wood, paper, food and beverages divisions. Output for the textiles and wearing apparel divisions remained stagnant; however, significant growth was recorded in the food, paper and beverages divisions. For the other divisions, growth of output during the two periods was marginal.

Exports of all agro-processing divisions except beverages and tobacco were generally declining during 2006-2010. The export values of the wearing apparel and footwear divisions have plummeted and are currently negligible. On the other hand, there has been a sharp increase in imports of most divisions, especially beverages, wearing apparel and furniture, during 2006-2010. The trend also indicates that imports have been consistently increasing for food, wood, wearing apparel, furniture, rubber and footwear products since 1986-1990. Thus South Africa has become a net importer of processed food (since 2004), textiles (since 1993), furniture (since 2008), footwear (since 1992) and rubber (during the period reviewed, 1970-2010). A net export position is observed for beverages and tobacco (since 1992) and the trade position has been almost neutral for the paper (since 2009) and wood divisions (since 2007).

Though large enterprises of the agro-processing industry contributed a significant share of income and employment, the relative share of SMEs to employment is higher compared to their share of the total income in the industry. For example, large enterprises in the food and beverages, wood and paper, and textiles and leather divisions contribute 90%, 77% and 62%,

respectively, of the total income. However, their contribution to employment is relatively less than the output, which is 74%, 56% and 46%, respectively. Thus, despite a lower share in the total income, the contribution by SMEs to the share of employment is relatively higher.

South Africa's main trading partners for most agro-processing products are the EU and the SADC, except for the paper and wood divisions, whose exports are largely destined for South and East Asia. Most of the imports of agro-processing products originate from East Asia and the EU. A considerable share of food, wood, textiles and footwear is also imported from South Asia. Agro-processed products imported from the SADC are very limited, except for tobacco.

The structure of the agro-processing industry reveals that since the food, tobacco and wood divisions obtain their primary output from the agricultural sector, they have a strong backward linkage with the primary industry, while the others who further process the products, such as furniture, footwear and leather, have a strong backward linkage with the secondary sectors. However, the structure of all divisions in the agro-processing industry shows that the backward linkage with tertiary sectors, which consists of trade, transport and finance, is becoming more significant, depicting an increasing trend.

The skill level of employees in all divisions of the agro-processing industry is largely dominated by semi-skilled and unskilled labour. In most of the divisions, except rubber (10.5%) and tobacco (16%), skilled employees constitute less than 10% of the employees. Mid-level skill was higher in the food (40%), wood (30%), paper (31%) and tobacco (34,7%) divisions during 2006-2010. Informal employment, on the other hand, is becoming increasingly dominant in the beverages (40.9%), textiles (32%) and wearing apparel (39%) divisions. Thus, the share of semi-skilled and unskilled labour in these divisions has declined sharply. In general, however, there is a declining trend in the share of unskilled employees in most divisions, though marginally.

The trend in capital and employment intensity of the agro-processing industry shows that capital intensity (which is measured as the capital to labour ratio) has been increasing for food, paper, beverages (though it declined between 2002 and 2007), wood (since 2004), furniture (since 2007), footwear (since 1998) and leather (since 2000). However, it showed a

declining trend for tobacco and wearing apparel. It remained relatively steady for the textiles division. Employment intensity (which is measured as the employment to output ratio), however, has been declining in all industries, including those that showed a declining (steady) trend in capital intensity.

The market concentration ratio for the agro-processing industry indicates that it is highly concentrated. In most divisions, except wearing apparel and footwear, the largest five enterprises contributed more than 50%. However, the concentration varies widely among subsectors: 80% for beverages (alcoholic and non-alcoholic), 63% for paper, 77% for manufacture of carpets, rigs and mats, 70-72% for animal feeds, dairy and grain milling, 55% for wood and 51-56% for textiles.

Though few of the challenges faced by the SMEs are unique for each division, it can be asserted that lack of access to finance, inadequate skills and inaccessible government support are the foremost challenges facing most SMEs across the divisions. A SWOT (Strength, Weakness, Opportunity and Threats) analysis is also presented in the last chapter to provide insight into the unique challenges and opportunities facing each division in order to guide and assist informed decision-making.

PREAMBLE

Many economic analyses have focused on a few divisions when assessing the economic review of the agro-processing industry. This analysis, encompassing all 11 divisions within the agro-processing industry as used in the *Standard Industrial Classification*, is an attempt to present a general economic profile of the agro-processing industry in South Africa. Hence, it provides an overview of the industry and its divisions by analysing the trend of key economic indicators. In addition, it gives a qualitative analysis of the opportunities and challenges currently facing SMEs and the industry as a whole.

The report is composed of four chapters. The first chapter evaluates the role of the agro-processing industry in the economy. This section focuses on the contribution of the industry to the output, value added, employment, fixed domestic investment and trade of the manufacturing sector. In addition, the shares of the divisions within the agro-processing industry are discussed to present their relative significance.

The second chapter provides a more detailed economic review of each division of the agro-processing industry by presenting a trend analysis of main economic indicators (output, value added, employment, domestic fixed investment and trade). The third chapter focuses on the trade pattern, market concentration and structure of each division. It outlines the trade position and backward linkages of each division. In addition, it gives insight into the import penetration ratio, skill composition and capital and labour intensity of each division in the agro-processing industry. The fourth chapter discusses some of the challenges facing SMEs in the agro-processing industry and presents a SWOT analysis of selected divisions.

This study is the first of a series of analytical outputs by the Directorate: Agro-processing Support of DAFF and is intended to benefit government institutions, academics, agri-businesses, NGOs and other relevant institutions by providing more insight into the agro-processing industry in South Africa.

CHAPTER ONE

THE ROLE OF THE AGRO-PROCESSING INDUSTRY IN SOUTH AFRICA

1.1 INTRODUCTION

According to FAO (1997), "Agro-processing (industry) is a subset of manufacturing that processes raw materials and intermediate products derived from the agricultural sector. Agro-processing thus means transforming products originating from agriculture, forestry and fisheries." Similarly, Wilkinson and Rocha (2009) define the agro-processing industry as comprising all the post-harvest activities that are involved in the transformation, preservation and preparation of agricultural production for intermediary or final consumption of food and non-food products. Thus FAO (1997) classifies agro-industrial sectors as those that manufacture food, beverages, tobacco, textiles, clothing, wood products, furniture, paper, paper products, printing, rubber and rubber products.

Henson and Cranfield (2009) explained the main mega trends at national and international levels that drive the growth of the agro-processing industry globally, namely the rise in population growth; higher income growth that induces greater demand for highly processed and higher-value food products; greater participation of women in the paid labour force and increased ownership of household appliances (such as microwave ovens and refrigerators). Moreover, additional trends such as growing urbanization and the internationalization of retail have also contributed to the development of the agro-processing industry, especially in developing countries (UNCSD, 2008). Despite these promising trends, however, Humphrey and Memedovic (2006) noted that stringent public and mandatory standards pertaining to food safety, the shift from product to process standards, the rising scope of standards and the importance of collective private standards are the biggest challenges for expanding the export of agribusiness products to developed countries.

The agro-processing industry in general plays a critical role for development, especially in developing countries. According to Wilkinson and Rocha (2009), the agro-processing sector on average contributes 52%, 36% and 32% of the total manufacturing value added for Low, Middle and Upper Middle income countries, respectively. Furthermore, the contribution

could reach 66% for agriculture-based countries and 38% and 37% for the transforming and urbanized countries, respectively. A World Development Report (2008) (cited in Wilkinson and Rocha, 2009) noted that agribusiness can stimulate growth in the agricultural sector and reduce rural poverty. Similarly, the agro-processing industry has been identified by the New Growth Path as a key candidate for creating jobs and spurring growth owing to its strong linkages with primary agriculture. IPAP (2011) also reveals that six of the top ten manufacturing industries with higher growth multipliers are the divisions of the agro-processing industry. In order to realise the full potential of these divisions, however, it is imperative to address the challenges facing the SME agro-processing industry.

This chapter assesses the role of the agro-processing industry in the South African economy by evaluating its relative importance in the manufacturing sector. In addition, the relative importance of divisions within the agro-processing industry is examined.

1.2 TREND ANALYSIS OF THE AGRO-PROCESSING INDUSTRY

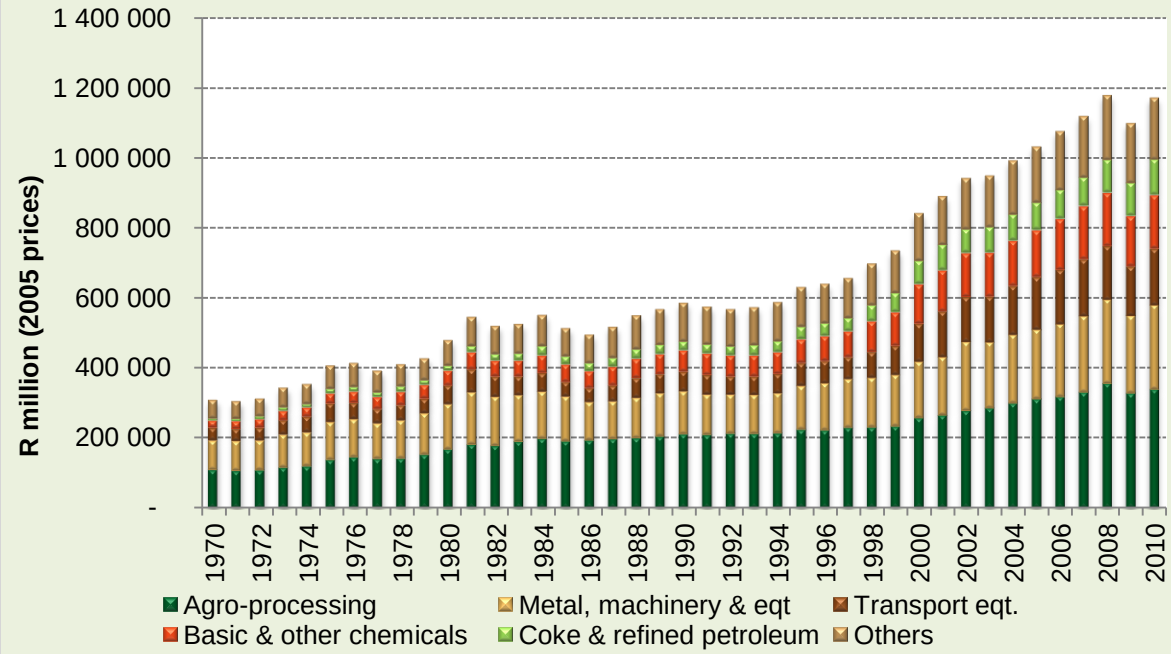
This section presents a brief summary of the agro-processing industry's[1] contribution to the total output, value added, employment, domestic fixed investment and trade of the manufacturing sector. In addition, it assesses the relative shares of divisions within the agro-processing industry in the same economic indicators.

1.2.1 OUTPUT

The agro-processing industry plays a considerable role in contributing to the total output of the manufacturing sector. Figure 1.1 presents the real output of the manufacturing sector. In general, output of the sector has been growing by an annual average rate of 3.3% since 2000, but has fallen by 7% owing to the recession in 2009. As shown in the graph, the agro-processing industry has a large share in the total output of the manufacturing sector, followed by metal, machinery and equipment.

[1] According to the Standard Industrial Classification, the agro-processing industry comprises the following 11 divisions: food, beverages, paper and paper products, wood and wood products, textiles, wearing apparel, furniture, tobacco, rubber products, footwear and leather and leather products.

Figure 1.1: Real output of manufacturing sector



Source: Quantec EasyData (2011)

A summary of the average real values[2] of all manufacturing sector output is presented in Table 1.1. As shown in the table, the agro-processing industry contributed more than R330 billion of the total output of the manufacturing sector, followed by the metal, machinery and equipment industry (R225 billion) and the transport equipment industry (R155.3 billion) during 2006-2010. The trend shows that there has been consistent growth of real output for all sectors except metal, machinery and equipment during the past four decades.

Table 1.2 shows the percentage contribution of each manufacturing industry to the total output of the sector. It reveals that the agro-processing industry still accounts for the highest share of the output despite its share slowly subsiding from its highest level in 1986-1990, which was 36.7%. Currently, its share is below 30% and among other sectors, basic and other chemicals and coke and refined petroleum showed consistent growth in the share of total output.

[2] All real values cited in this paper are in constant 2005 prices.

Table 1.1: Average real output value of the manufacturing sector (R million)

Period	Agro-processing	Metal, machinery & equipment	Transport equipment	Basic & other chemicals	Coke & refined petroleum	Others[3]	Total Mfg. sector
1970-1975	114,705	92,279	41,277	24,408	8,753	56,793	338,214
1976-1980	147,707	113,541	45,463	36,873	13,768	66,701	424,052
1981-1985	185,441	136,942	55,050	47,444	20,659	84,735	530,271
1986-1990	198,577	116,408	50,652	54,743	25,009	97,079	542,467
1991-1995	211,806	115,797	56,558	61,613	29,687	110,551	586,012
1996-2000	231,706	145,033	78,616	87,780	48,103	121,881	713,118
2001-2005	284,412	189,384	136,198	125,628	73,406	150,530	959,557
2006-2010	330,319	225,561	155,319	148,406	90,800	176,620	1,127,025

Source: Quantec EasyData (2011)

Table 1.2: Percentage of real output by industries in the manufacturing sector

Period	Agro-processing	Metal, machinery & equipment	Transport equipment	Basic & other chemicals	Coke & refined petroleum	Others
1970-1975	34.0%	27.3%	12.2%	7.2%	2.5%	16.8%
1976-1980	34.8%	26.7%	10.7%	8.7%	3.3%	15.7%
1981-1985	35.0%	25.8%	10.4%	8.9%	3.9%	16.0%
1986-1990	36.7%	21.5%	9.3%	10.1%	4.6%	17.8%
1991-1995	36.2%	19.8%	9.6%	10.5%	5.1%	18.9%
1996-2000	32.7%	20.4%	10.9%	12.2%	6.7%	17.1%
2001-2005	29.6%	19.7%	14.2%	13.1%	7.7%	15.7%
2006-2010	29.3%	20.0%	13.8%	13.2%	8.1%	15.7%

Source: Quantec EasyData (2011)

Table 1.3 provides the real output produced by the agro-processing industry. It shows that the food division is the most dominant, followed by the paper and beverages divisions. Owing to remarkable output growth of the paper division, it exceeded the output from the beverages division since the mid-1990. The growth of leather and leather products during the past decade is considerable, though its share is still marginal. The real output of the footwear division, however, has stagnated for more than two decades and showed a slight recovery during 2006-2010. Marginal growth was observed in the tobacco and rubber divisions in the past decade and the output of the wood division has been growing modestly since 1991-1995.

[3] "Others" refers to the following industries: Electrical machinery & apparatus, Other non-metallic mineral products, Printing & publishing, Plastic products, Radio, TV & watches and Other mfg.

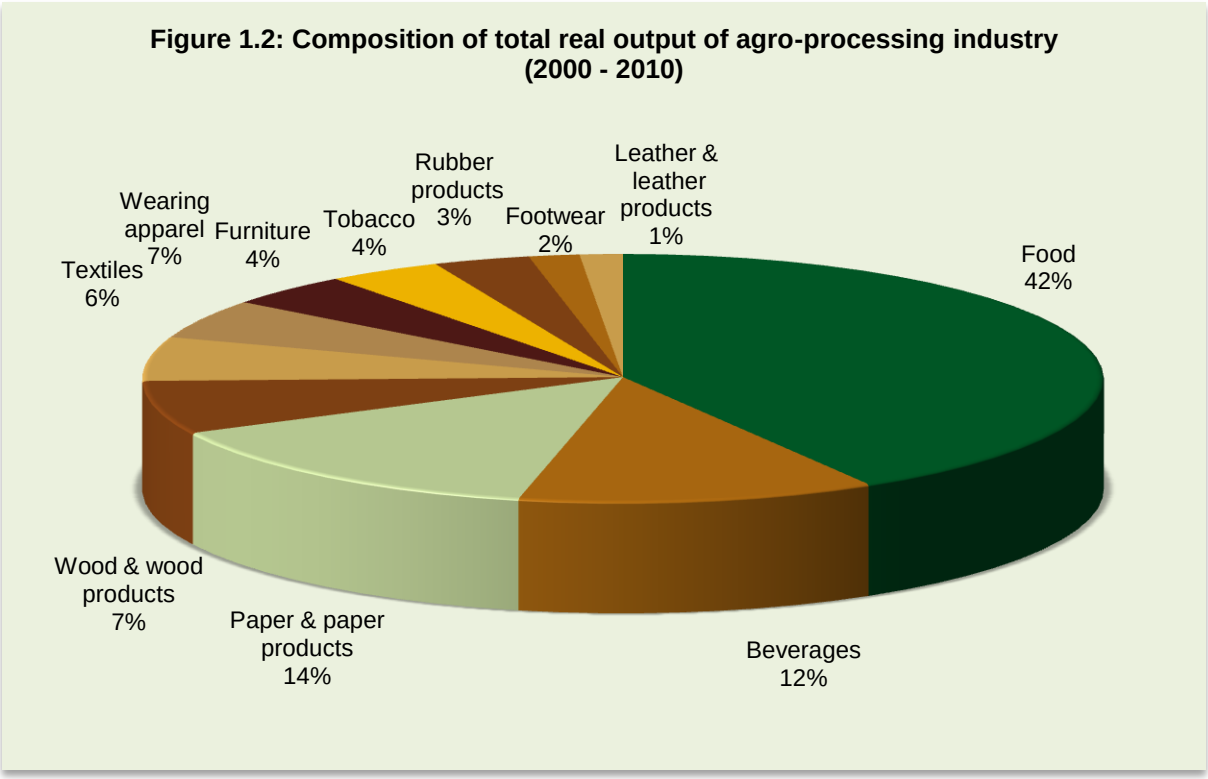
In the total agro-processing industry, however, the wearing apparel and textiles divisions are the only divisions whose output declined during 2006-2010.

Table 1.3: Average real output value by divisions in the agro-processing industry (R million)

Period	Food	Beverages	Paper & paper products	Wood & wood products	Textiles	Wearing apparel	Furniture	Tobacco	Rubber products	Foot-wear	Leather & leather products
1970-1975	46,137	10,248	12,508	7,774	11,328	6,549	3,346	8,770	3,733	3,223	1,089
1976-1980	63,915	14,586	14,870	9,508	14,436	8,397	3,392	9,774	3,702	3,813	1,312
1981-1985	75,478	22,419	20,479	11,353	16,981	11,318	4,700	11,778	4,812	4,449	1,675
1986-1990	75,225	29,455	25,557	11,289	14,008	13,595	6,055	10,636	6,127	4,849	1,782
1991-1995	86,495	29,717	25,358	11,891	13,229	14,403	6,854	10,331	6,647	4,895	1,985
1996-2000	92,587	30,730	29,809	14,872	14,566	15,059	9,115	10,408	7,723	4,276	2,561
2001-2005	116,585	34,131	39,503	19,777	17,486	15,647	11,776	11,048	9,602	4,737	4,119
2006-2010	140,085	39,185	47,214	22,775	17,575	15,326	14,693	12,525	10,244	5,752	4,946

Source: Quantec EasyData (2011)

Figure 1.2: Composition of total real output of agro-processing industry (2000 - 2010)



Source: Quantec EasyData (2011)

Figure 1.2 displays the relative shares by divisions in the agro-processing industry during 2000-2010 and their trends are given in Table 1.4. As shown in Figure 1.2, the agro-processing industry is largely dominated by four divisions that contribute 75% of the total

output. Among these four divisions, food accounts for 42%, followed by paper (14%), beverages (12%) and the wood division (7%). In short, divisions that utilize primary inputs from agriculture and fisheries account for more than 70% of the agro-processing industry and the rest comprises divisions utilizing inputs mainly from forestry products (wood, paper, furniture and rubber).

Table 1.4: Percentage of real output by divisions in the agro-processing industry

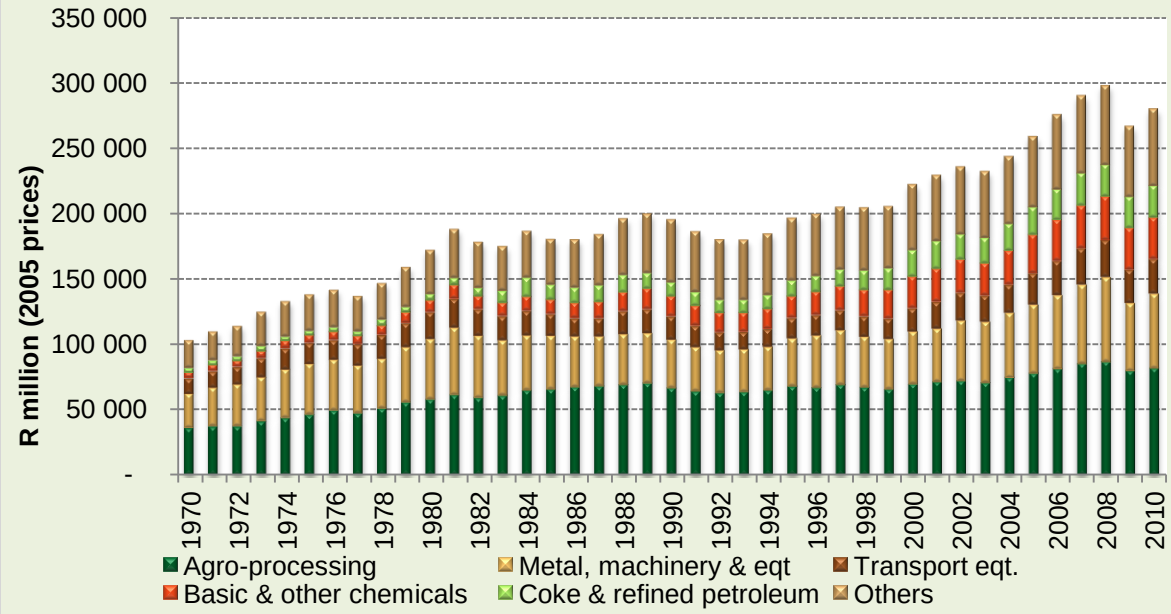
Period	Food	Beverages	Paper & paper products	Wood & wood products	Textiles	Wearing apparel	Furniture	Tobacco	Rubber products	Foot-wear	Leather & leather products
1970-1975	40.2%	8.9%	10.9%	6.8%	9.9%	5.7%	2.9%	7.6%	3.3%	2.8%	0.9%
1976-1980	43.3%	9.9%	10.1%	6.4%	9.8%	5.7%	2.3%	6.6%	2.5%	2.6%	0.9%
1981-1985	40.7%	12.1%	11.0%	6.1%	9.2%	6.1%	2.5%	6.4%	2.6%	2.4%	0.9%
1986-1990	37.9%	14.8%	12.9%	5.7%	7.1%	6.8%	3.0%	5.4%	3.1%	2.4%	0.9%
1991-1995	40.8%	14.0%	12.0%	5.6%	6.2%	6.8%	3.2%	4.9%	3.1%	2.3%	0.9%
1996-2000	40.0%	13.3%	12.9%	6.4%	6.3%	6.5%	3.9%	4.5%	3.3%	1.8%	1.1%
2001-2005	41.0%	12.0%	13.9%	7.0%	6.1%	5.5%	4.1%	3.9%	3.4%	1.7%	1.4%
2006-2010	42.4%	11.9%	14.3%	6.9%	5.3%	4.6%	4.4%	3.8%	3.1%	1.7%	1.5%

Source: Quantec EasyData (2011)

1.2.2 VALUE ADDED

Value added of an industry is its contribution to the Gross Domestic Product (GDP) of the whole economy. It is obtained by deducting the intermediate inputs used in the production process from the final output value. Figure 1.3 shows the trend of the real value added of total manufacturing. As shown in the figure, the sector remained stagnant for several years in the 1980s and experienced a declining trend until 1993. Thereafter, it showed a positive growth trend until the recession period in 2009, when it fell by more than 10%.

Figure 1.3: Real value added of manufacturing sector



Source: Quantec EasyData (2011)

Table 1.5 presents the trend in average real value added of the manufacturing sector over the past decades. The agro-processing industry's value added is the largest component of the manufacturing sector and it contributed more than R82 billion during 2006-2010, followed by metal, machinery and equipment (R58 billion). Except during 1991-1995, there has been a general upward trend of value-added by all sectors. Since then, however, the growth rate of other industries has been higher compared to agro-processing and basic and other chemicals. As a result, the share of the agro-processing industry has been declining slowly from 35.3% during 1986-1990 to 29.1% during 2006-2010 (see Table 1.6).

Table 1.5: Average real value added of the manufacturing sector (R million)

Period	Agro-processing	Metal, machinery & equipment	Transport equipment	Basic & other chemicals	Coke & refined petroleum	Others	Total Mfg. sector
1970-1975	39858	33140	13981	5643	3774	24699	121094
1976-1980	51606	40543	17631	7953	4348	29656	151737
1981-1985	61693	44943	19083	10950	9808	35562	182039
1986-1990	67448	38427	16209	14353	12393	42684	191514
1991-1995	63924	34073	14386	15736	10954	46935	186008
1996-2000	66844	40051	15848	20861	15709	48409	207722
2001-2005	72420	47292	21277	26490	20705	52111	240296
2006-2010	81991	58154	26557	32462	24588	58458	282210

Source: Quantec EasyData (2011)

Table 1.6: Percentage of real value added by industries in the manufacturing sector

Period	Agro-processing	Metal, machinery & equipment	Transport equipment	Basic & other chemicals	Coke & refined petroleum	Others
1970-1975	33.0%	27.3%	11.5%	4.7%	3.2%	20.4%
1976-1980	34.0%	26.7%	11.6%	5.2%	2.9%	19.6%
1981-1985	33.9%	24.7%	10.5%	6.0%	5.4%	19.5%
1986-1990	35.3%	20.1%	8.4%	7.5%	6.5%	22.2%
1991-1995	34.4%	18.3%	7.7%	8.5%	5.9%	25.2%
1996-2000	32.2%	19.3%	7.6%	10.0%	7.5%	23.3%
2001-2005	30.1%	19.7%	8.8%	11.0%	8.6%	21.7%
2006-2010	29.1%	20.6%	9.4%	11.5%	8.7%	20.7%

Source: Quantec EasyData (2011)

Table 1.7 shows the composition of real value added of the agro-processing industry. As shown in the table, the food division is still the leading contributor to the total value added of the agro-processing industry. Though the paper division is second in terms of its output contribution, it is lower than the beverages division in terms of value addition. In general, the value added trend of the agro-processing industry shows a pattern similar to the output trend. However, the value added by the rubber products and tobacco divisions has declined and beverages remained stagnant during 2006-2010. Impressive growth is observed for the food, paper and leather divisions during the same period.

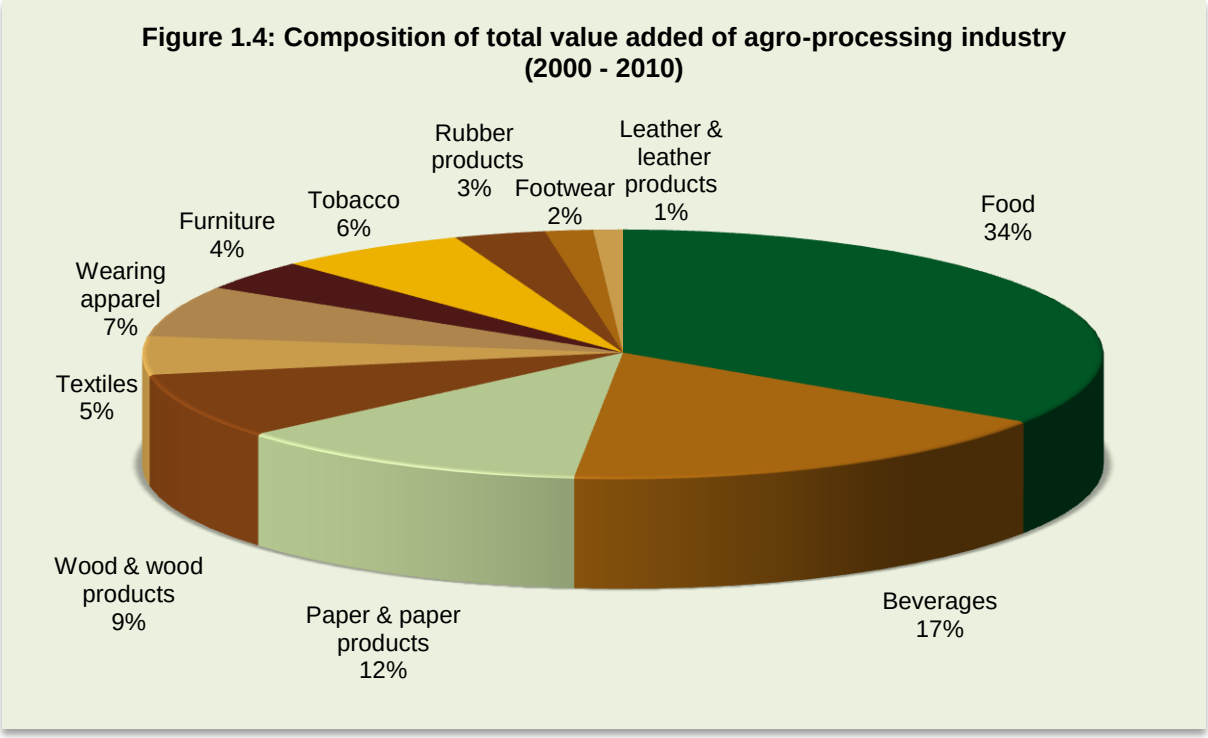
Table 1.7: Average real value added by divisions in the agro-processing industry (R million)

Period	Food	Beverages	Paper & paper products	Wood & wood products	Textiles	Wearing apparel	Furniture	Tobacco	Rubber products	Foot-wear	Leather & leather products
1970-1975	11253	5186	3845	3892	3729	2591	604	5484	1524	1687	64
1976-1980	15390	7618	4859	4666	5100	3405	819	6041	1782	1857	69
1981-1985	16185	10765	5838	4780	5735	4423	1027	8658	2125	2076	82
1986-1990	17419	14430	6992	5070	4993	4554	1103	8459	2302	2051	75
1991-1995	19217	13840	6841	5141	3740	4636	1099	5607	2097	1628	78
1996-2000	19898	14022	7679	6113	3530	4912	1622	5429	2292	1254	92
2001-2005	23734	13039	8732	6453	3517	4980	2752	4941	2636	1187	448
2006-2010	30032	13077	9928	6527	4248	5244	3561	4811	2037	1307	1219

Source: Quantec EasyData (2011)

Figure 1.4 shows the relative contribution of divisions to the total value added of agro-processing during 2000-2010. More than 50% of the value added was contributed by the food and beverages division, followed by the paper and wood divisions that contributed 12% and 8%, respectively, of the total agro-processing industry value added. In general, the trend of the relative contribution, presented in Table 1.8, shows that the share of beverages, tobacco and wearing apparel displays a declining trend. However, there was general growth of the food, paper and leather divisions' share to the total value added of the agro-processing industry.

Figure 1.4: Composition of total value added of agro-processing industry (2000 - 2010)



Source: Quantec EasyData (2011)

Table 1.8: Percentage of real value added by divisions in the agro-processing industry

Period	Food	Beverages	Paper & paper products	Wood & wood products	Textiles	Wearing apparel	Furniture	Tobacco	Rubber products	Foot-wear	Leather & leather products
1970-1975	28.2%	13.0%	9.6%	9.8%	9.4%	6.5%	1.5%	13.8%	3.8%	4.2%	0.2%
1976-1980	29.8%	14.8%	9.4%	9.0%	9.9%	6.6%	1.6%	11.7%	3.5%	3.6%	0.1%
1981-1985	26.2%	17.4%	9.5%	7.7%	9.3%	7.2%	1.7%	14.0%	3.4%	3.4%	0.1%
1986-1990	25.8%	21.4%	10.4%	7.5%	7.4%	6.8%	1.6%	12.5%	3.4%	3.0%	0.1%
1991-1995	30.1%	21.6%	10.7%	8.0%	5.9%	7.3%	1.7%	8.8%	3.3%	2.5%	0.1%
1996-2000	29.8%	21.0%	11.5%	9.1%	5.3%	7.3%	2.4%	8.1%	3.4%	1.9%	0.1%
2001-2005	32.8%	18.0%	12.1%	8.9%	4.9%	6.9%	3.8%	6.8%	3.6%	1.6%	0.6%
2006-2010	36.6%	15.9%	12.1%	8.0%	5.2%	6.4%	4.3%	5.9%	2.5%	1.6%	1.5%

Source: Quantec EasyData (2011)

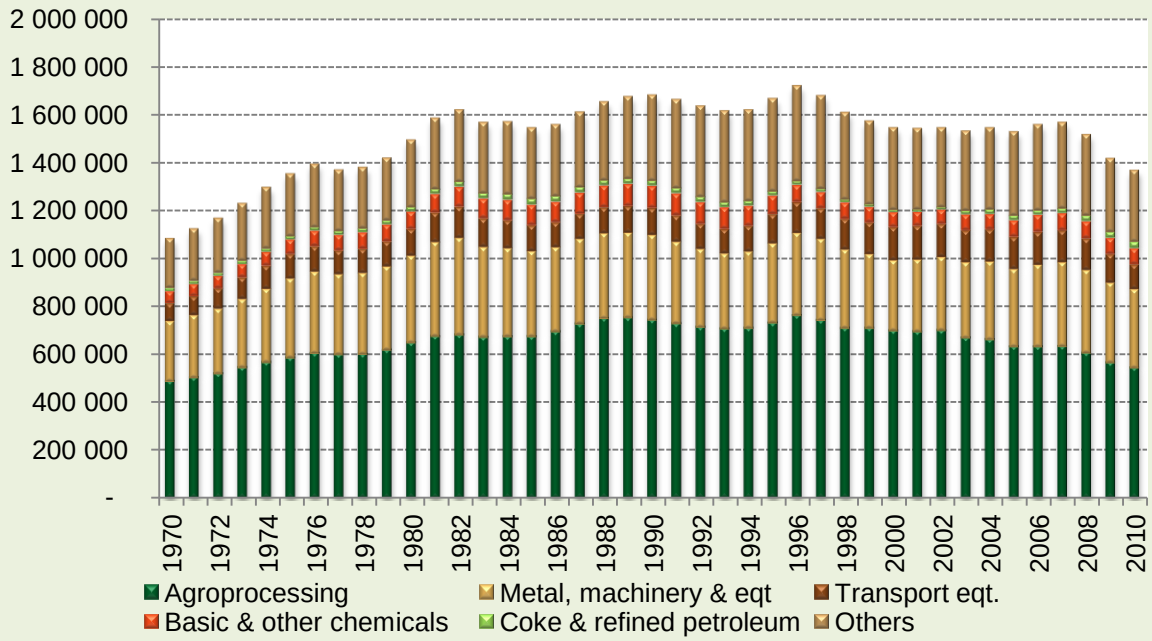
1.2.3 EMPLOYMENT

This section gives an overview of employment trends in the manufacturing sector, with a special focus on the agro-processing industry. It provides a review of the total employment trend, followed by a similar review for both formal and informal employment in manufacturing sector in general and in the agro-processing industry in particular.

1.2.3.1 TOTAL EMPLOYMENT

Total employment by an industry (division) comprises employment generated in both formal and informal sectors. Figure 1.5 displays trends in total employment in the manufacturing sector since 1970. As shown in the figure, employment reached its peak level in 1996, when the sector employed more than 1.7 million people. After a steady decline until 1999, the employment level remained roughly constant until 2007. However, the employment level fell considerably during the recession in 2009, when the sector shed more than 200 000 jobs. In 2010, the sector employed 1.367 million people, which is 10% lower than in the year 2008.

Figure 1.5: Total employment in the manufacturing sector



Source: Quantec EasyData (2011)

As shown in Table 1.9, the average total employment in the agro-processing industry was more than 593 000 during 2006-2010. The industry, however, has shed more labour than any other industry from the previous period, thus it has contributed greatly to the declining employment level in the manufacturing sector during 2006-2010. While the agro-processing industry shed more than 73 000 jobs, the metal, machinery and equipment, chemicals and petroleum industries altogether gained more than 38 000 jobs from 2001-2005 to 2006- 2010. The general employment trend shows that the agro-processing industry has been shedding labour since 1991-1995.

Table 1.10 reveals that, despite shedding more jobs, the agro-processing industry was still the largest employer in the manufacturing sector (40%) during 2006-2010, which was higher than its relative contribution to total output and value added (29%). The metal, machinery and equipment industry accounted for 22.9% and other industries (printing and publishing, electrical machinery and apparatus and plastic products) contributed more than 22.6% of total employment in the manufacturing sector during the same period. Agro-processing generates more employment owing to its relatively low level of capital intensity compared to other manufacturing sectors.

Table 1.9: Average total employment in the manufacturing sector

Period	Agro-processing	Metal, machinery & equipment	Transport equipment	Basic & other chemicals	Coke & refined petroleum	Others	Total Mfg. sector
1970-1975	532830	284722	87354	54685	12656	237226	1209473
1976-1980	611334	344912	104386	67573	16546	265887	1410637
1981-1985	671691	379051	119679	81502	23294	301534	1576752
1986-1990	728994	354102	107939	88645	23558	331523	1634761
1991-1995	713613	326629	108875	86443	20683	382981	1639223
1996-2000	719919	322887	130653	66318	13887	370832	1624496
2001-2005	667482	314720	135595	62676	15360	341883	1537716
2006-2010	593850	339489	124481	69187	22736	335570	1485313

Source: Quantec EasyData (2011)

Table 1.10: Percentage of total employment by industries in the manufacturing sector

Period	Agro-processing	Metal, machinery & equipment	Transport equipment	Basic & other chemicals	Coke & refined petroleum	Others
1970-1975	44.1%	23.5%	7.2%	4.5%	1.0%	19.6%
1976-1980	43.3%	24.5%	7.4%	4.8%	1.2%	18.8%
1981-1985	42.6%	24.0%	7.6%	5.2%	1.5%	19.1%
1986-1990	44.6%	21.7%	6.6%	5.4%	1.4%	20.3%
1991-1995	43.5%	19.9%	6.6%	5.3%	1.3%	23.4%
1996-2000	44.3%	19.9%	8.0%	4.1%	0.9%	22.8%
2001-2005	43.4%	20.5%	8.8%	4.1%	1.0%	22.2%
2006-2010	40.0%	22.9%	8.4%	4.7%	1.5%	22.6%

Source: Quantec EasyData (2011)

Table 1.11 presents the average total employment by the agro-processing industry. As shown in the table, during 2006-2010, the largest employer was the food division, which employed more than 186 000 people, followed by wearing apparel and textiles, which together employed more than 169 000 people. The beverages and furniture divisions employed more than 56 000 and 42 500 people, respectively.

Table 1.11: Average total employment by divisions in the agro-processing industry

Period	Food	Beverages	Paper & paper products	Wood & wood products	Textiles	Wearing apparel	Furniture	Tobacco	Rubber products	Foot-wear	Leather & leather products
1970-1975	151841	26712	28918	43206	103584	99879	26853	1882	17353	24913	7689
1976-1980	187095	34702	29022	44824	113569	115171	28139	2216	20917	26803	8875
1981-1985	206408	41480	31085	47729	112504	129686	36694	2496	21104	33421	9084
1986-1990	229916	48000	37012	49873	113187	133025	43312	3015	22387	38171	11096
1991-1995	235255	49558	39327	51309	92010	130441	47468	2869	22092	32733	10552
1996-2000	230257	46853	34951	61605	85218	149185	50485	2935	21141	27190	10099
2001-2005	200261	45671	32665	73481	75226	147750	50350	2685	16913	14398	8082
2006-2010	186028	56962	32810	70357	60763	109520	42864	2629	13798	11436	6681

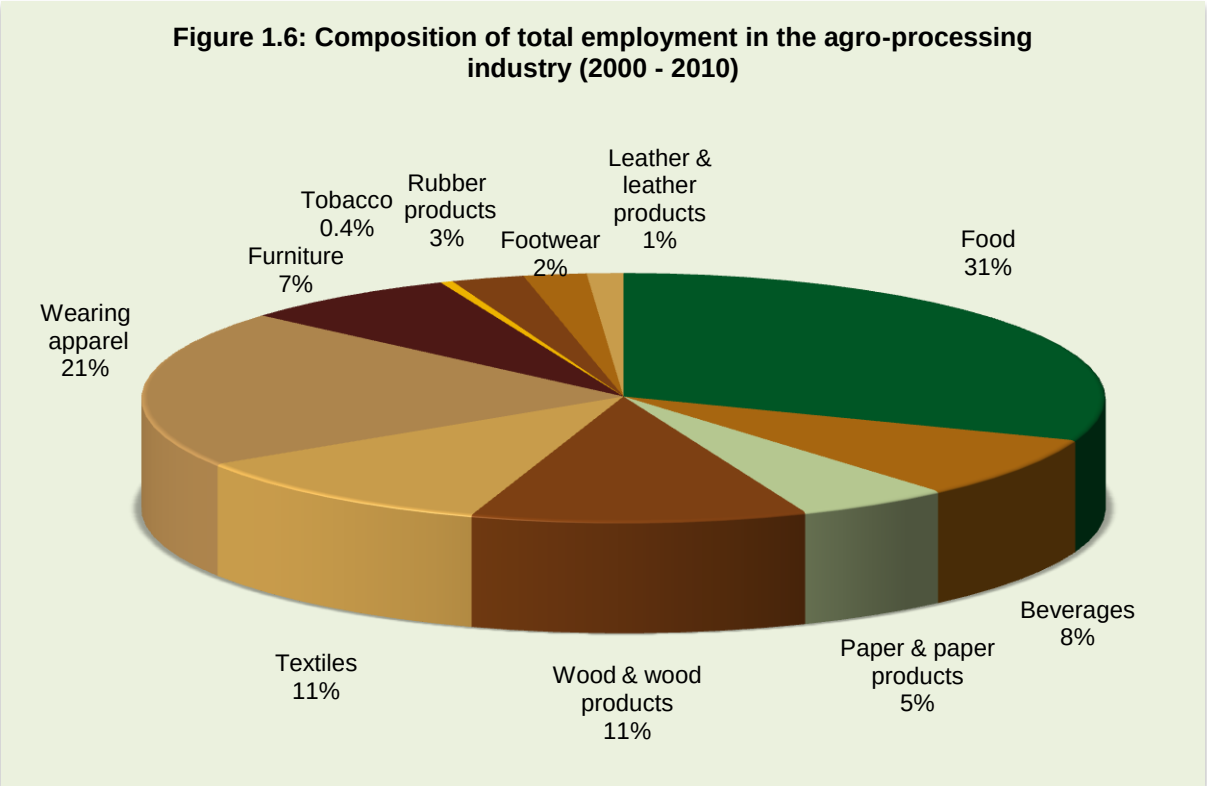
Source: Quantec EasyData (2011)

As noted earlier, the decline in employment in the manufacturing sector during 2006-2010 was mainly due to the fall of employment in the agro-processing industry. A close look at Table 1.11 shows that the largest decline in employment occurred in wearing apparel and textiles, which together shed more than 65 000 jobs, followed by the food and furniture divisions, which shed more than 14 000 and 7 500 jobs, respectively. The only sector that

generated employment during 2006-2010 is the beverages division, which created more than 10 000 jobs. The long run trend of employment in the wood and wood products division shows that it has been increasing consistently for the past two decades though it also shed more than 3 000 jobs during 2006-2010.

Table 1.12 shows that among the agro-processing, the food division accounted for 31% of the total employment, followed by textiles and wearing apparel, which together contributed 31% of total employment during 2006-2010. Considering the lower contribution in terms of value added and output, the textiles and wearing apparel divisions generate more employment than any other agro-processing industry. This is due to their higher labour intensity compared to the other agro-processing divisions. The contribution of the paper division to total employment is relatively lower (5%) compared to its contribution to the total value added in agro-processing (12%).

Figure 1.6: Composition of total employment in the agro-processing industry (2000 - 2010)



Source: Quantec EasyData (2011)

Table 1.12: Percentage of total employment by divisions in the agro-processing industry

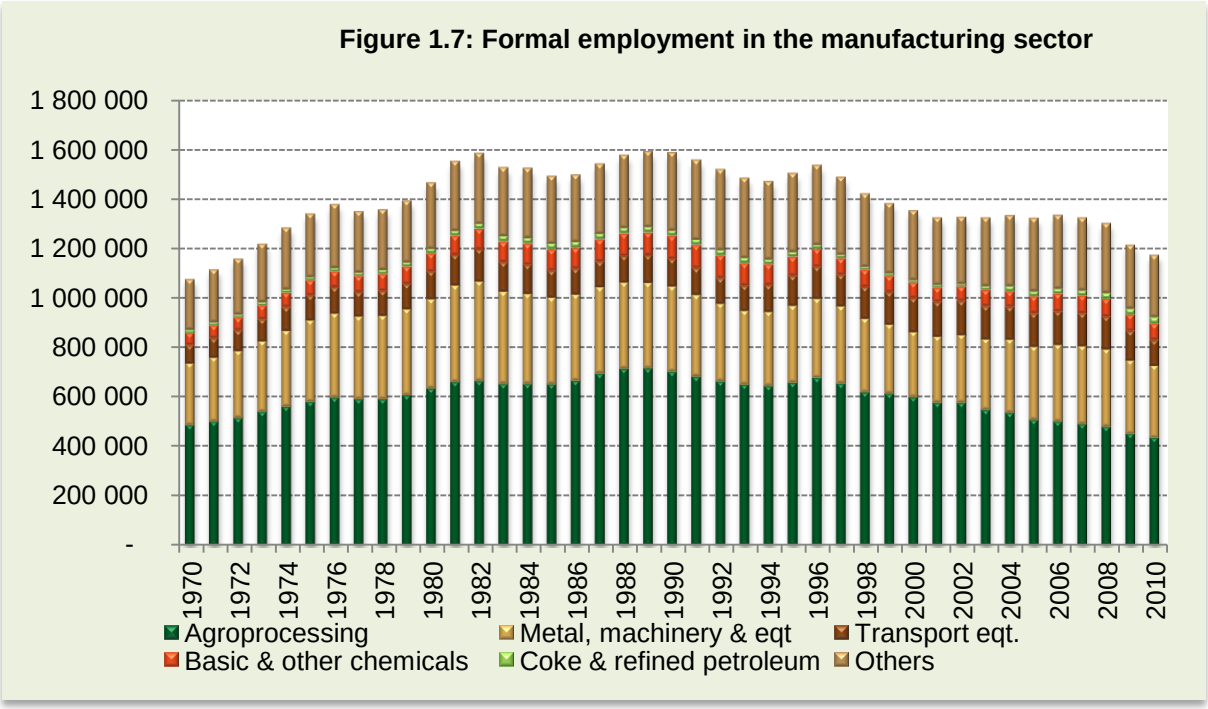
Period	Food	Beverages	Paper & paper products	Wood & wood products	Textiles	Wearing apparel	Furniture	Tobacco	Rubber products	Foot-wear	Leather & leather products
1970-1975	28.5%	5.0%	5.4%	8.1%	19.4%	18.7%	5.0%	0.4%	3.3%	4.7%	1.4%
1976-1980	30.6%	5.7%	4.7%	7.3%	18.6%	18.8%	4.6%	0.4%	3.4%	4.4%	1.5%
1981-1985	30.7%	6.2%	4.6%	7.1%	16.7%	19.3%	5.5%	0.4%	3.1%	5.0%	1.4%
1986-1990	31.5%	6.6%	5.1%	6.8%	15.5%	18.2%	5.9%	0.4%	3.1%	5.2%	1.5%
1991-1995	33.0%	6.9%	5.5%	7.2%	12.9%	18.3%	6.7%	0.4%	3.1%	4.6%	1.5%
1996-2000	32.0%	6.5%	4.9%	8.6%	11.8%	20.7%	7.0%	0.4%	2.9%	3.8%	1.4%
2001-2005	30.0%	6.8%	4.9%	11.0%	11.3%	22.1%	7.5%	0.4%	2.5%	2.2%	1.2%
2006-2010	31.3%	9.6%	5.5%	11.8%	10.2%	18.4%	7.2%	0.4%	2.3%	1.9%	1.1%

Source: Quantec EasyData (2011)

1.2.3.2 FORMAL EMPLOYMENT

Formal employment refers to employment where the employee receives a regular wage (which is taxed) and some additional benefits such as sick leave and paid holidays. The general trend of formal employment in the manufacturing sector presented in Figure 1.7 shows growth until 1982, followed by a fluctuation until the mid-1990s. Highest formal employment was reached in 1996 (1.151 million) and it further declined until 2001 and remained relatively stable until 2008. During 2009 and 2010, however, it shed more than 121 000 jobs.

Figure 1.7: Formal employment in the manufacturing sector



Source: Quantec EasyData (2011)

Table 1.13 shows the average formal employment by manufacturing industries. As shown in the table, agro-processing employs the largest number of workers; however, it has shown a consistent declining trend since 1986-1990. During 2006-2010, the average level of employment was higher for basic and other chemicals and for coke and refined petroleum. However, there was a sharp decline in the employment level for agro-processing. During this period, it shed more than 75 000 formal jobs. Despite the job losses, however, the sector remains the largest within manufacturing in generating formal employment (see Table 1.14), followed by metals, machinery and equipment.

Table 1.13: Average formal employment in the manufacturing sector

Period	Agro-processing	Metal, machinery & equipment	Transport equipment	Basic & other chemicals	Coke & refined petroleum	Others	Total Mfg. sector
1970-1975	527488	283749	87354	54685	12656	229727	1209473
1976-1980	600381	342622	104386	67573	16546	252818	1410637
1981-1985	652049	374259	119679	81502	23294	279751	1576752
1986-1990	693935	345378	107939	88645	23558	293685	1634761
1991-1995	655311	309697	108875	86443	20683	320893	1639223
1996-2000	628530	293995	130653	66318	13887	298137	1624496
2001-2005	545807	283389	135595	62676	15360	279841	1537716
2006-2010	469026	305391	124481	69187	22736	275677	1485313

Source: Quantec EasyData (2011)

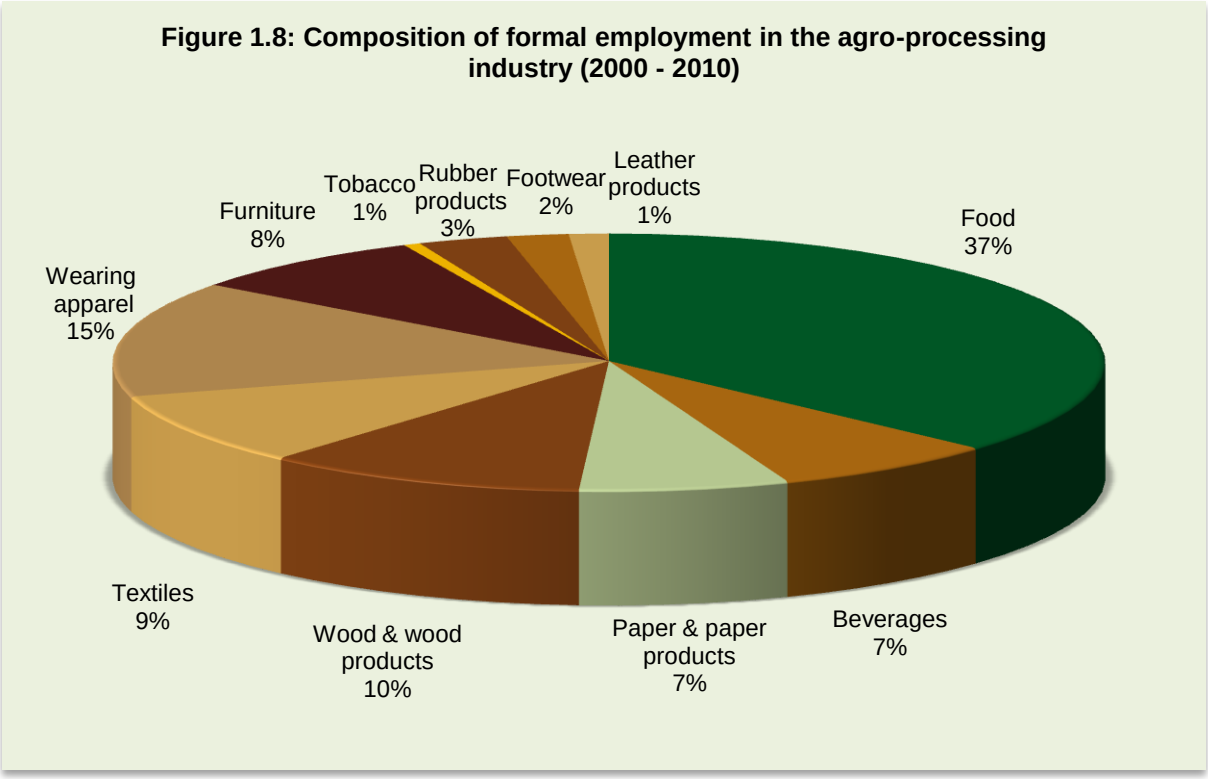
Table 1.14: Percentage of formal employment by industries in the manufacturing sector

Period	Agro-processing	Metal, machinery & equipment	Transport equipment	Basic & other chemicals	Coke & refined petroleum	Others
1970-1975	44.1%	23.7%	7.3%	4.6%	1.1%	19.2%
1976-1980	43.4%	24.8%	7.5%	4.9%	1.2%	18.3%
1981-1985	42.6%	24.5%	7.8%	5.3%	1.5%	18.3%
1986-1990	44.7%	22.2%	6.9%	5.7%	1.5%	18.9%
1991-1995	43.6%	20.6%	7.2%	5.8%	1.4%	21.4%
1996-2000	43.9%	20.5%	9.1%	4.6%	1.0%	20.8%
2001-2005	41.3%	21.4%	10.3%	4.7%	1.2%	21.2%
2006-2010	37.0%	24.1%	9.8%	5.5%	1.8%	21.8%

Source: Quantec EasyData (2011)

As shown in Figure 1.8, of all the agro-processing divisions, the food sector was still the largest contributor to formal employment (36%), followed by wearing apparel (15%), wood (11%), textiles (9%), furniture (8%), beverages (7%) and the paper (7%) division during 2000-2010.

Figure 1.8: Composition of formal employment in the agro-processing industry (2000 - 2010)



Source: Quantec EasyData (2011)

Table 1.15 shows that a significant decline in formal employment of agro-processing was largely due to the textiles and wearing apparel divisions, which lost more than 45 000 jobs during 2006-2010. Beverages and paper are the only divisions that increased formal employment during the same period. The share of formal employment presented in Table 1.16 shows that more than 60% of employment was generated by the food, textiles and wearing apparel divisions. It also reveals a declining trend for textiles and an increasing trend for the furniture division.

Table 1.15: Average formal employment by divisions in the agro-processing industry

Period	Food	Beverages	Paper & paper products	Wood & wood products	Textiles	Wearing apparel	Furniture	Tobacco	Rubber products	Foot-wear	Leather & leather products
1970-1975	151841	26580	28918	43002	102544	95979	26828	1882	17353	24872	7689
1976-1980	187095	34316	29022	44301	111363	107641	27989	2216	20917	26645	8875
1981-1985	206408	40558	31085	46503	108733	116784	36270	2496	21104	33057	9052
1986-1990	228003	45965	37012	47310	106467	113322	42226	3015	22387	37313	10917
1991-1995	229705	45609	39327	46111	82279	101355	44848	2869	22092	31119	9997
1996-2000	218083	40957	34951	52016	71829	107569	45529	2935	21141	24850	8671
2001-2005	186886	33898	32665	54096	57507	97217	44329	2685	16913	12526	7084
2006-2010	173656	35108	32810	49059	42243	66684	37282	2629	13798	9550	6207

Source: Quantec EasyData (2011)

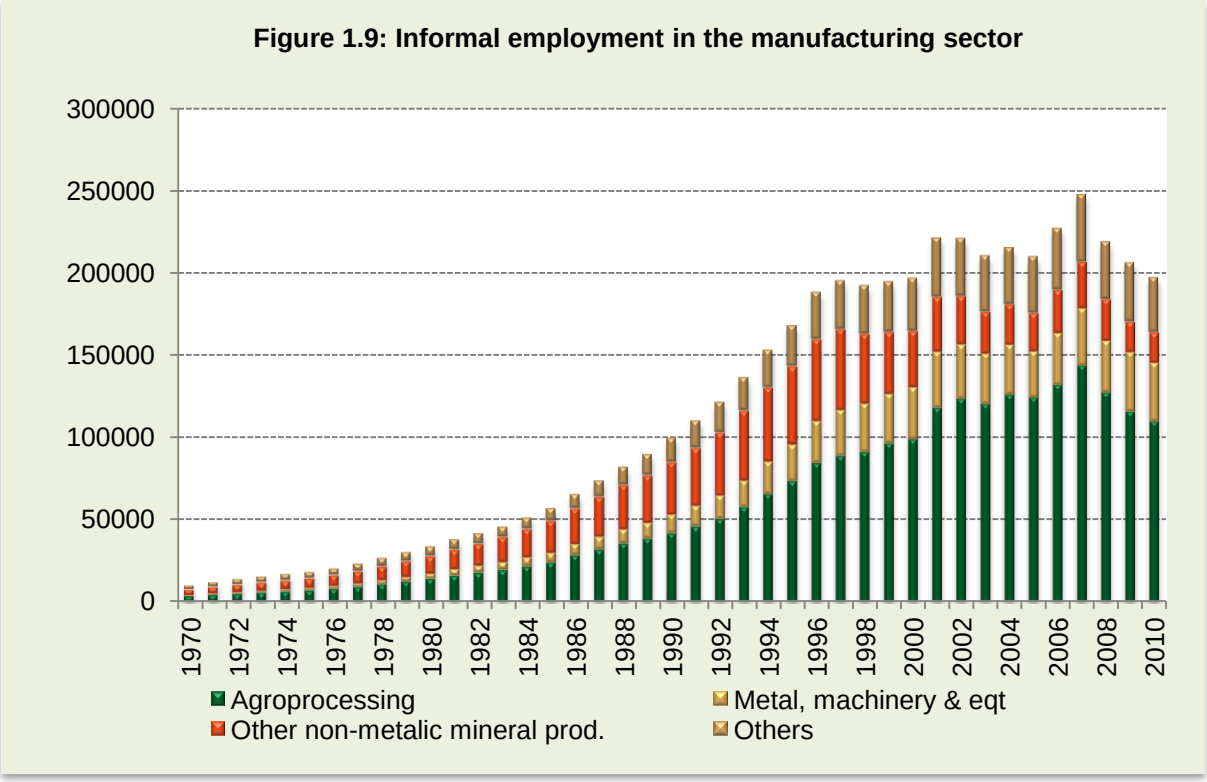
Table 1.16: Percentage of formal employment by divisions in the agro-processing industry.

Period	Food	Beverages	Paper & paper products	Wood & wood products	Textiles	Wearing apparel	Furniture	Tobacco	Rubber products	Foot-wear	Leather & leather products
1970-1975	28.8%	5.0%	5.5%	8.2%	19.4%	18.2%	5.1%	0.4%	3.3%	4.7%	1.5%
1976-1980	31.2%	5.7%	4.8%	7.4%	18.5%	17.9%	4.7%	0.4%	3.5%	4.4%	1.5%
1981-1985	31.7%	6.2%	4.8%	7.1%	16.7%	17.9%	5.6%	0.4%	3.2%	5.1%	1.4%
1986-1990	32.9%	6.6%	5.3%	6.8%	15.3%	16.3%	6.1%	0.4%	3.2%	5.4%	1.6%
1991-1995	35.1%	7.0%	6.0%	7.0%	12.6%	15.5%	6.8%	0.4%	3.4%	4.7%	1.5%
1996-2000	34.7%	6.5%	5.6%	8.3%	11.4%	17.1%	7.2%	0.5%	3.4%	4.0%	1.4%
2001-2005	34.2%	6.2%	6.0%	9.9%	10.5%	17.8%	8.1%	0.5%	3.1%	2.3%	1.3%

Source: Quantec EasyData (2011)

1.2.3.3 INFORMAL EMPLOYMENT

Informal employment refers to the total number of jobs in the informal sector. Informal employment in the manufacturing sector is presented in Figure 1.9. Manufacturing employed more than 196 000 people in the informal sector during 2010, and three of its industries accounted for more than 80% of the total informal employment. These were agro-processing, which accounted for 57%, followed by metals, machinery and equipment (15.6%) and other non-metallic mineral production (10.6%) during 2006-2010 (see Tables 1.17 and 1.18).



Source: Quantec EasyData (2011)

Table 1.17: Average informal employment in the manufacturing sector

Period	Agro-processing	Metal, machinery & equipment	Other non-metallic mineral production	Others	Total Mfg. sector
1970-1975	5342	973	4499	2999	13813
1976-1980	10953	2290	8284	4785	26312
1981-1985	19643	4792	15223	6559	46217
1986-1990	35059	8724	26485	11353	81621
1991-1995	58302	16932	41468	20620	137322
1996-2000	91389	28892	42413	30283	192976
2001-2005	121675	31331	27047	34995	215047
2006-2010	124824	34098	23165	36728	218815

Source: Quantec EasyData (2011)

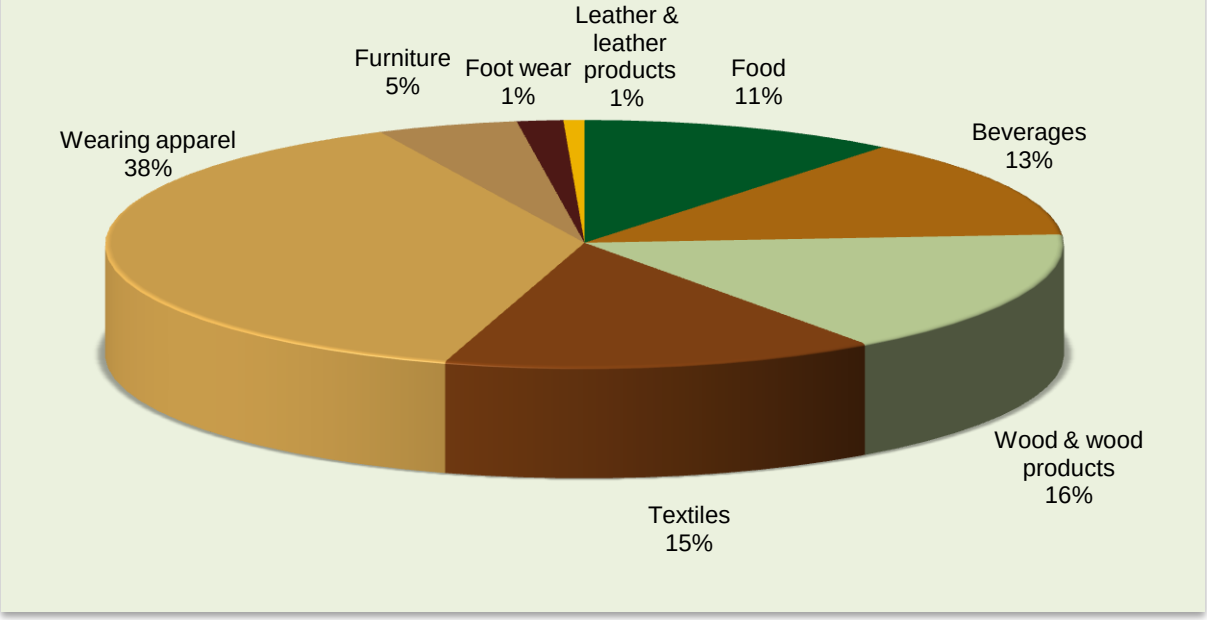
Table 1.18: Percentage of informal employment by industries in the manufacturing sector

Period	Agro-processing	Metal, machinery & equipment	Other non-metallic mineral production	Others
1970-1975	38.7%	7.0%	32.6%	21.7%
1976-1980	41.6%	8.7%	31.5%	18.2%
1981-1985	42.5%	10.4%	32.9%	14.2%
1986-1990	43.0%	10.7%	32.4%	13.9%
1991-1995	42.5%	12.3%	30.2%	15.0%
1996-2000	47.4%	15.0%	22.0%	15.7%
2001-2005	56.6%	14.6%	12.6%	16.3%
2006-2010	57.0%	15.6%	10.6%	16.8%

Source: Quantec EasyData (2011)

Among agro-processing divisions, wearing apparel and textiles accounted for more than 50% of informal employment, followed by wood (16%) and beverages (13%) during 2000-2010 (see Figure 1.10). The food division contributed 11% of the total informal employment during the same period.

Figure 1.10: Composition of total informal employment in the agro-processing industry (2000 - 2010)



Source: Quantec EasyData (2011)

Table 1.19 shows that though the food, wearing apparel, furniture and leather industries shed informal employment during 2006-2010, the decline was very significant for wearing

apparel. On the other hand, beverages, wood, textiles and footwear increased the number of informal employment during the same period, with a significant increment observed in the beverages division.

The share of informal employment presented in Table 1.20 shows that close to 50% of informal employment in the agro-processing industry was generated by the textiles and wearing apparel divisions. Beverages and wood each contributed 17% to the total informal employment in the agro-processing industry.

Table 1.19: Average informal employment by divisions in the agro-processing industry

Period	Food	Beverages	Wood & wood products	Textiles	Wearing apparel	Furniture	Foot-wear	Leather & leather products
1986-1990	1913	2035	2563	6721	19703	1086	858	179
1991-1995	5550	3949	5198	9731	29086	2620	1614	554
1996-2000	12175	5896	9589	13390	41616	4956	2340	1428
2001-2005	13375	11773	19385	17719	50533	6021	1871	997
2006-2010	12372	21854	21298	18520	42836	5583	1886	474

Source: Quantec EasyData (2011)

Table 1.20: Percentage of informal employment by divisions in the agro-processing industry

Period	Food	Beverages	Wood & wood products	Textiles	Wearing apparel	Furniture	Footwear	Leather & leather products
1986-1990	5.5%	5.8%	7.3%	19.2%	56.2%	3.1%	2.4%	0.5%
1991-1995	9.5%	6.8%	8.9%	16.7%	49.9%	4.5%	2.8%	1.0%
1996-2000	13.3%	6.5%	10.5%	14.7%	45.5%	5.4%	2.6%	1.6%
2001-2005	11.0%	9.7%	15.9%	14.6%	41.5%	4.9%	1.5%	0.8%
2006-2010	9.9%	17.5%	17.1%	14.8%	34.3%	4.5%	1.5%	0.4%

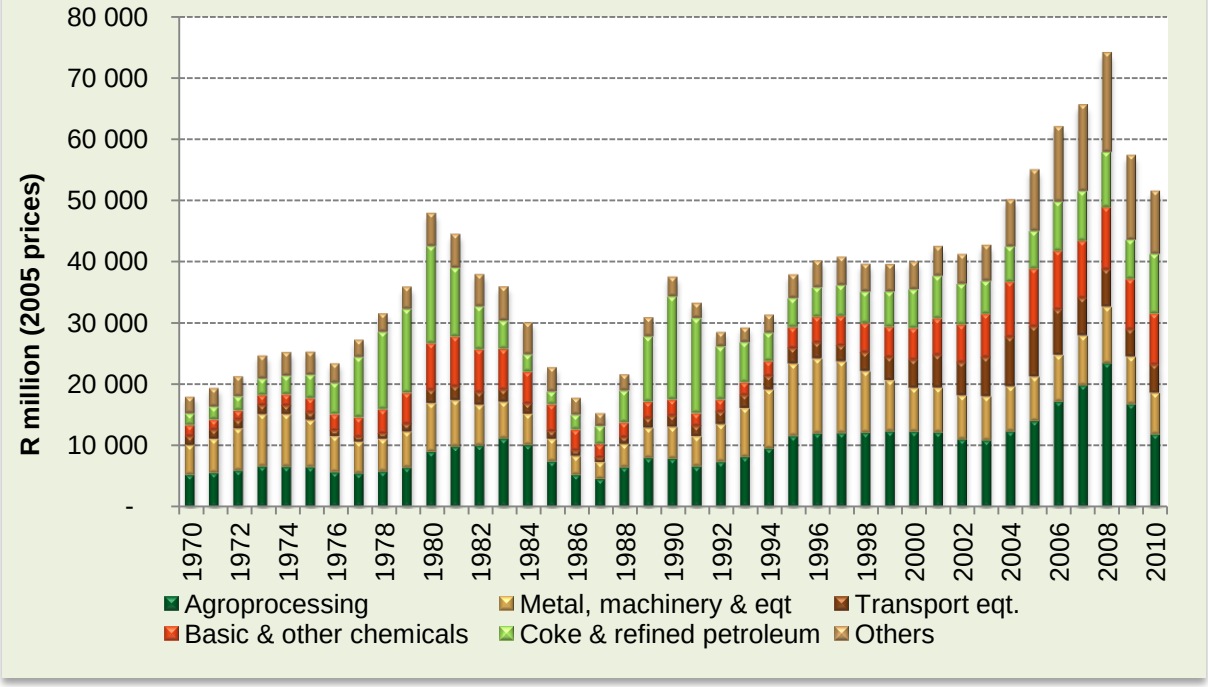
Source: Quantec EasyData (2011)

1.2.4 DOMESTIC FIXED INVESTMENT

Domestic fixed investment refers to capital investment expenditure on machinery, buildings, factories and tools. Figure 1.11 shows the trend in domestic fixed investment in the manufacturing sector. After showing a steady increment from 1970 to 1980, domestic fixed investment significantly subsided and reached its nadir in 1987. It then recovered and grew

markedly until 1990. However, after remaining stagnant from 1995 to 2003, it considerably increased and reached the highest real value in 2008. Following the economic recession, it declined sharply by 23% and 30% from its 2008 level in 2009 and 2010, respectively.

Figure 1.11: Real domestic fixed investment in the manufacturing sector



Source: Quantec EasyData (2011)

Tables 1.21 and 1.22 present the average and percentage shares of real domestic fixed investment of industries in the manufacturing sector. Among industries in the manufacturing sector, domestic fixed investment of agro-processing amounted to R17.6 billion of the total of R62 billion during 2006-2010. During the same period, the basic and other chemicals industry contributed R9.1 billion, followed by coke and refined petroleum, which accounted for R8.2 billion. Thus the highest share of domestic fixed investment in the manufacturing sector was contributed by agro-processing (28.5%), followed by basic and other chemicals (14.7%) and coke and refined petroleum (13.3%) during 2006-2010.

Table 1.21: Average real domestic fixed investment in the manufacturing sector (R million)

Period	Agro-processing	Metal, machinery & equipment	Transport equipment	Basic & other chemicals	Coke & refined petroleum	Others	Total Mfg. sector
1970-1975	6041	6929	1456	1808	2585	3414	22233
1976-1980	6433	5972	1248	4498	11316	3630	33098
1981-1985	9625	5745	1898	6259	5483	5124	34135
1986-1990	6391	3902	1273	2662	7536	2784	24547
1991-1995	8585	8004	2163	2415	7949	2833	31950
1996-2000	12079	9769	3347	4783	5387	4549	39914
2001-2005	11982	7163	6679	7517	6142	6688	46172
2006-2010	17667	7825	5725	9129	8225	13371	61941

Source: Quantec EasyData (2011)

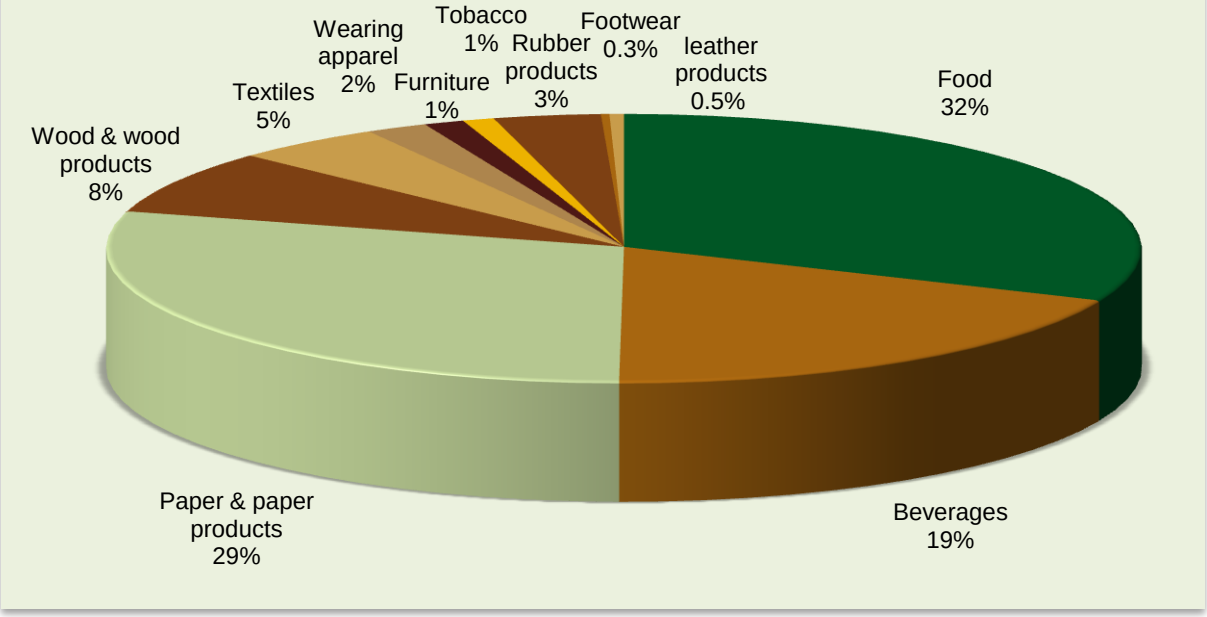
Table 1.22: Percentage of real domestic fixed investment by industries in the manufacturing sector

Period	Agro-processing	Metal, machinery & equipment	Transport equipment	Basic & other chemicals	Coke & refined petroleum	Others
1970-1975	27.2%	31.2%	6.5%	8.1%	11.6%	15.4%
1976-1980	19.4%	18.0%	3.8%	13.6%	34.2%	11.0%
1981-1985	28.2%	16.8%	5.6%	18.3%	16.1%	15.0%
1986-1990	26.0%	15.9%	5.2%	10.8%	30.7%	11.3%
1991-1995	26.9%	25.1%	6.8%	7.6%	24.9%	8.9%
1996-2000	30.3%	24.5%	8.4%	12.0%	13.5%	11.4%
2001-2005	26.0%	15.5%	14.5%	16.3%	13.3%	14.5%
2006-2010	28.5%	12.6%	9.2%	14.7%	13.3%	21.6%

Source: Quantec EasyData (2011)

A look at the composition of domestic fixed investment in the agro-processing industry (Figure 1.12) shows that the paper and food divisions contributed more than 60%, followed by beverages (19%) and wood (8%), during 2000-2010.

Figure 1.12: Composition of domestic fixed investment in the agro-processing industry (2000 - 2010)



Source: Quantec EasyData (2011)

Table 1.23 shows that the average real domestic fixed investment in the paper and wood divisions has increased consistently since 1986-1990. Moreover, significant growth was observed in the beverages, food, paper, wood and furniture divisions during 2006-2010. However, domestic fixed investment for textiles, wearing apparel, tobacco and leather declined during the same period. Table 1.24 shows that four divisions accounted for 90% of domestic fixed investment during 2006-2010. These are food (32%), beverages (18%), paper (29%) and wood (10%).

Table 1.23: Average real domestic fixed investment by divisions in the agro-processing industry (R million)

Period	Food	Beverages	Paper & paper products	Wood & wood products	Textiles	Wearing apparel	Furniture	Tobacco	Rubber products	Foot-wear	Leather & leather products
1970-1975	1918	854	865	478	908	320	87	138	376	74	24
1976-1980	2569	895	687	448	804	270	134	293	237	71	25
1981-1985	3052	1539	2517	540	796	357	210	205	300	76	33
1986-1990	1970	1353	1218	318	697	270	118	117	243	64	23
1991-1995	3325	1914	1460	339	544	224	148	154	364	69	44
1996-2000	4182	2522	2807	512	823	339	226	110	452	53	54
2001-2005	3679	2282	3430	531	823	313	129	174	507	34	81
2006-2010	5670	3239	5209	1761	570	260	246	119	493	46	54

Source: Quantec EasyData (2011)

Table 1.24: Percentage of real domestic fixed investment by divisions in the agro-processing industry

Period	Food	Beverages	Paper & paper products	Wood & wood products	Textiles	Wearing apparel	Furniture	Tobacco	Rubber products	Foot-wear	Leather & leather products
1970-1975	31.8%	14.1%	14.3%	7.9%	15.0%	5.3%	1.4%	2.3%	6.2%	1.2%	0.4%
1976-1980	39.9%	13.9%	10.7%	7.0%	12.5%	4.2%	2.1%	4.6%	3.7%	1.1%	0.4%
1981-1985	31.7%	16.0%	26.2%	5.6%	8.3%	3.7%	2.2%	2.1%	3.1%	0.8%	0.3%
1986-1990	30.8%	21.2%	19.1%	5.0%	10.9%	4.2%	1.8%	1.8%	3.8%	1.0%	0.4%
1991-1995	38.7%	22.3%	17.0%	4.0%	6.3%	2.6%	1.7%	1.8%	4.2%	0.8%	0.5%
1996-2000	34.6%	20.9%	23.2%	4.2%	6.8%	2.8%	1.9%	0.9%	3.7%	0.4%	0.4%
2001-2005	30.7%	19.0%	28.6%	4.4%	6.9%	2.6%	1.1%	1.5%	4.2%	0.3%	0.7%
2006-2010	32.1%	18.3%	29.5%	10.0%	3.2%	1.5%	1.4%	0.7%	2.8%	0.3%	0.3%

Source: Quantec EasyData (2011)

1.2.5 TRADE

This section reviews the export and import contribution of agro-processing in the manufacturing sector and it also reviews the relative trade performance of each agro-processing division.

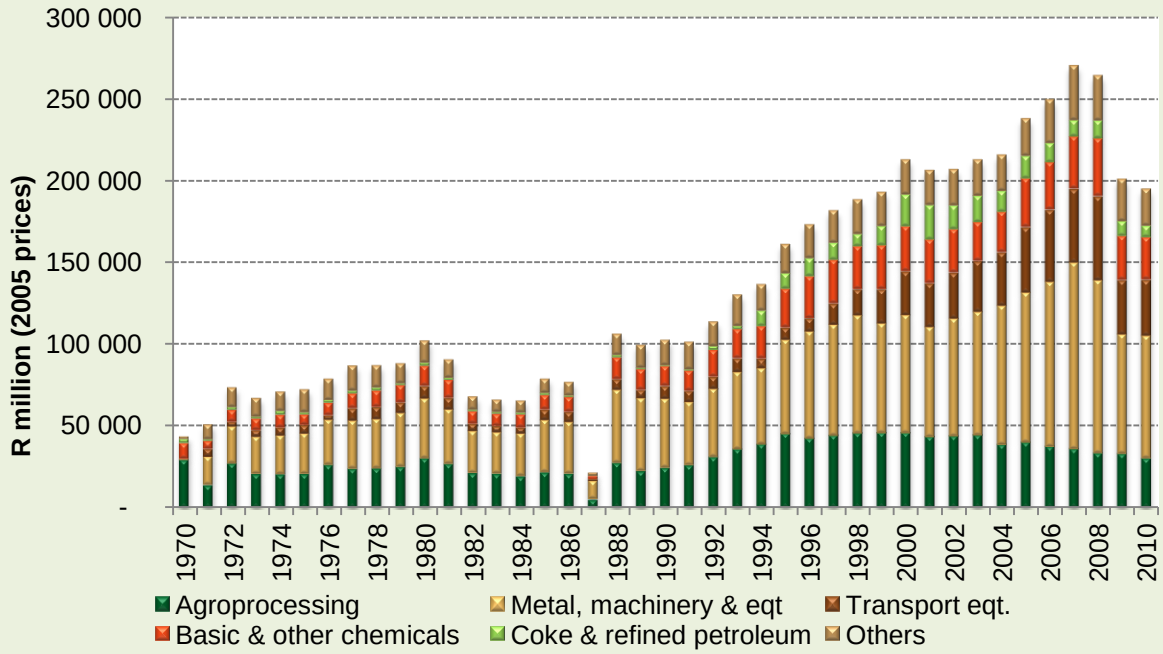
1.2.5.1 EXPORTS

Figure 1.13 presents trends in the total real export value of the manufacturing sector. After stagnating in the 1980s and remaining at the bottom in 1987 owing to sanctions, the real export value of manufacturing increased markedly since the early 1990s. The trend, however, fell steeply during 2009 and 2010 and its value was 24% and 22%, respectively, lower than in 2007. Thus the recession period severely affected exports of the manufacturing sector.

Of all manufacturing industries, metal, machinery and equipment generate the highest export values, followed by transport equipment and the agro-processing industry (see Table 1.25). While most of the manufacturing industries have shown an increasing trend in export value, the real export value of the agro-processing industry has declined since 1996-2000. The export value of agro-processing that used to be second after metal, machinery and equipment for many years has been outperformed by transport equipment in recent years (2006-2010). The percentage share of export was largely dominated by metal, machinery and equipment

(39.8%), followed by transport equipment (17.6%) and agro-processing (14.1%) during 2006-2010 (see Table 1.26).

Figure 1.13: Real export value of manufacturing sector



Source: Quantec EasyData (2011)

Table 1.25: Average real export value of the manufacturing sector (R million)

Period	Agro-processing	Metal, machinery & equipment	Transport equipment	Basic & other chemicals	Coke & refined petroleum	Others	Total Mfg. sector
1970-1975	21513	18835	3748	7119	1768	10068	63052
1976-1980	25290	31629	6405	9898	1708	13728	88659
1981-1985	21432	28748	5140	8556	1211	8736	73822
1986-1990	19596	35056	5405	9729	862	10680	81328
1991-1995	34615	46607	7281	18006	4878	17223	128609
1996-2000	43896	69178	16892	26606	12193	21008	189773
2001-2005	41206	78524	31645	26257	15860	22390	215883
2006-2010	33276	93800	41516	29813	10008	27497	235911

Source: Quantec EasyData (2011)

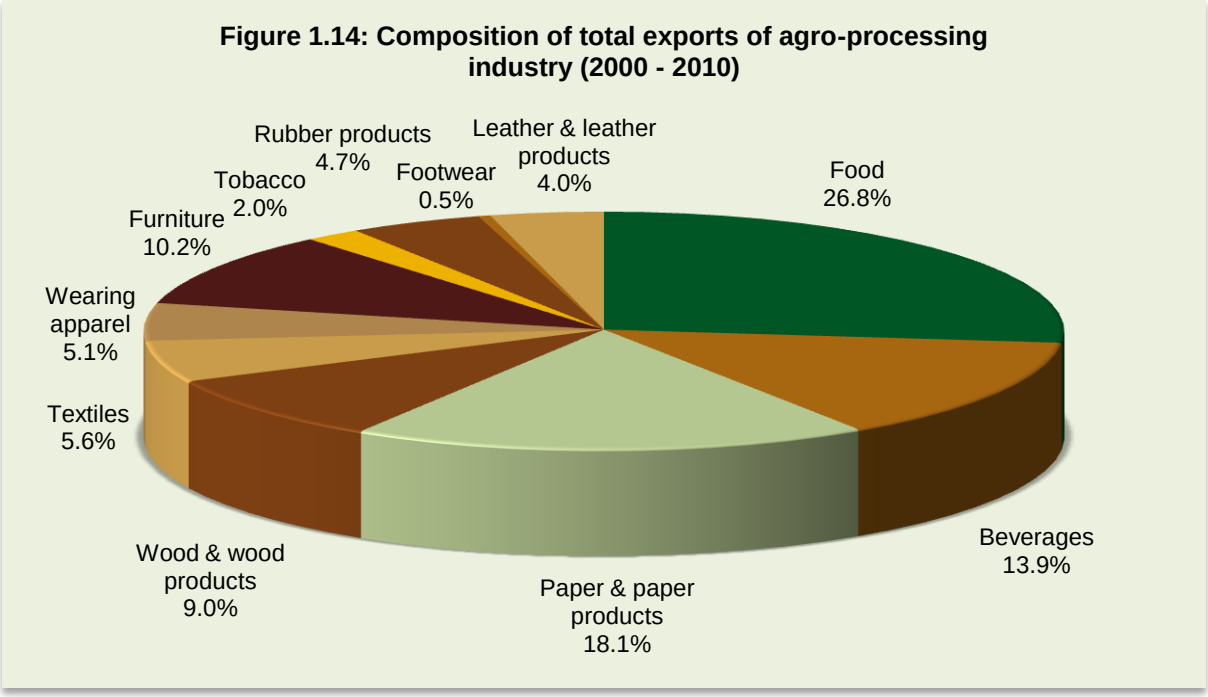
Table 1.26: Percentage share of real export value by industries in the manufacturing sector

Period	Agro-processing	Metal, machinery & equipment	Transport equipment	Basic & other chemicals	Coke & refined petroleum	Others
1970-1975	34.1%	29.9%	5.9%	11.3%	2.8%	16.0%
1976-1980	28.5%	35.7%	7.2%	11.2%	1.9%	15.5%
1981-1985	29.0%	38.9%	7.0%	11.6%	1.6%	11.8%
1986-1990	24.1%	43.1%	6.6%	12.0%	1.1%	13.1%
1991-1995	26.9%	36.2%	5.7%	14.0%	3.8%	13.4%
1996-2000	23.1%	36.5%	8.9%	14.0%	6.4%	11.1%
2001-2005	19.1%	36.4%	14.7%	12.2%	7.3%	10.4%
2006-2010	14.1%	39.8%	17.6%	12.6%	4.2%	11.7%

Source: Quantec EasyData (2011)

Figure 1.14 presents the composition of the total export value of the agro-processing industry during 2000-2010. As shown in the figure, food exports accounted for 27%, followed by paper (18%), beverages (14%), wood (11%) and furniture (10%).

Figure 1.14: Composition of total exports of agro-processing industry (2000 - 2010)



Source: Quantec EasyData (2011)

Within the agro-processing industry, export values in beverages and tobacco showed consistent growth compared to the other agro-processing divisions (see Table 1.27). However, food, beverages and paper were the dominant agro-processing divisions in terms of

export values, where they accounted for more than 63% of the total export value. There was a general decline in exports during 2006-2010 (except beverages and tobacco); however, the export value of the wearing apparel division has substantially plummeted compared to others. Table 1.27 also shows that there has been a declining trend for the footwear division and a significant fall in textiles and wearing apparel exports since 1996-2000.

Table 1.27: Average real export value by divisions in the agro-processing industry (R million)

Period	Food	Beverages	Paper & paper products	Wood & wood products	Textiles	Wearing apparel	Furniture	Tobacco	Rubber products	Foot-wear	Leather & leather products
1970-1975	11540	206	2887	436	3543	954	23	24	201	1369	329
1976-1980	11952	242	2859	1731	4314	1425	210	27	197	1830	503
1981-1985	8277	221	2667	1361	5087	1643	209	21	136	1094	715
1986-1990	6521	526	4347	1412	3758	1294	538	61	267	403	470
1991-1995	10468	2392	6836	2457	3829	3719	1862	452	791	746	1064
1996-2000	11781	3730	7849	3989	3739	4012	4212	725	1683	625	1551
2001-2005	10462	5041	7105	4179	2583	2869	4545	649	1909	188	1676
2006-2010	9570	5760	6212	2462	1502	609	3210	848	1639	101	1365

Source: Quantec EasyData (2011)

Table 1.28: Percentage of real export value by divisions in the agro-processing industry

Period	Food	Beverages	Paper & paper products	Wood & wood products	Textiles	Wearing apparel	Furniture	Tobacco	Rubber products	Foot-wear	Leather & leather products
1970-1975	53.6%	1.0%	13.4%	2.0%	16.5%	4.4%	0.1%	0.1%	0.9%	6.4%	1.5%
1976-1980	47.3%	1.0%	11.3%	6.8%	17.1%	5.6%	0.8%	0.1%	0.8%	7.2%	2.0%
1981-1985	38.6%	1.0%	12.4%	6.4%	23.7%	7.7%	1.0%	0.1%	0.6%	5.1%	3.3%
1986-1990	33.3%	2.7%	22.2%	7.2%	19.2%	6.6%	2.7%	0.3%	1.4%	2.1%	2.4%
1991-1995	30.2%	6.9%	19.7%	7.1%	11.1%	10.7%	5.4%	1.3%	2.3%	2.2%	3.1%
1996-2000	26.8%	8.5%	17.9%	9.1%	8.5%	9.1%	9.6%	1.7%	3.8%	1.4%	3.5%
2001-2005	25.4%	12.2%	17.2%	10.1%	6.3%	7.0%	11.0%	1.6%	4.6%	0.5%	4.1%
2006-2010	28.8%	17.3%	18.7%	7.4%	4.5%	1.8%	9.6%	2.5%	4.9%	0.3%	4.1%

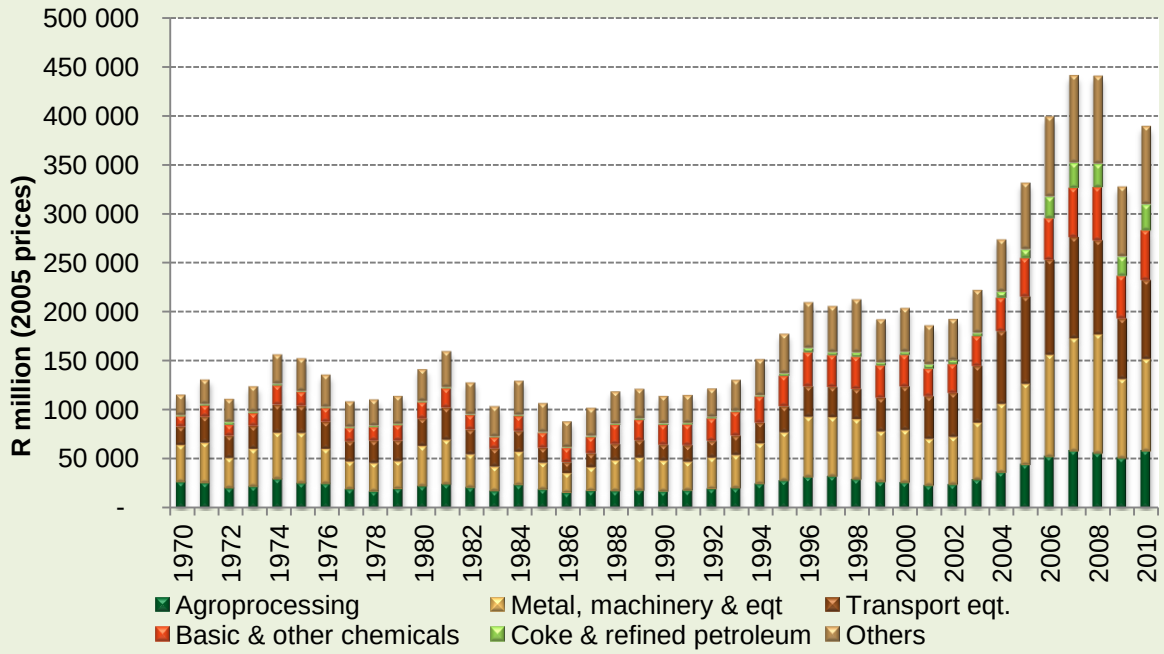
Source: Quantec EasyData (2011)

1.2.5.2 IMPORTS

The trade balance of the total manufacturing sector shows that the sector as a whole has been a net importer during the past three decades. A close look at various periods, however, shows that the net trade position of the manufacturing sector increased by an unprecedented level during 2006-2010 compared with the previous period. The significant growth in net imports

was due to the change of the agro-processing industry, chemicals and refinery from being net exporters to become net importers during 2006-2010. The trend of real import value of the manufacturing sector presented in Figure 1.15 shows that imports have increased overwhelmingly during the past decade.

Figure 1.3: Real import value of manufacturing sector



Source: Quantec EasyData (2011)

A summary of the average import value and the share of each manufacturing industry is given in Tables 1.29 and 1.30. As shown in the tables, the metal, machinery and equipment industry, followed by transport equipment, agro-processing and chemicals, are the largest importers within the manufacturing sector.

Table 1.29: Average real import value of the manufacturing sector (R million)

Period	Agro-processing	Metal, machinery & equipment	Transport equipment	Basic & other chemicals	Coke & refined petroleum	Others	Total Mfg. sector
1970-1975	24721	41216	24571	13316	1379	26417	131620
1976-1980	20484	32628	23885	14768	993	29230	121988
1981-1985	20938	33260	22381	15259	819	32883	125540
1986-1990	17040	28337	15062	18210	1108	29149	108906
1991-1995	21987	37315	20095	25243	1388	33028	139057
1996-2000	28950	57723	34120	33031	3442	47101	204367
2001-2005	31050	61373	61481	32254	5447	49031	240636
2006-2010	54359	102986	87267	48351	23398	81942	398302

Source: Quantec EasyData (2011)

While the import share of the metal, machinery and equipment industry is declining marginally, this industry remains the leading importer of manufacturing goods. There is, however, a general upward trend in the share of transport equipment, although it declined slightly during 2006-2010. Similar to its share of export, agro-processing's share of import value also declined, but it recovered modestly during 2006-2010.

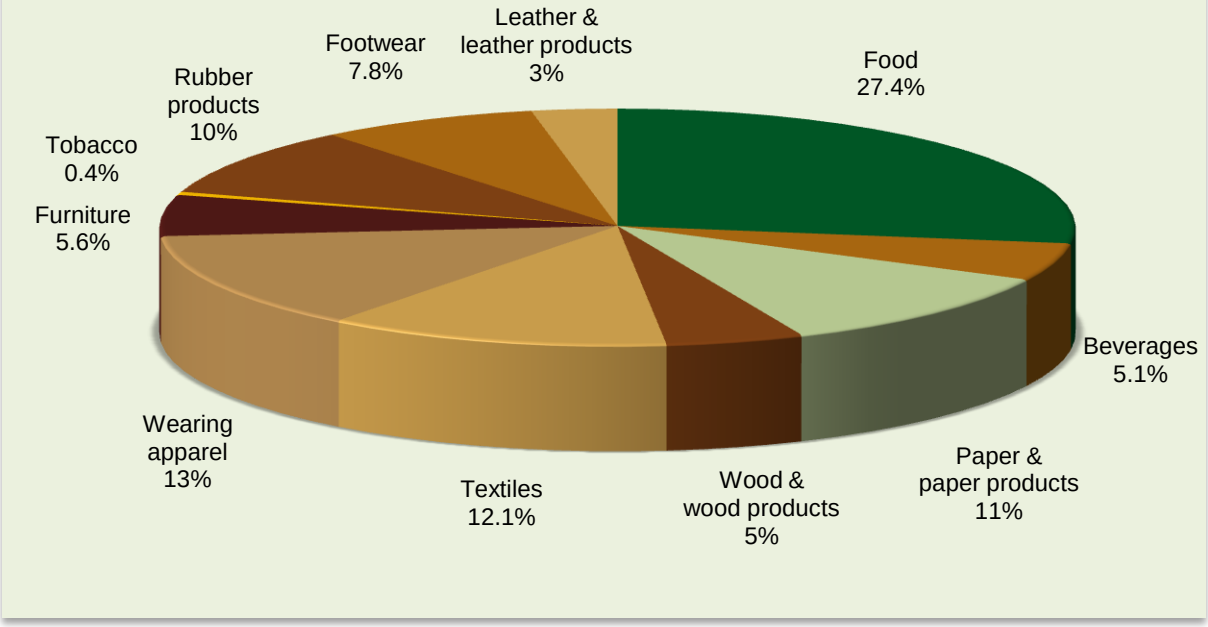
Table 1.30: Percentage of real import value by industries in the manufacturing sector

Period	Agro-processing	Metal, machinery & equipment	Transport equipment	Basic & other chemicals	Coke & refined petroleum	Others
1970-1975	18.8%	31.3%	18.7%	10.1%	1.0%	20.1%
1976-1980	16.8%	26.7%	19.6%	12.1%	0.8%	24.0%
1981-1985	16.7%	26.5%	17.8%	12.2%	0.7%	26.2%
1986-1990	15.6%	26.0%	13.8%	16.7%	1.0%	26.8%
1991-1995	15.8%	26.8%	14.5%	18.2%	1.0%	23.8%
1996-2000	14.2%	28.2%	16.7%	16.2%	1.7%	23.0%
2001-2005	12.9%	25.5%	25.5%	13.4%	2.3%	20.4%
2006-2010	13.6%	25.9%	21.9%	12.1%	5.9%	20.6%

Source: Quantec EasyData (2011)

Within the agro-processing industry, imports by the wearing apparel and textiles division contributed roughly the same as the food imports. They accounted for 53% of total imports during 2000-2010. Paper, rubber and footwear divisions accounted for 11%, 9% and 8%, respectively, of imports during the same period (see Figure 1.16).

Figure 1.16: Composition of total import of agro-processing industry (2000 - 2010)



Source: Quantec EasyData (2011)

Similar to the trend in the manufacturing sector, there was a sharp increase in imports of most industries during 2006-2010 (see Table 1.31). Imports of beverages, wearing apparel and furniture more than doubled compared to the previous period (2001-2005). Generally, the import value has been consistently increasing for food, wood, wearing apparel, furniture, rubber and footwear products since 1986-1990. Thus during 2006-2010, the highest share of imports among agro-processing was for processed food (26.7%), followed by wearing apparel (14.7%), textiles (10.9%), paper (10.8%) and rubber (9.5%) (see Table 1.32).

Table 1.31: Average real import value by divisions in the agro-processing industry (R million)

Period	Food	Beverages	Paper & paper products	Wood & wood products	Textiles	Wearing apparel	Furniture	Tobacco	Rubber products	Foot-wear	Leather & leather products
1970-1975	5942	1000	6007	1374	6040	2471	167	179	529	592	419
1976-1980	4778	1031	5539	1107	5043	1452	120	106	487	498	324
1981-1985	4834	1596	3968	786	5857	1716	170	155	608	768	480
1986-1990	3868	1784	4049	994	3315	1093	165	336	778	304	355
1991-1995	5762	1698	3968	1192	4287	1467	312	302	1298	978	722
1996-2000	8618	2031	4156	1585	4427	2224	736	148	2184	1709	1131
2001-2005	8785	1437	3401	1794	4228	3553	1521	102	2930	2330	969
2006-2010	14525	2943	5865	2284	5942	7966	3400	284	5183	4382	1584

Source: Quantec EasyData (2011)

Table 1.32: Percentage of real import value by divisions in the agro-processing industry

Period	Food	Beverages	Paper & paper products	Wood & wood products	Textiles	Wearing apparel	Furniture	Tobacco	Rubber products	Foot-wear	Leather & leather products
1970-1975	24.0%	4.0%	24.3%	5.6%	24.4%	10.0%	0.7%	0.7%	2.1%	2.4%	1.7%
1976-1980	23.3%	5.0%	27.0%	5.4%	24.6%	7.1%	0.6%	0.5%	2.4%	2.4%	1.6%
1981-1985	23.1%	7.6%	19.0%	3.8%	28.0%	8.2%	0.8%	0.7%	2.9%	3.7%	2.3%
1986-1990	22.7%	10.5%	23.8%	5.8%	19.5%	6.4%	1.0%	2.0%	4.6%	1.8%	2.1%
1991-1995	26.2%	7.7%	18.0%	5.4%	19.5%	6.7%	1.4%	1.4%	5.9%	4.4%	3.3%
1996-2000	29.8%	7.0%	14.4%	5.5%	15.3%	7.7%	2.5%	0.5%	7.5%	5.9%	3.9%
2001-2005	28.3%	4.6%	11.0%	5.8%	13.6%	11.4%	4.9%	0.3%	9.4%	7.5%	3.1%
2006-2010	26.7%	5.4%	10.8%	4.2%	10.9%	14.7%	6.3%	0.5%	9.5%	8.1%	2.9%

Source: Quantec EasyData (2011)

CHAPTER TWO

ECONOMIC REVIEW OF THE AGRO-PROCESSING INDUSTRY

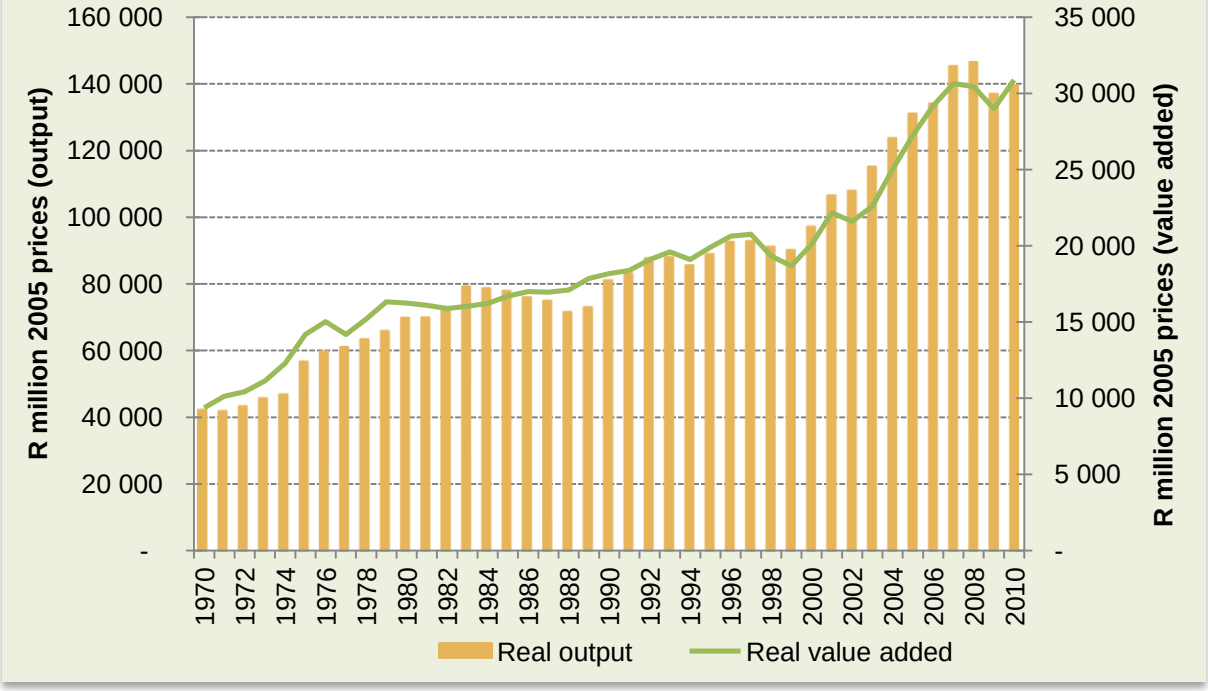
2.1 INTRODUCTION

This chapter provides a brief overview of the main economic trends of each division in the agro-processing industry. Among key economic trends, the output, value added, domestic fixed investment and employment trends of each division are analysed to provide a succinct summary of the performance of the industry. In cases where data permit, these variables are reviewed by enterprise size to identify the role of SMEs in the agro-processing industry.

2.2 FOOD PRODUCTS

The trend of real output and value added of the food sector is presented in Figure 2.1. The figure shows an upward trend with dips in 1999 and 2009. However, it has displayed marked growth for most of the years. The growth rate for the output and value added was 3.9% and 4.6%, respectively, during 2000-2010.

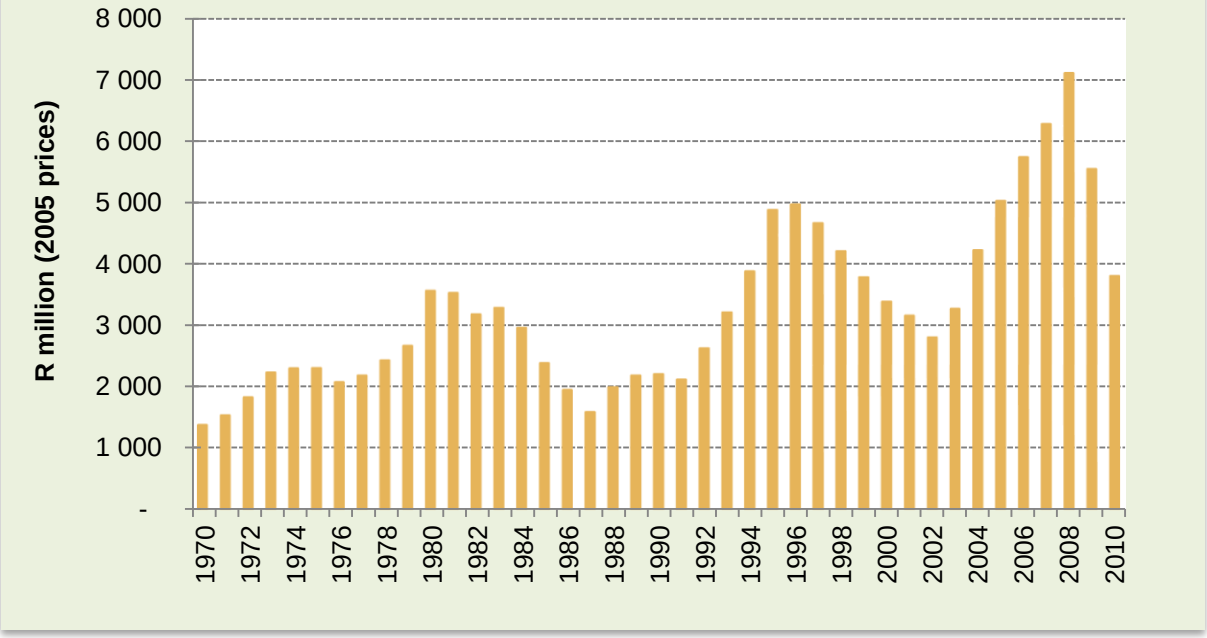
Figure 2.1: Real output and value added: food products



Source: Quantec EasyData (2011)

Similarly, domestic fixed investment in the food division has shown an increase since 2002 after showing a decline in the late 1990s. However, growth was severely hampered by the recession during 2009 and 2010 (see Figure 2.2).

Figure 2.2: Real gross domestic fixed investment: food products



Source: Quantec EasyData (2011)

Disaggregated data on the food division shown in Table 2.1 indicate that the manufacture of bakery products, sugar, cocoa, chocolate and sugar confectionery accounts for the highest share of food output, followed by meat, grain mill products and fruit and vegetables. However, animal feeds had the highest profit margins, followed by fisheries and bakery products, in 2008.

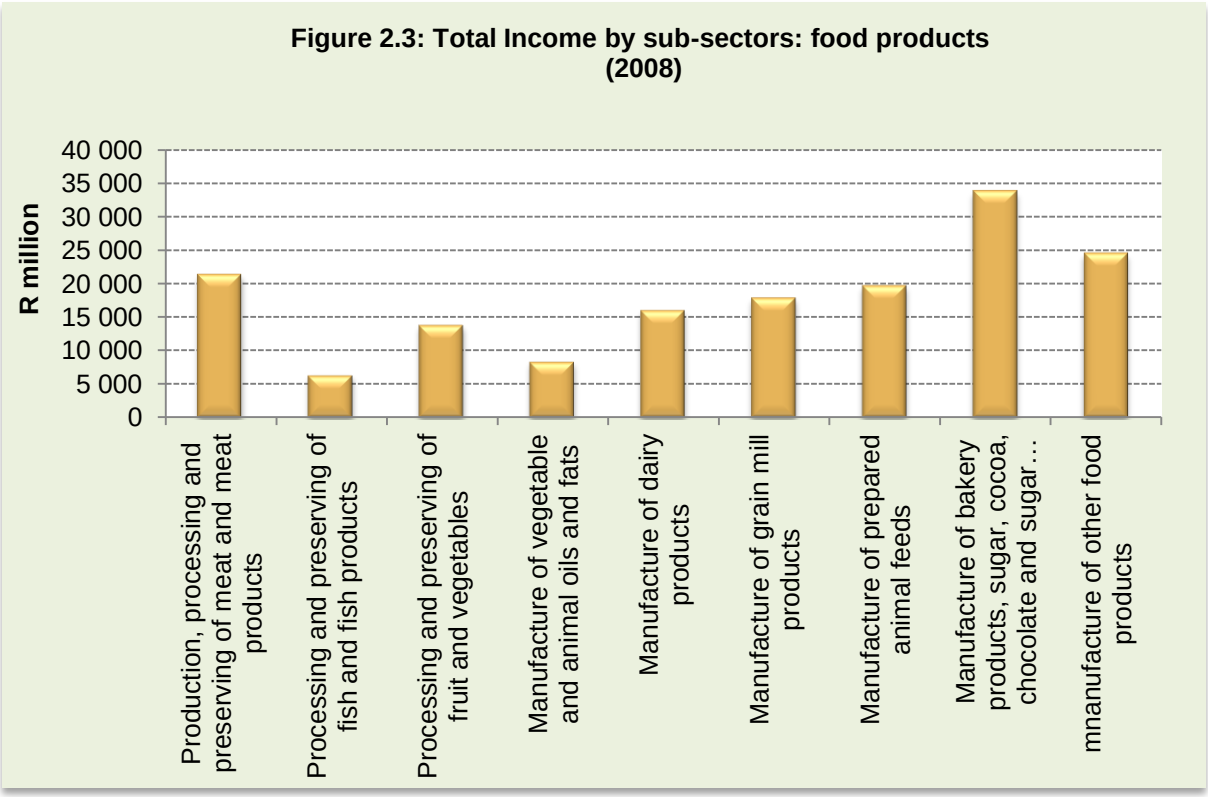
The income from subsectors of the food division is shown in Figure 2.3. The manufacture of bakery products, followed by meat, feed, grain mill and dairy products, made the largest contribution to the income of the food division.

Table 2.1: Intermediate consumption, output, value added and profit margin in the food and beverages divisions (2008)

	Intermediate consumption	Output	Value added	Net profit after tax	Turnover	Profit margin
Food products and beverages	155515	196591	41076	16210	209818	7.7
Production, processing and preserving of meat and meat products	18464	21203	2739	589	20587	2.9
Processing and preserving of fish and fish products	4517	6209	1692	643	6061	10.6
Processing and preserving of fruit and vegetables	10612	13344	2732	527	13464	3.9
Manufacture of vegetable and animal oils and fats	7921	8249	328	251	8242	3
Manufacture of dairy products	12752	15574	2822	680	15799	4.3
Manufacture of grain mill products	14117	16049	1932	274	17622	1.6
Manufacture of prepared animal feeds	13319	15934	2615	2486	17953	13.8
Manufacture of bakery products, sugar, cocoa, chocolate and sugar confectionery	22807	28360	5553	2669	29216	9.1
Manufacture of other food products	18371	23725	5354	1383	24241	5.7

Source: Statistics SA (2008)

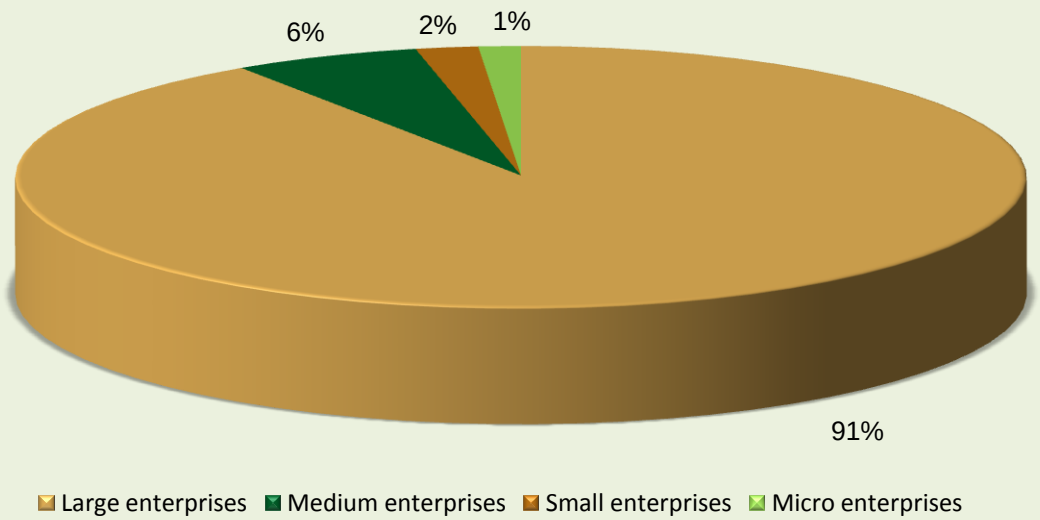
Figure 2.3: Total Income by sub-sectors: food products (2008)



Source: Statistics SA (2008)

Income by enterprise size of the food products and beverages divisions is given in Figure 2.4. As shown in the figure, more than 90% of the income was obtained from large enterprises. Medium, small and micro-enterprises contributed 6%, 2%, and 1%, respectively, of the total income of the food division.

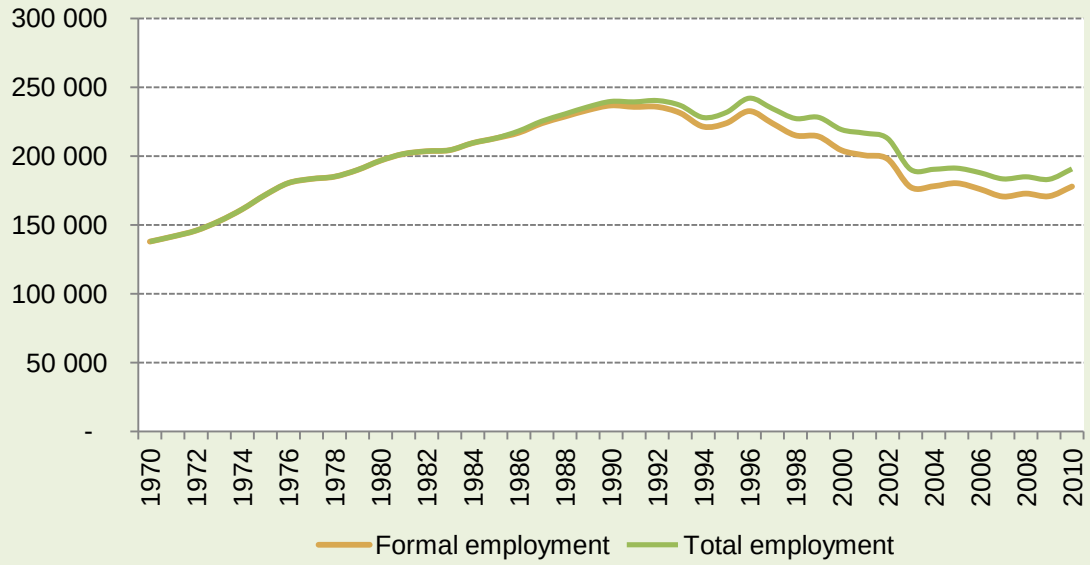
Figure 2.4: Income by enterprise size: food products and beverages (2008)



Source: Statistics SA (2008)

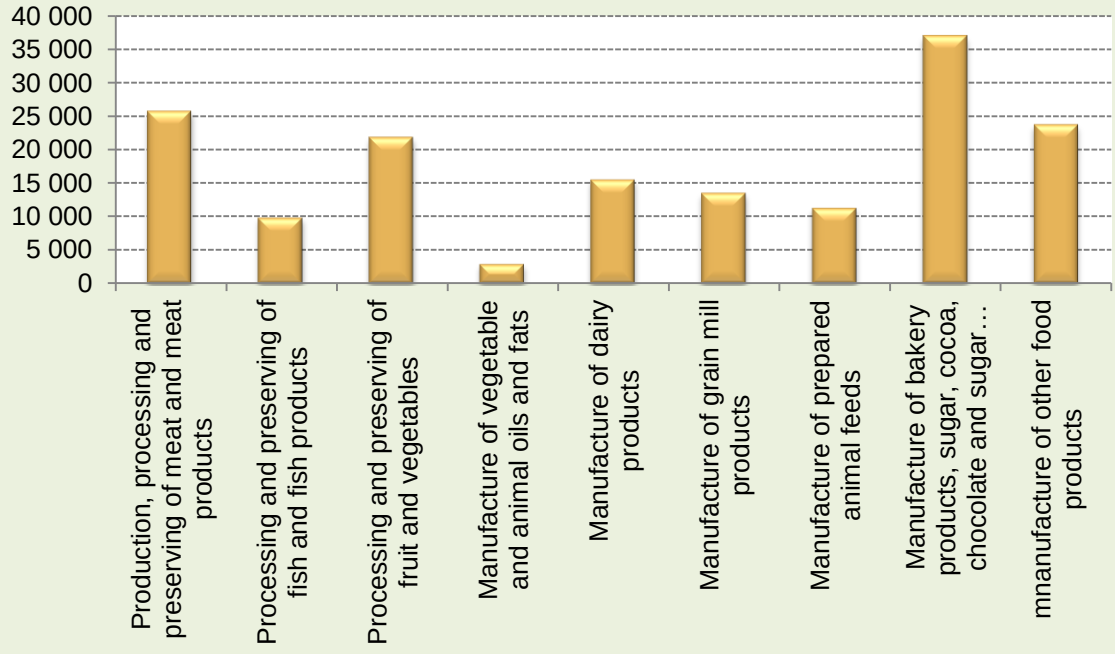
Figure 2.5 shows the trend of employment in the food division. Employment in the food division reached its highest level in 1996 when it generated close to 250 000 jobs. Currently, however, it employs less than 195 000, including informal employment, which is close to 12 800. The disaggregated employment by each subsector is also given in Figure 2.6. Of all the subsectors, bakery, meat and fruit generated close to 37 000, 26 000 and 22 000 jobs, respectively, in 2008.

Figure 2.5: Total employment: food products



Source: Quantec EasyData (2011)

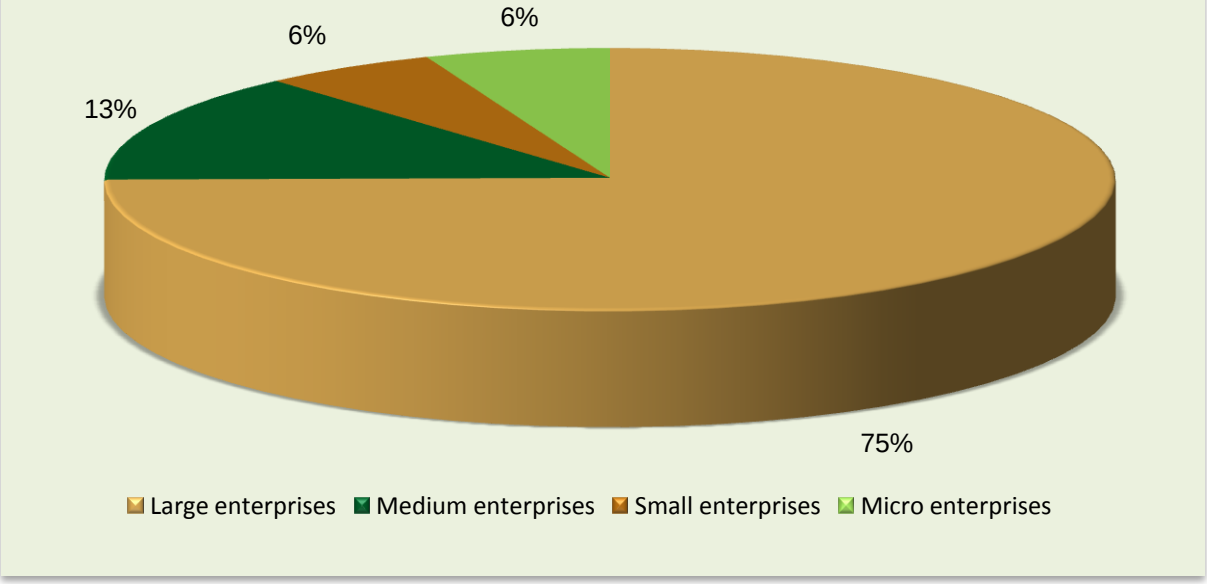
Figure 2.6: Total employment by sub-sectors: food products (2008)



Source: Statistics SA (2008)

A look at employment by enterprise size in the food and beverages divisions shows that although SMEs contributed less than 10% of the output of the food and beverages divisions, they accounted for 26% of employment in the sector (see Figure 2.7).

Figure 2.7: Employment by enterprise size: food products and beverages (2008)



Source: Statistics SA (2008)

The percentage of locally processed primary commodities from 2005/06 to 2010/11 is presented in Tables 2.2 and 2.3. Export markets and local processing are the two main sources of demand for primary commodities, since the demand for seed and direct human consumption is negligible. Thus, a higher percentage of demand from local processing sectors indicates substantial value being added to the primary product. Conversely, a decline in the percentage of demand by processing such as yellow maize during 2010/11 indicates a surge in exports of the primary product. Generally, canola, sunflower seed and barley are among the top commodities that are largely processed locally. When imports are excluded, however, local production is not enough for the demand from the processing sector such as wheat and in some cases yellow maize and sunflower (see Table 2.3).

Table 2.2: Percentage of local processing from the total available supply in the country (including imports)

Commodity	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
Barley	65.4	71.5	68.1	68.6	64.7	72.6
Canola	71.4	78.4	78.1	74.3	81.6	90.7
Groundnuts	62.4	60.9	64.8	54.7	48.8	53.8
Maize (White)	49.2	65.3	79.1	62.8	60.4	65.8
Maize (Yellow)	64.8	79.4	80.0	71.4	71.3	56.4
Oats	61.8	65.5	57.7	55.6	53.9	61.7
Sorghum	46.4	62.6	71.6	63.5	55.6	66.8
Soybeans	70.6	72.2	76.8	72.5	52.5	63.3
Sunflower seed	85.3	72.9	78.0	66.4	74.4	93.4
Wheat	79.1	82.1	78.0	74.3	77.6	80.9

Source: Adapted from SAGIS (2011)

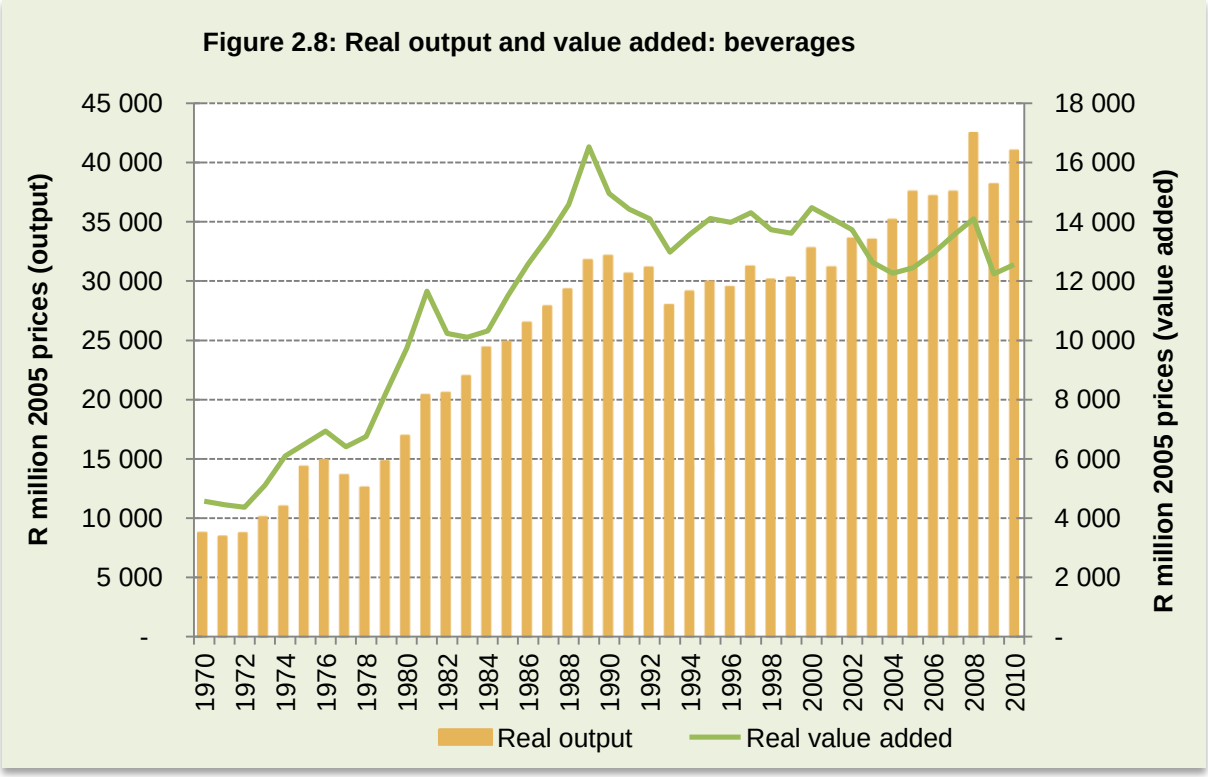
Table 2.3: Percentage of local processing from the total domestic production (excluding imports)

Commodity	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
Barley	81.4	82.2	89.9	91.3	75.7	89.5
Canola	71.4	78.4	78.1	74.3	81.6	90.7
Groundnuts	63.7	78.5	84.9	60.2	51.3	54.3
Maize (White)	49.2	65.3	79.7	62.8	60.4	65.8
Maize (Yellow)	69.8	(102.5)	(108.4)	71.7	71.6	56.4
Oats	84.4	82.0	77.9	95.8	72.3	78.0
Sorghum	46.9	64.7	80.9	63.5	56.2	66.8
Soybeans	73.4	73.7	104.6	75.8	52.6	63.5
Sunflower seed	86.0	73.2	79.6	66.5	79.4	(101.0)
Wheat	(112.8)	(106.1)	(126.3)	(107.7)	(115.9)	(147.9)

Source: Adapted from SAGIS (2011)

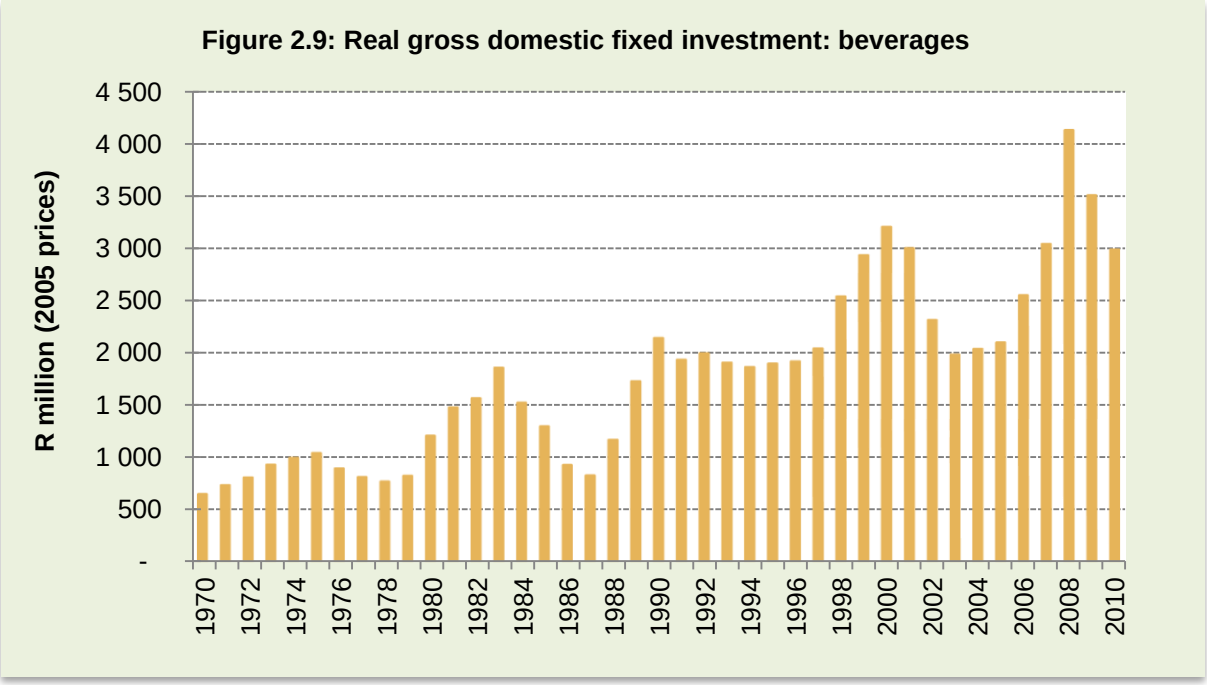
2.3 BEVERAGES

Figure 2.8 shows the real output and value added of the beverages division. Though the value added showed considerable growth from 1970 to 1988, it declined marginally and has shown no marked growth since 1992. The output of the division, however, showed an increasing trend but declined slightly during the late 1980s. The annual average growth rate of output and value added of the division during 2000-2010 was 2.3% and -0.9%, respectively.



Source: Quantec EasyData (2011)

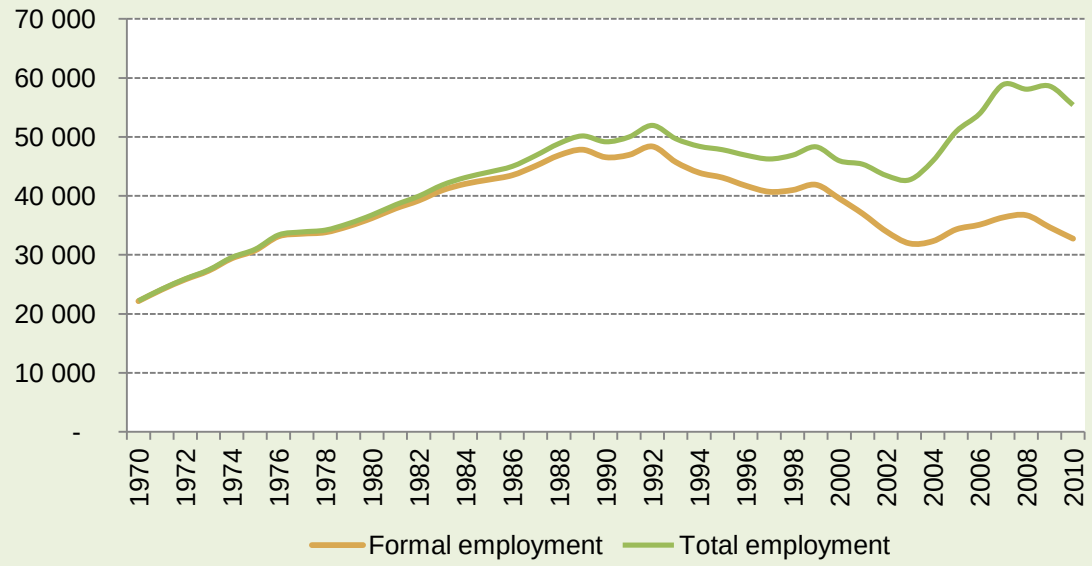
Figure 2.9 shows that the growth of gross domestic fixed investment of the beverages division was not consistent; however, it showed a generally upward trend. Domestic fixed investment reached its highest level in 2008, followed by a decline in 2009 and 2010. In general, the average investment in the division during the period 2006-2010 was higher than in previous decades (see Figure 2.9).



Source: Quantec EasyData (2011)

The employment generated in the beverages division is given in the Figure 2.10. Although it increased until 1992, it started to subside until 2003. Total employment reached its peak in 2007, when it generated 58 837 jobs. Formal employment, however, is showing a declining trend since 1992. Conversely, informal employment in the division has been growing substantially. Currently, 41% of total employment is informal, compared to 7% in 1992.

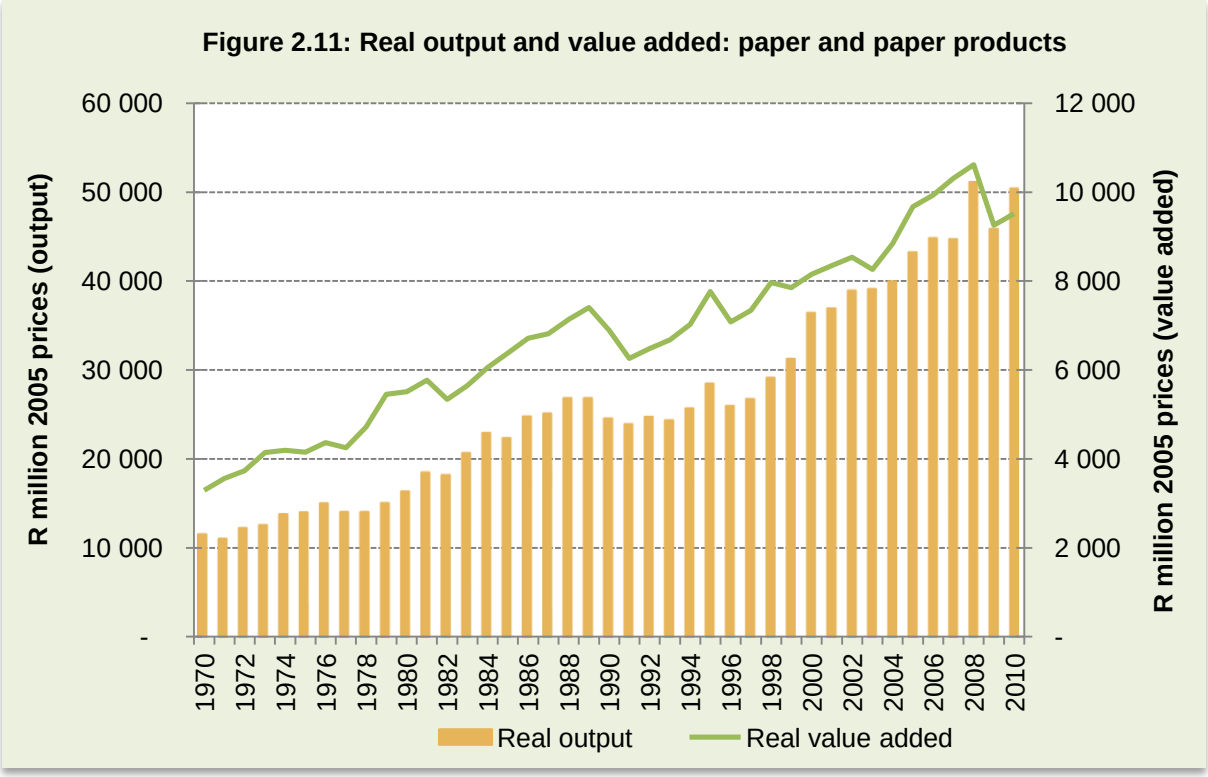
Figure 2.10: Total employment: beverages



Source: Quantec EasyData (2011)

2.3 PAPER AND PAPER PRODUCTS

The trend of output and gross value added of paper and paper products is presented in Figure 2.11. Output and value added of the division showed an increasing trend, although both declined during the early 1990s and after 2008. From 2000 until 2010, real output of the division grew by an annual average rate of 3.4%, and value added grew by 2.2% during the same period.



Source: Quantec EasyData (2011)

The financial data of the paper and paper products division in 2008 is presented in Table 2.4. The main contributor to the value added of the paper division is the manufacture of pulp and paper. However, the profit margin was very significant for publishing of books and newspapers at 17.3% and 34.9%[4], respectively.

Table 2.4: Intermediate consumption, output, value added and profit margin in the paper and paper products division (2008)

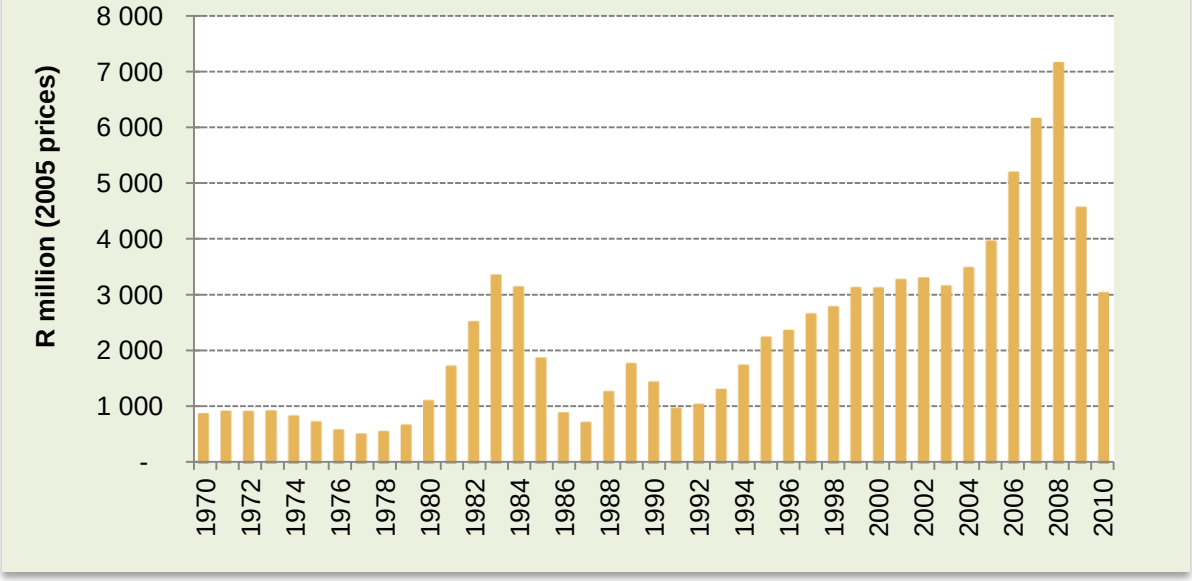
	Intermediate consumption	Output	Value added	Net profit after tax	Turnover	Profit margin
Manufacture of pulp, paper and paperboard and articles of paper and paperboard	29801	40637	10836	2589	40869	6.3
Publishing of books, brochures, musical books and other publications	2594	4483	1889	750	4339	17.3
Publishing of newspapers, periodicals, recorded media and other publishing	7707	13682	5975	1410	4039	34.9

Source: Statistics SA (2008)

[4] According to Statistics SA (2008), the profit margin is inflated because the 'sundry trading income' (including advertising) is a major income item which is included in net profit after tax but not included in turnover.

Domestic fixed investment for the paper and paper products division is shown in Figure 2.12. The trend showed consistent growth from the early 1990s until 2008 but declined severely during 2009 and 2010. In 2010, fixed investment was 60% lower than its peak level in 2008.

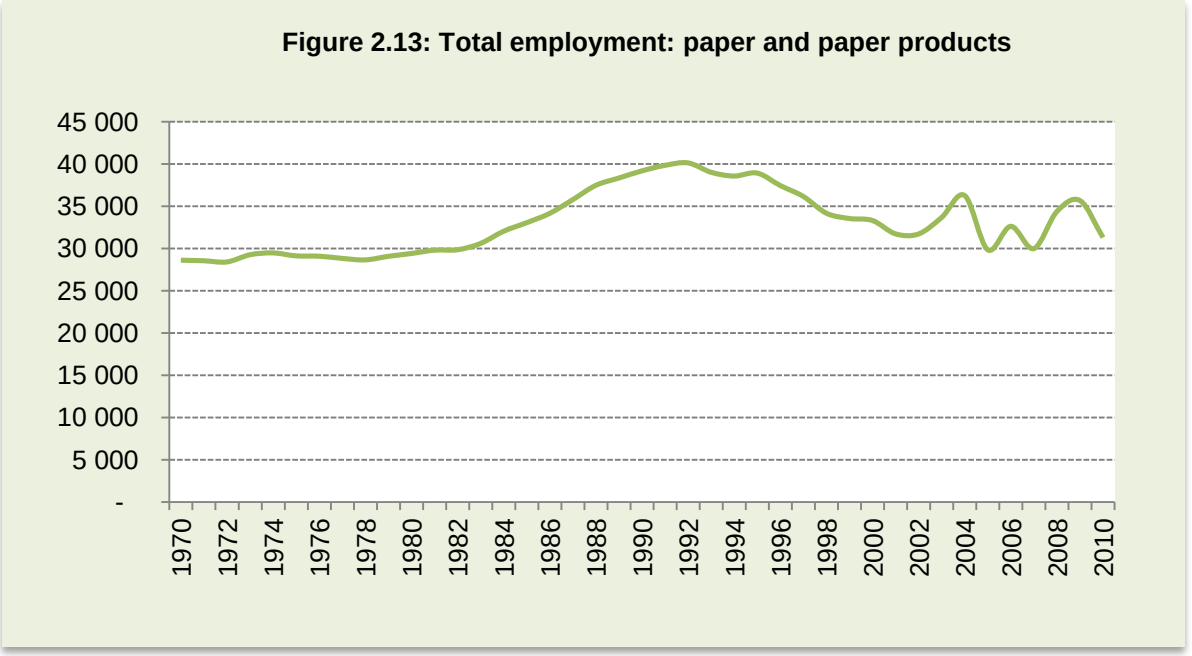
Figure 2.12: Real gross domestic fixed investment: paper and paper products



Source: Quantec EasyData (2011)

The highest number of jobs in the paper division was registered in 1991, when it created 40 160 jobs. Since then, employment has subsided and remained roughly between 30 000 and 35 000 since 1998 (see Figure 2.13).

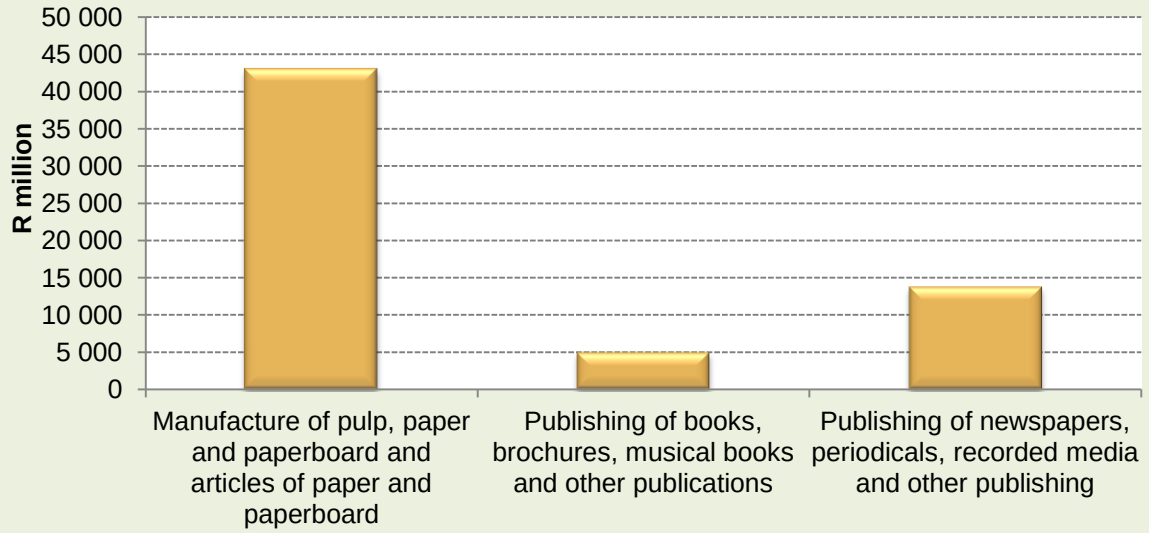
Figure 2.13: Total employment: paper and paper products



Source: Quantec EasyData (2011)

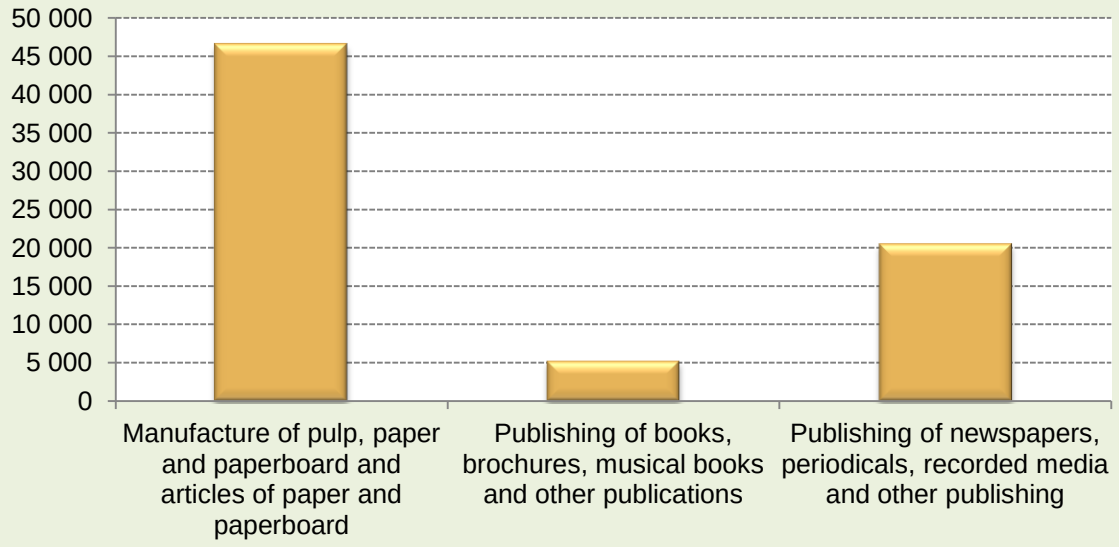
The income of subsectors within the paper division is shown in Figure 2.14. The figure shows that manufacture of pulp, paper and paperboard and articles of paper and paperboard were the largest subsectors, followed by publishing of newspapers and periodicals. Publishing of books and other publications, however, contributed marginally to the total income of the paper division. The relative employment contribution of the subsectors was also consistent with their relative income contribution (see Figure 2.15).

Figure 2.14: Total Income by sub-sectors: paper and paper products (2008)



Source: Statistics SA (2008)

Figure 2.15: Total employment by sub-sectors: paper and paper products (2008)

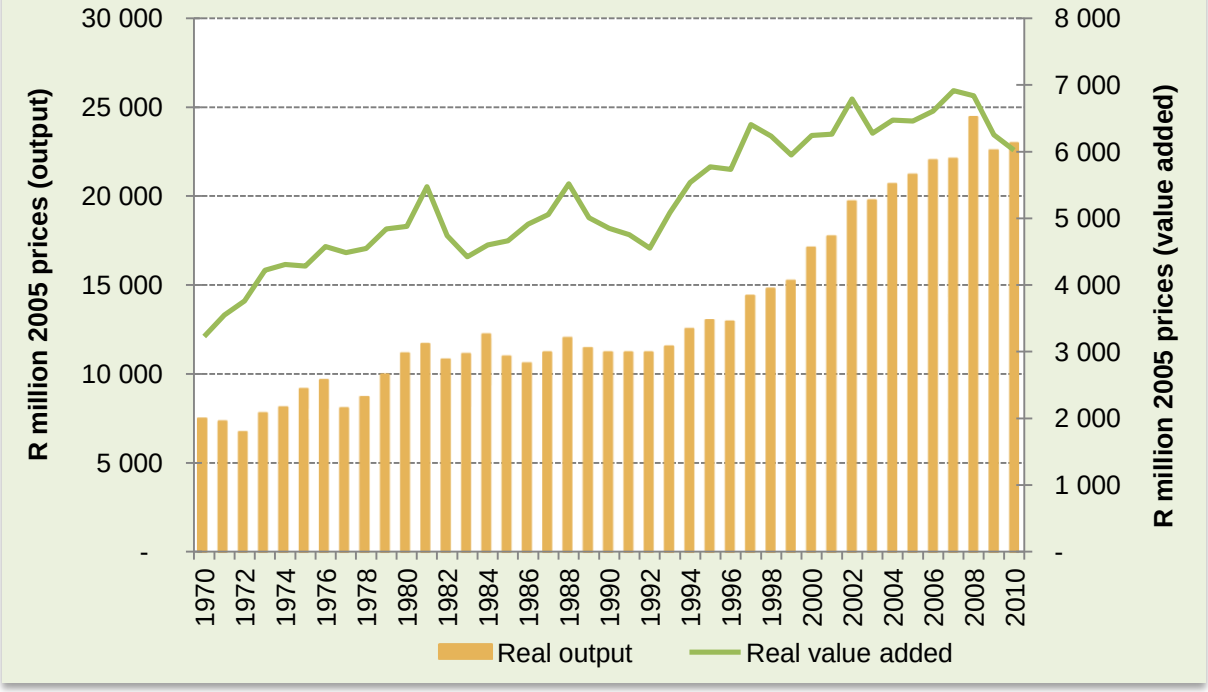


Source: Statistics SA (2008)

2.4 WOOD AND WOOD PRODUCTS

The trend of real output and value added of the wood and wood products division is shown in Figure 2.16. The output of the division showed consistent growth for most of the years, especially since the early 1990s. Similarly, the value added also showed a positive trend despite declining in the early 1980s, 1990s and after 2008. However, its growth rate was marginal (0.05%) compared with the growth rate of output, which was 3% per annum from 2000-2010.

Figure 2.16: Real output and value added: wood and wood products



Source: Quantec EasyData (2011)

The financial data on the wood and wood products division show that the main contributor to the total output and value added was manufacture of veneer sheets, plywood and other boards, followed by sawmilling and planing of wood. The profit margin of the sawmilling and planning of wood subsector, however, was higher than that of the manufacture of veneer sheets, plywood and other boards in 2008 (see Table 2.5).

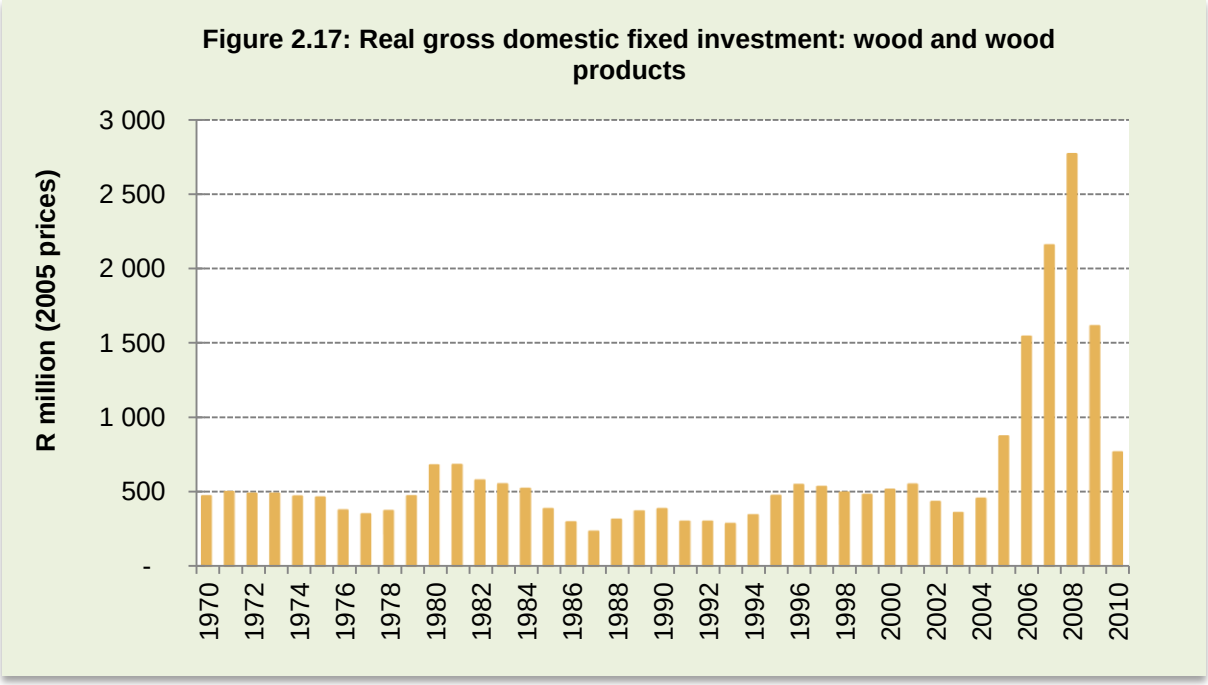
Table 2.5: Intermediate consumption, output, value added and profit margin in the wood and wood products division (2008)

	Intermediate consumption	Output	Value added	Net profit after tax	Turnover	Profit margin
Sawmilling and planing of wood	6036	7130	1094	564	7058	8
Manufacture of veneer sheets, plywood and other boards and carpentry and joinery	6639	8990	2351	557	8944	6.2
Manufacture of wooden containers	912	1139	227	54	1142	4.7
Manufacture of other products of wood, articles of cork, straw and plaiting materials	2466	3577	1111	136	3630	3.7

Source: Statistics SA (2008)

Figure 2.17 shows the real gross domestic fixed investment of the wood and wood product division. The trend reveals that it was stagnant and marginal until 2004. Since 2005, however, the division has shown stupendous growth in real gross investment. In 2008, real gross domestic fixed investment was more than six times that of the 2004 level. Since the recession, however, gross domestic fixed investment has significantly fallen to 70% lower than its 2008 level.

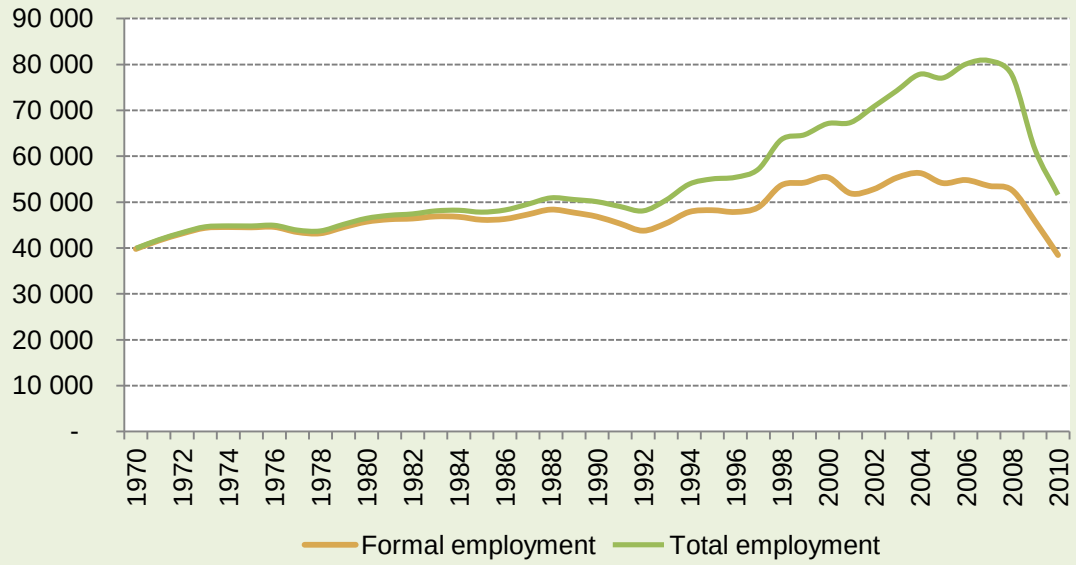
Figure 2.17: Real gross domestic fixed investment: wood and wood products



Source: Quantec EasyData (2011)

Figure 2.18 shows the employment trend in the wood and wood products division. Total employment in the division has been growing since 1992 and reached its highest level in 2008, when 80 000 people were employed. However, total employment declined by more than 25 000 in 2010. The shedding of employment is largely from the informal sector.

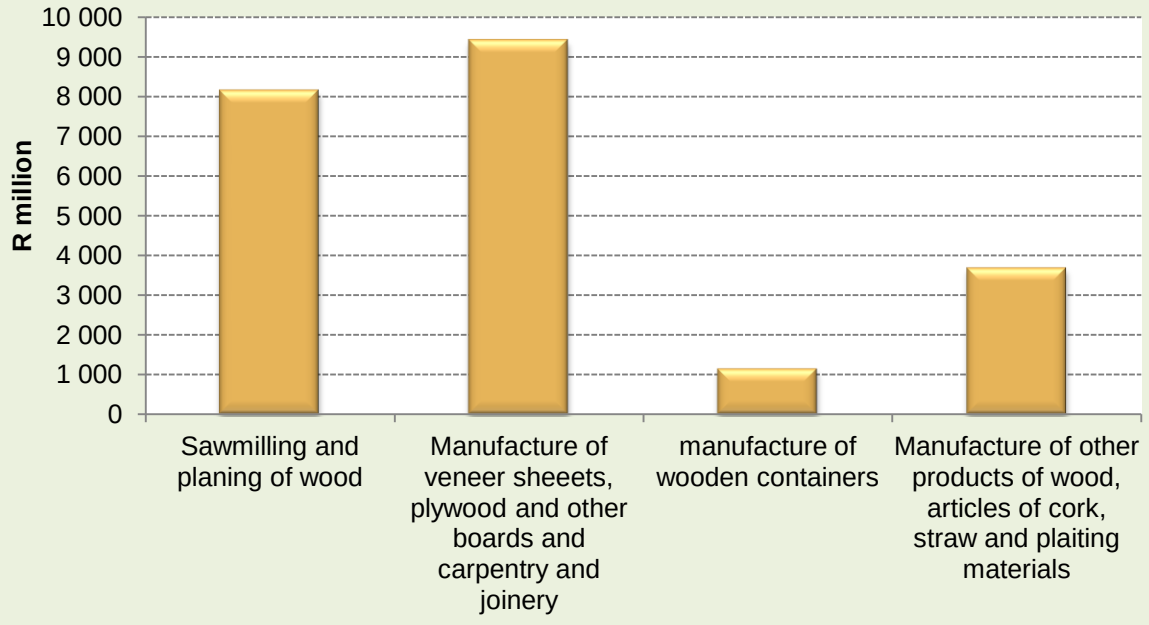
Figure 2.18: Total employment: wood and wood products



Source: Quantec EasyData (2011)

The total income for the subsectors within the wood and wood products division shows that manufacture of veneer sheets, plywood and other boards and carpentry and joinery contributes the largest share of income, followed by saw milling and planing of wood (see Figure 2.19).

Figure 2.19: Total Income by sub-sectors: wood and wood products (2008)

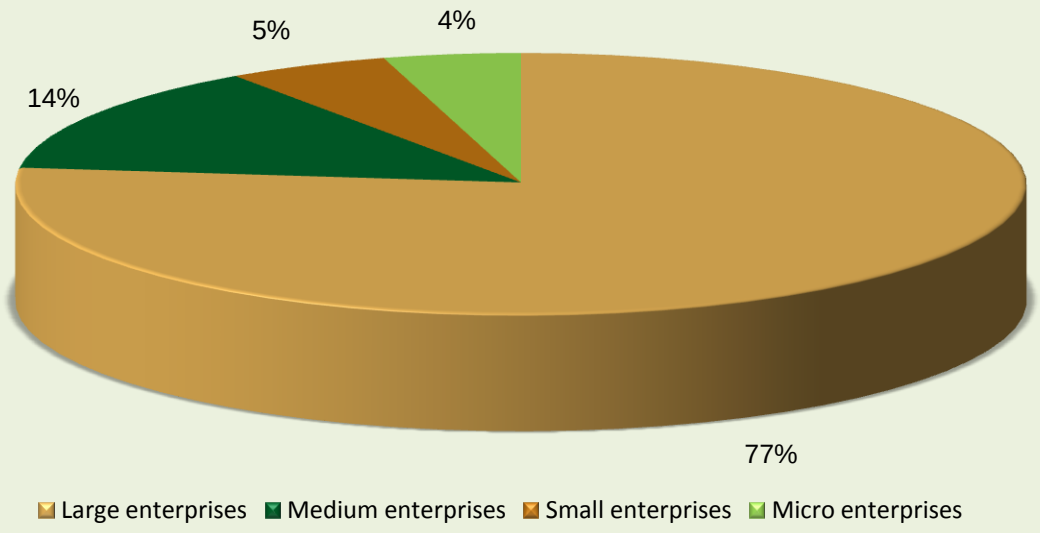


Source: Statistics SA (2008)

Although disaggregated data on the contribution of income by enterprise size for the wood and wood products division are not available, Figure 2.20 sheds light on the income contribution by enterprise size in the wood, wood product, paper, publishing and printing divisions. The figure shows that large enterprises account for 77% of total income, followed by medium (14%), small (5%) and micro (4%) enterprises.

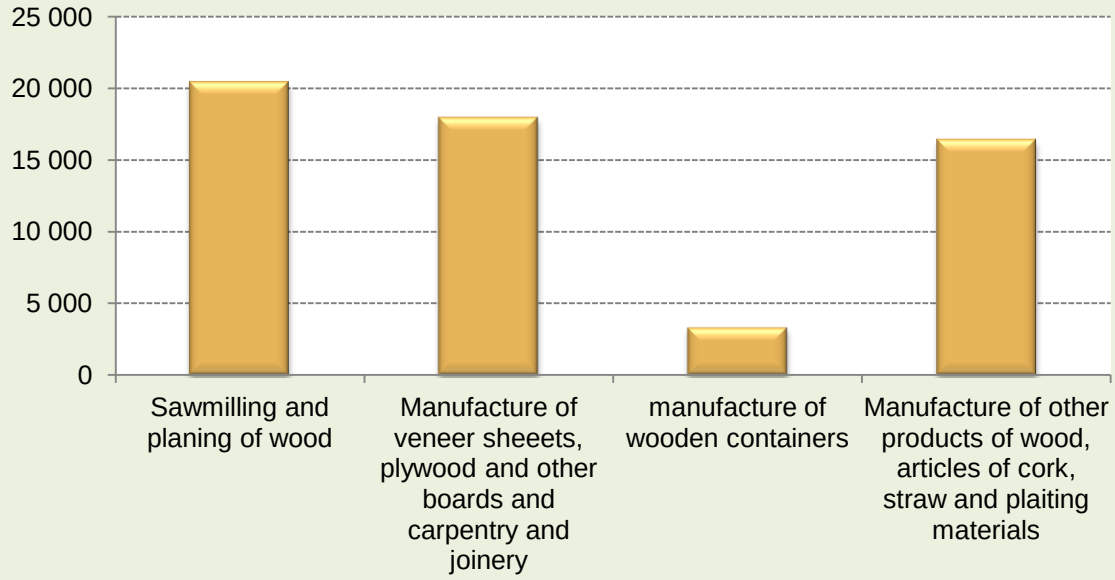
The total employment generated by subsectors in the wood and wood products division is presented in Figure 2.21. It shows that saw milling and planing of wood employed more than 20 377 people, followed by manufacture of veneer sheets, plywood (17 906) and other boards and carpentry and joinery (16 376) in 2008.

Figure 2.20: Income by enterprise size: wood, wood product, paper, publishing and printing (2008)



Source: Statistics SA (2008)

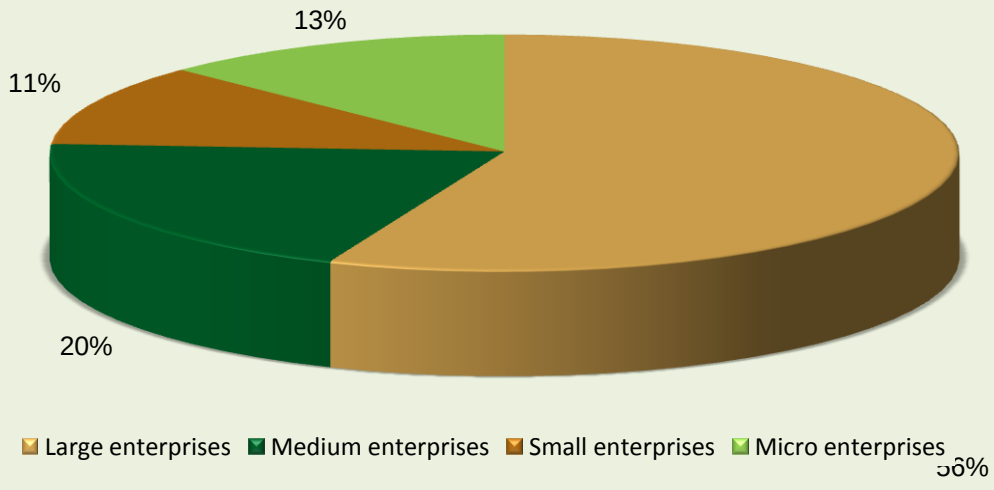
Figure 2.21: Total employment by sub-sectors: wood and wood products (2008)



Source: Statistics SA (2008)

Figure 2.22 displays the total employment by enterprise size in the wood, wood product, paper, publishing and printing divisions. The figure shows that large enterprises account for 56% of total employment, followed by medium (20%), small (11%) and micro (13%) enterprises. Compared to the share of income by enterprise size, the employment share shows that SMEs have a large potential to generate employment in the sector.

Figure 2.22: Employment by enterprise size: wood, wood products, paper, publishing and printing (2008)

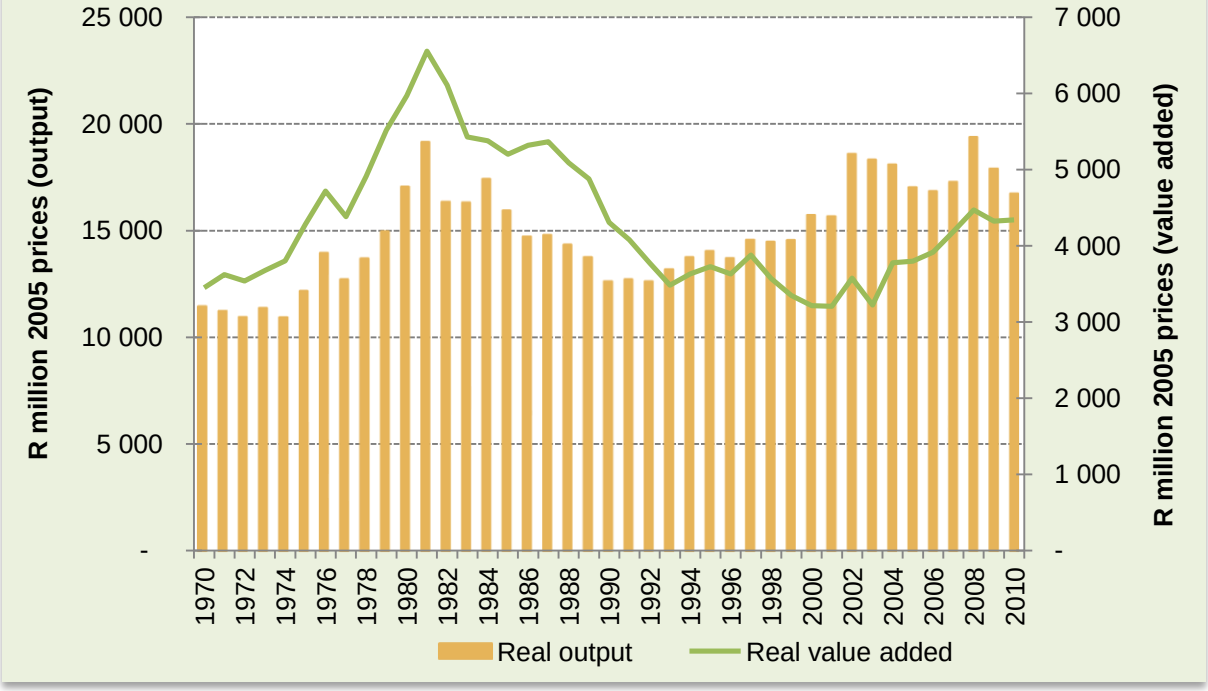


Source: Statistics SA (2008)

2.5 TEXTILES

The real output and value added of the textiles division is presented in Figure 2.23. As shown in the figure, the value added was declining after 1985 but it started to recover since 2003. The real output, on the other hand, showed recovery since the early 1990s but declined in real value between 2002 and 2007. Despite the decline in output during this period, the value added showed a positive growth rate.

Figure 2.23: Real output and value added: textiles



Source: Quantec EasyData (2011)

The financial data on the subsectors of the textiles division show that manufacture of made-up textiles articles, except apparel, and the preparation and spinning of textiles fibres and weaving and finishing of textiles are the main contributors to the total output and value added of the textiles division. The data also show that manufacture of carpets and preparation and spinning of textiles fibres had a negative profit margin in 2008 (see Table 2.6).

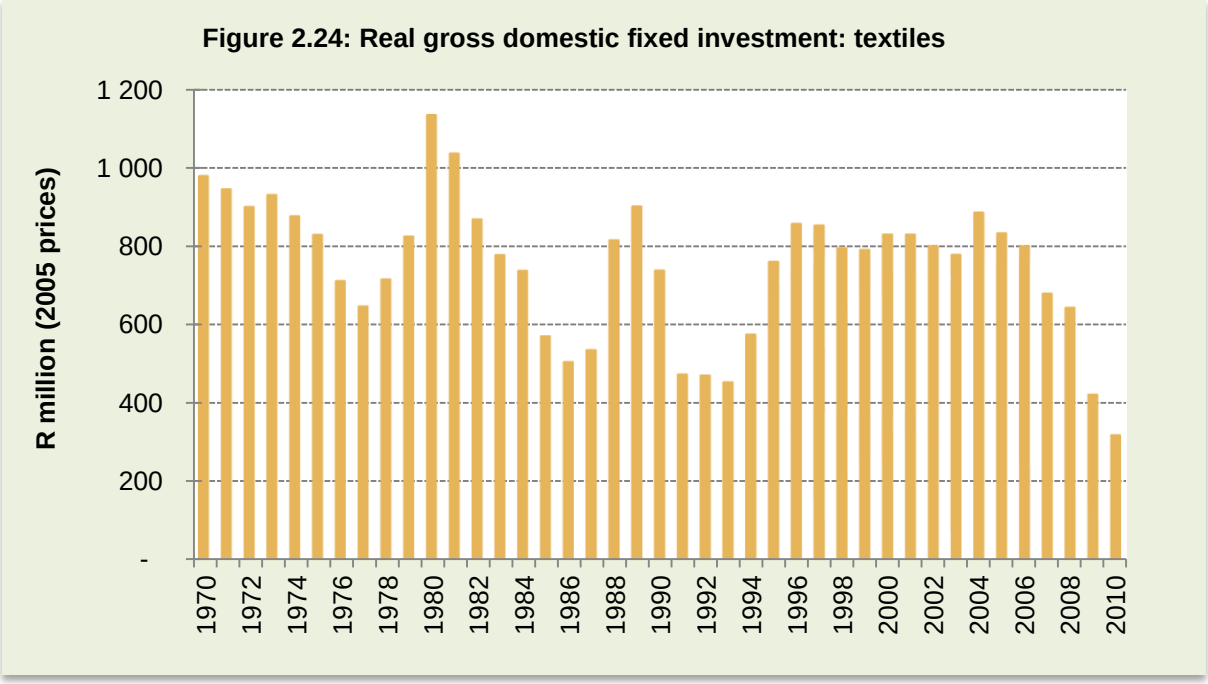
Table 2.6: Intermediate consumption, output, value added and profit margin in the textiles division (2008)

	Intermediate consumption	Output	Value added	Net profit after tax	Turnover	Profit margin
Preparation and spinning of textiles fibres and weaving and finishing of textiles	5182	6584	1402	-260	6844	-3.8
Manufacture of made-up textiles articles, except apparel	5638	7418	1780	248	7438	3.3
Manufacture of carpets, rugs and mats	1307	1689	382	-20	1696	-1.2
Manufacture of cordage rope, twine and netting	218	296	78	15	306	4.9
Manufacture of other textiles	2381	3200	819	87	3292	2.6

Source: Statistics SA (2008)

Similarly, real gross domestic fixed investment of the textiles division sharply fell in the early 1980s as well as since 2004. The value in 2010 was the lowest real gross domestic fixed investment in the past 40 years (see Figure 2.24).

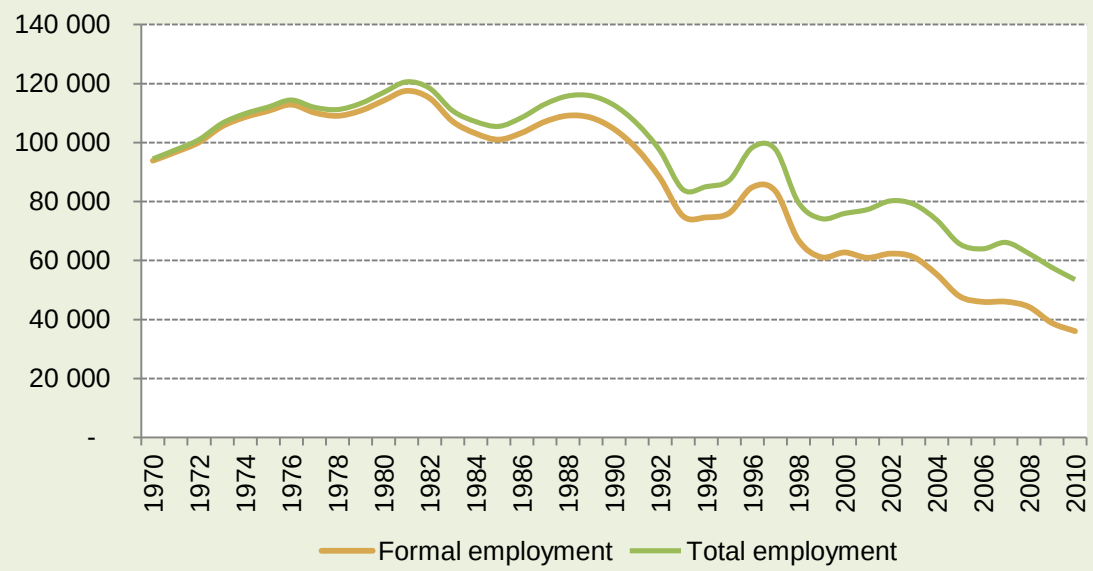
Figure 2.24: Real gross domestic fixed investment: textiles



Source: Quantec EasyData (2011)

Following the fall in output and fixed investment, employment in the textiles division has been declining significantly since 1988 (see Figure 2.25). Total employment generated by the division in 2010 was 50% lower than in 1991.

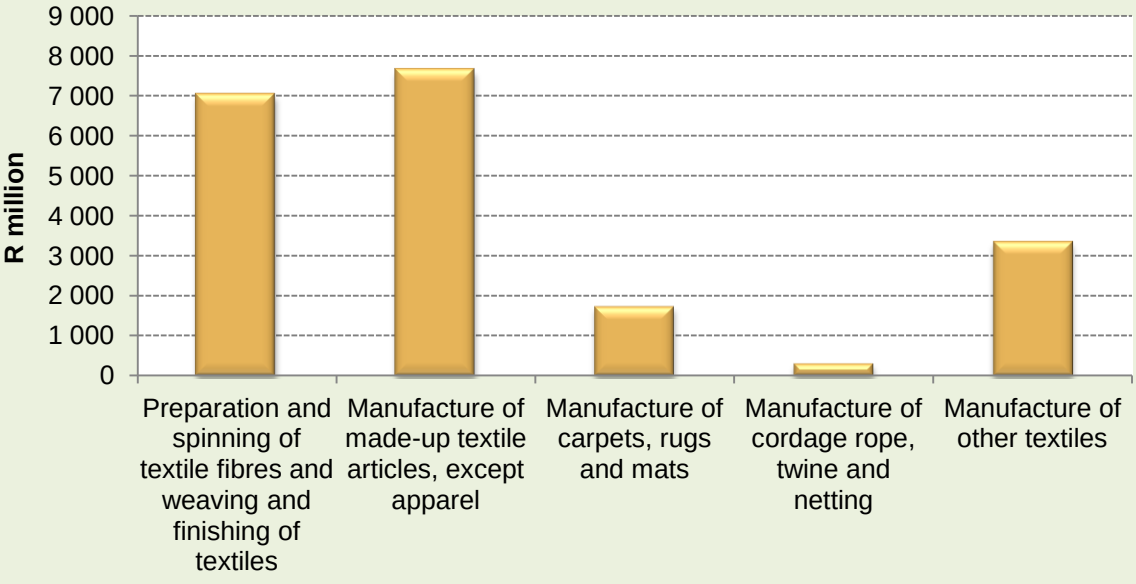
Figure 2.25: Total employment: textiles



Source: Quantec EasyData (2011)

Among the subsectors of the textiles division, manufacture of made-up textiles articles, except apparel, and preparation and spinning of textiles fibres and weaving and finishing of textiles contributed the largest share of income of the textiles division (see Figure 2.26).

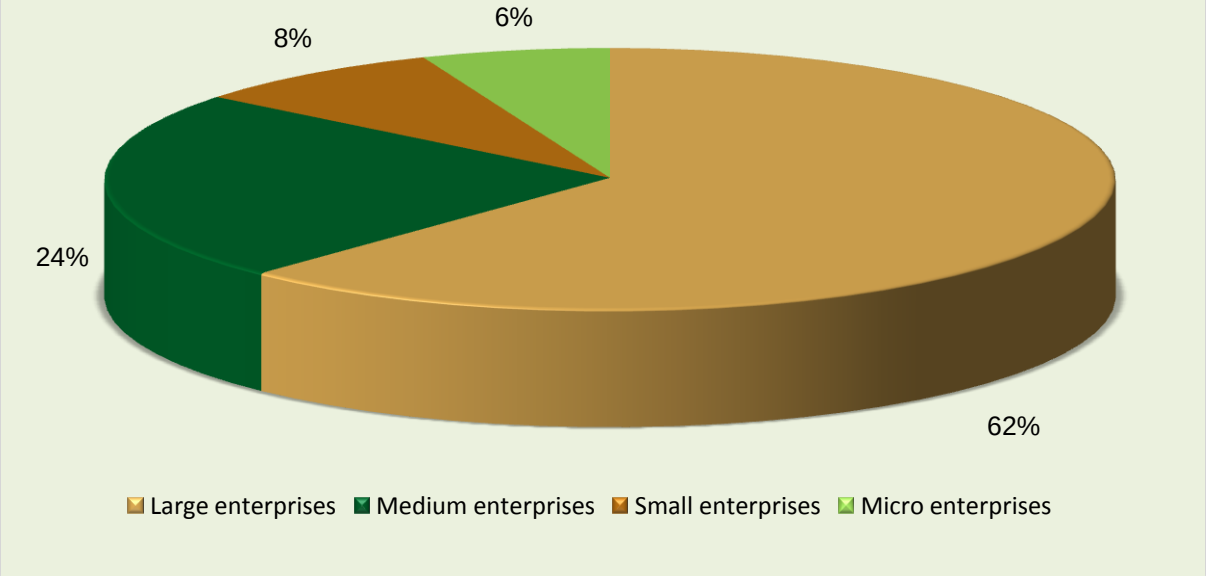
Figure 2.26: Total Income by sub-sectors: textiles (2008)



Source: Statistics SA (2008)

Income by enterprise size for the aggregate textiles, clothing, and leather and footwear divisions is given in Figure 2.26. Large enterprises accounted for 62% of total income, followed by medium (24%), small (8%) and micro (6%) enterprises.

Figure 2.27: Income by enterprise size: textiles, clothing, leather and footwear (2008)

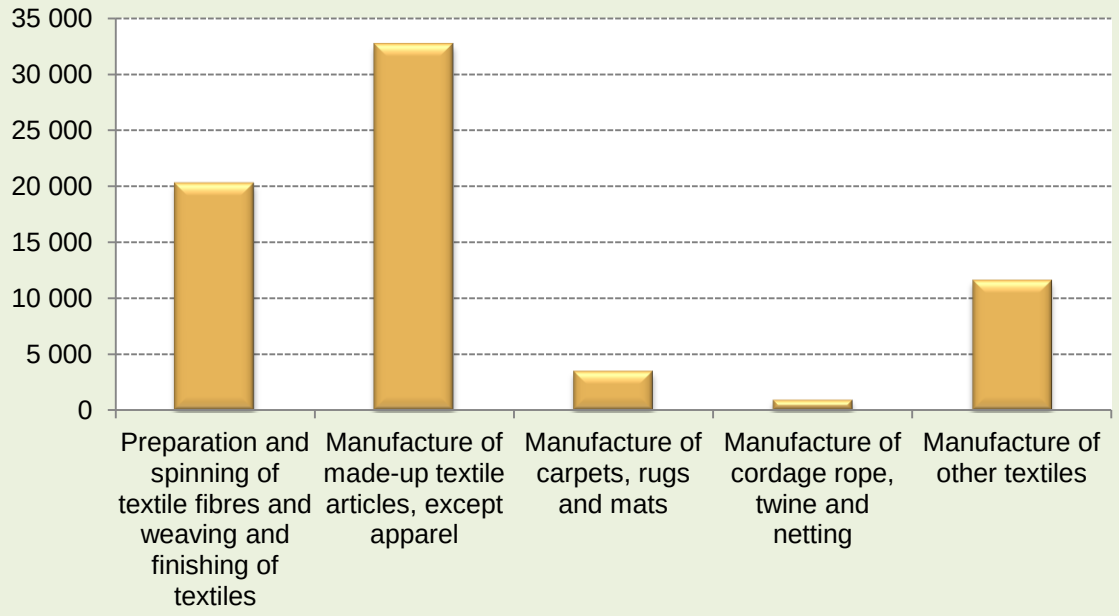


Source: Statistics SA (2008)

Among the subsectors in the textiles division, manufacture of made-up articles, except apparel, and preparation and spinning of textile fibres contributed 80% of the total employment, followed by manufacture of other textiles (see Figure 2.28).

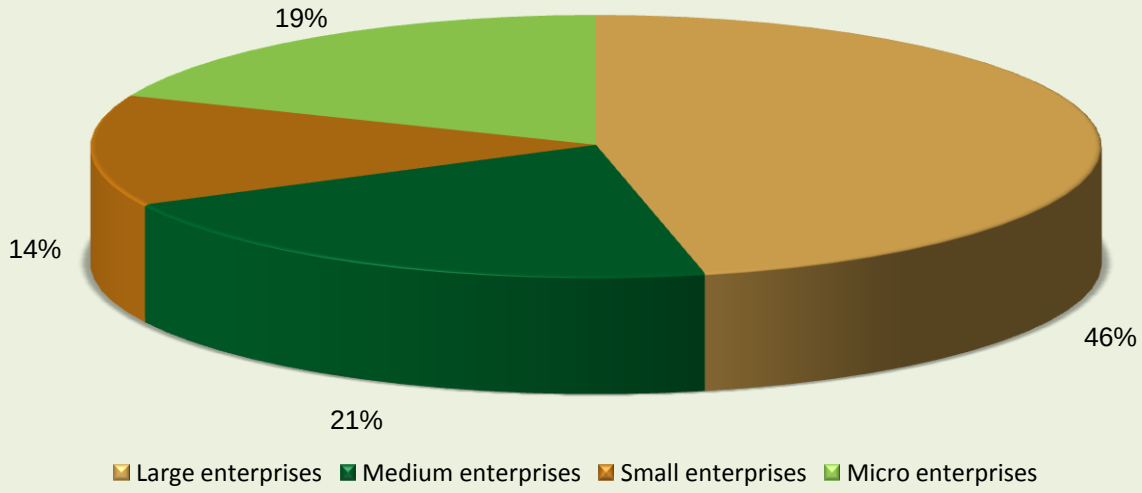
Employment by enterprise size in the textile, clothing, and leather and footwear division is given in Figure 2.29. Large enterprises accounted for 46%, followed by medium (21%), small (14%) and micro (19%) enterprises. Thus the employment share of SMEs was higher compared to their share of total income.

Figure 2.28: Total employment by sub-sectors: textiles (2008)



Source: Statistics SA (2008)

Figure 2.29: Employment by enterprise size: textile, clothing, leather and footwear (2008)

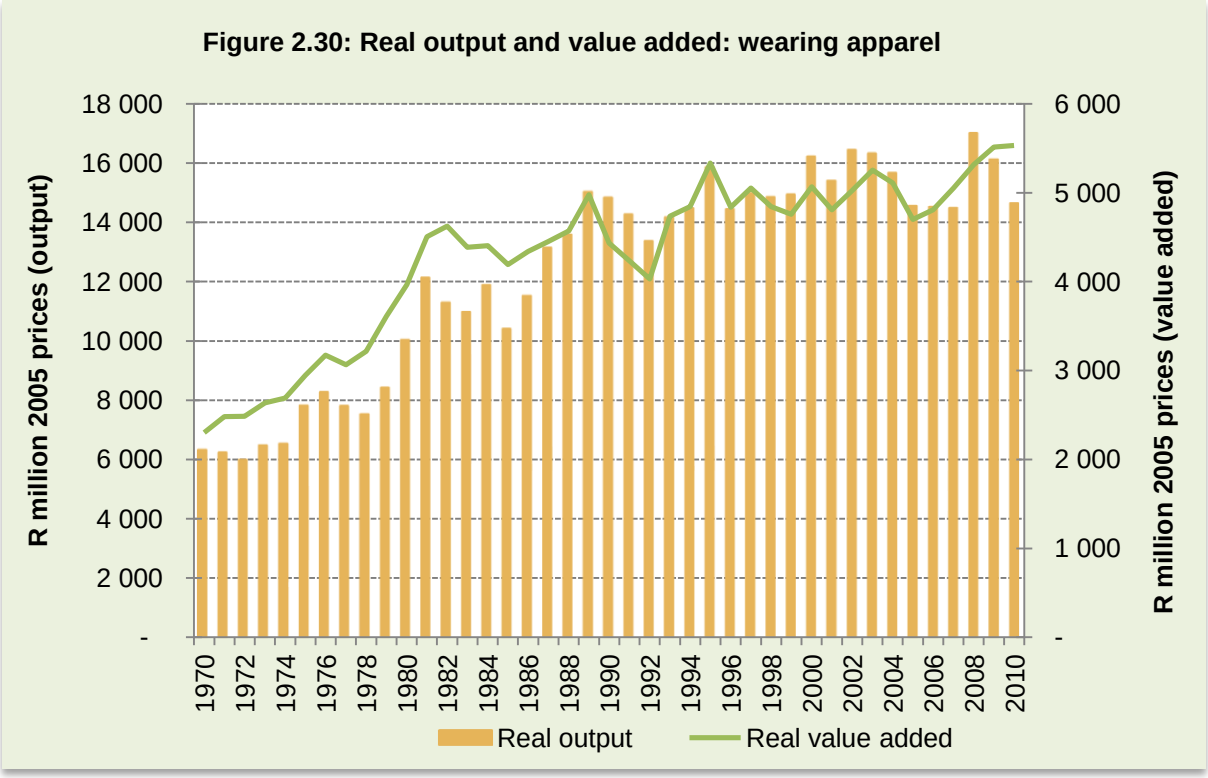


Source: Statistics SA (2008)

2.6 WEARING APPAREL

Figure 2.30 shows the real output and value added of the wearing apparel division. The trend shows that there has been marginal growth of both output and value added for the past two decades. The weighted average annual growth rate of output and value added of the division during 1995-2010 was 0.1% and 0.46%, respectively.

Figure 2.30: Real output and value added: wearing apparel



Source: Quantec EasyData (2011)

The financial data of the wearing apparel division show that the profit margin was very low for all the subsectors (see Table 2.7). Of the three subsectors, manufacture of wearing apparel, except fur apparel, was the largest contributor of both output and value added of the wearing apparel division.

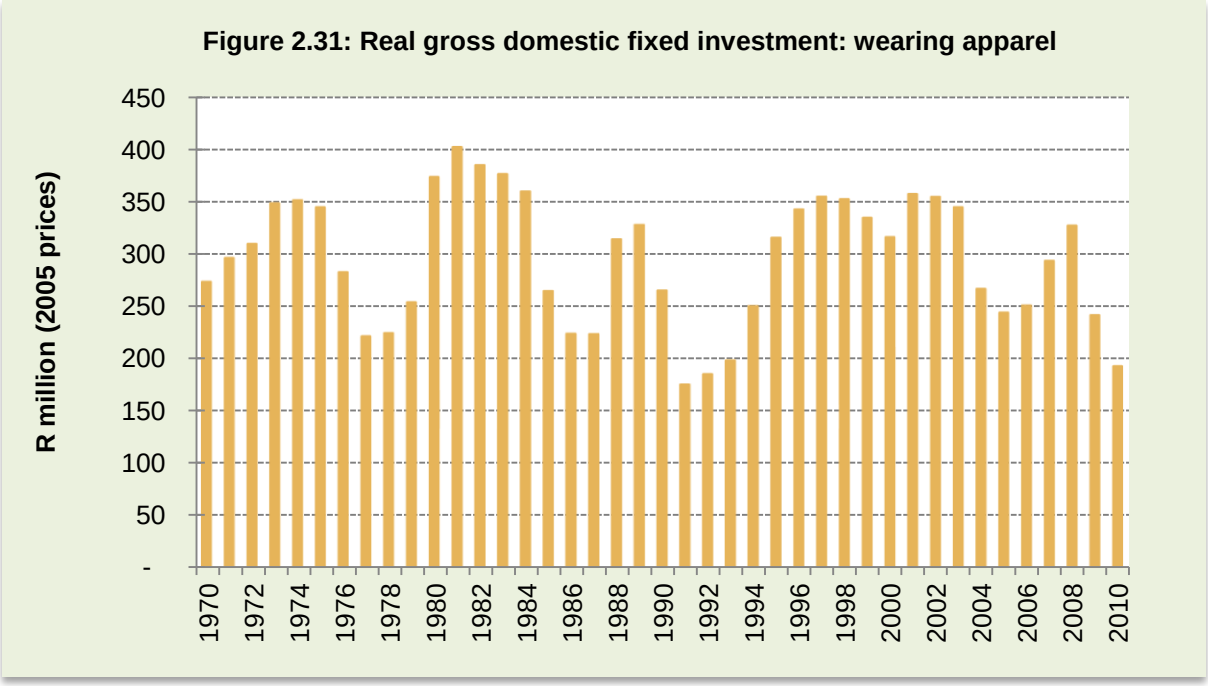
Table 2.7: Intermediate consumption, output, value added and profit margin in the wearing apparel division (2008)

	Intermediate consumption	Output	Value added	Net profit after tax	Turnover	Profit margin
Manufacture of knitted and crocheted fabrics and articles	1615	2296	681	71	2296	3.1
Manufacture of wearing apparel, except fur apparel	9554	12708	3154	65	13493	0.5
Dressing and dyeing of fur, articles of fur and tanning and dressing of leather	2475	3205	730	54	3179	1.7

Source: Statistics SA (2008)

Similarly, gross domestic fixed investment in the wearing apparel division has shown no significant progress for many years, especially after it recovered from its very low level in the early 1990s (see Figure 2.31). It is therefore not surprising to see stagnation in the output and value added of the division for the past decades.

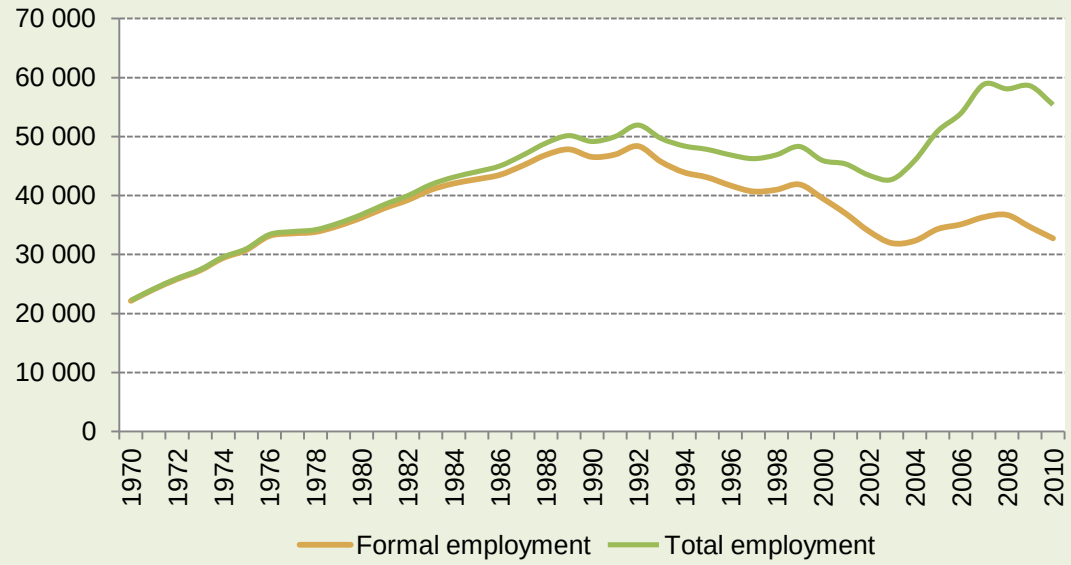
Figure 2.31: Real gross domestic fixed investment: wearing apparel



Source: Quantec EasyData (2011)

Figure 2.32 shows the trend of total employment and formal employment in the wearing apparel division. Currently the division has more than 92 000 jobs, 56 503 of which are in formal employment. Despite shedding many jobs since the early 2000s, the division is still the second highest sector in terms of employment generation in the agro-processing industry.

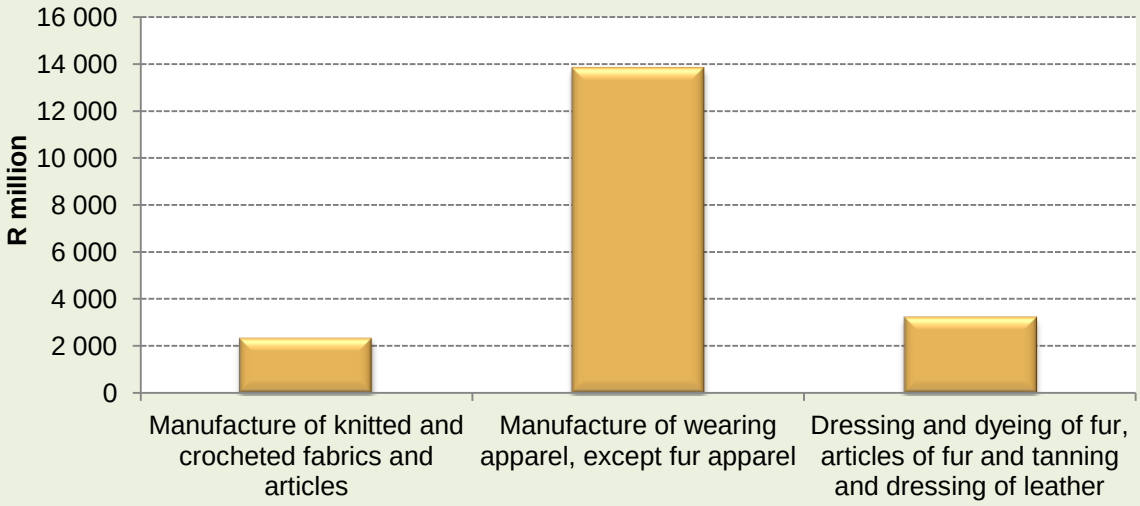
Figure 2.32: Total employment: wearing apparel



Source: Quantec EasyData (2011)

Total income and employment in the wearing apparel division in 2008 are presented in Figures 2.33 and 2.34. The share of wearing apparel (except fur apparel) is very significant and dominant compared to the other subsectors.

Figure 2.33: Total Income by sub-sectors: wearing apparel (2008)

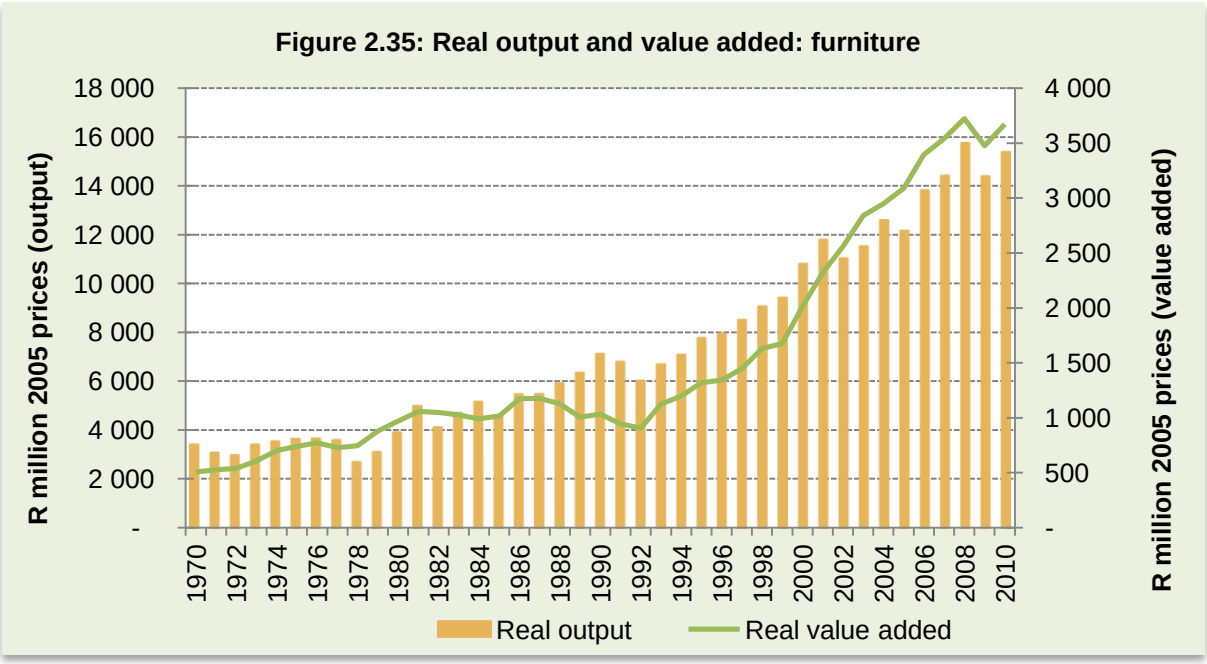


Source: Statistics SA (2008)

Source: Statistics SA (2008)

2.7 FURNITURE

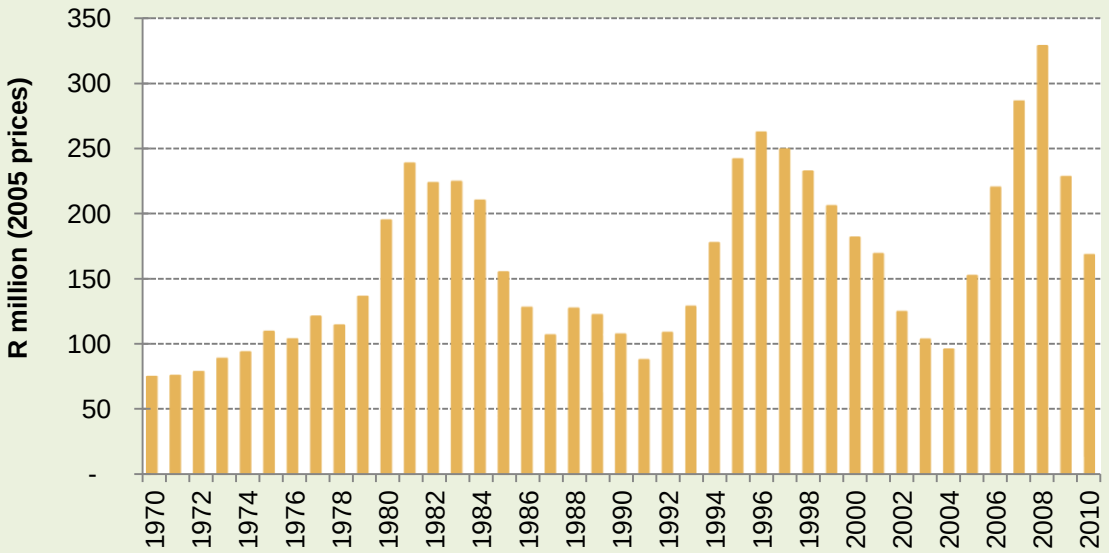
The real output and value added of the furniture division are displayed in Figure 2.35. The trend shows that both output and value added have been growing considerably, especially since 1992. The weighted average annual growth rates of the output and value added of the division were 4.8% and 8.1%, respectively, during 1995-2010.



Source: Quantec EasyData (2011)

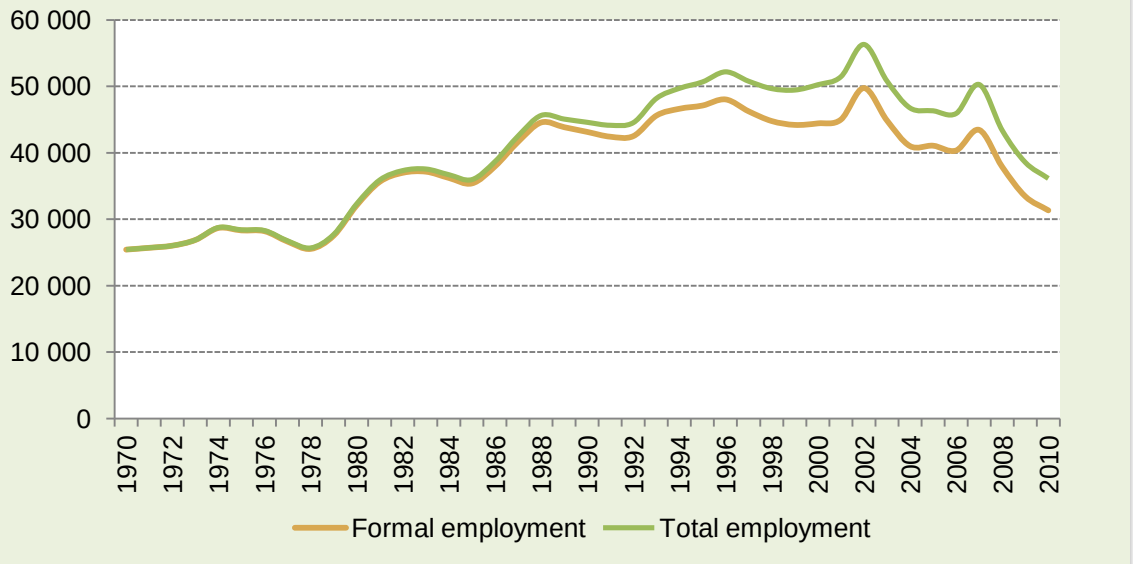
Despite its tremendous growth in output and value added, however, there was no significant domestic fixed investment in the furniture division (see Figure 2.36). The trend follows the general trend in the manufacturing sector whereby the early 1980s were characterized by high investment followed by severe dips in the late 1980s. However, there was a significant recovery when gross domestic fixed investment more than doubled in 2008 from its 2005 level. The past two years, however, showed a significant decline in investment in the furniture division.

Figure 2.36: Real gross domestic fixed investment: furniture



Source: Quantec EasyData (2011)

Figure 2.37: Total employment: furniture



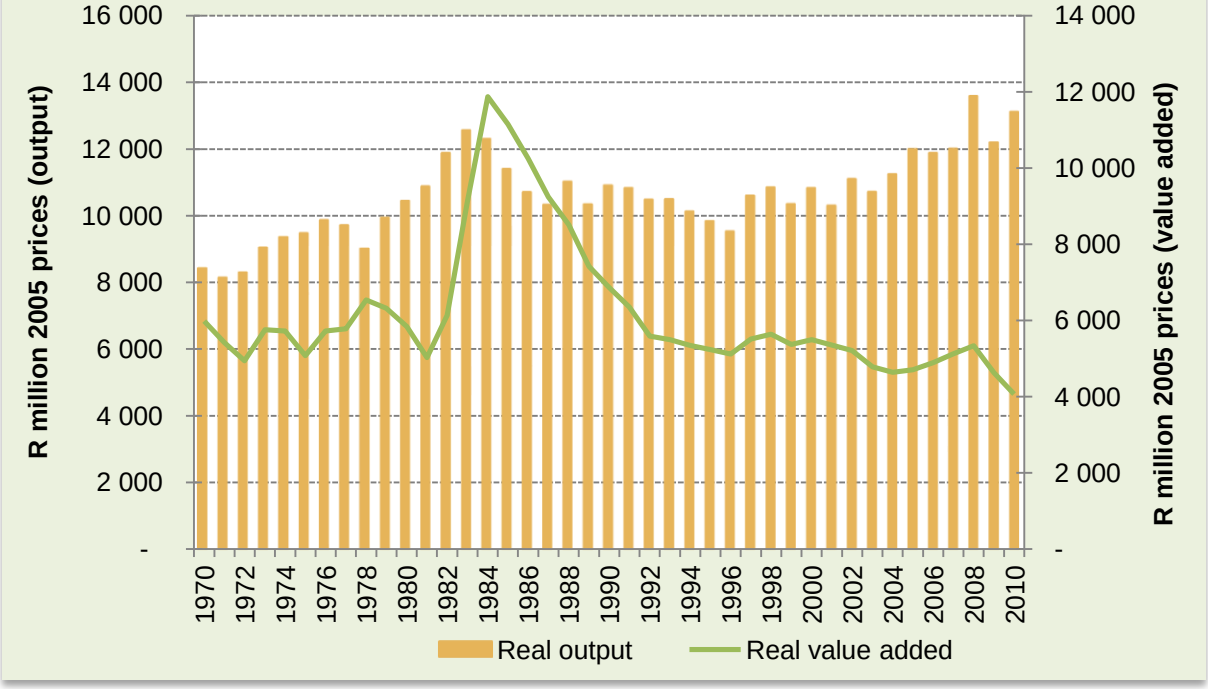
Source: Quantec EasyData (2011)

Total employment in the furniture division is presented in Figure 2.37. The trend shows that it reached its highest level in 2002, when the sector generated more than 56 000 jobs. However, it has since been declining and currently it employs fewer than 36 200 people.

2.8 TOBACCO

Figure 2.38 presents the output and value added of the tobacco division. The trend shows that output has shown marginal growth during the past decade. However, value added declined sharply since the mid-1980s and relatively marginally since 1992.

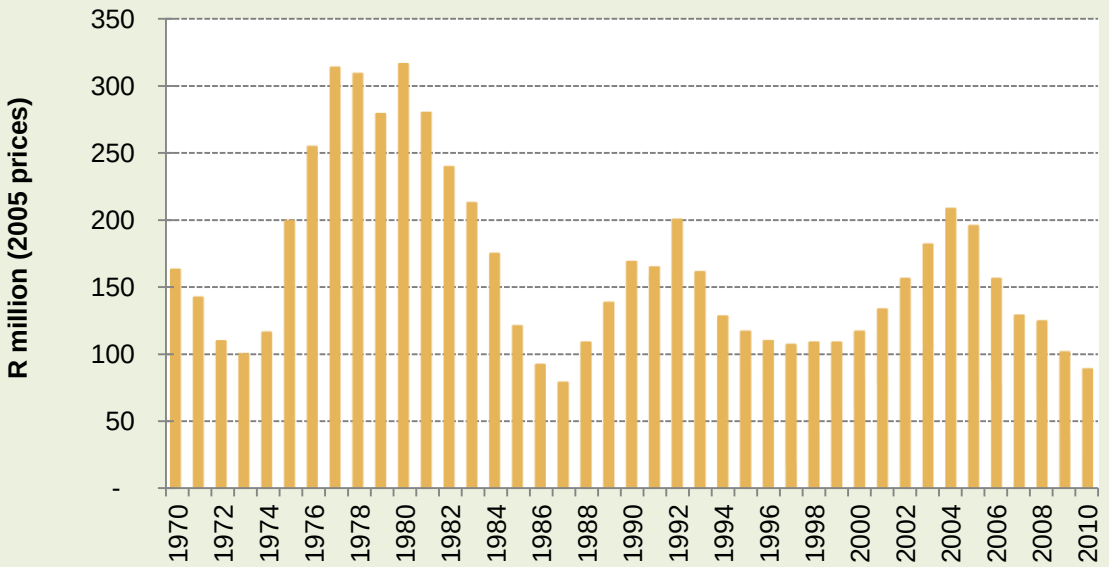
Figure 2.38: Real output and value added: tobacco



Source: Quantec EasyData (2011)

The real gross domestic fixed investment in the tobacco division is given in Figure 2.39. Fixed investment has declined substantially since the highest level recorded in the early 1980s. Although there was a recovery in the early 1990s and 2000s, the recent trend shows that gross domestic fixed investment has been declining since 2004.

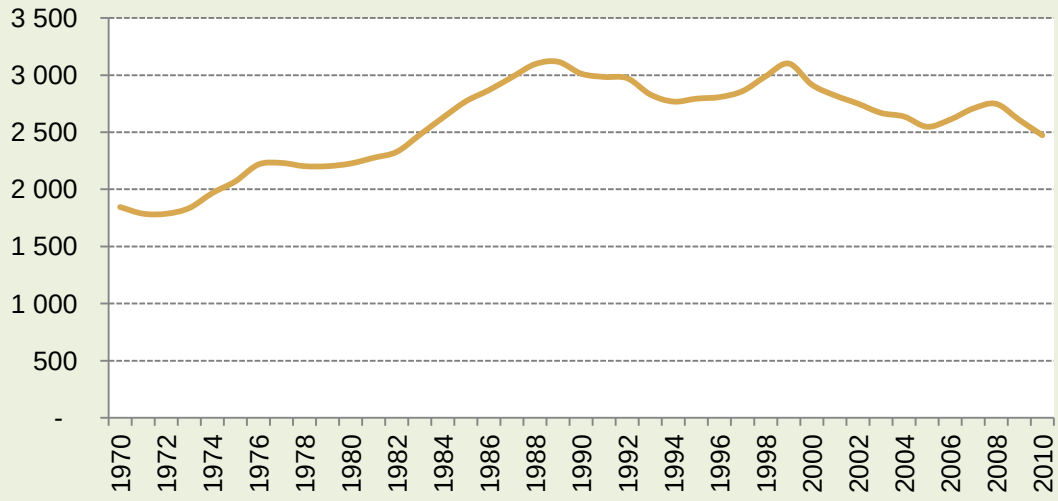
Figure 2.39: Real gross domestic fixed investment: tobacco



Source: Quantec EasyData (2011)

Employment generated in the tobacco division is presented in Figure 2.40. Generally, employment increased until 1988, when more than 3 000 people were employed in the division. While it remained relatively constant until 1999, it has shown a declining trend since then. In 2010, the division employed 2 500 people.

Figure 2.40: Total employment: tobacco

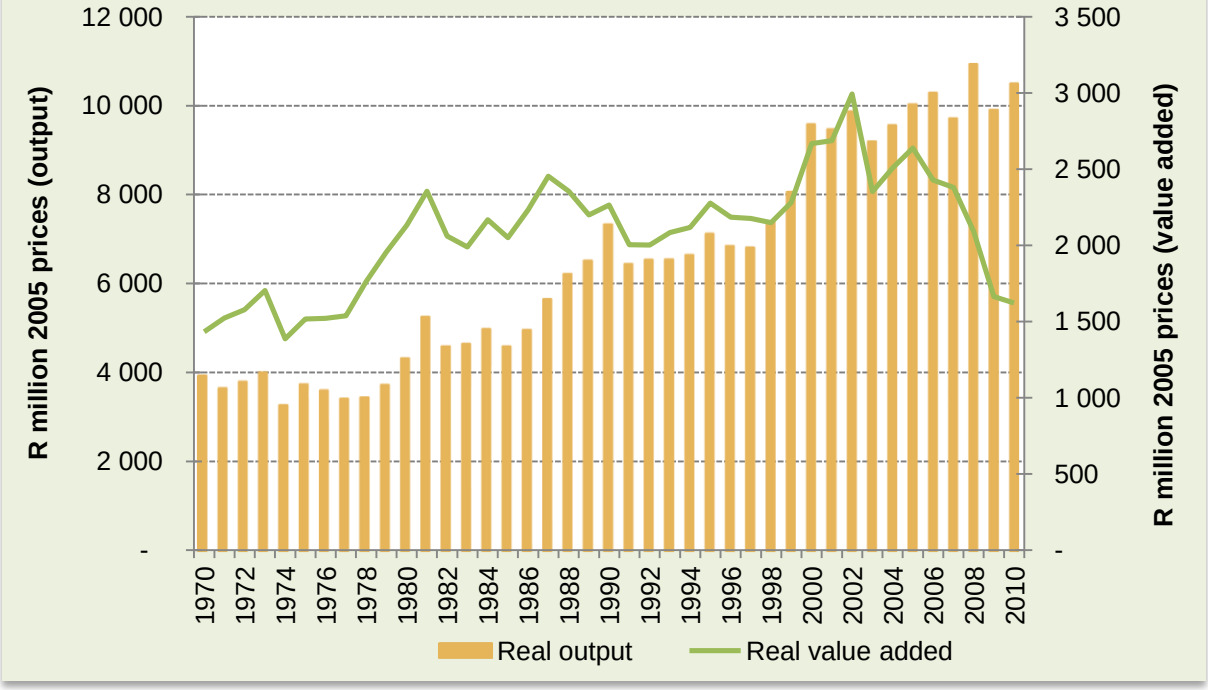


Source: Quantec EasyData (2011)

2.9 RUBBER PRODUCTS

Figure 2.41 shows the output and value added of the rubber products division. While the output has been growing for most of the period, its value added has shown no growth except during the late 1970s and early 2000s. Since 2004, value added has been declining markedly.

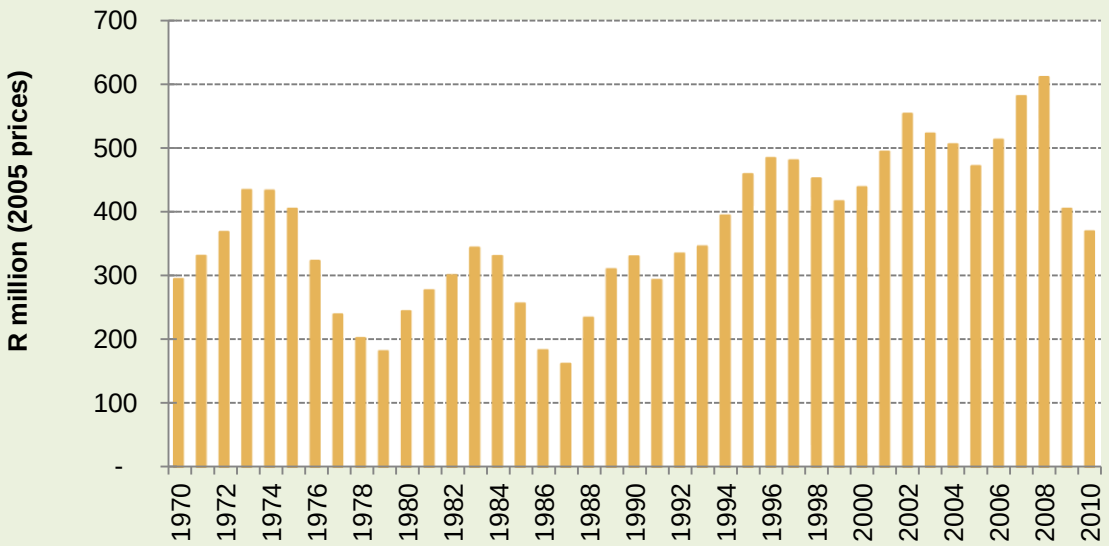
Figure 2.41: Real output and value added: rubber products



Source: Quantec EasyData (2011)

Real domestic fixed investment of the division is presented in Figure 2.42. It has generally shown a growing trend after a severe dip in 1987. In 2009, however, fixed investment declined sharply from its 2008 level.

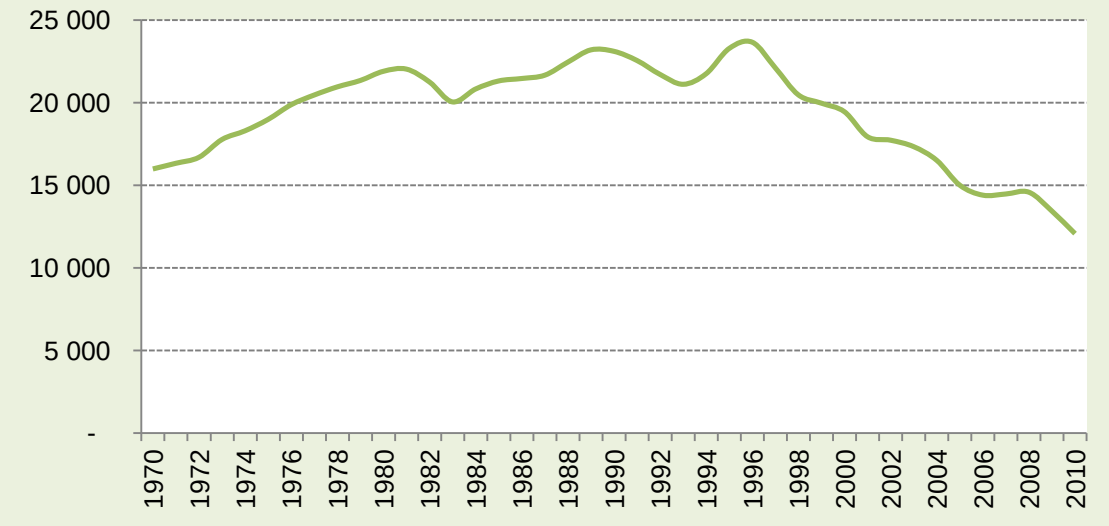
Figure 2.42: Real gross domestic fixed investment: rubber products



Source: Quantec EasyData (2011)

Total employment in the rubber division is presented in Figure 2.43. As shown in the figure, employment in the division reached its highest level of 23 670 in 1996. However, since then the trend declined markedly and currently the division employs almost half of its 1996 level (12 079 jobs).

Figure 2.43: Total employment: rubber products

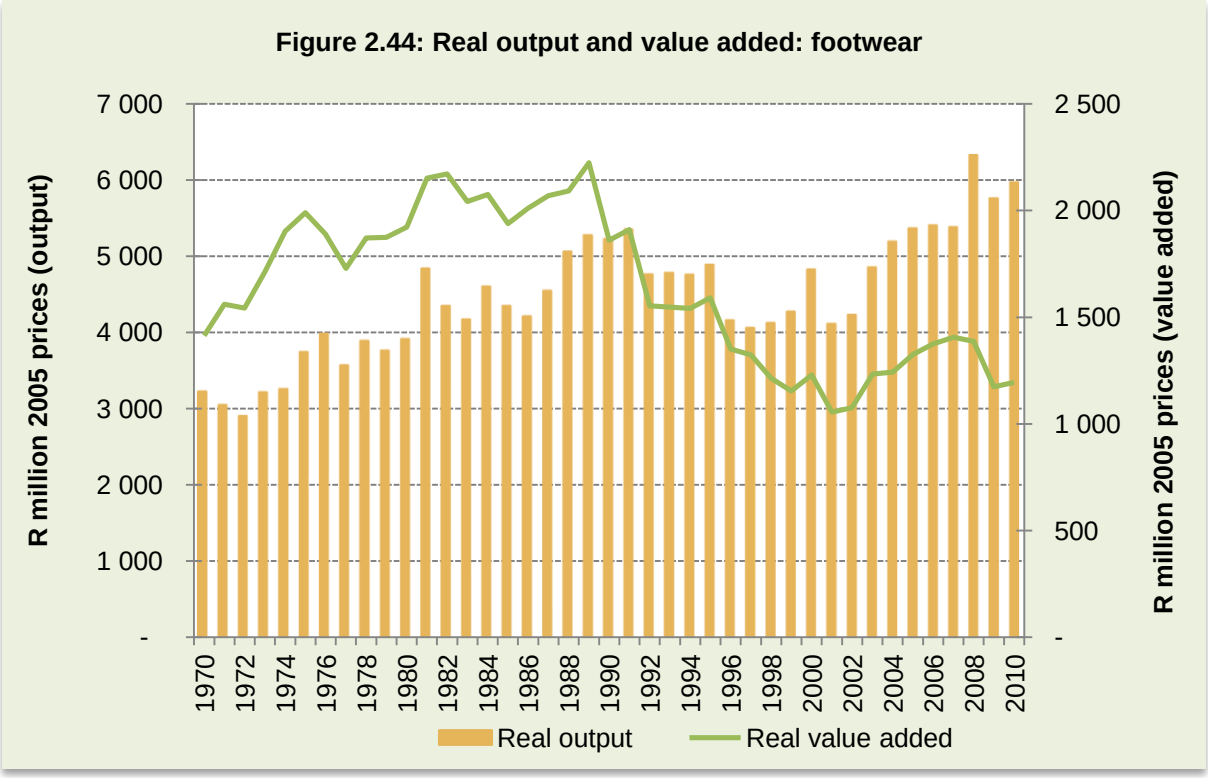


Source: Quantec EasyData (2011)

2.10 FOOTWEAR

The footwear division's output and value added showed a declining trend in the 1990s, although the rate of fall is steeper for value added (see Figure 2.44). However, both output and value added of the division have recovered since 2002. The average annual growth rate of the division's output and value added was 3.6% and 1.28%, respectively, during 2000-2010.

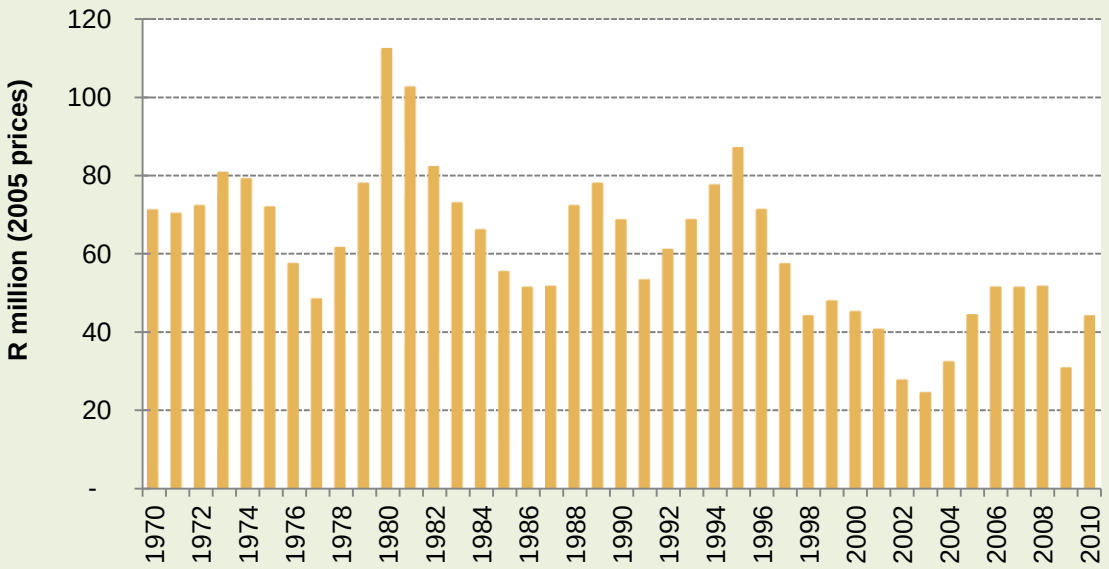
Figure 2.44: Real output and value added: footwear



Source: Quantec EasyData (2011)

Real gross domestic fixed investment in the footwear division is presented in Figure 2.45. Generally, investment in the division has been declining since reaching its peak in 1980 and it fell by a weighted annual average of 3% during 1995-2010.

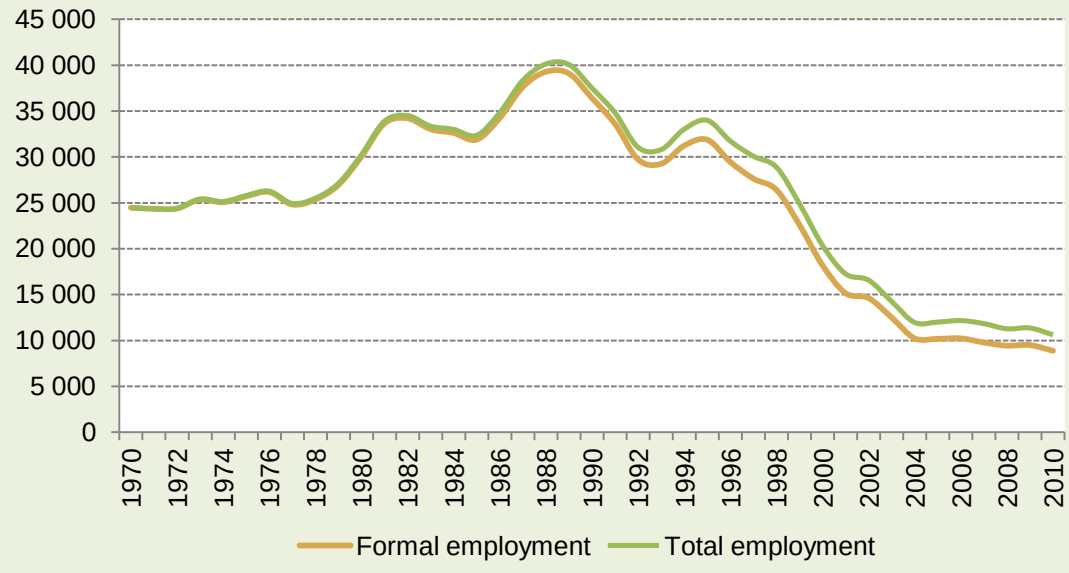
Figure 2.45: Real gross domestic fixed investment: footwear



Source: Quantec EasyData (2011)

Following a declining trend in investment, employment in the footwear division has also been decreasing since 1989. Currently, the footwear division has 10 597 employment opportunities, which is only a third of its 1995 level.

Figure 2.46: Total employment: footwear

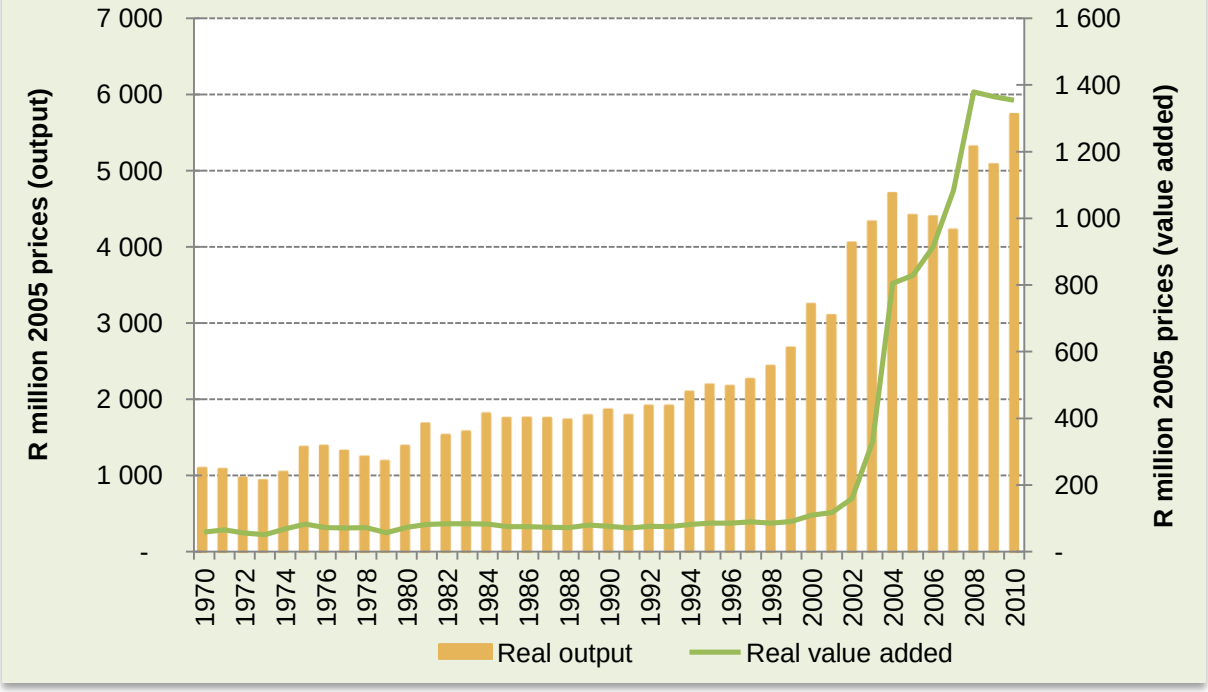


Source: Quantec EasyData (2011)

2.11 LEATHER AND LEATHER PRODUCTS

The leather and leather products division's output and value added is presented in Figure 2.47. Its value added has been marginal for most of the period until 2002. Similarly, output increased markedly since the late 1990s and grew sharply until 2004. Though a marginal decline was observed from 2004-2007, output has grown since 2007. The weighted average annual growth rate of the leather division's output and value added was 5% and 33%, respectively, from 2000 to 2010.

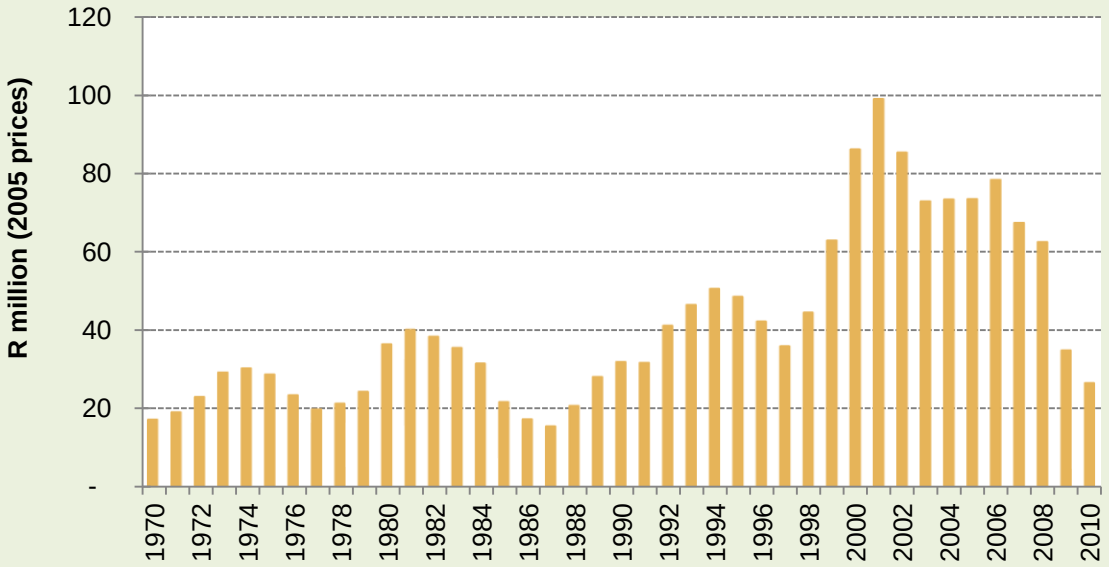
Figure 2.47: Real output and value added: leather and leather products



Source: Quantec EasyData (2011)

Real gross domestic fixed investment in the leather and leather products division is presented in Figure 2.48. The trend shows that average fixed investment reached its peak in 2001. However, the trend showed a decline since then and dropped significantly in 2009 and 2010.

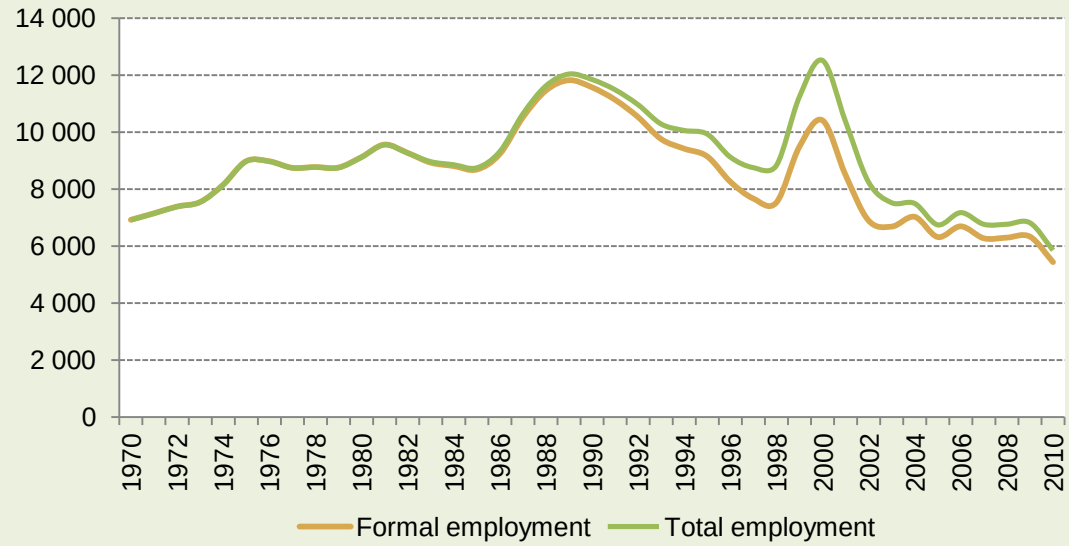
Figure 2.48: Real gross domestic fixed investment: leather and leather products



Source: Quantec EasyData (2011)

Total employment in the leather and leather products division shows that the trend reached its highest level in 2000 when it employed more than 12 500 people. However, it showed a declining trend since 2000 and in 2010 the division employed 5 859 workers, which is less than half of its 2000 level.

Figure 2.49: Total employment: leather and leather products



Source: Quantec EasyData (2011)

CHAPTER THREE

TRADE PATTERN AND STRUCTURE OF THE AGRO-PROCESSING INDUSTRY

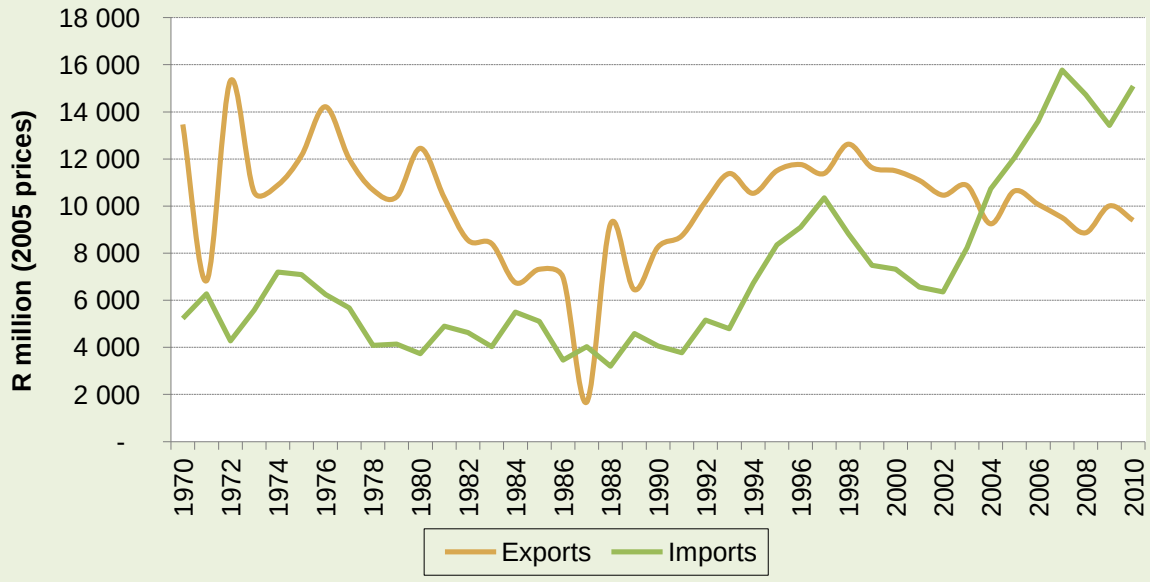
3.1 INTRODUCTION

This chapter presents a brief review of the trade pattern and structure of the agro-processing industry to show the trade position of each division and assess the backward linkage with other sectors and industries. In addition, the chapter provides a summary of market concentration, capital and employment intensity as well as the regional distribution of a group of divisions.

3.2 FOOD PRODUCTS

Figure 3.1 depicts export and import values of food products. The trade balance was largely positive until 2004. From 2004-2010, however, imports have outstripped export values of food products. Hence, South Africa has been a net importer of processed food products since 2004.

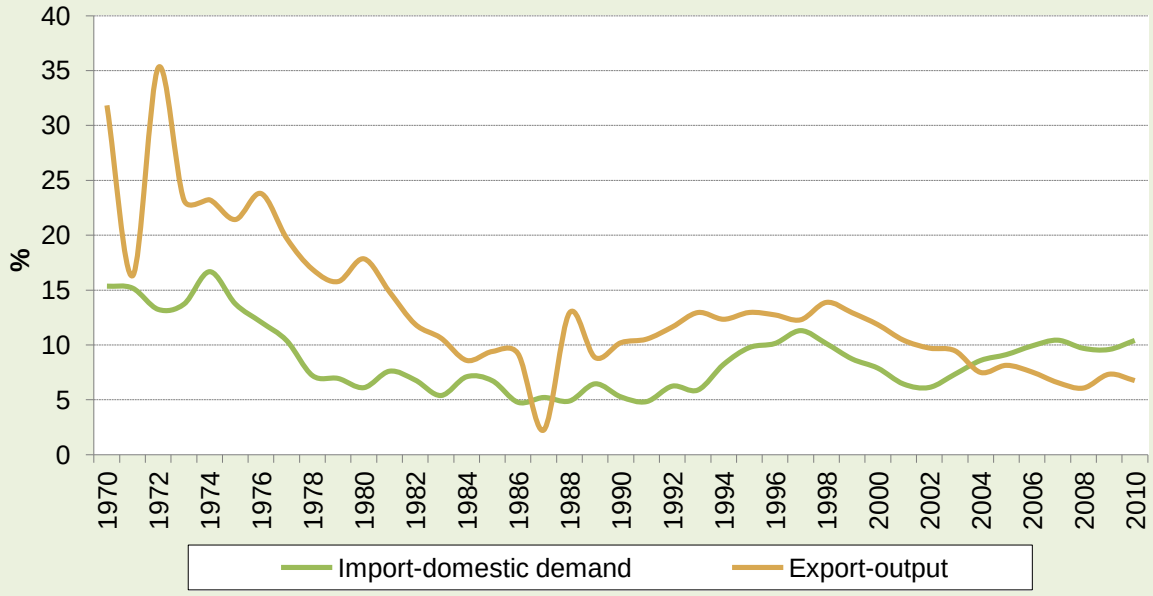
Figure 3.1: Real export and import values: food products



Source: Quantec EasyData (2011)

The share of export to output production shows the percentage of output that is exported. Figure 3.2 shows that during the 1970s the share was above 15% and it reached its peak in 1972 when 35% of the processed food was exported. During most the 1980s the share subsided and it reached its lowest level (below 5%) in 1987. Thereafter, it stayed above 10% until 2003. In 2010, only 6-7% of total processed food was exported. The import to domestic demand ratio that measures the share of imports required to satisfy the domestic demand (output + imports - exports) also shows that it remained below 8% for most of the period, except in the early 1970s and late 1990s. However, since 2001 it increased to reach 10.4% in 2010.

Figure 3.2: The share of export to output and import to domestic demand: food products



Source: Quantec EasyData (2011)

Table 3.1 presents the main food products exported during 2010. Currently, South Africa's main export products are sugar, fruit and fruit juice, which account for more than 25% of the total export of food products.

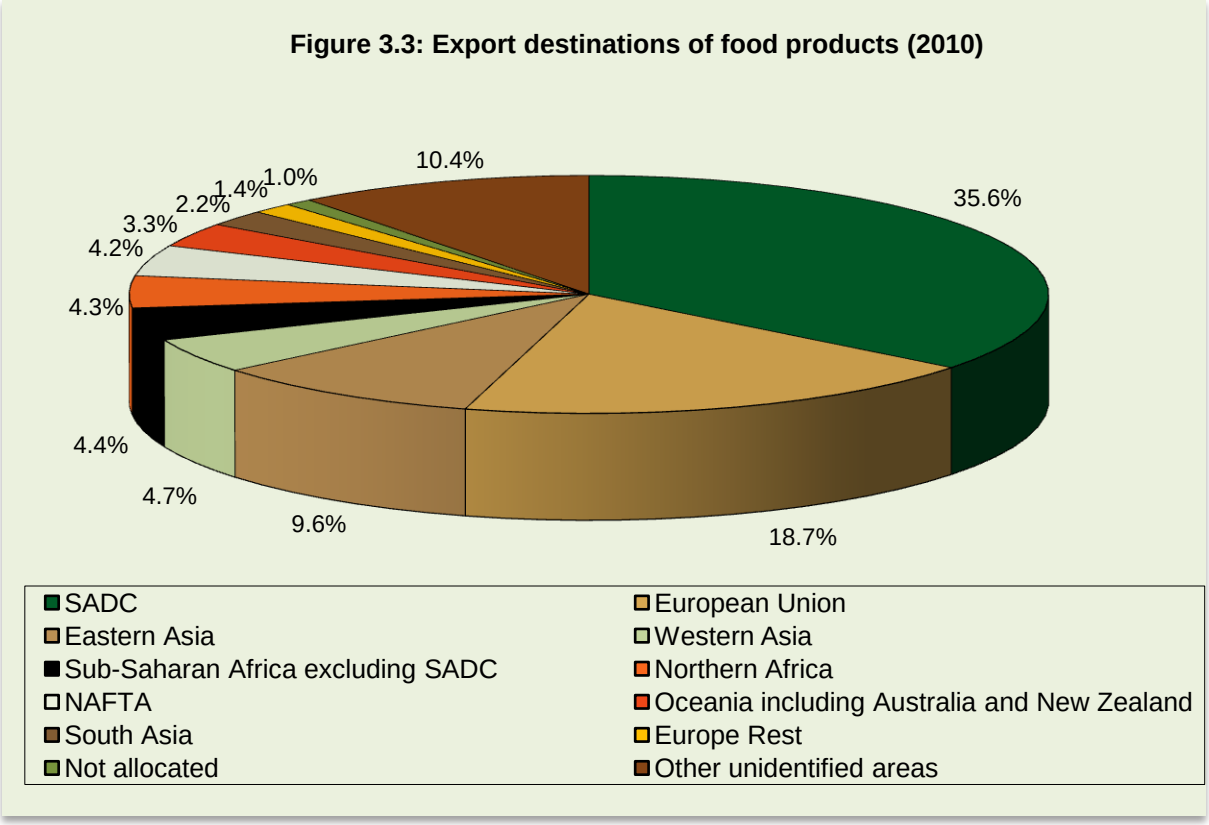
Table 3.1: List of main exported food products in 2010

Product	HS code	R millions	%
Cane or beet sugar & chemically pure sucrose, solid	1701	1,810.6	9.64
Fruit, nuts etc prepared or preserved NESOI	2008	1,553.4	8.27
Fruit juice and veg. juices, not fermented or spirited	2009	1,517.1	8.08
Food preparations NESOI	2106	861.3	4.58
Fish, frozen (no fish fillets or other fish meat)	0303	794.2	4.23
Sunflower, safflower or cotton-seed oil etc, no	1512	733.7	3.91
Fish fillets & other fish meat, fresh, chill or frozen	0304	698.8	3.72
Molluscs & aqua invert NESOI, etc.; flours etc	0307	665.0	3.54
Chocolate & other food products containing cocoa	1806	644.9	3.43
Grapes, fresh or dried	0806	583.1	3.10
Flour, meal etc of meat etc, not for human	2301	530.6	2.82
Other unidentified products		8,393.0	44.68
Total		18,785.6	100.00

Source: Quantec EasyData (2011)

Export destinations for South African food exports in 2010 are shown in Figure 3.3. The main trading partners are the SADC (35.6%), EU (18.7%) and Eastern Asia (9.6%). The other regions such as Western Asia, Sub-Saharan Africa (excluding the SADC), Northern Africa and NAFTA contribute less than 4% each of the total export destinations.

Figure 3.3: Export destinations of food products (2010)



Source: Quantec EasyData (2011)

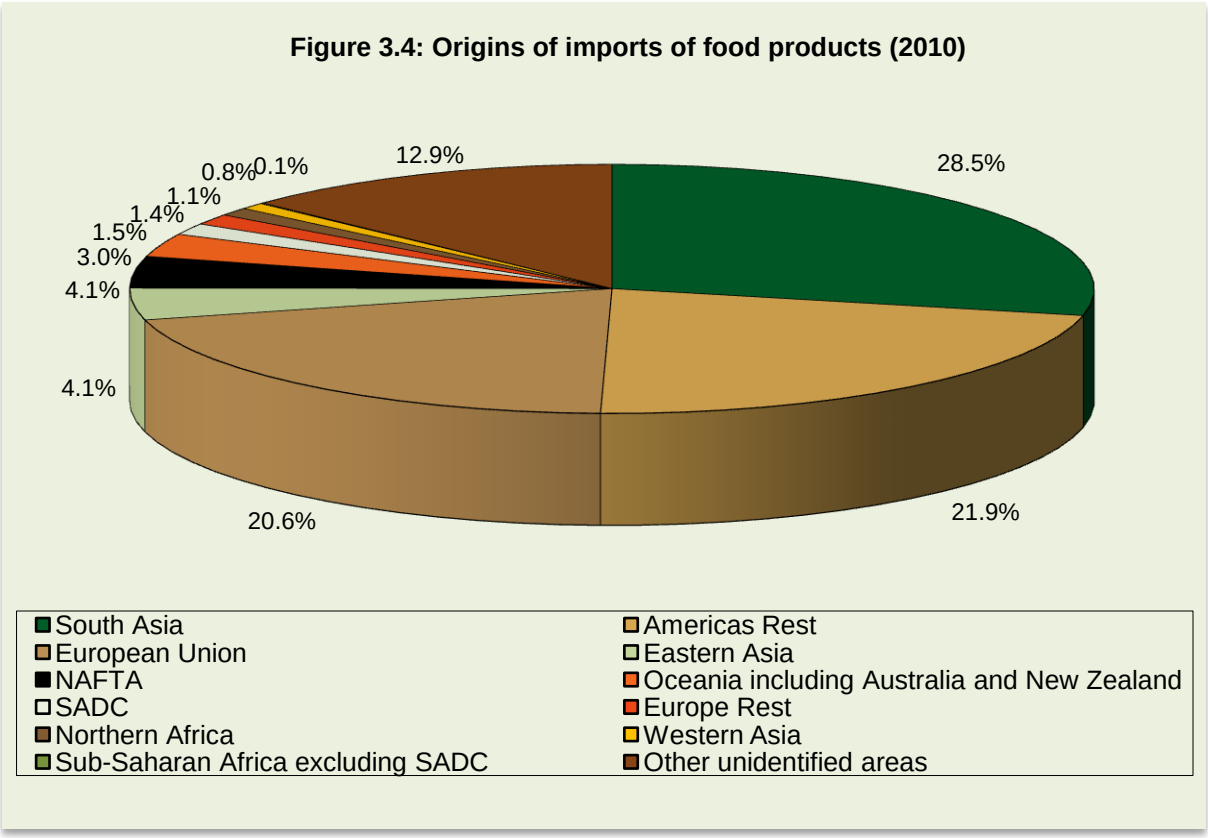
The main products imported are rice (11%), soybean products (9%), palm oil (8%), and soybean (7.3%), accounting for R9.5 billion of the total of R27 billion worth of food imports (see Table 3.2). The import origins of these products in 2010 are displayed in Figure 3.4. South Africa sourced 28.5% of its food imports from South Asia, 21.9% from South America and 20.6% from the EU.

Table 3.2: List of main imported food products in 2010

Product	HS code	R millions	%
Rice	1006	3,085.2	11.28
Soybean oilcake & other solid residue	2304	2,477.3	9.06
Palm oil & its fractions, not chemically modified	1511	2,187.6	8.00
Soybean oil & its fractions, not chemic modified	1507	2,014.9	7.37
Meat & edible offal of poultry, fresh, chill or frozen	0207	1,310.6	4.79
Food preparations NESOI	2106	1,013.3	3.71
Prep or pres fish; caviar & caviar substitutes	1604	852.9	3.12
Sunflower, safflower cotton-seed oil etc, no	1512	787.3	2.88
Preparations used in animal feeding	2309	599.4	2.19
Meat of swine (pork), fresh, chilled or frozen	0203	427.2	1.56
Chocolate & other food products containing cocoa	1806	424.3	1.55
Other unidentified products		12,160.0	44.48
Total		27,340.1	100.00

Source: Quantec EasyData (2011)

Figure 3.4: Origins of imports of food products (2010)



Source: Quantec EasyData (2011)

Table 3.3: The structure of the food division (R million)

YEAR	2010	2005	2000	1995	1990
TOTAL OUTPUT/SALES	192144	130684	73268	47918	27469
Primary industry	62687 32.6%	42107 32.2%	28533 38.9%	17987 37.5%	9778 35.6%
Agriculture, forestry and fishing	61837 32.2%	41626 31.9%	28311 38.6%	17841 37.2%	9720 35.4%
Secondary industry	38744 20.2%	29920 22.9%	15009 20.5%	10982 22.9%	8365 30.5%
....Food, beverages & tobacco	19997 10.4%	16079 12.3%	7810 10.7%	5607 11.7%	4641 16.9%
....Petroleum, chemicals, rubber & plastic	8767 4.6%	6153 4.7%	3109 4.2%	1863 3.9%	1261 4.6%
....Wood & paper; publishing & printing	2527 1.3%	1975 1.5%	1178 1.6%	1138 2.4%	944 3.4%
....Metals, machinery & equipment	2955 1.5%	2554 2.0%	1421 1.9%	1429 3.0%	996 3.6%
..Electricity, gas & water	2341 1.2%	1345 1.0%	741 1.0%	538 1.1%	277 1.0%
Tertiary industry	47240 24.6%	30932 23.7%	15247 20.8%	8194 17.1%	3518 12.8%
..Trade, catering & accommodation services	21686 11.3%	13308 10.2%	7015 9.6%	3335 7.0%	1241 4.5%
..Transport, storage & communication	7025 3.7%	4683 3.6%	2689 3.7%	1703 3.6%	1015 3.7%
..Finance, insurance, real estate & business services	12857 6.7%	9264 7.1%	3984 5.4%	1914 4.0%	661 2.4%
Total intermediate inputs	148671 77.4%	102959 78.8%	58789 80.2%	37163 77.6%	21661 78.9%
Compensation of employees	25224 13.1%	13583 10.4%	8233 11.2%	5779 12.1%	3297 12.0%
Depreciation	7972 4.1%	3877 3.0%	3189 4.4%	1654 3.5%	832 3.0%
Net operating surplus	9766 5.1%	9647 7.4%	2566 3.5%	3012 6.3%	1501 5.5%
GDP at factor cost	42962 22.4%	27107 20.7%	13988 19.1%	10445 21.8%	5630 20.5%
Other taxes on production	425 0.2%	346 0.3%	229 0.3%	118 0.2%	62 0.2%
less: Other subsidies on production	494 0.3%	206 0.2%	4 0.0%	6 0.0%	10 0.0%
GDP at basic prices	42892 22.3%	27247 20.8%	14214 19.4%	10558 22.0%	5683 20.7%
Indirect taxes on products	581 0.3%	478 0.4%	265 0.4%	197 0.4%	125 0.5%
less: Subsidies on products	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Net tax	511 0.3%	618 0.5%	491 0.7%	310 0.6%	178 0.6%
GDP at market prices	43473 22.6%	27725 21.2%	14479 19.8%	10755 22.4%	5808 21.1%

Source: Quantec EasyData (2011)

The trend in the structure of the food products division is given in Table 3.3. The table shows the share of inputs from several industries and sectors in producing the total output of the food division. In other words, it shows how much money is paid for inputs from other sectors

for each Rand produced by the food division (the backward linkage of the industry). For the food divisions, primary (mainly agriculture, forestry and fishing), secondary and tertiary sectors contribute 32.2%, 20.2% and 24.6%, respectively, of the total output value. In other words, 32 cents, 20 cents and 24 cents worth of inputs from the primary, secondary and tertiary sectors are used to produce R1 worth of output by the food division.

The skill level of employees in the food division is shown in Table 3.4. Semi-skilled and unskilled workers make up 46%, followed by mid-level (40.3%) and high-level (7.1%), in 2010. The trend shows that the share of high and mid-level skill is growing while semi-skilled and unskilled workers are declining. The share of informal workers in the food division is also showing an increasing trend, although there was a decline in 2005.

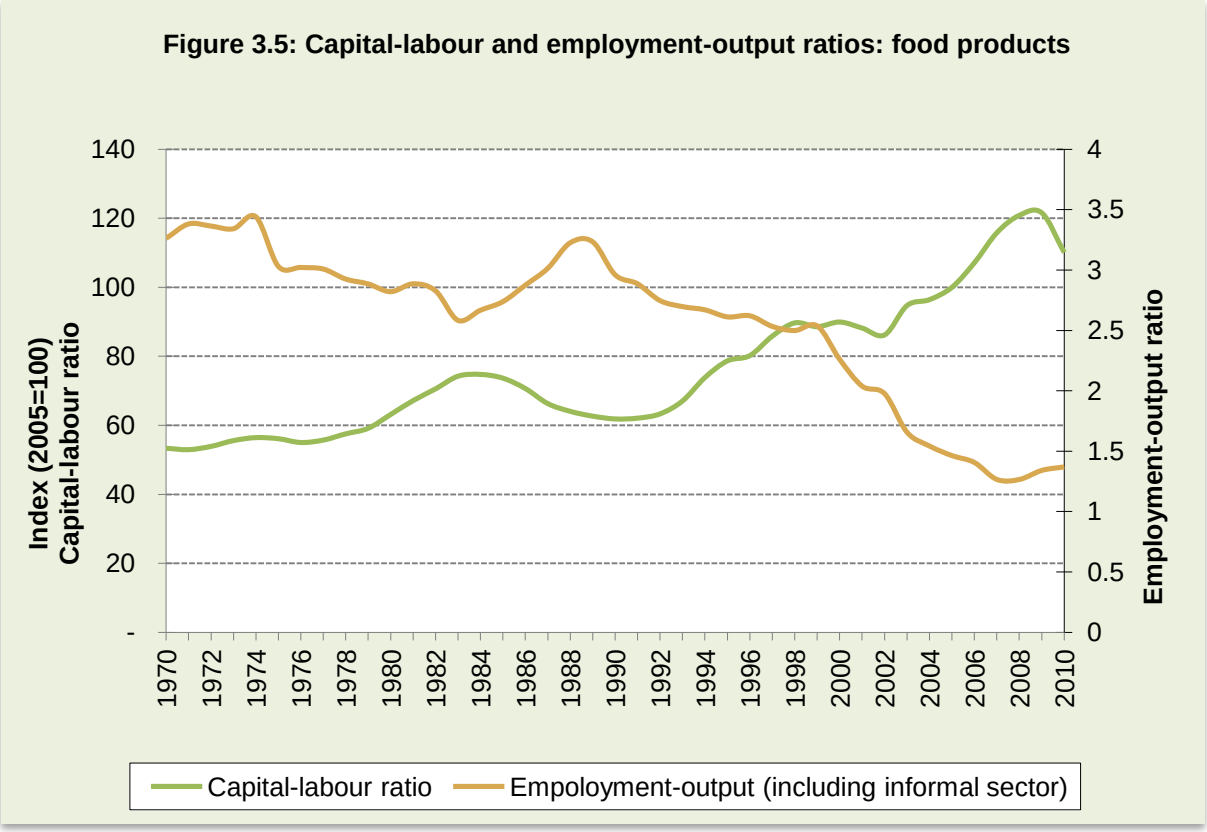
Table 3.4: Skill levels by occupation in the food division

	2010	2005	2000	1995	1990
High-level	13485 (7.1%)	12818 (6.7%)	13991 (6.4%)	14286 6.2%	12619 5.3%
Mid-level	76791 (40.3%)	73259 (38.3%)	80287 36.6%	83980 36.2%	78108 32.6%
Semi- and unskilled	87640 (46.0%)	94243 (49.3%)	109995 (50.2%)	125660 (54.2%)	146139 (61.0%)
Informal	12779 (6.7%)	10899 (5.7%)	14960 (6.8%)	7759 (3.3%)	2834 (1.2%)
Total	190695	191219	219234	231684	239699

Source: Quantec EasyData (2011)

The general trend of employment intensity (employment-output ratio) and capital intensity (capital-labour ratio) of the food division is given in Figure 3.5. The trend shows that while capital intensity in the division is increasing, employment-intensity is declining, especially since 1998.

The concentration ratio for the food division is given in Table 3.5. It shows the concentration ratio of the largest 5, 10 and 20 enterprises. As shown in the table, manufacturers of dairy, grain mill, animal feeds and fish are the most concentrated, as the largest five enterprises contributed between 68% and 72% of the total income of the division. In addition, the largest ten enterprises of all manufacturers except, meat, fruit and other food products contributed more than 79% of the total output.



Source: Quantec EasyData (2011)

Table 3.5: Concentration ratios for total income by subsectors in the food division

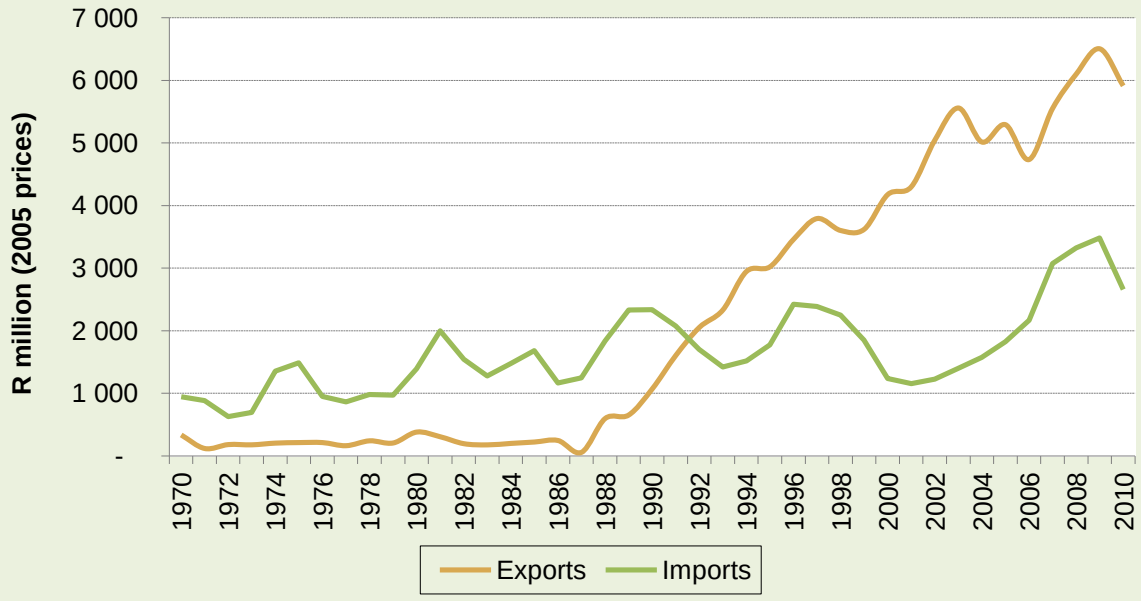
	Total income	Income of 5 largest enterprises	Relative contribution of 5 largest enterprises	Income of 10 largest enterprises	Relative contribution of 10 largest enterprises	Income of 20 largest enterprises	Relative contribution of 20 largest enterprises
Food products and beverages	221123	66500	30	87821	40	118375	54
Production, processing and preserving of meat and meat products	21405	6435	30	9290	43	12538	59
Processing and preserving of fish and fish products	6346	4290	68	5057	80	5590	88
Processing and preserving of fruit and vegetables	13819	7038	51	9143	66	11059	80
Manufacture of vegetable and animal oils and fats	8334	4911	59	7204	86	8152	98
Manufacture of dairy products	16003	11406	71	12933	81	14455	90
Manufacture of grain mill products	17887	12571	70	14176	79	15715	88
Manufacture of prepared animal feeds	19714	14234	72	16152	82	17679	90
Manufacture of bakery products, sugar, cocoa, chocolate and sugar confectionery	33795	19533	58	28224	84	30689	91
Manufacture of other food products	24548	11787	48	14044	57	16441	67

Source: Statistics SA (2008)

3.3 BEVERAGES

Figure 3.6 shows real export and import values of the beverages division. As shown in the figure, considerable growth of exports since 1990 made South Africa a net exporter since 1992 by exceeding import values.

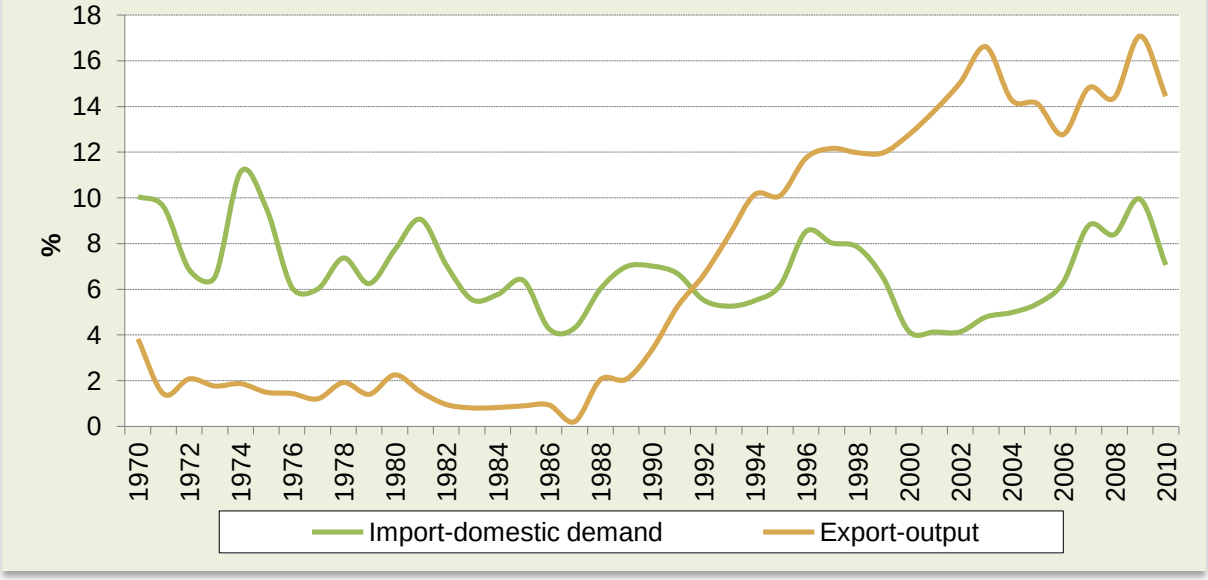
Figure 3.6: Real export and import values: beverages



Source: Quantec EasyData (2011)

As a result of higher growth in exports, the export-output ratio of the beverages division has risen significantly. This is shown in Figure 3.7, where the ratio has increased from less than 2% in 1972 to above 14% in 2010. The ratio of import to domestic demand has been volatile and remained under 8% for most of the period.

Figure 3.7: The share of export to output and import to domestic demand: beverages



Source: Quantec EasyData (2011)

The main beverage products exported in 2010 are presented in Table 3.6. Wine is the top beverage export, contributing 63% of the total beverage exports, followed by ethyl alcohol, (15%) and ethyl alcohol (spirit beverage) (7.2%).

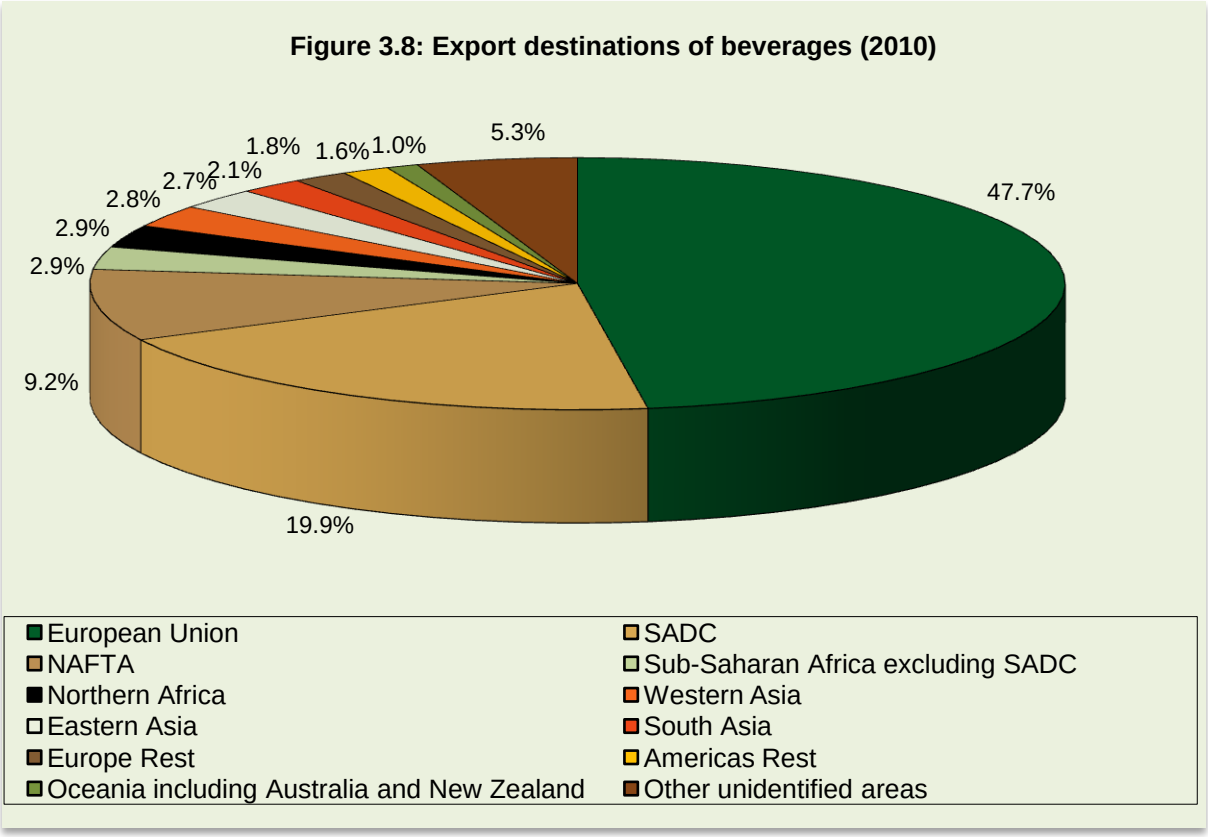
Table 3.6: List of main exported beverage products in 2010

Product	HS code	R millions	%
Wine of fresh grapes; grape must NESOI	2204	5,721.8	63.74
Ethyl alcohol, undenat, nun80% alc; alcohol, denat	2207	1,398.3	15.58
Ethyl alcohol, undenat, und80% alc; spirit beverage	2208	647.1	7.21
Waters, sweetened etc & oth nonalc beverages NESOI	2202	309.2	3.44
Fermented beverages NESOI (cider, perry, mead etc)	2206	294.7	3.28
Beer made from malt	2203	123.4	1.37
Waters, natural etc, not sweetened etc; ice & snow	2201	16.9	0.19
Malt, whether or not roasted	1107	15.1	0.17
Vermouth & other wine of fresh grapes spec flavoured	2205	5.0	0.06
Other unidentified products		445.6	4.96
Total		8,977.0	100.00

Source: Quantec EasyData (2011)

The main export destinations of beverages in 2010 were the EU (47.7%), the SADC (20%), and NAFTA (9%) (see Figure 3.8).

Figure 3.8: Export destinations of beverages (2010)



Source: Quantec EasyData (2011)

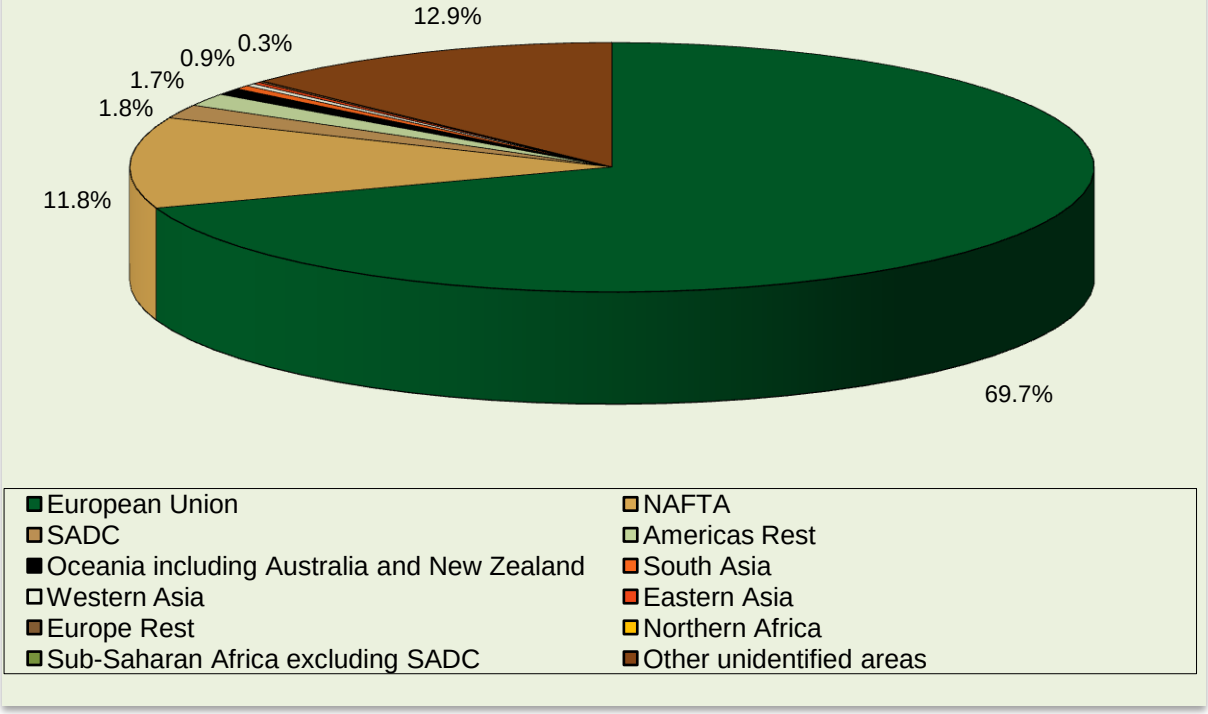
At the top of the list of beverage products imported during 2010 was ethyl alcohol (60%), followed by waters (8.5%) and malt (6.9%) (see Table 3.7) The origins of imports, depicted in Figure 3.9, show that the EU alone accounted for 70% of all beverages imported in 2010. NAFTA, which is the second main source of imports, accounted for 12% of imports.

Table 3.7 List of main imported beverage products in 2010

Product	HS code	R millions	%
Ethyl alcohol, undenat, und80% alc; spirit beverag	2208	2,276.5	60.28
Waters, sweetened etc & oth nonalc beverages NESOI	2202	320.7	8.49
Malt, whether or not roasted	1107	261.6	6.93
Beer made from malt	2203	157.2	4.16
Wine of fresh grapes; grape must NESOI	2204	126.9	3.36
Ethyl alcohol, undenat, nun80% alc; alcohol, denat	2207	124.2	3.29
Waters, natural etc, not sweetened etc; ice & snow	2201	12.8	0.34
Vermouth & other wine of fresh grapes spec flavoured	2205	7.9	0.21
Fermented beverages NESOI (cider, perry, mead etc)	2206	1.1	0.03
Other unidentified products		487.4	12.91
Total		3,776.3	100.00

Source: Quantec EasyData (2011)

Figure 3.9: Origins of imports of beverages (2010)



Source: Quantec EasyData (2011)

Table 3.8 shows the structure of the beverages division. As shown in the table, inputs from the primary, secondary and tertiary industry contributed 7.8%, 30.1% and 30%, respectively, of the output in 2010. The trend in the share of the inputs shows that there has been a general declining share from the secondary industry and an increasing role of service sectors such as finance and trade as a source of inputs for the beverages division. After stagnating below 13%, compensation of employees increased to 15.2% in 2010.

Table 3.8: The structure of the beverages division (R million)

YEAR	2010	2005	2000	1995	1990
TOTAL OUTPUT/SALES	54696	37456	22512	14513	8750
Primary industry	4250 7.8%	2602 6.9%	1733 7.7%	670 4.6%	389 4.4%
Agriculture, forestry and fishing	4184 7.6%	2554 6.8%	1696 7.5%	635 4.4%	374 4.3%
Secondary industry	16455 30.1%	12445 33.2%	7813 34.7%	6102 42.0%	4639 53.0%
....Food, beverages & tobacco	6913 12.6%	5488 14.7%	3373 15.0%	2344 16.2%	2292 26.2%
....Petroleum, chemicals, rubber & plastic	2640 4.8%	1632 4.4%	966 4.3%	608 4.2%	394 4.5%
....Wood & paper; publishing & printing	2147 3.9%	1523 4.1%	980 4.4%	723 5.0%	503 5.8%
....Metals, machinery & equipment	2204 4.0%	2068 5.5%	1491 6.6%	1399 9.6%	821 9.4%
..Electricity, gas & water	846 1.5%	484 1.3%	327 1.5%	271 1.9%	162 1.9%
Tertiary industry	16386 30.0%	9813 26.2%	5272 23.4%	2463 17.0%	968 11.1%
..Trade, catering & accommodation services	6647 12.2%	3700 9.9%	2215 9.8%	949 6.5%	384 4.4%
..Transport, storage & communication	1080 2.0%	677 1.8%	444 2.0%	239 1.6%	142 1.6%
..Finance, insurance, real estate & business services	5530 10.1%	3616 9.7%	1756 7.8%	699 4.8%	194 2.2%
Total intermediate inputs	37091 67.8%	24860 66.4%	14819 65.8%	9234 63.6%	5996 68.5%
Compensation of employees	8331 15.2%	4709 12.6%	2844 12.6%	1779 12.3%	1000 11.4%
Depreciation	4494 8.2%	2576 6.9%	1891 8.4%	1092 7.5%	437 5.0%
Net operating surplus	4183 7.6%	4829 12.9%	2635 11.7%	2201 15.2%	1202 13.7%
GDP at factor cost	17008 31.1%	12114 32.3%	7370 32.7%	5072 35.0%	2639 30.2%
Other taxes on production	468 0.9%	353 0.9%	229 1.0%	114 0.8%	62 0.7%
less: Other subsidies on production	73 0.1%	21 0.1%	1 0.0%	0	0
GDP at basic prices	17404 31.8%	12446 33.2%	7599 33.8%	5186 35.7%	2701 30.9%
Indirect taxes on products	202 0.4%	150 0.4%	95 0.4%	92 0.6%	53 0.6%
less: Subsidies on products	0	0	0	0	0
Net tax	597 1.1%	481 1.3%	323 1.4%	206 1.4%	115 1.3%
GDP at market prices	17605 32.2%	12595 33.6%	7694 34.2%	5279 36.4%	2754 31.5%

Source: Quantec EasyData (2011)

The skill level of employees in the beverages division is provided in Table 3.9. The division shows a general decline in the share of all skill levels mainly because of rapid growth in informal employment in the division. In 2010, 40.9% of all employment in the beverages division was generated in the informal sector.

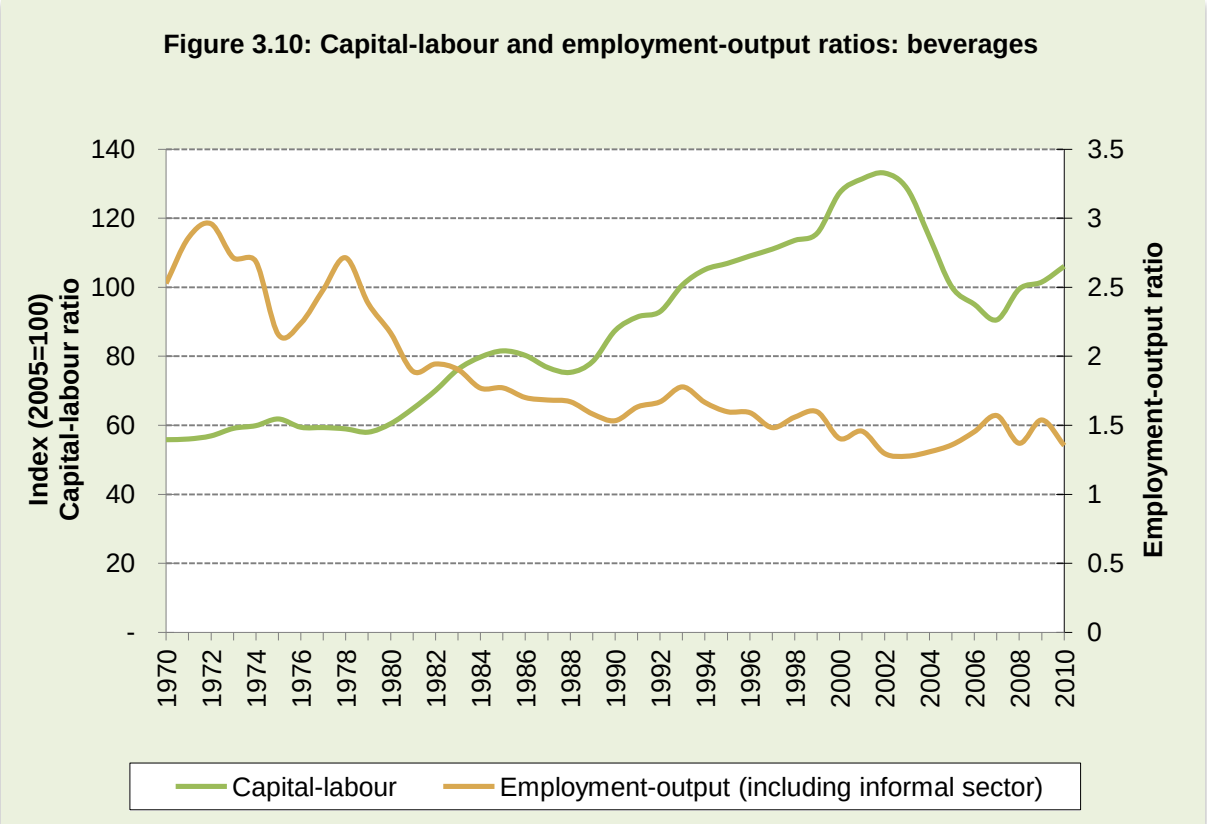
Table 3.9: Skill levels of employees in the beverages division

	2010	2005	2000	1995	1990
High-level	5268 (9.5%)	4908 (9.6%)	5292 (11.5%)	5357 (11.2%)	4173 (8.5%)
Mid-level	11341 (20.5%)	11680 (22.9%)	13372 (29.1%)	14255 (29.8%)	14379 (29.2%)
Semi- and unskilled	16125 (29.1%)	17722 (34.8%)	20865 (45.4%)	23471 (49.1%)	27993 (56.9%)
Informal	22655 (40.9%)	16600 (32.6%)	6411 (14.0%)	4729 (9.9%)	2617 (5.3%)
Total	55390	50910	45941	47812	49162

Source: Quantec EasyData (2011)

The trend of employment intensity in the beverages division shows that it has been declining for many years. However, capital intensity of the division increased until 2002. Since then, it started to drop and employment intensity has levelled somewhat (see Figure 3.10).

Figure 3.10: Capital-labour and employment-output ratios: beverages



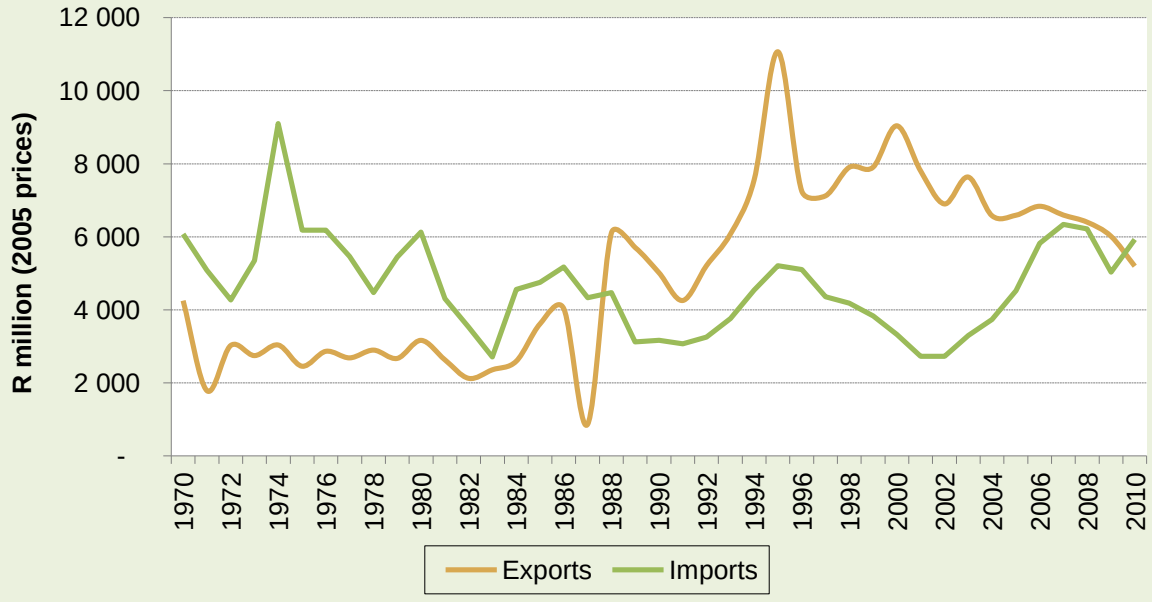
Source: Quantec EasyData (2011)

A study by Statistics SA (2008) on the concentration ratio for the beverages (both alcoholic and non-alcoholic) division shows that the largest 5, 10 and 20 enterprises accounted for 80%, 86% and 90%, respectively, of total income. Thus, the division could be regarded as highly concentrated, despite the higher growth rate of the informal sector.

3.4 PAPER AND PAPER PRODUCTS

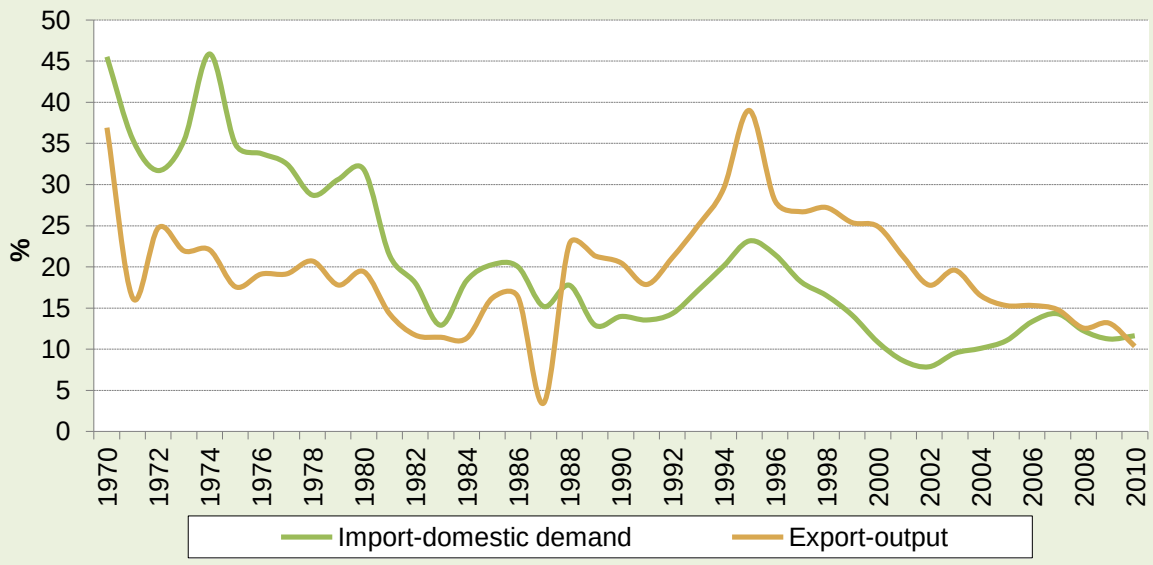
Figure 3.11 shows the real export and import values of the paper and paper products division. As shown in the figure, SA has been a net exporter of paper and paper products since 1988. The trade balance, however, is getting narrower and is close to zero currently. This is further confirmed by the decline of the export-output ratio that reached a similar level to that of the import-domestic demand ratio. The export-output ratio, which was 35% during the mid-1990s, declined to 12% in 2010. Similarly the import-domestic demand ratio, which reached 45% in the mid-1970s, declined to 12% in 2010 (see Figure 3.12).

Figure 3.11: Real export and import values: paper and paper products



Source: Quantec EasyData (2011)

Figure 3.12: The share of export to output and import to domestic demand: paper and paper products



Source: Quantec EasyData (2011)

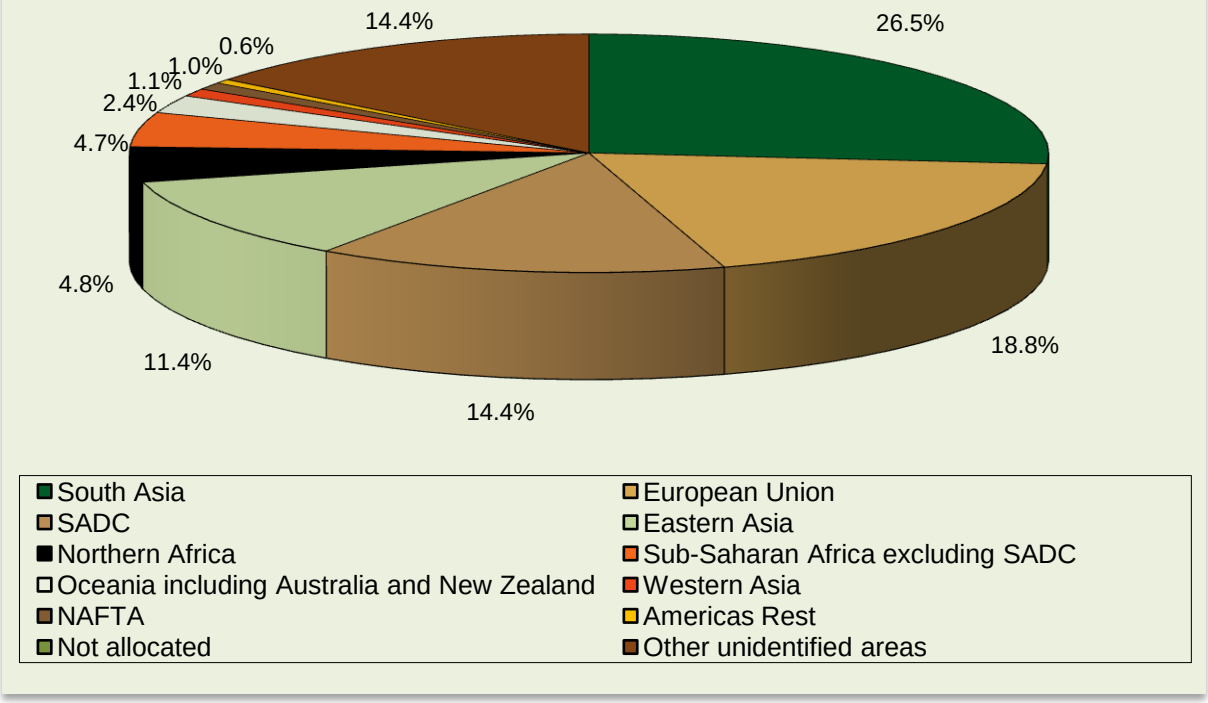
Table 3.10 shows the list of main paper and paper products exported in 2010. Among the products, chemical wood pulp, kraft paper and paper account for 36%, 13% and 11%, respectively, of the export items. The main export destinations of these products are South Asia (27%), the EU (19%), the SADC (14%) and East Asia (11%) (see Figure 3.13).

Table 3.10: List of main exported paper and paper products in 2010

Product	HS code	R millions	%
Chemical wood pulp, dissolving grades	4702	4,419.4	36.55
Kraft paper & paperboard, uncoated NESOI , rolls etc	4804	1,571.9	13.00
Paper, uncoated, for writing etc, rolls; hndmd paper	4802	1,426.8	11.80
Chemical wood pulp, soda or sulphate, not dissolving	4703	1,161.7	9.61
Cartons etc paper; office box files etc, paper etc	4819	508.1	4.20
Newsprint, in rolls or sheets	4801	294.4	2.44
Paper, paperboard, wad etc, coat etc NESOI ,	4811	195.0	1.61
Paper & paperboard, coated with kaolin etc	4810	174.5	1.44
Toilet paper & similar household, sanitary items	4818	156.0	1.29
Paper & paperboard, uncoated, NESOI , rolls or sheets	4805	140.8	1.16
Labels of paper or paperboard, printed or not	4821	97.9	0.81
Other unidentified products		1,944.5	16.08
Total		**12,091.1**	**100.00**

Source: Quantec EasyData (2011)

Figure 3.13: Export destinations of paper and paper products (2010)



Source: Quantec EasyData (2011)

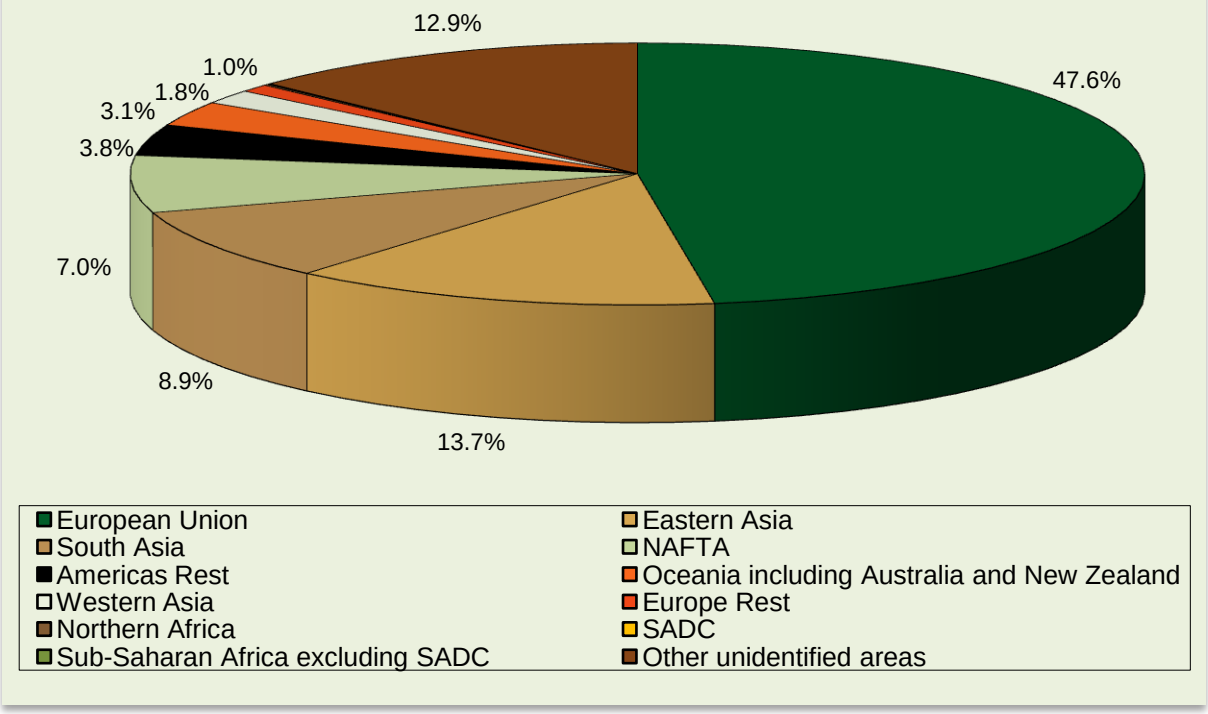
The main imported paper products in 2010 are listed in Table 3.11. Among the products, paper and paper board, paper for writing and toilet papers account for 59% of the total imports of paper and paper products. The EU comprises the largest share of import origins of paper products as it accounts for 47.6% of the total imports, followed by East Asia (14%), South Asia (9%) and NAFTA (7%) (see Figure 3.14)

Table 3.11: List of main paper and paper products imported in 2010

Product	HS code	R millions	%
Paper & paperboard, coated with kaolin etc	4810	2,125.5	25.34
Paper, paperboard, wad etc, coat etc NESOI ,	4811	1,183.0	14.10
Paper, uncoated, for writing etc, rolls; hndmd paper	4802	889.6	10.60
Toilet paper & similar household, sanitary items	4818	815.2	9.72
Kraft paper & paperboard, uncoated NESOI , rolls etc	4804	389.6	4.64
Chemical wood pulp, soda or sulphate, not dissolving	4703	304.8	3.63
Paper, paperboard, cellul wad to size & arts NESOI	4823	220.9	2.63
Paper & paperboard, uncoated, NESOI , rolls or sheets	4805	195.9	2.33
Cartons etc paper; office box files etc, paper etc	4819	189.1	2.25
Paper, carbon, self-copy etc, rolls etc	4809	173.5	2.07
Vegetable parchment, greaseproof papers etc, rolls etc	4806	137.0	1.63
Other unidentified products		1,764.7	21.04
Total		8,388.8	100.00

Source: Quantec EasyData (2011)

Figure 3.14: Origins of imports of paper and paper products (2010)



Source: Quantec EasyData (2011)

The structure of the paper and paper products division showed in Table 3.12 reveals that in 2010 the sector used mainly products from the manufacturing sector (51.7%). Apparently, the division has relatively little direct backward linkage with the primary sector. The trend also shows that inputs from tertiary sectors are increasing and currently account for 22.8% of the total output. However, the share of compensation of employees, which was 13% in 1995, was dwindling by 2010.

Table 3.12: Structure of the paper and paper products division (R million)

YEAR	2010	2005	2000	1995	1990
TOTAL OUTPUT/SALES	63827	43086	29191	16653	8748
Primary industry	4703 7.4%	2653 6.2%	1957 6.7%	1001 6.0%	487 5.6%
Agriculture, forestry and fishing	3270 5.1%	1981 4.6%	1566 5.4%	729 4.4%	394 4.5%
Secondary industry	33017 51.7%	21949 50.9%	14376 49.2%	7849 47.1%	4490 51.3%
....Food, beverages & tobacco	287 0.4%	207 0.5%	127 0.4%	81 0.5%	63 0.7%
....Petroleum, chemicals, rubber & plastic	10536 16.5%	6452 15.0%	4302 14.7%	1931 11.6%	1083 12.4%
....Wood & paper; publishing & printing	18438 28.9%	12869 29.9%	8063 27.6%	4186 25.1%	2518 28.8%
....Metals, machinery & equipment	1721 2.7%	1100 2.6%	826 2.8%	749 4.5%	414 4.7%
..Electricity, gas & water	1146 1.8%	590 1.4%	501 1.7%	464 2.8%	263 3.0%
Tertiary industry	14560 22.8%	8691 20.2%	5548 19.0%	2892 17.4%	1396 16.0%
..Trade, catering & accommodation services	5716 9.0%	3156 7.3%	2209 7.6%	1141 6.9%	586 6.7%
..Transport, storage & communication	2698 4.2%	1621 3.8%	1205 4.1%	636 3.8%	276 3.2%
..Finance, insurance, real estate & business services	4725 7.4%	3064 7.1%	1645 5.6%	708 4.3%	266 3.0%
Total intermediate inputs	52281 81.9%	33293 77.3%	21881 75.0%	11741 70.5%	6374 72.9%
Compensation of employees	6420 10.1%	4210 9.8%	3400 11.6%	2150 12.9%	1215 13.9%
Depreciation	7033 11.0%	3491 8.1%	2247 7.7%	927 5.6%	616 7.0%
Net operating surplus	-1939 -3.0%	1950 4.5%	1442 4.9%	1714 10.3%	500 5.7%
GDP at factor cost	11515 18.0%	9651 22.4%	7090 24.3%	4791 28.8%	2331 26.7%
Other taxes on production	107 0.2%	84 0.2%	104 0.4%	43 0.3%	21 0.2%
less: Other subsidies on production	125 0.2%	60 0.1%	13 0.0%	19 0.1%	26 0.3%
GDP at basic prices	11497 18.0%	9675 22.5%	7181 24.6%	4816 28.9%	2327 26.6%
Indirect taxes on products	48 0.1%	118 0.3%	129 0.4%	96 0.6%	48 0.5%
less: Subsidies on products	0	0	0	0	0
Net tax	31 0.0%	142 0.3%	220 0.8%	121 0.7%	43 0.5%
GDP at market prices	11546 18.1%	9793 22.7%	7310 25.0%	4912 29.5%	2374 27.1%

Source: Quantec EasyData (2011)

The skill level of employees in the paper division is also provided in Table 3.13. As shown in the table, there has been a gradual increase in the share of high and mid-level skills in the

division and a slightly declining share of semi-skilled and unskilled workers. However, the division was still dominated by semi-skilled and unskilled workers (59.7 %) in 2010.

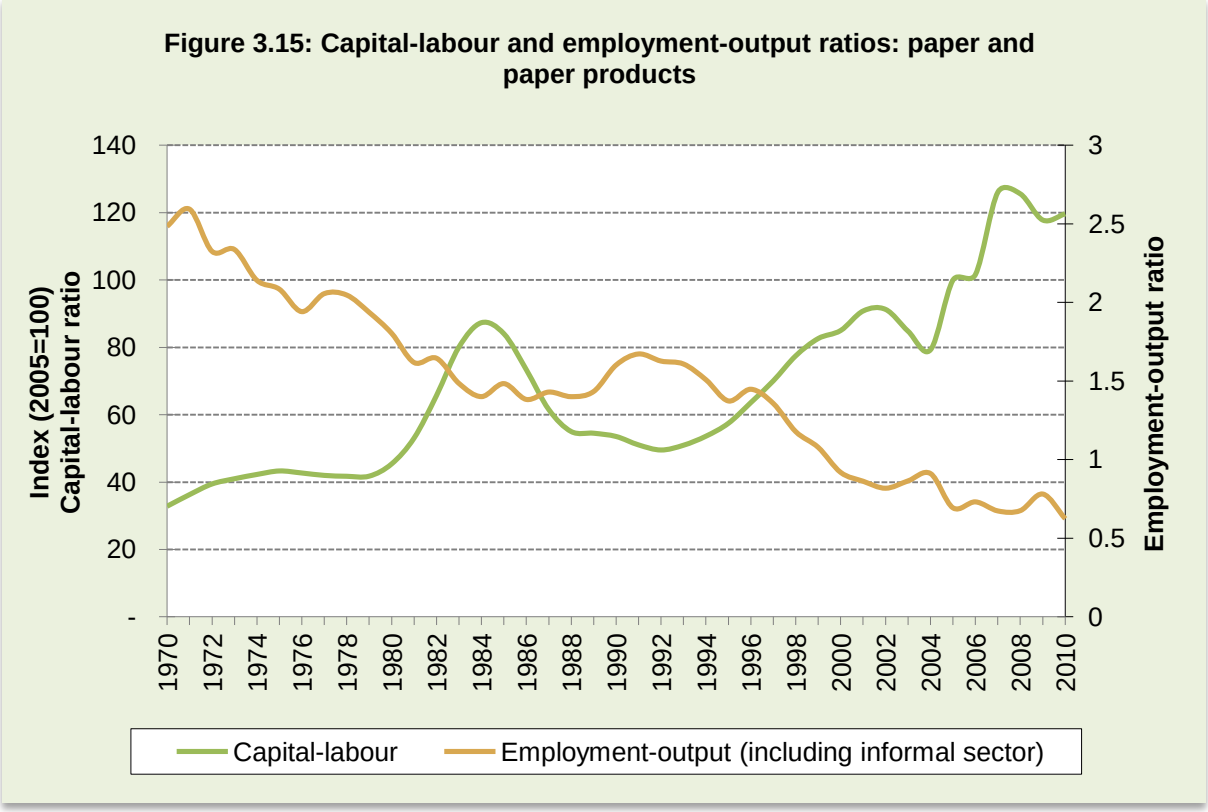
Table 3.13: Skill levels of employees in the paper and paper products division

	2010	2005	2000	1995	1990
High-level	2857 (9.1%)	2533 (8.5%)	2776 (8.3%)	3104 (8.0%)	2435 (6.2%)
Mid-level	9760 (31.2%)	9077 (30.4%)	9768 (29.3%)	11032 (28.3%)	10413 (26.6%)
Semi- and unskilled	18694 (59.7%)	18248 (61.1%)	20788 (62.4%)	24816 (63.7%)	26365 (67.2%)
Total	31312	29858	33332	38952	39213

Source: Quantec EasyData (2011)

The capital and employment intensity of the output of the paper and paper products division shows that there is a declining trend in the employment intensity of the division (see Figure 3.15). Moreover, the capital intensity of the division has been increasing since 1992.

Figure 3.15: Capital-labour and employment-output ratios: paper and paper products



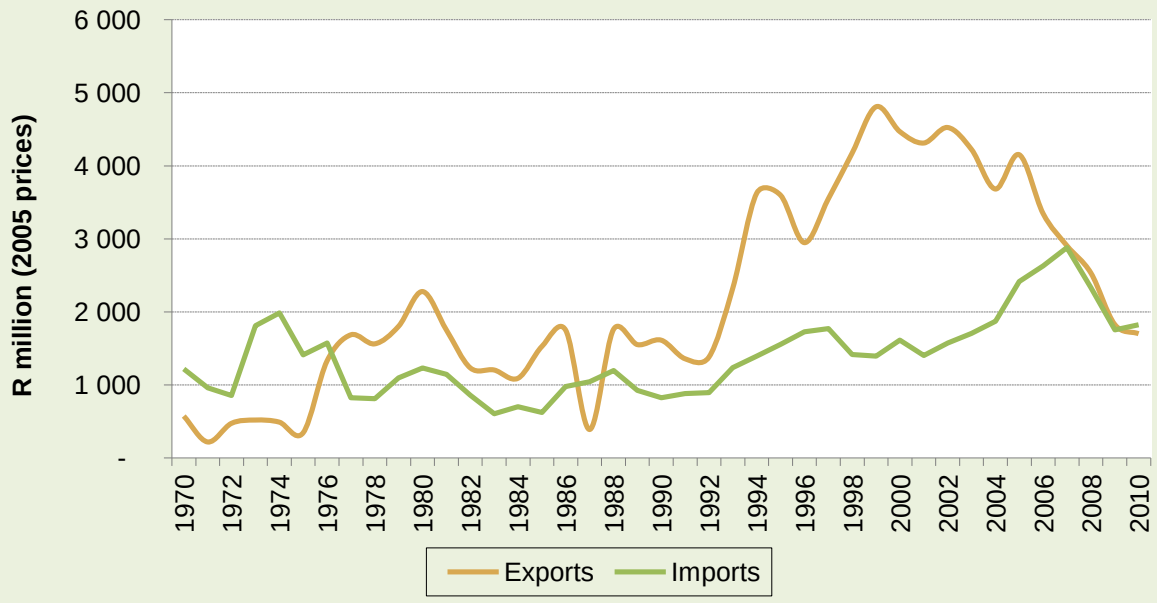
Source: Quantec EasyData (2011)

The market concentration ratio of the paper and paper product division shows that the largest 5, 10 and 20 enterprises contributed 63%, 73% and 80%, respectively, of the total income (Statistics SA, 2008).

3.5 WOOD AND WOOD PRODUCTS

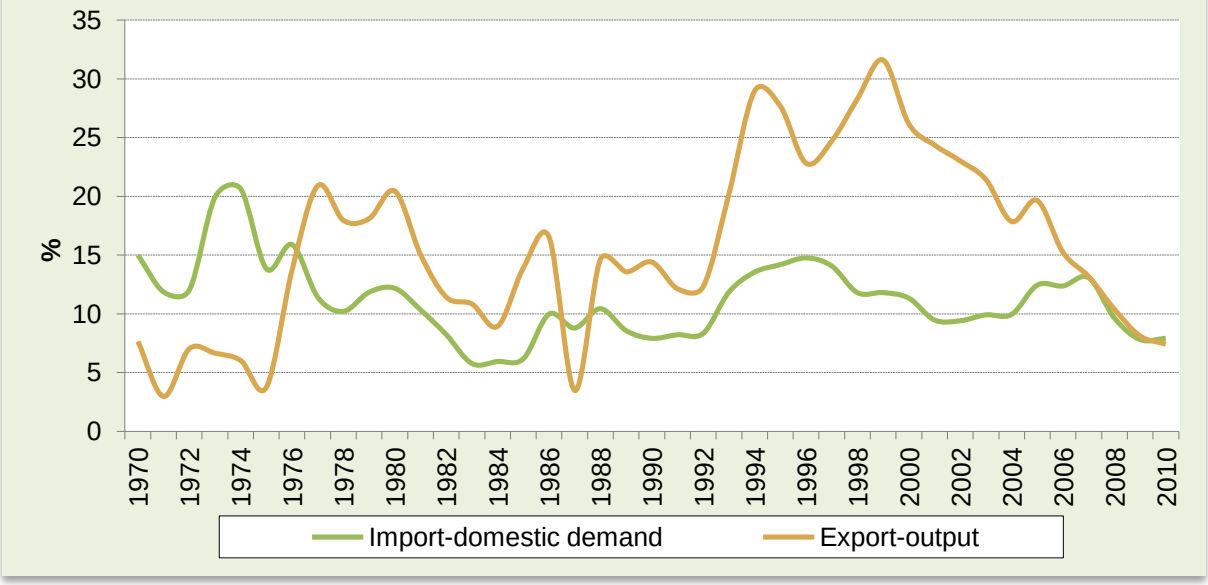
Figure 3.16 shows the real export and import values of the wood and wood products division. For most of the period South Africa has been a net exporter of wood and wood products. The trade balance was especially wide in the early 2000s. However, both exports and imports remained equivalent since 2007. A closer look at the export-output and import-domestic demand ratios shows that while there is no significant change in imports to domestic demand share, the exports-output ratio has fallen steadily since 2000 (see Figure 3.17). As a result, they both remained the same since 2007. Currently, 7% of domestic demand is imported and a similar amount is also exported.

Figure 3.16: Real export and import values: wood and wood products



Source: Quantec EasyData (2011)

Figure 3.17: The share of export to output and import to domestic demand: wood and wood products



Source: Quantec EasyData (2011)

Table 3.14 shows the main wood and wood products exported in 2010. Fuel wood was the main exported item, amounting to R1.6 billion and contributing 54% of the total exports of wood and wood products. The other important exported items were builders' joinery and carpentry of wood and fibreboard of wood or other ligneous material that accounted for 6.8% and 4% of the total exports, respectively.

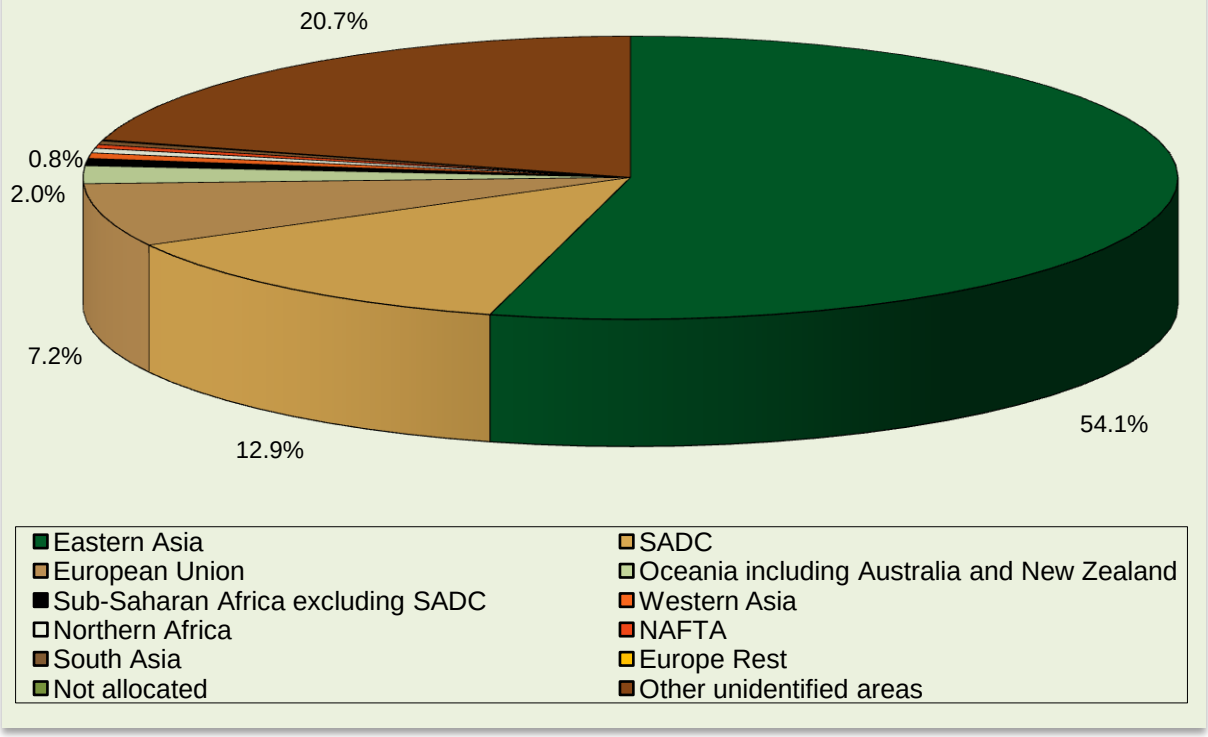
Table 3.14: List of main wood and wood products exported in 2010

Product	HS code	R millions	%
Fuel wood in logs etc; wood in chips, etc.	4401	1,631.9	54.62
Builders' joinery and carpentry of wood	4418	204.6	6.85
Fibreboard of wood or other ligneous materials	4411	116.7	3.91
Wood sawn or chipped length, sliced etc, over 6mm thick	4407	86.3	2.89
Particle board & similar board of wood etc.	4410	71.8	2.40
Wood in the rough, stripped or not of sapwood etc	4403	56.7	1.90
Veneer sheets etc, not over 6 mm thick	4408	35.9	1.20
Packing cases etc, wood; pallets, collars etc, of wood	4415	29.7	0.99
Articles of wood, NESOI	4421	25.5	0.85
Plywood, veneered panels & similar laminated wood	4412	25.4	0.85
Plaits etc & products of plaiting materials	4601	24.8	0.83
Other unidentified products		678.2	22.70
Total		2,987.7	100.00

Source: Quantec EasyData (2011)

Major export destinations of wood and wood products were East Asia, the SADC and the European Union, which accounted for 54%, 12.9% and 7.2% of total exports in 2010, respectively (see Figure 3.18).

Figure 3.18: Export destinations of wood and wood products (2010)



Source: Quantec EasyData (2011)

Among key products of the wood and wood products division, wood sawn or chipped length was the main imported item and was worth R692.9 million and amounted to 27% of all imports, followed by fibreboard of wood and plywood, veneered panels and similar laminated wood, which accounted for 10% and 9% of the total imports, respectively.

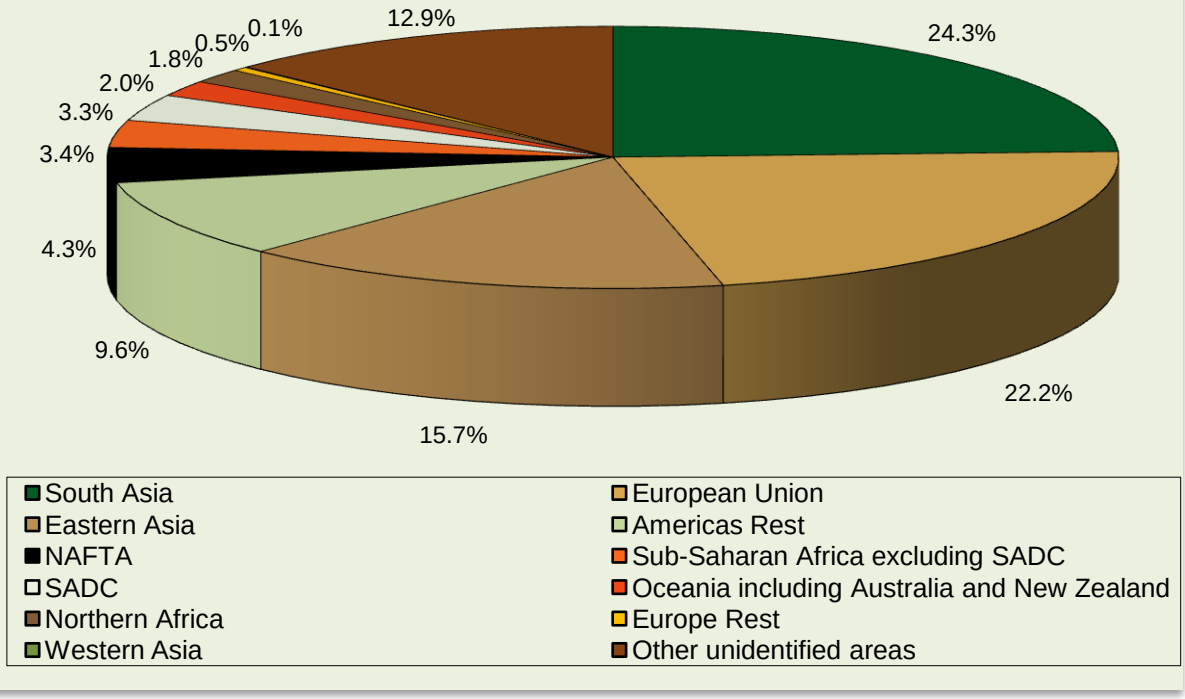
Table 3.15: List of main wood and wood products imported in 2010

Product	HS code	R millions	%
Wood sawn or chipped length, sliced etc, over 6mm thick	4407	692.9	27.72
Fibreboard of wood or other ligneous materials	4411	250.1	10.01
Plywood, veneered panels & similar laminated wood	4412	225.8	9.04
Veneer sheets etc, not over 6 mm thick	4408	169.9	6.80
Casks, barrels, vats, etc. and parts, of wood	4416	167.2	6.69
Builders' joinery and carpentry of wood	4418	154.3	6.17
Articles of wood, NESOI	4421	120.2	4.81
Articles of natural cork	4503	107.9	4.32
Wood, continuously shaped (tongued, grooved etc.)	4409	98.4	3.94
Basketwork, wickerwork of plaits etc	4602	45.0	1.80
Particle board & similar board of wood etc.	4410	35.0	1.40
Other unidentified products		432.6	17.31
Total		2,499.2	100.00

Source: Quantec EasyData (2011)

Origins of imports of the above listed items are presented in Figure 3.19. Most of the imports are sourced from South Asia (24.3%), the EU (22.2%), East Asia (15.7%) and Americas Rest (South and Central America) (9.6%).

Figure 3.19: Origins of imports of wood and wood products (2010)



Source: Quantec EasyData (2011)

The structure of the wood and wood products division, which displays all the intermediate input usage from other industries, is provided in Table 3.16. While 71% of total output in 2010 were intermediate inputs, the main sources of inputs were from secondary industry (35%), followed by tertiary industry (20.6%) and primary industry (15.4%). Compensation of employees constituted 19.5% of the total output in 2010.

TOTAL OUTPUT/SALES	30855	21152	12143	6770	4231
Primary industry	4747 15.4%	2998 14.2%	2101 17.3%	985 14.5%	636 15.0%
Agriculture, forestry and fishing	4703 15.2%	2971 14.0%	2084 17.2%	971 14.3%	628 14.8%
Secondary industry	10787 35.0%	7658 36.2%	3974 32.7%	2201 32.5%	1712 40.5%
....Food, beverages & tobacco	6 0.0%	5 0.0%	2 0.0%	1 0.0%	2 0.1%
....Petroleum, chemicals, rubber & plastic	2037 6.6%	1249 5.9%	715 5.9%	283 4.2%	198 4.7%
....Wood & paper; publishing & printing	7562 24.5%	5602 26.5%	2718 22.4%	1360 20.1%	985 23.3%
....Metals, machinery & equipment	592 1.9%	436 2.1%	302 2.5%	356 5.3%	373 8.8%
..Electricity, gas & water	377 1.2%	198 0.9%	142 1.2%	123 1.8%	85 2.0%
Tertiary industry	6350 20.6%	3968 18.8%	2198 18.1%	1134 16.7%	638 15.1%
..Trade, catering & accommodation services	2227 7.2%	1283 6.1%	760 6.3%	362 5.3%	241 5.7%
..Transport, storage & communication	1122 3.6%	714 3.4%	464 3.8%	238 3.5%	129 3.0%
..Finance, insurance, real estate & business services	2155 7.0%	1443 6.8%	707 5.8%	343 5.1%	159 3.8%
Total intermediate inputs	21885 70.9%	14623 69.1%	8272 68.1%	4319 63.8%	2987 70.6%
Compensation of employees	5958 19.3%	4133 19.5%	2705 22.3%	1264 18.7%	657 15.5%
Depreciation	2363 7.7%	581 2.7%	416 3.4%	224 3.3%	149 3.5%
Net operating surplus	497 1.6%	1670 7.9%	633 5.2%	896 13.2%	401 9.5%
GDP at factor cost	8818 28.6%	6384 30.2%	3754 30.9%	2384 35.2%	1207 28.5%
Other taxes on production	129 0.4%	105 0.5%	78 0.6%	33 0.5%	17 0.4%
less: Other subsidies on production	56 0.2%	29 0.1%	7 0.1%	9 0.1%	12 0.3%
GDP at basic prices	8890 28.8%	6460 30.5%	3825 31.5%	2408 35.6%	1212 28.6%
Indirect taxes on products	80 0.3%	68 0.3%	46 0.4%	43 0.6%	32 0.8%
less: Subsidies on products	0	0	0	0	0
Net tax	152 0.5%	144 0.7%	117 1.0%	67 1.0%	37 0.9%
GDP at market prices	8970 29.1%	6528 30.9%	3871 31.9%	2451 36.2%	1244 29.4%

Table 3.16: Structure of the wood and wood products division (R million)
Source: Quantec EasyData (2011)

The skill levels of employees in the wood and wood products division are shown in Table 3.17. The division is mainly dominated by semi-skilled, unskilled and mid-level skill workers. Both skill levels account for 72% of total employment. The table also shows that the share of people employed in the informal sector was increasing since 1990 but declined in 2010.

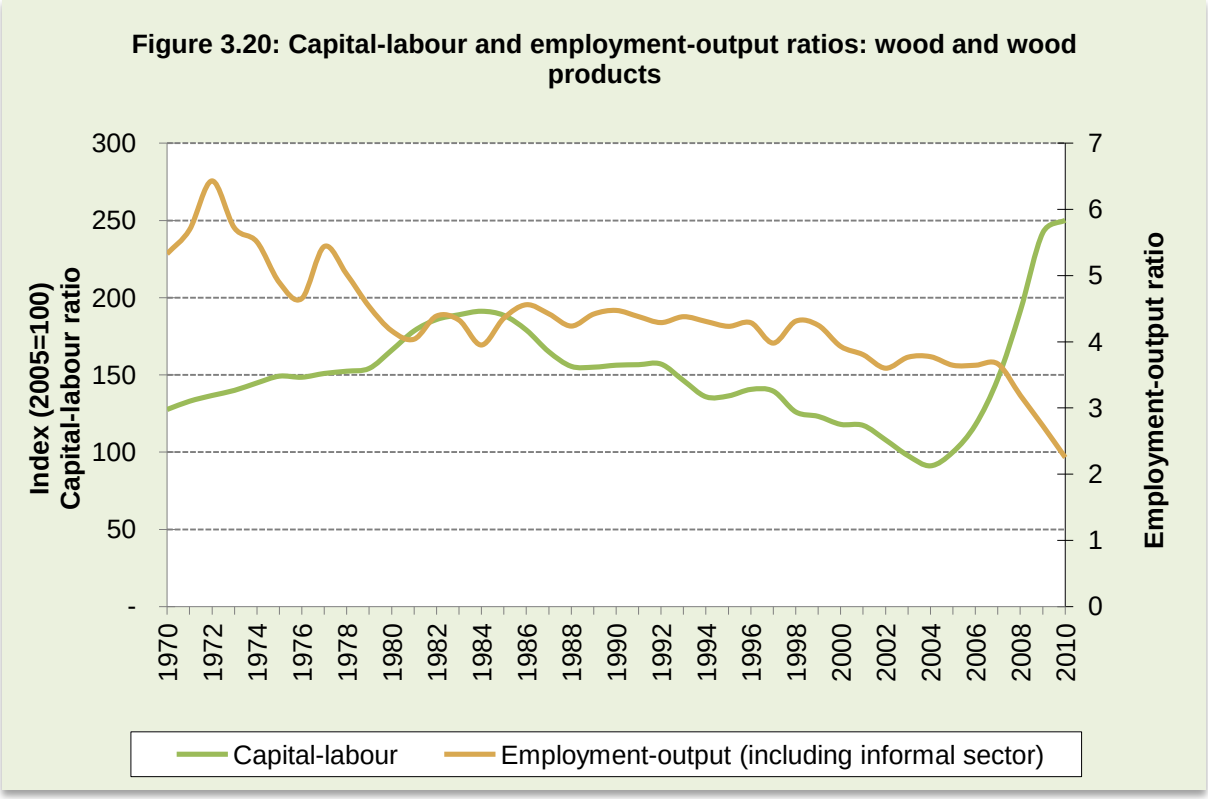
Table 3.17: Skill levels of employees in the wood and wood products division

	2010	2005	2000	1995	1990
High-level	1306 (2.5%)	1798 (2.3%)	1759 (2.6%)	1462 (2.7%)	1257 (2.5%)
Mid-level	15473 (30.0%)	20530 (26.6%)	18603 (27.7%)	14495 (26.3%)	17146 (34.2%)
Semi- and unskilled	21689 (42.0%)	31814 (41.3%)	35062 (52.2%)	32279 (58.6%)	28432 (56.8%)
Informal	13129 (25.4%)	22939 (29.8%)	11699 (17.4%)	6817 (12.4%)	3254 (6.5%)
Total	51597	77082	67123	55053	50090

Source: Quantec EasyData (2011)

The capital intensity of the wood division has been declining from its 1983 level. However, there was a steep rise from 2004 onward. Similarly, the employment intensity was gently declining for most of the years; however, it has dropped substantially since 2007 (see Figure 3.20).

Figure 3.20: Capital-labour and employment-output ratios: wood and wood products



Source: Quantec EasyData (2011)

The concentration ratio for some subsectors of the wood and wood products division is given in Table 3.18. The division is relatively less concentrated compared to the other divisions in the agro-processing industry. The highest concentration is in sawmilling and planing of

wood, where the five largest enterprises contributed 56% of the total income and the ten largest enterprises contributed 68% of total income.

Table 3.18: Concentration ratios by subsectors in the wood and wood products division

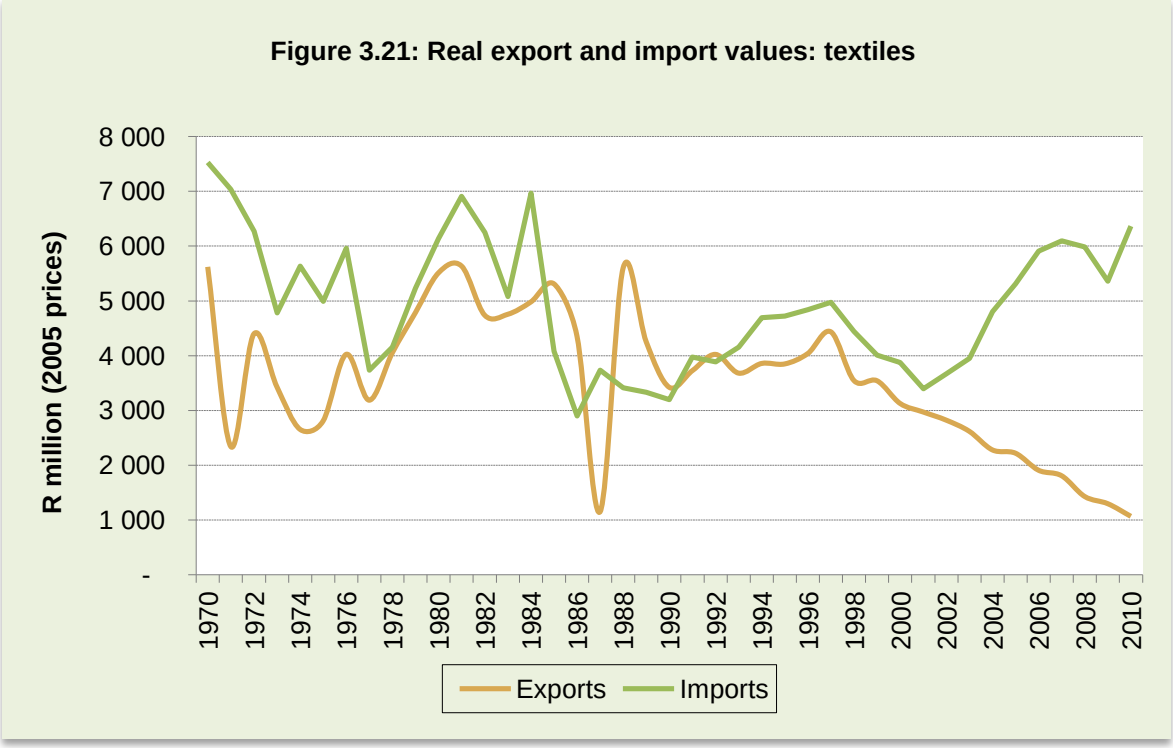
	Total income	Income of 5 largest enterprises	Relative contribution of 5 largest enterprises	Income of 10 largest enterprises	Relative contribution of 10 largest enterprises	Income of 20 largest enterprises	Relative contribution of 20 largest enterprises
Sawmilling and planing of wood	8142	4531	56	5547	68	6388	78
Manufacture of veneer sheets, plywood and other boards and carpentry and joinery	9411	5168	55	6146	65	6947	74
Manufacture of wooden containers	1147	364	32	552	48	787	69
Manufacture of other products of wood, articles of cork, straw and plaiting materials	3682	348	9	561	15	859	23

Source: Statistics SA (2008)

3.6 TEXTILES

Real export and import values of the textiles division are presented in Figure 3.21. While the trade balance was narrow throughout most periods, it has widened and remained negative since 2002.

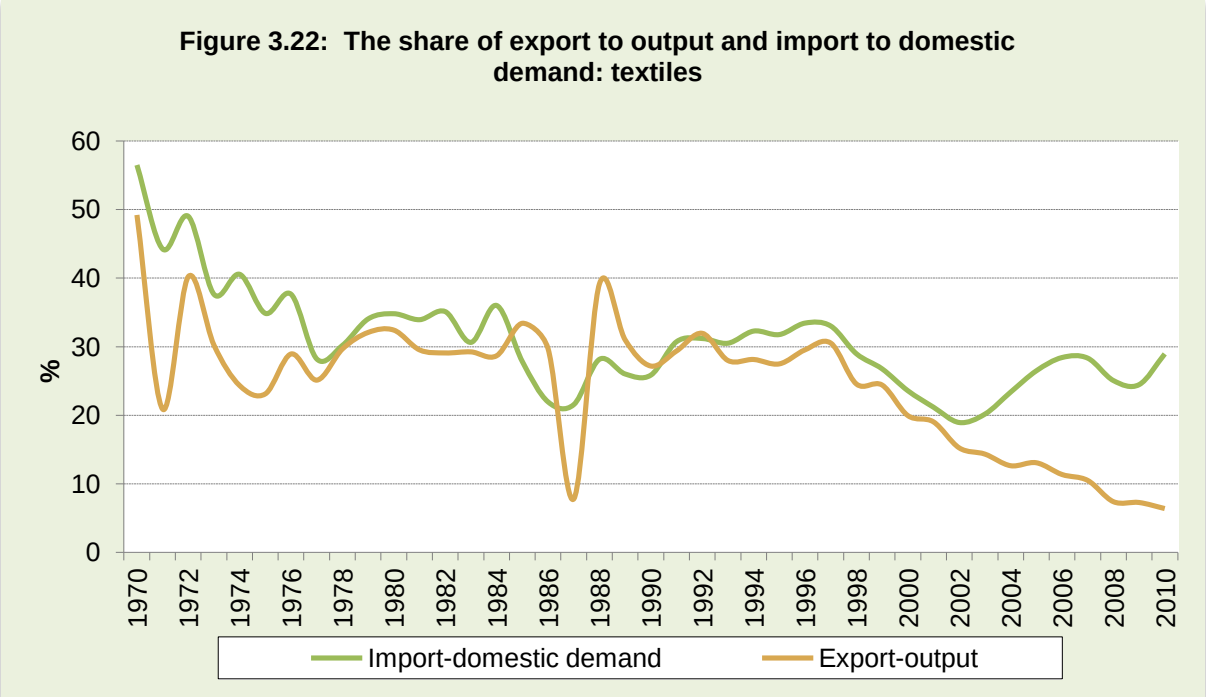
Figure 3.21: Real export and import values: textiles



Source: Quantec EasyData (2011)

Relative to output, export has declined from its level which was above 50% during 1970 to below 10% in 2010. Similarly, the trend of imports to domestic demand ratio has been declining until it started to increase after 2002. In 2010, imports met close to 30% of the domestic demand (see Figure 3.22).

Figure 3.22: The share of export to output and import to domestic demand: textiles



Source: Quantec EasyData (2011)

Among key textiles products, wool and fine animal hair and tarpaulins, sails and awnings account for 21% and 11% of the exports of textiles products, respectively (see Table 3.19)

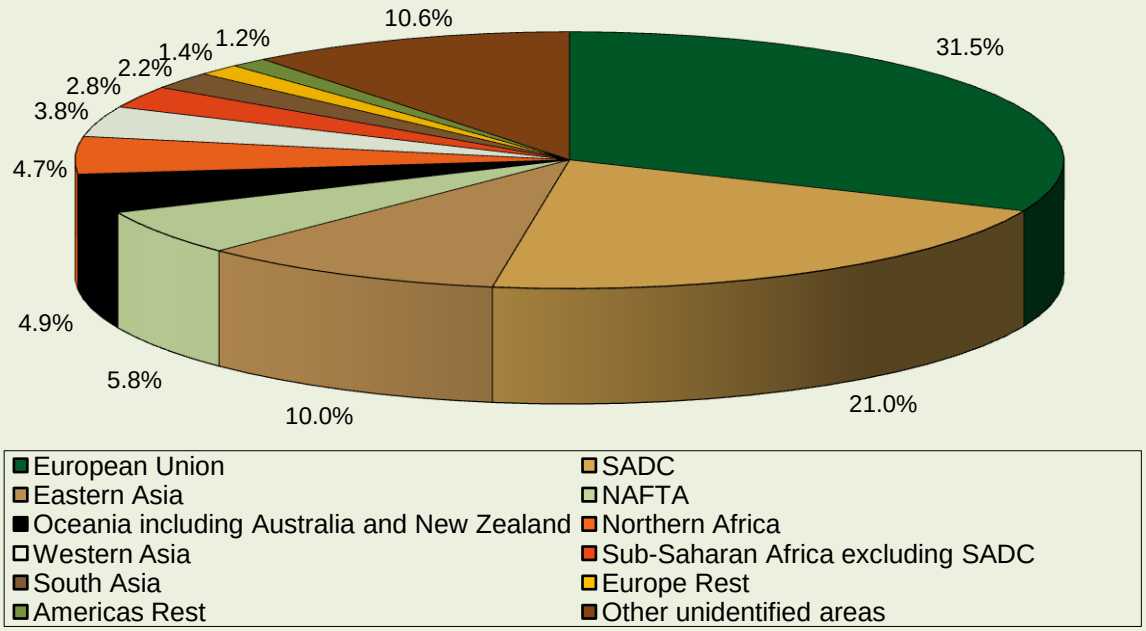
Table 3.19: List of main exported textiles products in 2010

Product	HS code	R millions	%
Wool & fine or coarse animal hair, carded & combed	5105	553.1	21.48
Tarpaulins, sails, awnings, tents, etc.	6306	287.2	11.15
Nonwovens, whether or not impregnated, coated etc	5603	175.8	6.83
Carpets & other textiles floor coverings, tufted	5703	133.0	5.17
Made-up articles of textiles materials NESOI	6307	98.9	3.84
Textiles products etc. for specific tech uses NESOI	5911	91.9	3.57
Wool, not carded or combed	5101	83.3	3.24
Woven fabric of synthetic filament yarn, monofil >67 dtex	5407	77.0	2.99
Parachutes (including dirigible parachutes) rotoch	8804	71.1	2.76
Carpets & other text floor cover, woven, no tuft etc	5702	54.9	2.13
Bed linen, table linen, toilet linen & kitchen linen	6302	53.2	2.07
Other unidentified products		895.3	34.77
Total		2,574.6	100.00

Source: Quantec EasyData (2011)

The main export destinations of textiles products in 2010 were the EU, the SADC and East Asia, which accounted for 31.5%, 21% and 10% of total exports, respectively (see Figure 3.23).

Figure 3.23: Export destinations of textiles (2010)



Source: Quantec EasyData (2011)

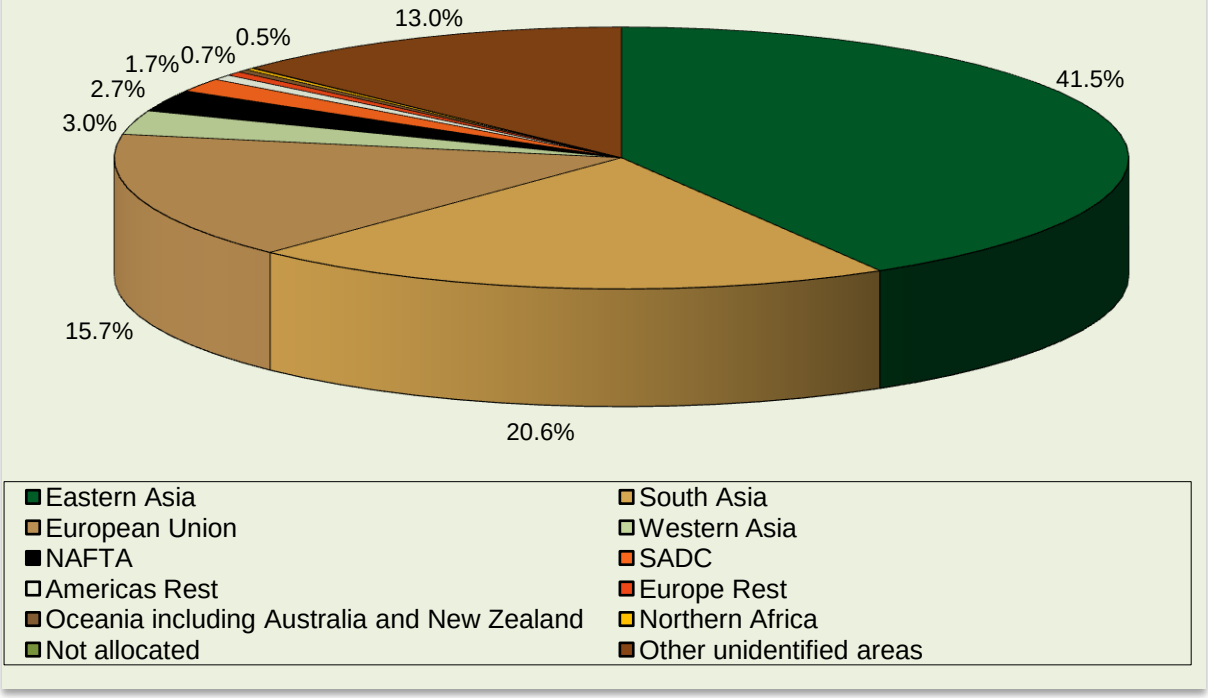
Main imported textiles products are listed in Table 3.20. While woven fabric was the main imported item (10.5%), there was a relatively similar share of imports among other items. The origins of these imports were mainly East Asia (41%), South Asia (21%) and the European Union (16%) (see Figure 3.24).

Table 3.20: List of main imported textiles products in 2010

Product	HS code	R millions	%
Woven fabric of synthetic filament yarn, monofil >67 dtex	5407	867.6	10.54
Bed linen, table linen, toilet linen & kitchen linen	6302	492.6	5.99
Nonwovens, whether or not impregnated, coated etc	5603	409.0	4.97
Woven cotton fabrics, nu 85% cot, wt not over 200 g/m2	5208	394.7	4.80
Textiles products etc. for specific tech uses NESOI	5911	393.9	4.79
Woven fabric, over 85% synthetic and cotton, <17og/m2	5513	363.7	4.42
Made-up articles of textiles materials NESOI	6307	351.3	4.27
Textiles fabrics (not tire cord) coat etc, plastics	5903	311.7	3.79
Mattress supports; articles of bedding etc.	9404	299.2	3.64
Tire cord fabric of high tenacity yarn, nylon etc	5902	231.9	2.82
Woven cotton fabrics, nu 85% cot, wt over 200 g/m2	5209	207.6	2.52
Other unidentified products		3,906.9	47.47
Total		**8,230.1**	**100.00**

Source: Quantec EasyData (2011)

Figure 3.24: Origins of imports of textiles (2010)



Source: Quantec EasyData (2011)

As the textiles division further processes the output from the manufacturing sector, the division has little direct backward linkage with the primary industry (see Table 3.21). Furthermore, the trend shows that, similar to the other divisions, the tertiary industry is becoming more important. In 2010, secondary and tertiary industry accounted for 48% and 27.5% of total output, respectively, and compensation of employees amounted to 16% of total output.

Table 3.22 provides the level of skills in the textiles division. As shown in the table, more people were engaged in the informal sector as it grew from 7.2% in 1990 to 32.7% in 2010. Although the share of semi-skilled and unskilled workers was declining owing to the rising share of informal workers, the industry was still dominated by semi-skilled and unskilled workers (52.3% in 2010). The share of high level skill did not change much but the mid-level skill showed a declining trend.

Table 3.21: The structure of the textiles division (R million)

YEAR	2010	2005	2000	1995	1990
TOTAL OUTPUT/SALES	19829	16979	12863	9016	5695
Primary industry	878 4.4%	678 4.0%	618 4.8%	321 3.6%	135 2.4%
Agriculture, forestry and fishing	812 4.1%	622 3.7%	573 4.5%	292 3.2%	122 2.1%
Secondary industry	9650 48.7%	8100 47.7%	6484 50.4%	4552 50.5%	2821 49.5%
....Food, beverages & tobacco	12 0.1%	11 0.1%	8 0.1%	6 0.1%	5 0.1%
....Petroleum, chemicals, rubber & plastic	4289 21.6%	3366 19.8%	2761 21.5%	1581 17.5%	972 17.1%
....Wood & paper; publishing & printing	177 0.9%	157 0.9%	114 0.9%	81 0.9%	68 1.2%
....Metals, machinery & equipment	554 2.8%	502 3.0%	368 2.9%	330 3.7%	217 3.8%
..Electricity, gas & water	518 2.6%	341 2.0%	282 2.2%	225 2.5%	119 2.1%
Tertiary industry	5446 27.5%	4131 24.3%	2846 22.1%	1468 16.3%	609 10.7%
..Trade, catering & accommodation services	2237 11.3%	1561 9.2%	1200 9.3%	593 6.6%	242 4.3%
..Transport, storage & communication	584 2.9%	464 2.7%	376 2.9%	199 2.2%	93 1.6%
..Finance, insurance, real estate & business services	1908 9.6%	1568 9.2%	949 7.4%	440 4.9%	158 2.8%
Total intermediate inputs	15973 80.6%	12909 76.0%	9948 77.3%	6340 70.3%	3565 62.6%
Compensation of employees	3172 16.0%	2357 13.9%	2193 17.0%	1876 20.8%	1421 25.0%
Depreciation	1024 5.2%	943 5.6%	725 5.6%	395 4.4%	326 5.7%
Net operating surplus	-649 -3.3%	463 2.7%	-219 -1.7%	252 2.8%	289 5.1%
GDP at factor cost	3547 17.9%	3763 22.2%	2699 21.0%	2523 28.0%	2037 35.8%
Other taxes on production	71 0.4%	63 0.4%	64 0.5%	32 0.4%	18 0.3%
less: Other subsidies on production	44 0.2%	26 0.2%	49 0.4%	61 0.7%	48 0.8%
GDP at basic prices	3575 18.0%	3800 22.4%	2714 21.1%	2493 27.7%	2006 35.2%
Indirect taxes on products	281 1.4%	270 1.6%	201 1.6%	183 2.0%	124 2.2%
less: Subsidies on products	0	0	0	0	0
Net tax	309 1.6%	307 1.8%	216 1.7%	153 1.7%	94 1.6%
GDP at market prices	3856 19.4%	4070 24.0%	2915 22.7%	2676 29.7%	2131 37.4%

Source: Quantec EasyData (2011)

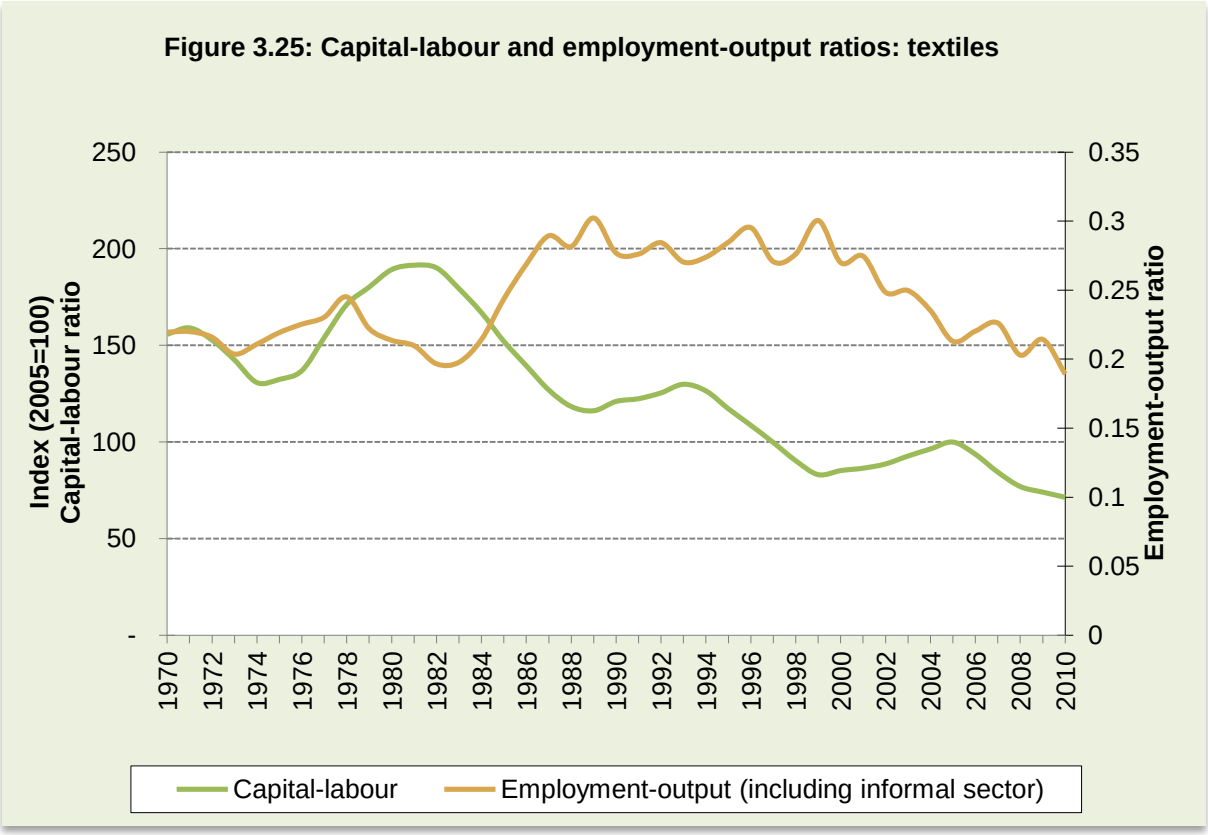
Table 3.22: Skill levels of employees in the textiles division

	2010	2005	2000	1995	1990
High-level	2177 (4.1%)	2636 (4.0%)	3351 (4.4%)	3719 (4.3%)	4151 (3.7%)
Mid-level	5877 (11.0%)	7588 (11.6%)	9345 (12.3%)	10509 (12.0%)	14472 (12.8%)
Semi- and unskilled	28003 (52.3%)	37614 (57.3%)	50031 (65.8%)	61858 (70.9%)	85945 (76.2%)
Informal	17506 (32.7%)	17807 (27.1%)	13262 (17.5%)	11134 (12.8%)	8160 (7.2%)
Total	53563	65646	75988	87219	112727

Source: Quantec EasyData (2011)

As with the other industries, employment intensity in the sector is declining. However, capital intensity remains relatively unchanged (see Figure 3.25).

Figure 3.25: Capital-labour and employment-output ratios: textiles



Source: Quantec EasyData (2011)

The concentration ratios of the textiles division in 2008 are given in Table 3.23. Manufacture of carpets, rugs and mats and manufacture of cordage rope, twine and netting were highly concentrated, where the five largest enterprises contributed 77% and 66% of the total income, respectively. The ten largest enterprises of both subsectors contributed 91% and 85% of the total income, respectively.

Table 3.23: Concentration ratios by subsectors in the textiles division

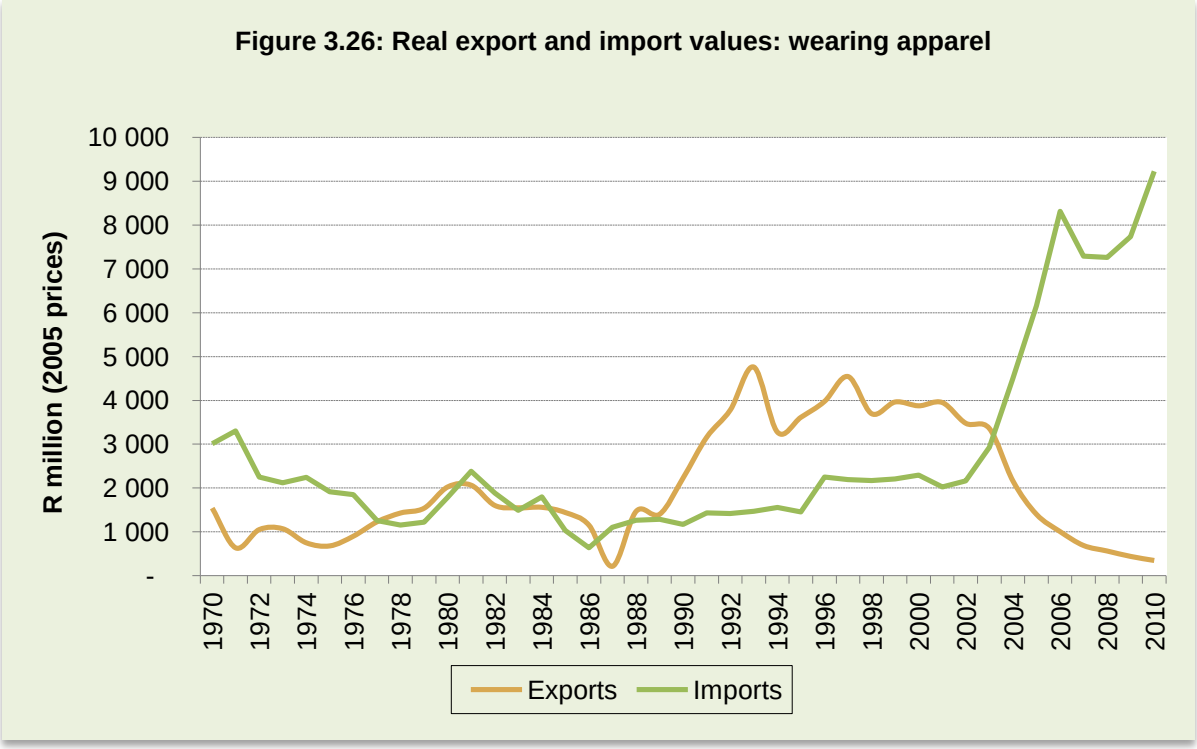
	Total income	Income of 5 largest enterprises	Relative contribution of 5 largest enterprises	Income of 10 largest enterprises	Relative contribution of 10 largest enterprises	Income of 20 largest enterprises	Relative contribution of 20 largest enterprises
Preparation and spinning of textiles fibres and weaving and finishing of textiles	7022	3557	51	4464	64	5557	79
Manufacture of made-up textiles articles, except apparel	7636	4089	54	4896	64	5600	73
Manufacture of carpets, rugs and mats	1736	1334	77	1581	91	1601	92
Manufacture of cordage rope, twine and netting	315	209	66	268	85	290	92
Manufacture of other textiles	3353	839	25	1237	37	1589	47

Source: Statistics SA (2008)

3.7 WEARING APPAREL

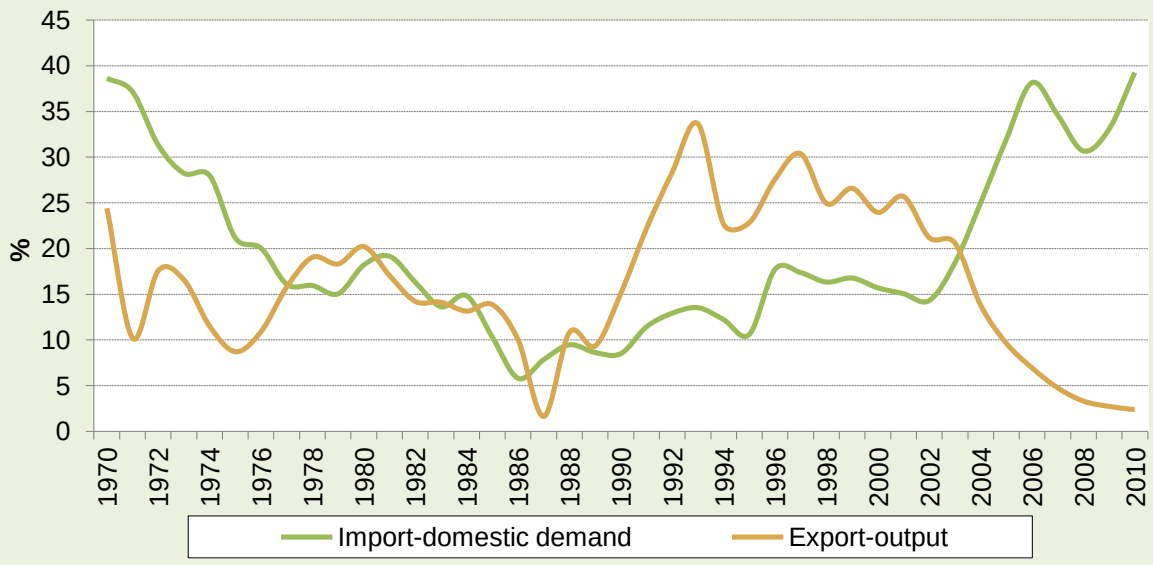
Figure 3.26 displays the export and import values of wearing apparel. As shown in the figure, South Africa was a net exporter of wearing apparel from 1988 to 2003. However, as exports have fallen significantly and imports have surged sharply, the country has been a net importer of wearing apparel since 2004. Thus, imports – constituting only 15% of the domestic demand in 2001 – have risen to just below 40% of the domestic demand (see Figure 3.27). The export share of total output, however, declined considerably from its 2003 level of 20.6% to below 3% of the total output in 2010.

Figure 3.26: Real export and import values: wearing apparel



Source: Quantec EasyData (2011)

Figure 3.27: The share of export to output and import to domestic demand: wearing apparel



Source: Quantec EasyData (2011)

Table 3.24 presents the list of wearing apparel products exported in 2010. Among the main items exported, men or boy suits and pantyhose, socks and others similar products contributed 14.3% and 9% of the total exports, respectively.

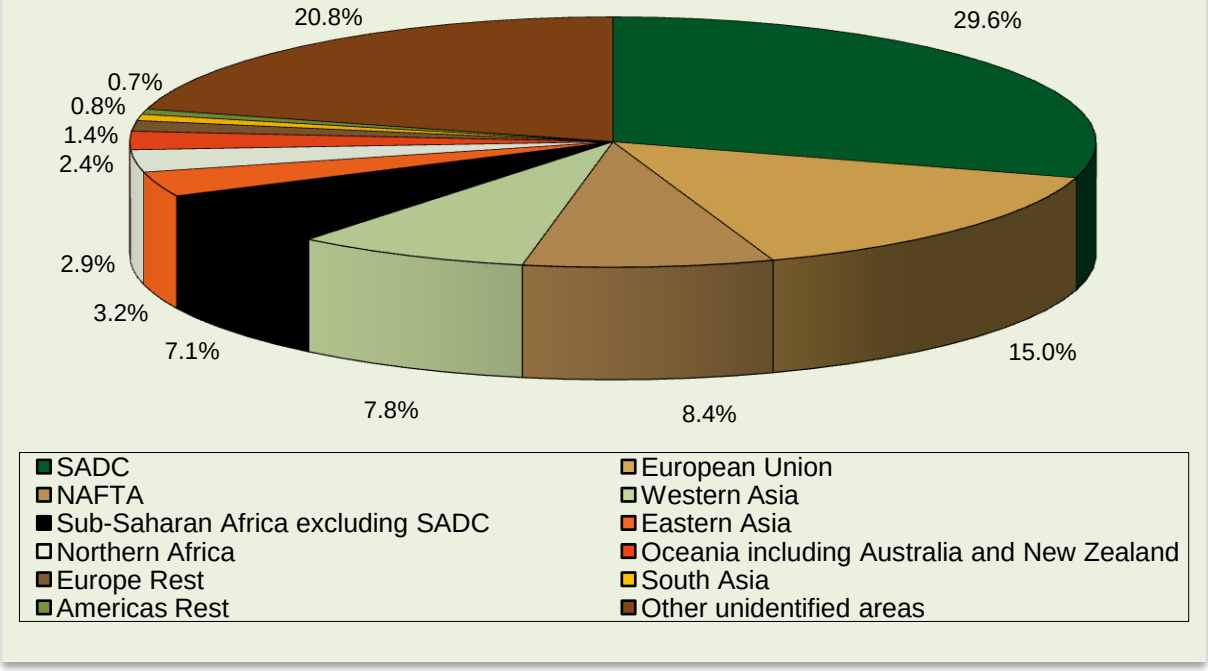
Table 3.24: List of main exported wearing apparel products in 2010

Product	HS code	R millions	%
Men's or boys' suits, ensembles etc, not knit etc	6203	114.3	14.33
Pantyhose, socks & other hosiery, knit or crochet	6115	72.2	9.05
Track suits, ski-suits & swimwear, not knit etc	6211	43.5	5.46
Men's or boys' shirts, not knitted or crocheted	6205	37.5	4.70
Warp knit fabrics	6005	37.1	4.65
Women's or girls' suits, ensembles etc, not knit etc	6204	36.1	4.53
T-shirts, singlets, tank tops etc, knit or crochet	6109	31.8	3.99
Men's or boys' suits, ensembles etc, knit or crochet	6103	29.6	3.71
Tanned or dressed fur skins (incl pcs etc)	4302	23.2	2.91
Men's or boys' shirts, knitted or crocheted	6105	17.8	2.23
Women's or girls' suits, ensembles etc, knit or crochet	6104	16.8	2.11
Other unidentified products		337.4	42.31
Total		**797.4**	**100.00**

Source: Quantec EasyData (2011)

The main export destinations for wearing apparel products during 2010 were the SADC (30%), the EU (15%), NAFTA (8%), West Asia (8%) and Sub-Saharan Africa excluding the SADC (7%) (see Figure 3.28).

Figure 3.28: Export destinations of wearing apparel (2010)



Source: Quantec EasyData (2011)

In 2010, women's suits, men's suits, T-shirts and sweaters were among the top four imported wearing apparels, contributing 11%, 10.7%, 9.8% and 6.1% of all the imports, respectively (see Table 3.25).

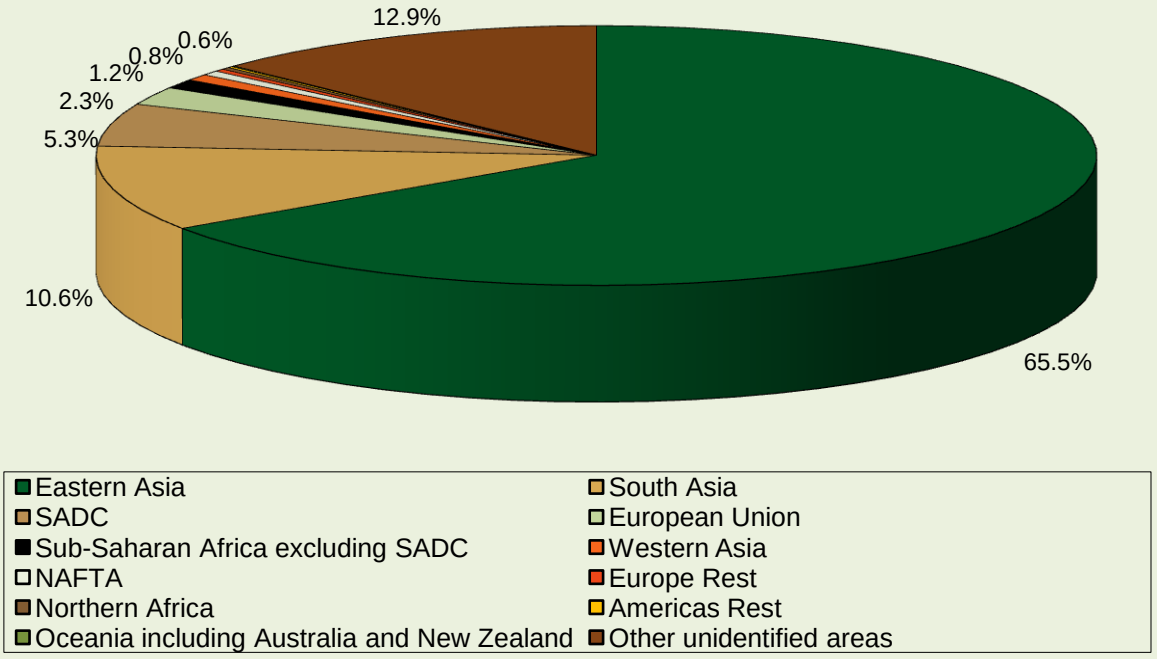
Table 3.25: List of main imported wearing apparel products in 2010

Product	HS code	R millions	%
Women's or girls' suits, ensembles etc, not knit etc	6204	1,317.1	11.29
Men's or boys' suits, ensembles etc, not knit etc	6203	1,248.1	10.70
T-shirts, singlets, tank tops etc, knit or crochet	6109	1,152.7	9.88
Sweaters, pullovers, vests etc, knit or crocheted	6110	713.4	6.12
Men's or boys' shirts, not knitted or crocheted	6205	568.8	4.88
Women's or girls' blouses, shirts etc not knit etc	6206	410.4	3.52
Men's or boys' shirts, knitted or crocheted	6105	401.3	3.44
Women's or girls' slips, pjs, etc, knit or crochet	6108	353.1	3.03
Babies' garments & accessories, knit or crocheted	6111	311.8	2.67
Knitted or crocheted fabrics of a width exceeding 30cm	6004	289.0	2.48
Women's or girls' suits, ensembles etc, knit or crochet	6104	275.9	2.36
Other unidentified products		4,624.1	39.64
Total		**11,665.6**	**100.00**

Source: Quantec EasyData (2011)

Among the main sources of imports, East Asia alone constituted 66% of the total import value, followed by South Asia and the SADC, which accounted for 11% and 5% of the total imports, respectively (see Figure 3.29).

Figure 3.29: Origins of imports of wearing apparel (2010)



Source: Quantec EasyData (2011)

The backward linkage of the wearing apparel division is presented in Table 3.26. The secondary and tertiary sectors are the main input suppliers for the industry, contributing 40% and 31% of the total output, respectively, in 2010. Similar to the other agro-processing divisions, the share of tertiary industry is also growing in the wearing apparel division. Compensation of employees, which was at 27.4% in 2010, is also among the highest of all agro-processing divisions.

Table 3.26: Structure of the wearing apparel division (R million)

YEAR	2010	2005	2000	1995	1990
TOTAL OUTPUT/SALES	15890	14517	13028	9911	6251
Primary industry	19 0.1%	15 0.1%	18 0.1%	10 0.1%	4 0.1%
Agriculture, forestry and fishing	14 0.1%	11 0.1%	14 0.1%	8 0.1%	3 0.1%
Secondary industry	6174 38.9%	5726 39.4%	5757 44.2%	4673 47.2%	3560 56.9%
....Food, beverages & tobacco	3 0.0%	3 0.0%	2 0.0%	2 0.0%	1 0.0%
....Petroleum, chemicals, rubber & plastic	384 2.4%	324 2.2%	341 2.6%	234 2.4%	152 2.4%
....Wood & paper; publishing & printing	105 0.7%	100 0.7%	138 1.1%	223 2.2%	260 4.2%
....Metals, machinery & equipment	415 2.6%	477 3.3%	445 3.4%	276 2.8%	91 1.5%
..Electricity, gas & water	96 0.6%	63 0.4%	68 0.5%	59 0.6%	40 0.6%
Tertiary industry	4890 30.8%	3780 26.0%	3227 24.8%	1638 16.5%	737 11.8%
..Trade, catering & accommodation services	2002 12.6%	1429 9.8%	1378 10.6%	680 6.9%	324 5.2%
..Transport, storage & communication	397 2.5%	329 2.3%	340 2.6%	175 1.8%	90 1.4%
..Finance, insurance, real estate & business services	1713 10.8%	1426 9.8%	1094 8.4%	525 5.3%	193 3.1%
Total intermediate inputs	11082 69.7%	9521 65.6%	9001 69.1%	6322 63.8%	4301 68.8%
Compensation of employees	4356 27.4%	3574 24.6%	3249 24.9%	2607 26.3%	1378 22.0%
Depreciation	406 2.6%	347 2.4%	296 2.3%	162 1.6%	135 2.2%
Net operating surplus	-284 -1.8%	722 5.0%	205 1.6%	603 6.1%	320 5.1%
GDP at factor cost	4478 28.2%	4642 32.0%	3749 28.8%	3372 34.0%	1832 29.3%
Other taxes on production	105 0.7%	89 0.6%	64 0.5%	32 0.3%	16 0.3%
less: Other subsidies on production	51 0.3%	31 0.2%	48 0.4%	39 0.4%	44 0.7%
GDP at basic prices	4531 28.5%	4700 32.4%	3766 28.9%	3365 34.0%	1805 28.9%
Indirect taxes on products	276 1.7%	296 2.0%	261 2.0%	224 2.3%	145 2.3%
less: Subsidies on products	0	0	0	0	0
Net tax	330 2.1%	354 2.4%	277 2.1%	217 2.2%	117 1.9%
GDP at market prices	4807 30.3%	4997 34.4%	4027 30.9%	3589 36.2%	1950 31.2%

Source: Quantec EasyData (2011)

The skill level in the wearing apparel division is given in Table 3.27. Half of the employment in the division comprises semi-skilled and unskilled workers. The share of informal employment is also growing, accounting for 39% of employment in 2010. While the

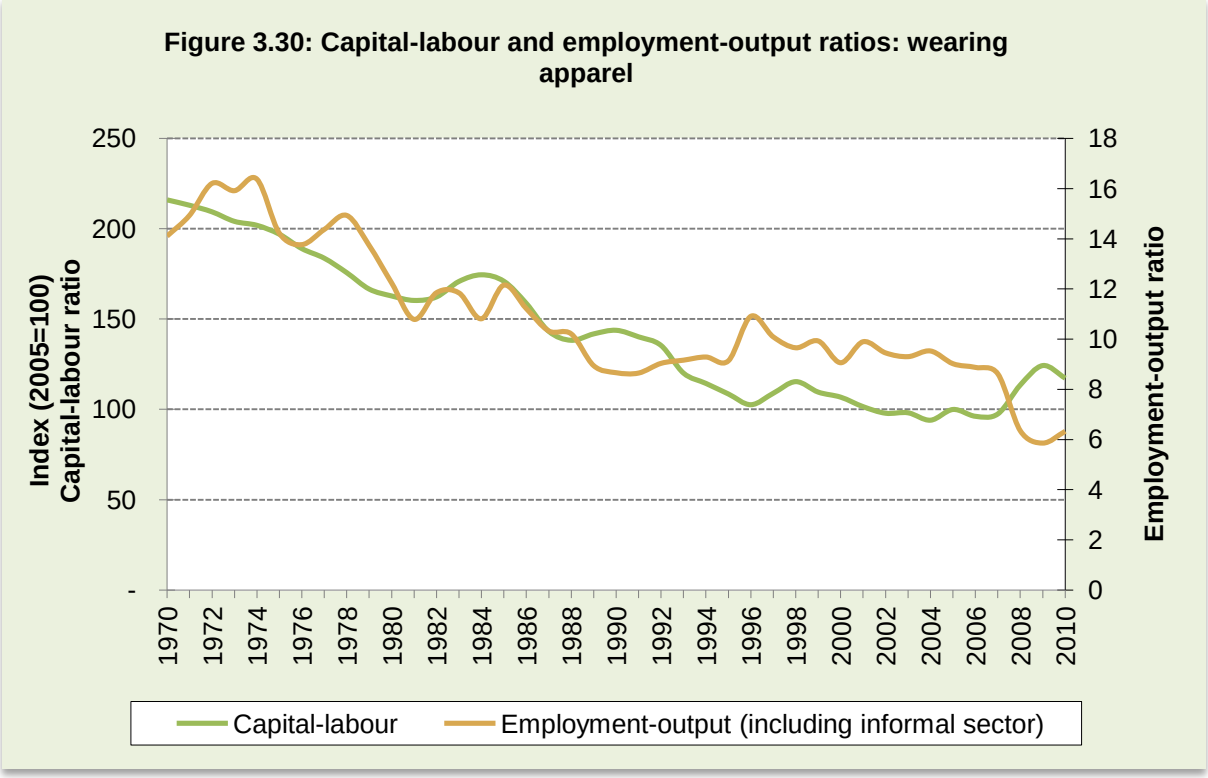
share of mid-level skill is slowly dwindling, the share of high-level skill has largely remained constant.

Table 3.27: Skill levels of employees in the wearing apparel division

	2010	2005	2000	1995	1990
High-level	2703 (2.9%)	3702 (2.8%)	4421 (3.0%)	4378 (3.0%)	3610 (2.8%)
Mid-level	7246 (7.8%)	10839 (8.3%)	14295 (9.8%)	15438 (10.7%)	13876 (10.8%)
Semi- and unskilled	46553 (50.3%)	68587 (52.4%)	85962 (58.6%)	88733 (61.3%)	88826 (69.3%)
Informal	36009 (38.9%)	47822 (36.5%)	41933 (28.6%)	36115 (25.0%)	21900 (17.1%)
Total	92512	130950	146612	144664	128212

Source: Quantec EasyData (2011)

Figure 3.30 shows that both the capital and employment intensity of the wearing apparel division are declining. The decline in employment, therefore, was not mainly due to the structure of the division (higher capital intensity).



Source: Quantec EasyData (2011)

Referring to the three subsectors within the wearing apparel division, Table 3.28 shows that manufacture of knitted and crocheted fabrics and articles and manufacture of wearing apparel, except fur apparel, were less concentrated. The largest five enterprises of both subsectors contributed 40% and 19% of the total income, respectively. The dressing and

dyeing of fur articles subsector, however, is highly concentrated, the five largest enterprises contributing 66% of the income and the ten largest enterprises accounting for 84% of total income.

Table 3.28: Concentration ratios of the wearing apparel division

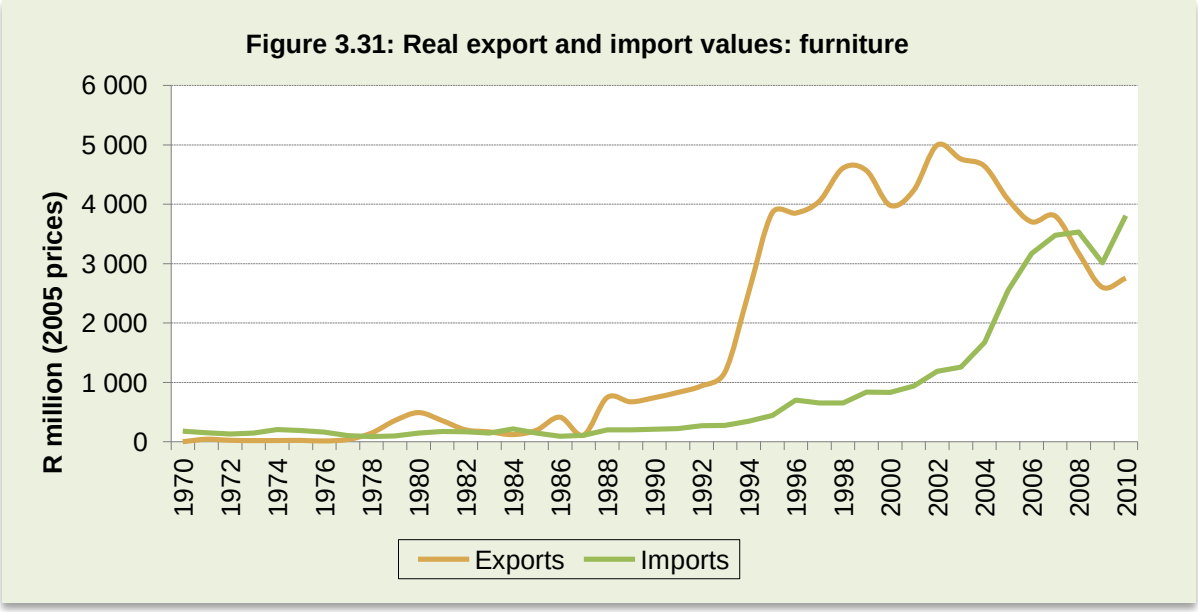
	Total income	Income of 5 largest enterprises	Relative contribution of 5 largest enterprises	Income of 10 largest enterprises	Relative contribution of 10 largest enterprises	Income of 20 largest enterprises	Relative contribution of 20 largest enterprises
Manufacture of knitted and crocheted fabrics and articles	2342	946	40	1348	58	1748	75
Manufacture of wearing apparel, except fur apparel	13813	2689	19	3929	28	5653	41
Dressing and dyeing of fur, articles of fur and tanning and dressing of leather	3248	2142	66	2722	84	3035	93

Source: Statistics SA (2008)

3.8 FURNITURE

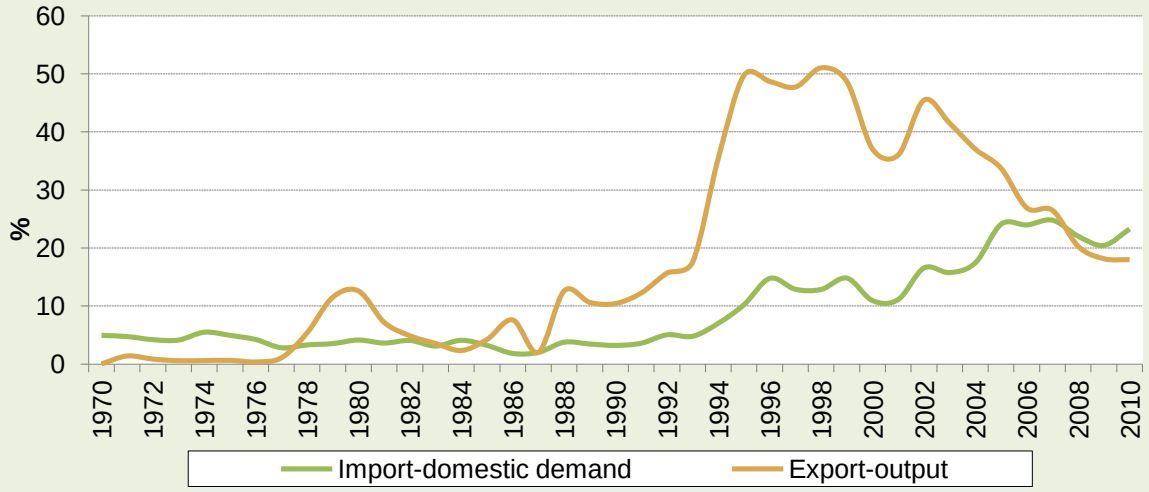
Figure 3.31 shows the export and import values of furniture. Exports of furniture surged from 1993 until 2003 but declined sharply thereafter. Imports, on the other hand, have grown drastically since 2004 and overtook exports in 2008. Thus, the trade balance has changed from surplus to deficit for the past two years. As a result, Figure 3.32 shows that currently above 20% of the domestic demand is met by imports and less than 20% of output is exported.

Figure 3.31: Real export and import values: furniture



Source: Quantec EasyData (2011)

Figure 3.32: The share of export to output and import to domestic demand: furniture



Source: Quantec EasyData (2011)

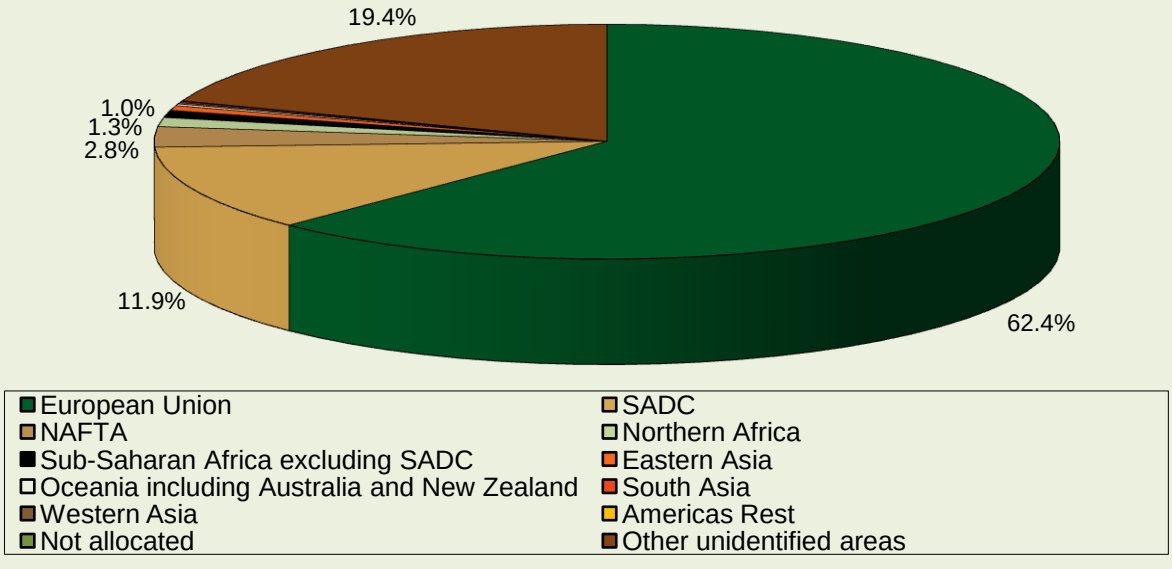
Table 3.29: List of main exported furniture products in 2010

Product	HS code	R millions	%
Seats (except dentist, barber, etc chairs)	H9401	3,301.2	67.87
Other furniture and parts thereof	H9403	576.3	11.85
Mattress supports, mattresses, bedding	H9404	41.4	0.85
Slates and boards with writing or drawing surface	H9610	3.8	0.08
Other unidentified products		941.1	19.35
Total		**4,863.9**	**100.00**

Source: Quantec EasyData (2011)

The main export destination of furniture products are the EU and the SADC, which account for 62.4% and 11.9% of the total exports, respectively (see Figure 3.33).

Figure 3.33: Export destinations of food furniture (2010)



Source: Quantec EasyData (2011)

Seats and furniture NESOI (Not Either Specified Or Included) were the main products imported in 2010, representing 49% and 36% of the total imports of furniture, respectively (see Table 3.30).

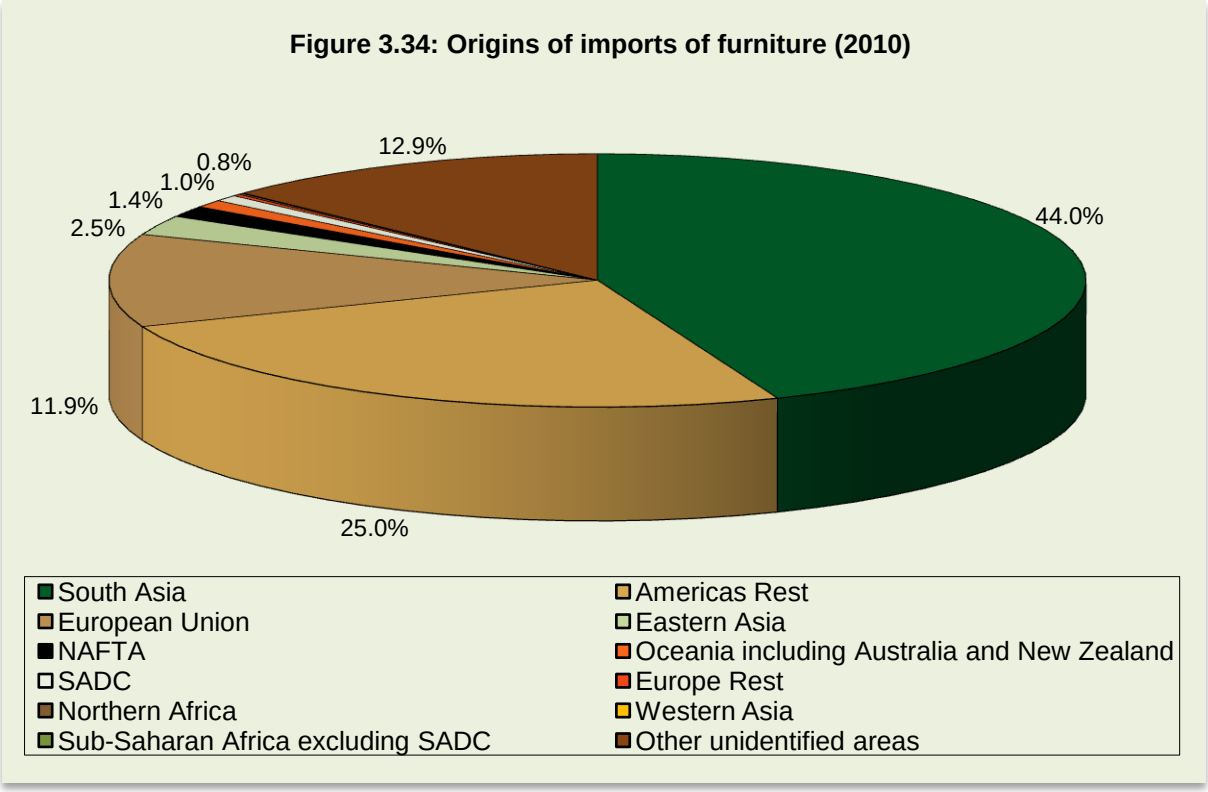
Table 3.30: List of main imported furniture products in 2010

Product	HS code	R millions	%
Seats (except barber, dental, etc), and parts	9401	2,044.8	49.54
Furniture NESOI and parts thereof	9403	1,506.7	36.51
Mattress supports; articles of bedding etc.	9404	22.8	0.55
Slates & boards with writing or drawing surfaces	9610	20.1	0.49
Other unidentified products		532.7	12.91
Total		**4,127.2**	**100.00**

Source: Quantec EasyData (2011)

Figure 3.34 shows that East Asia (44%), followed by the European Union (25%) and South Asia (12%), were the major source of imports of furniture.

Figure 3.34: Origins of imports of furniture (2010)



Source: Quantec EasyData (2011)

The furniture division has a strong linkage with the secondary industry, especially with wood and metals (see Table 3.31). Hence, it sourced 57% of its output from secondary industry. Tertiary industry also accounted for 22% of the output in the furniture division. The share of compensation of employees is declining and currently it accounts for 16.6% of the total output.

Table 3.31: Structure of the furniture division (R million)

YEAR	2010	2005	2000	1995	1990
TOTAL OUTPUT/SALES	18406	12115	8567	4953	2858
Primary industry	357 1.9%	184 1.5%	155 1.8%	58 1.2%	16 0.6%
Agriculture, forestry and fishing	283 1.5%	156 1.3%	138 1.6%	46 0.9%	10 0.4%
Secondary industry	10514 57.1%	6463 53.3%	4547 53.1%	2465 49.8%	1601 56.0%
....Food, beverages & tobacco	2 0.0%	1 0.0%	1 0.0%	0 0.0%	0 0.0%
....Petroleum, chemicals, rubber & plastic	1457 7.9%	876 7.2%	697 8.1%	359 7.2%	244 8.6%
....Wood & paper; publishing & printing	5238 28.5%	3390 28.0%	2231 26.0%	1192 24.1%	750 26.3%
....Metals, machinery & equipment	2101 11.4%	1225 10.1%	897 10.5%	437 8.8%	256 8.9%
..Electricity, gas & water	169 0.9%	78 0.6%	60 0.7%	36 0.7%	22 0.8%
Tertiary industry	4169 22.6%	2284 18.8%	1683 19.6%	824 16.6%	365 12.8%
..Trade, catering & accommodation services	1539 8.4%	774 6.4%	596 7.0%	263 5.3%	141 4.9%
..Transport, storage & communication	600 3.3%	342 2.8%	292 3.4%	140 2.8%	67 2.3%
..Finance, insurance, real estate & business services	1462 7.9%	867 7.2%	610 7.1%	302 6.1%	105 3.7%
Total intermediate inputs	15041 81.7%	8930 73.7%	6385 74.5%	3347 67.6%	1983 69.4%
Compensation of employees	3052 16.6%	2292 18.9%	1537 17.9%	1120 22.6%	617 21.6%
Depreciation	332 1.8%	155 1.3%	181 2.1%	81 1.6%	60 2.1%
Net operating surplus	-169 -0.9%	618 5.1%	354 4.1%	336 6.8%	161 5.6%
GDP at factor cost	3215 17.5%	3065 25.3%	2072 24.2%	1538 31.0%	838 29.3%
Other taxes on production	54 0.3%	43 0.4%	49 0.6%	21 0.4%	11 0.4%
less: Other subsidies on production	38 0.2%	19 0.2%	5 0.1%	6 0.1%	7 0.3%
GDP at basic prices	3230 17.5%	3089 25.5%	2116 24.7%	1553 31.4%	841 29.4%
Indirect taxes on products	136 0.7%	96 0.8%	66 0.8%	53 1.1%	34 1.2%
less: Subsidies on products	0	0	0	0	0
Net tax	151 0.8%	120 1.0%	110 1.3%	68 1.4%	37 1.3%
GDP at market prices	3366 18.3%	3185 26.3%	2182 25.5%	1606 32.4%	875 30.6%

Source: Quantec EasyData (2011)

The skill level of employees in the furniture division shows that it is dominated by semi-skilled and unskilled workers (Table 3.32). However, because of the increasing share of informal workers, the share of both mid-level and semi-skilled and unskilled workers has been declining slowly.

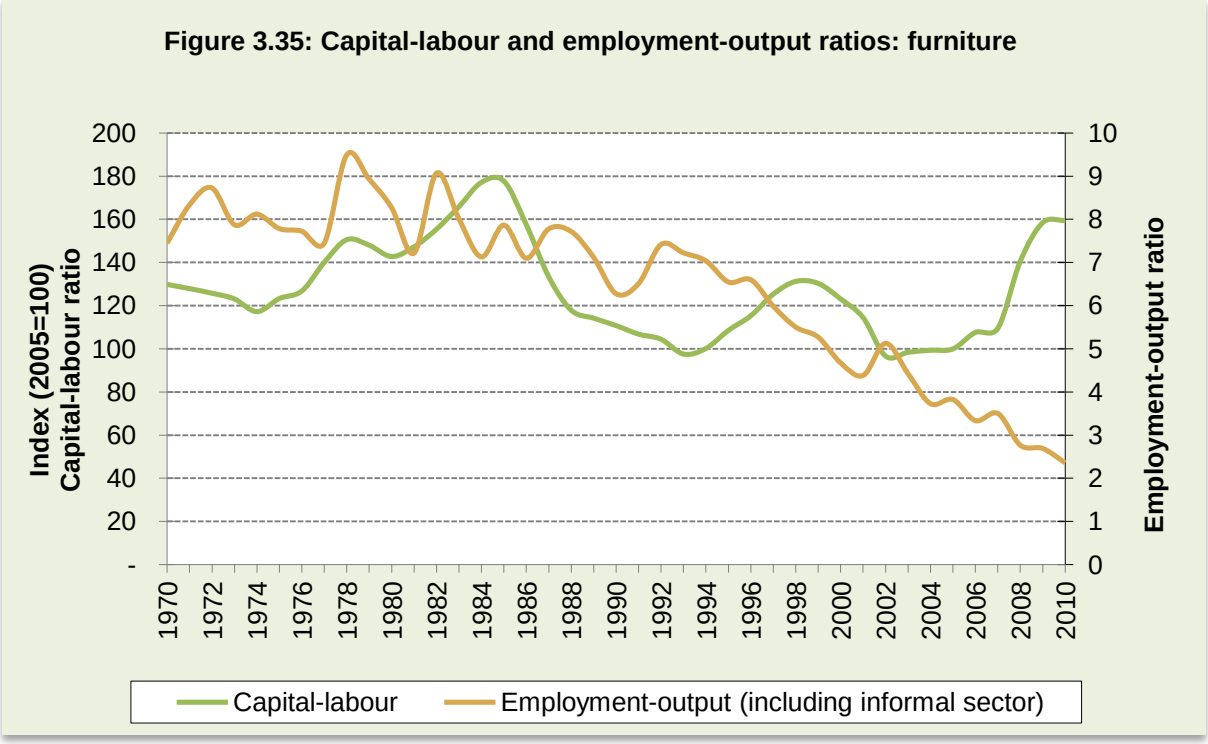
Table 3.32: Skill levels of employees in the furniture division

	2010	2005	2000	1995	1990
High-level	1,752 (4.8%)	2198 (4.7%)	2298 (4.6%)	2297 (4.5%)	1893 (4.2%)
Mid-level	7,691 (21.3%)	10253 (22.1%)	11083 (22.0%)	11862 (23.4%)	11685 (26.2%)
Semi- and unskilled	21,883 (60.6%)	28610 (61.7%)	31040 (61.7%)	32948 (65.0%)	29555 (66.3%)
Informal	4,810 (13.3%)	5279 (11.4%)	5849 (11.6%)	3586 (7.1%)	1470 (3.3%)
Total	36,135	46340	50269	50694	44604

Source: Quantec EasyData (2011)

The trend of employment intensity of the furniture division shows that it has been declining for many years. This is despite a similar trend observed in the capital intensity of the division. Since 2007, however, capital intensity has shown rapid growth (see Figure 3.35).

Figure 3.35: Capital-labour and employment-output ratios: furniture

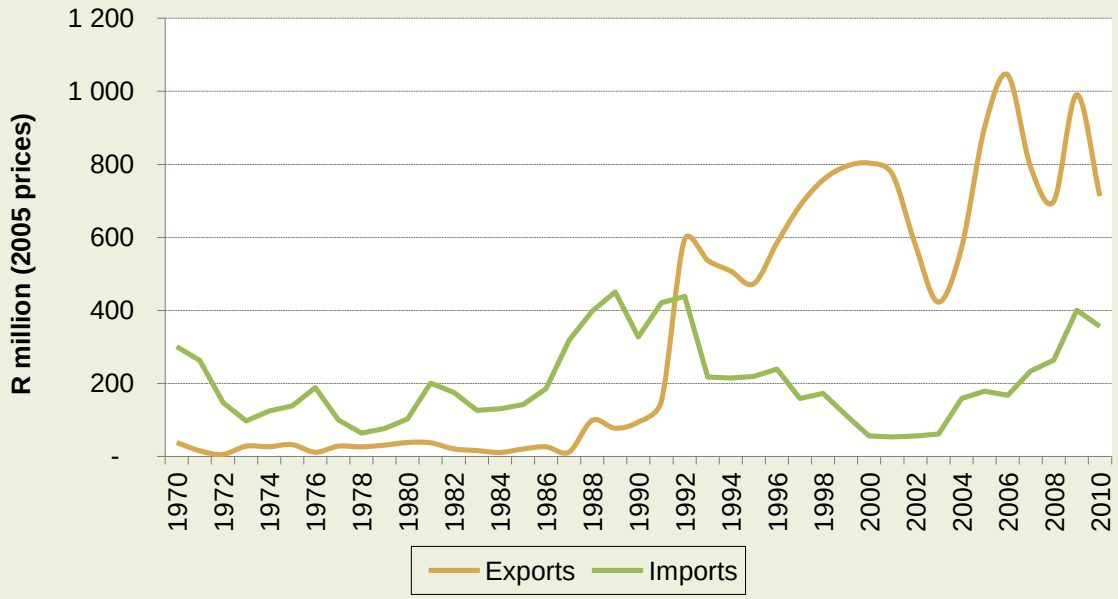


Source: Quantec EasyData (2011)

3.9 TOBACCO

Figure 3.36 presents the real export and import values of tobacco. South Africa had a negative trade balance on tobacco during 1970-1991. Thereafter, the trade balance has remained positive owing to exports growing more than imports.

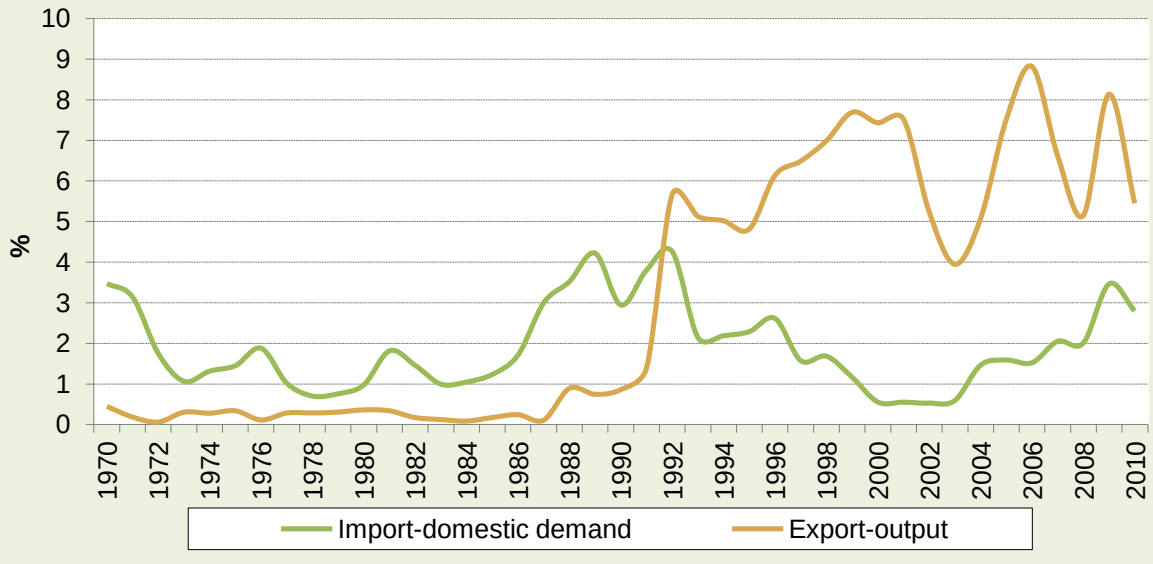
Figure 3.36: Real export and import values: tobacco



Source: Quantec EasyData (2011)

Figure 3.37 shows that the export-output ratio for the tobacco division has increased since 1992. While the ratio shows high variability since 2001, more than 5% of the total output is currently exported. Furthermore, the figure indicates that 3% of the domestic demand was satisfied with imports in 2010.

Figure 3.37: The share of export to output and import to domestic demand: tobacco



Source: Quantec EasyData (2011)

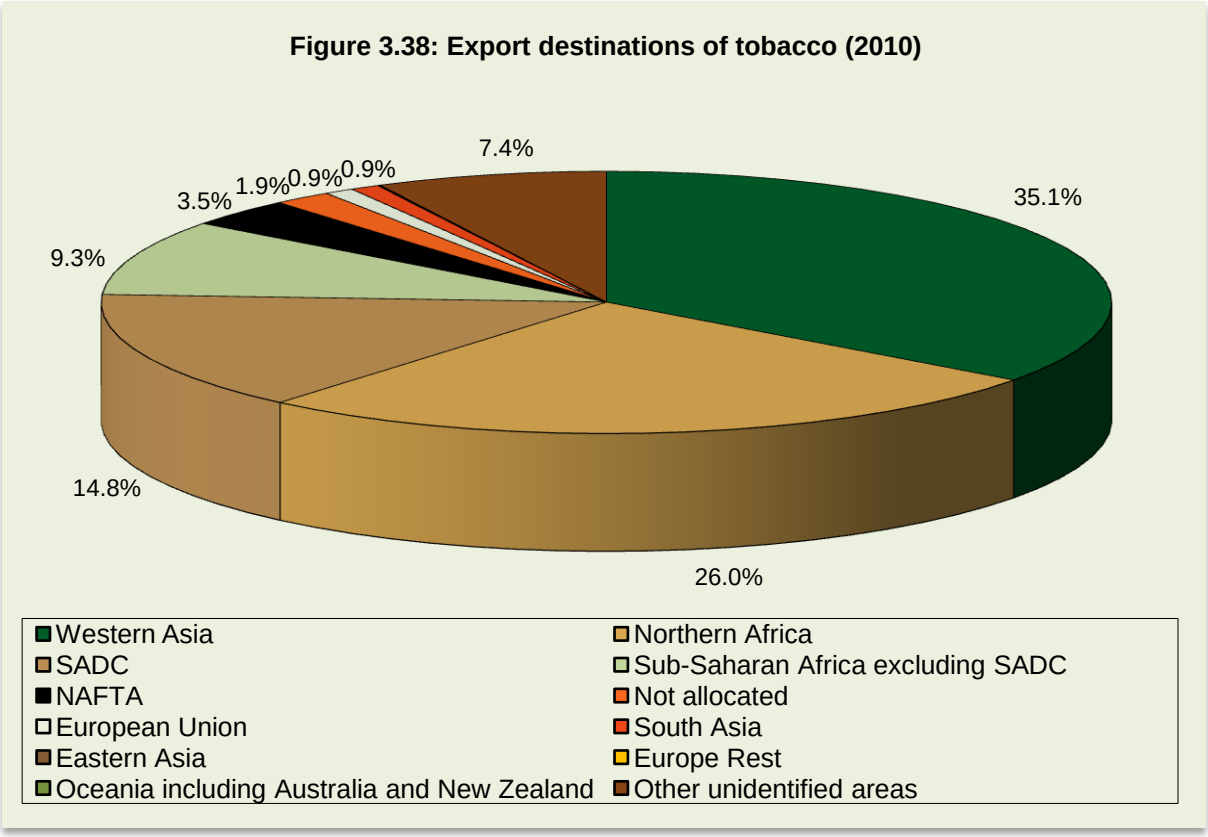
Among the tobacco products, cigars, cigarettes and tobacco and tobacco substitutes were the main products imported in 2010. These groups of products accounted for 49% and 42% of the total export value, respectively (see Table 3.33). The main export destinations of tobacco in 2010 were West Asia (35%), North Africa (26%), the SADC (15%) and Sub-Saharan Africa excluding the SADC (9%) (see Figure 3.38).

Table 3.33: List of main exported tobacco products in 2010

Product	HS code	R millions	%
Cigars, cigarettes etc., of tobacco or substitutes	2402	730.1	49.58
Tobacco & tobacco substitute products NESOI	2403	631.9	42.91
Tobacco, unmanufactured; tobacco refuse	2401	1.6	0.11
Other unidentified products		109.0	7.40
Total		1,472.7	100.00

Source: Quantec EasyData (2011)

Figure 3.38: Export destinations of tobacco (2010)



Source: Quantec EasyData (2011)

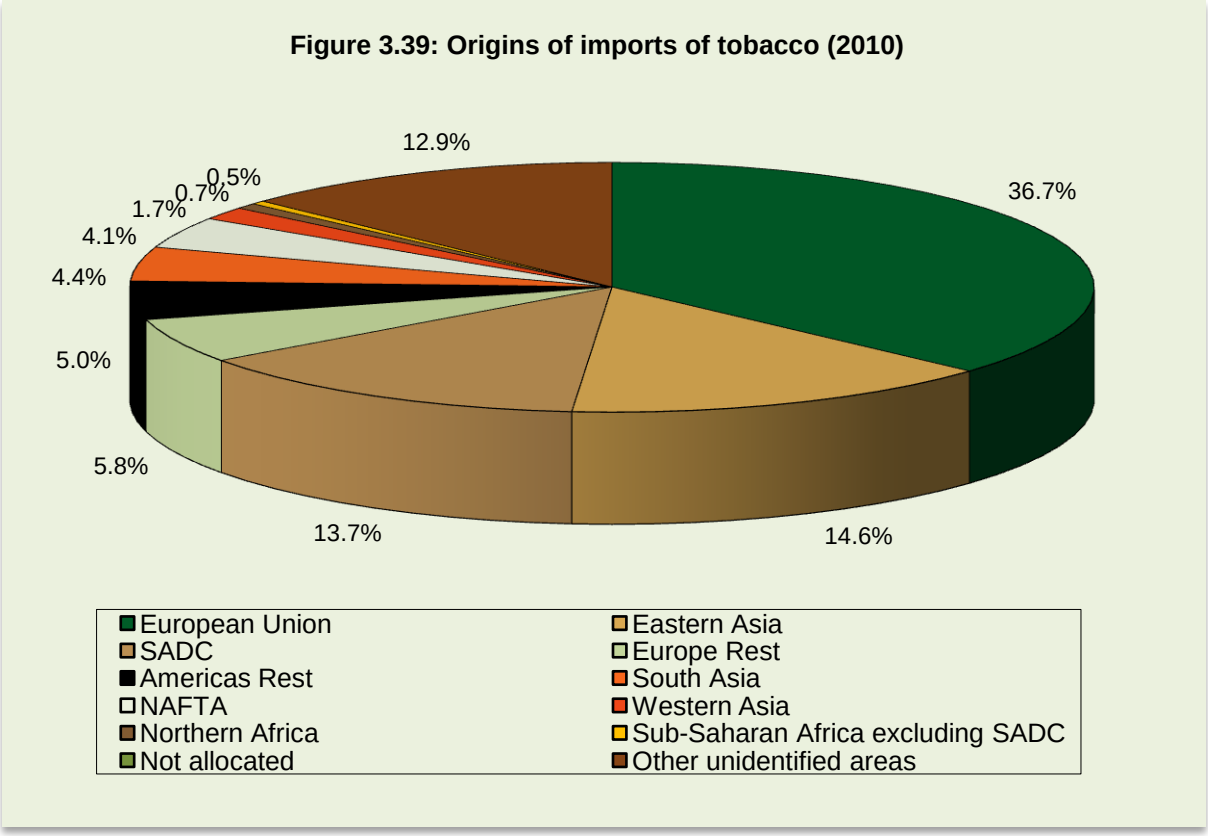
Both the major exported products are also imported in large quantities. Thus they contributed 49% and 24% of the total imports, respectively, in 2010 (see Table 3.34). The three main origins of imports of tobacco products were the EU (37%), East Asia (15%) and the SADC (14%) (see Figure 3.39).

Table 3.34: List of main imported tobacco products in 2010

Product	HS code	R millions	%
Cigars, cigarettes etc., of tobacco or substitutes	2402	218.7	49.79
Tobacco & tobacco substitute products NESOI	2403	105.7	24.07
Tobacco, unmanufactured; tobacco refuse	2401	58.1	13.24
Other unidentified products		56.7	12.91
Total		439.2	100.00

Source: Quantec EasyData (2011)

Figure 3.39: Origins of imports of tobacco (2010)



Source: Quantec EasyData (2011)

The structure of the tobacco division depicted in Table 3.35 shows that it largely utilized inputs from the agricultural industry, which accounted for 33% of its output in 2010. Moreover, input from secondary and tertiary industry made up 18.3% and 16.2% of the total output. The compensation of employees was among the lowest in the agro-processing industry, with only 5% of the output going to compensation of employees. However, the division had the highest share of value added compared to other agro-processing divisions.

Table 3.35: Structure of the tobacco division (R million)

YEAR	2010	2005	2000	1995	1990
TOTAL OUTPUT/SALES	17482	11972	7502	3882	2014
Primary industry	5807 33.2%	3458 28.9%	2391 31.9%	946 24.4%	437 21.7%
Agriculture, forestry and fishing	5801 33.2%	3454 28.8%	2387 31.8%	943 24.3%	436 21.6%
Secondary industry	3201 18.3%	2164 18.1%	1358 18.1%	846 21.8%	457 22.7%
....Food, beverages & tobacco	24 0.1%	19 0.2%	13 0.2%	9 0.2%	9 0.4%
....Petroleum, chemicals, rubber & plastic	317 1.8%	201 1.7%	123 1.6%	68 1.8%	38 1.9%
....Wood & paper; publishing & printing	2601 14.9%	1783 14.9%	1103 14.7%	635 16.4%	331 16.4%
....Metals, machinery & equipment	160 0.9%	108 0.9%	81 1.1%	101 2.6%	63 3.1%
..Electricity, gas & water	82 0.5%	40 0.3%	31 0.4%	27 0.7%	12 0.6%
Tertiary industry	2827 16.2%	1630 13.6%	945 12.6%	476 12.3%	202 10.0%
..Trade, catering & accommodation services	1492 8.5%	810 6.8%	510 6.8%	231 6.0%	82 4.1%
..Transport, storage & communication	232 1.3%	139 1.2%	98 1.3%	64 1.7%	42 2.1%
..Finance, insurance, real estate & business services	786 4.5%	499 4.2%	246 3.3%	98 2.5%	24 1.2%
Total intermediate inputs	11835 67.7%	7252 60.6%	4694 62.6%	2267 58.4%	1096 54.4%
Compensation of employees	862 4.9%	623 5.2%	345 4.6%	240 6.2%	177 8.8%
Depreciation	225 1.3%	193 1.6%	120 1.6%	125 3.2%	63 3.1%
Net operating surplus	4702 26.9%	3936 32.9%	2318 30.9%	1232 31.7%	668 33.1%
GDP at factor cost	5789 33.1%	4753 39.7%	2783 37.1%	1597 41.1%	908 45.1%
Other taxes on production	34 0.2%	26 0.2%	19 0.3%	10 0.2%	6 0.3%
less: Other subsidies on production	189 1.1%	69 0.6%	2 0.0%	1 0.0%	2 0.1%
GDP at basic prices	5634 32.2%	4710 39.3%	2800 37.3%	1605 41.4%	913 45.3%
Indirect taxes on products	13 0.1%	10 0.1%	8 0.1%	9 0.2%	6 0.3%
less: Subsidies on products	0	0	0	0	0
Net tax	-142 -0.8%	-32 -0.3%	25 0.3%	17 0.5%	10 0.5%
GDP at market prices	5647 32.3%	4720 39.4%	2808 37.4%	1615 41.6%	918 45.6%

Source: Quantec EasyData (2011)

The tobacco division is still dominated by semi-skilled and unskilled workers; however, the share of high-level workers is among the highest in the agro-processing industry (see Table 3.36).

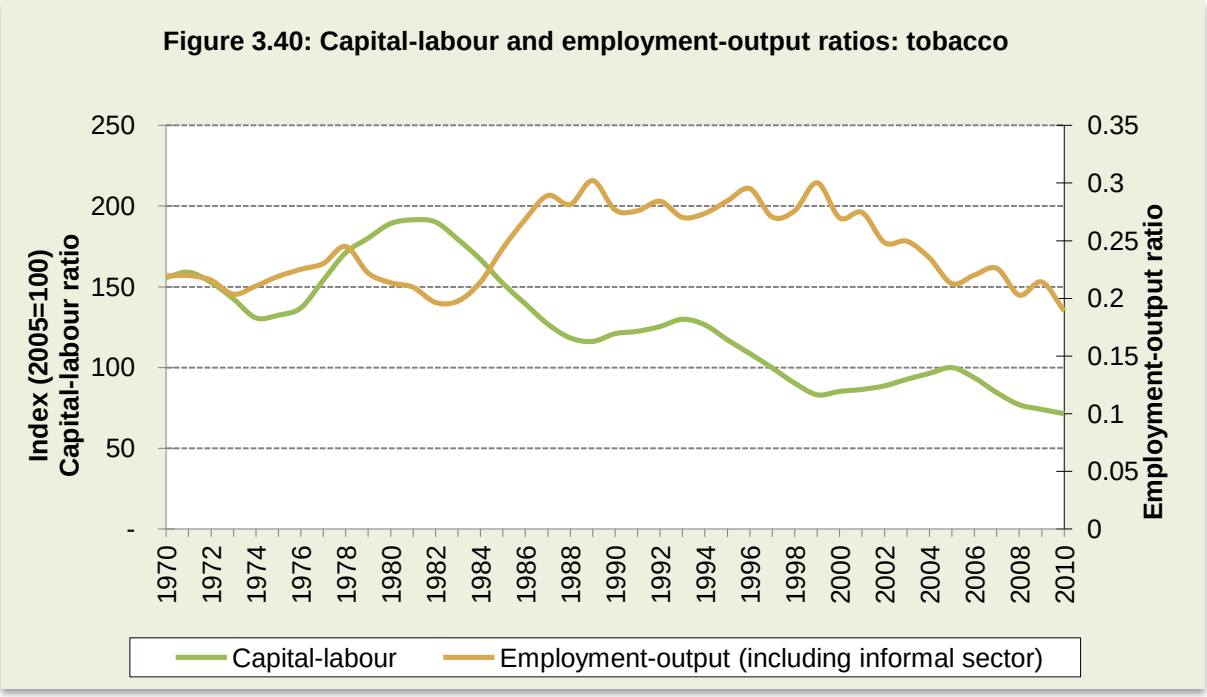
Table 3.36: Skill levels of employees in the tobacco division

	2010	2005	2000	1995	1990
High-level	399 (16.1%)	364 (14.3%)	390 (13.4%)	348 (12.5%)	268 (8.9%)
Mid-level	857 (34.7%)	867 (34.0%)	986 (33.8%)	926 (33.1%)	930 (30.9%)
Semi- and unskilled	1217 (49.2%)	1317 (51.7%)	1540 (52.8%)	1520 (54.4%)	1814 (60.2%)
Total	2473	2548	2916	2794	3012

Source: Quantec EasyData (2011)

Figure 3.40 shows that employment intensity in the tobacco division has been declining gently, though erratically, since the late 1990s. The trend of the division's capital intensity reveals that it is among the few divisions of the agro-processing industry that show a declining trend.

Figure 3.40: Capital-labour and employment-output ratios: tobacco

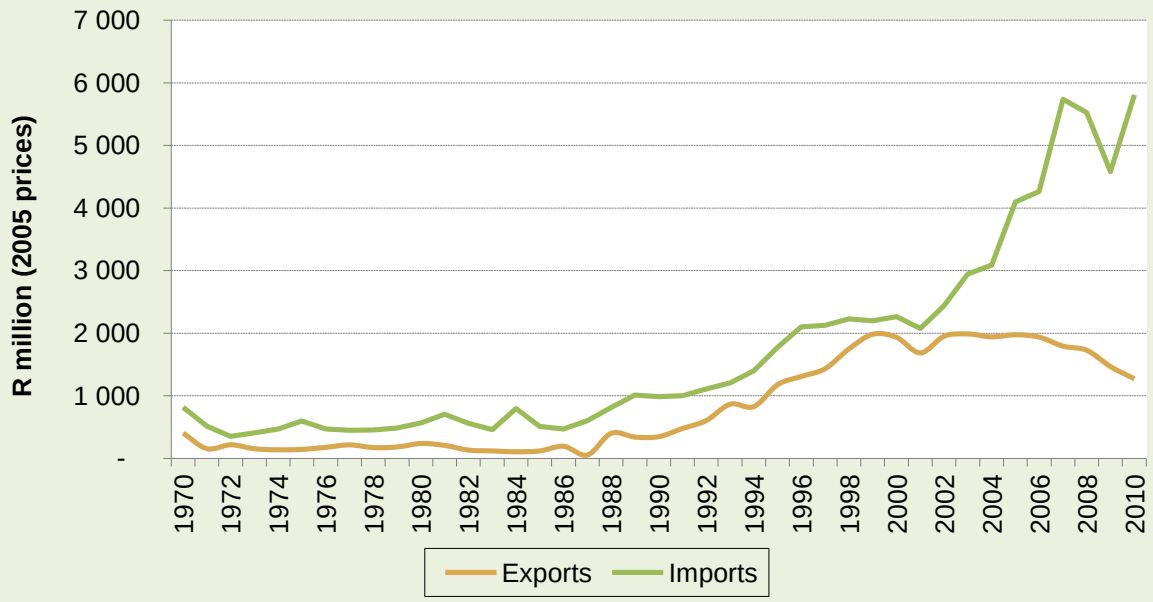


Source: Quantec EasyData (2011)

3.10 RUBBER PRODUCTS

Figure 3.41 shows the export and import values of rubber products. The trend reveals that South Africa did not have a positive trade balance on rubber products during the period reviewed. However, the margin between imports and exports increased noticeably since 2002, with import levels growing steeply from 2002 to 2007, whereas exports remained stagnant during the same period and have been dwindling gently since 2007.

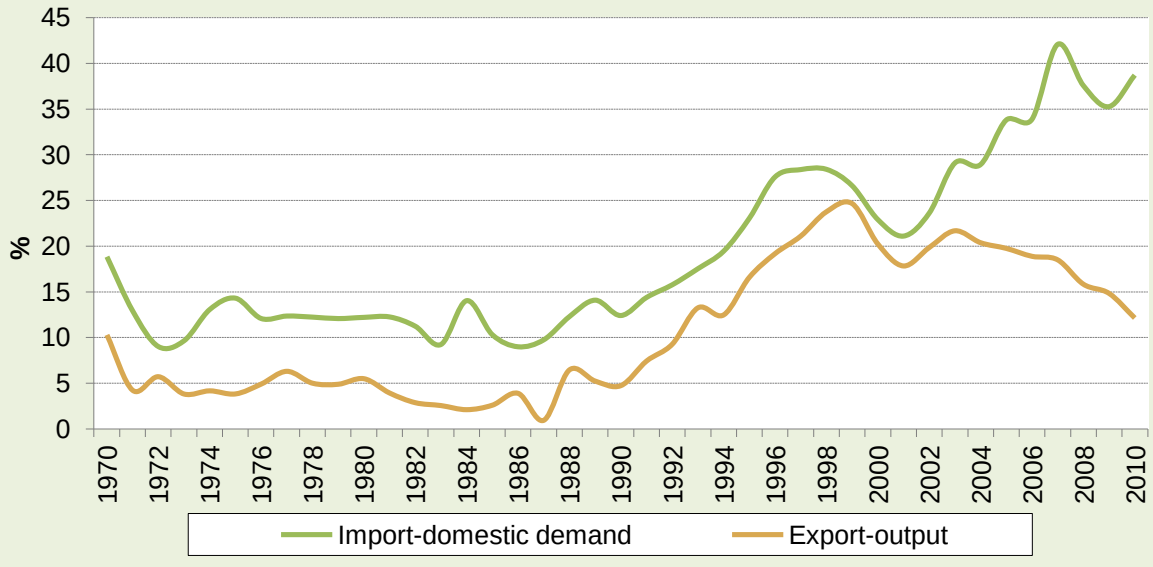
Figure 3.41: Real export and import values: rubber products



Source: Quantec EasyData (2011)

In 2010, close to 40% of the domestic demand was satisfied with imports. Furthermore, the export share of total output produced, which was 25% in the late 1990s, declined gradually and dropped below 15% in 2010 (see Figure 3.42).

Figure 3.42: The share of export to output and import to domestic demand: rubber products



Source: Quantec EasyData (2011)

The most important exported rubber products were new pneumatic tyres of rubber, valued at R1.3 billion and accounting for 55% of the total of exported rubber products (see Table 3.37). Other main exported rubber products included articles of unhardened vulcanized rubber, conveyor belts and tubes that contributed 7.9%, 7.8% and 4.9% of the total exports, respectively.

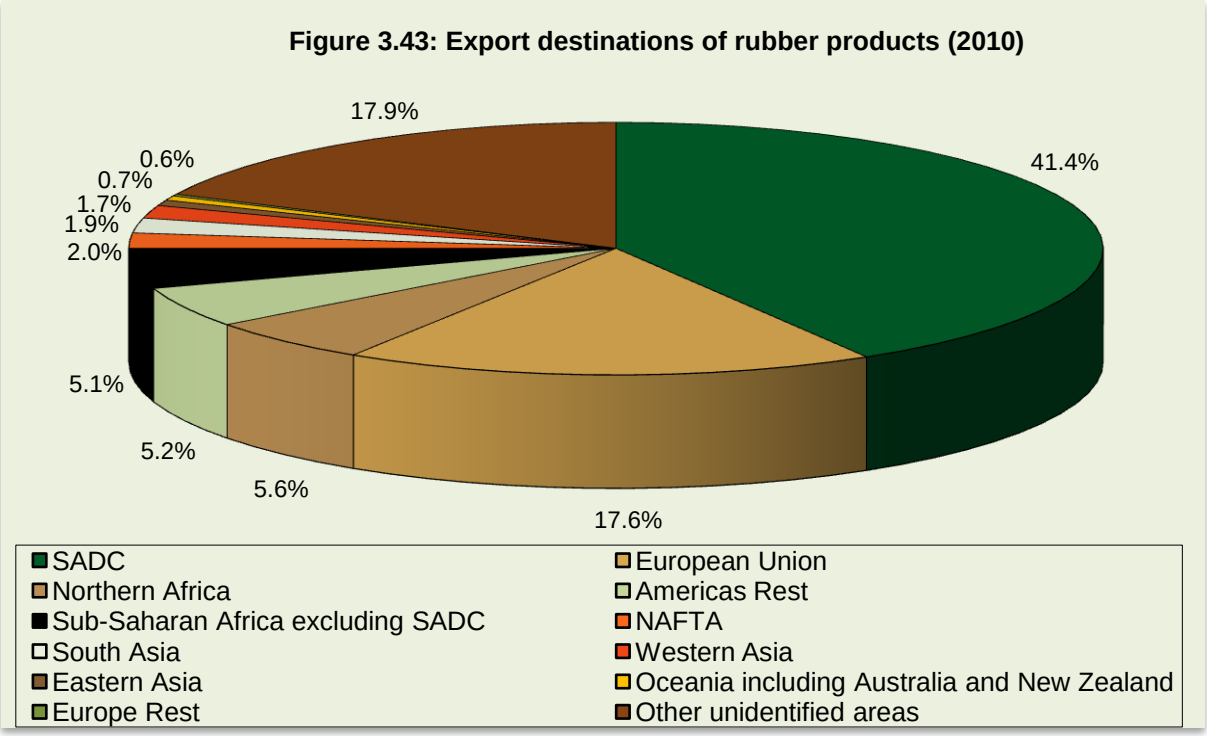
Table 3.37: List of main exported rubber products in 2010

Product	HS code	R millions	%
New pneumatic tyres, of rubber	4011	1,339.5	55.06
Articles NESOI of unharded vulcanized rubber	4016	193.4	7.95
Conveyor or transmiss belts of vulcanized rubber	4010	190.0	7.81
Tubes, pipes & hoses of unhard vulcanized rubber	4009	120.3	4.95
Retread or used pneu tyres, solid tyres etc, rubbr	4012	40.7	1.67
Plates, sheets, profile shapes etc, soft vulc rubr	4008	35.8	1.47
Compounded rubber, unvulcanised, primary forms etc	4005	24.1	0.99
Unvulc rubber forms NESOI & unvulc rubber articles	4006	19.8	0.81
Inner tubes for tyres, of rubber	4013	11.1	0.46
Art of apparel & access of unhard vulcanized rubbr	4015	7.4	0.30
Vulcanized rubber thread and cord	4007	7.1	0.29
Other unidentified products		443.3	18.22
Total		2,432.6	100.00

Source: Quantec EasyData (2011)

The main export destinations of the above listed rubber products were the SADC (41%), the EU (18%), North Africa (6%), South and Central America (5%) and Sub-Saharan Africa excluding the SADC (5%) (see Figure 3.43).

Figure 3.43: Export destinations of rubber products (2010)



Source: Quantec EasyData (2011)

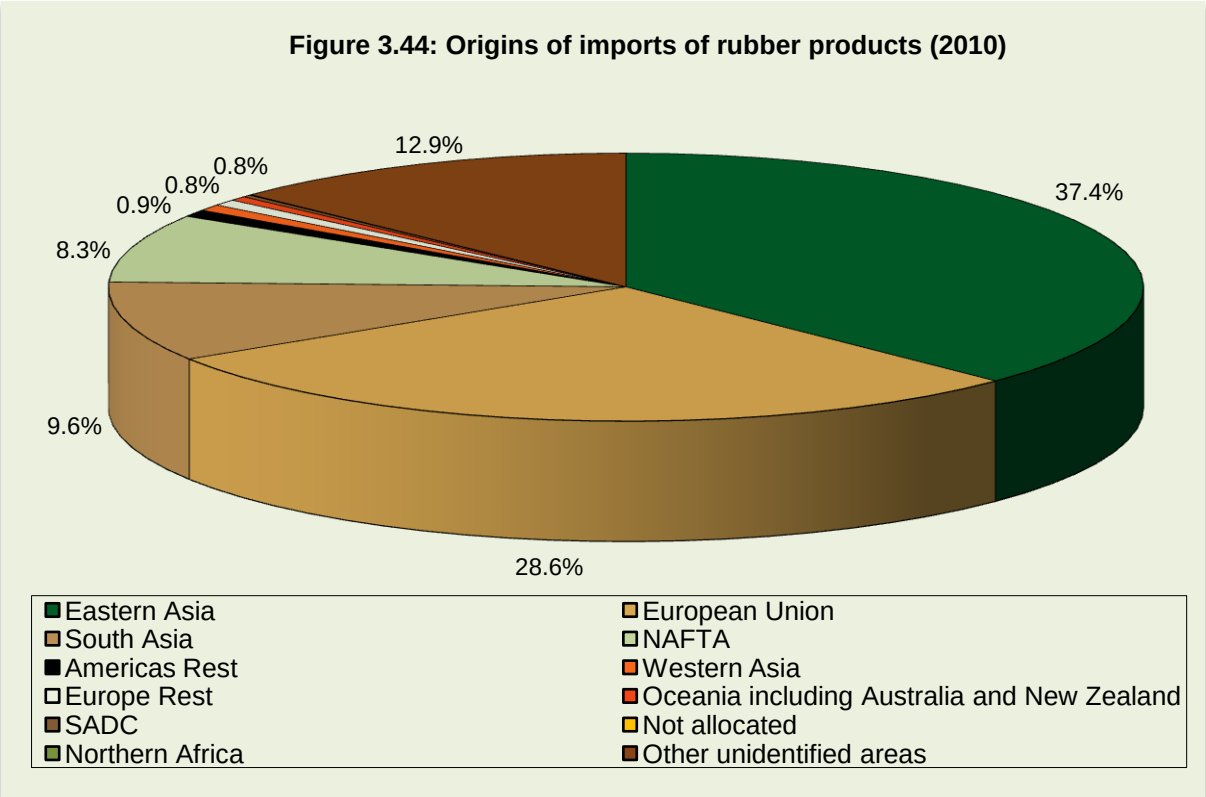
The top three products exported were also the main imported products in 2010 (see Table 3.38). Thus, new pneumatic tyres of rubber accounted for 51.5% of the total imports, followed by articles of unhardened vulcanized rubber and conveyor belts, which accounted for 12% and 8% of the total imported income, respectively. Figure 3.44 shows that the main origins of imports of rubber products in 2010 were East Asia (37%), the EU (29%), South Asia (10%) and NAFTA (8%).

Table 3.38: List of main imported rubber products in 2010

Product	HS code	R millions	%
New pneumatic tyres, of rubber	4011	4,099.8	51.58
Articles NESOI of unharded vulcanized rubber	4016	980.4	12.34
Conveyor or transmiss belts of vulcanized rubber	4010	647.6	8.15
Tubes, pipes & hoses of unhard vulcanized rubber	4009	324.3	4.08
Art of apparel & access of unhard vulcanized rubbr	4015	221.1	2.78
Retread or used pneu tyres, solid tyres etc, rubbr	4012	170.0	2.14
Hygienic or pharm articles of unhard vulcan rubber	4014	138.6	1.74
Inner tubes for tyres, of rubber	4013	112.9	1.42
Plates, sheets, profile shapes etc, soft vulc rubr	4008	106.9	1.35
Compounded rubber, unvulcanised, primary forms etc	4005	49.5	0.62
Rubberized textiles fabrics, other than tyre cord	5906	25.4	0.32
Other unidentified products		1,071.3	13.48
Total		**7,947.9**	**100.00**

Source: Quantec EasyData (2011)

Figure 3.44: Origins of imports of rubber products (2010)



Source: Quantec EasyData (2011)

The structure of the rubber division shows that it has strong backward linkages to the secondary (46.8%) and tertiary industry (22.8%). Moreover, the value added and the compensation of employees constituted 23% and 17.6% of the total output sales, respectively, in 2010 (see Table 3.39).

Table 3.39: Structure of the rubber products division (R million)

YEAR	2010	2005	2000	1995	1990
TOTAL OUTPUT/SALES	15107	10002	7062	3893	2610
Primary industry	873 5.8%	548 5.5%	456 6.5%	213 5.5%	145 5.6%
Agriculture, forestry and fishing	771 5.1%	482 4.8%	412 5.8%	193 5.0%	135 5.2%
Secondary industry	7070 46.8%	4486 44.9%	3271 46.3%	1682 43.2%	1296 49.7%
....Food, beverages & tobacco	5 0.0%	4 0.0%	3 0.0%	2 0.0%	1 0.0%
....Petroleum, chemicals, rubber & plastic	5046 33.4%	3118 31.2%	2337 33.1%	1136 29.2%	891 34.1%
....Wood & paper; publishing & printing	105 0.7%	77 0.8%	46 0.7%	22 0.6%	23 0.9%
....Metals, machinery & equipment	817 5.4%	560 5.6%	373 5.3%	209 5.4%	172 6.6%
..Electricity, gas & water	464 3.1%	242 2.4%	160 2.3%	67 1.7%	37 1.4%
Tertiary industry	3439 22.8%	2142 21.4%	1393 19.7%	623 16.0%	311 11.9%
..Trade, catering & accommodation services	947 6.3%	539 5.4%	373 5.3%	151 3.9%	80 3.1%
..Transport, storage & communication	878 5.8%	543 5.4%	421 6.0%	197 5.0%	76 2.9%
..Finance, insurance, real estate & business services	1191 7.9%	801 8.0%	452 6.4%	170 4.4%	75 2.9%
Total intermediate inputs	11382 75.3%	7176 71.7%	5119 72.5%	2518 64.7%	1752 67.1%
Compensation of employees	2614 17.3%	1827 18.3%	1327 18.8%	814 20.9%	547 21.0%
Depreciation	713 4.7%	532 5.3%	376 5.3%	223 5.7%	110 4.2%
Net operating surplus	146 1.0%	271 2.7%	107 1.5%	309 7.9%	191 7.3%
GDP at factor cost	3474 23.0%	2630 26.3%	1810 25.6%	1346 34.6%	848 32.5%
Other taxes on production	32 0.2%	26 0.3%	53 0.7%	20 0.5%	10 0.4%
less: Other subsidies on production	32 0.2%	17 0.2%	34 0.5%	42 1.1%	36 1.4%
GDP at basic prices	3474 23.0%	2639 26.4%	1829 25.9%	1323 34.0%	822 31.5%
Indirect taxes on products	251 1.7%	187 1.9%	114 1.6%	52 1.3%	36 1.4%
less: Subsidies on products	0	0	0	0	0
Net tax	251 1.7%	196 2.0%	133 1.9%	30 0.8%	10 0.4%
GDP at market prices	3725 24.7%	2826 28.3%	1943 27.5%	1375 35.3%	858 32.9%

Source: Quantec EasyData (2011)

Despite a slowly declining trend of the share of semi-skilled and unskilled workers, they are still the dominant (66%) workforce in the rubber products division (see Table 3.40). The skill level of employees in the rubber division also shows that the share of high and mid-level skills is slowly increasing.

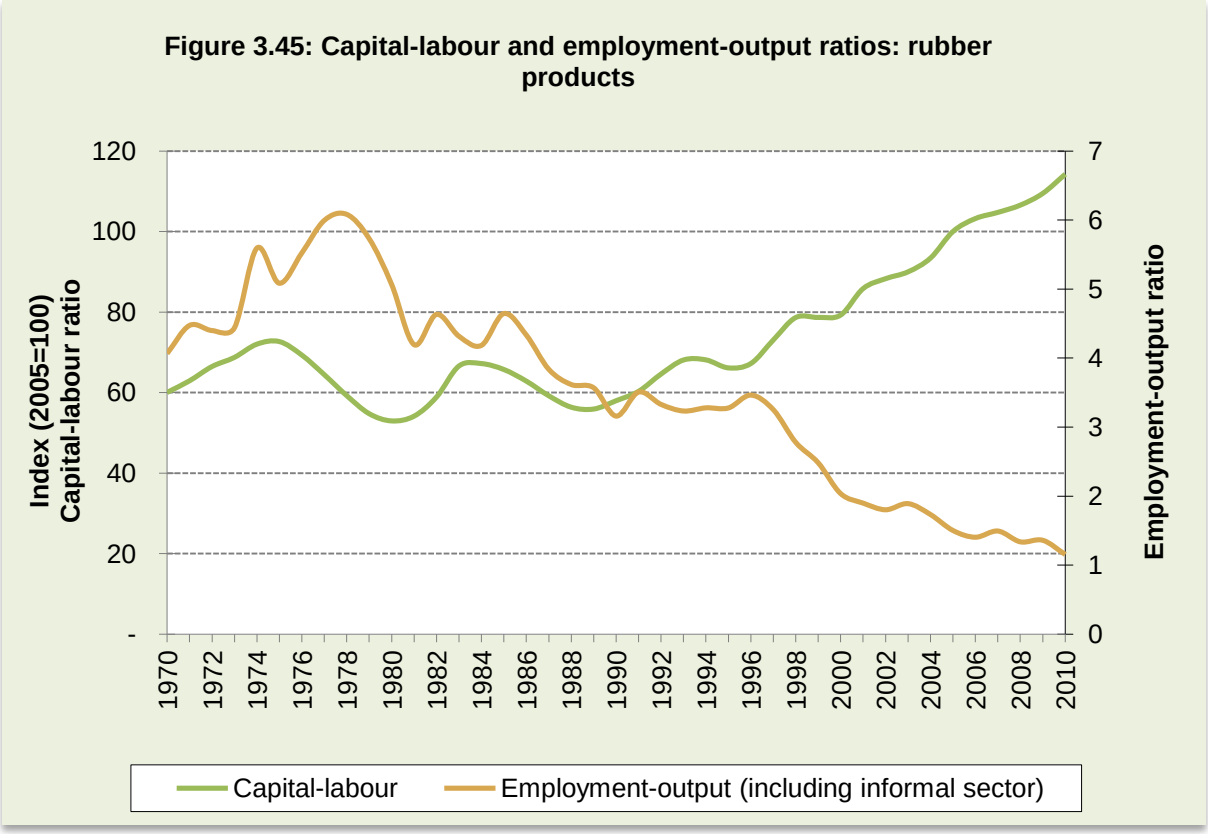
Table 3.40: Skill levels of employees in the rubber products division

	2010	2005	2000	1995	1990
High-level	1265	1466	1896	2173	1714
	10.5%	9.8%	9.7%	9.3%	7.4%
Mid-level	2834	3435	4458	5215	4893
	23.5%	22.9%	22.9%	22.4%	21.2%
Semi- and unskilled	7980	10115	13104	15904	16512
	66.1%	67.4%	67.3%	68.3%	71.4%
Total	12079	15016	19458	23292	23119

Source: Quantec EasyData (2011)

Employment intensity in the rubber division shows that the trend has been declining considerably since 1978 (see Figure 3.45). Moreover, capital intensity has been growing sharply since 1990. As a result of this structure, employment has been almost halved from its 1995 level.

Figure 3.45: Capital-labour and employment-output ratios: rubber products

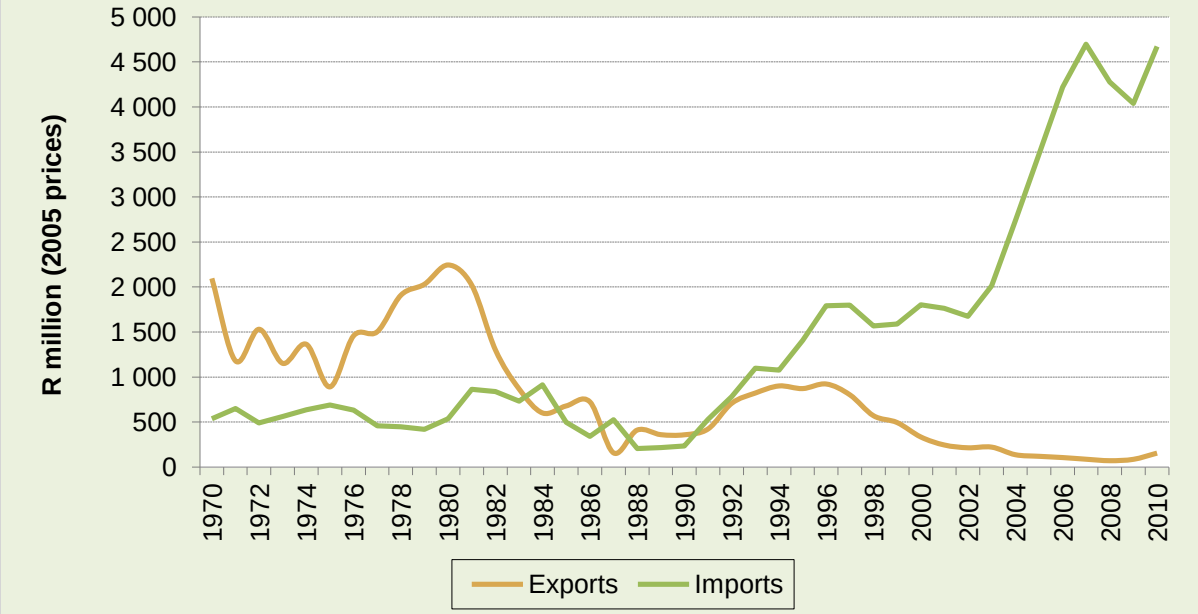


Source: Quantec EasyData (2011)

3.11 FOOTWEAR

The export and import values of the footwear are presented in Figure 3.46. Imports were very marginal before 1991 but have surged substantially since then. Conversely, exports have been declining since 1980, although they recovered to some extent in the early 1990s, reaching marginal levels since 2006. Currently, the trade balance is hugely negative as a result of the substantial value of imports compared to a negligible export value.

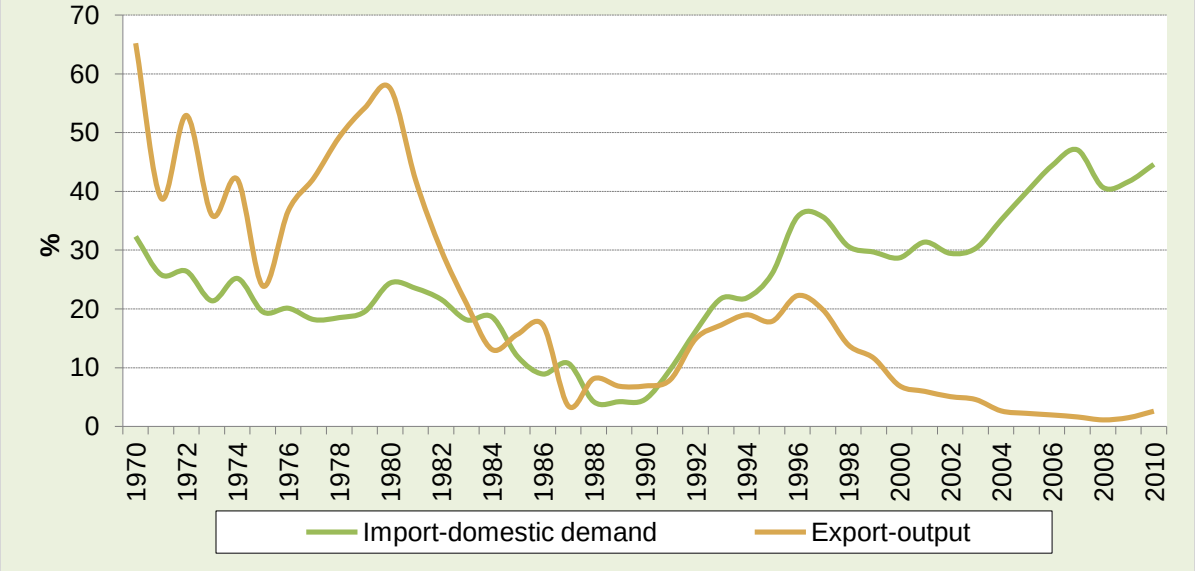
Figure 3.46: Real export and import values: furniture



Source: Quantec EasyData (2011)

As a result of the significant rise in imports, Figure 3.47 shows that currently more than 40% of the domestic demand is met via imports. In addition, the exported share of total output, which was above 60% during the 1970s and close to 60% during the 1980, has fallen precipitously to less than 2% since 2007.

Figure 3.47: The share of export to output and import to domestic demand: footwear



Source: Quantec EasyData (2011)

Table 3.41 shows that total exports of footwear in 2010 amounted to R414 million. The top two exported products were footwear NESOI (Not Either Specified Or Included) and footwear, outer sole, contributing 43% and 21.5% of the total exported footwear items, respectively.

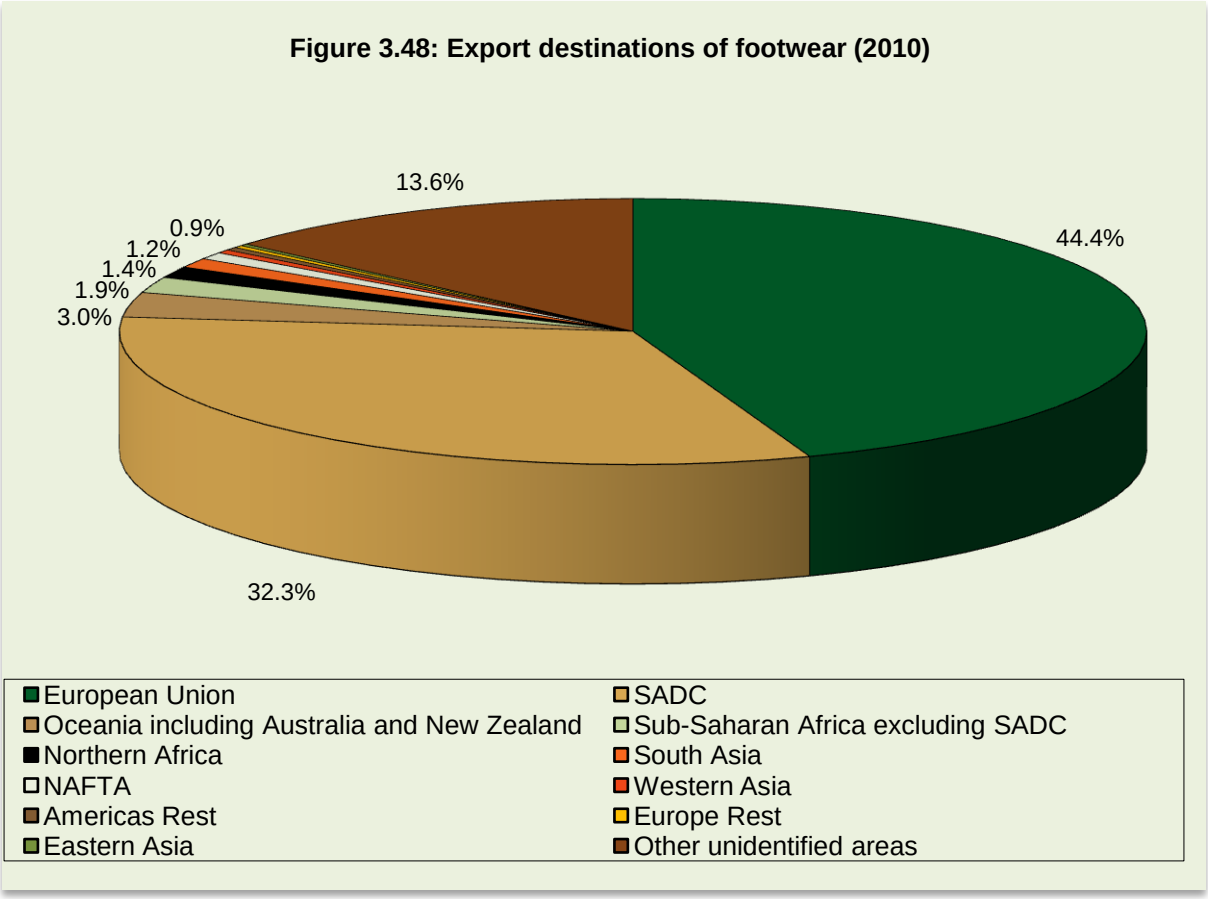
Table 3.41: List of main exported footwear products in 2010

Product	HS code	R millions	%
Footwear NESOI	6405	180.7	43.61
Footwear, outer sole rub, plastic or lea & upper lea	6403	89.2	21.54
Waterproof footwear, rubber or plastics, bond sole	6401	40.8	9.84
Footwear, outer sole & upper rubber or plastic NESOI	6402	27.6	6.65
Footwear, outer sole rub, plastic or lea & upper textile	6404	15.2	3.67
Parts of footwear; insoles etc; gaiters etc, parts	6406	5.5	1.33
Other unidentified products		55.3	13.35
Total		414.2	100.00

Source: Quantec EasyData (2011)

The top export destinations of the above listed footwear products included the EU (44.4%) and the SADC (32.3%) (see Figure 3.48). Oceania (including Australia and New Zealand) and Sub-Saharan Africa (excluding the SADC) also accounted for 3% and 2%, respectively, of the total footwear export during the same period.

Figure 3.48: Export destinations of footwear (2010)



Source: Quantec EasyData (2011)

Table 3.42 presents the main footwear products imported in 2010. Three of these products contributed 83% of the total imported value of more than R4.8 billion. These products were various kinds of footwear and outer sole as outlined in HS code 6402/3/4.

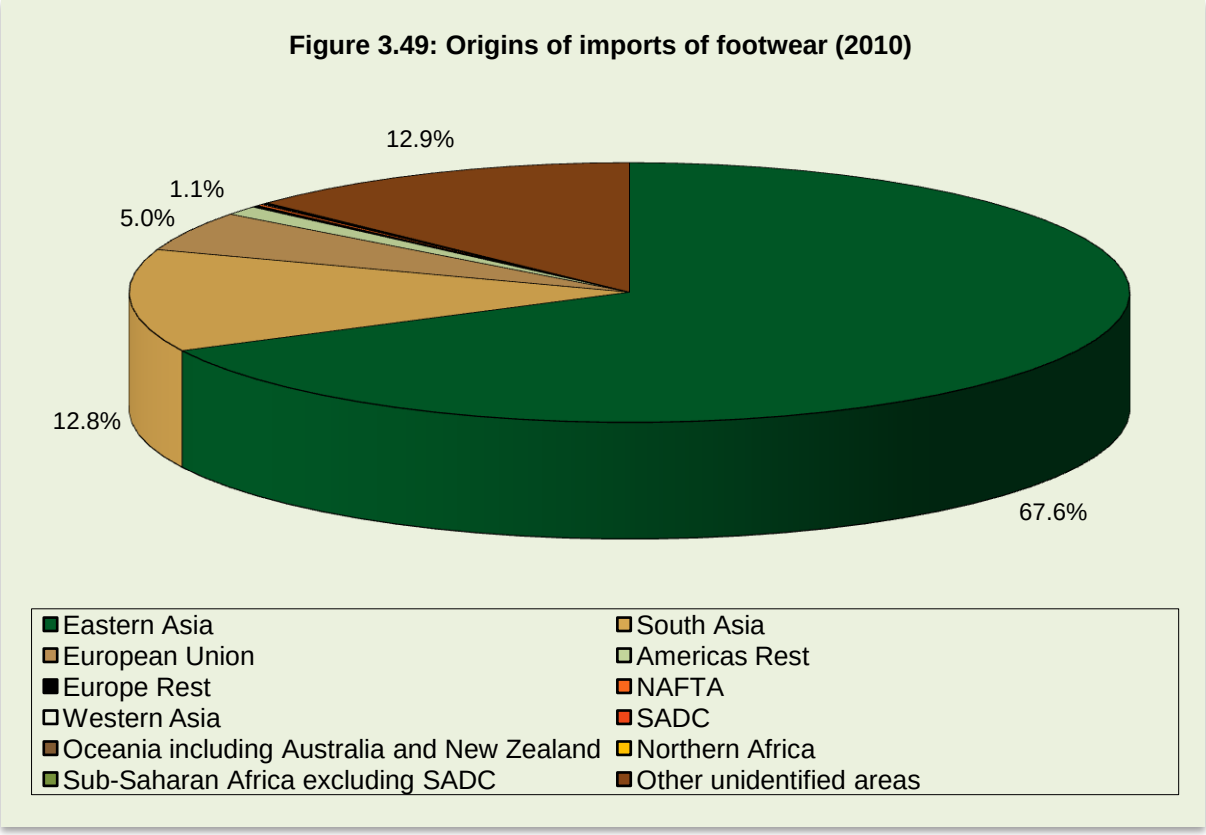
Table 3.42: List of main imported footwear products in 2010

Product	HS code	R millions	%
Footwear, outer sole & upper rubber or plastic NESOI	6402	2,329.4	39.03
Footwear, outer sole rub, plastic or lea & upper leather	6403	1,479.7	24.79
Footwear, outer sole rub, plastic or lea & upper textile	6404	1,176.6	19.72
Parts of footwear; insoles etc; gaiters etc, parts	6406	116.2	1.95
Footwear NESOI	6405	74.8	1.25
Waterproof footwear, rubber or plastics, bond sole	6401	20.8	0.35
Other unidentified products		770.3	12.91
Total		**5,967.8**	**100.00**

Source: Quantec EasyData (2011)

The main sources of imports of footwear were Eastern Asia (67.6%), South Asia (12.8%), the EU (5%), and Americas Rest (South and Central America) (1.1%) in 2010 (see Figure 3.49).

Figure 3.49: Origins of imports of footwear (2010)



Source: Quantec EasyData (2011)

The structure of the footwear division shows that the sector largely used inputs from secondary industry (58.1%) and tertiary industry, which grew its share from 9.8% in 1990 to 19.8% in 2010 (see Table 3.43). However, direct input share used from the primary sector was negligible. The share of compensation of employees in the division was 14.3% of the total output in 2010, which is higher than in 2000 and 2005 but much lower than in 1995.

Table 3.43: Structure of the footwear division (R million)

YEAR	2010	2005	2000	1995	1990
TOTAL OUTPUT/SALES	7059	5349	3354	2613	1716
Primary industry	57 0.8%	42 0.8%	28 0.8%	8 0.3%	4 0.3%
Agriculture, forestry and fishing	56 0.8%	42 0.8%	28 0.8%	8 0.3%	4 0.3%
Secondary industry	4098 58.1%	2943 55.0%	1811 54.0%	1307 50.0%	920 53.6%
....Food, beverages & tobacco	81 1.1%	71 1.3%	43 1.3%	26 1.0%	11 0.7%
....Petroleum, chemicals, rubber & plastic	692 9.8%	571 10.7%	369 11.0%	195 7.5%	132 7.7%
....Wood & paper; publishing & printing	120 1.7%	103 1.9%	69 2.1%	53 2.0%	44 2.5%
....Metals, machinery & equipment	64 0.9%	60 1.1%	39 1.2%	40 1.5%	34 2.0%
..Electricity, gas & water	33 0.5%	20 0.4%	15 0.4%	13 0.5%	8 0.5%
Tertiary industry	1398 19.8%	1006 18.8%	628 18.7%	366 14.0%	168 9.8%
..Trade, catering & accommodation services	703 10.0%	474 8.9%	313 9.3%	169 6.5%	88 5.2%
..Transport, storage & communication	143 2.0%	109 2.0%	77 2.3%	42 1.6%	18 1.0%
..Finance, insurance, real estate & business services	397 5.6%	313 5.9%	173 5.2%	96 3.7%	33 2.0%
Total intermediate inputs	5553 78.7%	3991 74.6%	2468 73.6%	1681 64.3%	1092 63.6%
Compensation of employees	1013 14.3%	656 12.3%	426 12.7%	680 26.0%	492 28.7%
Depreciation	76 1.1%	43 0.8%	54 1.6%	46 1.8%	29 1.7%
Net operating surplus	338 4.8%	595 11.1%	368 11.0%	161 6.2%	64 3.7%
GDP at factor cost	1428 20.2%	1294 24.2%	848 25.3%	888 34.0%	584 34.1%
Other taxes on production	50 0.7%	37 0.7%	19 0.6%	10 0.4%	5 0.3%
less: Other subsidies on production	11 0.2%	6 0.1%	5 0.1%	6 0.2%	6 0.4%
GDP at basic prices	1466 20.8%	1325 24.8%	862 25.7%	891 34.1%	583 34.0%
Indirect taxes on products	40 0.6%	33 0.6%	24 0.7%	42 1.6%	41 2.4%
less: Subsidies on products	0	0	0	0	0
Net tax	79 1.1%	64 1.2%	38 1.1%	45 1.7%	40 2.3%
GDP at market prices	1506 21.3%	1358 25.4%	886 26.4%	933 35.7%	624 36.4%

Source: Quantec EasyData (2011)

The skill levels of employees in the footwear division are given in Table 3.44. The majority of the employees were semi-skilled and unskilled (75.8%) and informal (16.4%) in 2010. The mid-level and high-level skill categories constituted less than 8% of total employment in

2005 and 2010. Informal employment is also showing an increase in the share of total employment, despite a declining trend in absolute numbers.

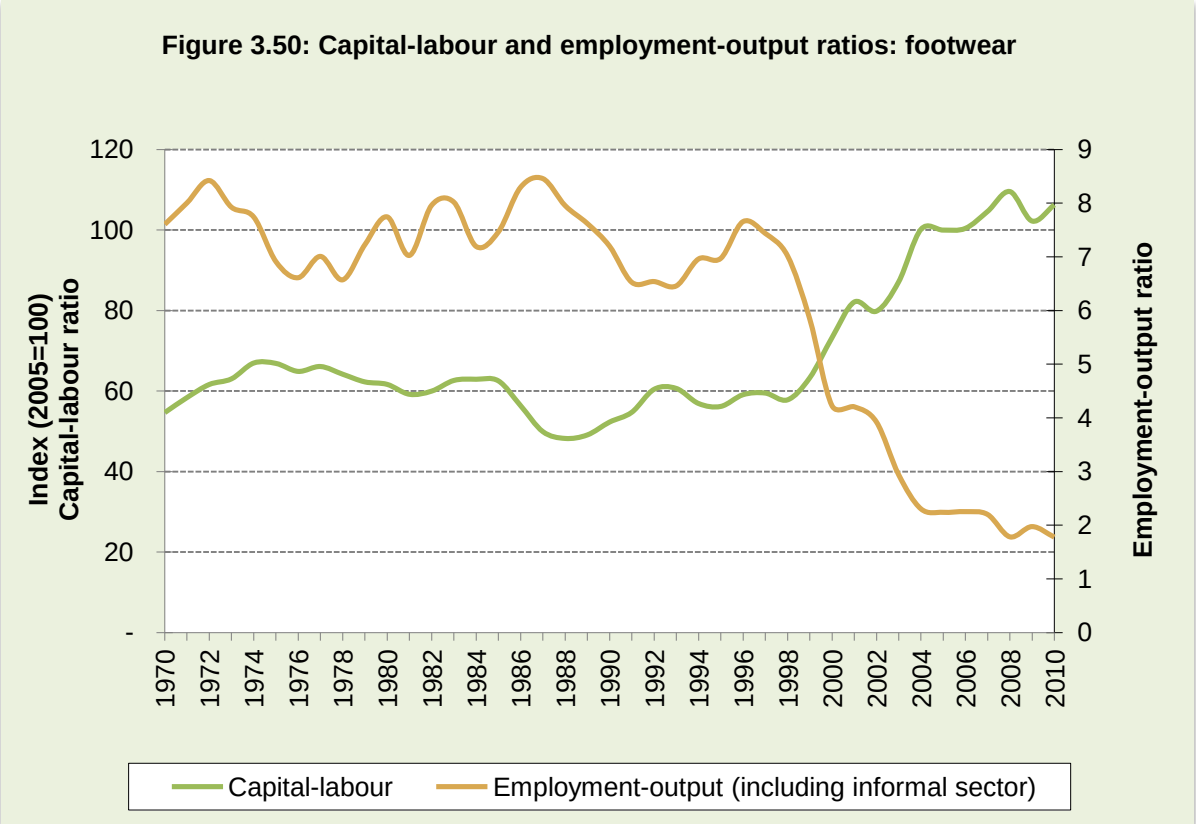
Table 3.44: Skill levels of employees in the footwear division

	2010	2005	2000	1995	1990
High-level	275 (2.6%)	305 (2.5%)	568 (2.8%)	984 2.9%	979 (2.6%)
Mid-level	550 (5.2%)	643 (5.4%)	1,228 (6.0%)	2,221 6.5%	2,581 (6.9%)
Semi- and unskilled	8,033 (75.8%)	9,223 (76.9%)	16,387 (80.5%)	28,651 84.3%	32,842 (87.6%)
Informal	1,739 (16.4%)	1,820 (15.2%)	2,167 (10.6%)	2,132 (6.3%)	1,097 (2.9%)
Total	10,597	11,992	20,349	33,989	37,500

Source: Quantec EasyData (2011)

Following the significant loss of jobs in the footwear division, employment intensity of the division has declined severely, especially since 1997 (see Figure 3.50). In addition, capital intensity has increased considerably since 1998. Thus, the division is becoming more capital-intensive than it used to be before 1998.

Figure 3.50: Capital-labour and employment-output ratios: footwear



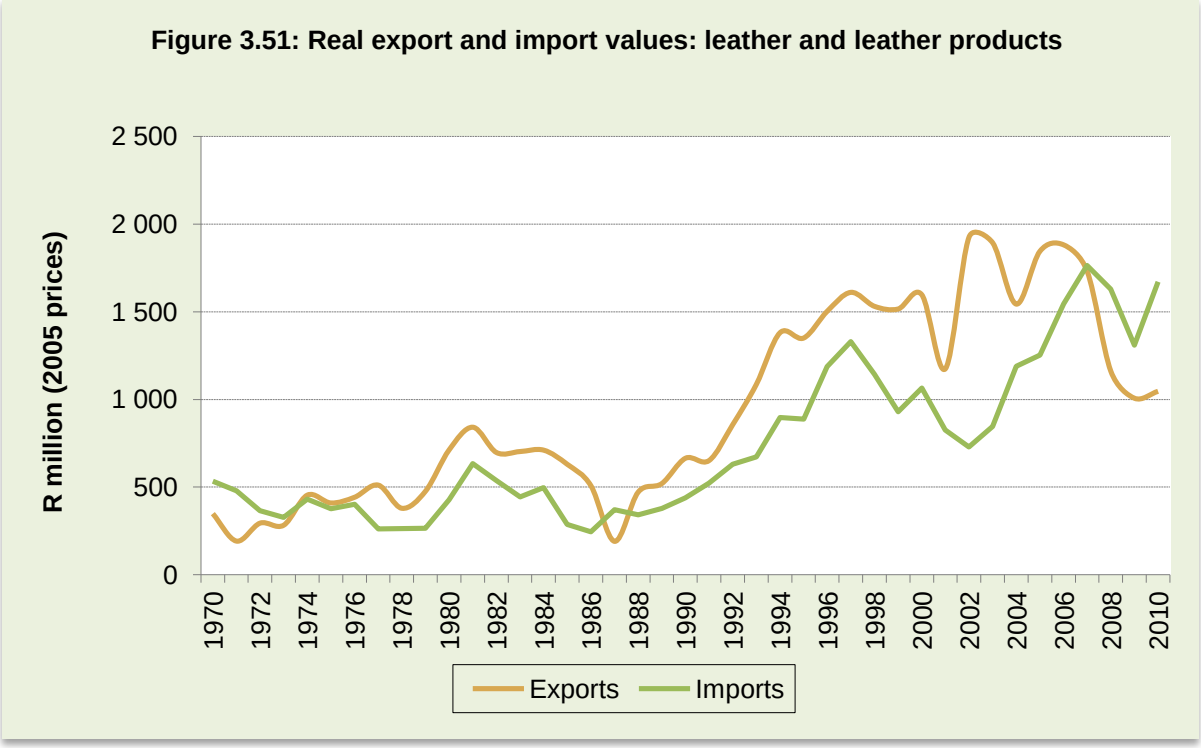
Source: Quantec EasyData (2011)

The concentration ratios of the footwear division in 2008 shows that it was among the least concentrated agro-processing divisions, the largest 5, 10 and 20 enterprises accounting for 41%, 57% and 75% of the total income of the division, respectively.

3.12 LEATHER AND LEATHER PRODUCTS

The export and import values of leather and leather products are presented in Figure 3.51. The trend shows that South Africa largely remained with a positive trade balance for most of the period except since 2008, when total imports of leather and leather products exceeded exports.

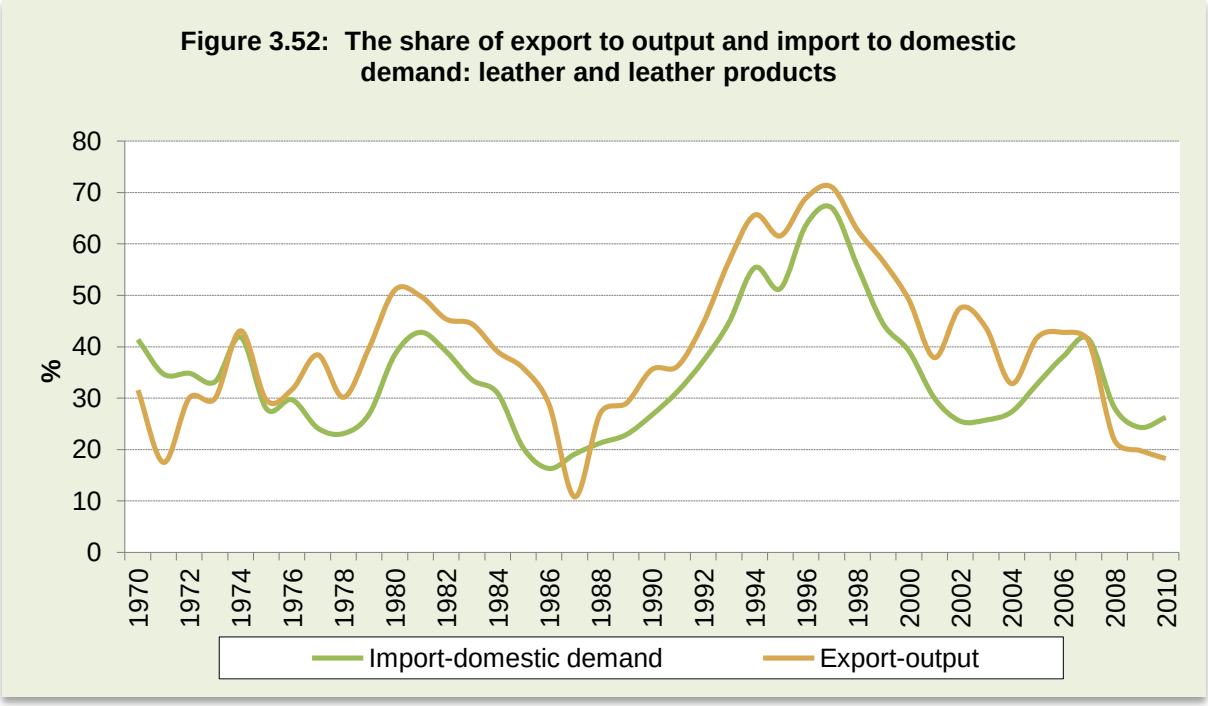
Figure 3.51: Real export and import values: leather and leather products



Source: Quantec EasyData (2011)

The export share of the total output has been declining since 1997 and remained below 20% in 2010. The proportion of imports required to meet the domestic demand (import-domestic demand ratio) followed a similar trend as the export share. However, it mostly remained below the export share, except since 2008, when imports exceeded exports (see Figure 3.52).

Figure 3.52: The share of export to output and import to domestic demand: leather and leather products



Source: Quantec EasyData (2011)

Table 3.45 presents the main leather and leather products exported in 2010. Among the products, bovine or equine leather and leather of animals NESOI contributed 12.5% and 6.2% of the total export values, respectively.

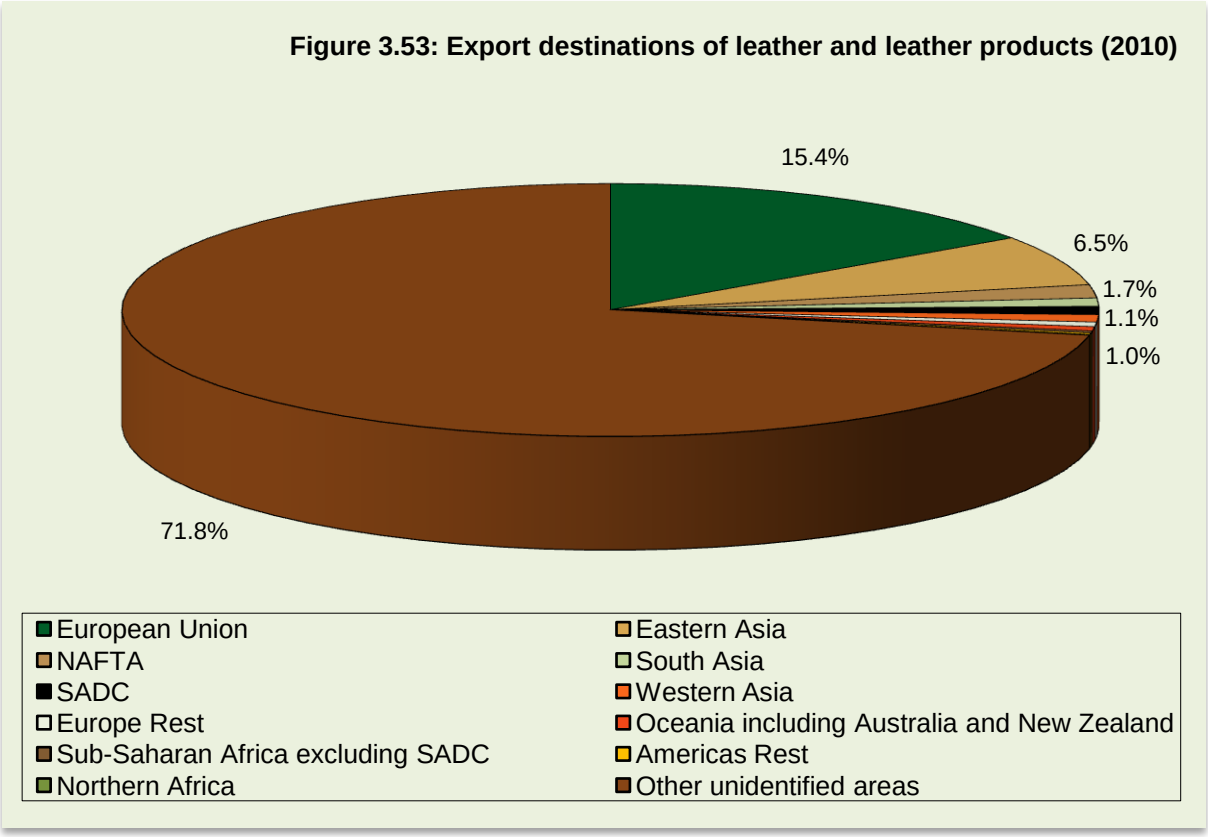
Table 3.45: List of main exported leather and leather products in 2010

Product	HS code	R millions	%
Bovine or equine leather, no hair NESOI	4104	208.0	12.55
Leather of animals NESOI, no hair NESOI	4107	103.9	6.27
Articles of leather, NESOI	4205	41.2	2.49
Travel goods, handbags, wallets, jewellery cases etc	4202	34.6	2.09
Saddlery, harness, traces, leads etc, any material	4201	30.0	1.81
Composition leather	4115	26.2	1.58
Composition leather	4113	9.7	0.58
Composition leather	4114	6.9	0.42
Goat or kidskin leather, no hair NESOI	4106	4.9	0.30
Sheep or lamb skin leather, no wool NESOI	4105	1.4	0.08
Travel sets for personal toilet, etc	9605	1.0	0.06
Other unidentified products		1,189.5	71.77
Total		**1,657.4**	**100.00**

Source: Quantec EasyData (2011)

The main destinations of exports of the products listed above were the EU (15.4%) and East Asia (6.5%). Most of the export destinations were classified under unidentified areas (see Figure 3.53).

Figure 3.53: Export destinations of leather and leather products (2010)



Source: Quantec EasyData (2011)

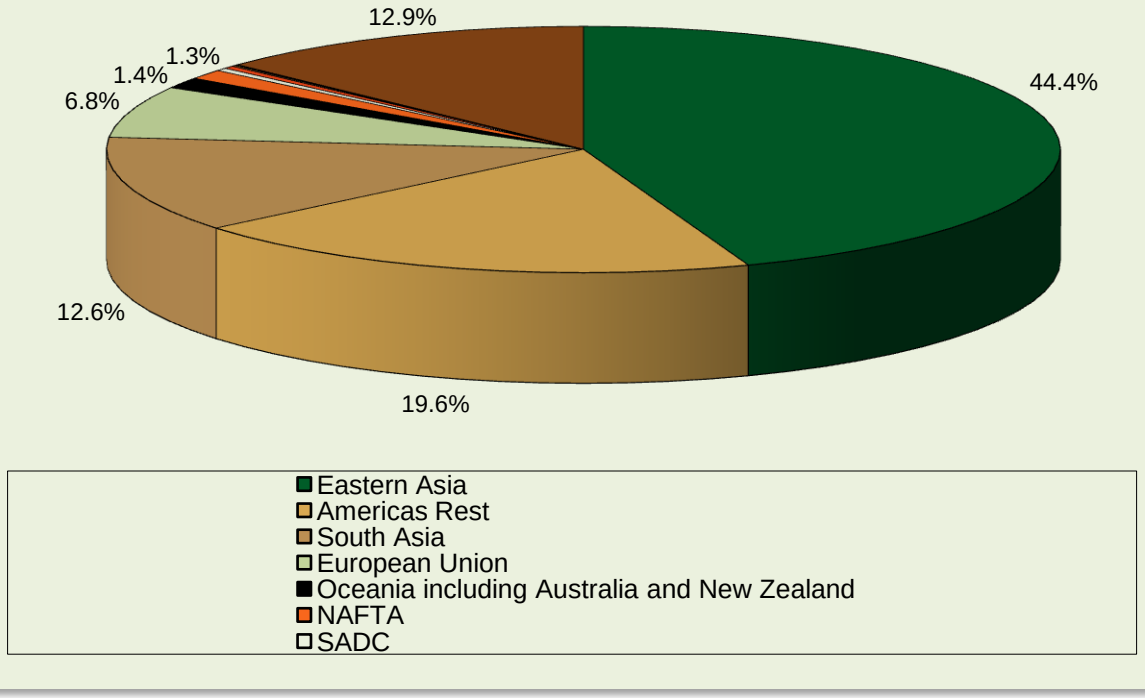
The list of main leather products imported includes travel goods, handbags, wallet and jewellery cases, accounting for 48% of the total imports (see Table 3.46). Moreover, leather of animals NESOI and bovine or equine leather were also significant imports of leather products in South Africa, contributing 18.9% and 12.9% of the total imports, respectively. Among the main origins of imports of the above products are East Asia (44.4%), Americas Rest (South and Central America) (19.6%), South Asia (12.6%) and the EU (6.8%) (see Figure 3.54).

Table 3.46: List of main imported leather and leather products in 2010

Product	HS code	R millions	%
Travel goods, handbags, wallets, jewellery cases etc	4202	1,113.0	48.10
Leather of animals NESOI, no hair NESOI	4107	437.1	18.89
Bovine or equine leather, no hair NESOI	4104	299.3	12.94
Composition leather	4113	38.4	1.66
Saddlery, harness, traces, leads etc, any material	4201	29.8	1.29
Travel sets for personal toilet, etc	9605	24.1	1.04
Articles of leather, NESOI	4205	21.5	0.93
Composition leather	4114	20.9	0.90
Composition leather	4115	18.2	0.79
Watch straps, watch bands and watch bracelets, pts	9113	10.1	0.44
Goat or kidskin leather, no hair NESOI	4106	1.4	0.06
Other unidentified products		300.2	12.97
Total		2,314.1	100.00

Source: Quantec EasyData (2011)

Figure 3.54: Origins of imports of leather and leather products (2010)



Source: Quantec EasyData (2011)

Similar to the footwear division, the backward linkage of the leather and leather products division was mainly from the manufacturing sector (60.6%) and tertiary industry (30%) (see Table 3.47). Moreover, since the sector utilizes considerable intermediate inputs (91.1 %), it has the lowest percentage of value added (less than 9%). Similarly, the share of compensation of employees is the lowest among the agro-processing divisions.

Table 3.47: The structure of the leather and leather products division (R million)

YEAR	2010	2005	2000	1995	1990
TOTAL OUTPUT/SALES	6045	4413	2916	1609	842
Primary industry	27 0.4%	17 0.4%	14 0.5%	8 0.5%	3 0.3%
Agriculture, forestry and fishing	5 0.1%	3 0.1%	3 0.1%	2 0.1%	1 0.1%
Secondary industry	3666 60.6%	2447 55.5%	1688 57.9%	952 59.1%	579 68.7%
....Food, beverages & tobacco	1625 26.9%	1231 27.9%	844 28.9%	520 32.3%	342 40.7%
....Petroleum, chemicals, rubber & plastic	945 15.6%	575 13.0%	438 15.0%	211 13.1%	120 14.2%
....Wood & paper; publishing & printing	15 0.2%	11 0.3%	9 0.3%	9 0.6%	8 0.9%
....Metals, machinery & equipment	89 1.5%	70 1.6%	52 1.8%	40 2.5%	21 2.4%
..Electricity, gas & water	66 1.1%	35 0.8%	27 0.9%	15 0.9%	6 0.7%
Tertiary industry	1815 30.0%	1106 25.1%	752 25.8%	312 19.4%	91 10.8%
..Trade, catering & accommodation services	1099 18.2%	637 14.4%	451 15.5%	167 10.4%	47 5.6%
..Transport, storage & communication	163 2.7%	105 2.4%	80 2.8%	36 2.2%	13 1.6%
..Finance, insurance, real estate & business services	371 6.1%	252 5.7%	154 5.3%	68 4.2%	18 2.2%
Total intermediate inputs	5507 91.1%	3571 80.9%	2453 84.1%	1272 79.0%	672 79.8%
Compensation of employees	420 7.0%	323 7.3%	280 9.6%	192 11.9%	127 15.1%
Depreciation	70 1.2%	76 1.7%	40 1.4%	25 1.6%	11 1.3%
Net operating surplus	44 0.7%	432 9.8%	124 4.2%	111 6.9%	29 3.5%
GDP at factor cost	534 8.8%	831 18.8%	444 15.2%	328 20.4%	167 19.8%
Other taxes on production	8 0.1%	6 0.1%	13 0.4%	6 0.4%	3 0.4%
less: Other subsidies on production	17 0.3%	8 0.2%	5 0.2%	7 0.4%	7 0.8%
GDP at basic prices	525 8.7%	829 18.8%	452 15.5%	328 20.4%	164 19.4%
Indirect taxes on products	13 0.2%	13 0.3%	11 0.4%	10 0.6%	6 0.7%
less: Subsidies on products	0	0	0	0	0
Net tax	5 0.1%	11 0.3%	19 0.6%	10 0.6%	3 0.3%
GDP at market prices	539 8.9%	842 19.1%	463 15.9%	338 21.0%	170 20.2%

Source: Quantec EasyData (2011)

Table 3.48 shows that semi-skilled and unskilled workers dominated the workforce in the leather and leather products division (70.6%). However, the share of mid-level skill increased

modestly from 13% in 1990 to 19% in 2010. Currently, 7.2% of total employment in the leather division is from the informal sector.

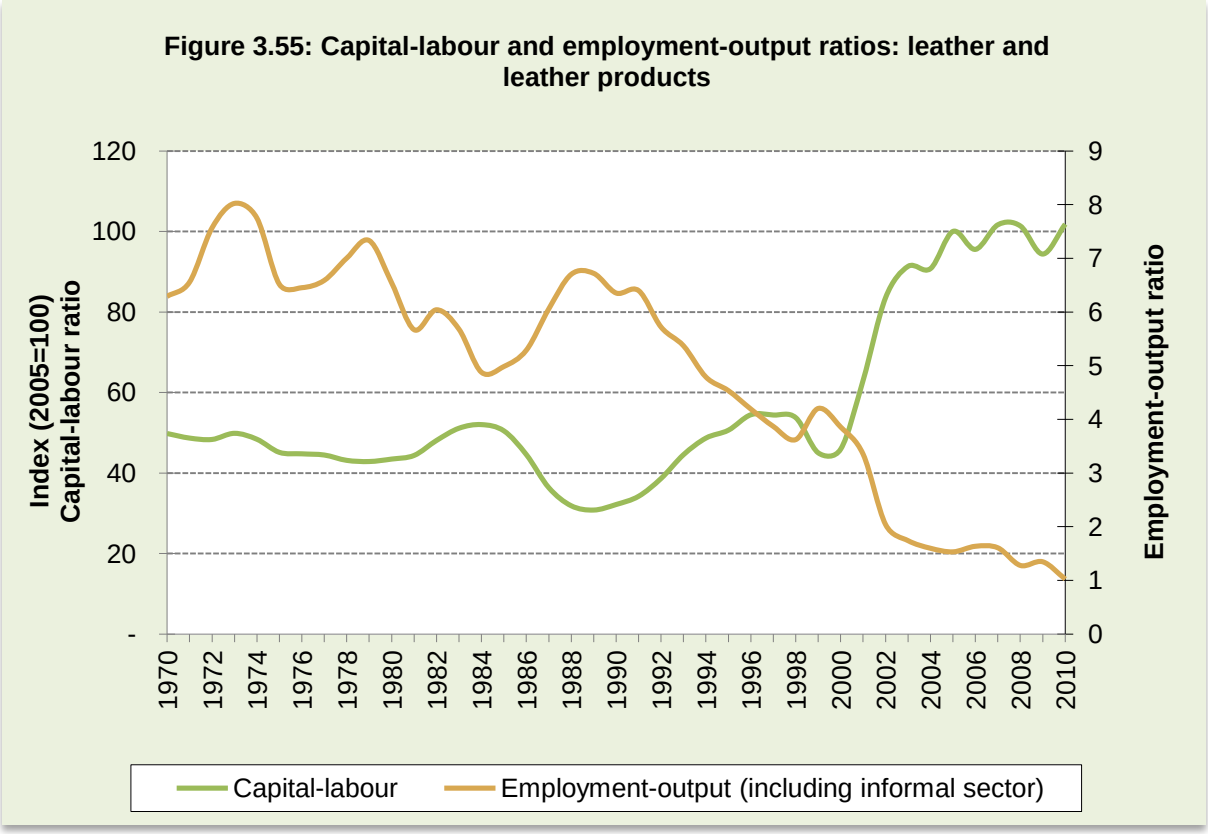
Table 3.48: Skill levels of employees in the leather and leather products division

	2010	2005	2000	1995	1990
High-level	193 (3.3%)	218 (3.2%)	477 (3.8%)	481 (4.8%)	348 (2.9%)
Mid-level	1107 (18.9%)	1161 (17.2%)	1651 (13.2%)	1288 (13.0%)	1535 (12.9%)
Semi- and unskilled	4138 (70.6%)	4939 (73.2%)	8284 (66.2%)	7378 (74.2%)	9688 (81.7%)
Informal	421 (7.2%)	433 (6.4%)	2111 (16.9%)	791 (8.0%)	283 (2.4%)
Total	5859	6751	12523	9938	11854

Source: Quantec EasyData (2011)

While capital intensity remained largely unchanged until 2000, it increased abruptly in 2004 and it has remained relatively constant since then. Employment intensity, however, has been declining since 1988 (see Figure 3:55).

Figure 3.55: Capital-labour and employment-output ratios: leather and leather products



Source: Quantec EasyData (2011)

The concentration ratios of the leather division shows that it is among the least concentrated sectors in the agro-processing industry, with the largest 5, 10 and 20 enterprises contributing 14%, 24% and 34% of the total income, respectively (Statistics SA, 2008)

3.13 REGIONAL DISTRIBUTION OF THE AGRO-PROCESSING INDUSTRY

The regional distribution of the food, beverages and tobacco divisions shows that the Western Cape, KwaZulu-Natal and Gauteng are the predominant regions, contributing 22%, 21.7% and 25.7% of the total output, respectively, in 2010 (see Table 3.49).

Table 3.49: Regional output of the food, beverages and tobacco divisions (at basic prices)

YEAR	2010	2005	2000	1995
Western cape	42501 22.0%	40554 22.5%	31802 22.6%	29262 22.8%
Eastern Cape	19538 10.1%	15120 8.4%	11055 7.9%	10068 7.8%
Northern Cape	1306 0.7%	1198 0.7%	970 0.7%	977 0.8%
Free State	9701 5.0%	8695 4.8%	6748 4.8%	5788 4.5%
KwaZulu-Natal	42019 21.7%	39532 21.9%	30469 21.7%	28028 21.8%
North West	6649 3.4%	6141 3.4%	4839 3.4%	4222 3.3%
Gauteng	49748 25.7%	50239 27.9%	41003 29.2%	37399 29.1%
Mpumalanga	15803 8.2%	13316 7.4%	9420 6.7%	8837 6.9%
Limpopo	5942 3.1%	5318 3.0%	4232 3.0%	3867 3.0%
Total	193207	180112	140537	128448

Source: Quantec EasyData (2011)

The regional output of the textiles, clothing and leather divisions also indicates that KwaZulu-Natal, the Western Cape and Gauteng accounted for 36%, 22.2% and 20.7% of the total output, respectively, in 2010. Table 3.50 also shows that there has been little change in the regional share since 1995.

Table 3.50: Regional output of the textiles, clothing and leather divisions (at basic prices)

YEAR	2010	2005	2000	1995
Western Cape	9543 22.2%	9121 22.1%	8680 21.7%	8441 22.9%
Eastern Cape	4278 9.9%	4150 10.1%	4267 10.7%	3955 10.7%
Northern Cape	109 0.3%	99 0.2%	99 0.2%	108 0.3%
Free State	2044 4.8%	1881 4.6%	1955 4.9%	1715 4.6%
KwaZulu-Natal	15499 36.0%	15539 37.7%	15373 38.5%	13843 37.5%
North West	848 2.0%	741 1.8%	679 1.7%	626 1.7%
Gauteng	8900 20.7%	8229 19.9%	7505 18.8%	6869 18.6%
Mpumalanga	1357 3.2%	1169 2.8%	1063 2.7%	1045 2.8%
Limpopo	416 1.0%	329 0.8%	299 0.7%	299 0.8%
TOTAL	42994	41258	39920	36901

Source: Quantec EasyData (2011)

The wood, paper, publishing and printing divisions is also largely dominated by Gauteng, KwaZulu-Natal and the Western Cape, where each contributed 35.3%, 29.6% and 15.6% of the total output, respectively, in 2010 (see Table 3.51)

Table 3.51: Regional output of the wood, paper, publishing and printing divisions (at basic prices)

YEAR	2010	2005	2000	1995
Western Cape	15336 15.6%	13516 15.8%	12019 16.2%	10324 17.1%
Eastern Cape	5571 5.7%	4286 5.0%	3643 4.9%	2976 4.9%
Northern Cape	151 0.2%	123 0.1%	108 0.1%	100 0.2%
Free State	1774 1.8%	1468 1.7%	1263 1.7%	983 1.6%
KwaZulu-Natal	29080 29.6%	25655 29.9%	21985 29.6%	17278 28.6%
North West	1337 1.4%	1114 1.3%	932 1.3%	781 1.3%
Gauteng	34620 35.3%	30970 36.1%	27148 36.6%	22764 37.7%
Mpumalanga	9249 9.4%	7788 9.1%	6246 8.4%	4511 7.5%
Limpopo	1035 1.1%	890 1.0%	811 1.1%	665 1.1%
TOTAL	98153	85810	74156	60383

Source: Quantec EasyData (2011)

CHAPTER FOUR

CHALLENGES AND OPPORTUNITIES FOR THE AGRO-PROCESSING INDUSTRY IN SOUTH AFRICA

4.1 INTRODUCTION

The potential role SMEs in the agro-processing industry could play in the South African economy has not been fully realised owing to numerous challenges facing these enterprises. Several studies have been conducted to identify the main constraints hindering the growth of these industries. This chapter summarizes the main findings and presents a qualitative analysis of recent studies conducted to outline the challenges and opportunities facing selected sectors of the agro-processing industry in South Africa.

4.2 CHALLENGES OF SMEs IN THE AGRO-PROCESSING INDUSTRY IN SOUTH AFRICA

4.2.1 FOOD PROCESSING AND BEVERAGES

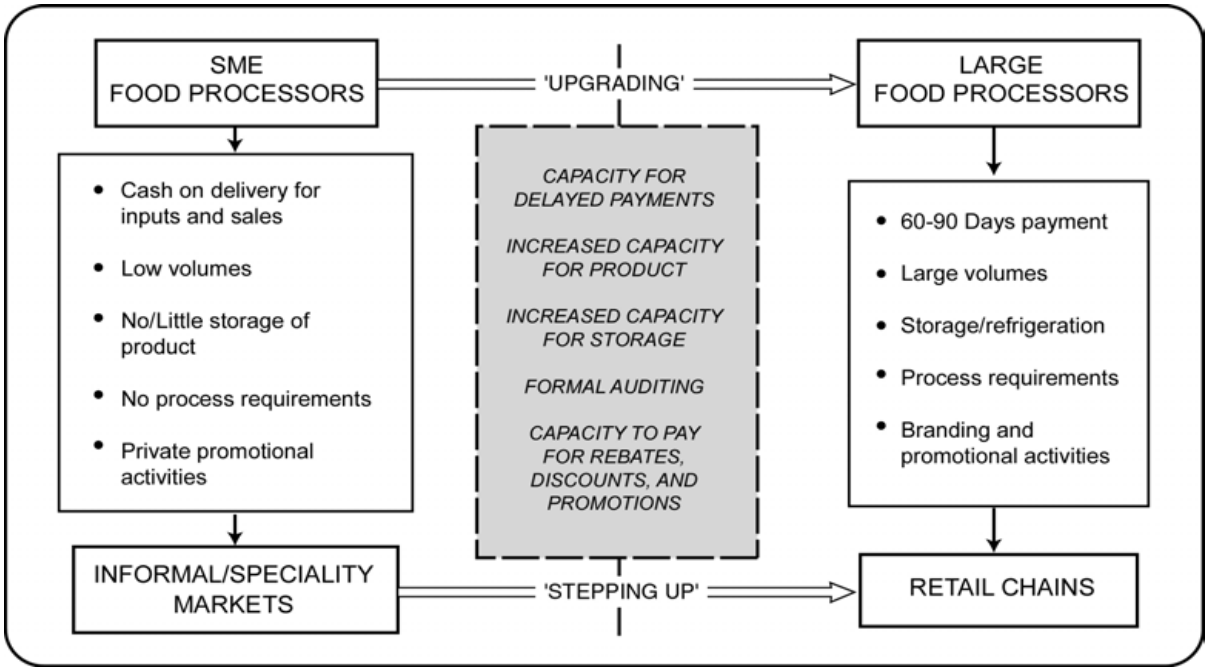
Several studies have identified the following five main challenges currently facing SMEs in the food processing and beverages division in South Africa.

Raw material supply: One of the success factors that determine the viability of SMEs in the agro-processing industry is the availability of raw material supply throughout the year. A study undertaken by Mather (2005) shows that the lack of raw material supply that meets their production capacity and the frequent changes in the volume of supply (coupled with the poor quality of raw materials owing to the peculiar challenge facing the input providers) are some of the most overarching obstacles hindering the growth of SMEs as food processors. In addition to the supply of raw materials, the volatility and high cost of inputs such as animal feeds also challenge the viability of the industry. CTA (2000) also showed that the lack of storage capacity by SME processors put them in a disadvantageous position relative to big processors who can mitigate the effect of erratic supply by storing during the harvest season.

Stringent regulations and standards: The compulsion to comply with stringent regulations and standards, in addition to the apparent need for a consistent and large volume of supply of

outputs by the processor industry, puts SME processors in unfavourable positions to access the retail market. Consequently, SMEs tend to supply to the informal market and thus are unable to expand their operations. Findings by Mather (2005) indicate that the standard requirements imposed by the retail sector are so onerous that a huge 'step-up' investment is needed to qualify to be a listed company for the retailers. Therefore, upgrading from local to retailer supplies doesn't follow an incremental growth path by SMEs. Rather, huge investments and business strategy, both of which are in short supply in the SME industry, are required. Besides, 'buying practices' unique to each retailer such as delayed payments, discounts and rebates are some of the challenges most SME producers meet by growing to access the retail markets.

Figure 4:1: SME food processors market and the upgrading needed to access retail chains



Source: Mather (2005)

Access to finance*:* The survey done by CTA (2000) on the small-scale food processing sector in South Africa also reveals that more than 80% of SMEs cited limited access to finance as the biggest bottleneck for business operation and expansion. The main reason that precludes them from accessing finance is high collateral required by financial institutions owing to the high-risk profile attached to them and the inability to provide a track record of financial statements.

Limited and inaccessible incentives: Though several incentives are available for promoting SMEs, they are not tailor made for the specific needs of SMEs in the food processing and beverages divisions. Some requirements such as tax clearance certificates and audited financial statements for at least two years make it cumbersome for SMEs, especially in the establishing phase. The fact that some of these incentives are only available once the outlay has been made, puts the incentive out of reach of SMEs who are struggling to secure the funds needed to start the business.

Managerial and technical skills: Lack of necessary skills (technical and managerial) is noted among the top challenges facing SMEs in the food processing industry by almost all studies conducted. In addition, CTA (2000) concluded that SMEs characterised by a personalized management structure, making decisions singlehandedly in almost all aspects of the operation, are often limited by short-sightedness as they are largely dictated to by their perceptions of the current views.

Infrastructure and appropriate technology: Apart from the above-mentioned obstacles facing SMEs, most studies have shown that they experience a lack of necessary infrastructure and appropriate technology to operate efficiently. In addition, higher electricity costs, crime rates and stock thefts are cited as additional challenges. CTA (2000) also noted that almost all SMEs in the food processing industry surveyed lack market information in terms of sales, production process and price information.

4.2.2 TEXTILES, CLOTHING, FOOTWEAR AND LEATHER

SEDA (2008) conducted a survey to identify the challenges and constraints facing SMEs in the textiles, clothing and footwear divisions. The following were noted as the major challenges:

Investment and technology: Although all enterprises identified investment and technology as important elements for competitiveness, most of them utilize old technology and machines, which are often more than ten years old.

Education and skills: The sector is experiencing low skill levels, which could pose a threat for innovation and competiveness; moreover, spending on training is very insignificant or even absent in some enterprises.

Access to finance: Though most of the enterprises had attempted to acquire finance for needs such as machinery and working capital, their applications were mostly unsuccessful owing to the lack of collateral.

Government support incentive and policies: The survey also revealed that the majority of SMEs were not aware of or had limited experience of accessing various government support incentives. Furthermore, the survey indicated that tariffs, followed by infrastructure and access to finance, had been identified as the main policy they considered important for the sector. Most of the enterprises also wanted to grow, although few indicated they had reached the maximum owing to a lack of finance, among other things. The survey also showed that the African export market was regarded as the main opportunity for the sector.

4.2.3 FORESTRY, PAPER, PULP AND FURNITURE

Mathiane and Ngubane (2010) summarized the four core challenges facing small and medium forestry enterprises (SMFEs)[5] in South Africa. These include the following:

Extension and advisory support: In general, there has been no dedicated extension support in the forestry sector, apart from a few initiatives in the timber growing sector. However, considering the importance of other subsectors such as pulp and paper, sawmilling and charcoal and the need to extend support for land reform beneficiaries in these subsectors, a dedicated extension support remains vital.

Capacity building and skills development: There is a general dearth of technical and entrepreneurial skills for emerging SMFEs in the country. Most of the initiatives to address the skill and capacity issues have been *ad hoc* in nature and not well coordinated.

[5] Kozak (2007) characterises SMFEs as those who employ a relatively small number of people and who engage in forest-based activities as their primary sources of income, but these activities are virtually limitless, ranging from the provision of ecosystem services and the production of timber and non-timber forest products (NTFPs) to the processing of a wide variety of commodity and value-added wood products.

Financial services: A lack of finance for SMFEs is the main obstacle impeding the subsector. This is mainly due to a lack of collateral, knowledge and capacity to provide bankable business plans and a lack of incentive structures and one-off grants that increase the viability of these enterprises to access finance. Many initiatives by the IDC, the Department of Water Affairs and Forestry and the SMFE strategy are, however, currently underway to tackle the issue.

Policy and legislative environment: The forestry sector is affected by various pieces of legislation and policies owing to the existence of multiple users. Although these policies are aimed at facilitating the business environment, studies show that legal, financial and corruption issues are perceived to be obstacles to SMFEs compared to large enterprises. In addition, various reforms to address the issue often lack SMFE perspectives.

The authors also mentioned that the projected afforestation of around 100 000 hectares that would be largely on community owned land, the transfer of State forest resources to communities, land reform and Broad Based Black Economic Empowerment in the forestry sector presented an opportunity to transform and grow the sector with the wide participation of SMFEs and communities.

4.3 SWOT ANALYSIS OF SELECTED AGRO-PROCESSING SUBSECTORS

This section provides a summary of a SWOT (Strength, Weakness, Opportunities and Threats) analysis by subsector of selected agro-processing divisions from a study conducted by the dti (2011), IDC (2011), IPAP (2011) and Louw, *et. al.*, (2010a; 2010b). Identifying the challenges and opportunities facing each industry assists in making informed decisions in promoting SMEs and the agro-processing industry. Generally, strengths and weaknesses are related to the internal environment of the business, whereby the sector could address the weaknesses to change them into strengths. However, the sector has little control over opportunities and threats, which are in the external environment. Therefore, they should be taken into account when planning (Louw, *et. al.*, 2010a).

4.3.1 FOOD PROCESSING AND BEVERAGES

The following is a SWOT analysis for meat, poultry and fish value chains by the dti (2011).

Table 4.1: SWOT analysis for meat, poultry and fish value chains

Strengths	Weaknesses
• Small niche markets: ostrich, game for export • Poultry market growth trend owing to consumer price sensitivity in lower LSM categories	• Majority of fish raw materials imported (India's aquaculture industry supplies prawns, shellfish, etc) • Import pressures: beef from Argentina/chicken from Brazil – dumping and marginal costing. Pork also under pressure • In-house retailers at butcheries limit pre-packed meat entry into retailers • Veterinary protocol/bans for market access
Opportunities	**Threats**
• Cheaper imports: inputs into local value addition • Greater value addition to raw material inputs: e.g. higher protein levels; omega 3 fatty acid-enriched • Six regulatory bodies: opportunity for integration and coordination of policing and regulating activities – improving role clarification • Promotion and education of consumers on pork as a healthy meat and a clean industry	• Long-term fishing licenses; equitable supply conditions • Lack of market regulations • Veterinary protocols lapsed between EU, ME-disease outbreaks (food and mouth, H1N1, Bird flu) • Growth in imports has inhibited local investment (pork and poultry)

Source: the dti (2011)

IDC (2011) has also identified the following factor as a growth opportunity for the production, processing and preserving of **meat and meat products:**

- Steady and growing demand: Population growth and the demographic movement towards higher LSM (larger middle class) require a larger demand for protein, especially healthy options such as poultry.

Among the constraints to growth for the industry are:

- The sector does not have adequate volumes of livestock. The quality of local livestock is weak, especially in beef.
- Animal disease and biosecurity issues
- Commodity (feed) costs fluctuating

For processing and preserving **fish and fish products**, the following points are noted as growth opportunities:

- Demand for protein on the increase as middle class grows
- Healthy food consumption
- Mariculture potential

The constraints facing the industry are:

- The fishing industry's supply of fresh fish continues to be constrained by the decline in fishing resources, the national Total Allowable Catch (TAC), which is the regulation limiting catch, and the rights allocation process.
- South African fisheries are considered to be fully utilised and high-value fisheries products such as wild abalone, prawns and line fish are largely over-exploited.
- Very stringent environmental requirements for aquaculture
- Cheaper imports – especially when the rand is strong
- Limitations of SA species for commercial aquaculture
- SA site-specific constraints
- Suitable marine and fresh-water resources
- Electricity costs for optimal food conversion ratios
- Commercially unproven technology for SA conditions
- Security in supply of juveniles

Table 4.2 provides a SWOT analysis for the milk and dairy value chain (the dti, 2011).

Table 4.2: SWOT analysis for milk and dairy value chains

Strengths	Weaknesses
• Milk availability – Consolidation of supply • World's third most efficient milk producer • Phytosanitary standards are high and well entrenched	• Seasonality of supply and resultant price volatility • Competitive pressures from lower-cost production locations (Brazil), e.g. UHT and other long-life products
Opportunities	**Threats**
• Development of raw milk collection facilities in rural areas: SMEs and enterprise development • African market opportunity: ingredient (skim milk powders, demineralised whey, etc) and long-life products • Packaging innovation for increased shelf-life; flavour innovation	• Lack of regulation results in unlevel playing field: compliant producers versus non-compliant, paired with lack of consumer knowledge • Lack of veterinary regulation in SA market affects export opportunities in terms of complying with various countries' health and safety standards • Decreasing per capita discretionary spend

Source: the dti (2011)

The growth opportunities for the manufacture of **dairy products** as outlined by IDC (2011) comprise the following:

- Demographic trends indicate increased demand over time
- Higher-value products for alternative uses (body building market)
- Shortage of milk in the rest of the continent

Similarly, the constraints to growth in the subsectors are:

- Large dominant players
- Cheap imports
- Highly specialised farming and safety requirements for processing
- The huge distribution requirements
- Volatile price of raw milk
- Inflationary pressure on raw materials, packaging and transport

For **fruit and vegetable** processing, the SWOT analysis is given in Table 4.3 (the dti, 2011).

Table 4.3: SWOT analysis for fruit and vegetable processing value chains

Strengths	Weaknesses
• High quality raw material inputs • Export strength of fresh produce, particularly counter-seasonal supply to Northern Hemisphere markets • Establish niche markets • 2nd largest citrus exporter globally (although competition from Turkey, USA)	• Canning: expensive raw material inputs makes industry less competitive; concentrated supply base • Strength of international private label brands has fuelled increased imports, e.g. jams • 20% of canned food is imported (tinned tomatoes; canned vegetable is especially uncompetitive owing to small scale of production; cost of packaging)
Opportunities	**Threats**
• Innovation: new varieties, packaging innovations from glass and metal to plastic • Counter-seasonal trade in fresh produce: Northern Hemisphere markets	• Canners lack the will to invest in expanded production owing to low profit margins/high input costs • Increased importing: raw materials and finished goods

Source: the dti (2011)

Some of the growth opportunities outlined for the processing and preserving of **fruit and vegetables** are (IDC, 2011):

- The move to healthier eating patterns facilitates growth in demand.
- Growth in the food service industry backed by convenience food trends (preparation of cut fruit and vegetables).
- Supply to global supply chains (leaders)
- Southern hemisphere counter-seasonal production opportunities

The constraints to growth for the industry include:

- Fresh produce are quite often of higher value and more preferred than processed fruit and vegetables.
- Strong rand has led to influx of canned vegetables.
- High prices of packaging materials – tin plate for canning
- Focus of traditional markets in Europe
- Because the industry is seasonal, there is a long established ratio between the supply of fruit and vegetables from the growers on the one hand, and the capacity of the canning

industry to process and preserve the produce on the other hand. A prospective entrant into the market would find this a challenging exercise.

Among the growth opportunities for the manufacture of **vegetable and animal oils** and fats are the following (IDC, 2011)

- Import replacement in soya oil/cake as well as olive oil.
- Healthier oil options driving high-end demand – canola, olive.
- In South Africa there is a shortfall of feedstock for the existing oil refineries and opportunities exist for the entry of new players.

The following issues are also outlined as constraints to growth for the industry:

- Olive oil is highly branded with strong European preference from consumers
- Huge agricultural investment required to ensure adequate feedstock
- SA agricultural conditions not conducive to various crops such as palm, but potential for expanded soya and sunflower.
- Competition for biodiesel production (low-value product)
- Outdated technology of existing soya producers
- Chinese dominance of soya demand (control market owing to high stockpiles)
- Transport infrastructure

Table 4.4 presents the SWOT analysis for grains and related products value chains (the dti, 2011).

Table 4.4: SWOT analysis for grains and related products value chains

Strengths	Weaknesses
• South African supply of maize • South African and African consumer preference for maize-based products; developed brand loyalty • Market-based breakfast cereals: Africa export opportunity (critical mass; cost-effective inputs)	• Price sensitivity of consumers and substitutable nature of grains limit opportunities for value addition in SA • Dramatic swing to consumption of more basic foodstuffs, e.g. less bread and more maize meal, in SA • Import pressure in higher value-added products (e.g. pasta)
Opportunities	**Threats**
• Savoury addition: (stocks, soups, etc) as a meal enhancement to basic starch products: African opportunity for export • FDI attraction: multinationals investing in production owing to African opportunity in grain-based products	• Increasing reliance on imports (particularly wheat): implications for price stability

Source: the dti (2011)

The growth opportunities noted for the manufacture of **grain mill products** include the following (IDC, 2011):

- Value addition to South Africa's surplus maize
- There are areas in especially the former homeland areas in the Eastern Cape with grain growing potential. It is also in these areas that most of the milled products are imported from neighbouring provinces.
- Improvement of baking mixes, shelf-life and enzymes as opposed to milling flour.
- Expansion plans by the large players such as Tiger and Pioneer on the cards.

Among the constraints to growth for the manufacture of grain mill products are the following:

- Maize is a low-value product with limited alternative product development.
- Maize milling is less capital and skill (specialised) intensive than wheat milling.
- SA climatic conditions not optimal for rice cultivation.

- Maize is a low-margin industry, with bread at a higher level (economies of scale important).
- An important barrier to entering this industry is that millers require onward customers in the value chain for milled wheat. 42% of flour and meal sales are to the plant's/mill's own bakery, which makes it difficult for small millers to enter the market.
- Deteriorating transport infrastructure - A problem emphasised by the NCM was with the national carrier and service provider of rail transport. It was noted that in the 1980s, rail accounted for approximately 85% of transportation, but today it accounts for less than 30%.
- The main barrier to entering this industry is capital to purchase expensive milling equipment. Maize milling requires a smaller start-up capital while wheat milling is more expensive.
- Limitation on exports to African countries - Exports to African countries are limited as a result of subsidised foods, from developed countries, reaching the continent.
- Another major barrier is that the large milling companies are vertically integrated in terms of having their own bakeries (dependent bakeries) to whom they supply flour. If small millers want to enter the market they need to compete with the large millers for market share for the remaining independent bakeries.
- Customers also tend to be brand loyal.

Louw, *et al.,* (2010a, 2010b) have also presented a SWOT analysis for **maize and wheat millers** in rural areas (see Table 4.5 and 4.6). The issues mentioned under each subheading are ranked according to importance as perceived by the millers.

Table 4.5: SWOT analysis for maize millers (in order of priority)

Strength	Weakness
• High-quality product offerings • An established client base and brand • Market related and competitive prices • Good and consistent service offerings • Good business, stock and overall mgt • Well situated and good business location • On time and consistent deliveries of final product • High profit margins ensuring high net profits • A well-directed marketing campaign • Well educated and experienced staff	• A lack of properly maintained infrastructure • The cash flow situation • A lack of a well-established brand name • A lack of a well-directed marketing campaign • A lack of a well-maintained and directed transport system • The experience and knowledge of labourers • Limited product differentiation • Doing business in a volatile market • Being exposed to volatile prices • A lack of capital and finance for expansion purposes
Opportunities	**Threats**
• To expand the maize milling business • Enter smaller markets • The incorporation of new technology • To fully integrate the maize milling business • To enter the market of wheat milling	• The ever increasing trend in input costs • The changing consumer trends and preferences • Theft taking place at the maize milling businesses • The quality and quantity of water • Micro millers entering the market • Large-scale millers entering the market • Maize quality • Maize prices • Employing reliable and skilled labour • Government regulations

Source: Louw, *et al.*, (2010a)

Table 4.6: SWOT analysis for wheat millers (in order of priority)

Strength	Weakness
• High-quality product offerings • High-quality level of service offering • Good management team and expertise • The location of the business • Keeping the overheads as low as possible • High level of integration • High profit making industry • Low barriers to entry • A healthy level of competition within the industry • A market-related product price	• Motivated, loyal labour force • Obtaining the necessary capital requirements • Developing an effective marketing campaign • Handling bad debts • Acting against theft • Procurement and logistics management • Having high overhead costs • Increasing milling and baking capacity • Limited product differentiation • Cash flow positions
Opportunities	**Threats**
• Vertical integration of the various businesses • Wheat milling in rural areas • Expansion into retail market • Opportunity in milling other grain types (diversification) • Increase in milling capacity	• Ever increasing input costs (Electricity prices and fuel prices) • An unhealthy level of competition within the industry • High levels of imported flour • Hiring motivated and loyal labourers • Theft taking place at premises

Source: Louw, *et al.,* (2010b)

The growth opportunities for the manufacture of **starches and starch products** include the following (IDC, 2011):

- Expanding cassava production in neighbouring countries
- SA can export starch into the US duty free, whilst Thailand is not able to do so.

The constraints facing the subsector are:

- Experience in cassava growing in SA has shown unattractive yields (tropical crop) with large disease (meal bug) problems.
- Potatoes are used for high-value human consumption in SA – this starch production from potatoes less attractive.

For the manufacture of prepared **animal feeds**, the following are noted as growth opportunities in the industry (IDC, 2011):

- Protein demand will continue increasing owing to demographic shifts – derived animal-feed demand (on the back of increased intensive animal production) will increase over time
- Backward integration of intensive meat producers
- Move towards more responsible pet feeding
- Opportunities in the rest of the continent

The constraints to growth include:

- Low margins
- A large capital outlay is required as the cost of erecting a feed mill is very high.
- The cost of raw materials used in the manufacture of the feeds is also high (and volatile) and these raw materials are not always readily available.

The growth opportunities for the manufacture of **bakery products** include (IDC, 2011):

- Bakery products in areas where there is a logistical advantage to localise production
- Long shelf life products for exports into the rest of Africa
- Expansion plans by the large players such as Tiger and Pioneer on the cards

The constraints to growth include:

- Dependence on wheat imports and its fluctuating price
- Economies of scale
- The price of milled products
- Reduced wheat production in SA

Table 4.7 presents the SWOT analysis for confectionery value chains (the dti, 2011).

Table 4.7: SWOT analysis for confectionery value chains

Strengths	Weaknesses
• Strength of South African brands – hinders import penetration • Fine foods initiative: niche product market strength for products distinguished by credence-type values	• Minimal innovations in packaging to suit lower LSM category markets • Limited local production of flavourants – limits opportunities for flavours innovation • Import pressures on high-end goods, timed goods, pasta
Opportunities	**Threats**
• African opportunity: knowledge competency with regard to taste preference of the African palate – sweet and savoury flavour advantage • SMEs market entry: low barriers to entry for cottage industry • Regional integration with Association of African Food Exporters: two-way beneficial alliance for trade • Range of fine food niche opportunities, including spices and brands	• Honey supply: impacts of climate change; urbanization threatening local supply of honey

Source: the dti (2011)

The growth opportunities of **sugar, including golden syrup and castor sugar,** include the following (IDC, 2011)

- Sugar cane is considered carbon neutral.
- Expansion into renewable energy (co-generation and bio-ethanol).
- Emerging famer production of sugar cane.
- Operations in the rest of the continent.

The constraints to growth for the industry are the following:

- Uncompetitive growing conditions in SA, if compared to the rest of Africa (susceptible to weather conditions owing to dry-land production), limited local expansion areas.
- No preferential agreements relating to export to the EU, as for the rest of the continent.
- Small-scale farmers lack economies of scale.
- Volatile currency and commodity markets.
- Cannot compete with subsidy-induced overproduction in certain countries.
- Inadequate land and water available in SA.

- Lengthy land claims that create uncertainty regarding capital expansion projects.
- Continued subsidised production in overseas countries.

For the manufacture of **cocoa, chocolate and sugar confectionery**, these are outlined as the main growth opportunities (IDC, 2011)

- Local production of global brands.
- Focus on lower LSM markets, despite import competition.
- SA brands into the rest of the continent.

Similarly, the constraints to growth include:

- High barriers to entry for new entrants – brand loyalty.
- Move towards healthier alternatives.

The growth opportunities for the manufacture of **macaroni, noodles, couscous and similar farinaceous products** are the following:

- Healthier pasta.
- Opportunities for wheat-free pasta.
- The industry is relatively mature and we do not see many opportunities
- Growing popularity of fresh pasta.
- Growing demand for fresh and dry pasta in the ready-made meals market.
- Local durum wheat production might be expanded, which could encourage increased pasta production.
- Currently limited to middle and upper income sectors so there is growth potential in the lower end of the market.
- Expansion of the black middle class and change in eating habits towards processed foods like pasta.
- Expansion opportunities into the rest of Africa.

The following are identified as the main constraints to growth for the industry:

- Africa is not traditionally a pasta eating continent.
- Price and availability of wheat and milled products.

- The industry is highly capital intensive and machinery has to be imported and servicing and spare parts come at a premium.
- Fluctuations in the global wheat price.
- Continued WTO regulations, meaning subsidised wheat production and pasta manufacture from North America and Europe.

For the manufacture of **other food products** (not elsewhere classified), the following are the growth opportunities:

- Local malt production
- Rooibos and honey bush expansion and value addition.

The constraint to growth is:

- SA conditions are uncompetitive in coffee and black tea production.

For **distilling, rectifying and blending of spirits; ethyl alcohol production** from fermented materials, and manufacture of **wine,** the following are identified as growth opportunities (IDC, 2011):

- There are limited areas of potential vineyard development.
- Consolidation of production facilities to improve profitability.

The constraints to growth are:

- High land values in the Western Cape reduce the potential of return on investment.
- Limited land availability.
- Wine farms are often a lifestyle business for the rich.

For the manufacture of **beer and other malt liquors and malt,** the following are identified as growth opportunities:

- Introduction of new and established brands in SA
- Production facilities in neighbouring countries

The constraint to growth for the industry is:

- Dominance of strong brewers

For the manufacture of soft **drinks and production of mineral waters**, the growth opportunities are (IDC, 2011):

- Lower LSM focus.
- Energy and health (and low calorie) drinks.
- Licensing of low LSM brands into neighbouring countries.

Furthermore, the constraints to growth include:

- Dominance of global brands.
- High packaging and logistics costs.
- Not really a tradable product – not suitable for exports.

4.3.2 TEXTILES, CLOTHING, FOOTWEAR AND LEATHER

IPAP (2011) has identified recapturing domestic market share by improving competitiveness as key opportunities in the textiles, clothing, footwear and leather industry. The interventions needed for attaining competitiveness include:

- Clampdowns on under-invoicing and other illegal activities
- Support instruments
- Commercialization of new technologies such as the beneficiation of new fibres growing in South Africa.

The constraints facing the industry include:

- Currency strength and volatility
- The ongoing surge of global imports that has been underway since the expiry of the Multi-fibre Agreement
- Illegal imports and fraudulent under-invoicing
- Inadequate policing of ‘country of origin’ labelling legislation
- Lack of skilled personnel to take over from ageing industrial executives and senior management, who generally did not have succession plans

- A historical failure to develop and implement skills development plans, particularly for critical areas of operations and in production
- Outdated capital equipment and technology resulting from inadequate capital investment and technology upgrading
- An historical deficit with respect to innovation, research and development.

4.3.3 FORESTRY, PAPER, PULP AND FURNITURE

IPAP (2011) has also identified the following as the main opportunities in the forestry, paper, pulp and furniture industry:

- Utilising the best potential areas in the Eastern Cape (100 000 ha), Limpopo (6 000 ha), Mpumalanga (10 000 ha) and KwaZulu-Natal (39 000 ha), which are conservative estimates based on a recent study.
- Improving yields of existing plantations and converting existing wattle jungles into commercial plantations.
- Value-added opportunities in the communal land where most of the forests are.
- Expanding the small-scale sawmilling industry as they are located close to forests in rural areas.
- Recycling of wood waste.

The challenges facing the sector include:

Water licenses: The issuing of water licenses is an obstacle as it is often expensive for communities to conduct an environmental impact assessment. In addition, delays from government departments hinder the timely issuance of licenses.

Skills development and technology transfer: Appropriate technology and skills are in short supply for the new beneficiaries of land reform and communities.

Investment finance: There is a general reluctance to invest in the sector because of the long period needed for return on investment.

Land tenure: Land claims need to be resolved before new plantation of trees takes place, since most of the potential areas are owned by tribes and communities. In addition, there is a lack of proper consultation and mobilisation with the community in line with forestry development protocols.

Demand of raw material exceeds supply: Small players are especially affected in securing a supply of raw materials as big enterprises are vertically integrated and own their own plantations. Hence, downstream activities are closed, such as furniture and sawmilling.

The following challenges are also identified as limiting the growth of the furniture sector:

- Raw material supply, especially for small enterprises
- Influx of cheap imports and the challenge of getting retailers to buy locally produced products
- Competitiveness issues such as high-level skills required to move towards high-end segment with a focus on superior design coupled with niche products and niche markets
- Quality and standards to differentiate from cheap low-quality imports.

REFERENCES

CTA (2000). Small-scale Food Processing Sector in South Africa. Technical Centre for Agricultural and Rural Cooperation (CTA), Working Document Number 8014.

FAO, 1997. The State of Food and Agriculture. Rome: FAO. Available online at: www.fao.org. Accessed on October 2011.

Henson, S. and Cranfield, J. (2008). Building the Political case for Agro-industries and Agribusiness in Developing Countries. In CA da Silva, D Baker, AW Shepherd, C Jenane, and S Miranda-da-Cruz (eds). *Agro-industries for Development.* Rome.

Humphrey, J and Memedovic, O. (2006). Global Value Chains in the Agrifood Sector. United Nations Industrial Development Organization, Working Papers.

IDC(2011). Sector Analysis. Unpublished IDC (Industrial Development Corporation) documents.

IPAP (2011). Industrial Policy Action Plan: Economic Sectors and Employment Cluster. Department of Trade and Industry.

Kozak, R. (2007). Small and Medium Forest Enterprises: Instruments of Change in the Developing World, University of British Columbia, Vancouver, British Columbia

Louw, A., Geyser, M. and Schoeman, J (2010b). Determining the Factors that Limit Agro-Processing Development in the Wheat Milling and Baking Industries in Rural Areas in South Africa. NAMC Report.

Louw, A., Geyser, M., Troskie, G., Van der Merwe and Scheltema, N and Nicholson, R (2010a). Determining the Factors that Limit Agro-Processing Development in the Maize Milling Industry in Rural Areas in South Africa. NAMC Report.

Mather, C (2005). SMEs in South Africa's Food Processing Complex: Development Prospects, Constraints and Opportunities. TIPS Working Paper Series (WP3-2005).

Mathiane, T and Ngubane, S Z (2010). Small-Scale Forestry in a Changing World: Opportunities and Challenges and the Role of Extension and Technology Transfer, IUFRO Conference: Bled: June 06-12, 2010.

Quantec EasyData (2011). Accessed in November, 2011, www.quantec.co.za

SAGIS (2011): South African Grain Information Service. SAGIS Monthly Bulletin (SMB) Summary From Nov 1997 – March 2012. Accessed in March 2012, www.sagis.org.za

SEDA (2008). Survey on the Textiles, Clothing and Footwear Sector with a Focus on Small Enterprises. SEDA (Small Enterprise Development Agency), a Member of the dti group.

Statistics SA (2008): Manufacturing Industry: Financials. Statistics South Africa, Report No. 30-02-03.

the dti (2011). A review of South African and Global Trends in the Food-Processing Sector: Final Report by Benchmarking and Manufacturing Analysts SA (PTY) Ltd in Association with Impact Economix.

UNCSD (2008). The Importance of Agro-Industry for Socio-Economic Development and Poverty Reduction. UN Commission on Sustainable Development, 16th Session, New York.

Wilkinson, J and Rocha, R (2008). Agro-industry Trends, Patterns and Development Impacts. In Agro-industries for development, ed. Da Silva, C et.al.