

REPORT PREPARED FOR  
THE CONFEDERATION OF ZIMBABWE INDUSTRIES (CZI)

**THE ZIMBABWEAN  
MANUFACTURING SECTOR**  
**Current Status and Future Development Potentials**

PONTUS BRAUNERHJELM AND GUNNAR FORS

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**Current Status and Future Development Potentials**

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## EXECUTIVE SUMMARY

The purpose of this study is to evaluate the effects of the Economic Structural Adjustment Program (ESAP), initiated in Zimbabwe 1991, on the manufacturing sector. Based on recent data, in some cases covering parts of 1994, the performance with regard to production, employment and exports, are analyzed for the manufacturing sub-sectors, with emphasis on the post-ESAP period. Special attention is paid to areas where ESAP has to be complemented with additional measures, or refined, together with the identification of manufacturing sub-sectors with high future growth and export potential.

Economic policy in Zimbabwe has had a strong inward and import-substituting tradition. As far as the manufacturing sector is concerned, the strategy adopted in the ESAP to promote efficiency and international competitiveness is a gradual exposure of domestic producers to the international market. The main mechanism to achieve this end has been a replacement of quantitative restrictions with tariffs, a sequential lowering of tariffs, and a devaluation of the Zimbabwe dollar. This report urges for a continuation of this policy, however, modified in the ways summarized below.

*First, we recommend an explicit tax based export incentive designed such that a larger share of exports out of a firm's total production yields lower corporate taxes.* For example, for each 10 percent that the export share of firms exceeds the average export intensity in manufacturing - or at a more detailed industry level - which today is about 13 percent, corporate taxes could be lowered by five percent. For export shares exceeding 50 percent of production, a uniform corporate tax rate of 20 percent is recommended.

*Secondly, import tariffs on input materials should be lowered and reduced below the levels of finished products.*

*Thirdly, we propose that the duty drawback system is retained, although organized in a different way. The exemptions from duties should be based on a conservative estimate on earlier shares of firms' imports that have been used in their exports, which is then controlled annually in conjunction with the declaration of corporate incomes. Furthermore, the duty drawback should be extended to domestic suppliers of intermediate products that deliver to exporting firms.*

Fourthly, a *uniform import tariff rate on input materials and finished products* should be adopted over time. That implies a reduction and convergence of tariff rates where - if the correct tariff structure prevails - tariffs on finals have to be lowered more rapidly than for inputs.

In addition to those four core recommendations stated above, a number of other policy proposals with regard to the *infra-structure, human resource development, interest rates, technological upgrading, foreign direct investments and export zones*, are presented. It is also argued that policies aimed at "*picking the winners*" is *not advisable*, since the adjustment by firms themselves is crucial for the outcome.

An assessment of which sectors that have the highest potential to benefit from our recommendations is, however, presented. *The sub-sectors most likely to experience a positive net effect from our four core recommendations are Textiles, Clothing&Footwear, Chemicals and Metals&Metal products*. On the other hand Foodstuffs, Non-Metal Minerals, Transport Equipment, Beverages&Tobacco, and Paper, are sub-sectors considered less likely to infer positive feed-backs from the policy package.

Measures that promote exports are emphasized in our recommendations, which is in accordance with the strategy proposed in ESAP. The rationale for such policies is illustrated in the report by the strong positive connection found between exports - or trade - and growth for a large number of countries. This relation shows up on the aggregate as well as on the manufacturing level.

As the economy is opened up to international competition and prices become market determined, we would expect a reshuffling of factors between the manufacturing sub-sectors. A general observation is that the composition of gross output and employment between the sub-sectors display relatively modest shifts over time, whereas the composition of manufactured exports has changed considerably across sub-sectors. *The manufacturing sub-sectors that have developed favorably in terms of exports after the implementation of the ESAP are Clothing & Footwear, Textiles, Chemicals, and Wood&Furniture*, i.e., essentially those sectors we believe will be most positively influenced by our policy proposals. A marked decline in exports after ESAP can be observed for Transport Equipment, Non-Metal Minerals, and Metals&Metal Products.

## CHAPTER 1

### INTRODUCTION

The manufacturing sector of Zimbabwe has been sheltered by protectionistic barriers since the unilateral declaration of independence in the mid 1960s and up to the beginning of the 1990s. The industrial policy of import substitution implemented in that period was mainly a response to the international blockade facing the regime of Ian Smith 1965-1980. Such industrial policies were however also advocated by leading economists in those days as the appropriate strategy to build up a domestic manufacturing base. The infant industry argument, excessive exploitation of multinational corporations depriving developing countries of their resources, etc., suggested that the skills and know-how necessary to compete on international markets had to be developed behind temporary protectionistic barriers.

A conspicuous characteristic in Zimbabwe during this period were the extensive controls imposed on foreign exchange, distorting the market mechanism and leading to severe misallocation of resources. Access to foreign exchange guaranteed firms' returns independent of improved performance by the firms, thereby creating a highly protective operating environment in manufacturing. In the 1980s the continuation of import-substitution policies, paired with a bureaucracy of unprecedented levels, added to the difficulties in manufacturing firms.

In the latter parts of the 1980s, through private sector lobby group representations and backed by several studies of the World Bank and others, it became obvious to the government that the old import-substitution policies were not the appropriate mean to attain the objective of enhanced growth and welfare, or to promote increased efficiency within firms. In recognition of the success experienced by countries that had implemented export promotion policies (particularly in South East Asia), the government of Zimbabwe launched a new economic policy (the economic structural adjustment program, ESAP) in 1991. The overall strategy adopted in the ESAP to foster increased growth was a gradual opening up of the Zimbabwe economy to foreign competition during a five year period (1991-1995), where a key role in the adjustment process was assigned to increased exports. Already during most of the 1980s

a number of different export incentive schemes were used, however, the success of those schemes depended heavily on the foreign exchange premium. The extent to which these schemes contributed to sharpen firms' international competitiveness is doubtful.

After the initiation of the ESAP the economy of Zimbabwe has been exposed to external (the international recession), as well as internal (the drought affected the economy in 1992) shocks, putting additional strain to those normally following a period of structural adjustment. These shocks, blurring the effects of the ESAP, also led to a questioning of the overall strategy to reform the economy, since there were little evidence of success. Despite the skepticism signalled from some economists as well as the business sector, and the substantial negative impact on the Zimbabwe economy that exogenous shocks brought about, the government maintained their firm intention to carry through with the original time schedule of the ESAP program.

The purpose of this study is to analyze the effects of the ESAP so far, to pinpoint bottlenecks and inconsistencies within the program, to identify the manufacturing sub-sectors with highest future growth potential, and, finally, to propose areas of further policy reforms. Focus will be on the post ESAP performance with regard to production, employment and export performance in the 11 sub-sectors that comprise the manufacturing sector of Zimbabwe. In particular, which sub-sectors have so far gained and which have suffered from the ESAP? Can we detect divergences with regard to growth in production and exports between the different sub-sectors? Have production increased in sectors where we would suspect Zimbabwe to have its comparative advantages? Or are divergent paths more linked to selective policies? In what ways can the ESAP program be improved and is the time schedule realistic or should it be prolonged? Should policies be general or would it be advisable to embark on strategies of fostering national champions, i.e. picking the winners? Can Zimbabwe continue on its own structural adjustment policy without being regionally coordinated with its neighbors? These issues will be emphasized in the analysis below. In addition to highlighting the effects of ESAP, recommendations will be made concerning alteration of the program that we judge necessary in order to attain the objectives of increased efficiency, higher growth rates, increased international competitiveness and a higher social and economic welfare level.

The analysis is based on a rich data-set recently gathered from the Central Statistical Office of Zimbabwe (CSO), interviews and other, international and domestic,

sources. Data are available up to 1993 - in some cases even for parts of 1994 - for the different variables at the sub-sectoral level. The time series are too short to permit econometric analysis and the statistical analysis will be confined to detailed graphical presentations and correlations. These disaggregated data will be paired with comparisons of Zimbabwe with a large number of other countries with regard to growth in gross domestic product (GDP), exports and investments, as well as the structure of production and trade. The analysis derived from these data is complemented with over thirty in-depth interviews with industrialists, politicians and economists. This constitutes the platform for our evaluation of the ESAP program.

ESAP itself is not enough to secure sustainable growth. At most it outlines the necessary, although not sufficient, conditions to achieve improved, future economic performance. In addition, Zimbabwe has to address problems that refer to international - or regional - as well as indigenous issues. Among the former are the modest steps achieved so far toward regional integration for Zimbabwe and its most important neighbor countries. Internally a process of perpetuating human resource development must commence where new and flexible ways of organizing production will play a crucial role for future success. The fiscal and monetary restrictions that burden the economy of Zimbabwe are addressed in the ESAP, but so far there is little evidence of any improvements. A monetary policy allowing for lower interest rates, contemporaneously as inflation rates are reduced, must be accompanied by a tighter fiscal policy. Such macro-oriented issues will not be subjected to any analysis in this report, however, a sustainable improvement in manufacturing performance requires both internal and external constraints to be resolved.

This report is organized in the following way. Chapter 2 reviews the main characteristics of the Zimbabwe economy. Based on the composition of factors of production in Zimbabwe, the conceivable impact of ESAP on different sectors in the economy is discussed. It is also shown that the emphasis on exports in ESAP has an empirical rationale. The growth and structure of the Zimbabwe economy is then confronted with comparable data for a large number of other countries. Chapter 3 presents a detailed analysis of production, employment, and exports at the sub-sectoral level in manufacturing. Special attention is paid to divergences between the sub-sectors for the respective variable and the development over time. Chapter 4 analyzes how competitive markets are in Zimbabwe by looking at different concentration ratios and the

degree of foreign competition. In Chapter 5 statistical measures on the interlinkages between the different sub-sectors and the rest of the economy, as well as between the sub-sectors themselves, are presented. The policy proposals that the proceeding analysis has resulted in is presented in Chapter 6, while the closing chapter assesses how the implementation of the proposed changes are likely to affect the different sub-sectors.

## CHAPTER 2

### ZIMBABWE IN AN INTERNATIONAL COMPARISON

Before getting into the subsectoral analysis, we will briefly recapitulate the structure of the Zimbabwe economy, and its position in an international context.

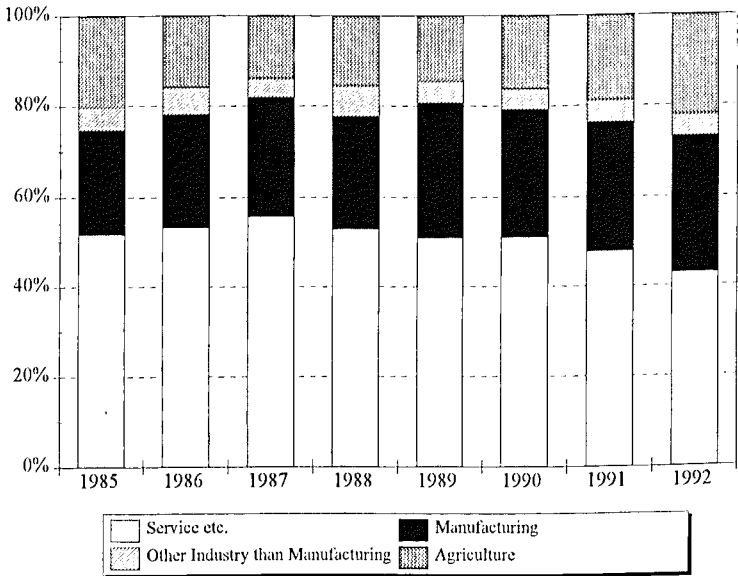
#### 2.1 Some main characteristics of the Zimbabwean economy

As early as the 1930s manufacturing accounted for 10 percent of GDP in Zimbabwe. This share has increased trendwise in the postwar era and reached 30 percent at the beginning of the 1990s (Figure 2.1). As evident from Figure 2.1, the service sector has decreased during the same period, which indicates weaknesses that may adversely affect the manufacturing sector. The 1980s, particularly the first half thereof, has also been a decade of poor performance in the manufacturing sector, with growth averaging a mere 2.8 percent per year.

Even though the relative size of the manufacturing sector of Zimbabwe is impressive, the base of the economy is still rural. About 70 percent of the population depends on the agricultural sector for subsistence and the sector contributes approximately 40 percent of overall exports. Moreover, 60 percent of manufacturing value-added is estimated to be related to the agricultural sector (World Bank 1993). The close links between different sectors of the economy, which will be further elaborated on in Chapter 5, illustrates a notable feature of the Zimbabwe economy. The third important sector in the economy is mining which - although it only employs about 5 percent of the labor force - accounts for 20-25 percent of export earnings.

Hence, Zimbabwe has a long tradition of manufacturing and has for the last 60 years been one of the most industrialized and diversified countries in Sub-Saharan Africa. In today's globalized economy, however, it is a country's strength in a world perspective rather than a regional, that determines its potential for future development. And in the case of Zimbabwe there is still a long way to go as compared with for instance the Newly Industrialized Countries (NICs).

**Figure 2.1 Distribution of GDP, Zimbabwe 1985-92**



Source: World Bank (1994b)

## 2.2 The determinants of countries' specialization

Before we turn to a comparison of Zimbabwe with other countries, a discussion of the factors that determine the production structure of countries, i.e. their comparative advantages, may be useful. Countries should specialize in production where they have a relative advantage as compared to other countries. Obviously, if all countries produced the same things it would lead to under-utilization of economies of scale, replication of R&D costs, etc. In the case of Zimbabwe, in which sectors can we expect the response to be most pronounced as the economy is liberalized? Does a liberalization imply that entire sub-sectors will be more or less be wiped out? Or will the changes only influence certain firms or parts of the subsectors?

The answer is that production will tend to increase in sectors where Zimbabwe has a comparative advantage. Yet, in a dynamic setting we can never be sure of exactly which firms that will come out stronger and which firms that will fail. By and large it



depends on the firms internal capacities which relates to their skill, entrepreneurial talents, flexibility and adaptability. All sub-sectors will contain both winners and losers. Nevertheless, as the Zimbabwean economy opens up to international competition, some sub-sectors will expand relative to others. The only way to find out which ones is to look at the foundation of Zimbabwe's comparative advantage; the composition and abundance of factors of production, the potentials for enhancing production skills, the institutional setting and, finally, the infra-structural sectors.

In an economy where prices have been distorted through a multitude of regulations, little guidance on comparative advantage can be found from historical exports. Likewise, comparisons of production costs with other countries is of limited use. Furthermore, the scarcity of foreign exchange led to an inefficient allocation of resources and difficulties in importing sophisticated machinery and other required inputs, which affected specialization in production and hampered exports.

### *Comparative advantage*

Comparative advantages can be regarded from two perspectives; static or dynamic. The former relates to the fixed endowment at a given point in time of factors of production, i.e. physical capital, labor, human capital or labor skill, and land together with other natural resources. Dynamic comparative advantage is associated with the upgrading of skill, innovative activities, entry of new firms, the emergence of technological systems or networks where actors support and complement each others' production and know-how. It relates to the Schumpeterian approach to economic growth and the process of "creative destruction", where the growth mechanism implies a continuous introduction of new products, processes and ways of organizing industrial production, at the expense of those already existing. Such innovations and novelties generate temporary monopoly profits until the know-how has been diffused to other firms. Consequently, the operations by firms contribute to national competitive advantages. But there is also a role for the government in providing the right institutional setting and the appropriate incentive structure.

An increasingly important aspect of comparative advantages is the quality of countries infrastructure. Swift communications, particularly with regard to information, constitute a crucial part of modern manufacturing production. It is an important

determinant when multinational corporations (MNCs) decide where to locate production and which part of production that should be located to different countries.<sup>1</sup>

In general, production of price-competing standard goods is favored by static comparative advantage while more sophisticated, differentiated, higher value-added production, requires dynamic comparative advantages to be present. If we apply the concept of comparative advantage to Zimbabwe, which sectors would be more likely to benefit from the adoption of free trade oriented policy? Zimbabwe is abundantly endowed with relatively well educated labor (Riddell 1990), paid competitive wages. On the other hand, labor laws have been quite restrictive, particularly as far as minimum wages and retrenchment rules are concerned.<sup>2</sup> A well-educated labor force does not necessarily imply that there is a good match between the demands of the manufacturing sector and the supply. Although parts of the machinery stock is updated, capital equipment is to a large extent obsolete due to the previous import barriers and, more recently, high interest rates. Zimbabwe is quite rich in minerals, and has a long tradition of producing high-quality agricultural products.

Looking at the factors that constitute the dynamic part of comparative advantage, it is apparent that production is still organized in old-fashioned ways, with hierarchical organization and low degrees of specialization. Internationally, obvious trends in organizing manufacturing production are the emphasis on "flat" hierarchies, the externalization and subcontracting of peripheral production, and the emergence of networks. Stiffer international competition have brought about these changes in order to promote specialization, flexibility and efficiency. Yet, a large part of Zimbabwe firms are still conglomerates and favor inhouse production of most steps of their products.

Finally, the infrastructure leaves a lot to be desired, particularly with regard to telecommunications. The access to telephone main lines is low, although somewhat higher as compared Zimbabwe's neighboring countries (Figure 2.2). More alarming is that the fault frequency is one of the highest in the world, much higher than in the surrounding countries. The roads are generally in a good shape in Zimbabwe and the road density per million of inhabitants among the highest in Sub-Saharan Africa,

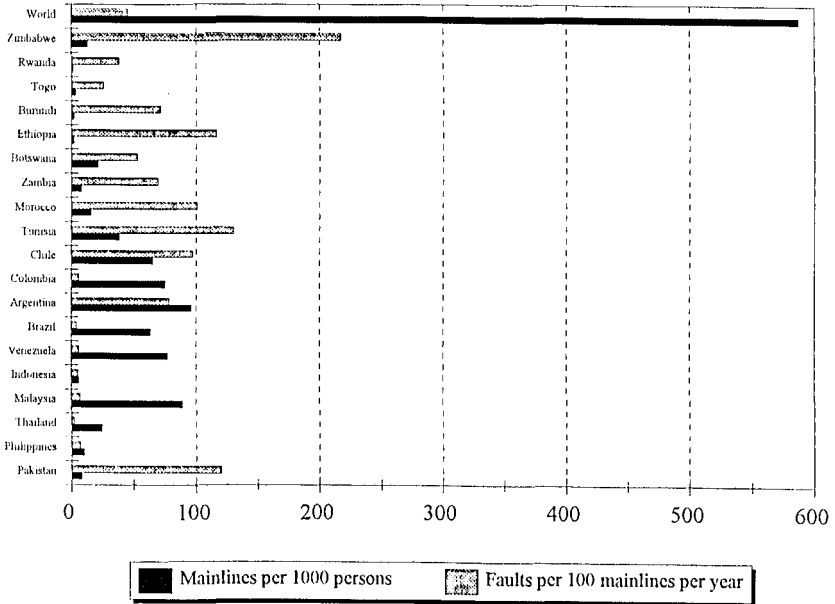
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<sup>1</sup>Note the importance of MNCs in this respect. Recent estimates indicates that 80 percent of the diffusion of industrial technological knowledge originates from MNCs (Dunning 1993).

<sup>2</sup>For example, until recently retrenchments of labor had to be approved by the Ministry of Labor.

although for instance Botswana has a higher density and a higher percentage of roads in good condition. For a land-locked country, smooth transportation are of vital importance for the economy.<sup>3</sup> Finally, the institutional setting, particularly rules of foreign ownership, has been improved considerably during the ESAP period. For instance, the ceiling for dividend remittance has increased from 25 to 50 percent for pre-1979 investors, while full remittance is allowed for later investors.

**Figure 2.2 Telephone mainlines, 1990**



Source World bank data (1994)

<sup>3</sup> In interviews with representatives of the sub-sectors, complaints were forwarded concerning the quality of roads, particularly in more remote areas.

This seems to suggest that Zimbabwe's comparative advantage in manufacturing production should be concentrated to two broad categories; semi-skilled goods, as simpler components and equipment, etc., and production using agro-inputs, for instance food processing, textiles, and clothing. More qualified products requiring highly skilled labor and production systems geared toward flexibility and rapid learning, stand less chances - at least in the short to medium term - of becoming internationally competitive. In Chapter 3 a more detailed picture of the post ESAP performance at the sub-sectoral level is given.

### **2.3 The manufacturing sector in Zimbabwe in an international comparison; Growth and structure**

In this section we will show how GDP, manufacturing production, investments and exports have developed in Zimbabwe as compared to a number of other countries and regions. These variables are interrelated and capture the evolution in different countries. In addition the structure of production and trade in these countries is analyzed.

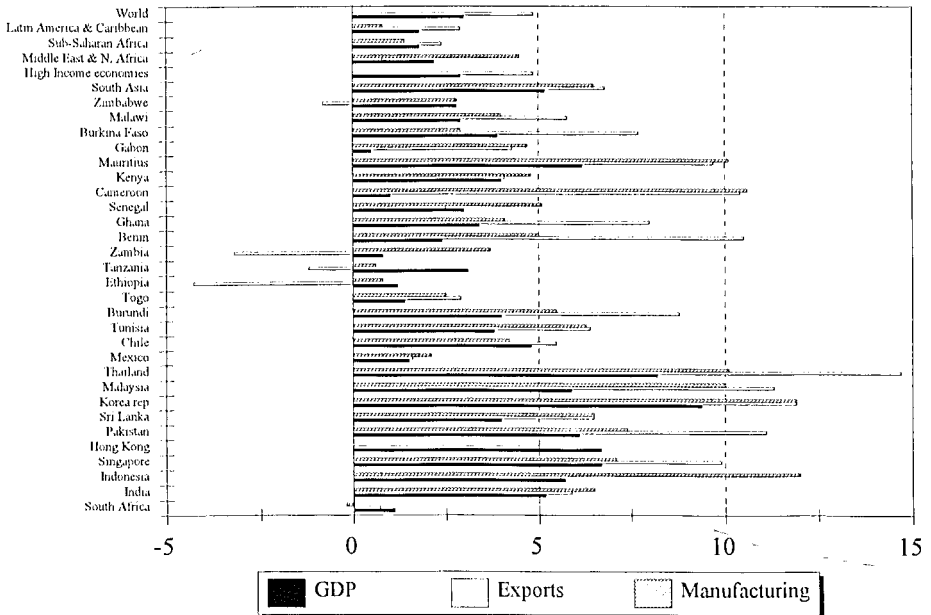
The growth of GDP, manufacturing production and exports during 1980-1992 is illustrated in Figure 2.3 for a number of countries at different stages of development. Zimbabwe's GDP growth is approximately at the same level as the world average, while export growth falls far behind. Indeed, Zimbabwe together with three other African countries (Ethiopia, Tanzania, and Zambia), are the only ones that have experienced negative export growth in the period 1980-1992. Although growth of GDP exceeds that of the Sub-Saharan Africa average, there is a large gap to particularly the newly industrialized countries (NICs) in South East Asia. Note also the differences in labor productivity in manufacturing as compared to other NIC countries (here represented by Chile and Singapore), shown in Table 2.1.

**Table 2.1 Labor productivity (value-added/employee) in the manufacturing sector for selected countries, 1990, US\$**

	Total value-added (million)	Employees	Labor productivity (Value-added/employee)
Bangladesh	1 887	991 690	1 903.1
Chile	8 737	298 000	29 318.5
South Africa	23 172	1 462 000	15 849.3
Singapore	11 922	350 430	34 021.1
Zimbabwe	909	214 400	4 239.7

Source: World Bank 1994b

**Figure 2.3 The annual growth rates of GDP, manufacturing production, and exports, 1980-92**



Source: World Bank (1994a)

As mentioned above, a prime objective of the ESAP is to stimulate exports, particularly in manufacturing.<sup>4</sup> The question is then why exports is attributed such a critical role? One explanation is given in Figure 2.4a where the relation between growth in GDP and exports in different countries is shown. As apparent from the figure there is a strong positive relation between these variables. A similar relation is established in Figure 2.4b between imports and GDP growth, which tells us that trade is what really matters in order to achieve rapid GDP growth. In both figures Zimbabwe is positioned among the lowest ranked countries, while particularly Asian countries are exhibiting high growth rates in both GDP and trade.

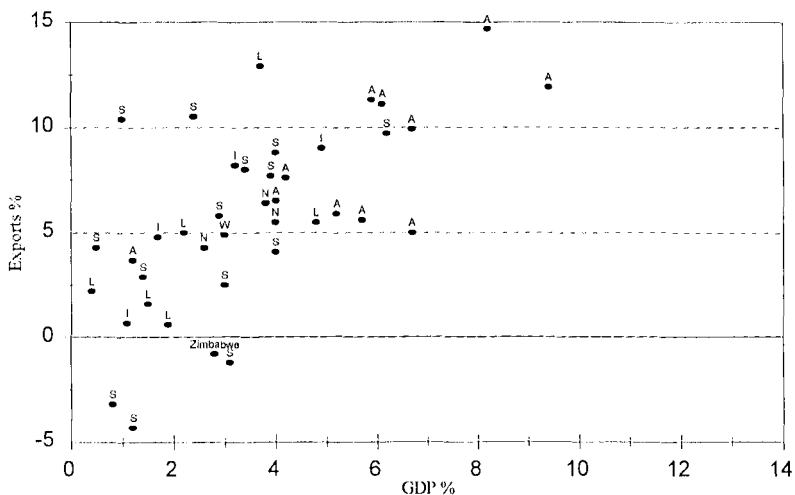
Exactly the same relations can be derived with regard to growth in manufacturing production and growth in trade (Figure 2.5a and 2.5b). The reason is of course that specialization in output necessitates access to large (world) markets. Similarly, imports of diversified and high-quality inputs and finals can only be obtained on the international market. Hence, the pattern of investments - which is also strongly positively related to growth (Figure 2.6a and 2.6b) - is influenced by accessibility to foreign suppliers.<sup>5</sup> In addition to offering a richer variety of goods, openness will also contribute to preserve a competitive pressure that forces firms to organize such that rapid learning and flexibility are enhanced. In other words, openness is one way to improve the dynamics of the manufacturing sector. From the figures presented above, a strategy that emphasizes exports seems to have an empirical rationale.

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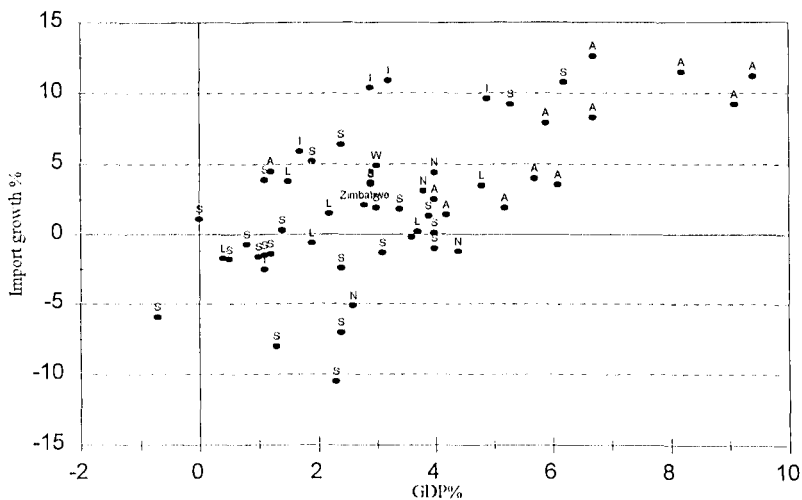
<sup>4</sup> Primary commodities, i.e. agricultural and mining products, have constituted the bulk of Zimbabwean manufacturing since long. These goods are not in need of export promotions to the same extent since there already exist channels to the world markets, the goods are more or less identical to exports of other countries and can easily be compared to those with regard to price and quality. Finally, and most important, ESAP aims at promoting exports of higher value-added products.

<sup>5</sup> Gross investments were barely enough to replace scrapped equipment in the 1980s, i.e. net investment were negligible (World Bank 1993).

**Figure 2.4a** The relation between average annual growth rates in exports and GDP, 1980-92

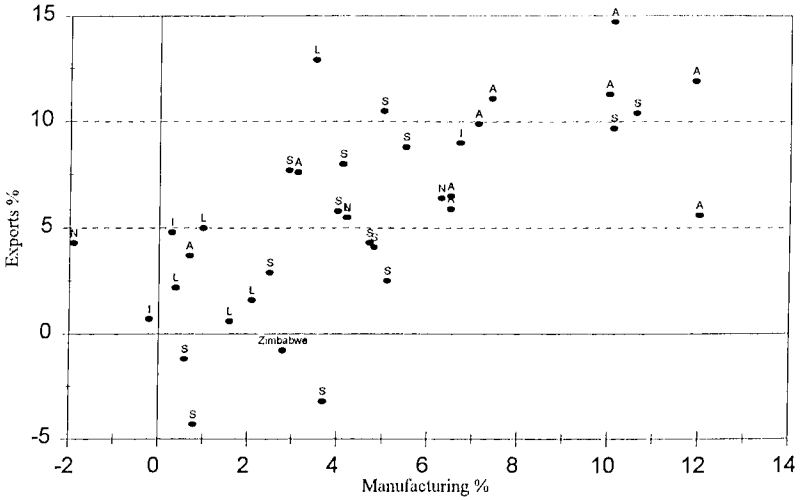


**Figure 2.4b** The relation between average annual growth in imports and GDP, 1980-92

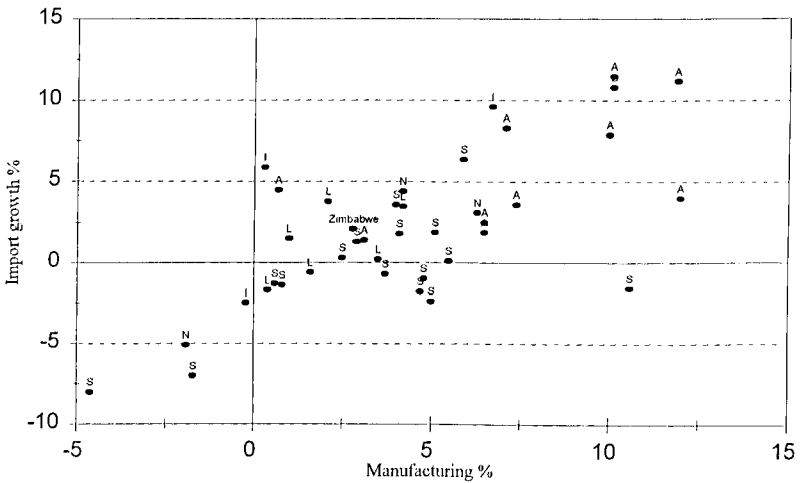


A=Asia. N=North Africa & Middle East. L=Latin America  
I=Industrial countries. S=Sub-Saharan Africa. W=World.

**Figure 2.5a** The relation between average annual growth rates in exports and manufacturing production, 1980-92



**Figure 2.5b** The relation between average annual growth rates in imports and manufacturing production, 1980-92

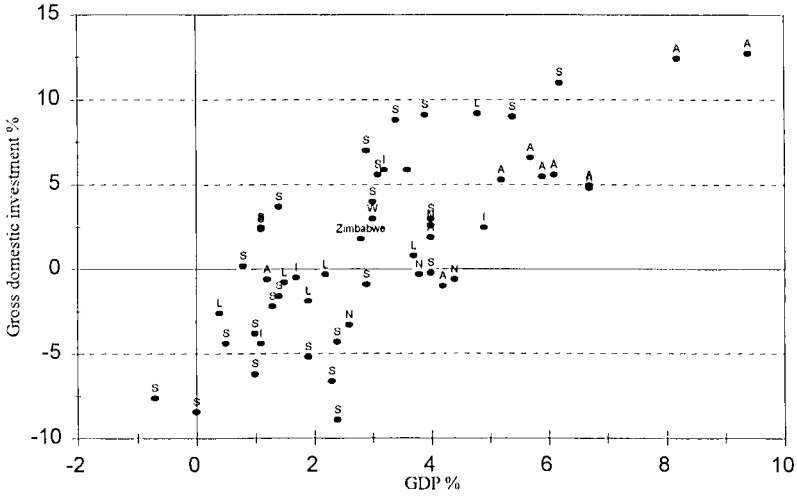


A=Asia. N=North Africa & Middle East. L=Latin America  
 I=Industrial countries. S=Sub-Saharan Africa. W=World.

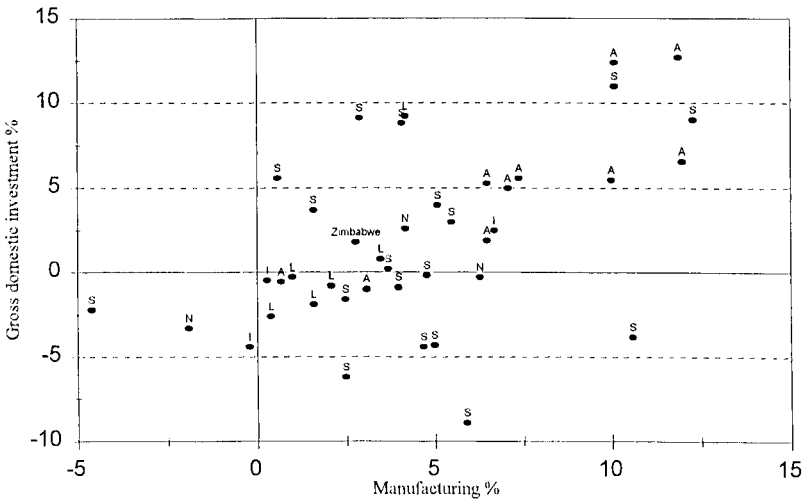
Source: Calculation by the authors based on World bank data (1994a)



**Figure 2.6a** The relation between the average annual growth rates in gross investment and GDP, 1980-92



**Figure 2.6b** The relation between the average annual growth rates in gross investment and manufacturing production, 1980-92



A=Asia. N=North Africa & Middle East. L=Latin America  
I=Industrial countries. S=Sub-Saharan Africa. W=World.

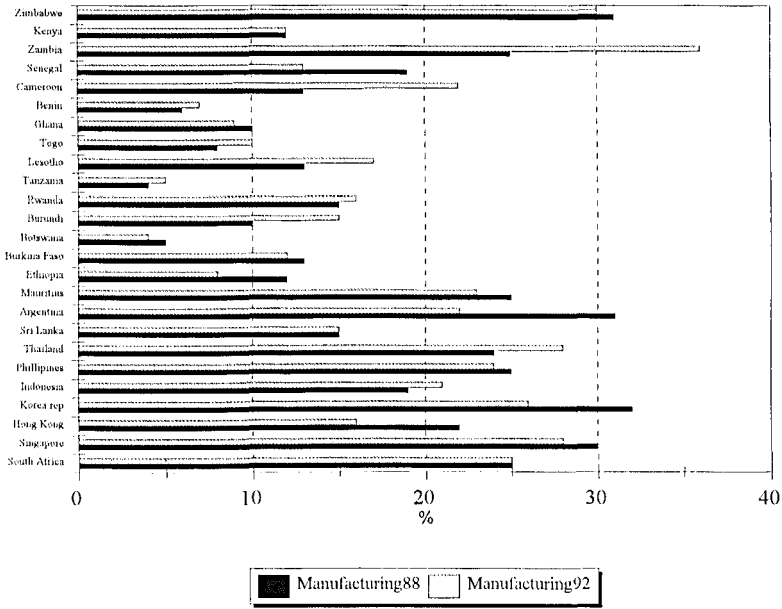
Turning to the production structure, Figure 2.7 reveals that Zimbabwe has a large manufacturing sector in an international perspective, even exceeding the corresponding share in most NICs. It diminished somewhat in the period 1988-1992. This sign of strength is however rather deceptive, since it also indicates a small service sector. Services, however, have become an increasingly important part of manufacturing in all industrialized countries during the last decades. Marketing, consultancy, finance, logistics, software, and other business related services, often constitute the core strategic part in much of manufacturing and also contain an increasing share of value-added activities. Moreover, it is the service sector that hosts most of the newly established firms and where employment have expanded in the industrialized countries.

We argued above that Zimbabwe should have a comparative advantage in agro-based production and production of simpler equipment and engineering products. As evident from Figure 2.8 the food processing is indeed relatively large in comparison with more developed countries, although smaller than for a number of other African countries. Both the textile&clothing industry and the production of machinery goods in Zimbabwe seem to amount to approximately the same share as in other African countries. In comparison with particularly the NIC countries, the size of the engineering sector is modest. The production structure in Zimbabwe seems to comply with most other African countries.

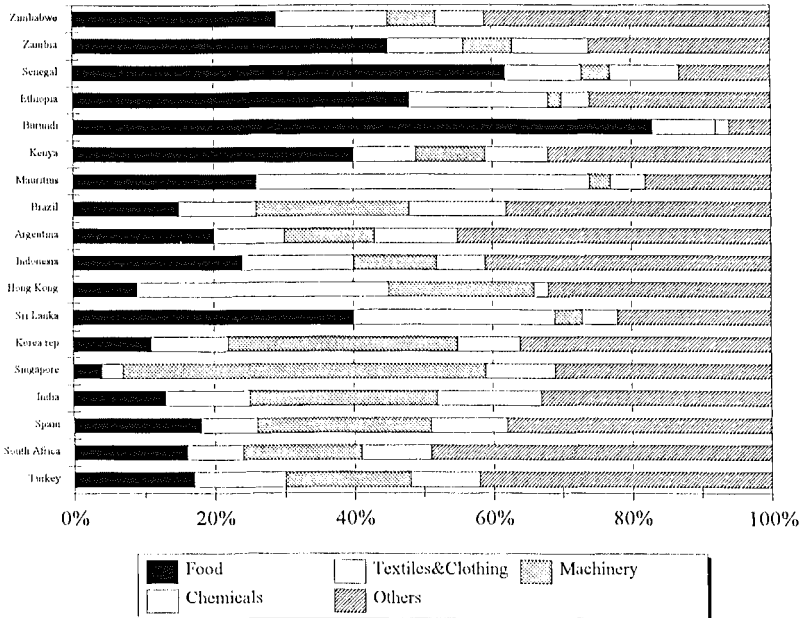
Figure 2.9 and 2.10 gives an indication of the composition of overall exports and imports in Zimbabwe. Whereas most of imports can be attributed to manufacturing in Zimbabwe, exports are concentrated to the primary sector sectors. There is an imbalance in this respect in most Sub-Saharan African countries as compared to more developed countries where trade predominantly takes place in manufactures. One explanation is the adoption and adherence to import-substitution policies. Since 1985, the growth in Zimbabwean imports can mainly be attributed to manufacturing, while exports - totally and in manufacturing - display a minor increase (Figure 2.10).

In Figure 2.11 exports of two manufacturing sectors - clothing&textile together with machinery - is shown. Zimbabwe's share of exports of the first category matches closely to the world average while exports of machinery is just around 15 percent of the world average. Yet, exports of both categories exceed the average of Sub-Saharan Africa.

**Figure 2.7 Manufacturing as a percentage of GDP, 1988, 1992**



**Figure 2.8 The distribution of manufacturing value-added 1991**



Source: World Bank (1990, 1994a)

Figure 2.9 The composition of exports in Zimbabwe 1985-92

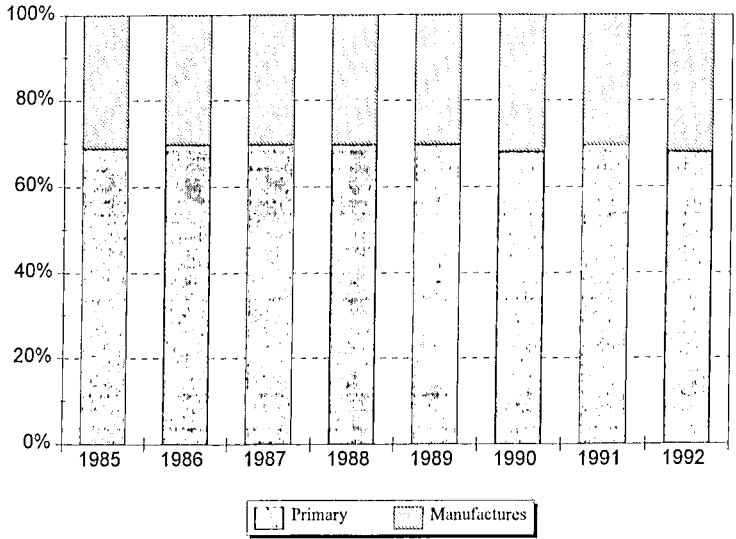
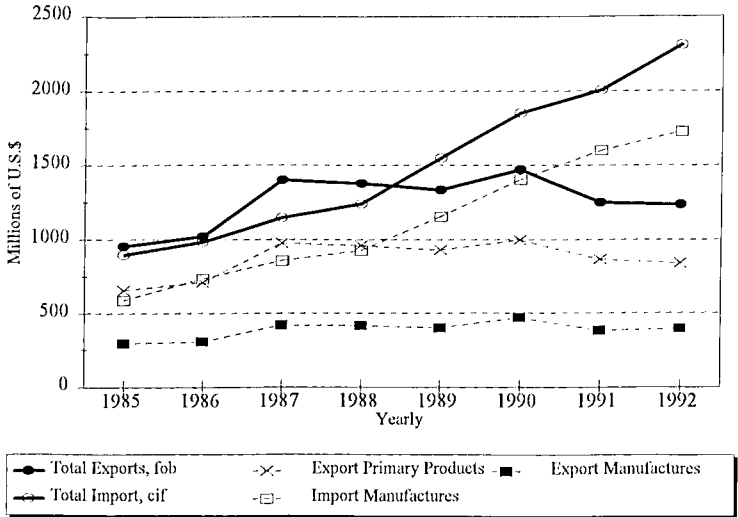
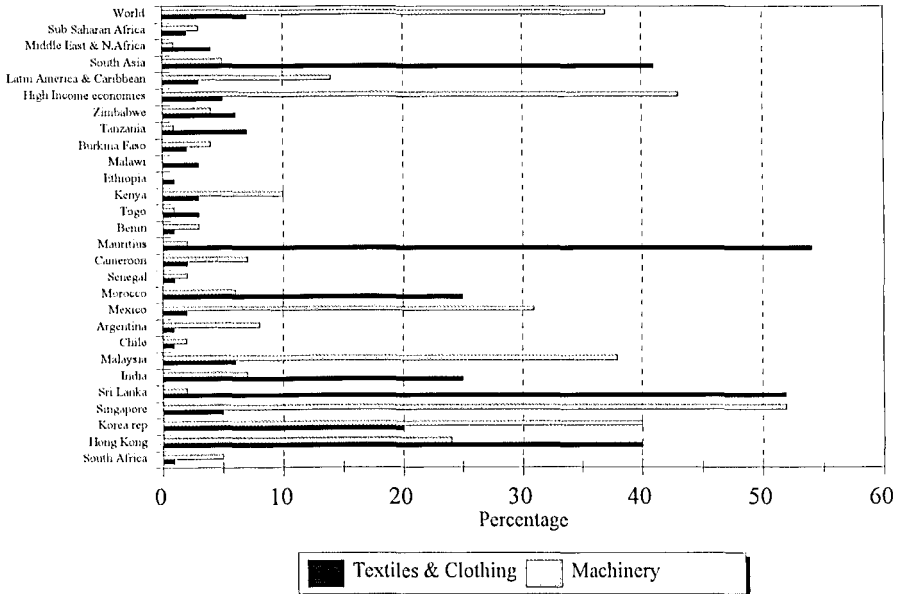


Figure 2.10 Trade trends in Zimbabwe 1985-92, US\$



Source: World Bank (1994b)

Figure 2.11 Percentage share of merchandise export, 1992



Source: World bank (1990, 1994a)

The geographical distribution of Zimbabwe's trade on different regions is shown in Figure 2.12. The first three regions - Rest of the World, the European Union (EU), and Total Region - comprise Zimbabwe's total trade.<sup>6</sup> The trade pattern has also been disaggregated on the regional organizations (SADC, PTA) and RSA, to illustrate in more detail the regional importance of exports and imports.<sup>7</sup> The overall trade balance is negative and it is only regionally - the exceptions being RSA, Swaziland and Mauritius - that Zimbabwe has a trade surplus (Figure 2.13). In volume, the largest regional trade partners are Botswana, Malawi, Mozambique, the Republic of South Africa and Zambia.

<sup>6</sup>Exports to the EU take place under the auspices of the Lomé-convention. The Lomé agreement covers trade with developing countries, aid (the European Development Fund), and cooperation in general, primarily with the former colonies. The present Lomé-convention was ratified in 1991 and spans over a 10 year period.

<sup>7</sup>The SADC-countries consists of Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, Swaziland, Tanzania, Zambia and Zimbabwe, while the PTA-countries are Angola, Burundi, Comoros, Djibouti, Ethiopia, Kenya, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Rwanda, Somalia, Sudan, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe.

Figure 2.12 The regional distribution of Zimbabwe's trade, 1992 million US\$

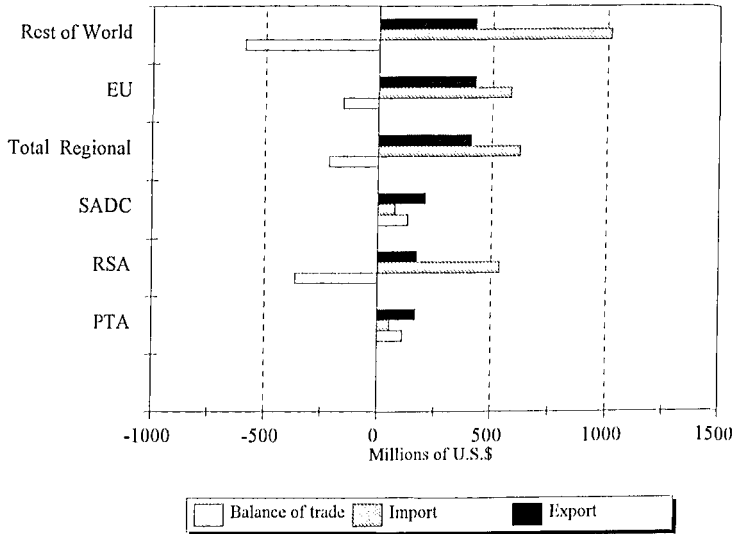
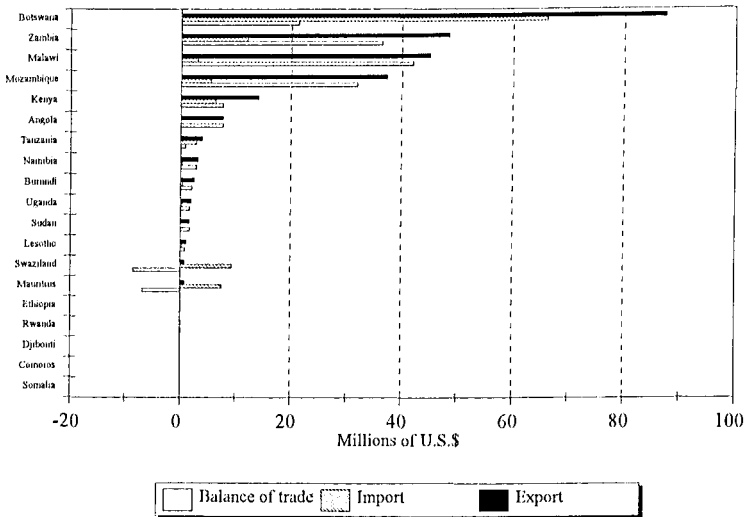


Figure 2.13 Zimbabwe's trade with Botswana and the PTA countries 1991, million US\$



Source: CSO, unpublished material

## CHAPTER 3

### PERFORMANCE AT THE SUB-SECTOR LEVEL IN MANUFACTURING

This chapter will make a detailed analysis of the separate sub-sectors within manufacturing, basically the 11 sub-sectors in Table 3.1. together comprising the Zimbabwe manufacturing sector.<sup>8</sup> Since the sub-sectors are still at a relatively high level of aggregation, more detailed gross output and export figures will be reported at the product level.<sup>9</sup>

Production volumes, employment and exports are primarily studied over the period 1985-93.<sup>10</sup> The most recent figures used are for production volumes, extending to June 1994. Hence, this chapter presents new and not previously published sub-sectoral data, enabling an assessment of the latest response by industry to the ongoing reform programme. Emphasis is placed on the export development, since it is here, in our opinion, where the future potential for Zimbabwe lies. The longer dynamics from 1980 and onwards are also considered.

The purpose of the chapter is to; (i) evaluate the absolute and relative performance of each sub-sector, especially the changes over time, and conclude which sub-sectors that appear to have future potential, (ii) assess the effects of ESAP on performance at the sub-sectoral level, and (iii) analyze the changing role of different sub-sectors in the Zimbabwe economy, especially as contributors to the country's foreign exchange earnings.

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<sup>8</sup> Sub-sector 11, "Other Manufacturing Industries", will not be explicitly dealt with here, due to the fact that the definition of this sub-sector is likely to change over time, since new activities that are not sorted under the other manufacturing categories, will be included in this residual sub-sector. This is apparent when studying the development over time of certain variables. Also, the exports and output statistics for this sub-sector are incompatible. Other Manufacturing Industries constituted in 1992 less than one percent of manufacturing gross output. In some figures in this report, sub-sector 11 is included in order to illustrate aggregate manufacturing and its complete decomposition.

<sup>9</sup> For a description of the product groups included in each of the 11 sub-sectors, see Table A.3.1 in the Appendix in the end of Chapter 3. As seen from the table, Metals & Metal Products, for example, includes as diverse product groups as Iron & Steel and Electrical Machinery.

<sup>10</sup> The export figures for 1993 are preliminary and do not cover all sub-sectors.

**Table 3.1. Sub-sectors in the Zimbabwe manufacturing industry and their shares of manufacturing gross output 1992**

Sub-sector No	Name of sub-sector	Share of gross output 1992, percent (a)
1	Foodstuffs	21
2	Beverages & Tobacco	11
3	Textiles	10
4	Clothing & Footwear	7
5	Wood & Furniture	4
6	Paper	7
7	Chemicals	14
8	Non-Metal Minerals manufacturing	3
9	Metals & Metal Products	20
10	Transport Equipment	5
11	Other Manufacturing Industries	1

Note: (a) Percentages do not add up to 100 due to rounding.

Source: Calculations based on CSO (1994) and World Bank (1994b).

### 3.1. Production and employment

Table 3.1. above pictures the composition of manufacturing gross output divided on sub-sectors 1992. Foodstuffs is the largest, followed by Metals & Metal Products and Chemicals, accounting for 21, 20 and 14 percent of gross output, respectively. These shares have remained rather stable over the period 1980-92, as will be further analyzed below (Figure 3.2).

A problem that arises when studying the development of the Zimbabwe economy in the 1990s is the serious drought that occurred in 1992, which affected manufacturing production from mid-1992 to at least mid-1993. Domestic demand for manufactured goods declined at the same time as the output of certain important agricultural products, used as inputs in manufacturing, decreased. This means that even though ESAP was introduced in 1991, the effects emanating from the program



would at the earliest substantiate during 1993. Yet, it must be emphasized that increases in e.g. production volumes may simply be a "comeback" from the large decline during the drought period.

### *Production volume*

In Figure 3.1. below, the manufacturing production volume index is plotted from 1985 to June 1994.<sup>11</sup> This index is a measure of production in constant prices (Zimbabwe \$). Over the period 1985-90, i.e. prior to the introduction of ESAP, we note a steady increase in production for the manufacturing sector as a whole, as well as for each individual sub-sector. The exception is "Other Manufacturing Industries" which exhibited an irregular development, for reasons discussed above. The general upward trend continued in 1991, the first year of ESAP.<sup>12</sup>

In 1992 production fell for manufacturing as a whole and for most of the separate sub-sectors. A particular sharp drop was recorded for Textiles. Two sub-sectors, Foodstuffs and Wood & Furniture diverged from the pattern and increased their production slightly compared with 1991.<sup>13</sup> The impact of the drought on manufacturing started to show up in early/mid 1992, with the bottom levels for production reached in early 1993 (see Figure A.3.1. in the Appendix with monthly data January 1992 to June 1994). As already pointed out, it is extremely difficult to assess the impact of ESAP, in 1992, its first year of full implementation, as well as its second year, 1993. Overall manufacturing continued to fall in 1993, even though a comeback for Textiles, Clothing & Footwear and Paper could be observed. An increase for most sub-sectors is recorded in early 1993, which however is swallowed by an even larger drop in the second half of the same year, pushing the annual figure of 1993 below that of 1992 (see Figure A.3.1. displaying monthly data).

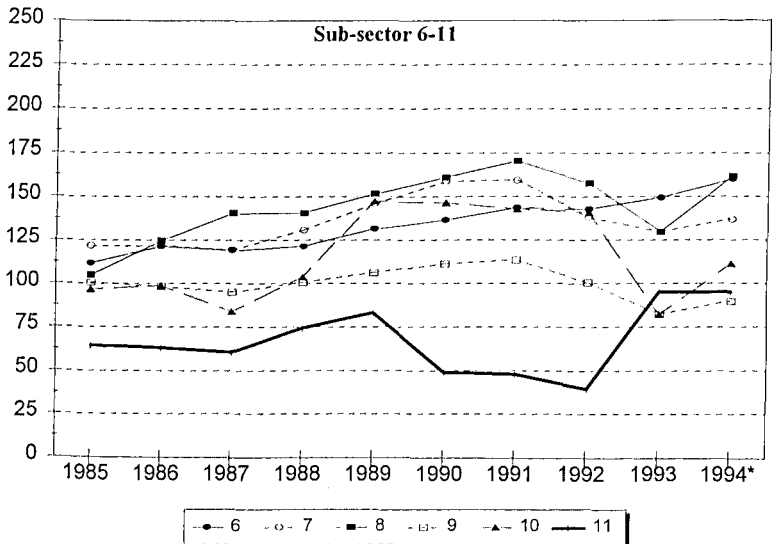
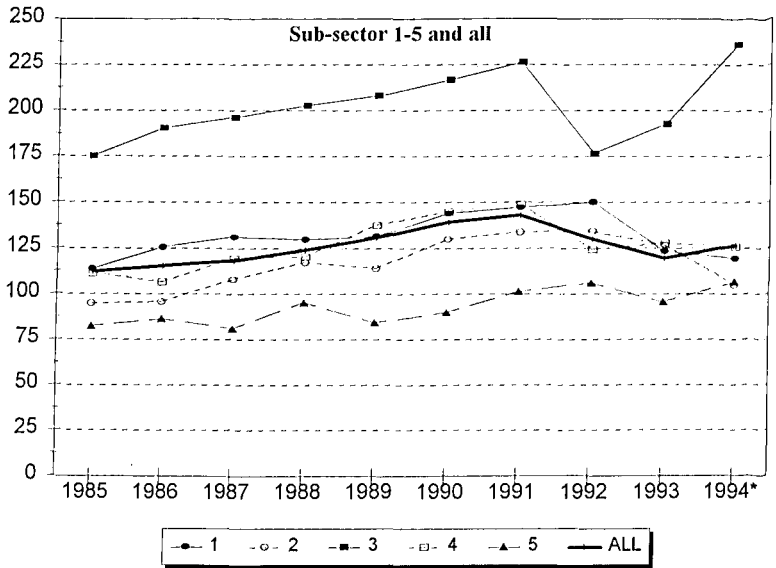
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<sup>11</sup> Average monthly index January-May 1994.

<sup>12</sup> Since limited reforms materialized during this first year, it is doubtful whether the increase in production from 1990 to 1991 can be attributed to ESAP. Looking at the earlier development, it may as well be a continuation of the upward trend observed from 1985 and onwards.

<sup>13</sup> Essential agricultural inputs for the Foodstuffs industry was imported during the drought to keep production going.

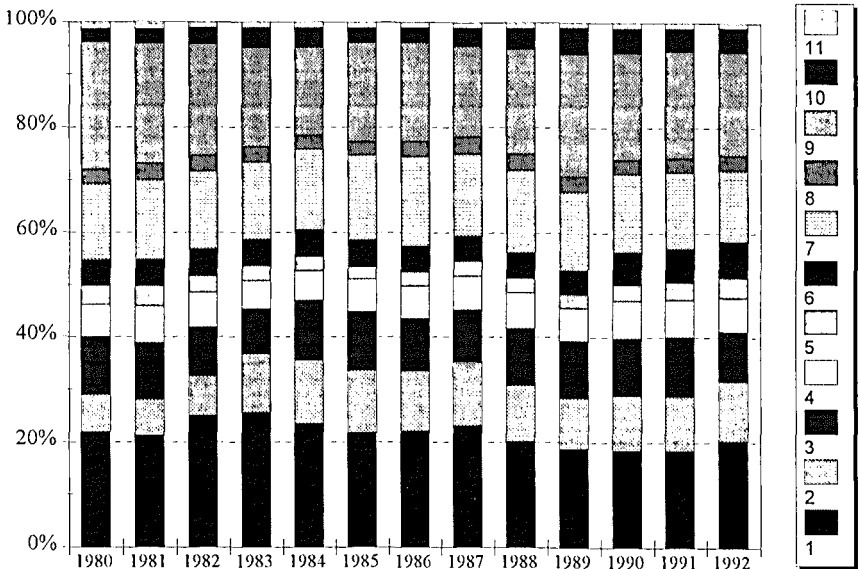
Figure 3.1. Manufacturing production index 1985-June 1994  
(1980=100)



Source: CSO (1994) and unpublished CSO data

Note: \* Average monthly index January-June 1994.

Figure 3.2 Composition of manufacturing gross output 1980-1992



Sources: CSO (1994) and World Bank (1994b)

In the first 6 months of 1994 more substantial signs appear that the downward trend is reversed. Textiles, in particular, shows a favorable development.<sup>14</sup> The reasons behind this shift are hard to disentangle, but probably we observe a combination of the following; (i) a "comeback" by most sub-sectors to compensate for the decline in 1992 and 1993, (ii) the drought ceased to have further impact on manufacturing production, and (iii) positive supply effects from the ESAP programme, e.g. the abolishment of the foreign exchange scheme. On the other hand, we have the removal of the 9 percent export incentive during this period, tightening the situation for exporters.

Still, the increase in the first half of 1994, is not enough to carry the

<sup>14</sup> Although it must be pointed out that, according to spokesmen from industry, the textile firms currently face considerable problems due to increase in the cotton lint price and lack of trade agreement with South Africa.

manufacturing index above its 1990 (or 1991) levels, i.e. before the introduction of ESAP. This applies to most sectors, except for Textiles, Wood & Furniture and Paper, where volumes increased after the introduction of the reform programme. The Metals & Metal Products and Transport Equipment sub-sectors, display the least favorable development. Metals & Metal Products is even below the 1980 production level,<sup>15</sup> and Transport Equipment 24 percent below the 1990 level, in spite of a considerable pick-up in the first half of 1994 for the latter sub-sector.

### *Employment*

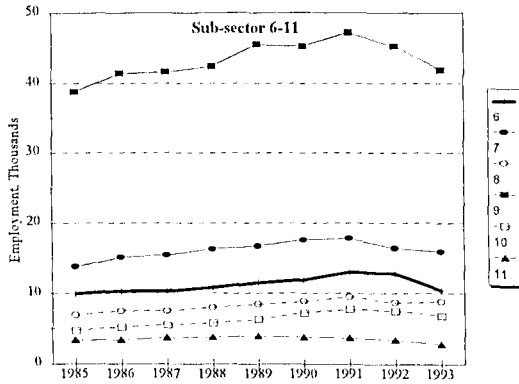
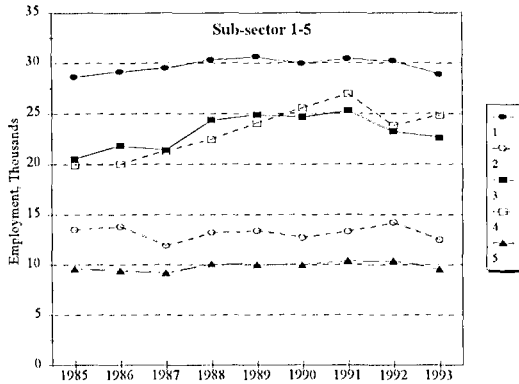
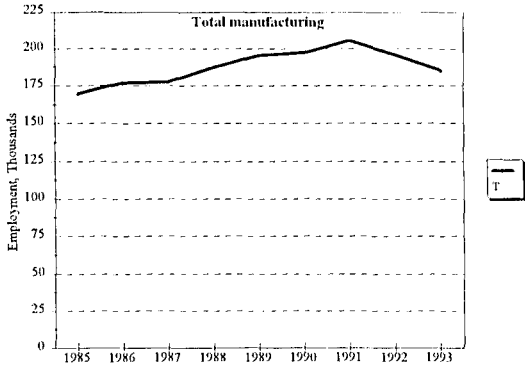
The development of numbers of employees at the sub-sector level, shown in Figure 3.3. below yields a similar pattern as the production volumes studied above. A steady increase in manufacturing employment took place during 1985-91 - reaching a total of 205.000 - followed by a decline of approximately 20.000 jobs over the next two years.<sup>16</sup> Distributed on sub-sectors, the largest employer, Metals & Metal Products shrank employment by 5.300, while the corresponding figure for Foodstuffs, the second largest employer, was 1500. Textiles and Clothing & Footwear also experienced large declines, 2.600 and 2.100 jobs respectively. Still, the Clothing & Footwear industry was the only one that significantly increased employment in 1993. The Paper industry, with around 13.000 employed in 1991, showed a dramatic decline of 2.600 employees in the two-year period. The fall in overall manufacturing employment from 1991 to 1993, is however smaller than the corresponding decline in production volume, reflecting the slower adjustment in the labor force compared to production. The composition of manufacturing employment 1985-93 is provided in Figure 3.4., and exhibits an almost constant distribution of manufacturing sub-sectors over that nine year period.

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<sup>15</sup> Largely explained by the substantial decline over time for Zisco, the iron and steel parastatal.

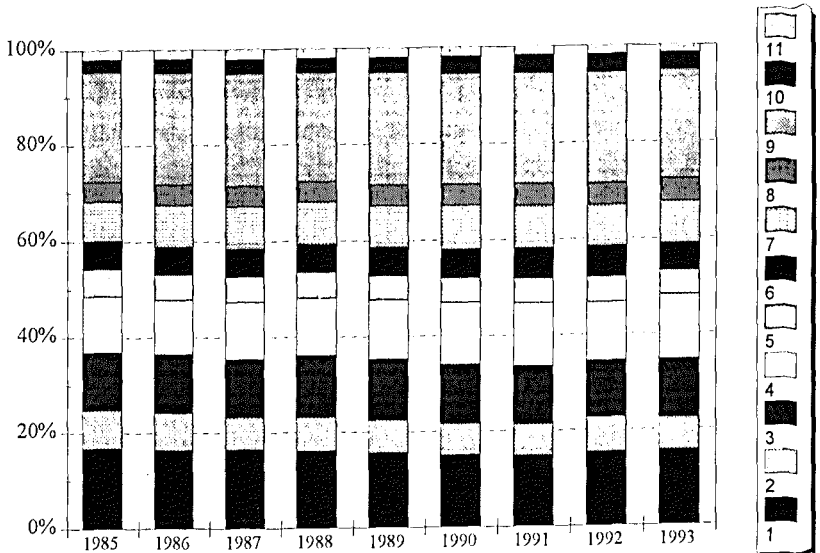
<sup>16</sup> No employment figures for 1994 is yet available.

Figure 3.3 Manufacturing employment 1985-93



Source: CSO (1989) and unpublished CSO data

Figure 3.4 Composition of manufacturing employment 1985-93



Sources: CSO(1989) and unpublished CSO data

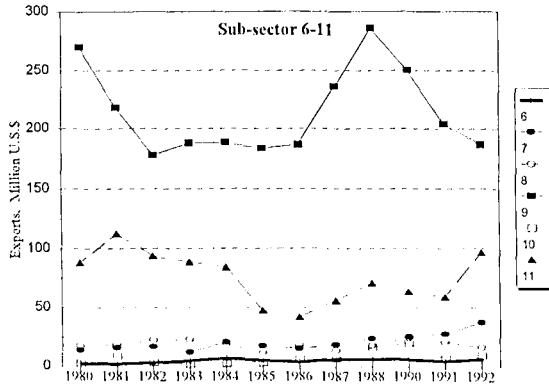
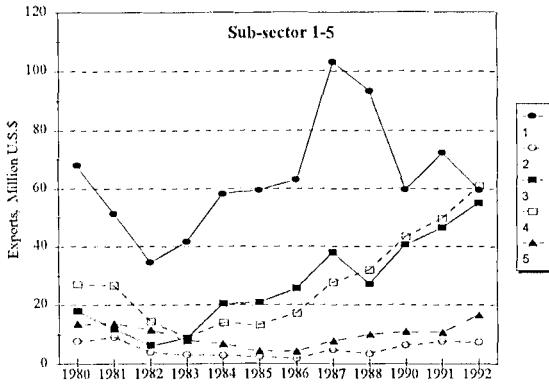
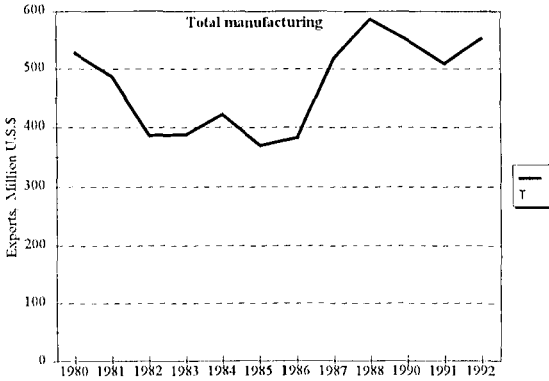
### 3.2. Exports

This section takes a closer look at the development of manufactured exports. First, the longer term trends from 1980 and onwards are considered. Thereafter the focus is shifted to the period following the introduction of ESAP. Information regarding exports is also provided at the more detailed product level. The sub-sectors' degree of export orientation is then analyzed. Finally in this section, Zimbabwe's trade pattern of manufactured goods is discussed.

#### *Longer term trends in exports*

Manufacturing exports have fluctuated considerably since independence in 1980, as can be seen from Figure 3.5., illustrating the export development in current US\$

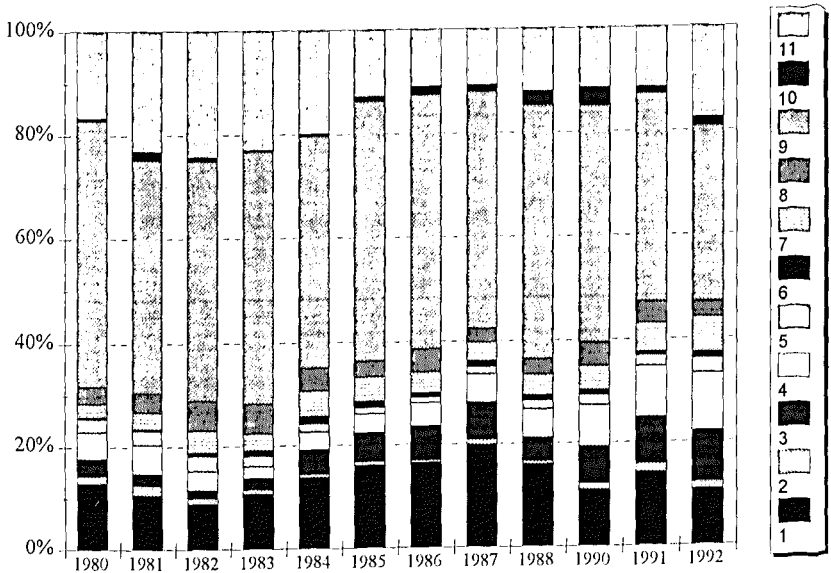
**Figure 3.5. Manufacturing exports 1980-92**  
million current U.S.\$



Sources: CSO data processed by CZI, CSO (1994) and World Bank (1994b)

over the period 1980-92.<sup>17</sup> However, the level of total manufactured exports was at about the same level in 1992 as in 1980, despite the substantial increase that occurred 1986-1988.<sup>18</sup> On the other hand, it is noted that the composition of exports between different sub-sectors has changed considerably (Figure 3.6.). This issue is further explored in Section 3.3. below.

**Figure 3.6 Composition of manufacturing exports, 1980-1992**



Source: CSO data processed by CZI

<sup>17</sup> No export figures for 1989 are available from CSO.

<sup>18</sup> For comparison, total manufactured exports 1985-92 expressed in constant Zim \$ is provided in Figure A.3.3. in the Appendix. Similarly to the US\$ exports development, a dramatic increase is observed from 1986 to 1988.



From 1985 and onwards a large increase in US\$ export earnings up to 1988 is noticed, reaching 586 million US\$. This pattern holds for all sub-sectors.<sup>19</sup> Unfortunately we can not say what happened between 1988 and 1990 due to lack of data 1989. However, in 1990 we observe a considerable decline in export earnings as compared to the peak year 1988.<sup>20</sup> The decline continued in 1991. This negative trend was reversed in 1992, and further improvement in exports was observed in 1993 according to preliminary figures.

The following are the major observations with regards to the longer term, attempting to distinguish between sub-sectors showing a favorable and a less favorable export development, respectively: *Textiles* and *Clothing & Footwear*, continuously raised exports starting from 1982/83, and significantly increased their roles in the economy as earners of foreign exchange, *Wood & Furniture* has throughout been a small export category, but has since 1985/86 steadily increased exports. *Chemicals* is also a promising sub-sector, with exports starting to climb in 1986 and each year thereafter.<sup>21</sup>

On the other hand, we have *Foodstuffs* that substantially declined in importance as an exporter over the longer term, and *Beverages & Tobacco* which throughout has been a minor exporter, and where the export level changed insignificantly compared to 1980.<sup>22</sup> The same applies to the *Paper* industry, the smallest exporter of the sub-sectors. *Non-Metals Minerals* and *Transport Equipment* are also small exporters, and have both declined after the introduction of ESAP. Finally, the *Metals & Metal Products* industry, which has been by far the largest

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<sup>19</sup> Metals & Metal Products, for example, alone increased exports with over 100 million US\$ during this period, although this figure partly reflects the excess capacity of the iron and steel parastatal Zisco (excess in relation to domestic demand of steel products). Apparently some of the export sales were made at a loss in order to maintain production on the approximately 1 million tonnes capacity operations. The domestic demand is approximately 25-30 percent of that capacity.

<sup>20</sup> When exports are expressed in constant Zim \$, we also note a drop between 1988 and 1990 (Figure A.3.3. in the Appendix).

<sup>21</sup> Note that "Other Manufacturing Industries", was the second largest US\$ exporter 1992. As indicated earlier there is, however, a mismatch between this sub-sector's trade and output statistics. For most years exports is much larger than gross output.

<sup>22</sup> Export of manufactured tobacco is only a small fraction of overall tobacco exports, which constituted as much as 35% of Zimbabwe's total exports in 1992. Manufactured tobacco and beverages are typically products for the domestic market.

export earner within manufacturing over the studied period, have at the same time showed the most dramatic decrease, especially after 1988. This sub-sector's 1992 exports is far below the 1980 level, and the gap even increases if we include the preliminary observations for 1993. It appears that Metal & Metals Products exports will continue to fall in 1994, at least in the Iron & Steel industry, constituting the major part of the sub-sector.<sup>23</sup> Apart from problems faced by Zisco, another explanation for declining iron and steel exports has been the need to meet local demand, which has been rising.

#### *Exports after the introduction of ESAP*

The decline in manufactured exports between 1988 and 1990, commented on already, continued in 1991, the first year of ESAP, and reached around 509 million US\$, i.e. 77 million less than 1988. Hence, the decline in exports started earlier than the fall in production and employment which both peaked in 1991 before the drought. Large devaluations in the Zimbabwe \$ relative to the US\$ apparently did not stimulate exports enough to offset the decline attributed to other factors (see Figure A.3.2. the Appendix). In 1992, however, exports started to pick up again and reached approximately the level of 1990, but still around 35 million US \$ below the peak level attained in 1988.<sup>24</sup> According to preliminary figures, this positive development continued in 1993, with export earnings increasing by about 2 percent compared to 1992.<sup>25</sup> No export data is yet available for 1994.

It is noteworthy that exports improved both in 1992 and 1993, a period where the drought had severe negative effects on the manufacturing sector, resulting in declining production and employment levels. One possible explanation is that firms were forced to reorient towards export markets when the domestic market contracted. In addition, the ESAP may have contributed to a positive export supply,

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<sup>23</sup> According to interview with Zisco, September 1994.

<sup>24</sup> Over the period 1990-92 a slight increase in Zim \$ exports is observed (Figure A.3.3.).

<sup>25</sup> Considering an aggregate export figure for the following industries; Ferro-alloys, Iron & Steel, Cotton Lint, Textiles, Clothing, Chemicals, Metal Products and Grain Milling Products. These industries together accounted for 66 percent of 1992 manufactured exports.

despite the difficulties inflicted upon the economy by the drought. Most likely the observed development is a combination of these two effects.

Thus, a conspicuous feature, remembering the strategic role allotted to exports in ESAP, is the increase in exports by most sub-sectors after the introduction of the program. A caveat must be thrown in, however, since in aggregate terms 1991 was the bottom export year.<sup>26</sup> In the following the sub-sectors are grouped according to their export growth in the 1990-92 period (Figure 3.5). For certain sub-sectors preliminary information is also available for 1993 (Table 3.2. below). The first group comprises the successful exporters which seem to have responded positively to ESAP, the second group includes those with limited changes in exports, and the third group those displaying declining trends.

**Table 3.2. Exports, selected manufacturing product groups  
1992 and 1993, million US\$**

Product group	Exports 1992 million US\$	Exports 1993 million US\$ (preliminary)
Textiles	55	59
Clothing	55	62
Chemicals (a)	32	35
Ferro-alloys	116	105
Iron & Steel	29	23
Metal Products	33	32

Note: (a) Not the whole Chemical sub-sector is included.

Sources: Unpublished CSO data and calculations by CZI

*Textiles, Clothing & Footwear, Wood & Furniture and Chemicals* continued on their earlier pre-ESAP upward trends and increased their exports significantly in 1990-92.<sup>27</sup> *Textiles, Clothing and Chemicals* also improved exports in 1993. In this

<sup>26</sup> However, limited reforms were implemented during 1991.

<sup>27</sup> As seen from Figure 3.5., exports of sub-sector 11 almost doubles from 1991 to 1992. It is difficult to evaluate the degree to which this increase is attributed to entry of "new" industries which is sorted under this residual industry classification, and the degree related to actual increase

context it is important to identify the particular product groups that explains the growth (or decline) in sub-sector exports. Figure A.3.4. in the Appendix decomposes each sub-sector's export development 1985-92 to the product level. The following are the most significant observations for the successful sub-sectors: In *Textiles* the export increase is mainly attributed to Fabrics, the largest export item. Yarn & Threads is also an important category, but actually decreased since 1990. For *Clothing & Footwear*, the categories Suits, Jackets & Trousers (i.e men's clothing) and Footwear account for the major part of the post-ESAP growth. Women's clothing; Dresses, Blouses & Skirts, on the contrary, experienced a decline.<sup>28</sup> In *Wood & Furniture*, the categories Furniture & Fixtures and Parquet & Lumber have steadily increased since the mid 1980s. For the *Chemical* sub-sector the categories Manufactured Fertilizer and Soaps are the major contributors to the export growth.

The *Foodstuffs, Beverages & Tobacco* and *Paper* sub-sectors remained at about the same export levels as before the introduction of ESAP. In *Foodstuffs*, an increase in Meat, the largest category, took place after 1990, although this item experienced a sharp drop since the peak year 1987, largely explaining the sub-sectors diminished role as an exporter. Refined sugar, the second largest export category, lost significantly in terms of exports between 1990 and 1992.<sup>29</sup> Exogenous factors such as the foot and mouth disease, the drought and EU quotas had significant adverse effects on the Foodstuffs sub-sector in the post-ESAP period.

If we consider more recent information, a few product groups, however, seem very promising within Foodstuffs. Grain milling increased exports from 20 to 33 million US\$ in 1992-93. Lately, we have also seen large investments in the sugar and citrus industries, expected to pay off in higher future exports.<sup>30</sup> According to many observers in Zimbabwe, Foodstuffs has a great potential in terms of future

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in existing product groups included in 1991.

<sup>28</sup> The highest export growth is recorded for the category "Other clothing", but we do not know the actual contents of this residual category.

<sup>29</sup> Within Foodstuffs, the category "other" is the largest, but it has only declined slightly during ESAP.

<sup>30</sup> Based on information provided by CZI.

export growth, despite the unfavorable historical development. This is also what could be expected over the longer term, since the Foodstuffs sub-sector is closely linked to the country's highly efficient agricultural sector.

In the small sub-sector *Beverages & Tobacco*, Beverages increased from 1990, but remains at a very low level. Manufactured tobacco changed little after ESAP. Both product categories are, as indicated earlier, basically oriented towards the domestic market.<sup>31</sup>

*Non-Metal Minerals, Metals & Metal Products and Transport Equipment* showed a dramatic decrease 1990-92 in export earnings. Metals & Metal Products continued the downward trend in 1993.<sup>32</sup> On the product level we conclude: Within *Non-Metal Minerals* manufacturing, it was Coke that accounted for the largest share of the export contraction. It should, however, be noticed that this category showed an irregular pattern over time. Asbestos & Cement articles also fell sharply after 1990. In *Metals & Metal Products*, Ferro-alloys (including iron and steel) is by far the largest category, and accounted almost wholly for the sub-sectors export decline. The second largest category, Ingots & Billets (produced by Zisco), displays a slow decline starting from 1988.<sup>33</sup> Railway vehicles and equipment have dominated in the *Transport Equipment* sub-sector. From 1990 to 1992 this product category, however, declined considerably, basically accounting for the sub-sectors entire fall. An equally dramatic increase in this category took place over the period 1987-90. Railway vehicles and equipment was a relatively important export earner prior to ESAP.<sup>34</sup>

Since substantial export growth occurred after 1990 in "Other Manufacturing Industries", a few comments on this sub-sector are provided here. First we observe that the two largest product groups, "Other classified by material" and "Miscellaneous articles" (Figure A.3.4.), unfortunately tell us nothing about what

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<sup>31</sup> No decomposition on product groups of the Paper sub-sector's export is possible.

<sup>32</sup> No data on the 1993 exports is available for Non-Metal Minerals or Transport Equipment

<sup>33</sup> The production of billets, have been further scaled down in 1993/94, according to an interview with Zisco, September 1994.

<sup>34</sup> Transport Equipment tended to depend heavily on foreign exchange and credit made available by the government.

is really exported and in what areas expansion has taken place. This signifies the problem touched upon earlier when studying this residual sub-sector over time. "Miscellaneous articles", for example, increased exports from 10 to 35 US\$ million in just one year (1991-92). Is this expansion within a given set of industries, or is it new export activities added in 1992, which simply could not be sorted under any of the 10 other manufacturing sub-sectors? The latter is probably the case, and hence, we should interpret these export increases basically as entry of new export industries, which may have important long run effects for the country.<sup>35</sup>

### *Degree of export orientation*

In Figure 3.7., we have plotted the export intensity 1980-92 of the 10 sub-sectors, i.e. exports as percent of gross output, in order to obtain a measure of the different industries' degree of outward orientation.<sup>36</sup> The intensity for the whole manufacturing sector was almost 13 percent in 1992, and has increased slightly after the introduction of ESAP. But it is still not back at the 1980 level of 15 percent. Since 1984 the intensity has remained in the 11-13 percent range.

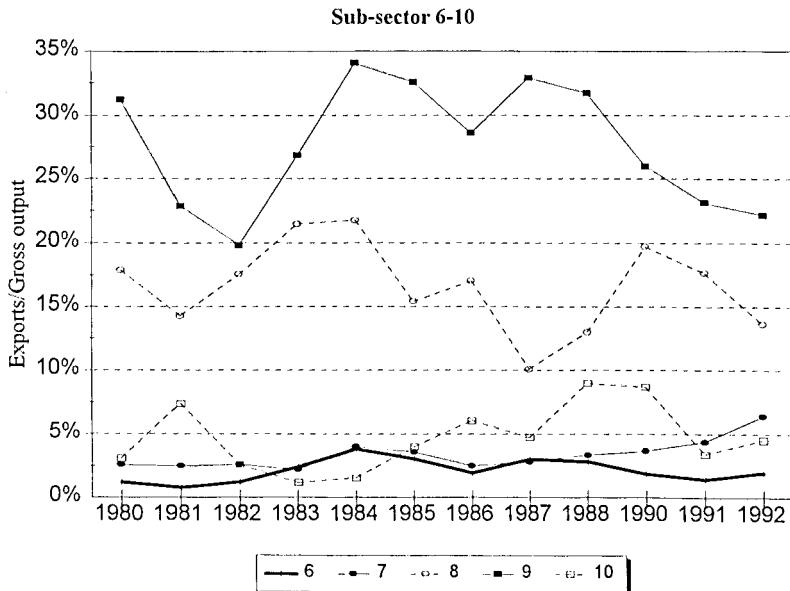
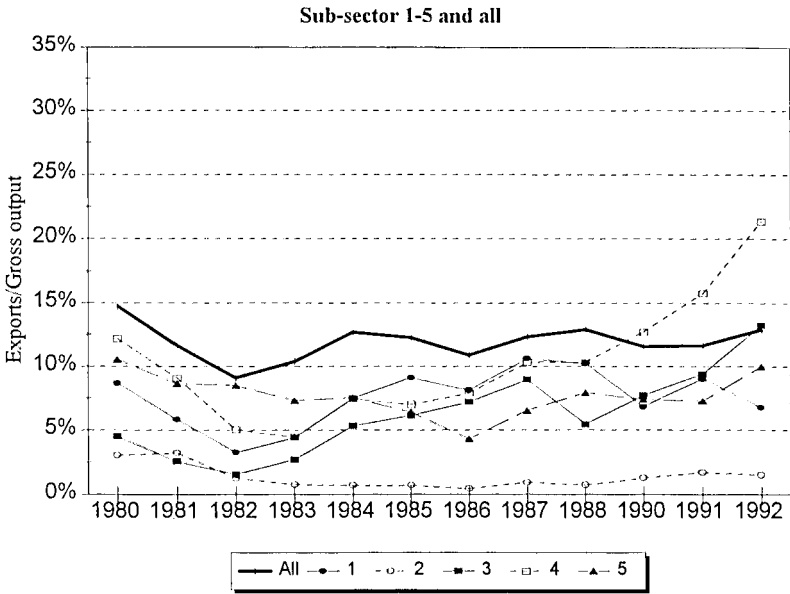
For the different sub-sectors, changes in export intensity 1990-92 largely follow that of the absolute level in US\$ studied above. Exports as percentage of gross output increased in *Textiles, Clothing & Footwear, Wood & Furniture* and *Chemicals*. The increase in export orientation in these four sub-sectors has been going on almost continuously since the early 1980s, indicating a long term orientation towards foreign markets for certain segments of the Zimbabwe economy. The development is especially strong in the first two sub-sectors. *Clothing & Footwear* had the second highest intensity in 1992 (21 percent) after *Metals & Metal Products* (22 percent). It is likely that *Clothing & Footwear* has the highest export intensity today, taking account of the diverging development in the two sub-sectors'

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<sup>35</sup> With respect to sub-sector 11 it is, however, concluded that the product groups *Leather in the piece* and *Works of art & Curios* are two rather important and increasing export items.

<sup>36</sup> The gross output figures for 1991 and 1992 are estimated by using 1990 as the base level (latest year published by CSO), production volume indices (CSO 1994) and price indices for manufacturing (World Bank 1994 b).

Figure 3.7 Export intensity 1980-92, percent



Sources: CSO data processed by CZI, CSO (1994) and World Bank (1994b)

exports 1993, and indications of a further deterioration in Metals & Metal Products in 1994.

*Foodstuffs, Beverages & Tobacco, and Paper* has not changed export orientation significantly when comparing 1992 with 1990, but the foodstuffs exhibits a sharp decline 1988-90, and the 1992 intensity is well below that of 1988, partly reflecting the substantial decrease in absolute US\$ export earnings. Beverages & Tobacco and Paper rank lowest among the 10 sub-sectors in terms of export orientation.

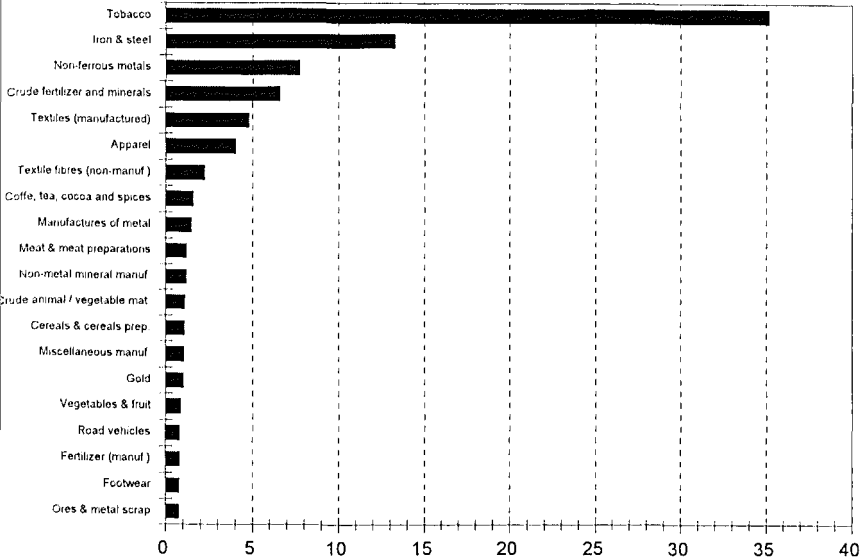
*Non-metal Minerals, Metals & Metal Products* and *Transport Equipment* decreased their orientation towards foreign markets after the introduction of ESAP. Metals & Metal Products still has the highest intensity, but it declined from 34 to 22 percent in the 1984-92 period, corresponding to the large fall in absolute export earnings pointed out earlier. Non-Metals Minerals used to be the second highest in terms of export intensity, although as noted above the sub-sector is small considering its absolute export value. This sub-sector experienced a sharp decline after 1990, but had earlier shown a positive development in the 1987-90 period. Transport equipment, finally, almost halved its export intensity between 1990 and 1992.

#### *Zimbabwe's trade pattern in manufactures*

Above we studied exports at the rather aggregate level of sub-sectors. Looking at a more detailed level, which products are Zimbabwe's largest export earners, and particularly which dominate in manufacturing? Figure 3.8. depicts the 20 largest export products 1992, ranked according to their share of Zimbabwe's overall exports. Tobacco (almost entirely classified as non-manufactured) accounts for as much as 35 percent of the country's exports, thereafter follows Iron & Steel (including ferro-alloys) with around 13 percent. Textiles and Apparel (i.e. clothing) are the largest manufactured product groups, after basic metals. Hence, Zimbabwe's exports is strongly dominated by agricultural commodities, basic metals and other crude products. Higher value added manufacturing exports is still limited.



**Figure 3.8** Share of overall Zimbabwe Exports 1992  
20 largest product groups, percent

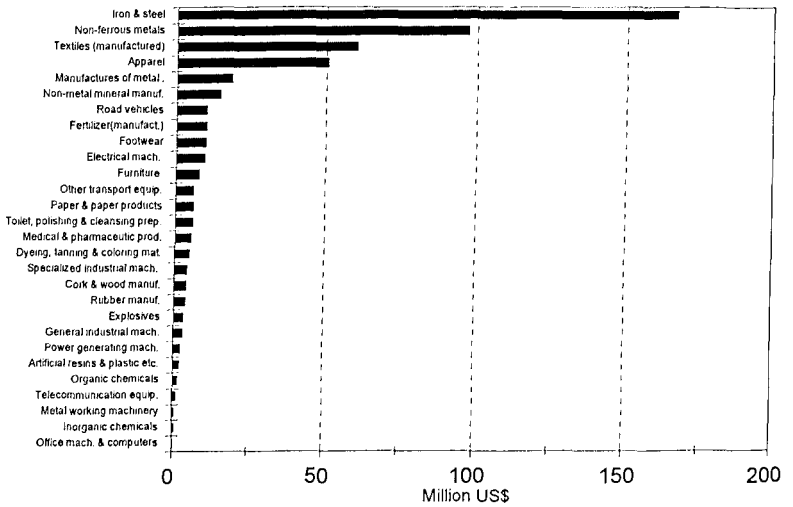


Sources: Unpublished CSO data and World Bank (1994b)

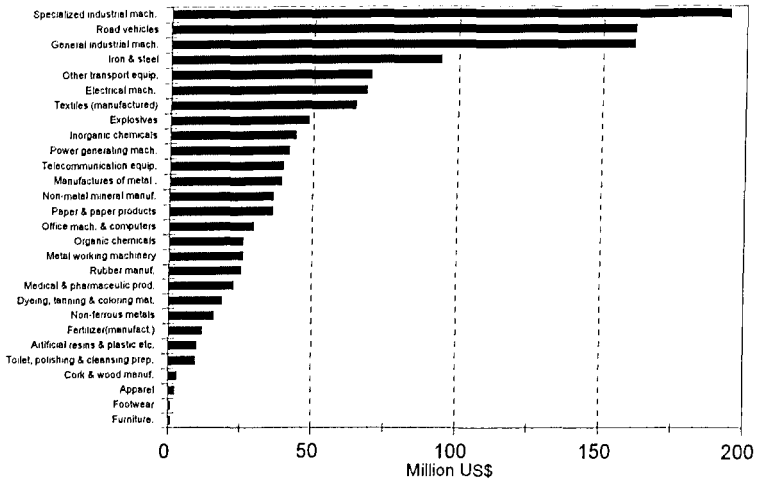
In Figure 3.9, different exported manufacturing products are shown, and ranked according to their US\$ exports in 1992.<sup>37</sup> Other important manufacturing export items groups, in addition to those mentioned above are; Metal Manufactures, Non-Metal Mineral products, Road vehicles, Fertilizer and Footwear. Zimbabwe's imports of the same product categories as for exports can be seen in Figure 3.10. Machinery, Road vehicles, Iron & Steel and Textiles are the most significant import items, while e.g. clothing, footwear and furniture display strikingly low levels of imports.

<sup>37</sup> These 28 manufacturing categories comprise total manufacturing exports with the exception of the Foodstuffs and Beverages & Tobacco sub-sectors. From the CSO trade statistics it was not possible to separate manufacturing and non-manufacturing export items in these two sub-sectors.

**Figure 3.9 Exports of Manufacturing Products 1992**  
Million US\$



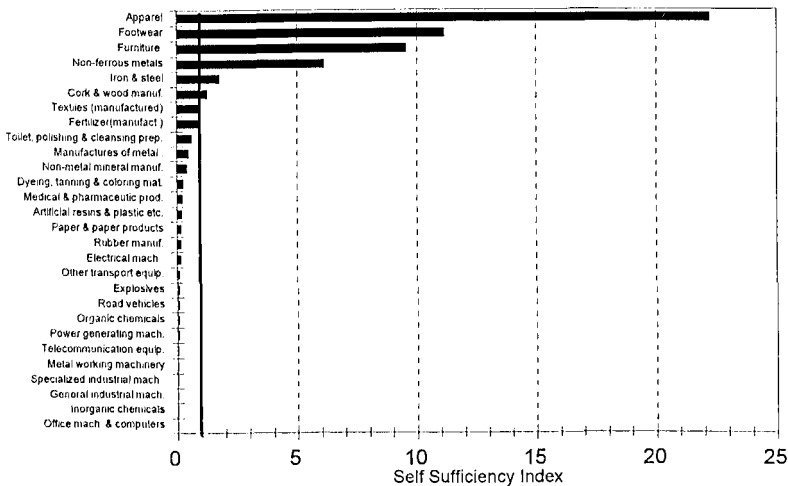
**Figure 3.10 Imports of Manufacturing Products 1992**  
Million US\$



Sources: Unpublished CSO data and World Bank (1994b)

Combining the information on manufactured exports and imports in 1992, we obtain a measure denoted "self sufficiency index", which is defined as exports divided by imports. An index higher than one indicates that Zimbabwe is self sufficient in terms foreign exchange with regards to that product, i.e. that the country is a net exporter and hence net foreign exchange earner in that product category. The country is, on the other hand, a net importer if the index is below one. From Figure 3.11. ranking product groups according to this index, we notice that Zimbabwe is a net foreign exchange earner only in Clothing, Footwear, Furniture, Non-Ferrous Metals, Iron & Steel and Cork & Wood. Slightly below one we find Textiles and Fertilizer.<sup>38</sup>

**Figure 3.11** Self Sufficiency Index 1992.  
(Exports/Imports)



Sources: Unpublished CSO data and World Bank (1994b)

<sup>38</sup> Refer to the vertical line drawn in the figure at self sufficiency index equal to one.

Zimbabwe is, thus, highly dependent on imports of machinery and different chemical products. The self sufficiency yields insight into Zimbabwe's trade pattern, but it should be emphasized that a low index should not be interpreted negatively. Rather, in a more open trade regime, specialization will take place in the longer term. A high index, may either indicate comparative advantage in the product group in question, or be a signal of protective import substitution policies. Clothing, for example, is highly protected from imports at the same time as certain niches within clothing are successful in export markets. In 1992, clothing exports were 22 times larger than imports. At the same time it must be emphasized that considerable quantities of clothing are smuggled into Zimbabwe, and we also have the issue of second hand clothing finding their way into the country, and sold at very low prices.

### 3.3. Dynamics between sub-sectors in manufacturing

Certain sub-sectors have, thus, over the longer term substantially strengthened their absolute export earnings as well as their degree of orientation towards export markets. In our view, these sub-sectors will be instrumental for Zimbabwe's future development, not only do they generate the necessary foreign exchange for the country, but it is expected that exports will also have an important impact on future growth and employment in the economy.

From Figure 3.6. we also see that there are considerable movements in the composition of manufactured exports going on, i.e. changes in the relative role of different sub-sectors as foreign exchange earners. As expected, a similar pattern emerges as with absolute exports and intensities. *Textiles and Clothing & Footwear* more than doubled their shares of manufactured exports between 1980 and 1992. The role of *Foodstuffs*, on the other hand, diminished and constituted only 11 percent of manufactured exports in 1992, to be compared with 20 percent in 1987. *Metals & Metal Products* accounted for over half the country's manufactured exports 1980, while in 1992 the figure had fallen to 34 percent.

The composition of manufactured exports (1980-92) shows a much more dynamic development as compared with the composition of gross output (1980-92)

or employment (1985-93) studied above, with the two latter exhibiting a rather stable pattern. Especially the employment distribution appears almost constant since 1985, reflecting the slow adjustment of the labor force between sub-sectors. In a structural adjustment process it is essential that movement in resources between sectors in the economy occurs, especially towards the more export oriented sub-sectors, since it is here where we believe that the country's future growth potential lies. The stable distributions of gross output and employment over time indicates that adjustment so far has been limited, in spite of the considerable changes on the export side. The sub-sectors that have lost in terms of exports, have basically retained their shares of output and employment, by focussing on the domestic market.

In a program like ESAP, essentially aiming at increased outward orientation of the economy it must be accepted that adjustment takes place not only *between* sub-sectors, but also *within* sub-sectors,<sup>39</sup> and between individual firms operating in the same industry category. The adjustment will include exit of firms and parts of certain sub-sectors, as well as new entry into profitable activities. We do not believe that entire sub-sectors will be wiped out altogether, but rather that some will be downsized while others will expand.

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<sup>39</sup> As seen from the more detailed export data (Figure A.3.4. in Appendix).

## APPENDIX: CHAPTER 3

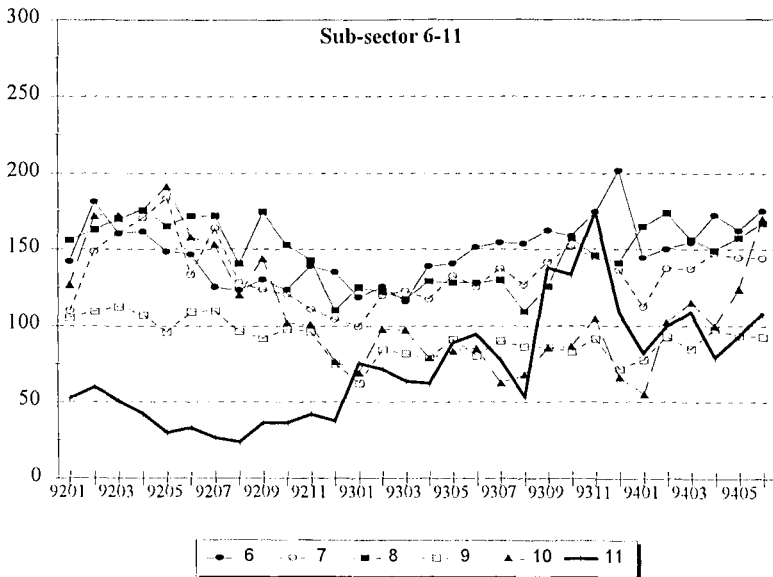
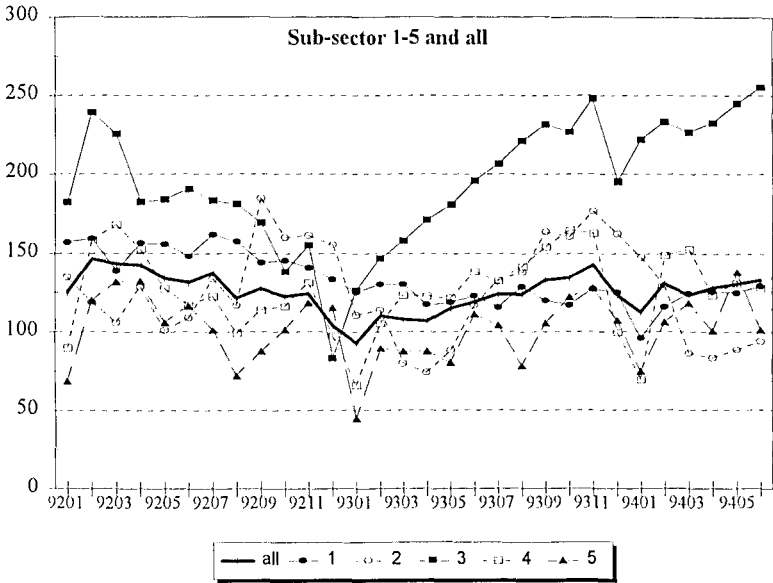
Table A.3.1. Decomposition of sub-sector gross output 1990 in product groups

Sub-sector	Product groups included in sub-sector	Share of sub-sector gross output 1990, percent (a)
Foodstuffs	Slaughtering and processing of meat	21
	Canning and preserving, fruit and vegetables	1
	Grain mill products and animal feeds	36
	Bakery products	13
	Chocolate and sugar confectionery	3
	Dairy and other food products	26
Beverages & Tobacco	Beer, wine and spirits	59
	Soft drinks and carbonated water	21
	Tobacco products incl. post auction grading and packing	20
Textiles	Cotton ginning, spinning, weaving, finishing textiles	83
	Knitted products, rope and cordage	6
	Other textile products	11
Clothing & Footwear	Wearing apparel	65
	Footwear	35
Wood & Furniture	Saw-milling and wooden products except furniture	56
	Furniture and fixtures except primarily of metal	44
Paper	Pulp, paper, paperboard and their products	52
	Printing, publishing and allied industries	48
Chemicals	Fertilizer, insecticides and pesticides	30
	Paints, varnishes and filling materials	6
	Soaps, detergents, toilet preparations and pharmaceutical	26
	Matches, inks, candles, glues, polishes and other chem. prod.	5
	Basic industrial chemicals, petroleum prod. and gases	6
	Rubber products	14
	Plastic products	12
Non-Metal Minerals	Structural clay products, incl. bricks	17
	Glass, cement and associated prod. and other non-met. min. prod.	83
Metals & Metal Products	Non-ferrous metal, iron and steel, smelting	46
	Metal products, machinery and equipment, non-electrical	38
	Electrical machinery and eq., radio and communication eq.	16
Transport Equipment	Motor vehicles incl. reconditioning	79
	Other vehicles and equipment, incl. repairs	21
Other Manuf. Industries	(No figures available for different product groups)	--

Note:(a) The percentages of each sub-sector do not always add up to 100, due to rounding.

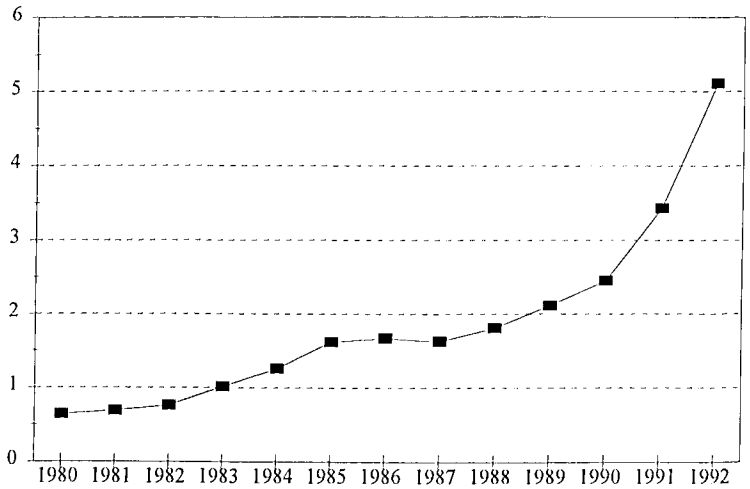
Source: CSO data from the forthcoming Census of Production 1990/91.

**Figure A.3.1. Manufacturing production index January 1992-June 1994 (1980=100)**



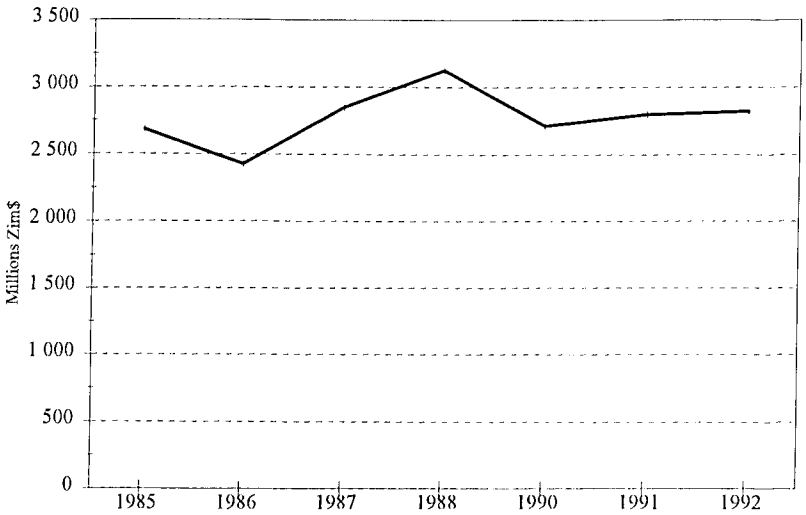
Sources: CSO(1994) and unpublished CSO data

**Figure A.3.2 Exchange rate 1980-92, Zimbabwe \$ per US\$**



Source: World Bank (1994b)

**Figure A.3.3 Manufacturing exports 1985-92, million Zim\$ (1992 prices)**



Sources: CSO data processed by CZI and World Bank (1994b)



Figure A.3.4. Exports 1985-92, million US\$.

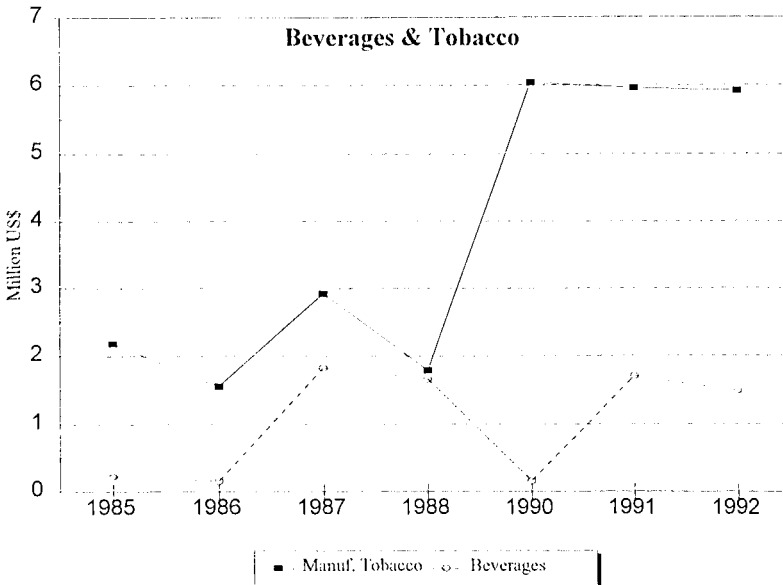
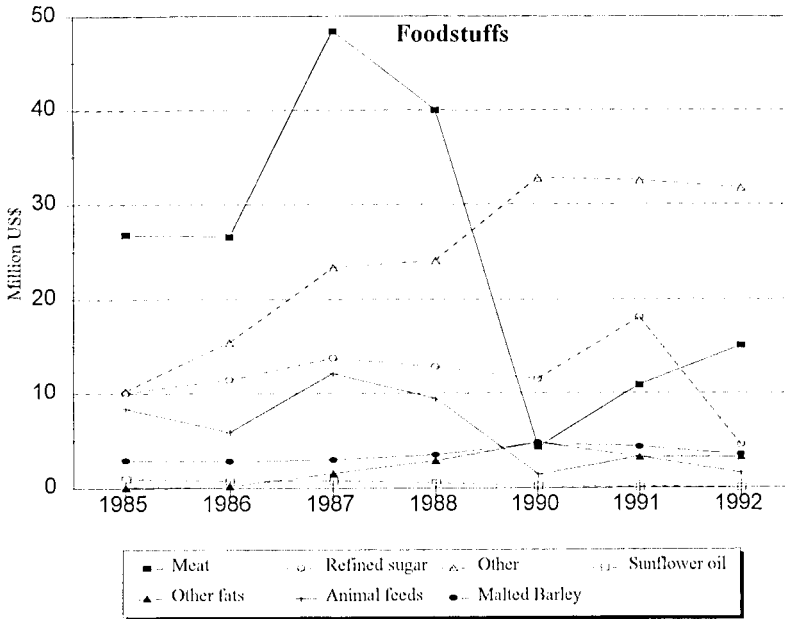
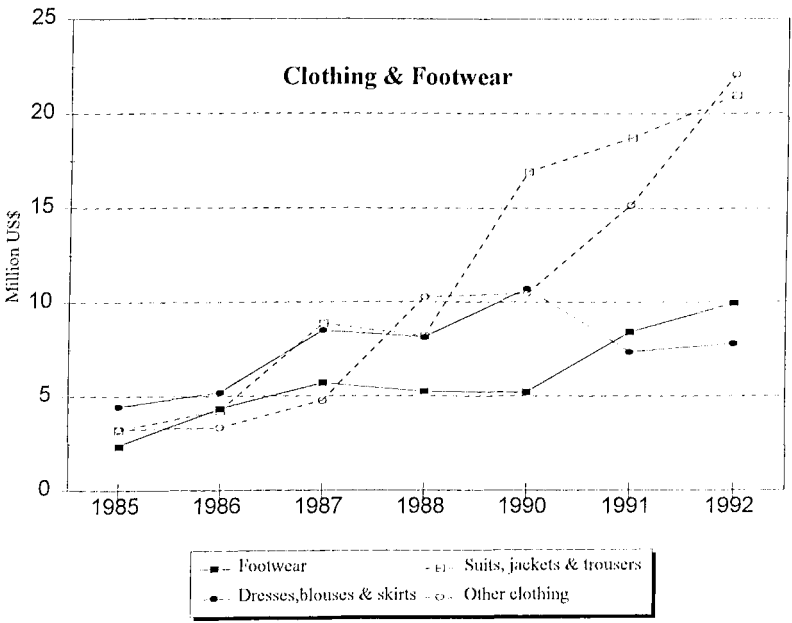
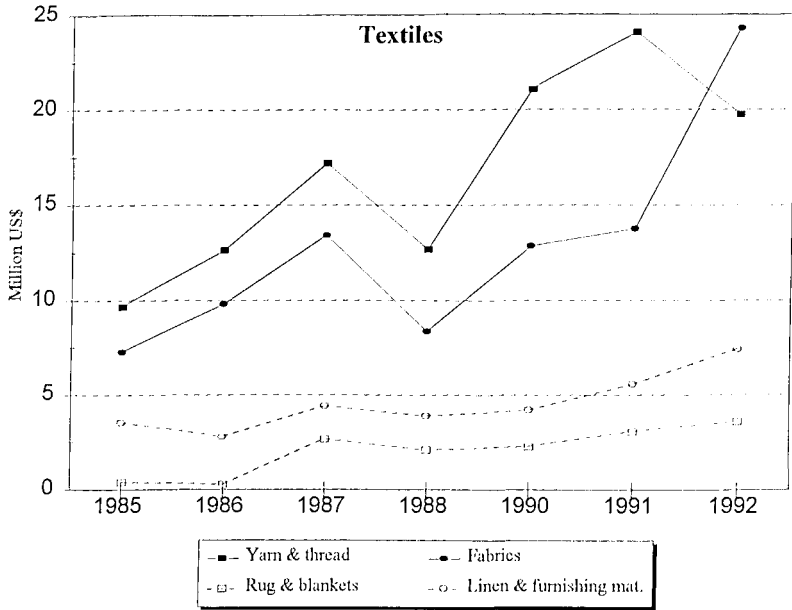


Figure A.3.4. Exports 1985-92, million US\$.



Sources: CSO data processed by CZI and World Bank (1994b)

Figure A.3.4. Exports 1985-92, million US\$.

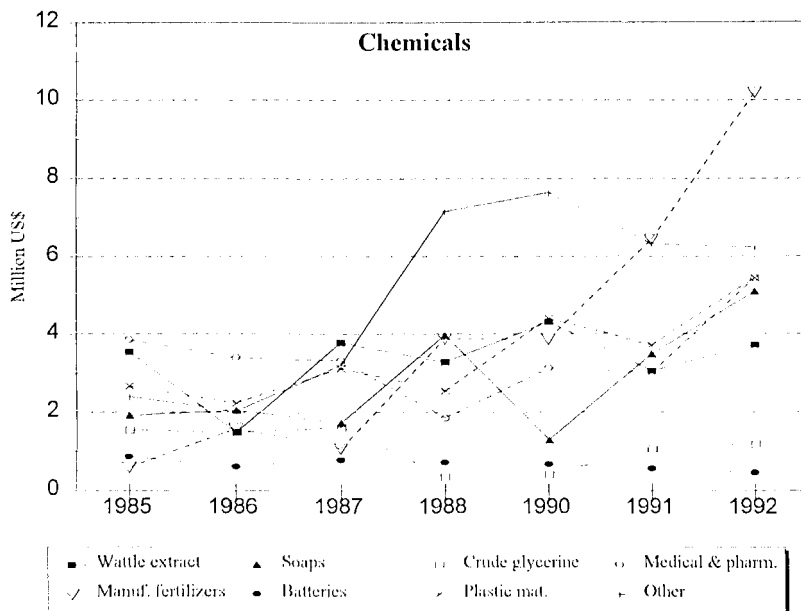
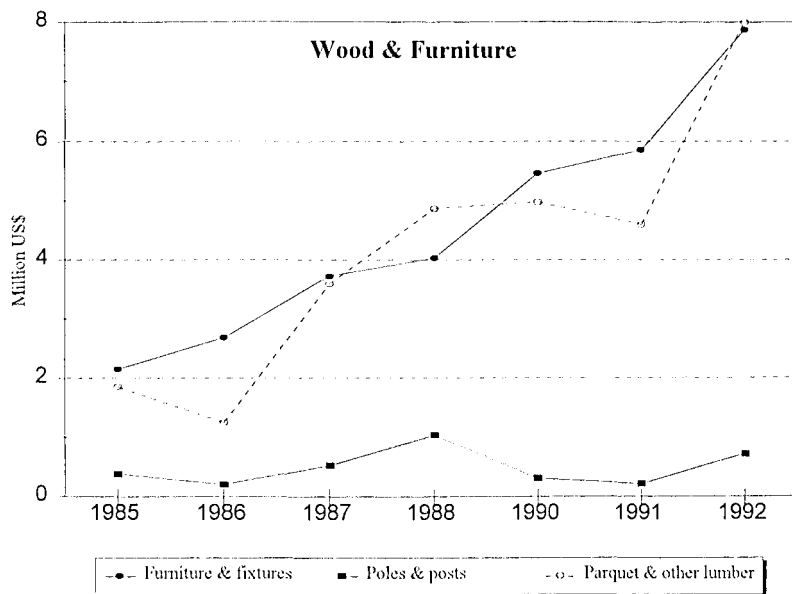
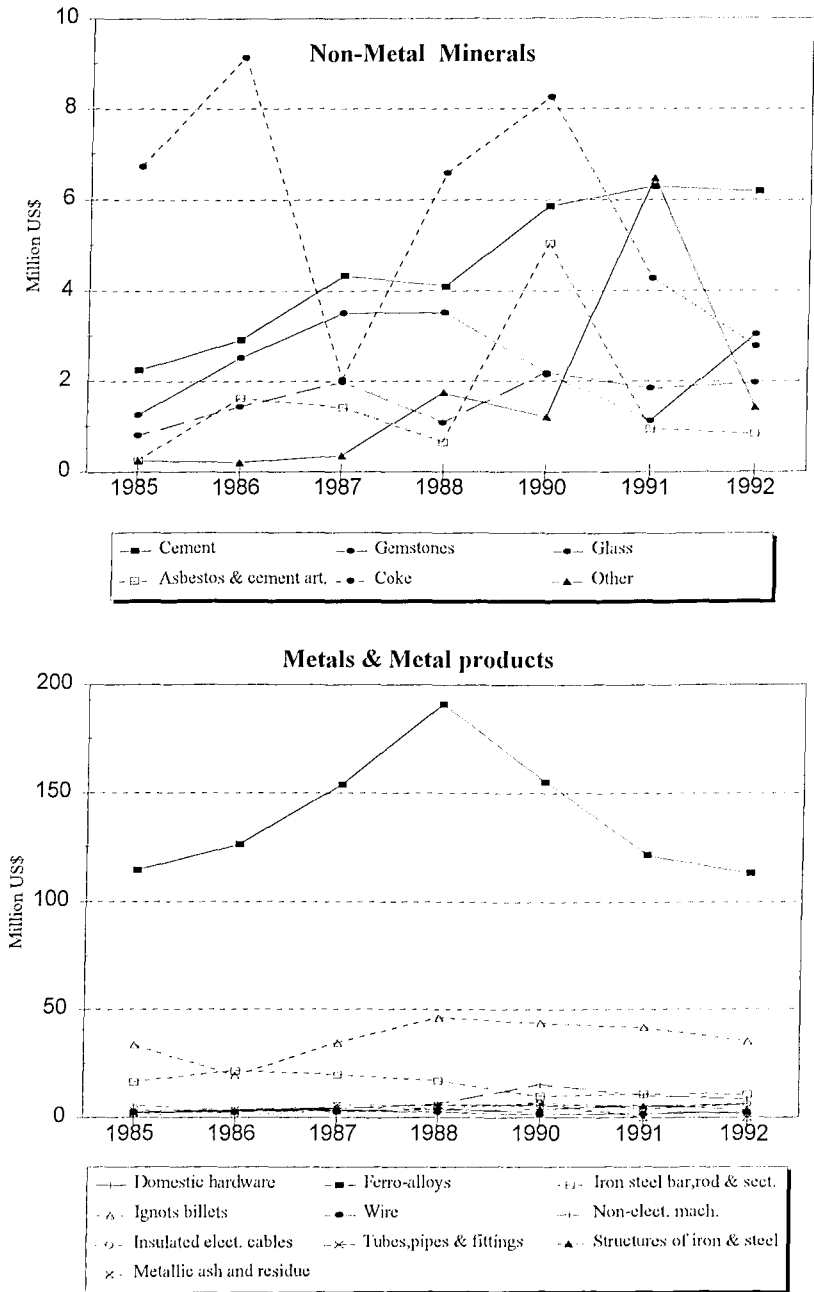
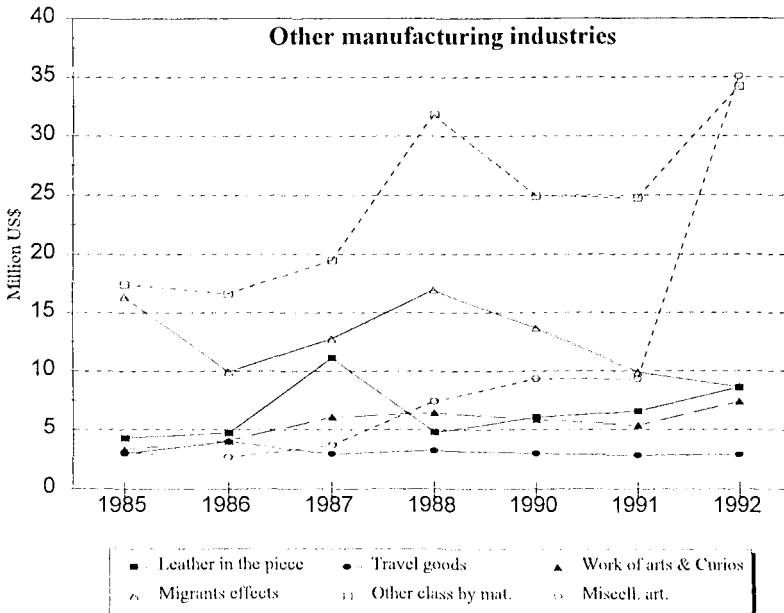
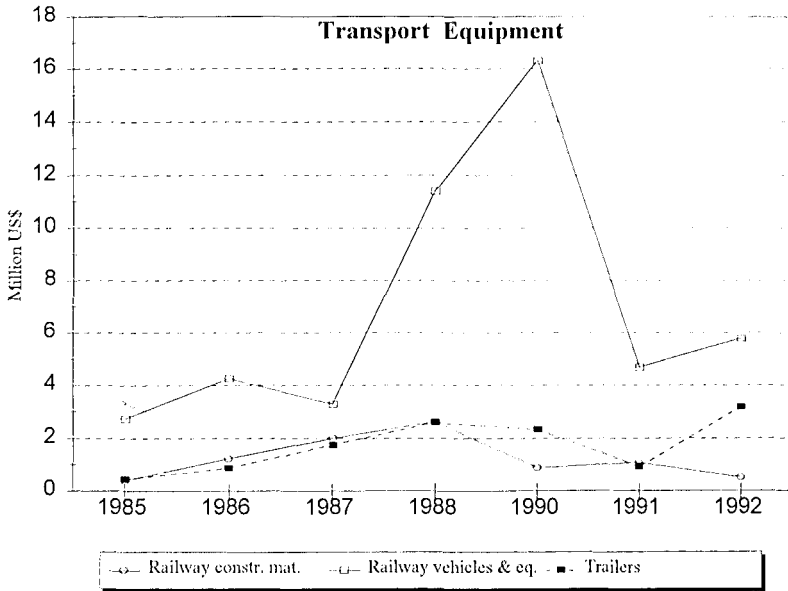


Figure A.3.4. Exports 1985-92, million US\$.



Sources: CSO data processed by CZI and World Bank (1994b)

Figure A.3.4. Exports 1985-92, million US\$.



## CHAPTER 4

### MARKET STRUCTURE AND COMPETITION IN ZIMBABWE

The present chapter investigates the domestic market structure in the Zimbabwe manufacturing industry, as well as the foreign competition that industry faces. The objective here is to differentiate among the manufacturing sub-sectors with respect to the overall competitive pressure they encounter.

A general problem when analyzing market structure and competition in an economy, is the definition of the relevant market. The sub-sector classification system is in any case too aggregated, e.g. Iron & Steel products do not compete with electrical machinery, but still both are included in the Metals & Metal Products sub-sector. Due to data constraints, we can, however, not disaggregate the data further. The fact that the sub-sectors are broadly defined, may not turn out to be a major constraint in the present analysis since the point here is to relate the sub-sectors to each other, and assess which sub-sectors are subject to *relatively* more or less competition.

#### 4.1. Domestic competition

##### *Firm level dataset*

The dataset used here is taken from the current membership register of the Confederation of Zimbabwe Industries (CZI), comprising 518 manufacturing firms.<sup>40</sup> Even though we miss out a large number of small manufacturing enterprises, the CZI member firms together still constitute as much as 86 percent of the official total manufacturing employment 1993 figure reported by CSO. To this should be added that the exclusion of smaller firms have almost no effect on the market concentration indices used in the present analysis. Most individual sub-sectors are well represented

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<sup>40</sup> The data refers to 1993. For each firm information is available on; (i) sub-sector classification, (ii) turnover, and (iii) employment.

in terms of number of employees and corresponds roughly to the composition of employment between sub-sectors (Figure 3.4.). The exceptions are Beverages & Tobacco and "Other Manufacturing Industries", which are consequently excluded in the analysis. The Foodstuffs, Textiles, Wood & Furniture, Chemicals and Metals & Metal Products sub-sectors are almost fully covered in terms of employment when considering the CZI firm population.<sup>41</sup>

### *Number and size of firms*

The distribution of firms on sub-sectors is reported in Table 4.1. below together with other descriptive statistics. The Metals & Metal Products industry is inhabited by the largest number of firms, almost 200 out of the 518 firms. Thereafter follow Chemistry, Foodstuffs and Paper. The fewest number of firms are found in the Non-Metals Minerals and Transport Equipment sub-sectors.

The largest firms, according to the CZI data, in terms of employment as well as turnover, resides in the Textiles sub-sector, and has an average of over 1.000 employees and 48 million Zimbabwe \$ in turnover. The Transport Equipment firms share the highest ranking with Textiles in terms of turnover per firm, but has only 235 employees on average. Firms in Foodstuffs are also among the larger, with either size measure. Clothing & Footwear firms are the third largest in terms of employment.<sup>42</sup> The Metals & Metal Products sub-sector ranks second lowest using both measures.

As seen from Table 4.1., the ranking of sub-sectors firm size by average employment and turnover only partially match, depending on the different sub-sector's capital intensity or labor productivity. In the analysis to follow we will use

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<sup>41</sup> No official turnover figures are available for the manufacturing sector for comparison, but since most of the larger firms, from which the major part of turnover emanates, are members of CZI, it is plausible that our sample covers aggregate turnover to an even higher degree than employment.

<sup>42</sup> The ranking of firm size according to employment corresponds rather well with UNIDO's survey of 1020 firms, where Textile firms are on average the largest followed by Foodstuffs and Clothing. Turnover figures are not included in UNIDO's survey.

the size measure given by average number of employees.<sup>43</sup>

**Table 4.1. Number of firms and average firm size by sub-sector  
CZI member firms 1993.**

Sub-sector	Number of firms	Average firm size	
		Average employment per firm (no of empl.)	Average turnover per firm (mill Zim.\$)
Foodstuffs	50	636	44
Textiles	25	1.018	48
Clothing & Footwear	34	326	28
Wood & Furniture	32	320	16
Paper	35	225	22
Chemicals	86	179	38
Non-Metal Minerals	22	225	29
Metals & Metal Prod.	197	209	17
Transport Equipment	19	235	48

Source: CZI membership register 1993.

### *Domestic market concentration*

We next use the CZI firm data, described above, in order to assess the competitive pressure in the Zimbabwe manufacturing industry. A high concentration in a sub-sector is generally associated with a low competitive pressure in the domestic market, and vice versa. In Figure 4.1, below each firm is represented by a vertical bar. The number of firms can be read on the horizontal axis. Individual firms are ranked according to their market shares, here defined as share of sub-sector

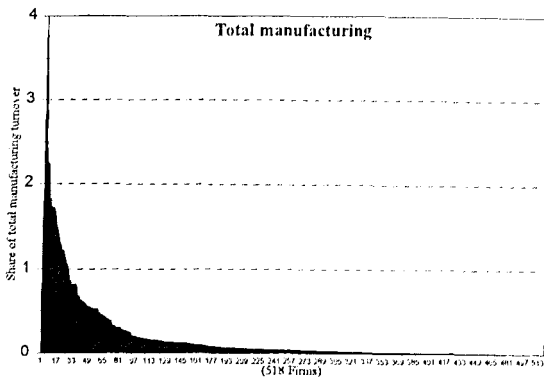
<sup>43</sup> The problem with turnover is that it does not necessarily reflect size if the firms to be compared are in different stages in the value-added chain, i.e. a firm assembling almost finished products might show a very high turnover but low value added since input material costs will be a large part of turnover. Average employment is not an ideal measure either, since firm employment is partly attributed to the difference in labor intensity among the sub-sectors.



turnover.<sup>44</sup> The height of the bars correspond to the firms' market shares, and is illustrated on the vertical axis. The profile of the bars, thus, yields information on the inequality between the firms and concentration in the industry in question. A steep profile indicates a high concentration.

The first graph in Figure 4.1. covers the whole manufacturing sector (sum of the 518 CZI firms). The individual bars cannot be distinguished here, but it is noteworthy that around ten firms each account for around 2-4 percent of manufacturing turnover. Most firms, as can be seen from the figure, represent only small fractions of overall turnover.

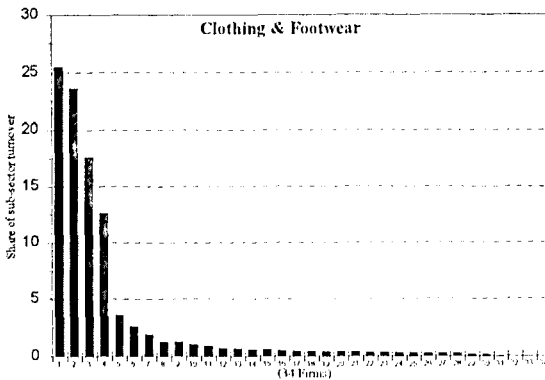
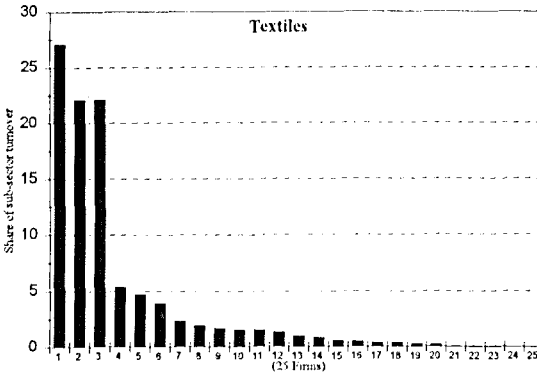
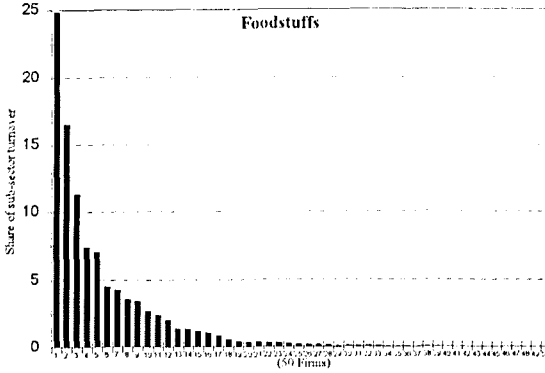
Figure 4.1. Share of turnover (CZI member firms 1993), percent



Source: CZI membership register

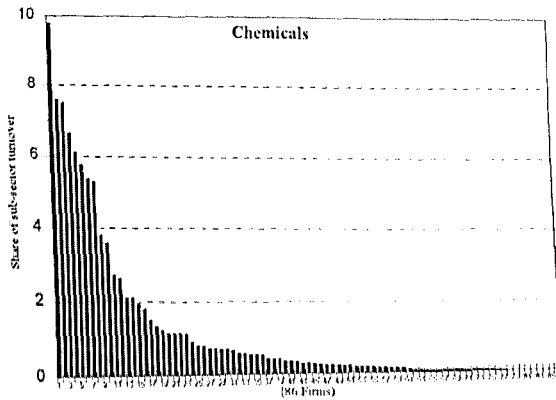
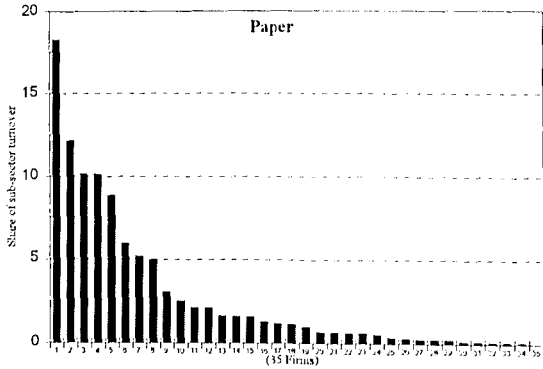
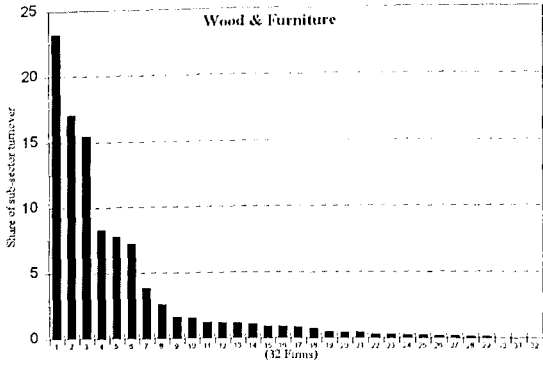
<sup>44</sup> Calculated as the sum of the CZI firms sorted under the sub-sector in question. It could be argued that market share should ideally be calculated as a firm's domestic sales as percentage of the total domestic demand in the relevant market, i.e. correcting for imports and exports. This is not possible when utilizing the CZI firm data only including information on turnover.

Figure 4.1. Share of turnover (CZI member firms 1993), percent



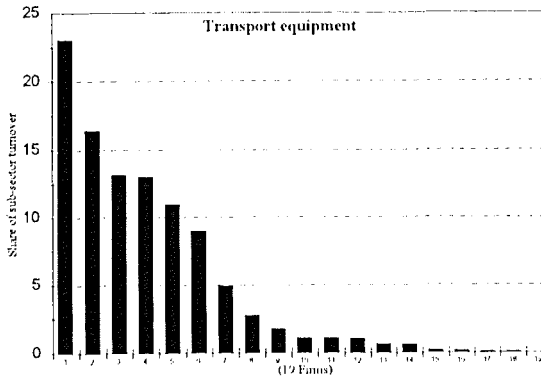
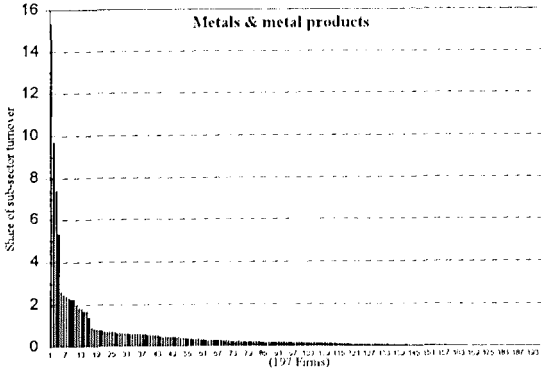
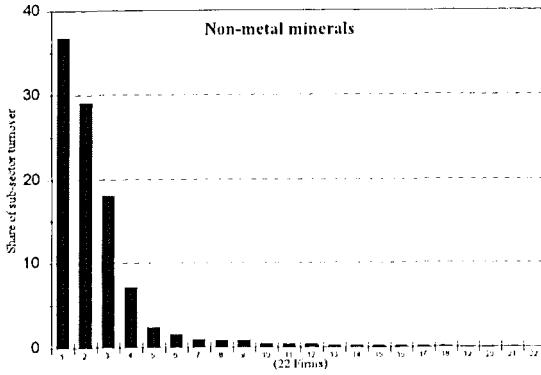
Source: CZI membership register

Figure 4.1. Share of turnover (CZI member firms 1993), percent



Source: CZI membership register

Figure 4.1. Share of turnover (CZI member firms 1993), percent



Source: CZI membership register

Inspection of the sub-sector level graphs of Figure 4.1. above, where the individual bars can be seen, indicate that only a few firms account for almost all sub-sector turnover. Hence, the concentration in most sub-sectors is very high. In each of *Foodstuffs*, *Textiles*, *Clothing & Footwear*, *Wood & Furniture* and *Transport Equipment* the largest single firm represents as much as around a quarter of sub-sector turnover, in *Non-Metal Minerals* almost 40 percent. *Metals & Metal Products*, consists of many firms, but displays a steep profile. We observe 3-4 very large firms, a small group of medium sized, and around 180 relatively small firms. Each of the latter with a market share below one percent.

In order to obtain a comparative measure of concentration based on the information presented in the above figures, the Herfindahl index (HI) and the four firm concentration ratio (C4) are calculated at the sub-sectoral level. Both of these measure market concentration, but in slightly different ways. HI encompasses both the inequality between firms and the number of firms.<sup>45</sup> The C4 ratio, on the other hand is obtained simply by adding together the market shares of the four largest firms, i.e. not taking account of smaller ones or the inequality between firms. Both concentration measures are provided in Table 4.2. below and the rankings turn out to be almost the same with either measure. Since the Herfindahl index takes account of both dimensions of concentration, we choose this indicator in the analysis to follow.

The highest concentration is found in the *Non-Metals Minerals* sub-sector. As seen from Table A.3.1. in the Appendix, this sub-sector produces e.g. glass and cement, which are products characterized by large scale operations. A single firm accounts for 37 percent of the Non-Metal Minerals industry's turnover. Thereafter follow *Textiles* and *Clothing & Footwear* which both have a similar concentration

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<sup>45</sup> The Herfindahl index is calculated in the following way,  $s_i$  denotes market share of firm  $i$ , and  $n$  the number of firms in the sub-sector.

$$HI = \sum_{i=1}^n s_i^2$$

The value of HI declines with an increase in number of firms, and increases with raising inequality among a given number of firms. Smaller firms have less weight in the index since the market shares are squared in the formula. Hence, the resulting error is limited when missing a lot of small firms, as in the CZI firm population.

**Table 4.2. Concentration measures by sub-sector  
CZI member firms 1993**

Sub-sector	Herfindal index (HI)	Four largest firm concentration ratio (C4), percent
Foodstuffs	0.12	60
Textiles	0.18	77
Clothing & Footwear	0.17	79
Wood & Furniture	0.13	64
Paper	0.09	51
Chemicals	0.05	32
Non-Metal Minerals	0.26	91
Metals & Metal Prod.	0.05	38
Transport Equipment	0.14	66

Source: CZI membership register 1993.

**Table 4.3. Ranking of sub-sectors according to market structure variables, 1993**

Sub-sector	Ranking 1-9 Number of firms	Ranking 1-9 Average firm size (employment)	Ranking 1-9 Concentration (Herfindal index)
Foodstuffs	3	2	6
Textiles	7	1	2
Clothing&Footwear	5	3	3
Wood & Furniture	6	4	5
Paper	4	6	7
Chemicals	2	9	9
Non-Metal Minerals	8	7	1
Metals&Metal Prod	1	8	8
Transport Equip.	9	5	4

Note: Rank 1 indicates the highest number of firms, largest firm size and highest concentration.  
Sources: Tables 4.1. and 4.2.

index. Recall from Table 4.1. that the largest firms reside in Textiles, and the third largest in Clothing & Footwear. In Textiles, the three largest firms each constitute in the range of 22-27 percent of turnover. The *Transport Equipment* sub-sector, basically involved in capital intensive car assembly and to some extent railroad vehicles and equipment, exhibits the fourth highest concentration. It is the largest sub-sector if we measure size in terms of average firm turnover.

*Chemicals* and *Metals & Metal Products* display the lowest concentration, and are hence subjected to the highest domestic competition according to our measure. From Figure 4.1. we note that Chemicals is inhibited by a considerable number of medium sized firms, in addition to the very large and the small ones. The profile for chemicals is less steep than other sub-sectors.

Table 4.3. above summarizes the discussion on number of firms, size and concentration by ranking each sub-sector in these dimensions. As expected, and by definition, industries with high concentration are inhabited by few firms, and we find a good correspondence (negative) of the rankings. For most sub-sectors we also find a correspondence (positive) between concentration and average firm size.

## 4.2. Foreign competition

In this section we investigate the degree of foreign import competition facing the Zimbabwe manufacturing industry. Two inter-related measures, *import penetration* and the *average import tariff rate* are considered. The tariff rate together with other factors determine the degree of import penetration in a sub-sector. High tariff rates increase the price of foreign relative to domestically produced goods, and will hence cut back imports. Transportation costs and quantitative import restrictions are two other factors affecting the degree of import penetration. The latter being of particular importance since Zimbabwe is a land-locked country.

### *Import penetration*

Import penetration, defined as the country's imports of goods classified in a certain sub-sector as percentage of the domestic demand of these goods. Domestic demand

is calculated as the sub-sector gross output, minus its exports, plus imports.<sup>46</sup> Whether imported goods classified by a certain sub-sector actually competes with the domestic production of the same sub-sector, depends on the degree of similarity between domestically produced and imported goods. As already pointed out, the level of aggregation in sub-sectors is high, i.e. defining the market too broadly.

In Table 4.4. the import penetration rates are provided.<sup>47</sup> The highest penetration is recorded in the *Transport Equipment* sub-sector, with more than half of domestic demand imported. This is, however, an example of a sub-sector where imports only partially compete with locally produced goods, since the range of products made in Zimbabwe is very narrow compared with what is imported. There are simply no domestic producers of certain import items.

**Table 4.4. Import penetration rates 1992**

Sub-sector	Import penetration rate, percent
Textiles	15
Clothing & Footwear	1
Wood & Furniture	3
Paper	11
Chemicals	34
Non-Metal Minerals	26
Metals & Metal Prod.	46
Transport Equipment	54

Sources: CSO (1994), unpublished CSO data and calculations by the authors.

<sup>46</sup> Import penetration in sub-sector  $j$  is defined as;

$$\frac{Imp_j}{Dom. demand_j} = \frac{Imp_j}{Gro_j - Exp_j + Imp_j}$$

where  $Imp_j$  refers to Zimbabwe's imports of products classified under sub-sector  $j$ .  $Gro_j$  and  $Exp_j$  are the sub-sector's own gross output and exports, respectively. Exports is expressed in Zimbabwe \$.

<sup>47</sup> In addition to the exclusion of Beverages & Tobacco, as the analysis of concentration above, we here exclude Foodstuffs as well, since it is not possible to obtain a consistent measure on imported food classified as manufactured.



The second highest penetration is found in *Metals & Metal Products*, with close to half demand imported. Since this industry is highly diversified in Zimbabwe, and consisting of a large population of firms, it is plausible that imports do exert significant competitive pressure on domestic producers. However, in *Metals & Metal Products* we find imports of machinery, much of which is not produced within the country.<sup>48</sup> Next in terms of penetration comes the *Chemicals* sub-sector, also characterized by high diversification and numerous firms. Also here we expect imports to increase the competition faced by firms.<sup>49</sup> *Clothing & Footwear* has the lowest penetration ratio. This is essentially a result of the import ban on clothing. *Wood & Furniture* and *Paper* have relatively low penetration rates, partly a reflection of the bulkiness and high transport cost per value of these goods.<sup>50</sup>

Having discussed the relative 1992 levels of import penetration, Figure 4.2. enables the study of the development 1985-92.<sup>51</sup> A rise in import penetration implies an intensified competitive pressure from foreign producers. An increased penetration since 1985 is recorded for *Textiles*, *Paper*, *Chemicals*, *Non-Metal Minerals* and *Metals & Metal Products*. Of which Paper, ranking lowest in 1985, experienced the most rapid increase among the subsectors, although the level is still low.

*Clothing & Footwear* and *Wood & Furniture* have stayed at low levels during the entire period. For *Transport Equipment*, finally, the import penetration rate declined sharply from almost 80 percent in 1985 to 54 percent 1992, reflecting a higher share of domestically produced vehicles in the economy, even though the rate is still the highest.

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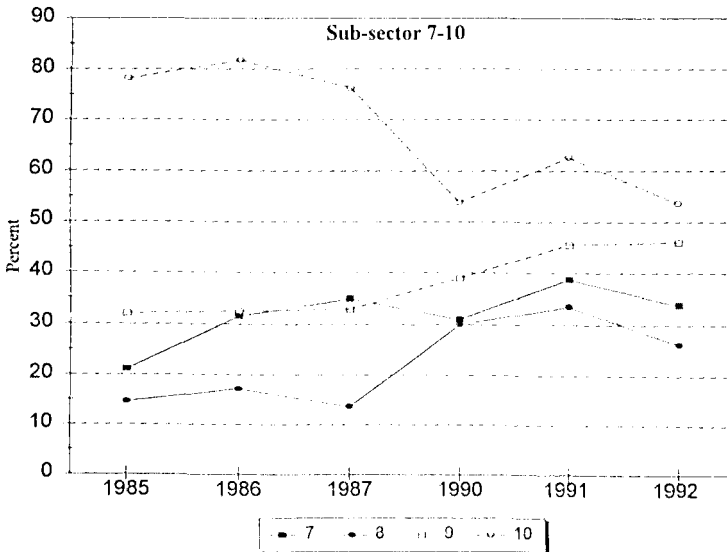
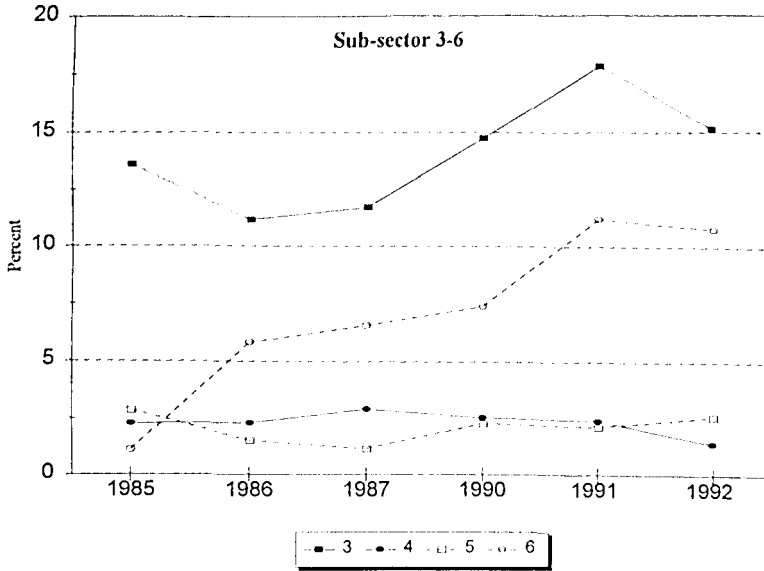
<sup>48</sup> The tariffs on imported machinery, i.e. capital good input by firms, has already been reduced, or are in the process of being eliminated. An increase in imports of machinery can thus be expected.

<sup>49</sup> The exception being imports of intermediary chemical products, e.g. by the plastic industry importing almost all inputs, since these are not produced within the country. The chemical industry ranks among the highest in terms of percentage of input materials imported.

<sup>50</sup> The domestic market is probably not yet ripe for sophisticated imported furniture, and low cost furniture would probably not be competitive due to high transport costs. This applies possibly even more to the rest of the sub-sectors products, such as lumber and other wood based manufactures.

<sup>51</sup> Note that the years 1988 and 1989 are missing in the CSO data, implying a possible magnification of changes between 1987 and 1990.

Figure 4.2. Import penetration 1985-92, percent



Sources: CSO (1994), unpublished CSO data and calculations by the authors

Little change has taken place after the introduction of ESAP, when evaluating the situation in 1992. However, during the first year of ESAP an increase in penetration took place in most sub-sectors. But, when comparing 1990 with 1992, it is noticed that only Paper, Chemicals and Metals & Metal products increased. The observed fall 1992 is partially attributed to the fall in domestic demand, and hence, imports, resulting from the drought. It therefore remains unclear whether ESAP, whose objective is to open the economy, has yet had any significant effect on import competition in Zimbabwe. According to recent interviews with industry leaders in Harare, competing imports are being felt, although the impact varies between sub-sectors.<sup>52</sup>

To sum up, when considering the 1992 levels *and* changes over time it appears that import competition is of greatest importance in Metals & Metal Products and Chemicals, and of least importance in Clothing & Footwear and Wood & Furniture. An elimination of the import ban for clothing could rapidly alter the situation. In addition, imports of low cost footwear, e.g. from China, appears to be on the increase.<sup>53</sup>

### *Import tariffs*

Above we discussed the actual penetration of imports into Zimbabwe, resulting from trade policy and other factors. Here we consider import tariffs, the key trade policy instrument. In Figure 4.3. below, the *average import tariff rates* for the sub-sectors are shown 1990-92. This rate is defined as; collected import duties and other import taxes as percentage of the corresponding import value (CIF), and is, thus, the actual trade taxes collected on goods entering the country. The average import tariff rate generally turn out very different from the official tariff rates published by the customs and other authorities.

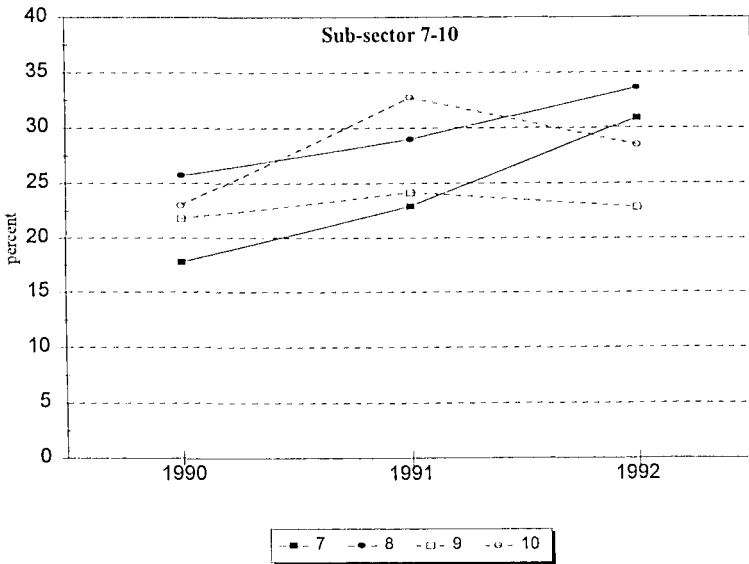
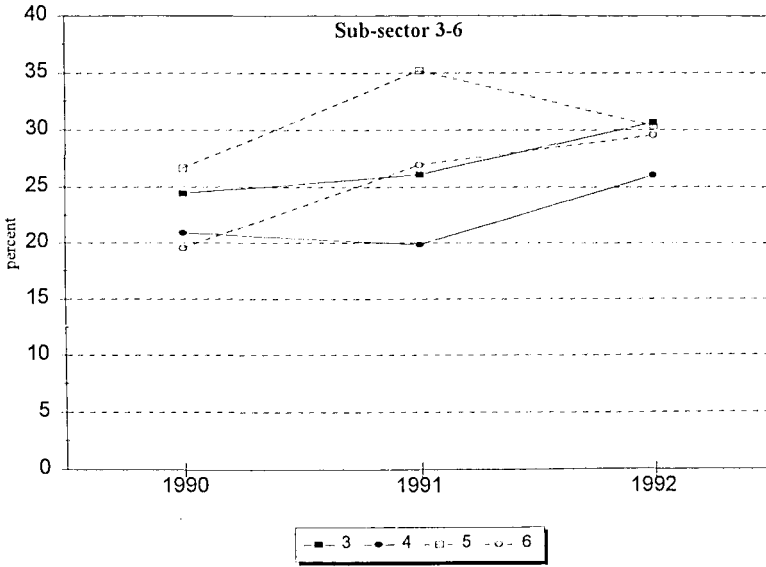
Zimbabwe's tariff rate, considering the country's total imports, was 23

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<sup>52</sup> More recent data than 1992 would be required in order to assess the current situation.

<sup>53</sup> Interviews with business representatives in Harare 1994. One manufacturer claimed that Zimbabwe's import tariffs on finished shoes was so low that domestic producer's could not compete, and that the same producers had started to import themselves.

Figure 4.3 Average Import Tariff rate 1990-92, percent

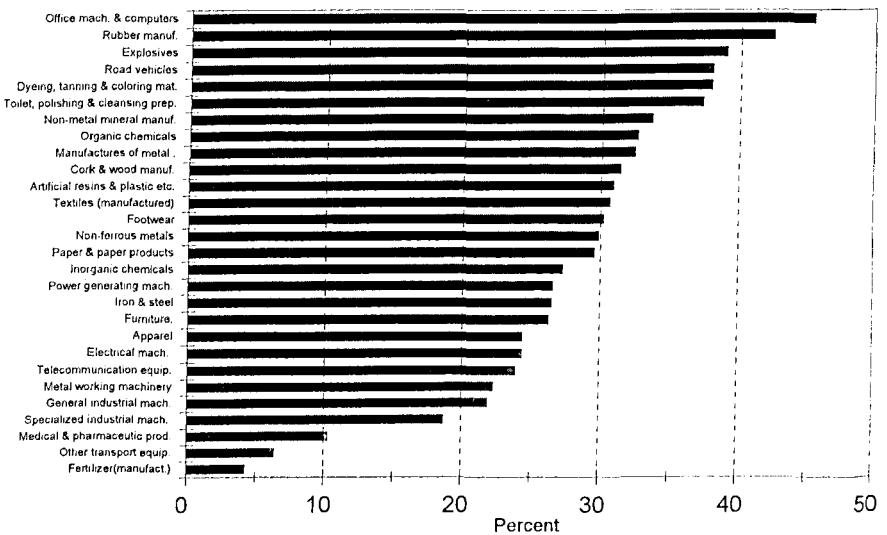


Sources: Unpublished CSO data and calculations by the authors

**Table 4.5. Average import tariff rates 1992**

Sub-sector	Average import tariff rate (percent)
Textiles	31
Clothing & Footwear	26
Wood & Furniture	30
Paper	30
Chemicals	31
Non-Metal Minerals	34
Metals & Metal Prod.	23
Transport Equipment	28

Sources: Unpublished CSO data and calculations by the authors.

**Figure 4.4 Average Import Tariff rate manufactured products 1992, Percent.**

Source: Unpublished CSO data

percent 1992, a relatively high figure compared to other developing countries.<sup>54</sup> For manufactured imports the tariff was higher, around 29 percent the same year. As seen from Table 4.5. above, the sub-sectors' tariffs are on rather similar levels. A disaggregation is therefore necessary and reveals the existence of considerable differences (Figure 4.4. above). Office Machinery (including computers) is subject to the highest import tariff rate, 45 percent.<sup>55</sup> Thereafter follows a number of chemical product categories, Road Vehicles and Non-Metal Mineral products.

From 1990 to 1992, we observe an increase in the import tariff rate in all sub-sectors (Figure 4.3.).<sup>56</sup> This development seems to be contradictory with ESAP, but is partly a result from the shifting of quantitative restrictions to tariffs, which has been an important ingredient of the initial reform programme. For a few sub-sectors, Wood & Furniture, Metals & Metal Products and Transport Equipment, the rate went down in the second year of ESAP, but their 1992 level was still higher than the pre-ESAP level.<sup>57</sup>

### 4.3. Assessment of overall competitive level

In this section, an attempt is made to differentiate among the sub-sectors overall exposure to competition, taking account of both domestic and foreign competition. Table 4.6. below ranks the eight sub-sectors in these dimensions. Note that rank 1 in this table represents the highest domestic and foreign competition, respectively. Information on the changes in foreign competition since ESAP is also included. Since it is difficult to come up with a consistent ranking of the sub-sectors' exposure

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<sup>54</sup> The unweighted average of the rate, considering total imports, for 8 selected countries; Colombia, Côte d'Ivoire, Ghana, Indonesia, Jamaica, Mexico, Pakistan and Turkey, was in 1989 around 14 percent (World Bank, 1992, p. 138). This figure should be compared with Zimbabwe's 25 percent rate for total imports 1990 (no trade statistics are available for 1989).

<sup>55</sup> It appears important to decrease this import tariff, since computers, copying machines and other office machinery are essential inputs for manufacturing firms, in particular for exporters.

<sup>56</sup> The unweighted average of the eight sub-sectors was around 29 percent in 1992, to be compared with 22 percent 1990.

<sup>57</sup> A decline in the average import tariff rate from 25 to 23 percent actually took place during 1990-92, if we consider Zimbabwe's total imports (i.e. manufactured imports plus all other import categories).

to competition, we have sorted the sub-sectors in three groups; *HIGH*, *MEDIUM* and *LOW* overall level of competition.

**Table 4.6. Assessment of overall competition in sub-sectors, 1992/93**

Sub-sector	Domestic competition	Foreign competition		Overall competition
	Ranking 1-8 1993 (a)	Ranking 1-8 1992 (b)	Change in foreign comp. 1990-92 (c)	
Textiles	7	5	0	LOW
Clothing & Footwear	6	8	-	LOW
Wood & Furniture	4	7	0	MEDIUM
Paper	3	6	+	MEDIUM
Chemicals	1	3	+	HIGH
Non-Metal Minerals	8	4	-	LOW
Metals & Metal Prod.	2	2	+	HIGH
Transport Equipment	5	1	0	MEDIUM

*Notes:*

(a): A lower Herfindal index (HI) implies higher competition. Rankings are according to the inverse of HI, i.e. rank 1 here corresponds to the highest domestic competition.

(b): Import penetration ratio. Rank 1 corresponds to the highest import competition

(c): (+) indicates an increase, and (-) a decrease in foreign competition. Changes of less than one percentage point are marked (0).

*Sources:* Tables 4.2. and 4.4., and Figure 4.2.

The *Chemicals* and *Metals & Metal Product* industries appear to be subject to the highest competition. They rank high in both measures, and also exhibit increasing import penetration after the introduction of ESAP. As commented on earlier, *Transport Equipment* does rank the highest with regards to import penetration, but at the same time that it is doubtful whether imported products really compete with domestically produced equipment.

*Wood & Furniture*, *Paper* and *Transport Equipment* are here classified as medium relative to the other sub-sectors. Among these three it appears that *Paper*

is subjected to a higher competition than Wood & Furniture, since it ranks higher in both measures. Transport Equipment, on the other hand, is harder to relate to the other two, since it ranks lower than Wood & Furniture and Paper in terms of domestic competition, but higher in foreign competition.

Finally, in the group facing the lowest competition, we find *Textiles, Clothing & Footwear* and *Non-Metal Minerals*. Clothing & Footwear is probably the sub-sector exposed to the lowest overall competition in Zimbabwe. Import competition for that sub-sector ranks the lowest, and a decrease was recorded in 1990-92. We also know that clothing imports is essentially banned, although it should be mentioned that considerable amounts seems to be smuggled into the country. Non-Metal Minerals face the lowest domestic competition according to our assessment. This sub-sector also experienced a decrease in import penetration over time, although it ranked in the middle 1992.

#### 4.4. Competition and performance

The final question to answer in this chapter is whether competition has had a positive or negative effect on sub-sector performance.<sup>58</sup> We therefore confront the information provided in Table 4.6. on competition, with the corresponding data on performance presented in Chapter 3. Since data is only available on domestic and foreign competition for eight sub-sectors, we limit the analysis to these. A few observations merit mentioning:

The success on export markets may have little to do with the competitive situation in Zimbabwe. *Textiles* and *Clothing & Footwear* face a low overall level of competition, but have both been successful in export markets. In these two sub-sectors, goods for exports and goods for domestic sale are highly differentiated with respect to e.g. quality and design.

*Chemicals* and *Metals & Metal Products*, the two sub-sectors facing high overall competition (and increasing import penetration), have both developed relatively unfavorable in terms of production growth 1990-94. Chemicals declined

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<sup>58</sup> In the longer term it is generally argued that increased competitive pressure will enhance performance.



on the domestic market but improved exports, while Metals and Metal Products declined in both domestic and exports sales. An increased competition from imported products appear to partially explain the contraction in the domestic demand for these two sub-sectors.

Next, we observe that *Wood & Furniture* and *Paper* were exposed to low levels of import competition (and ranked in the middle regarding overall competition). At the same time these two displayed the most favorable development in production 1990-94, including expansion on the domestic market, and for Wood & Furniture on the export side as well. The limited inflow of competing imported goods have consequently had little effect on the domestic demand of these sub-sectors.

## CHAPTER 5

### SECTORAL LINKAGES IN THE ZIMBABWEAN ECONOMY

A characteristic feature of the Zimbabwe economy is the close linkages between the different sectors of the economy. On one hand there are links across sectors, for instance agricultural and mining are both suppliers of inputs to the manufacturing sector and recipients of manufacturing output. On the other hand, there are also extensive linkages between the different sub-sectors in the manufacturing sector. An economy that is interlinked in such ways becomes extremely vulnerable to different kinds of distortions which, even if initially restricted to a few sectors, could easily be transmitted to the entire economy. If firms are confined to domestic suppliers or customers, the effects could relatively quickly become devastating. To source other markets for suppliers or to exploit export markets temporarily, is not a viable strategy since it is expensive to develop new market channels each time the local market fails. It is therefore of interest to see whether the ESAP has had any impact on these interlinkages.

The percentage of commercial agricultural output used as inputs by the manufacturing sector has increased steadily, from 16 percent in 1965 to 60 percent in 1981 (Riddell 1990). Measured as percentage of inputs used in the manufacturing sector originating from the domestic agricultural sector, the corresponding increase is approximately 20 percent; from 10 percent in 1965 to almost 30 percent 1981. Most of these inputs are used in the food processing sub-sector, although textile has increased its share substantially in latter years. As shown in Section 3, this increase is however not reflected in higher shares of exports of processed food-stuffs. Rather the opposite trend has prevailed, i.e. unprocessed agricultural products have increased more than processed. In addition, up to 60 percent of all manufacturing value-added have been estimated to emanate from the agricultural sector.

The linkages in the other direction - i.e. from manufacturing to the agricultural production - is less pronounced. As a percentage of inputs used in agricultural production the share originating from the domestic manufacturing sector has increased somewhat between 1965 and 1982, from 42 to 48 percent. However, as percentage of

the manufacturing sectors total output, the corresponding share was only 7 percent in the beginning of the 1980s, although it has doubled as compared to 1965. The major items purchased from the manufacturing sector are stockfeeds, fertilizers and crop chemicals, machinery and transport equipments.

In a similar way there are linkages from the mining sector to particularly the Metal&Metal Products manufacturing sub-sector, while the opposite linkages are less frequent. Based on figures received from the Zimbabwe Investment Center (ZIC) the flows between different sectors of the Zimbabwe economy are summarized in Table 5.1.<sup>59</sup> Each column in the Table 5.1 captures the percentage deliveries of the respective sub-sector to other subsectors, and sectors, in the Zimbabwe economy.

The sub-sectors where finished goods for the domestic market dominate are Foodstuffs, Clothing&Footwear, and Transport equipment, while those primarily dependent on other sub-sectors are Non-Metal minerals, Textiles, and Chemicals. Metals&Metal products, Wood&Furniture and Paper delivers about 50 percent of their output to other manufacturing sectors. Hence, out of ten sub-sectors, 6 are heavily dependent on demand from other manufacturing sub-sectors. The agricultural sector is reported to be an important market (receiving more than 10 percent of output) in the Foodstuffs sector (stockfeed, 10 percent), the Chemical sector (23 percent) and the sector producing Metals&Metal Product (15 percent). Mining is of importance only in the case of Metals&Metal Products (7 percent), whereas construction take the major brunt of output in the Non-Metal sub-sector (90 percent). Hence, a pattern of close interlinks between not only the different sub-sectors, but also between the manufacturing sector and other parts of the economy, emerges.

Another way of analyzing the linkages between sub-sectors is to study how closely variations in output in the different sectors - or between each sector and total manufacturing - are correlated statistically. Moreover, it is of interest if any changes in such variations could be detected before and after the implementation of the ESAP. By implementing this statistical technique, we get estimates of the interdependence in output variations in the two respective periods. A value of unity implies that the sectors always move in the same direction and with exactly the same magnitude, while a negative value

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<sup>59</sup> Note that only domestic flows are considered in the matrix, i.e. exports and imports are excluded.

**Table 5.1 Percentage distribution of the manufacturing sub-sectors domestic deliveries of their production to other sub-sectors, and to other sectors in the Zimbabwe economy**

Sub-Sectors & Sectors	1	2	3	4	5	6	7	8	9	10
Foodstuffs(1)						20.4			10.6	
Beverages & Tobacco(2)						5.1			10.6	
Textiles(3)							5.3			
Clothing & Footwear(4)			74.5			10.2				
Wood & Furniture(5)			1.9				5.3			
Paper(6)							9.5			
Chemicals(7)						15.3				
Non-Metal minerals(8)						5.1				
Metals & Metal products(9)							10.5			
Transport equipment(10)							10.5			
Agricultural	14.3						24.2		31.9	
Mining									14.9	
Construction					59.6		7.4	94.7	10.6	
Finished goods	85.7	100	23.6	100	40.4	43.9	27.3	5.3	21.4	100
<b>Total</b>	100	100	100	100	100	100	100	100	100	100

Source: Data provided by ZIC.

Note: The column numbers 1-10 refer to the manufacturing sub-sectors.

implies it moves in the opposite direction. If the correlation coefficients are below .70 (positive or negative) we conclude that there is little sign of interlinkages.<sup>60</sup> Thus, by comparing these values (correlation coefficients) in the two periods, we get an indication of whether these interlinkages have weakened or become stronger.

In Table 5.2 the correlation between production in each sub-sector and the whole manufacturing sector in 1986-1994 is compared with the post-ESAP period. In the former period we have annual data while in the latter period monthly data are used for the period February 1992 to June 1994. It seems as if the correlation has increased in the sub-sectors Drink&Tobacco and Others, however, the degree is negligible. Clothing&Footwear and Wood&Furniture also display increased correlation with overall manufacturing production after the implementation of ESAP. One explanation could be the large shares of production of relatively income sensitive, consumer goods, sold domestically by these sub-sectors. If an upswing in manufacturing production reflects a general improvement in the economy, implying more employment and increased wages, it seems reasonable that it would spill over to higher consumption. That would be particularly relevant for durables, as furniture or transport equipments, but also for packaging etc., i.e. influencing the sub-sector denoted Paper.

Interestingly enough, the sub-sectors supplying other sectors with intermediate products (Chemicals, Non-Metal minerals, Metal&Metal products), all report lower correlation with overall manufacturing output after the implementation of ESAP. This could be interpreted as a sign of decreased dependence on domestic sales and, hence, less vulnerability to changes in other sectors. The changes in the sector Non-Metal minerals may be due to other forces, affecting the construction industry specifically, and must be interpreted cautiously. Although we cannot put too much weight on these figures, they suggest that sectors formerly having a high degree of dependence on overall performance in the domestic manufacturing sector, have become more independent.

The correlation of output variations between the different sub-sectors in the manufacturing sector have also fallen in period February 1992 to June 1994.<sup>61</sup> In that

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<sup>60</sup> In correlation analysis it is often required that the coefficient is even closer to unity in order to draw any conclusions concerning co-variation.

<sup>61</sup> Data can be obtained from the authors on request.

period a strong positive correlation were only found in two cases, none of them being a typical input producing sub-sector. The almost identical changes in production in the different sub-sectors in the period 1985 to 1991 is also clearly illustrated in Figure A.3.1 in the appendix to Chapter 3. In the subsequent period up to 1994, production deviates distinctly across the different sectors (Figure A.3.1). Thus, we conclude that the effects of ESAP so far seems to have induced a decoupling of sectoral interlinkages, thereby diminishing the risk of shocks being transmitted to all parts of the economy

**Table 5.2 Correlation between production in the manufacturing sub-sectors and overall manufacturing production in 1986-1994 as compared to February 1992-June 1994**

Sector	1986-94	February 1992 -June 94
Foodstuffs	.52***	.42*
Beverage&Tobacco	.16***	.36
Textile	.56*	.38***
Clothing&Footwear	.55***	.82***
Wood&Furniture	.33	.72***
Paper	.38	.41***
Chemicals	.90***	.69***
Non-metal minerals	.76***	.28***
Metals&Metal products	.94*	.73***
Transport equipment	.66***	.74***
Other Manufacturing	-.51	.23

Note: \*, \*\*, \*\*\* represent significance at the 1-, 5-, and 10 percent level, respectively.



## CHAPTER 6

### WHERE ESAP FAILED; POLICY RECOMMENDATIONS FOR THE FUTURE

The ambitious structural reform program that Zimbabwe embarked upon in the early 1990s, covering macro- as well as micro-aspects of the economy, have had significant progress in several areas. The functioning of the economy is to a larger extent based on market determined prices, former monopolies are being exposed to import competition, the resource allocation is not distorted by foreign exchange allocation schemes but rather governed by differences in the return to investments. These are the first steps in transforming Zimbabwe from its traditional inward looking strategies to an export oriented, high growth economy, a pattern which we recognize from several East Asian countries.

Notwithstanding that ESAP has had substantial merits, it still suffers from inconsistencies and deficiencies in several respects. In this chapter we will first pinpoint where ESAP has to be improved and supplemented with additional policies, starting with the manufacturing sector. Thereafter a discussion of macro related policies, which are crucial in order to attain the desired micro-economic effects, will follow.

#### 6.1 Policies related to the manufacturing sector

The driving force to attain the objectives outlined in ESAP has been attributed to increased exports of manufactured products. In our view the chosen strategy is correct, however, we believe that the instruments has to be strengthened. More particularly, we propose that the ESAP has to be complemented in the following four ways; an explicit tax based export incentive should be introduced, tariffs on intermediate products must be lowered below those on finished goods, the duty drawback system should be re-organized, and, in the long-run, a uniform tariff rate should be adopted on intermediates and finished goods. In addition to these four core proposals, outlined in detail below, we will present a number of other policy changes of importance for the manufacturing sector to evolve in the desired direction.

We also like to underline that we strongly oppose any policies aiming at "picking



the winners", whether these efforts are directed on the firm or sub-sectoral level. The base of the reforms must be general policies and commitment to the objective of opening up the economy to international competition, supplemented with the proposals listed below.

*(1) Tax incentives for exporters*

Prior to ESAP, several attempts were made to stimulate manufacturing exports in Zimbabwe (listed in the box 6.1),

none of them very successful in real terms. At present, however, there is no mechanism specifically designed to promote exports - except for the duty drawbacks, which requires that exporters also have imports - in the ESAP. Theoretically a substantial devaluation should spur exports. The net effect, however, depends on the initial shares of exports and imports, and the possibilities to substitute foreign suppliers with domestic. A large number of firms in Zimbabwe, with low exports, find it hard to replace imports of quality inputs for domestically produced goods. In that case the

immediate effect of a devaluation is increased costs. It is therefore considered necessary to supplement ESAP with an explicit export promotion mechanism.

More specifically, we recommend an explicit tax based export incentive designed such that the larger the share firms' export out of their total production, the lower the corporate tax they pay on profits. Instead of a general lowering of corporate taxes, it should be linked to exports. For example, suppose that the corporate tax rate is 50

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**Box 6.1 Export-promoting policies in Zimbabwe 1980-1994**

*Export Incentive System*, 9 percent of the free-on-board value of exports were remitted in cash, introduced in early 1980s, removed 1993.  
*Export Revolving Fund*, additional access to foreign exchange were granted exporters, introduced in 1983 and removed 1992.

*Export Retention Scheme*, foreign exchange could temporarily be retained and used for imports of intermediate products and capital goods, introduced in 1991 and removed 1994.

*Export Support Facility*, foreign exchange needed by new firms or to enable additional exports by old firms, removed in 1994.

*Duty Drawback System*, refunding of duties on imports used for exports, still in operation but not working properly.

*Inward Processing System*, installed in 1992

*Duty Exemptions*, exemptions from import taxes on projects approved by ZIC, generalized to all capital goods in 1994.

*Exchange Rate Policies*, devaluation of the Zimbabwe dollar beginning in 1991.

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percent and that the average export share in manufacturing - or at a more detailed industry level - is 15 percent. Then for each ten percent that a firm's export intensity exceeds the average export intensity, taxes could be lowered by, for instance, five percent. For export shares above 50 percent a uniform tax of, say, 20 percent should be adopted. This tax structure should be permanented and not limited in time.

Tax based export incentives have successfully been used in, for instance, Japan and the Republic of Korea (Thomas&Nash 1991). Designed in the way described above the incentive would not draw on scarce governmental funds. Firms would face a strong incentive to increase their exports, irrespective of which sub-sector they operate in, i.e. the criteria of generality would be met. A critical factor is whether the authorities involved have the skill necessary administrate such system. We believe that a tax incentive along the lines outlined above eliminates the risk of building up a too burdensome and bureaucratic administration. At any rate, the skill and quality of today's administration in Zimbabwe should be comparable with the corresponding level in the Republic of Korea and Japan two to three decades ago.<sup>62</sup>

### *(2) Reductions of import tariffs on inputs*

During the transition period tariffs should be designed such that finished goods enjoys a higher rate of protection than intermediate (Thomas, Matin&Nash 1990).<sup>63</sup> In those cases where the opposite prevails, corrections should be done such that the latter tariffs are lowered. Thus, in sectors where tariffs on intermediates and raw materials are higher than on finished goods, we recommend that tariffs immediately are lowered below the tariffs on finished goods.

### *(3) Duty free imported inputs for exporters*

The duty draw-back system must be simplified and made less bureaucratic. Payments are often delayed several months. We suggest that the duty draw-back system is based on

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<sup>62</sup> Note that tax authorities already have experience of different corporate taxes from the so called "growth points", where corporate tax is only 10 percent.

<sup>63</sup> This is particularly valid for intermediates since the tariff is close to zero already for most capital goods.

a conservative average estimate of either firms, or the sub-sector's, previous import content in exports. This figure should be revised yearly and the firms' balances on the duty draw-backs cleared in conjunction with their tax declarations. We also propose that the duty drawback system is extended to "indirect" exporters. Local firms that supply other local firms with products used in their export, should be entitled to remittance of duties on their imported inputs related those deliveries. We are aware that this is not an administratively easy task, however, suppliers of components often have a strategic role in industrialized countries when building up networks and technological systems. With the present system these producers are disadvantaged in Zimbabwe as compared to foreign suppliers. In the end of the adjustment period, duty drawbacks should be abolished.

*(4) Uniform tariff level; General reduction and convergence of import tariffs*

Over the time the differences between these categories of goods should be smoothed out, such that the tariff on finished goods approach the rate imposed on intermediates. The pace of the equalization in tariffs depends on the initial structure. If tariffs on intermediates are already low, modest reductions in tariff on finished goods can commence quite soon. On the other hand, where the gap between tariffs on intermediates and finished goods is small, the lowering of tariffs must initially be concentrated to intermediates. Hence, during the transition period tariffs may differ, however, as time elapses tariffs should become more equal, and finally, uniform. We suggest that this is accomplished at the latest in 1997/98.

There is no rationale to shelter producers of finished goods after this transition period since that would only deter competition and reduce the incentives for firms to organize production such that flexibility and efficiency are enhanced. Furthermore, uniformity between different stages in production, and between different sub-sectors, is necessary to secure an optimal allocation of production resources and transparency.<sup>64</sup>

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<sup>64</sup> In interviews with the Ministry of Industry and Commerce it was revealed that even different firms within the same sub-sector used to encounter different tariffs. Such extremely selective policies must be dismissed in order to foster fair competition between domestic firms.

*Additional policies of importance for the manufacturing sector*

*Interest rates.* As argued above, the most efficient way to lower interest rates is a disciplined fiscal policy. Until that is achieved, however, firms may suffer and even collapse at present levels of interest rates. Over a limited time period, the government should - as proposed by the World Bank - ease firms' interest rate burden by acting as underwriter to commercial banks. Preferably such credits should be linked to export performance.<sup>65</sup> In the longer run, firms must to a larger extent rely on equity financing to decrease their exposure to changes in the interest rate.

*Human resource development.* The rapid growth in the South East Asian countries were not based on access to natural resources, or other country-specific endowments. Rather it rested on good management, skilled labor and sound macro-economic policies (Keesing 1988). An important challenge for the government is to provide an educational system that matches with the needs of the manufacturing sector. At present this is not the case. There is a lack of skilled blue-collar workers, and engineers. It will take time to alter the education system, and we therefore suggest that infirm training is entitled to additional allowances, for instance with 150 percent of actual costs. It has been argued that the same should apply to marketing and alike activities coupled to exports. We disagree and instead we propose that ZimTrade is given more resources to promote exports. There should be significant economies of scale in pooling these resources if accurately handled. Furthermore, competencies related to international marketing may have to be purchased from outside Zimbabwe, which would extend above most firms' marketing budgets.

*Foreign direct investment (FDI), export zones (EPZ) and technological upgrading.* Transmission of technological know-how can occur in numerous ways, e.g. through reverse engineering, imports, imitation, etc. During the last decade MNCs have gained a key role with regard to technological transfers and we therefore focus on FDI in this section.

The flows of foreign direct investment has grown in an unprecedented way

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<sup>65</sup> Many countries have introduced different kinds of interest subsidies. In the EU it has recently been proposed that small firms shall be given specific soft loans. Smaller firms are more sensitive to high interest rates than larger firms. One reason is that they do not have access to the international market, another that they lack relations with the domestic banking system. It may therefore be justified to introduce specific measures for SMEs in Zimbabwe.

during the 1980s, almost at 25 percent annually, i.e. at a rate far exceeding growth in GDP and exports (Figure 6.1). More firms have become transnational, and the ones already involved in multinational activities have increased their degree of foreign operations. They locate different parts of the value added chain to countries or regions that can offer the best production possibilities

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**Box 6.2 Foreign firms' view on manufacturing in Zimbabwe**

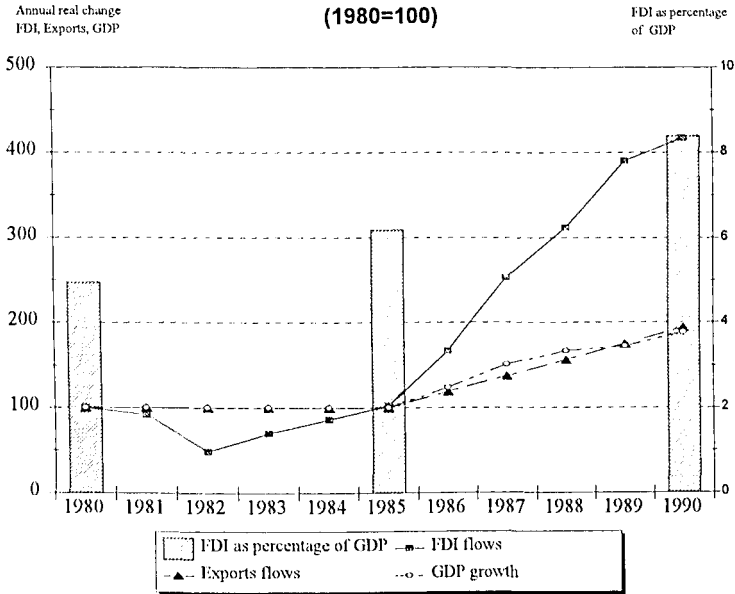
A few Swedish firms that have invested in Zimbabwe reported that quality in local products were fairly high, however, the "last 10 percent were often missing", which forced them to import more sophisticated components. Without those last 10 percent, Zimbabwe firms will not reach the quality required to compete internationally. They also reported a significant improvement with regard to the bureaucracy earlier surrounding FDI-issues. Another reflection made by the Swedish investors were that FDI in Africa is only done to serve the local market. If that is the case, inflows will not have the same beneficial effects as if they were done to serve other affiliates of the MNC with production of components. The scale would be inefficient and the quality level would be geared for the local market. Finally, it was claimed that when the situation has stabilized in RSA it will be difficult for Zimbabwe to compete for FDI.

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from a regional, or global, point of view (UN 1993). At the same time transnational corporations have become the major diffusers of technological know-how. Up to 80 percent of industrial technological know-how have been estimated to be transmitted through transnational corporations (Dunning 1993). Some of the factors found to attract FDI are the quality of the labor-force (see box 6.2), the supporting system in terms of flexible and skilled SMEs and suppliers, the size of the market, and the degree of openness.

The less developed countries have received increased inflows of FDI during the last few years (UN 1994). For Africa however, and in particular for Zimbabwe, these increases have been negligible. In the early 1990s Malaysia received more inflows of FDI than total Africa (UN 1994). At times quite extensive divestment by foreign firms have occurred in Zimbabwe. An urgent task for politicians is to design policies that stimulate inflows of FDI. Such inflows of skill and know-how through foreign firms are an essential part in the development of the manufacturing sector. As MNCs have become increasingly global players, Zimbabwe has to offer these firms an environment that is internationally competitive

**Figure 6.1 FDI in the World economy 1980-1990**



Source: Calculated from IMF: BOP and Economic Outlook; World Bank

According to several studies undertaken in the late 1980s, foreign ownership in Zimbabwe has fallen since Independence in 1980. Although these studies differ with regard to methodology and representability, we can quite safely conclude that they capture the overall trend. Thus, both UNIDO and the Confederation of Zimbabwe Industries report a share of foreign owned firms in the manufacturing sector around 50 percent in the mid 1980s, which must be considered as surprisingly high, although figures between 60-70 percent have been reported just after Independence (World Bank 1993).<sup>66</sup> Based on a much larger sample size, however, CZI (Humphrey 1989, Bonyongwe 1991) reported that the share of foreign owned firms was more reasonable 25 percent in 1988, which fell to 22.5 percent in 1990. In addition, a World Bank study claims that substantial divestment took place during the 1980s. According to this study, in 1987 alone, net foreign divestment amounted to almost 4 percent of total gross fixed

<sup>66</sup> Foreign ownership is defined as foreign firms controlling more than 50 percent of equity.

investment.

The World Bank has also provided some figures on the expected inflows of FDI up to 1996. As seen from Table 6.1, a quite dramatic increase in FDI is forecasted in the coming years. This is a result of the institutional amelioration introduced in recent years with regard to remittance of profits, the lowering of corporate taxes, and the abolition of "surplus funds". The possibilities for foreigners to invest at the Zimbabwe stock exchange has also increased and the bureaucracy previously associated with FDIs have been reduced.

**Table 6.1 Realized and expected foreign direct investment in Zimbabwe 1991-1996, Million US\$**

	1991	1992	1993	1994	1995	1996
FDI	3	15	5	26	32	53

*Source:* World Bank 1993

There is very little information on the distribution of foreign investments on different manufacturing sub-sectors, as well as the actual outcome of formerly approved investments decisions. The ZIC only gather statistics on the approval of foreign investment, not their realization. Still, these figures give some clues about the sectoral distribution of FDI. Table 6.2 illustrate how such approvals are allotted across sectors in 1993 and 1994, in addition to the distribution of foreign ownership in 1988 and 1991.

We believe that priority should be put on encouraging inflows of FDI, rather than establishing EPZ. The experience with regard to the latter varies substantially. EPZ easily turn into isolated enclaves within the economy, with no forward or backward linkages to other sectors (which have also been the case in East Asia, see for instance Bhattacharya&Linn, 1988). Furthermore, Zimbabwe differs from most other countries that have introduced EPZ by being land-locked. We suspect that this constitutes a major drawback. A common feature in other countries is the access particularly to harbors, but also other transport facilities.

To conclude, the Zimbabwe have increased its attractiveness as a host country for production by foreign firms. A sustainable inflow of investments requires that Zimbabwe's internal capabilities and skill are internationally - or at least regionally -

competitive. There is a risk that investments based on temporary and politically induced incentives - as in most EPZ - are of a more footloose character. A stable macro-economic situation will facilitate inflows of FDI, as will a relative abundance of skilled labor.

**Table 6.2 Percentage foreign ownership in 1988 and 1991, and of approvals of FDI in manufacturing 1993 and 1994, distributed on sub-sectors**

Sub-sector	1988	1991	1993	1994 (Jan-April)
Foodstuffs	8.5	5	.5	46.5
Beverage&Tobacco	3.5	4	11	6
Textiles	3.5	5	1	0
Clothing&Footwear	3.5	4	3	0
Wood&Furniture	5	7.5	2	0
Paper	5	3	1	4
Chemicals	25.5	26.5	23	1
Non-Metal Minerals	3.5	5	.5	0
Metal&Metal Products	30	38	4	42
Transport Equipment	6	3	54	0
Other manufacturing	6	0	0	.5
Total%	100	100	100	100

*Source:* CZI surveys and ZIC data

*SMEs and the informal sector.* Irrespective of the fact that small and medium sized firms (SMEs) already today constitute an important part of economic activity in Zimbabwe, their importance will grow as firms adopt more modern ways of organizing production. This will occur partly due to externalization of non-core activities in firms, partly due to entry in particularly the service sector. Zimbabwe has a large informal sector, employing an impressive share of the labor force (McPherson 1991, Daniels 1994). Doubtlessly an increased integration of firms into the formal part of the economy would be valuable. Policies must however be cautiously designed to avoid discouraging firms in the informal sector. Furthermore, as the economy is opened up to



international competition, more emphasis than before will be put on quality aspects, which will tend to reduce this problem. Larger firms will be reluctant to do business with non-registered firms for several reasons, for instance, due to legal responsibilities and liability issues. In addition, policies geared towards promotion and assistance of the industry in Zimbabwe may enable an increased amount of firms to register. It is only when firms are registered that there is a potential for them to grow, and that in turn requires the right incentives to be present which - to put it bluntly - means high profits.<sup>67</sup>

## **6.2 The internal adjustment by firms**

Before turning to the macro related policy issues, we like to mention the importance of the actions taken by the firms themselves. In addition, some of the opinions expressed in the interviews are summarized below.

Without an adequate response from firms, there will be no beneficial effects of the imposition of a structural adjustment program. The response depends on the incentives that firms are facing, and we argued above for some modifications in that respect. Still, the transition from sheltered production to international competition requires a complete change in the way firms operate and organize. The pace at which firms react to the changing circumstances is decisive for their future prospects.

In a setting of fierce international competition, flexibility, adaptability and continuous upgrading of knowledge constitute the base for firms performance. Firms that fail to incorporate new knowledge or modes of production, will soon find a deterioration of their competitiveness. "Soft" assets as marketing, R&D, design, etc., will increase in importance, and it is also here where economies of scale primarily can be derived. That does not imply that larger firms are desirable. Rather firms have to focus on their core activities, utilizing networks or technological systems where costs are divided between several suppliers and customers. Foreign firms would constitute a natural part of those systems (Braunerhjelm 1993, 1994).

At present there are few signs that manufacturing production in Zimbabwe organizes along these lines. Notwithstanding that certain sectors are more likely to

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<sup>67</sup> Admittedly there are a number of other reasons that determines the growth of firms. The major impediment seems to be fear of owners to loose control, or delegate control, of the various operation in a firm. Still, possibilities of future profits are one driving force to step up production.

expand than others, on the firm level the outcome will to a large extent depend on the actions and preparations taken by the firms themselves, independent of which sectors they belong to. How this process will carry on is an important subject for future research.

### *Interviews*

The statistical evidence have been complemented with interviews. Although much of the responses in the interviews are already included in different parts in the preceding chapters, a general account of the opinions by representatives of the different sub-sectors with regard to ESAP is presented in Table 6.3. Factors denoted by a plus sign implies an improvement according to the interviewed persons, while a negative sign denote a worsening as compared to before the ESAP was introduced. The increased access to foreign exchange, together with an increase in competition, are reported as the two most beneficial effects. On the negative side the lack of export incentives rank highest, followed by high interest rates and a "perverse" tariff structure.

A general view that was expressed in the interviews concerned the quality of the labor force. Although the working discipline was regarded as satisfactory, there was a unanimous opinion that there is a mis-match between education and what the manufacturing sector demands. Other issues brought up of a more general character concerned the need to improve the telecommunication system, to upgrade managerial skills, and the fear that the government has lost control over the budget.

### **6.3 Macro-related issues**

Success on the micro, or firm, level, requires a stable macro-economic environment. Below we will discuss the policies we consider necessary in order for adjustment to take place in the manufacturing sector.

*Credibility, Legitimacy and Transparency.* These concepts capture three necessary conditions for a successful continuation of ESAP, and its political acceptance. On the macro-level the most severe threat against ESAP's credibility relates to weak fiscal

policies. Disciplined fiscal policies have been forwarded as one of the prime reasons for the successful evolution in the South East Asian countries (Keesing 1988, Thomas, Matin&Nash 1990). Another observation is that governments committed to vast funding of social programs, have had less success. One reason is claimed to be the inflexibility such policies lead to, and the following debt problems and inability to handle budget deficits. Furthermore, as deficits are liquidized, there is an upward pressure on inflation and interest rates. If governments lose grip of the fiscal policy, implying increasing budget deficits and national debt, the financial markets will hedge against future increases in inflation by demanding higher interest rates. Hence, business is squeezed from two sides. High interest rates, volatile prices, and risks of higher taxation in the future, all tend to depress investments and may therefore threaten the entire adjustment program. Tighter fiscal policies, without resorting to tax increases, i.e. increased efficiency and lower governmental expenditures, is therefore a necessary condition for a successful continuation of ESAP.

A related matter concerns legitimacy. The foundation is the overall institutional setting, i.e., the legislative system, particularly with regard to foreign ownership. In the more narrow perspective pursued here, an adoption of a far reaching structural adjustment program that coincides with turbulent macro-policies influencing incomes and job-opportunities, diminishes the possibilities of receiving political support for its implementation. Dramatic increases in inflation and interest rates, at the same time as incomes lag behind, are typical effects that have negative effect on the implementation of an adjustment program. Another factor that may hamper the introduction of adjustment policies is increasing income gaps. The only conceivable remedy in the long-run to this problem is to increase the number of educated people, and to reassure that the supply of educated labor match the demand of the private sector.

Related to legitimacy is transparency. Increased transparency is primarily needed in the tariff-structure. At present there are custom duties, taxes, and sur-charges, etc. They all serve the same purpose and could therefore be gathered under the same heading. Less cascading and less exemptions would also contribute to a higher transparency. Similarly, all remaining quantitative restrictions should be transformed to tariffs.

*Competition.* ESAP has exposed formerly sheltered sectors to stiffer competition, particularly in the manufacturing sector. The majority of goods can be imported today,

although tariffs are still quite high in certain areas. We suggest that the remaining goods on the "restrictive list" that does not involve items related to national security, are placed under the OGIL system. Furthermore, price controls, marketing boards, and parastatals still seem to influence certain areas of the economy, e.g. within agriculture. Other sectors controlled by parastatals, and of vital importance for manufacturing, are energy production and freights. Inefficiency in these sectors could have severe detrimental effects on the manufacturing sector. Marginal cost pricing is not enough if these parastatals are operated inefficiently. A higher degree of competition could be achieved by inviting firms, domestic and foreign, to bid for the operation of these sectors. Alternatively, costs could be related to similar production in other countries.

*Infrastructure.* Zimbabwe suffers from a weak infra-structure in primarily the telecommunication sector. Advanced information technology is becoming a key factor when MNCs organize their production and it is an important factor in their location decisions. In addition, it is of crucial importance for the indigenous firms, if they are going to interact more closely with foreign markets. Hence, we regard a rapid extension and upgrading of the telecommunication system as a high priority issue.

Many roads have a satisfactory quality. Modern ways of organizing production (just-in-time systems) depend to a large extent on swift transports. Therefore, although less urgent, the share of good roads must also be increased.

*Regional integration.* A process toward regional integration is present among Zimbabwe and its neighbors, however, the pace is too slow and the degree of integration is too low. Of utmost importance is that RSA, being the largest and most developed country, join these efforts as soon as possible. Segmented markets will only conserve an inefficient production structure by impeding the possibility to exploit scale advantages, sharpen specialization, and intensifying competition. A deeper integration would also serve to strengthen the countries international competitiveness and augment their attractiveness to foreign investors.

**Table 6.3 Interview results**

	Foodstuffs	Textiles	Clothing& Footwear	Wood& Furniture	Paper	Chemicals	Metal&Metal Products
Investment climate						+	
Foreign exchange				+		+	+
Efficiency			+				
Bureaucracy							
Imports (inputs)				+		+	
Competitiveness	+		+	+		+	
Labor laws	+			+			
Price regulations	-					-	
Energy			-			-	-
Investment incentives						-	
Bureaucracy						-	
Unfair competition		-	-				-
Interest rates	-		-	-	-	-	-
Tariff structure		-	-	-	-	-	
Inflation	-		-				
Export incentives	-	-	-	-	-	-	

*Source:* Interviews with representatives of the sub-sectors

## CHAPTER 7

### CONCLUSION ON PERFORMANCE AND POLICY RESPONSE AT THE SUB-SECTORAL LEVEL

The objective of this final chapter is, (i) to make an overall evaluation of the performance of the different manufacturing sub-sectors, especially after the introduction of the ESAP programme, and suggest which sub-sectors that in our view have the greatest potential, and (ii) undertake an assessment regarding the most likely sub-sectoral effects of our policy recommendations forwarded in Chapter 6, and also comment on the impact on the sub-sectors from the continued implementation of ESAP.

#### 7.1. Overall evaluation of performance after the introduction of ESAP

To evaluate the response to ESAP we wish to use as recent data as possible for each performance measure, even though it is not possible to follow the different measures over the same periods. Table 7.1. summarizes the performance in terms of relative and absolute export changes 1990-92, growth in employment 1990-93, and growth in production volume 1990-mid 1994.<sup>68</sup>

As expected, the sub-sectors that increased their export intensity also showed a positive absolute export development over the same period. The successful industries in this respect, are as discussed extensively in Chapter 3; *Textiles, Clothing & Footwear, Wood & Furniture and Chemicals*.

Three sub-sectors, *Non-Metal Minerals, Metals & Metal Products and Transport Equipment*, had among the highest export intensities before ESAP, but declined both in relative and absolute exports thereafter. It, thus, appear to be little

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<sup>68</sup> The rankings between the sub-sectors presented in Table 7.2., should be roughly comparable, and corresponding to changes in the 1990-93 period, since; (i) the trends with regards to changes in export orientation observed 1990-92 have essentially continued in 1993, i.e. ranking subsectors according to change in export orientation will be about the same for 1990-92 as 1990-93, and (ii) rankings of production growth among sub-sectors are almost the same regardless if considering the 1990-93 or the 1990-mid 94 period.

**Table 7.1. Overall performance evaluation post-ESAP**

Sub-sector	Export intensity, percent (a)			Exports, US\$, percentage change 1990-92	Employment percentage change 1990-93	Production percentage change 1990-94 (c)
	1990	1992	Change 1990 to 92 (b)			
Foodstuffs	6.8	6.7	-0.1	0	-3	-17
Beverages & Tobacco	1.3	1.5	0.2	19	-2	-19
Textiles	7.6	13.2	5.6	36	-8	9
Clothing & Footwear	12.7	21.4	8.7	40	-3	-13
Wood & Furniture	7.4	10.0	2.6	55	-4	19
Paper	1.9	2.0	0.1	7	-13	17
Chemicals	3.7	6.4	2.7	47	-10	-14
Non-Metal Minerals	19.7	13.6	-6.1	-34	0	0
Metals & Metal Prod.	26.0	22.2	-3.8	-25	-8	-19
Transport Equipment	8.7	4.5	-4.2	-52	-6	-24

Notes:

(a) Export intensities are given with one decimal, since some changes are very small. The other figures are reported without decimals.

(b) percentage point difference.

(c) 1994 refers to the average for the first 6 months 1994.

Sources: Various CSO publications and unpublished material referred to in Chapter 3.

**Table 7.2. Ranking of sub-sector performance post-ESAP, selected indicators**

Sub-sector	Ranking 1-10 Export intensity percentage point change, 1990-92	Ranking 1-10 Employment percentage change 1990-93	Ranking 1-10 Production percentage change 1990-94
Foodstuffs	7	4	7
Beverages & Tobacco	5	2	8
Textiles	2	8	3
Clothing & Footwear	1	3	5
Wood & Furniture	4	5	1
Paper	6	10	2
Chemicals	3	9	6
Non-Metal Minerals	10	1	4
Metals & Metal Prod.	8	7	9
Transport Equipment	9	6	1

Source: Table 7.1.

matching between pre-ESAP export intensity and post-ESAP export development. One would expect that sub-sectors that were highly export oriented before ESAP, would benefit from the opening of the economy. Several explanations are possible. For example: (i) continuation of earlier downward trends in export intensity, see Figure 3.7, (ii) the changed conditions in the Metals & Metal Products sub-sector, mainly attributed to reduced excess capacity in Zisco (iii) deregulation in the ESAP programme adversely affecting these three traditionally import substitution industries. It is not plausible that the drought caused reduced export orientation, rather the drought depressed domestic demand, and hence, overall production, leading to an increased export intensity given the level of exports.

In Table 7.2. above the change in export intensity is ranked and chosen as export performance measure to be compared with the rankings of employment and production growth. Employment basically decreased 1990-93 in all sub-sectors. The highest ranking thus indicate the sub-sector with the lowest decline. The industries that most markedly increased export orientation; Clothing & Footwear, Textiles, Chemicals and Wood & Furniture with rankings 1-4 respectively, each had a lower ranking in terms of employment growth, i.e. exports developed relatively more favorably than employment. Textiles, for example, recorded the second best export development, but the second largest percentage reduction in employment.

It is possible that an orientation towards foreign markets may imply an adjustment to a higher value-added production per employee, and hence fewer overall employees, with given level of gross output. In the longer term, however, it is the experience of other countries, and the intention of the ESAP, that exports should generate employment after initial adjustment in the economy. For the same four successful export sub-sectors it is also concluded that all, except Wood & Furniture, ranked lower in terms of production growth than in exports, i.e. the development in overall production was less successful than in exports. This implies that the expansion of sales in the home market was relatively weak for the export stars.

Concerning the sub-sectors that strongly contracted in terms of exports, the following observations are made: (i) Non-Metal Minerals exhibited no significant changes in either employment (rank 1), or production. This sub-sector declined in



exports and increased domestic sales. (ii) Transport Equipment and Metals & Metal Products displayed relative and absolute export decline, and has among the lowest ranking for change in export orientation, employment as well as production. These two sub-sectors thus exhibit the worst overall performance development after ESAP.

The remaining sub-sectors, Foodstuffs, Beverages & Tobacco and Paper, ranking in the middle regarding change in export intensity, show a rather mixed pattern for employment and production.

In Figure 7.1. below a decomposition of gross output growth 1990-92 is made into domestic sales growth and export growth.<sup>69</sup> The first bar (striped) represents the percentage growth in gross output, the other two, domestic and exports respectively. From the figure it can be seen that the latter two bars add up to the first. As we touched upon above, the export stars Textiles, Clothing & Footwear and Chemicals developed poorly in domestic markets and in overall production volumes.<sup>70</sup> The Wood & Furniture industry is the exception as already noticed.

It is interesting to see from the figure that Foodstuffs, Beverages & Tobacco and Paper, all domestically oriented industries, hardly changed their exports over the period, but did increase domestic sales significantly, even though domestic demand contracted in 1992 as a result of the drought. Figure A.7.1. in the Appendix summarizes for each sub-sector the development 1985-92 for gross output, domestic sales, exports and employment.

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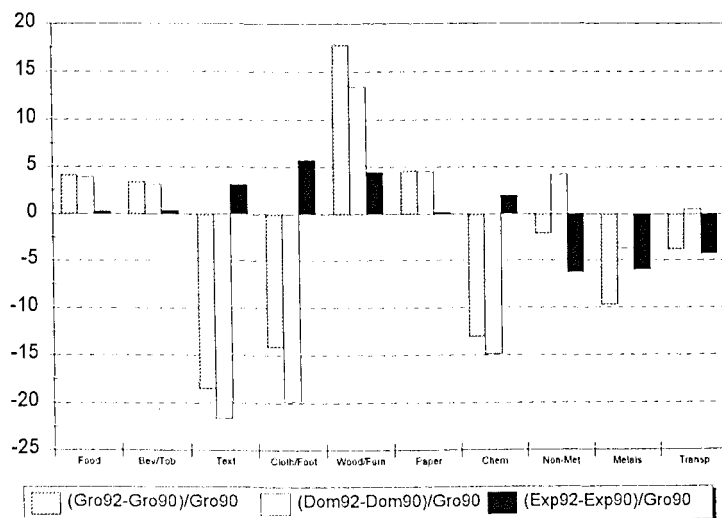
<sup>69</sup> Domestic sales for sub-sector  $j$  ( $Dom_j$ ) is here estimated as gross output ( $Gro_j$ ) minus exports ( $Exp_j$ ). The decomposition of gross output growth 1990-92 is made as follows (all prices in constant 1992 Zim \$):

$$\frac{Gro_{92_j} - Gro_{90_j}}{Gro_{90_j}} = \frac{Dom_{92_j} - Dom_{90_j}}{Gro_{90_j}} + \frac{Exp_{92_j} - Exp_{90_j}}{Gro_{90_j}}$$

It is necessary in these calculations to express the exports in constant Zim \$, in order to estimate a proxy for domestic sales.

<sup>70</sup> It should be emphasized that a contraction in domestic sales (or overall production volumes), with exports constant, by definition increases the export intensity.

**Figure 7.1 Contribution of Exports and Domestic sales to Gross Output growth 1990-92, percent**



Sources: CSO (1994), unpublished CSO data and CSO data processed by CZI  
World Bank (1994b)

## 7.2. Expected response to policy proposals at the sub-sectoral level

This section provides tentative conclusions on how the different sub-sectors in manufacturing are expected to respond to the policy reforms proposed in Chapter 6. It is difficult to evaluate the net effect on each sub-sector of the overall proposed policy package, since the individual policy prescriptions may affect the sub-sectors in different directions. The analysis therefore first considers the marginal effect of each of our four policy recommendations: (1) Tax incentives for exporters. (2) Reduction of import tariffs on inputs. (3) Duty free imported inputs for exporters. (4) Uniform tariffs: General reduction and convergence of import tariffs. The closing part of this section makes a rough assessment of the net effects of these four policy recommendations.

It should be emphasized that the analysis here, as elsewhere in the report,

evaluates the sub-sectors relative to each other, i.e. which ones are expected to do relatively well and relatively badly compared to the average. Since our policy proposals partly correspond to some of the ingredients in ESAP, our conclusions also yield insight into how the different sub-sectors are likely to fare in the continuation of the implementation of the ESAP programme.

*(1) Tax incentives for exporters*

It is self-evident that the most export oriented sub-sectors are the ones that will benefit the most from export subsidies and other export promotion measures. See Table 7.1. for the export intensities. At the same time it is, in addition to the levels in intensity, important to take account of the development over time in export intensity. Figure 3.7. gives a clear picture of emerging and declining export sectors. The sub-sectors that have increased export orientation since the introduction of ESAP have proven to take advantage of export opportunities provided by the new policy regime, as compared to other sub-sectors.

Metals & Metal Products, Clothing & Footwear, Non-Metal Minerals and Textiles were the top four in terms of export intensity 1992. As noted earlier, Clothing & Footwear and Textiles increased exports between 1990 and 1992, and further in 1993, while Metals & Metal Products and Non-Metal Minerals decreased over time. Next we have Wood & Furniture, Chemicals and Foodstuffs, of which the first two experienced an increase in outward orientation. Finally, the sub-sectors with the lowest export intensity, Beverages & Tobacco, Paper and Transport Equipment, of which the last exhibits a drastic decline since the introduction of ESAP. These three are likely to benefit the least from export incentives.

(2) *Reduction of import tariffs on inputs*<sup>71</sup>

Sub-sectors likely to benefit the most from tariff reduction of input materials are those that are import dependent, i.e. import a large share of their input requirements.<sup>72</sup> In Table A.7.1. in Appendix information is provided on percentage of raw and intermediary inputs imported. The first column in the table are averages 1980/82. With regards to the import share figures it should be noted that no recent information is available for all sub-sectors. The other reported import shares are from 1993, but covers only certain sub-sectors or parts of sub-sectors. The more recent figures partly confirms the 1980/82 data on imports shares, and it is plausible that the rankings of the sub-sectors in terms of import intensity have not changed considerable since the early 1980s.

*Transport Equipment, Chemicals, Metals & Metal Products and Clothing & Footwear* are the four sub-sectors most dependent on imports. As seen in Table A.7.1., *Plastics*, which is a part of *Chemicals*, practically imports all of its inputs. In the *Metals & Metal Products* subsector, *iron/steel (Zisco)*, on the other hand, have very low import share, while the category *Metal products & Non-Electrical Machinery* are considerably more import dependent.<sup>73</sup> The figure for *Clothing & Footwear* appears to be lower today than in the early 1980s. According to interviews with business organizations, the clothing industry imports around 25 percent of its inputs, while the corresponding share is 20 percent for *Footwear*.

*Beverages & Tobacco, Textiles and Paper*, imported slightly less than a

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<sup>71</sup> In this section we only consider imports of raw and intermediary inputs, since it is essentially here that future policy reform will have an effect. The import tariffs on capital goods inputs, i.e. machinery and other equipment, are scheduled to be abolished altogether, and are already low. From figure 4.4. we note that the import tariffs for a number of machinery categories were relatively low compared with other manufacturing products. Electrical, metal-working, general industrial and specialized machinery were in 1992 subject to import tariffs in the range of 18-24 percent. Reductions took place in 1993/94.

<sup>72</sup> Reduction in import tariffs on inputs may also benefit sub-sectors that previously had a low import share, but that over time shift to a larger share of imported inputs. Productivity gains can be expected in all sectors when high quality inputs become available at competitive prices, regardless if the sector was import dependent before tariff reductions or not.

<sup>73</sup> We have no additional information of the other parts of the metals/metal sub-sector either confirming or rejecting the high import share in 1980/82.

quarter of their inputs in 1980/82. We do not have any more recent figures on these sub-sectors, except the aggregate figure for textiles and clothing/footwear shown in the table, suggesting an intensity of around 20 percent for textiles.

Finally, *Foodstuffs*, *Wood & Furniture* and *Non-Metal Minerals*, ranked the lowest in terms of percentage of inputs imported 1980/82, and hence, would benefit relatively little from a reduction in tariffs on inputs. The low shares for Foodstuffs and Wood & Furniture are confirmed by the recent firm evidence.

Interviews with business organizations in Clothing, Footwear and Furniture, and visits to several plants, suggest that production for exports have a higher import content than products sold on the domestic market. However, when comparing the rankings of sub-sectors according to import share and export intensities, the picture is mixed. High export intensity only partially corresponds to high share of inputs imported, e.g. Metals & Metal Products and Clothing & Footwear rank high both in terms of export intensity and import share, while Chemicals and Transport Equipment rank low in export intensity and high with regards to import share (Tables 7.1. and 7.2.). The explanation is of course that the sub-sectors differ in imports largely due to their production technology and the availability of required inputs on the domestic market.<sup>74</sup> The relationship between export intensity and import share, thus, mainly appears to be relevant when comparing individual products within a given sub-sector, e.g. clothing for exports and clothing for the Zimbabwe market, and possibly only for certain sub-sectors. However, if an industry has a high export intensity, it should anyway include relatively large proportion of export grade products, which in turn have a high import content. From these observations, and due to the fact that our data on import shares is incomplete or old, we conclude that export orientation may be used as a complement to import shares when assessing the effects on lower tariffs on input materials.

To sum up, Clothing & Footwear and Chemicals are in our view the two sub-sectors to benefit the most, since both have a relatively high import share. In addition, the former sub-sector has a high and increasing export intensity, while the

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<sup>74</sup> Cars, for instance, are assembled from imported components, but sold mainly domestically. Plastic manufacturing is almost wholly based on imported raw materials, but with little exports.

latter is improving, although from a low level, its exports. Metals & Metal Products and Transport Equipment are also likely to be relatively positively affected due to their high import contents, and since Metals & Metal Products still have the highest export intensity. Foodstuffs, finally, appear to be the sub-sector where lowered import tariffs will have the least impact. Only a small fraction of inputs are imported and the export intensity is low and has declined significantly over the longer term.

*(3) Duty free imported inputs for exporters*

We next consider the duty drawback system and similar schemes allowing duty free imports of inputs for exporters, which is an explicit export incentive. If tariffs are reduced (or eliminated) for exporters only, we note one important difference from the analysis in the previous section. Sub-sectors that relies heavily on imports but where sales are oriented towards the home market, will be relatively adversely affected.

In the group of import intensive *and* domestically oriented sub-sectors we find Transport Equipment, Beverages & Tobacco, Paper and Chemicals, even though the last sub-sector increased its export orientation. An industry such as Plastics, for example, importing almost all its input materials and exporting only around 5 percent of output, will benefit little from such schemes.<sup>75</sup>

*(4) Uniform tariff level: General reduction and convergence of import tariffs*

In the medium term we have proposed that the tariffs on finished goods also should be reduced. The objective is a uniform tariff level for all imports, also aimed at in ESAP. Reduction in tariffs on finished and intermediary goods means lowering the protection of all producers in Zimbabwe, eventually leading to an increased import penetration of goods competing with domestically produced goods. The effects are here evaluated in the short or medium term. In the longer term, it must be

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<sup>75</sup> A duty drawback system may provide an incentive for all sub-sectors to increase their exports, in order to utilize the advantage of duty free inputs, given that the sub-sectors in question can compete in foreign markets.

emphasized that, increased import competition should benefit the efficiency of all sub-sectors,<sup>76</sup> although costly restructuring would have to take place first. This adjustment phase may imply adverse effects for certain sub-sectors in the short or medium term.

Let us first conclude that the operations of the most export intensive sub-sectors, i.e. those that have a *relatively* small share of their sales in the home market, will by definition be less affected by increased import competition in Zimbabwe.<sup>77</sup> In the following we therefore only take account of the effect of import penetration on the sub-sectors' production for the domestic market. As discussed earlier, it is important to bear in mind the quality differences between domestically sold and exported products. Thus, the goods imported into Zimbabwe compete with local firms' products for the domestic market, and not with their export products.<sup>78</sup>

Those sub-sectors that experience the highest import penetration of foreign goods, are likely to be the least affected when tariffs are reduced. They have already adjusted to foreign competition, and an additional increase in competition may have limited effect. Sub-sectors that have not been exposed to competing imports, on the other hand, may face large problems in adjusting to the new conditions.

The three sub-sectors with the highest import penetration (Table 4.4.),<sup>79</sup> are *Transport Equipment, Metals & Metal Products* and *Chemicals*. Recall, however, from Chapter 4 that the actual import competition for transport equipment produced

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<sup>76</sup> A large number of studies on developing as well as developed countries suggest that increased import penetration is positively associated with productivity.

<sup>77</sup> Recall from Table 7.1. that all sub-sectors in manufacturing have the major share of their sales on the domestic market, and that we are referring to the relative dependence on the domestic market.

<sup>78</sup> It could be argued that the domestic competitive situation should also be taken into account when looking at the effects from overall tariff reductions. However, we believe that for example a low domestic competitive pressure could work either way; On the one hand, low initial domestic competition may lead to less efficient firms which face difficulties to adjust to increased import competition resulting from decreased tariffs. On the other hand, a low level of domestic competition in a sub-sector, may be a sign of regulations in place, which in turn may isolate the sub-sector's firms from being affected by import competition. Alternatively, there may be little increase in imports altogether due to domestic regulations, even if tariffs are reduced.

<sup>79</sup> No figures for Foodstuffs or Beverages & Tobacco are available.

in Zimbabwe (e.g. passenger cars), is probably relatively low.<sup>80</sup> From Figure 4.3. we also noted a considerable decrease in import competition in that sub-sector. The imported cars and other vehicles are of different categories than those produced domestically. The import penetration figures for Metals & Metal Products and Chemicals, which are both highly diversified sub-sectors, on the other hand, probably reflects the true competitive situation, and it seems therefore plausible that these two sub-sectors face the highest foreign competition, and hence, would easiest adjust to increased imports.

*Clothing & Footwear, Wood & Furniture* and *Paper* are the sub-sectors with the lowest import penetration rates, and these could consequently be expected to suffer the most from increased penetration. Particularly Clothing, which has since long been subject to quantitative import restrictions, would be badly affected by cheap imports.<sup>81</sup> The recent inflow of imported footwear, commented on in Section 4.2. seems to have caused great adjustment problems for local manufacturers. A decrease in the tariffs on Wood & Furniture products, may despite the low penetration, still not have large effects due to high transport costs for the sub-sector's products.

#### *Assessment of net effects of the proposed policy package*

Since we recommend that the different policies be introduced simultaneously,<sup>82</sup> it is, despite the difficulties, essential to undertake an assessment of the *net effect* of the proposed policy package, i.e. the sum of the marginal effects. The policy package consists basically of a general opening of the economy coupled with explicit export promotion. In the following we provide an evaluation on the most likely net effects in our view. The expected marginal effects of our four core policy proposals on the sub-sectors, discussed above, are summarized in columns 2-5 in Table 7.3. It must

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<sup>80</sup> The average import tariff for road vehicles is among the higher in Zimbabwe, 38% (Figure 4.4.).

<sup>81</sup> Given that quotas are converted to import tariffs.

<sup>82</sup> Which is also the aim of ESAP.



be emphasized that these evaluations must be interpreted with caution.

A (+) indicates an expected positive effect, relative to the other sub-sectors, (0) an "average" effect, and (-) a negative effect in relative terms. A policy proposal may hence have a positive effect on all sub-sectors, although certain sub-sectors would benefit relatively more than others. In the last column of Table 7.3. we have for each sub-sector added together the signs relating to the four policy proposals, to obtain a crude measure of the expected net effect of the policy package.<sup>83</sup>

*Textiles and Clothing & Footwear* are the two sub-sectors likely to benefit the most from the proposals. Thereafter follow *Chemicals, Metals & Metal products* and *Wood & Furniture*. The sub-sectors expected to benefit the least (alternatively suffer the most), from the proposed policies are in descending order; *Foodstuffs, Non-Metal Minerals, Transport Equipment, Beverages & Tobacco* and *Paper*. These tentative conclusions should roughly be in line with what we could expect with regards to the sub-sectors' continued adjustment to the ESAP.

Since our policy recommendations, as well as the ESAP programme, essentially aims at an opening of the economy and hence moving domestic prices closer to international prices, the above conclusions on the sub-sectoral level should yield insight into which manufacturing sub-sectors Zimbabwe has a comparative advantage. This will correspond to the sub-sectors that have so far responded to an opening of the economy by improved performance, and those that are expected to be positively affected by a further opening.

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<sup>83</sup> (+) denotes plus one, (-) minus one, and (0) zero. For simplicity, the same weights are assigned to the effects of the four policy proposals when adding them together. The marginal effect from (iv) uniform tariff level..., is missing for Foodstuffs and Beverages & Tobacco. In the calculations we have assumed that this policy proposal will have a (0)-effect on both sub-sectors, since import competition is likely to have limited negative short term effect on these typically domestic goods producers.

Table 7.3. Assessment of the effects of policy proposals on the sub-sectors

Sub-sector	(1) Tax incentives for exporters	(2) Reduction of import tariffs on inputs	(3) Duty free imported inputs for exporters	(4) Uniform tariff level: General reduction and convergence of import tariffs	Net effect of the policy package (a)
Foodstuffs	0	-	0	n.a.	-
Beverages& Tob.	-	0	-	n.a.	--
Textiles	+	0	+	0	+ +
Clothing&Footw.	+	+	+	-	+ +
Wood &Furniture	+	-	+	-	0
Paper	-	0	-	-	---
Chemicals	0	+	-	+	+
Non-Met. mineral	0	-	0	0	-
Metals&Met.Prod	0	0	0	+	+
Transport Equip.	-	+	-	0	-

*Notes:*

(+) Positive effect relative to the average

(0) Average effect

(-) Negative effect relative to the average

(a) Addition of the signs in the four columns to the left

(n.a.) Not available

## APPENDIX: CHAPTER 7

Table A.7.1. Share of intermediary/raw materials imported, percent

Sub-sector	1980-82 (average) Firm survey (a)	1993 Interview, estimates (b)	1993 Firm survey (c)
Foodstuffs	2.4	--	2.9
Beverages & Tobacco	24.0	--	--
Textiles	23.0	--	20.8 (d)
Clothing & Footwear	39.0	--	
-Clothing -Footwear	-- --	25 20	
Wood & Furniture	14.0	--	7.9
-Furniture	--	20-25	--
Paper	24.0	--	--
Chemicals	52.0	--	--
-Plastics	--	90-100	--
Non-Metal Minerals	16.0	--	--
Metals & Metal prod.	41.0	--	--
-Iron/steel (Zisco)	--	1	--
-Met.prod/non-elec. machin.	--	--	21.7
Transport Equipment	60.0	--	--

*Sources:*

(a) Riddell (1990, table 10.8)

(b) Interviews with business organizations/firms in Harare, August/September 1994

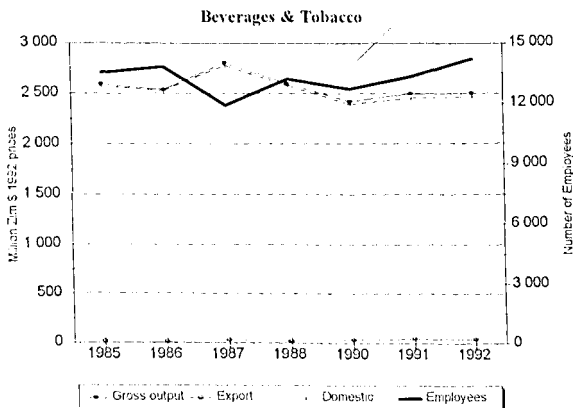
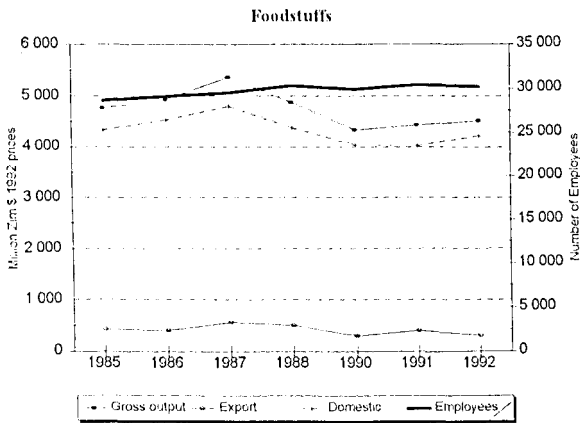
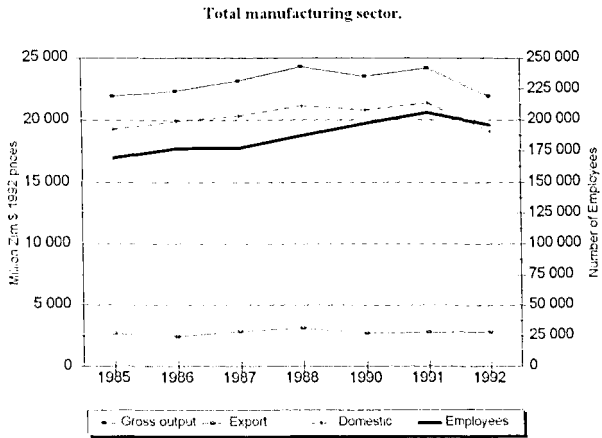
(c) Free University, Amsterdam and University of Zimbabwe (1993)

*Notes:*

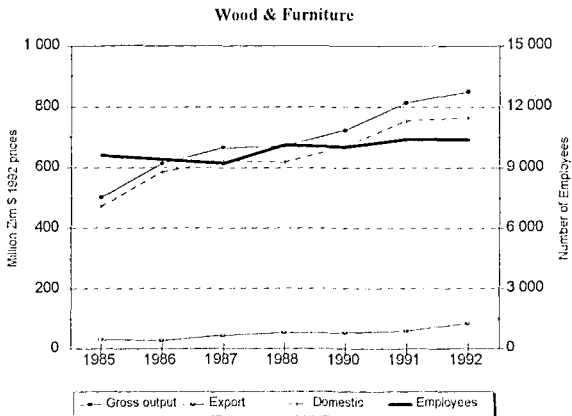
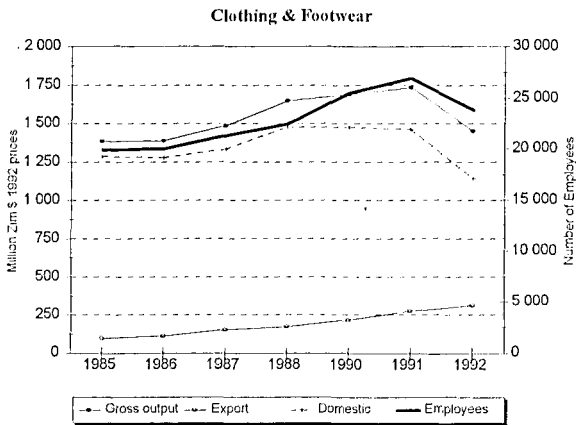
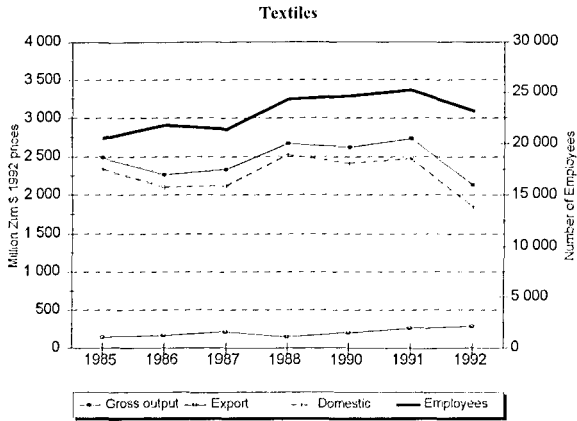
(d) Textiles and clothing/footwear together

--: not available

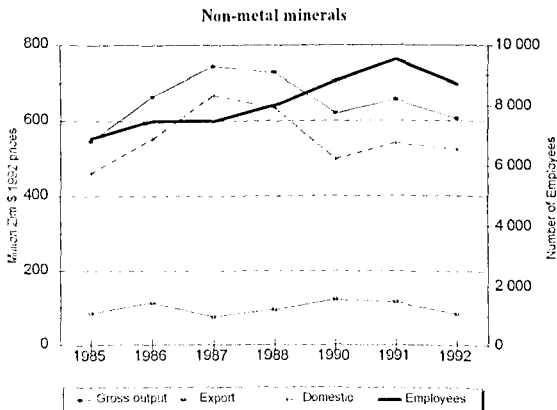
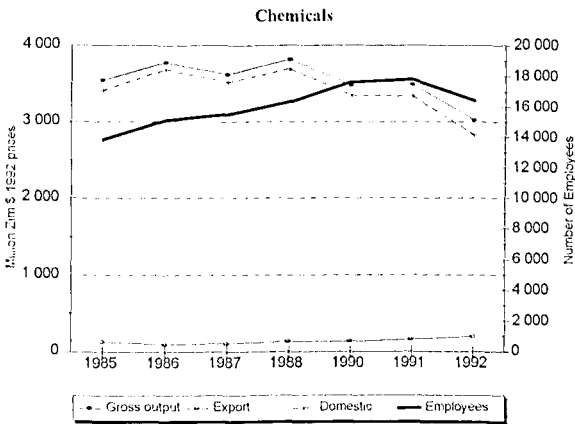
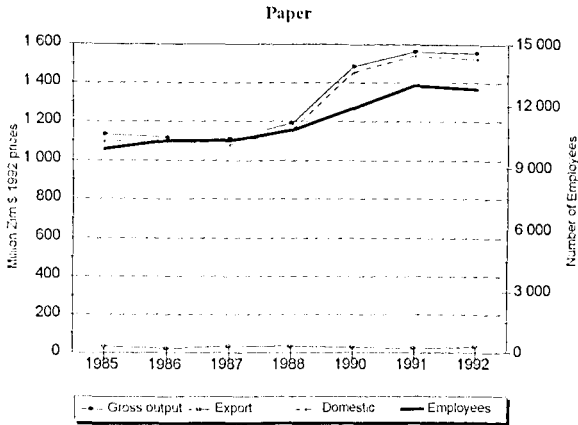
**Figure A.7.1. Gross output, Exports, Domestic sales and Employment 1985-92**



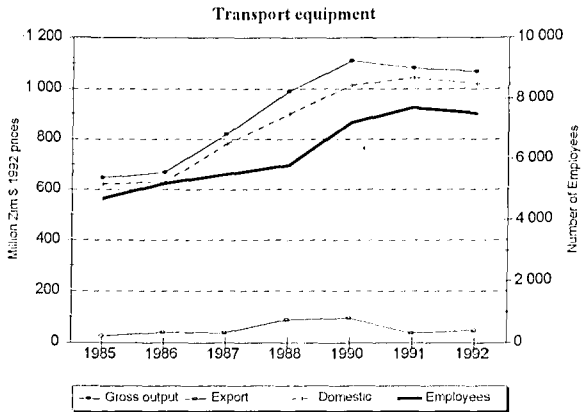
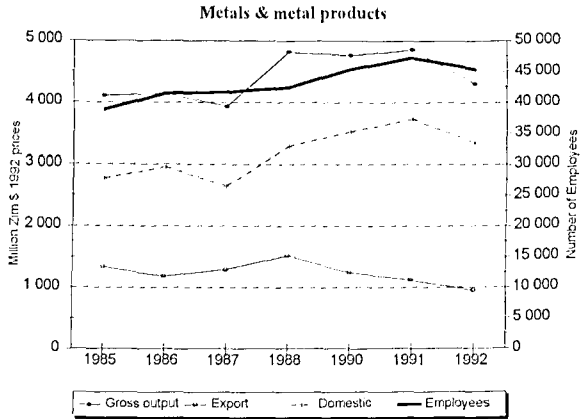
**Figure A.7.1. Gross output, Exports, Domestic sales and Employment 1985-92**



**Figure A.7.1. Gross output, Exports, Domestic sales and Employment 1985-92**



**Figure A.7.1. Gross output, Exports, Domestic sales and Employment 1985-92**



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