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**INDUSTRIAL DEVELOPMENT REVIEW
SERIES**

ZIMBABWE

Prepared by the
Regional and Country Studies Branch

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PREFACE

This Industrial Development Review is one of a series that is being issued within the framework of the country studies prepared by the Regional and Country Studies Branch of the United Nations Industrial Development Organization (UNIDO).

The Reviews present brief factual and analytical surveys of industrial development in developing countries. Such industry-specific reviews are in demand for a variety of purposes: to provide an information service to relevant sections within UNIDO and other international organizations and aid agencies concerned with technical assistance to industry; to be used as a reference source for public and private industrial enterprises, financial organizations and economic research institutes in developed and developing countries; and to serve as a useful information source for policy makers in developing countries. Although the Reviews do not represent in-depth industrial surveys, they do focus exclusively on industry and present information on the entire industrial development process in the countries concerned in a condensed yet comprehensive form.

The Reviews draw primarily on information from national and international statistical publications, as well as on data from the UNIDO data base; no specific field survey is undertaken. The presentation of up-to-date information on manufacturing trends is usually limited by incomplete national statistical data. In view of changing industrial trends, it is evident that the Reviews will need to be updated periodically. It would greatly assist UNIDO in its efforts to update the data base and to monitor industrial progress if the appropriate national authorities and institutions in the respective countries and other readers would provide UNIDO with relevant comments and information.

The present Review was prepared on the basis of information available at UNIDO Headquarters at the end of October 1987. It is divided into two parts: Chapters 1 and 2 are analytical, giving first a brief overview of the country's economy and its manufacturing sector and then a more detailed review of the structure and development of its manufacturing industries. Chapters 3 and 4 contain an overview and assessment of national plans and policy measures relevant to industrial development, the more important governmental and other institutions involved and the country's natural, human and financial resources. The Review also contains relevant basic indicators and graphic presentation of manufacturing trends as well as statistical and other annexes.

It should be noted that the reviews are not official statements of intention or policy by governments, nor do the views and comments contained therein necessarily reflect those of the government.

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EXPLANATORY NOTES

Regional classifications, industrial classifications, trade classifications and symbols used in the statistical tables of this report, unless otherwise indicated, follow those adopted in the United Nations Statistical Yearbook.

Dates divided by a slash (1984/85) indicate a crop year or a financial year. Dates divided by a hyphen (1984-85) indicate the full period, including the beginning and end years.

Reference to \$ are Zimbabwean \$ unless otherwise indicated.

In Tables:

Three dots (...) indicate that data are not available or are not separately reported;

A dash (-) indicates that the amount is nil or negligible;

One dot (.) indicates that there is insufficient data from which to calculate the figure;

Totals may not add precisely because of rounding.

Basic indicators and graphical illustrations of manufacturing trends contained in this Review are based on data sourced from the UNIDO data base, international organizations, commercial and national sources.

The following abbreviations are used in this document

CAD	Computer aided design
CAM	Computer aided manufacture
CSC	Cold Storage Commission
CSO	Central Statistical Office
CZI	Confederation of Zimbabwe industries
DFI	Direct foreign investment
EEC	European Economic Community
GDP	Gross domestic product
GNP	Gross national product
IDC	Industrial Development Corporation
IMF	International Monetary Fund
ISIC	International Standard Industrial Classification
OAU	Organization for African Unity
ODA	Overseas Development Assistance
OECD	Organization for Economic Co-operation and Development
PTA	Preferential Trade Area
SADCC	Southern African Development Co-ordination Conference
SEDCO	Small Enterprise Development Corporation
SITC	Standard International Trade Classification
UNDP	United Nations Development Programme
ZDB	Zimbabwe Development Bank
ZISCO	Zimbabwe Iron and Steel Company

BASIC INDICATORS 1
The Economy

GDP (1986)	:	Z\$9,237 million							
Population (1987)	:	8.6 million persons							
Labour force (1982)	:	2.5 million							
GNP per capita (1985)	:	US\$680							
Growth rate of GDP (per cent)	:	<u>1965-1973</u>	<u>1973-1984</u>	<u>1985^{a/}</u>	<u>1986^{b/}</u>	<u>1987^{c/}</u>			
		9.4	1.7	9.3	0.2	-3.0			
Sectoral Composition of GDP (percentage)	:	<u>1974</u>	<u>1985</u>						
Agriculture		17.6	13.0						
Industry		38.0	43.0						
Manufacturing		23.5	29.0						
Services		44.4	44.0						
Annual average inflation rate (per cent)	:	<u>1974-79</u>	<u>1979-84</u>	<u>1985</u>	<u>1986</u>	<u>1987^{d/}</u>			
		8.8	13.4	9.0	15.0	13.0			
Currency exchange rate: (Z\$ equivalents to US\$1)		<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
		0.6	0.7	0.9	1.1	1.4	1.6	1.6	1.6

- a/ Provisional.
b/ Estimate.
c/ Forecast.
d/ Estimate based on January-June.

BASIC INDICATORS 2
Raw material resources

Major agricultural commodities	:	Maize	1,073		
Production (1984) ('000 tonnes)		Wheat	55		
		Cotton	75		
		Tobacco	115		
Livestock (1984)	:	Cattle	5,318		
(number, '000)		Sheep	424		
		Pigs	175		
Energy: coal production (1984)	:	3109			
('000 tonnes)					
Energy: electricity (1984)	:	4339.5			
(millions of kwh)					
Mining production	:		1982	1983	1984
('000 tonnes)		Abestos	197.7	153.0	165.3
		Chrome ore	431.6	431.4	476.4
		Copper	24.8	21.6	22.8
		Nickel	13.3	10.1	10.3
		Iron ore	837	924	925
		Gold ('000			
		fine oz.)	426	453	478

BASIC INDICATORS 3
Foreign trade and balance of payments

Exports:

Total value (1985)	:	Z\$1,430.7 million	
Main goods (1985) (Z\$'000)	:	Flue-cured tobacco	267,789
		Ferro-alloys	187,387
		Cotton lint	152,132
		Asbestos	81,366
Main destinations (1985) (Z\$'000)	:	South Africa:	178,531
		United Kingdom:	201,794
		United States:	123,061
		Federal Republic of Germany:	153,074
		Italy:	97,931

Imports:

Total value (1985)	:	Z\$1,501 million	
Main goods (1985) (Z\$'000)	:	Machinery and equipment	446,552
		Fuels and electricity	342,362
		Manufactured goods	211,077
		Chemicals	258,165
		Misc. manufactured goods	97,587
Main origins (1985) (Z\$'000)	:	South Africa:	275,157
		United Kingdom:	151,616
		United States:	184,925
		Federal Republic of Germany:	102,615
		Japan:	56,905
Balance of payments (1985) (current account surplus)	:	US\$ -97 million	
Foreign currency reserves (1985)	:	US\$345 million	
External public and publicly- guaranteed long-term debt (1985)	:	US\$1.526 billion	
Debt services as per cent of exports (1985)	:	32 per cent	

BASIC INDICATORS 4
The manufacturing sector

Manufacturing value added	:	US \$1,565 million (1984)
Value added <u>per capita</u>	:	US \$193.2 (1984)
Employment in manufacturing	:	176,223 (1982)
Percentage of total labour force	:	7.0
Growth of MVA (per cent)	:	<u>1974-81</u> <u>1981</u> <u>1982</u> <u>1983</u> <u>1984</u> <u>1985</u> <u>1986</u> 2.8 9.9 -0.5 -2.9 -4.8 11.4 ^{a/} 2.0 ^{b/}
Sectoral composition of manufacturing value added (per cent)	:	
Food and agriculture		<u>1970</u> <u>1984</u> 22.0 25.0
Textiles and clothing		18.0 19.0
Machinery & transport		10.0 9.0
Chemicals		8.0 9.0
Other		42.0 38.0
Trade in manufactures ^{a/}	:	
Total value - Exports		Z\$197.7 million (1982)
- Imports		Z\$764.6 million (1982)
Share of manufactures ^{a/}	:	
- In total exports		24.5 per cent (1982)
- In total imports		70.7 per cent (1982)

a/ Narrow definition of manufactures, (SITC 5-8 less 68 excluding gold). For a wider definition of manufactured exports see basic indicators 5 and section 2.3.

b/ Refers to index of industrial production.

EASIC INDICATORS 5
Trade in manufactured goods

Manufactured exports ^{a/} (1984) ('000)	:	Z\$552,554	
Composition of manufactured exports (1984) (percentage)	:	Chemicals (SITC 5)	4.2
	:	Manufactures classified by materials (6)	75.8
	:	Machinery and transport equipment (7)	4.1
	:	Misc. manufactures and others n.e.c. (8+9)	15.9
Destinations (1983) (percentage)	:	South Africa	25.1
	:	United States	11.8
	:	United Kingdom	9.3
	:	Japan	9.2
	:	Federal Republic of Germany	6.9
	:	Others	37.7
Manufactured imports, ^{a/} (1984) ('000)	:	Z\$858,530	
Composition of manufactured imports (1984) (percentage)	:	Chemicals (SITC 5)	24.0
	:	Manufactures classified by materials (6)	23.5
	:	Machinery and transport equipment (7)	43.4
	:	Misc. manufactures and others n.e.c. (8+9)	9.2
Origins (1983) (percentage)	:	South Africa	23.9
	:	United Kingdom	15.7
	:	United States	11.5
	:	Federal Republic of Germany	9.6
	:	Japan	6.4
	:	Botswana	4.0
:	Others	22.7	

^{a/} A broad definition of manufactured trade, covering SITC 5-9. See also Section 2.3.

BASIC INDICATORS 6
Inter-country comparison of selected indicators

	Unit	Tanzania	Zambia	Zimbabwe	Botswana	Malawi
I. Demographic indicators						
Population (mid-1985)	millions	22.2	6.7	<u>8.4</u>	1.1	7.0
Population growth (1980-85)	per cent per annum	3.5	3.	<u>3.7</u>	3.5	3.1
Infant mortality (1985)	per thousand	110	84	<u>77</u>	71	156
Area (1985)	thousand km ²	945	753	<u>391</u>	600	118
Density (1985)	persons per km ²	23.8	8.9	<u>21.5</u>	1.8	59.3
IV. Economic indicators						
GDP (1985)	US \$ million	5,600	2,330	<u>4,530</u>	830	970
GDP per capita (1985)	US \$	290	390	<u>680</u>	840	170
Average annual growth of GDP (1980-1985)	per cent	0.8	0.1	<u>2.5</u>	12.1	2.0
Agriculture (1985)	per cent of GDP	58	14	<u>13</u>	6	38
Industry (1985)	per cent of GDP	8.0	39	<u>43</u>	49	19
Manufacturing (1985)	per cent of GDP	5.0	22	<u>29</u>	8	...
Services (1985)	per cent of GDP	33.0	46	<u>44</u>	46	44
Exports of goods and non-factor services (1985)	per cent of GDP	7.0	39	<u>26</u>	63	25
Gross domestic investment (1985)	per cent of GDP	13.0	12	<u>23</u>	21	16
External public debt (1985)	per cent of GNP	48.5	150.8	313	47.3	75.7
III. Industrial indicators						
MVA (1984)	million US\$ 1980 407		729	<u>1,252</u>	52	...
Share of MVA in GDP (1985)	per cent	5.0	22	<u>29</u>	8	...
Average annual growth of MVA (1980-1985)	per cent	-4.6	0.4	<u>0.9</u>	5.8	...
Share of manufactured exports in total exports (1982)	per cent	10.62 ^{g/}	2.72 ^{h/}	<u>9.62^{g/}</u>	15.54 ^{f/}	7.52 ^{f/}

g/ 1981.

h/ 1982.

g/ SITC 5-8 less 67 and 68.

g/ Share of all manufactures in total exports, 1985.

SUMMARY

Zimbabwe's economy has faced difficulties in recent years. A combination of external factors, including a depressed world economy, together with several years of drought, depressed the economy as a whole and the manufacturing sector in particular. But 1985 saw a significant upturn, with GDP growing by an estimated 6 per cent and much higher growth in manufacturing.

With a GNP per capita of around US \$680, Zimbabwe ranks significantly above the average for sub-Saharan Africa (US \$400). It is unique in Africa for the size of its manufacturing sector (29 per cent of GDP), which is higher than that in several developed countries also. Moreover the sector is highly diversified. Manufacturing activity which was originally resource-based, is dominated by sophisticated metallurgical and agro-based industries. But a policy of import substitution has led also to the production of most consumer goods, as well as a wide range of intermediate goods.

The main branches of manufacturing are food products, metal and metal products, chemicals and petroleum products and textiles. These four branches account for about 68 per cent of manufacturing output, although much processing also takes place within the mining sector. A wide range of products (over 6,000) is produced, including many engineering products, and important linkages exist with other parts of the economy. The main manufactured exports are metals and metal products (about half of the total), textiles and foodstuffs. The main markets are the EEC countries, the Republic of South Africa, the Far East, Australasia and the United States. Many sectors are very import dependent (manufacturing as a whole imports about a quarter of its raw materials), with transport equipment and chemicals particularly so.

The manufacturing sector is largely in private ownership, with about 15 per cent being state-owned. Foreign ownership accounts for about 48 per cent of total capital assets in manufacturing. Important public enterprises include Zimbabwe Iron and Steel Company (ZISCO), and also a number of other industries controlled through the Industrial Development Corporation, together with parastatals in agro-industry such as the Cotton Marketing Board, and the Cold Storage Commission.

The recently published First Five-Year National Development Plan covering the period 1986-1990, foresees a 6.5 per cent growth for the manufacturing sector, with increased exports and a reduced dependency on imported fuels and chemicals. New statements on policy with respect to foreign investment and to countertrade are expected.

The outlook for Zimbabwe's manufacturing sector will be influenced both by the existing structure and by factors outside its control. The structure is characterized by large firms, lack of competition, very limited R & D and a history of underinvestment. There is little connexion between the modern sector (highly urbanised) and the rural development process. Zimbabwe's dependence on South Africa, both for markets and transport to the sea, is also an important consideration. Restructuring of the manufacturing sector in line with sub-regional and world trends could make the variety and resourcefulness of Zimbabwe's manufacturing sector the main vehicle of future development.

1. THE ECONOMY OF ZIMBABWE

1.1 Recent economic trends

Zimbabwe's economic performance has been closely linked with political developments, national and international. The "UDI" period, when a minority government attempted to rule in defiance of international sanctions, had a whole series of effects on the economy. These included an increased dependence on South Africa, and an accelerated import-substitution policy, especially in manufacturing. But, as the struggle for independence increased and the war of liberation grew fiercer, an increasing proportion of resources were channelled to military uses. Government expenditure rose rapidly in the late 1970s. Investment faltered however, and Zimbabwe has a legacy of under-investment that now is a significant obstacle to future progress, especially in manufacturing.

Independence in 1980 produced a temporary upsurge in economic conditions. Private investment recovered somewhat, external trading conditions eased, and there was a good degree of international assistance to the newly independent nation. Most importantly, the course and objectives of economic policy changed, in order to bring the benefits of independence to the broad masses of the population. Public investment was considerable especially in the areas of health and education. At one point minimum wages were increased significantly.

Unfavourable factors were also present. World trade in the early 1980s was stagnant and commodity prices low. This affected many of Zimbabwe's traditional exports. Drought hit agriculture for several years in succession. Zimbabwe's transport links to the rest of the world were disrupted through continuing disturbances in Mozambique, through which rail links pass to Beira and Maputo. Zimbabwe has been forced to continue with the much longer rail links through South Africa, while at the same time being heavily committed to the protection of the Mozambique railway against guerilla attack.

The year 1985 saw a recovery. A revival in the world economy and in business confidence was accompanied by other favourable trends, such as an excellent agricultural performance. The estimate is of a 9.3 per cent growth in GDP in real terms.^{1/}

In 1986, however, the previous year's high performance was not attained. GDP is estimated to have grown by only 0.2 per cent.^{1/} Mineral production stood just under its 1980 value, with a production volume index of 99.4. This represented a 2.8 per cent increase in volume over the previous year. In value terms, mining output grew by 11.1 per cent in 1986.^{2/}

1/ Reserve Bank of Zimbabwe, Quarterly Economic and Statistical Review, Vol. 7, No. 4, December 1986.

2/ Central Statistical Office, Stats-Flash No. 22 March 1987.

Even greater growth was seen in merchandise exports in 1986, which rose in current prices by 22 per cent. However this was mirrored by a rise of 22 per cent in imports. The visible trade balance gave a surplus of Z\$364.8 million. The main export increases were seen in flue-cured tobacco, ferrous alloys and asbestos, with a significant fall in the exports of cotton lint. The year 1986 saw large rises in the imports of machinery and equipment, and other manufactures, offset by a fall in the value of fuels and electricity imports. The main export markets continued to be South Africa, the United Kingdom and the Federal Republic of Germany, with shares of 10.0 per cent, 9.9 per cent and 7.0 per cent respectively. The principal origins of Zimbabwe's imports were South Africa, the Federal Republic of Germany and the United Kingdom, with shares of 21.3 per cent, 11.2 per cent, and 10.9 per cent respectively.^{1/}

The positive balance of trends has not been enough to counteract other factors in the external balance, which include a reduction in capital inflows including insufficient direct foreign investment, and the need to repay foreign loans. As a consequence measures have recently been taken to encourage both domestic and foreign investment, as well as to reduce the Government deficit and to encourage exports.

The performance of the manufacturing sector is here briefly summarized: its growth, as seen in the index of production, was 11.4 per cent in 1985, but this declined to 2 per cent in 1986. At the level of individual branches of manufacturing there was considerable variation. In 1986, the large textiles and foodstuffs sectors grew at 8.8 per cent and 10.6 per cent, respectively. However the largest sector of all, metals and metal products declined by 2.3 per cent. Another large sector, chemicals, and oil products, declined even more, with a 5.9 per cent fall in output.

Table 1. Growth rates of GDP by main sectors, 1974-1984
(based on constant factor prices)
(percentage)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Agriculture and forestry	-5.9	11.3	-21.3	10.2	0.0	3.2	8.3	1.0	-6.4	1.7
Mining and quarrying	1.4	9.0	-5.2	-5.5	0.0	-2.4	-4.9	4.8	-0.4	2.8
Manufacturing	0.4	-5.8	-4.9	3.7	10.8	15.1	9.9	-0.5	-2.9	-5.0
Utilities	3.3	-6.6	-31.8	20.7	-8.6	9.4	0.0	-10.0	7.9	2.9
Construction	-6.0	-21.2	-11.4	-16.5	-2.2	-2.2	13.8	-2.0	-8.2	-4.5
Services	1.8	-1.5	-1.5	-1.5	-1.4	16.2	19.9	-0.2	-3.5	1.2

Source: Calculated from CSO, Quarterly Digest of Statistics, March 1986, Table 8.2

^{1/} Central Statistical Office, Stats-Flash No. 23, April 1987.

Recent trends in the balance of payments are briefly examined in Table 2 which shows annual data from 1979 to 1985. It can be seen that the current account showed some improvement, with the largest deficit in 1982 of Z\$533 million falling to Z\$102 million in 1984, but rising again to Z\$159 million in 1985. Strong growth in merchandise exports more than compensated for increases in imports. On the capital account, long term capital inflows declined in 1984 to levels below those of 1982. A net outflow of private capital was the first since 1981, but was a small part of overall capital movements, and was reduced in 1985.

Table 3 shows the investment and savings performance of the economy as a whole, expressed as a percentage of GNP. Neither gross domestic investment nor gross national savings present an encouraging trend. The year 1983 saw a fall in the former from 22 per cent of GNP in 1982 to as little as 14 per cent. This reflects the generally depressed situation of the economy (it was in this year that the greatest recourse was made to IMF financing) and the foreign exchange component of investment tended to act as a binding constraint. Full data on the expenditure side of GNP are not yet available for later years, but some indicators for investment, at least, are encouraging. Machinery and equipment imports rose by 61.3 per cent in 1986. The value of approved construction plans rose by 47.4 per cent in 1986.

An improved domestic political situation will also increase confidence and may reduce government defence expenditure. This is severely strained by the burden of protecting the railway line through Mozambique to Beira, now Zimbabwe's only access to the sea that does not depend on South Africa. The direct rail line to Maputo is effectively closed due to rebel activity in Mozambique, and it has been estimated that about 90 per cent of Zimbabwe's exports pass through South Africa.

Thus, Zimbabwe's geographical position increases its economic vulnerability. But it should be emphasized also that longer-term, as well as short-term developments in South Africa will have an important impact on Zimbabwe's economy. A new political system in South Africa and the dismantling of the apartheid structure could mean that Zimbabwe would face increased competition in many of its export markets in the sub-region and perhaps in developed countries also. A further complication will arise from demographic pressures. The population growth rate, as noted, is very high, and the expansion of education has been such as to raise expectations among the growing numbers of young people of stable and well-paid employment. These threatening unemployment problems are exacerbated by the marked increase in urbanization, which will yield, in turn, its own difficulties in the provision of adequate infrastructure and services.

The competitiveness of Zimbabwe's economy is an issue that particularly concerns the manufacturing sector. The agriculture sector has produced efficiently and, with the admission of Zimbabwean beef to the EEC, has further opportunities for expansion. The mining sector, while it faces a still depressed world market and has seen the purchasing power of its exports eroded over the years still remains a powerful sector and dominates the exports pattern. Manufacturing, because of its diversity, cannot be easily summarized, but it embodies many of the problems of Zimbabwe's economy while at the same time offers the major possibility for long-term expansion.

Table 2. Balance of payments^{1/} 1979-1985
(Z\$ million)

	1979	1980	1981	1982	1983 ^{5/}	1984 ^{2/}	1985
Merchandise exports ^{2/}	+734.0	+928.9	+1,001.9	+958.2	+1,173.9	+1,483.7	+1,811.2
Service receipts	+58.6	+91.4	+83.0	+115.6	+131.3	+156.8	+168.5
Income receipts	+44.0	+84.6	+74.5	+83.1	+92.8	+100.7	+100.8
Merchandise imports ^{2/}	-594.9	-860.5	-1,059.4	-1,114.2	-1,086.6	-1,237.1	-1,485.6
Service payments	-178.8	-241.9	-345.6	-307.8	-392.7	-400.5	-466.0
Income payments	-98.8	-118.8	-171.0	-245.3	-314.2	-257.3	-304.4
Unrequited transfers (net)	-38.0	-40.4	-23.0	-62.4	-58.7	+51.8	+16.3
Balance on current account	-73.9	-156.7	-439.6	-532.9	-454.2	-101.9	-159.2
Long term capital Official	-27.8	-66.6	-62.6	+281.9	+311.7	+214.1	+158.2
Private	(-27.9)	(-67.6)	(+68.1)	(+237.6)	(+294.5)	(+235.0)	(+174.6)
Short term capital ^{3/}	+0.1	(+1.0)	(-6.1)	(+44.3)	(+17.2)	(-20.9)	(-16.4)
Balance on capital and current accounts	-18.2	+27.8	+71.6	+60.7	-25.8	+18.5	+121.5
Net errors and omission	-46.0	-43.8	+133.6	+342.6	+285.9	+232.6	+279.7
Balance on capital account	+81.2	+120.3	+85.9	+66.0	+10.0	+33.6	+83.0
Gold monetization/demonetization	-38.7	-80.2	-220.1	-124.3	-158.3	+164.3	+203.5
Valuation factors ^{4/}	+2.5	+38.2	+15.2	+2.2	+41.5	+29.0	+22.5
Use of IMF resources	+1.3	+12.6	-28.0	+25.2	-36.1	-21.7	+11.2
Extraordinary financing ^{5/}	-	-	+30.8	-	+162.2	+78.7	-30.1
Change in reserves (sign reversal)	+120.2	+24.6	+218.3	+110.3	-8.4	-223.0	-97.9
	-85.3	+4.8	-16.2	-13.4	-0.9	-27.3	-109.2

Source: Reserve Bank of Zimbabwe, Quarterly Economic and Statistical Review, March 1987, Vol. 8, No.1, page 535, Table 6.2.

- Notes:
- 1/ All figures except current account are net.
 - 2/ Includes timing adjustments, internal freight, gold sales, and gold swap agreements.
 - 3/ Capital movements not related to reserves, where period is less than one year.
 - 4/ Valuation changes relating to both gold and foreign assets.
 - 5/ Extraordinary financing represents borrowing related to reserves.
 - 6/ Adjusted.
 - 7/ Provisional.

Table 3. Investments and savings, as a percentage of GNP, 1978-1983

	Share of GNP					
	1978	1979	1980	1981	1982	1983
	(percentage)					
Gross domestic investment	12	13	16	24	22	14
Foreign savings ^{a/}	-2	2	4	10	10	8
Gross national savings	14	11	12	14	12	6
Proportion of investment financed by national savings	115	83	72	57	54	43

Source: World Bank, Zimbabwe Country Economic Memorandum, 28 October 1985, p. 8, Table 1.3.

a/ Equivalent to the current account deficit of the balance of payments, with some adjustments by CSO for consistency with national accounts principles.

1.2 Economic structure

Zimbabwe's relative wealth in natural resources is somewhat offset by its locational disadvantages. It is unique in the Africa region for the size and diversity of its manufacturing sector: equally important, however, is the fact that this is accompanied by strong agriculture and mining sectors. The result is that Zimbabwe is a lower-middle income developing country whose GNP per capita, at \$680, is well above the average for sub-Saharan Africa (70 per cent higher).

As Table 4 shows, Zimbabwe is equally strong in other indicators of general socio-economic development, with life expectancy higher and infant mortality lower than for the other countries of the region. Population growth is very rapid. At 2.9 per cent it is one of the highest in the world (although the rate is falling), and such a rate of increase places heavy demand

Table 4: Comparison of basic indicators of selected African countries, 1985

Country	Population mid-1984 (million)	Area ('000 km ²)	GDP (\$ mill.)	GNP per capita (\$)	Life expectancy at birth (years)	Infant mortality (per '000)
Zimbabwe	8.4	391	4,530	680	57	77
Angola	8.8	1,247	...	...	44	143
Botswana	1.1	600	830	840	57	71
Lesotho	1.5	30	260	470	54	106
Malawi	7.0	118	970	170	45	156
Mozambique	13.8	802	3,230	160	47	123
Swaziland	0.8	17	...	670	54	...
Tanzania	22.2	945	5,600	200	52	110
Zambia	6.7	753	2,330	390	52	84

Source: World Bank, World Development Report, 1987.

on the economic system. The population is still predominantly rural-based, with only 24 per cent living in the towns and cities. However, this share is increasing steadily: the urban population growth rate was 6.0 per cent per annum for the period 1973 to 1983.

Table 5 shows the break-down of GDP into the value-added arising in each of the main sectors distinguished in national accounts. It can be seen that the structure of GDP is a remarkable one. The share of manufacturing in GDP (1984) is no less than 27.5 per cent (at current prices), which is about three times the average for Sub-Saharan Africa. As the Table shows this share has risen since 1974 from an already high value of 23.5 per cent. A further increase to 29 per cent in 1985 has been reported by one source. The increase has been mainly at the expense of agriculture and mining, whose decline has also been accompanied by an expansion of the share of the service sector. Measured in constant prices, the changes have not been so great. Indeed, as Table 6 shows, the share of manufacturing in GDP, measured in 1980 prices, reached a peak of 24.9 per cent in 1980 but declined thereafter to 23.0 per cent in 1984.

Agriculture remains a strong sector characterized by two components: commercial agriculture and the communal lands. As can be seen, the contribution of mining to the overall economy is the next most important, ranging from 7.6 per cent in 1975 to 5.8 per cent in 1984. The sector has been depressed for some years, and output has shown little growth since its share peak in 1979, until the recent upturn in the economy as a whole which began in 1984. But it remains a strong sector. Both mining and agriculture have important linkages to manufacturing, and these are discussed in Chapter 4 of this Review.

The figures, therefore, show a significant difference from typical trends in developing countries: the manufacturing sector already has a share in the economy as a whole that is higher than that found in some developed countries.

Of the remaining sectors, the construction share has shown a decline over the period, whether measured in current or constant prices, with the decline being sharper in the latter case. This has been mirrored by a decline in the actual output of the sector, which in turn reflects a trend of low investment over many years in the economy as a whole.

Turning to the demand side of the economy, the figures in Table 7 show the shares of the main components of final demand in GDP. Notable is the behaviour of the gross fixed capital formation share. While at a reasonable level in 1974-75, it saw a steady decline until 1979. A recovery took place with the country's independence, but the increasingly difficult economic conditions and a widening trade gap forced a decline in 1983 to 17.6 per cent. In fact the level of investment in 1983 in constant (1980) prices was \$649 million, hardly more than two-thirds the value in 1974.

The figures in Table 7 show the change over time in the role of foreign trade. Both the exports and imports of goods and services have declined as a share of GDP. At first sight this suggests that Zimbabwe is a less open economy in 1983 than it was in 1975. In fact, however, the opposite is true. In 1975 the UDI regime was subject to international sanctions and boycotts, with trade being thus constrained, to some degree at least, by the need to deal through intermediaries.

Table 5: Distribution of GDP by sector of origin, 1974-1984
(percentage shares based on current prices)

Sectors	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Agriculture	17.6	17.0	17.0	16.1	13.5	12.8	14.2	16.0	14.4	11.7	11.8
Mining and quarrying	7.6	6.9	7.4	7.2	7.2	8.9	8.8	6.2	4.7	5.6	5.8
Manufacturing	23.5	23.5	23.3	22.2	23.7	24.5	24.9	25.1	24.3	27.3	27.5
Utilities	2.3	2.6	2.8	2.7	2.9	2.8	2.2	1.9	1.6	2.6	2.8
Construction	4.6	4.9	4.3	4.1	3.1	3.6	2.7	3.3	4.0	3.8	3.6
Services	44.4	45.1	45.4	47.7	49.6	47.3	47.2	47.5	51.0	47.1	48.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Calculated from Central Statistical Office, Quarterly Digest of Statistics, March 1986, Table 8.2

Table 6: Distribution of GDP by sector of origin, 1974-1984
(percentage shares based on constant 1980 prices)

Sectors	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Agriculture	15.6	14.7	16.5	14.0	15.5	15.3	14.2	13.6	13.7	13.3	13.6
Mining and quarrying	9.4	9.6	10.5	10.7	10.2	10.1	8.8	7.4	7.8	8.0	8.3
Manufacturing	23.2	23.2	22.1	22.7	22.0	24.1	24.9	24.2	24.1	24.2	23.0
Utilities	2.9	3.0	2.7	2.0	2.5	2.2	2.2	1.9	1.7	1.9	2.0
Construction	5.3	5.0	4.0	3.8	3.2	3.1	2.7	2.7	2.7	2.5	2.4
Services	43.3	44.5	44.2	46.8	46.6	45.3	47.2	50.2	50.1	50.0	50.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Calculated from Central Statistical Office, Quarterly Digest of Statistics, March 1986, Table 8.2

Table 7. Demand components of GDP, 1974-1983
(percentage shares based on current prices)

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Private consumption	61.1	62.1	63.5	64.5	66.1	69.2	67.7	67.2	66.0	71.9
Government consumption	11.9	12.3	14.7	17.4	19.1	19.0	19.7	17.2	18.9	18.7
Gross fixed capital formation	22.6	23.4	19.7	17.2	14.4	14.0	15.3	18.7	20.0	17.6
Change in stocks	4.9	2.9	-1.8	-1.5	-3.1	-2.1	0.3	4.2	1.1	-4.7
Exports of goods and services	...	29.5	28.5	27.8	28.6	28.2	30.3	25.2	22.2	22.4
Imports of goods and services	...	30.7	24.6	25.4	25.1	28.4	33.3	32.5	28.2	25.8
GDP	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Calculated from Central Statistical Office, Quarterly Digest of Statistics, March 1986, Table 8.3.

While exports and imports have declined from 29.5 per cent and 30.8 per cent of GDP in 1975 to 22.5 per cent and 25.9 per cent in 1983, this has been mirrored by increases in both the public and private consumption shares. Since independence, the economic focus has been directed towards improving the quality of life of the broad mass of the population. Private consumption did not rise at all in real terms between 1974 and 1979, and since then has risen by 9.4 per cent per annum on average, with GDP growth averaging 7 per cent over the same period. At the same time, export conditions have been difficult, with world demand low and the agriculture sector depressed by drought.

Merchandise exports are diversified. They include many agricultural and mineral products as well as manufactures. The main components of export earnings by value include tobacco (19.3 per cent), gold (11.8 per cent), ferrochrome (8.7 per cent), asbestos (7.7 per cent), cotton (6.0 per cent), sugar (5.5 per cent), steel ingots and bars (5.3 per cent) and nickel metal (5.2 per cent).^{1/} The role of manufacturing in Zimbabwe's export performance is discussed later in this document, but it will do no harm to

^{1/} These are 1981-83 averages from World Bank, Zimbabwe Country Economic Memorandum, October 1985, page xii. The relative importance of several items has recently changed and the implications for manufacturing are discussed in section 2.3.

clarify the broad issues at this point. Officially recorded agricultural products are, in several cases, actually manufactures, since they include the increasingly important processed beef exports, cotton lint, refined sugar, etc. Again, although mineral processing if it occurs on the mine site is not officially recorded as a manufacturing activity, most mineral exports have in fact been processed to some degree.

Imports figures show Zimbabwe to be a heavy importer of machinery and transport equipment (SITC 7) which amounted to 30.6 per cent of total merchandise imports in 1984.^{1/} Other important commodity groups included fuels and electricity (SITC 2) which were 21.4 per cent of the total, manufactures classified by materials (SITC 6) which were 15.4 per cent of the total, and chemicals (SITC 5) whose share was 14.8 per cent. Machinery and transport equipment imports usually includes a significant component associated with parastatal investment in electricity generation and telecommunications as well as equipment for the mining and agriculture sectors. Gas oil, motor spirit and aviation fuel are major imports in SITC 2. For Zimbabwe, food forms a small share of the total merchandise imports. It was 7 per cent in 1984, but this was an exceptional year, and in previous years it was between 1 and 2 per cent of the total.

Zimbabwe's foreign trade is heavily influenced by its geographical position, as well as its historical relationship with the United Kingdom. The Republic of South Africa is its most important export market (18.3 per cent of non-gold merchandise exports in 1984).^{2/} The United Kingdom was the next most important market, at 12.8 per cent, and the Federal Republic of Germany followed at 8.6 per cent. The United States is also an important market with 6.2 per cent of the total. Zimbabwe is a member of the Southern Africa Development Co-ordination Conference (SADCC), the other members of which are the neighbouring countries of Angola, Botswana, Lesotho, Malawi, Mozambique, Swaziland, Tanzania and Zambia. SADCC is discussed in more detail later in this Review as a focus for industrial strategy. Collectively, the SADCC countries took 11.5 per cent of Zimbabwe's exports in 1984. Zimbabwe is also a member of the Preferential Trade Area (PTA) which is a larger grouping of 15 countries of Eastern and Southern Africa which has lowered tariffs on trade among member countries. It is also discussed further in Chapter 2.

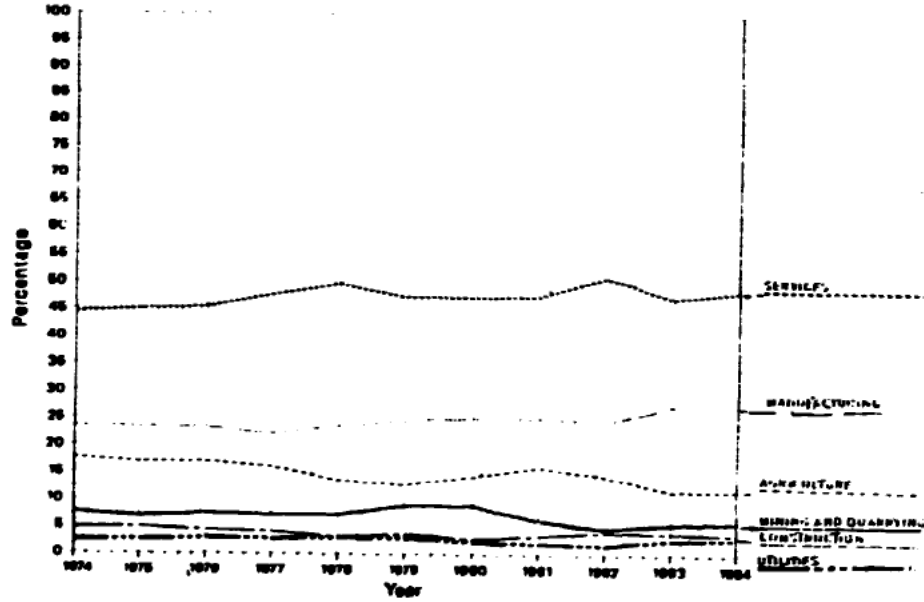
On the import side, the order of precedence among suppliers is very similar to that for exports. The main source of imports was South Africa (19.3 per cent) followed by the United Kingdom (12 per cent), the United States (9.3 per cent) and the Federal Republic of Germany (6.9 per cent). Imports from the other SADCC countries amounted to 6.6 per cent of the total.

1/ Calculated from Central Statistical Office, Quarterly Digest of Statistics, June 1985, Table 10.6.

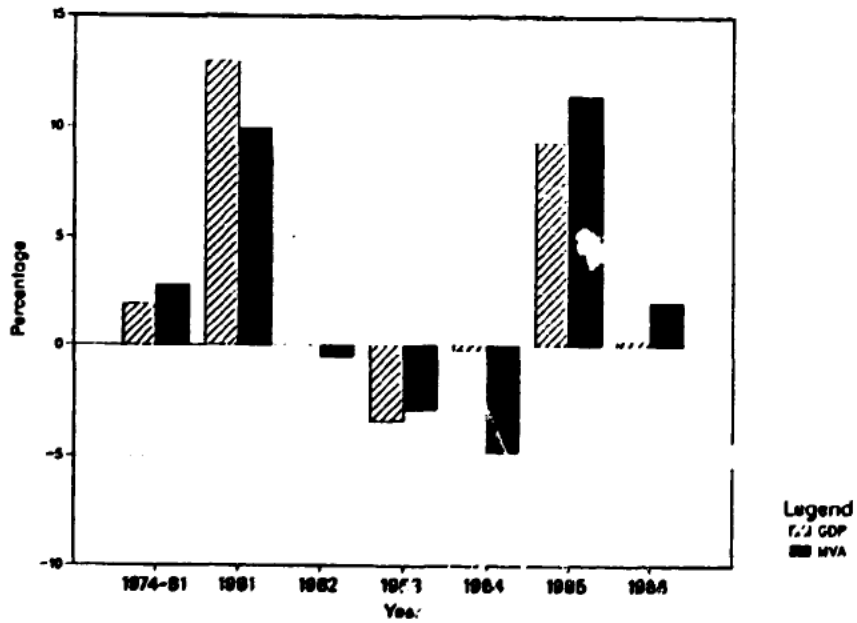
2/ Reserve Bank of Zimbabwe, Quarterly Economic and Statistical Review, September 1985, Vol. 6, No.3, p.10.

MANUFACTURING TRENDS

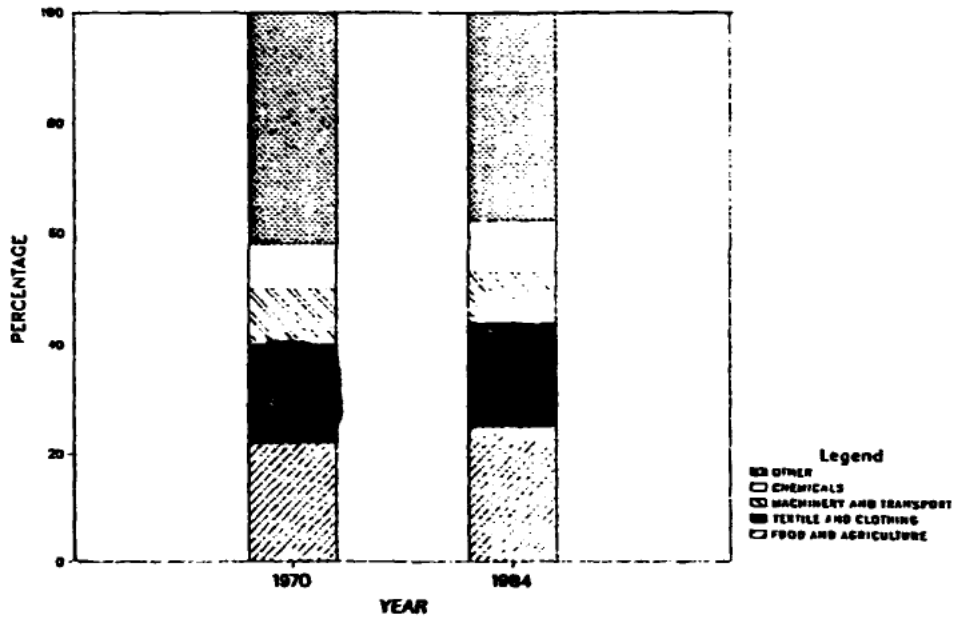
DISTRIBUTION OF GDP BY SECTOR OF ORIGIN, 1974-1984
(at current 1980 prices)



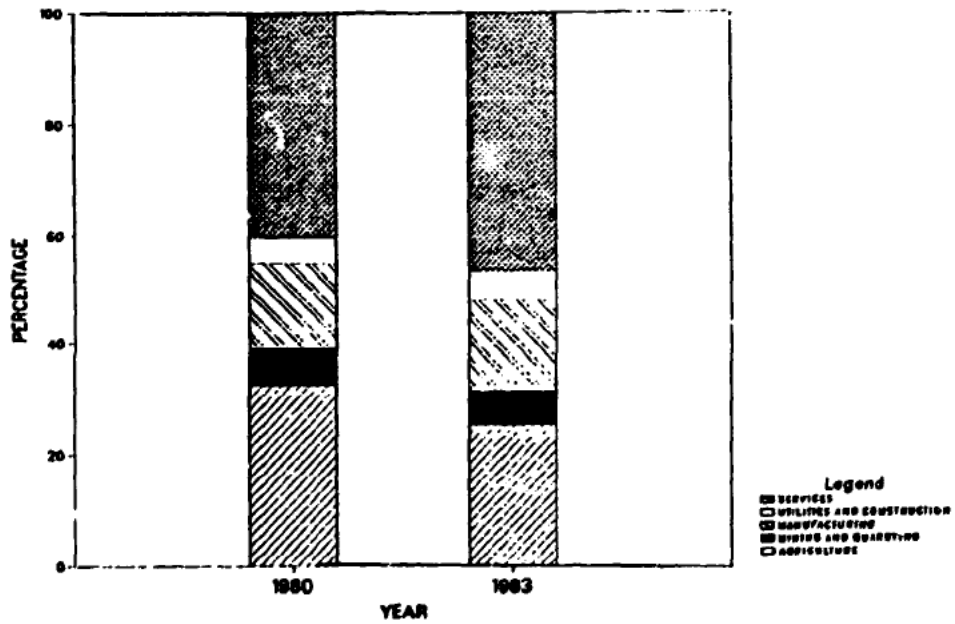
REAL GROWTH RATES OF GDP AND MVA, 1974-1986



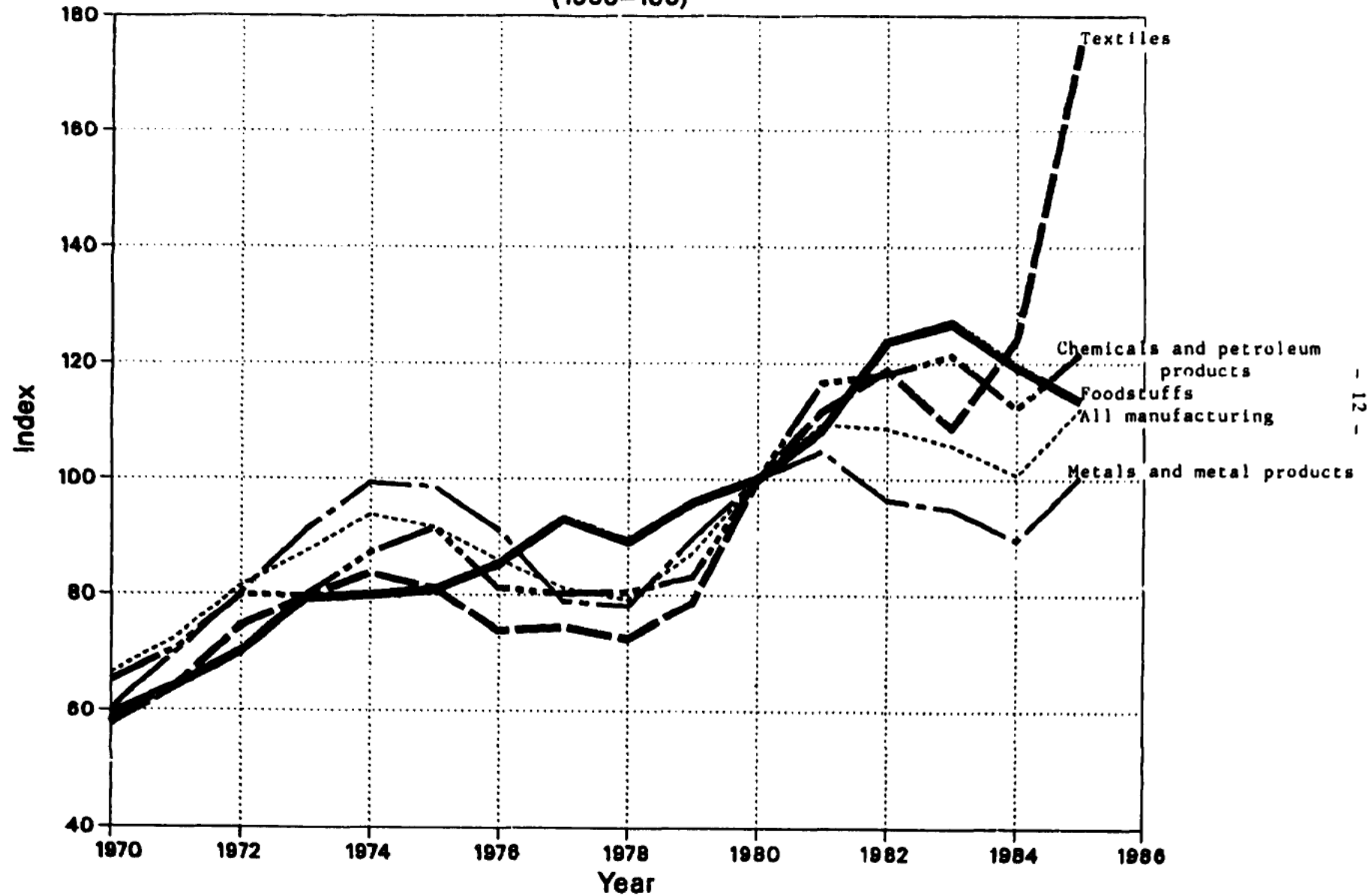
COMPOSITION OF MANUFACTURING VALUE ADDED, 1970 AND 1984
(PERCENTAGE)



STRUCTURE OF EMPLOYMENT, BY SECTOR, 1980 AND 1983
(PERCENTAGE)

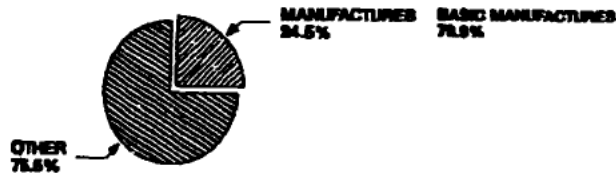


INDEX OF MANUFACTURING OUTPUT, SELECTED BRANCHES, 1970-1985
(1980=100)

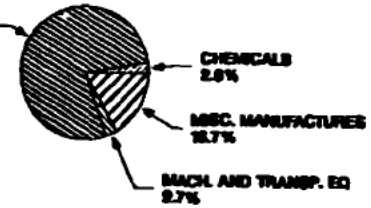


EXPORTS AND IMPORTS

SHARE OF MANUFACTURES
IN TOTAL EXPORTS, 1982



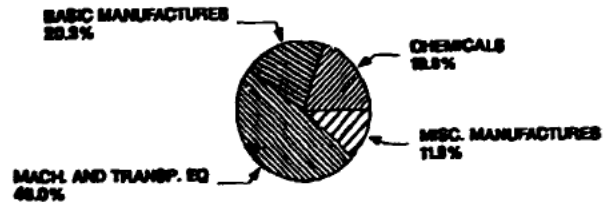
COMPOSITION OF MANUFACTURED
EXPORTS, 1983



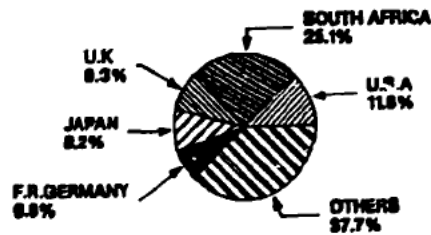
SHARE OF MANUFACTURES
IN TOTAL IMPORTS, 1982



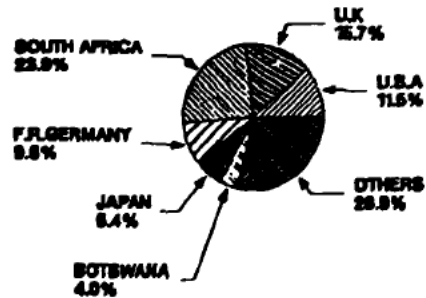
COMPOSITION OF MANUFACTURED
IMPORTS, 1983



DESTINATION OF MANUFACTURED EXPORTS, 1983



ORIGIN OF MANUFACTURED IMPORTS, 1983



2. STRUCTURE AND PERFORMANCE OF THE MANUFACTURING SECTOR

2.1 Growth and structural change

There are two main ways to describe the structure of Zimbabwe's manufacturing sector. One is to divide it into eleven sectors, the way that is done in Zimbabwe's industrial production index. A second way is to divide it into the thirty-three sub-sectors of the Census of Industrial Production carried out annually by the Central Statistical Office (CSO). The thirty-three sub-sectors can be aggregated to the eleven, and are quite close in definition to the International Standard Industrial Classification (ISIC) of the United Nations. For the moment, we follow the eleven-sector classification.

In 1984, it can be seen from Table 8, the index of industrial production for all manufacturing groups stood only just above the value for 1980. As noted earlier, 1985 saw a rise of 11.4 per cent, followed by a 2 per cent growth in 1986.

Table 8 shows also, however, that performance over the period from 1980-85 has not been uniform. The largest sector, metals and metal products, has seen a fall and hardly any growth in relation to 1980. The second largest sector, foodstuffs, has declined to 113.6 from a peak of 126.9 in 1983. The best growth performance has been shown by the textiles sector and the worst by the very small "other manufacturing" sector. The other major sectors that have performed particularly badly include the drink and tobacco, wood and furniture and transport equipment sectors. The first two are heavily dependent on what has been a low level of consumer demand. The former is also dependent on the export performance of tobacco as a crop, since its packing and grading is part of manufacturing activity. The wood and furniture sector is linked also to another depressed area, the construction sector.

Table 9 shows the way in which the eleven sectors have changed their shares of total manufacturing activity in recent years. The Table is based on the index of production of the manufacturing sector and not on the actual value-added figures which are not yet available for years later than 1983. With total production in 1984 at a level scarcely above that in 1980, the sectors had responded differently to the adverse conditions. The recovery in 1985 was accompanied by a remarkable growth in the share of textiles, as well as a fall in foodstuffs.

The foodstuffs sector, accounting for 13.7 per cent of production in 1985, includes six sub-branches: slaughtering and processing of meat, canning and preserving of fruit and vegetables, grain mill products and animal feeds, bakery products, chocolate and sugar confectionery, and dairy and other food products. Slaughtering and processing of meat includes the activities of the Cold Storage Commission (CSC) a government parastatal which in 1983 accounted for 86 per cent of all cattle slaughtering and 25 per cent of all fresh, chilled and frozen meat. It is also responsible for all beef exports. Another major activity of this branch is grain milling (maize meal, animal feeds, fish meal, wheat flour). Dairy and other products include sugar refining as well as processed milk and vegetable oils.

Table 8: Index of volume of production of the manufacturing industries, 1970-1985
(1980 = 100)

Period	Foodstuffs (including Drink and stockfeeds) Tobacco	Textiles including Ginning	Clothing and Footwear	Wood and Furniture	Paper and Printing and Publishing	Chemical and Petroleum Products	Non- metallic Mineral Products	Metals and Metal Products	Transport Equipment	Other Manu- facturing	All manu- facturing	
Weight	135	104	72	44	61	125	37	288	21	12	1,000	
1970	59.3	58.1	57.8	78.7	71.7	67.2	65.2	87.6	60.3	96.0	43.3	66.5
1971	64.2	60.2	64.1	83.8	77.3	71.4	70.6	101.3	69.9	110.3	43.9	72.6
1972	70.2	67.1	74.6	91.5	82.6	79.6	79.9	112.5	80.1	117.9	63.6	81.4
1973	79.4	77.5	79.5	92.0	88.3	82.5	79.8	121.9	91.0	105.1	70.8	87.4
1974	79.9	84.1	83.7	96.3	94.1	91.4	87.2	134.9	99.3	110.4	72.6	93.8
1975	80.8	87.4	81.1	90.8	85.4	84.4	91.5	123.8	98.6	115.3	67.1	91.6
1976	85.3	90.4	73.9	86.1	78.9	76.9	81.2	106.9	91.1	90.6	67.4	86.0
1977	93.0	84.5	74.5	82.9	66.7	72.4	80.2	86.9	78.9	86.2	71.6	81.2
1978	89.2	85.3	72.6	75.3	65.9	76.9	80.5	69.5	78.1	75.1	71.2	79.2
1979	95.9	88.5	78.8	83.7	82.2	86.2	83.1	86.7	89.7	85.8	76.7	87.2
1980	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1981	108.4	89.4	11.6	128.4	103.4	112.4	116.6	118.0	104.8	155.0	95.6	109.4
1982	123.7	91.7	118.8	118.6	85.8	112.3	118.2	109.7	96.4	178.4	80.0	108.7
1983	126.9	90.1	108.8	109.2	82.3	106.2	121.4	105.4	94.8	145.6	76.6	105.8
1984	119.4	86.4	124.1	99.9	81.6	95.0	112.2	99.0	89.4	114.7	50.9	100.7
1985	113.6	94.8	175.0	111.5	82.4	111.7	121.8	104.7	100.5	96.6	64.2	112.2

Source: Central Statistical Office, Quarterly Digest of Statistics, March 1986, P.45.

Table 9. Estimated structural change in manufacturing at the branch level, 1980-1985
(percentage shares of production)

	1980	1981	1982	1983	1984	1985
1. Foodstuffs	13.5	13.4	15.4	16.2	16.0	13.7
2. Drink and tobacco	10.4	8.5	8.8	8.9	8.9	8.8
3. Textiles including ginning	10.1	10.3	11.0	10.4	12.4	15.8
4. Clothing and footwear	7.2	8.5	7.9	7.4	7.1	7.2
5. Wood and furniture	4.4	4.2	3.5	3.4	3.6	3.2
6. Paper and printing and publishing	6.1	6.3	6.3	6.1	5.8	6.1
7. Chemical and petroleum products	12.5	13.3	13.6	14.3	13.9	13.6
8. Non-metallic minerals	3.7	4.0	3.7	3.7	3.6	3.5
9. Metal and metal products	28.8	27.6	25.5	25.8	25.6	25.8
10. Transport equipment	2.1	3.0	3.4	2.9	2.4	1.8
11. Other manufacturing	1.2	1.0	0.9	0.9	0.6	0.7

Source: Calculated from manufacturing production indices, Central Statistical Office, Quarterly Digest of Statistics, March 1986.

Drinks and tobacco is about 8.8 per cent of the total production of manufacturing (following the estimates for 1985 in Table 9) and includes three sub-branches: beer, wine and spirits; soft drinks; and tobacco products. While the first group is almost half of the total and uses mostly local raw materials, the second is quite dependent on imported concentrates. Three-quarters of Zimbabwe's alcohol requirements are met by a sugar mill distillery. Tobacco packing and grading for export forms two-thirds of the output of the tobacco sub-branch, the remainder being cigarettes, cigars, etc.

Textiles including cotton ginning. Production in 1985 was about 15.8 per cent of the total for manufacturing. The branch is dominated by the cotton ginning sub-branch, and here the Cotton Marketing Board, a parastatal, has a near monopoly of cotton ginning. The other groups within textile include knitted products, rope and cordage and other textile products, such as yarns and threads, household goods, etc. The branch is important for many reasons and remarkable for the variety of goods produced. Although cotton ginning dominates, there are 26 other firms producing the other products, and improved export performance is taking place in many areas. Zimbabwe cotton is of very high quality (because it is picked by hand). Recently some textile companies benefitted from commodity aid programmes and the supply of imported materials through barter deals, but lack of foreign exchange still remains a constraint to production.

Clothing and footwear. This branch's production is about 7.2 per cent of the total for manufacturing. The share has stagnated. Clothing is a large sub-branch with no fewer than 113 firms, who vary in terms of international competitiveness, some being successful exporters. As a focus for increased export thrust, the branch needs, in some cases, increased attention to design and in other cases to the quality of the textile raw materials. Footwear is a successful industry. The quality of its products is high and there are export prospects.

Wood and furniture. Covering about 3.2 per cent of total production, this branch includes two sub-branches: sawmilling and wooden products, and furniture, which have roughly equal shares. The former makes wood products for building, rough sawn wood, joinery and prefabs, and wooden containers, crates and pallets. The branch showed a rise in the production index for 1985, but this was after four years of falling output.

Paper, printing and publishing. This branch covers about 6.1 per cent of production, and comprises two sub-branches. The first is pulp, paper, paperboard (43 per cent), paper containers and cartons (40 per cent) and other paper products. The second sub-branch produces printed products (59 per cent) publishing (36 per cent) and paper containers and cartons (4 per cent). The branch was fairly resilient during the depression but is constrained by lack of sufficient pulp. Zimbabwe's one chemical pulp plant is small and hardly any fine paper is produced. For some time, plans to build a new chemical pulp plant has been under consideration. This would save imports, make use of domestic raw materials and remove a significant constraint on supplies in many fields, especially in publishing and office automation.

Chemical and petroleum products. This is a large branch, which had 13.6 per cent of production in 1985. It covers a very wide range of products, grouped into six sub-branches, such as fertilizers, insecticides, pesticides, ammonium nitrate and phosphates, and forms one-third of total chemical output. Paints, varnishes and filling materials form around 6 per cent of total chemicals. Soaps, detergents, toiletries and pharmaceuticals is an important group that has about a quarter of the total output. Matches, inks, candles, glues, etc. is a small sub-branch, with about 6 per cent of the sector's total output. Basic industrial chemicals, (such as acids and aluminium sulphate), refined petroleum products (such as lubricating oils), coal products such as benzol and gases such as oxygen (including liquid gases) form another small but significant sub-branch which amounted to 7.5 per cent of chemicals output in 1982. The next sub-branch, rubber products, is naturally dominated (66 per cent) by tyres and retreading and highly import dependent. But it has a good export record and also produces industrial rubber products, tubes, gaskets, conveyor belts, hoses and tiles. Altogether it is 13 per cent of chemicals output. The last category is that of plastic products. It has 11 per cent of total chemicals output, and is well diversified. Synthetic resins are imported and are 62 per cent of material inputs.

Non-metallic mineral products is a branch having a small (3.5 per cent) share of total manufacturing production, producing structural clay products including bricks and glass, cement products and other non-metallic mineral products. Production is based on locally mined and processed raw materials.

Metals and metal products. This is the largest and by many standards the most important part of Zimbabwe's manufacturing, with no less than 25.8 per cent of production and no fewer than 29 per cent of all manufacturing companies. The branch includes three sub-branches. The first (39 per cent of the total in gross output terms) covers non-ferrous metals and iron and steel basic industries (including the smelting of iron and steel). In 1982, just a third of the output of this sub-branch was iron and steel basic products, with ferro-alloys also accounting for about the same share. The sub-branch includes the Zimbabwe Iron and Steel Company, ZISCO, which is almost entirely state-owned and by far the largest steel plant in Southern Africa. The second sub-branch under this heading is that of metal products, machinery and equipment other than electrical except vehicles. This is the largest sub-branch in the metals and metal products group (47 per cent of the total). There were 300 firms in this sub-branch in 1982 making implements, tools, spares, agricultural and mining equipment as well as light metal products such as containers and holloware. The third main category is electrical machinery, equipment and communications equipment. This includes radio and television (23 per cent by value), electric cable and wire (21 per cent), industrial electrical equipment (17 per cent), batteries (14 per cent), electrical machinery (17 per cent), domestic electrical appliances (7 per cent) etc. This sub-branch, unlike the other parts of the metal industries sector, is heavily import dependent.

Transport equipment. Although a small sector (1.8 per cent of manufacturing production in 1985) is a significant one, because it illustrates very graphically the industrial capabilities of Zimbabwe. The branch covers motor vehicle assembly and repair, which, in fact, has already progressed beyond assembly per se to the design and construction of vehicles (buses and trucks especially) suited for conditions in the region. The sub-branch still, of course, has a high import dependency and steps are being taken to rationalise it. The other main activity is the manufacture of other vehicles and equipment and their repair. This includes railway equipment, where Zimbabwe has successful manufacturers of rolling stock (goods wagons and passenger coaches).

Other manufacturing. This is a small and very heterogeneous category whose production is estimated at only 0.7 per cent of total manufacturing in 1985. The majority of its output is in practice undefined.

2.2 Performance and efficiency

Tables 10 and 11 present selected characteristics of the eleven manufacturing branches described in the previous section. Branch 9, metals and metal products, has the most units (firms or factories), the largest gross and net output as well as exports, the greatest number of workers and the largest capital stock. Foodstuffs is the second most important branch except in terms of exports, where textiles includes ginned cotton. In branches 1 [foodstuffs], 2 [drinks and tobacco], 3 [textiles] and 7 [chemicals], the output share is much higher than the unit share, suggesting that these branches contain a small number of dominant firms.

Table 10. Some key characteristics of manufacturing industry
by branch, 1982
(Z\$ thousand)^{1/}

Sectors	Number of units (1)	Gross output (2)	Net output (3)	Exports ^{2/} (4)	Number of employees (estimates) (5)	Capital stock (estimates) (6)
1 Foodstuffs	152	788,273	198,320	20,435	26,334	573,100
2 Drinks and tobacco	53	229,831	136,367	2,481	13,206	341,200
3 Textiles (including ginning)	67	302,415	107,311	57,861	20,789	362,900
4 Clothing and footwear	148	211,259	111,256	10,774	21,879	119,900
5 Wood and furniture	98	93,964	49,098	9,060	12,914	83,600
6 Paper and printing and publishing	114	163,489	84,131	2,445	9,445	189,300
7 Chemical and petroleum products	126	395,246	159,131	15,096	12,945	507,400
8 Non-metallic mineral products	58	94,361	56,749	1,717	7,818	243,200
9 Metal and metal products	408	639,137	290,963	147,295	42,237	1,218,900
10 Transport equipment	46	93,836	36,486	3,507	5,245	86,000
11 Other manufacturing	94	37,195	18,880	6,545	3,411	30,800
Total manufacturing	1,364	3,049,006	1,248,692	277,216	176,223	3,756,300

Source: UNIDO, The Manufacturing Sector in Zimbabwe, 1986; The Census of Production 1982/83, CSO, various tables for columns (2), (3) and (5); Monthly Digest of Statistics for December 1984, Table 10.5 for column (1); The Census of Production 1962, 1963, 1966/67 and 1982/83 and private communication from CSO for column (6).

^{1/} Except columns (1) and (5).

^{2/} Excludes metal and alloy manufacture, processing and refining when carried out on mine sites.

Table 11. Some key characteristics of manufacturing industry by branch, 1982
(percentages of totals for manufacturing)

Sector	Number of units	Gross output	Net output	Exports	Employees	Capital stock
1 Foodstuffs	11.1	25.9	15.9	7.4	14.9	15.3
2 Drinks and tobacco	3.9	7.5	10.9	0.9	7.5	9.1
3 Textiles including ginning	4.9	9.9	8.6	20.9	11.8	9.7
4 Clothing and footwear	10.9	6.9	8.9	3.9	12.4	3.2
5 Wood and furniture	7.2	3.1	3.9	3.3	7.3	2.2
6 Paper and printing and publishing	8.4	5.4	6.7	0.9	5.4	5.0
7 Chemical and petroleum products	9.2	13.0	12.7	5.4	7.3	13.5
8 Non-metallic mineral products	4.3	3.1	4.5	0.6	4.4	6.5
9 Metal and metal products	29.9	21.0	23.3	53.1	24.0	32.4
10 Transport equipment	3.4	3.1	2.9	1.3	3.0	2.3
11 Other manufacturing	6.9	1.2	1.5	2.4	1.9	0.8
Total manufacturing	100.0	100.0	100.0	100.0	100.0	100.0

Source: UNIDO, The Manufacturing Sector in Zimbabwe, 1986; The Census of Production 1982/83, CSO, various tables for columns (2), (3) and (5); Monthly Digest of Statistics for December 1984, Table 10.5 for column (1); The Census of Production 1962, 1963, 1966/67 and 1982/83 and private communication from CSO for column (6).

The branches 2 [drinks and tobacco], 6 [paper, publishing and printing], and 8 [non-metallic mineral products], make a low contribution to manufacturing exports. This may seem surprising except for branch 6, but in fact tobacco, as such, is an agricultural export and the non-metallic minerals exported come mostly from mining. Branches 3 [textiles], 4 [clothing and footwear], and 5 [wood and furniture], are relatively labour-intensive, and have a low share of capital stock. On the other hand, branches 2 and 7, drinks and tobacco; and chemical and petroleum products, appear to be more capital-intensive, their shares of total capital stock being higher, and their shares of total labour being lower, than their shares of total net output.

Table 12 shows some performance indicators for the eleven branches of manufacturing, derived from Table 10 above. The capital-labour ratio is seen to be highest for branch 7, chemicals and petroleum products, followed by branch 8, non-metallic mineral products and branch 9, metals and metal products. The lowest value is for branch 4, clothing and footwear, with the next lowest being the wood and furniture industry, branch 5.

Net output per employee give a rough indication of labour productivity. It is rough because, among other things, 1982 was a year of decline where a fall in output was not accompanied by a fall in employment, because of the influence of labour legislation for job security. The branch with the highest productivity is then chemicals and chemical products, with drink and tobacco in second place. The lowest productivity is found in branch 5, wood and furniture, with branch 4, textiles in second place.

The first column of Table 12 shows the output per enterprise unit. This gives an indication of the average economic size of the firm or factory surveyed. Foodstuffs, branch 1, is seen to have the largest value. This is due to the influence of very large parastatals such as the Cold Storage Commission, the Dairy Marketing Board, etc. Interestingly, the largest sector in terms of output, and in terms of the number of units is metals and metal products, branch 9, but its value for the output per unit is a low one. Studies suggest that in this branch, the firms form a complex structure, carrying out the intermediate manufacture of metal products to act as inputs to other firms within the metals and metal products branch, i.e., the degree of intra-sectoral linkage is very strong. Thus, the indication here obtained of a relatively small average size of firms, in terms of output levels, would suggest a degree of specialization. This would not be contradicted by the capital stock per firm ratio, which is higher than the average for the manufacturing sector as a whole.

Very great variation is seen in the column showing exports as a percentage of gross output, i.e., the export orientation of the branches. This ranges from 23 per cent in the case of branch 9, metals and metal products to as little as 1.1 per cent in the case of branch 2, drink and tobacco. Branches 6 and 10, printing, paper and publishing and transport equipment have also very low export shares of output.

Table 12. Selected performance indicators of the manufacturing sector, 1982

Sector	Gross output per enterprise unit Z\$'000	Gross output per employee Z\$	Capital per employee Z\$	Net output per employee Z\$	Exports as % of gross output	Net output as % of output	Net output as % of capital
1 Foodstuffs	5,186	29,934	21,763	7,531	2.6	25.2	35
2 Drinks and tobacco	4,336	17,404	25,837	10,326	1.1	59.3	40
3 Textiles including ginning	4,514	14,547	17,456	5,162	19.1	35.5	30
4 Clothing and footwear	1,427	9,656	5,480	5,085	5.1	52.7	93
5 Wood and furniture	959	7,276	6,474	3,802	9.6	52.3	59
6 Paper and printing and publishing	1,434	17,310	20,042	8,907	1.5	51.5	44
7 Chemical and petroleum products	3,137	30,533	39,197	12,293	3.8	40.3	31
8 Non-metallic mineral products	1,627	12,070	31,108	7,259	1.8	60.1	23
9 Metal and metal products	1,567	15,132	28,859	6,889	23.0	45.5	24
10 Transport equipment	2,040	17,891	16,397	6,956	3.7	38.9	42
11 Other manufacturing	396	10,904	9,030	5,535	17.6	50.8	61
Total manufacturing	2,235	17,302	21,316	7,086	9.1	41.0	33

Source: UNIDO, The Manufacturing Sector in Zimbabwe, PPD/R.2, 13 November 1986.

The previous ratios are one way of measuring the relative performance of the different sectors of manufacturing, by looking at the factor inputs and the use made of them. Another way is to look at the intermediate inputs (which would include raw materials, services, and energy). Table 13 shows these key inputs and Table 14 gives these as ratios of total inputs.

Table 13: Inputs to manufacturing by branch, 1982
(Z\$ thousand)

Sector	Gross output	Materials ^{1/} purchases	Service ^{2/} inputs	Value ^{3/} added	Wages and salaries
1 Foodstuffs	788,273	589,950	43,422	154,901	90,848
2 Drinks and tobacco	229,831	93,462	37,428	98,941	51,369
3 Textiles (including ginning)	302,415	195,101	18,525	88,789	51,821
4 Clothing and footwear	211,259	100,003	20,127	91,129	58,961
5 Wood and furniture	93,964	44,866	14,934	34,164	28,109
6 Paper and printing and publishing	163,489	79,357	19,190	64,942	46,817
7 Chemical and petroleum products	395,246	236,114	38,433	120,699	68,158
8 Non-metallic mineral products	94,361	37,592	6,599	50,170	24,611
9 Metal and metal products	639,137	348,189	54,825	236,123	169,267
10 Transport equipment	93,836	57,347	5,533	30,956	20,379
11 Other manufacturing	37,195	18,307	4,339	14,549	9,966
Total Manufacturing	3,049,006	1,800,288	263,355	985,363	620,306

Source: UNIDO, The Manufacturing Sector in Zimbabwe, PPD/R.2, 13 November 1986; Census of Production 1982/83.

Notes:

- 1/ This column is for total purchases of inputs, electricity, water, fuel and payments for work sub-contracted but excluding goods for resale. Changes in stocks are included.
- 2/ The services are the aggregate of the following, where applicable: maintenance of building and plant, rent, hire of plant, advertising, insurance and workmen's compensation, charges made to head office abroad, rates, royalties, bad debts and 'other services', a large proportion of which are bank charges.
- 3/ Calculated as the difference between gross output and the sum of material purchases and services inputs.

One measure of economic performance is the value added to gross output ratio. This ratio measures the degree of value added arising in a unit of output: thus in a crude sense it measures the ratio of the gain for the economy to the total activity. The highest value is found for non-metallic minerals (53.2 per cent), and the lowest is for foodstuffs (19.7 per cent), with the weighted average value, (i.e. for manufacturing as a whole) being 32.3 per cent.

Table 14: Input structure by branch, 1982
(percentage share)

Sector	Shares of gross output			Shares of value added	
	Material purchases	Services	Value added	Wages and Salaries	Other
1 Foodstuffs	74.8	5.5	19.7	58.6	41.4
2 Drinks and tobacco	40.7	16.3	43.0	51.9	48.9
3 Textiles (including ginning)	64.5	6.1	29.4	58.4	41.6
4 Clothing and footwear	47.3	9.5	43.1	64.7	35.3
5 Wood and furniture	47.7	15.9	36.4	82.3	17.7
6 Paper and printing and publishing	48.5	11.7	39.7	72.1	27.9
7 Chemical and petroleum products	59.7	9.7	30.5	56.5	43.5
8 Non-metallic mineral products	39.8	7.0	53.2	49.1	50.9
9 Metal and metal products	54.5	8.6	36.9	71.7	28.3
10 Transport equipment	61.1	5.9	33.0	65.8	34.2
11 Other manufacturing	<u>49.2</u>	<u>11.7</u>	<u>39.1</u>	<u>68.5</u>	<u>31.5</u>
Total manufacturing	59.0	8.6	32.3	63.0	37.0

Source: UNIDO, The Manufacturing Sector in Zimbabwe, PPD/R.2, 13 November 1986. (Census of Production 1982/83).

Again, the share of material purchases indicate the relative importance of intermediate inputs. The foodstuffs sector is heavily dependent on agricultural inputs, with the degree of value added being small. Ginning activities in branch 3 textiles, account for the high dependence on material inputs, the value added ratio being much higher in clothing and footwear. The dependence on material inputs is also very high in transport equipment, chemical and petroleum products and metals and metal products, branches 7, 9 and 10.

The value added component is made up preponderantly of wages and salaries. In all sectors this is the majority of value added: only in non-metallic mineral products is the non-wage share of value added greater than 50 per cent, and then only barely so. To the extent that the surplus is the means of investment for the future, a low non-wage value added share is an unfavourable indicator.

With respect to investment, there are indications that performance in Zimbabwe's manufacturing sector has been inadequate. It has been estimated that, even assuming only a 5 per cent growth rate for the future, investment has been far below that required, and that these low levels have been persisting since 1975. Uncertainty among domestic investors has been a factor, but foreign exchange shortages have acted as a binding constraint, since almost always a manufacturing investment will require some imported components. The foreign exchange requirements for manufacturing expansion in the future has been put at as much as \$118 million a year. The recent upward trend in the world economy may make this figure more attainable than in the past, but Zimbabwe still has to compete for direct foreign investment (DFI) against other developing and developed countries.

2.3 Trade in manufactures

The main manufactured exports in value terms are based either on the agricultural sector (food processing, textiles) or on the mining sector (particularly ferrochrome but also iron and steel products). Products with a higher degree of processing, such as clothing, chemicals and capital goods have still a small share of total manufactured exports. However, the potential is there, particularly given the fact that Zimbabwe is already exporting all these products. The potential is enhanced by Zimbabwe's membership of two important regional co-operative groupings, the Southern Africa Co-ordination Conference (SADCC) and the Preferential Trade Area (PTA). Both of these offer prospects for increased manufactured exports to the region. The nature and role of these organizations is discussed in section 3.3, Recent policy measures, below.

The sectoral distribution of manufacturing exports is very uneven. In practice, manufacturing exports are principally limited to a handful of large firms and to one or two subsectors. Manufactured exports at present are exported mostly to developed countries. Excluding metals exports, the markets are EEC 36 per cent, the Republic of South Africa 17 per cent, the Far East and Australasia 10.1 per cent, the USA 7 per cent and other SADCC countries 7.2 per cent. If metal products are included then the distribution is: EEC 30.5 per cent, Republic of South Africa 22 per cent, the Far East and Australia 11.2 per cent, the USA 10.4 per cent and SADCC 12.8 per cent. These figures are given in more detail in Table 15.

There has been little change in these patterns in recent years. South Africa still remains an important market and in fact the largest single market. (On the import side, it is also the largest single supplier.) A reduction in dependence on South Africa has been achieved only to a limited degree. As noted, however, there is significant progress in regional co-operation, and the expansion of intra-SADCC trade is intended, inter alia to reduce dependence on the South African market.

Table 15: Total commodity exports and manufactured exports by country or area of destination, 1983
(Z\$000)

Country/Area of Destination	Total Exports \$000 (1)	Percent of Total Exports (2)	Total Mfg. Exports Incl. Metals (3)	% of Total Mfg. Exports Incl. Metals (4)	Total Mfg. Exports Less Metals (5)	% of Total Mfg. Exports Less Metals (6)	Mfg. Exports	Mfg. Exports
							as % all Exports 3/1 (7)	Less Metals as % all Exports 5/1 (8)
EEC ^{a/}	352,874	36.2	148,727	30.5	104,688	27.4	42.1	29.9
South Africa	162,387	16.6	106,703	21.9	102,478	26.8	65.7	63.1
Far East/ Australasia	98,535	10.1	54,781	11.2	36,122	9.4	55.6	36.7
North Africa/ Middle East/ Indian Sub- Continent	67,227	6.9	17,305	3.5	16,838	4.4	25.7	25.0
USA	67,181	6.9	50,606	10.4	24,939	6.5	75.3	37.1
Scandinavia	8,074	0.8	3,207	0.7	745	0.2	39.7	9.2
Other Europe	54,258	5.6	30,936	6.3	22,317	5.8	57.0	41.1
SADCC States ^{a/} of which:	108,775	11.2	61,789	12.8	61,758	16.2	56.8	56.8
Zambia	(32,060)	(3.3)	(7,389)	(1.5)	(7,358)	(2.0)	(23.0)	(23.0)
Tanzania	(3,272)	(0.3)	(291)	(0.1)	(291)	(0.1)	(8.9)	(8.9)
Swaziland	(1,210)	(0.1)	(822)	(0.2)	(822)	(0.2)	(68.0)	(68.0)
Mozambique	(15,300)	(1.6)	(7,244)	(1.5)	(7,224)	(1.9)	(47.2)	(47.2)
Malawi	(15,125)	(1.6)	(11,917)	(2.4)	(11,916)	(3.1)	(78.7)	(78.7)
Botswana	(40,789)	(4.2)	(33,401)	(6.8)	(33,401)	(8.7)	(81.9)	(81.8)
Namibia	(1,019)	(0.1)	(745)	(0.1)	(745)	(0.2)	(73.1)	(73.1)
Other African	26,055	2.7	3,970	0.8	3,970	1.0	15.2	15.2
Other Countries	30,201	3.0	9,785	2.0	8,531	2.2	32.4	28.2
Total	975,567	100.0	487,809	100.0	382,386	100.0	50.0	39.2

Source: UNIDO, The Manufacturing Sector in Zimbabwe, 1986. Monthly Digest of Statistics, December 1984, Table 10.5, and unpublished trade data supplied by CSO.

a/ Portugal and Spain are included in statistics for the EEC and Namibia in statistics for SADCC.

Zimbabwe's geographical position powerfully influences its foreign trade. It is landlocked and principally dependent on rail links to the sea for shipment of merchandise. This directly affects its competitiveness as an exporter. It does so indirectly also because the cost of any imported inputs to its production will also be increased to a similar degree. The present political situation in Mozambique makes things much worse because the majority of Zimbabwean exports have to be taken by rail to South African ports (even as far as Cape Town, in some instances). But even if all Zimbabwe trade could be routed through the Mozambique port of Beira, there would still be some locational cost disadvantages.

Table 16 gives an overview of the export performance of the individual branches of manufacturing. The most striking feature is the dominance of metals and metal products (branch 9). This takes approximately half of the total manufactured exports in recent years. Within this group the largest single item is ferro-alloys, usually followed by other metal products, ingots, billets, iron, steel bar, and rod sections. The next most important branch, whose share of the total fluctuates between one-fifth and one-quarter, is textiles, which is dominated by cotton lint, (\$115 million in 1984) although exports of fabrics, (\$8.6 million) yarns and threads (\$4.2 million) and bed sheets (\$5.9 million) have all been increasing steadily. Next most important is the foodstuffs sector where the main items are meat, fresh, chilled or frozen (\$26.7 million), refined sugar (\$15.4 million) and other meats (\$11.1 million).

The chemicals branch provided less than 5 per cent of manufactured exports in 1984, and the largest single item was medicinal and pharmaceutical products, (\$6.8 million) with contributions of similar order from other chemicals and soaps (\$6.3 million and \$6.2 million). Tyres and tubes come under this heading also, the value in 1984 being \$2.548 million. The latter product is heavily import dependent.

With regard to imports, the dependency of individual sectors varies widely. Statistically it is not easy to determine since the importer may not be the manufacturer but rather a wholesaler. (One estimate is of 65 per cent of the sector's imported raw materials being brought in by the manufacturers themselves.)^{1/} Overall, about a quarter of raw material purchases are imported, ranging from as little as 2.4 per cent of raw materials for the foodstuffs branch to 60 per cent for branch 10, transport equipment, which is heavily dependent on importing components or complete kits for assembly. The next most dependent sector is chemicals, where the majority of raw materials are imported (52 per cent). Tyres and tubes, mentioned above, are just one element: many other chemical processes use imported raw materials. The other branch's import dependencies are beverages and tobacco (24 per cent), textiles (23 per cent), clothing and footwear (39 per cent), wood and furniture (14 per cent), paper, printing and publishing (24 per cent), non-metallic mineral products (16 per cent), metals and metal products (41 per cent) and others (25.3 per cent).^{2/}

1/ Survey data from UNIDO, The Manufacturing Sector in Zimbabwe, 1986.

2/ UNIDO, The Manufacturing Sector in Zimbabwe, 1986, Table 2.10. Based on a 1983 survey of CZI members.

Table 16: Manufactured exports and gross output data by branch of manufacturing, 1978-1983
(Z\$ thousand and percentages)

	Manufactured exports by sector (thousand dollars)						January to November only	
	1981		1982		1983		1984	
	Z	%	Z	%	Z	%	Z	%
1 Foodstuffs	28,913	8.9	20,435	5.8	35,108	8.9	54,731	10.2
2 Drinks and tobacco	6,294	1.9	2,481	0.7	3,114	0.8	2,791	0.5
3 Textiles (including ginning	69,394	21.3	57,861	16.3	85,609	21.7	127,697	23.8
4 Clothing and footwear	18,382	5.6	10,774	3.0	8,876	2.2	15,979	3.0
5 Wood and furniture	10,264	3.2	9,060	2.6	8,761	2.2	9,858	1.8
6 Paper and printing and publishing	1,717	0.5	2,445	0.7	4,979	1.3	7,749	1.4
7 Chemical and petroleum products	14,579	4.4	15,096	4.2	14,351	3.6	26,180	4.9
8 Non-metallic mineral products	1,529	0.5	1,717	0.5	4,436	1.1	7,009	1.3
9 Metal and metal products	161,113	49.5	147,295	63.4	215,431	54.5	262,027	48.8
10 Transport equipment	6,878	2.1	3,507	1.0	4,101	1.0	9,514	1.8
11 Other manufacturing	6,632	2.0	6,545	1.8	10,253	2.6	13,347	2.5
Total Manufacturing	325,695	100.0	277,216	100.0	395,019	100.0	536,882	100.0

Source: UNIDO, The Manufacturing Sector in Zimbabwe, 1986, Table 10.1.

Some indication of the nature of these intermediate imports can be obtained from Table 17, showing all Zimbabwe's merchandise imports by SITC sectors in 1984. The largest share of merchandise imports is taken by SITC section 7, machinery and transport equipment, which contributes more to capital formation than to intermediate inputs. The second largest share of imports is taken by fuels and electricity, with a total value of \$257 million in 1984. The dominant items here were gas oil (\$124 million, i.e. almost half the total), motor spirit (\$57 million) and aviation turbine fuel (\$30 million). Energy resources in Zimbabwe are discussed in Chapter 4 and here it should be noted only that the import of petroleum products represents a largely inevitable burden on the balance of payments.

Table 17: Imports by SITC categories, 1984

SITC		Million \$	Percentage of total
0.	Foods	83.628	7.0
1.	Beverages and tobacco	2.717	0.2
2.	Crude materials except fuels	38.394	3.2
3.	Fuels and electricity	256.924	21.4
4.	Oils and fats	10.878	0.9
5.	Chemicals	178.111	14.8
6.	Manufactured goods classified by materials	177.851	14.8
7.	Machinery and transport equipment	373.550	31.1
8. & 9.	Miscellaneous manufactured articles and commodities not elsewhere classified	78.614	6.5
Total merchandise imports		1,200.667	100.0

Source: Central Statistical Office, Quarterly Digest of Statistics, June 1985, Table 10.6.

Two other SITC groups have approximately equal shares of total merchandise imports. The first is chemicals where a number of imported compounds act as manufacturing inputs, especially resins (\$33 million), although the majority of chemicals imported are for use in agriculture, in mining or for household consumption. These latter include ammonium anhydrous (\$6.7 million), nitrogenous and other fertilizer materials (\$20 million), insecticide and disinfectants (\$10.3 million), explosives and detonators (\$13.2 million) and medicinal and pharmaceutical goods (\$15.7 million).

2.4 Ownership and investment patterns

The question of ownership of the manufacturing sector in Zimbabwe can be considered from the point of view of private versus public ownership and that of local versus foreign ownership. It has been estimated that the capital assets of manufacturing are approximately 48 per cent foreign owned, the remainder being owned by Zimbabwe private companies or state boards and bodies. From the point of view of turnover, the division between private and publicly owned manufacturing is roughly as follows: manufacturing activity is 14.4 per cent controlled by the central government, parastatals and local authorities, the remainder being 84.5 per cent controlled by private companies and 1 per cent non-incorporated enterprises.

Table 18 shows in detail the breakdown of private and public ownership. The foodstuffs sector is where a number of parastatals, including the Cold Storage Commission, and the Dairy Marketing Board are active. The drinks and tobacco sector includes the activities of municipally owned breweries. Textiles contains the Cotton Marketing Board, whose ginning activities form 38 per cent of total activity in this branch. Public enterprises are also important in metals and metal products, above all through ZISCO, which now also owns Lancashire Steel. Branch 10, transport equipment includes F. Issels of Bulawayo who manufacture railway rolling stock and Willowvale who assemble motor vehicles and agricultural machinery. Apart from the parastatal bodies

in agriculture-based industries most state participation in industry takes place through the medium of the Industrial Development Corporation (IDC), but there are some exceptions, such as ZISCO. The role of the IDC and of government policy generally is discussed in the next Chapter. An example of a joint state and foreign investment is the successful food processing venture with the H.J. Heinz company.

Table 18: Percentage shares of turnover of the manufacturing sector by private and public undertakings, 1985^{a/}

Sector	Unincorporated enterprise % of total	Private companies % of total	Central Government/ IDC controlled % of total	Parastatals directly manufacturing % of total	Local authorities % of total	Total turnover in million Z dollars
1 Foodstuffs	1	74	...	25	...	615.3
2 Drinks and tobacco	1	92	...	...	7	168.8
3 Textiles (including ginning)	...	62	...	38	...	348.6
4 Clothing and footwear	1	98	1	...	...	194.6
5 Wood and furniture	1	99	...	...	...	110.5
6 Paper and printing and publishing	1	97	2	...	...	155.0
7 Chemical and petroleum products	3	97	...	...	...	378.1
8 Non-metallic mineral products	1	99	...	...	...	88.1
9 Metal and metal products	1	82	17	...	...	629.1
10 Transport equipment	1	97	2	...	...	92.9
11 Other manufacturing	1	99	...	...	1	41.0
Total manufacturing	1	84.5	4	10	0.5	2,824.3

Source: UNIDO, The Manufacturing Sector in Zimbabwe, 1986, (Table 2.11). Unpublished information from CSO, UNIDO questionnaire results and Industrial Development Corporation of Zimbabwe Ltd., Annual Reports and Accounts for the year ended 30th June 1984.

a/ Methodological Note: The basic data, including total turnover figures are for 1981. However the distribution of turnover has been updated to the ownership pattern pertaining in 1985. Turnover under the column heading 'Central Government and IDC-controlled' includes the following: ZISCO, Lancashire Steel, Delswa, Willowvale, F. Issels and Government printing and Stationery. However, it does not include Central Film Laboratories and National Furniture Industries for which 1981 turnover figures was not available.

Estimates of local versus foreign ownership of capital assets is given in Table 19. The sectoral variation is high, and it should be stressed that these are only estimates. Overall, foreign interests are slightly less than half (48.1 per cent), although the majority of branches have foreign majority ownership.

Table 19: Capital assets of manufacturing by branch according to local and foreign ownership, 1982
(Z\$ million and percentage)

Branch	Capital held by local owners	Local in per cent of total	Capital held by foreign owners	Foreign ownership in per cent of total	Total capital of manufacturing sector	Coverage ^{1/}
1 Foodstuffs	345.6	60.6	224.7	39.4	573.1	65.6
2 Drinks and tobacco	133.4	39.1	207.8	60.9	341.2	23.6
3 Textiles (including ginning)	274.3	75.6	88.6	24.4	362.9	47.0
4 Clothing and footwear	99.1	82.7	20.8	17.3	119.9	16.1
5 Wood and furniture	52.7	63.0	30.9	37.0	83.6	22.4
6 Paper and printing and publishing	73.3	38.7	116.0	61.3	189.3	68.1
7 Chemical and petroleum products	189.3	37.3	318.1	62.7	507.4	70.1
8 Non-metallic mineral products	111.6	45.9	131.6	54.1	243.2	72.2
9 Metal and metal products	582.6	47.8	636.3	52.2	1,218.9	54.8
10 Transport equipment	44.9	52.2	41.1	47.8	86.0	96.6
11 Other manufacturing	7.9	25.7	22.9	74.3	30.8	75.6
Total manufacturing	1,949.8	51.9	1,806.5	48.1	3,756.3	56.6

Source: UNIDO, The Manufacturing Sector in Zimbabwe, 1986, Table 2.12; Confederation of Zimbabwe Industries 1985 Survey in conjunction with 1984 survey carried out by the Department of Customs and Excise; UNIDO questionnaire results and Cotton Marketing Board Reports and Accounts for the year ended 29th February 1984.

1/ Percentage of total sector turnover in the survey sample.

Methodological Note:

Companies were asked the percentage ownership (foreign or local) of their undertakings. This ownership share was calculated as a proportion of turnover to give a weighted average per sector and then converted to capital assets on the assumption that there was a 1 to 1 relationship between turnover and assets by sector. If a company recorded ownership between 51 per cent and 100 per cent foreign then all the turnover was assumed to be foreign controlled, if between 0 to 50 per cent local then, again, all turnover was assumed to be local. Public companies, statutory corporations, and those over 51 per cent owned by the Industrial Development Corporation were assumed to be locally-owned companies.

2.5 Size and geographical distribution

The manufacturing sector has tendencies towards oligopoly and monopoly structures of production. Although more than 6,000 products are manufactured, 50 per cent of these are produced by one firm only, and 80 per cent are produced by one, two or three firms. Large firms tend to dominate. In 1982, 7.8 per cent of the firms produced 41 per cent of the output. Table 12 above gave indications of the distribution of firms (although units and firms are not synonymous) and it was seen that the foodstuffs branch had the largest average size in terms of output per unit, due to the presence of the parastatals. The wood and wood products branch as well as the "other manufacturing" branch had low averages. Table 20 shows trends in the size of manufacturing units in terms of the number of employees.

Table 20: Trends in the size and contribution of manufacturing units by numbers of employees for 1977 and 1982

Indicator	Number of employees					Total
	up to 50	51-100	101-500	501-750	over 750	
<u>Enterprise Units:</u>						
Number of units, 1977	759	194	260	91	51	1,355
Number of units 1982	703	205	288	43	105	1,344
Percentage change 1977 to 1982	-7	+6	+11	-53	+106	-1
<u>Employment:</u>						
Numbers employed 1977	14,319	12,877	45,870	30,829	37,356	141,233
Per cent of total 1977	10	9	32	22	26	100
Numbers employed 1982	13,733	13,997	55,315	16,718	76,460	176,223
Per cent of total 1982	8	8	31	9	43	100
Percentage change 1977 to 1982	-4	+9	+21	-46	+105	+25
<u>Net Output:</u>						
Share of net output 1977	9	8	31	15	36	100
Share of net output 1982	8	8	31	12	41	100

Source: UNIDO, The Manufacturing Sector in Zimbabwe, 1986, Table 2.3; The Census of Production 1977/82, The Census of Production 1982/83, CSO, Harare, Table 8.

It has been pointed out that whereas between 1977 and 1982 total employment in manufacturing rose by 25 per cent, this change was accompanied by a hundred per cent rise in employment in firms with over 750 employees. These firms also increased their share of manufacturing net output from 36 per cent to 41 per cent. There was a fall in the employment levels of firms who had fewer than 50 workers. The effect of these and other discerned patterns is such as to suggest a trend towards a larger size of unit.

Table 21 looks at the geographical concentration of industry. The share of Harare, the capital, has been more or less constant (in terms of gross output) at 47.8 per cent in 1977 and 47.7 per cent in 1983. Bulawayo is the second largest city, and an important industrial location particularly for engineering industries. Its share of manufacturing employment declined between 1977 and 1983, although the share of gross output increased. The next largest location is Redcliff/Kwe Kwe which includes ZISCO, Lancashire Steel and other metal related industries, including smelting and metal fabrication. Together, these three locations have 78 per cent of total manufacturing employment. A general dichotomy thus emerges, since the distribution is very different from that of the general population: Harare has only 11 per cent of the population but 46 per cent of total manufacturing employment. Given the existing demographic patterns and pressures, the conditions for an excessive urban growth in the future are there, and the probability of it increased by the uneven distribution of manufacturing employment prospects.

Studies suggest that rural non-agricultural economic activities are significantly less developed than in most developing countries, especially as far as wage employment is concerned. It has also been suggested that formal sector firms show little interest in relocating to rural areas, and that informal activities are also unwilling to relocate even within the same area.^{1/}

1/ Gasper, D.R. and de Valk, P. "Background, Concepts and Issues", Workshop on Rural Industries and Growth Point/Service Centre Policies. University of Zimbabwe, 1985.

Table 21. Geographical concentration of manufacturing industry, 1977 and 1983

Location	1977				1983				Change in output %	Change in employment %
	Gross ^{a/} output	Per cent	Numbers employed	Per cent	Gross ^{a/} output	Per cent	Numbers employed	Per cent		
Harare	655,228	47.8	63,920	45.3	1,804,891	47.7	76,707	45.6	175	20
Bulawayo	299,184	21.8	40,711	28.8	934,147	24.7	46,325	27.5	212	14
Masvingo	18,444	1.3	1,147	0.8	52,030	1.4	1,495	0.9	182	30
Kadoma ^{a/}	45,789	3.3	3,735	2.6	98,950	2.6	4,679	2.8	116	25
Gweru	60,377	4.4	6,770	4.8	175,204	4.6	8,039	4.8	190	19
Redcliff/KweKwe	129,169	9.4	8,320	5.9	228,131	6.0	9,214	5.5	77	11
Mutare	43,539	3.2	4,962	3.5	169,832	4.5	8,210	4.9	290	65
Other	117,817	8.6	11,668	8.3	322,436	8.5	13,649	8.1	174	17

Source: Based on Census of Industrial Production 1983/84, CSO, Table 10.

a/ Figures in thousands of current Z dollars.

b/ Figures for Kadoma not strictly comparable because of change in geographical reporting by a major company.

3. INDUSTRIAL DEVELOPMENT POLICIES AND INSTITUTIONS

3.1 The planning process

The major policy statement for Zimbabwe, which covered economic development as a whole as well as manufacturing, has been until recently the Transitional National Development Plan 1982/83-1984/1985. This document provided an important statement of objectives as the process of economic development began in the newly independent country. The objectives for manufacturing included the expansion of the sector and its linkages; the enhancement of its competitiveness; the promotion of labour-intensive technologies; further import substitution; training and upgrading of staff; decentralization; increased local participation, ownership and control; and energy efficiency. A quantitative goal of 11 per cent per annum average growth was also set, but the primary objective was to encourage the manufacturing sector's contribution to overall economic development. The negative factors that were to emerge during the Plan period have already been mentioned: drought, world recession, and transport problems. However, there were also other factors: not all the policies selected to meet the Plan objectives were followed to the same degree or at the same speed. It should be emphasized however that the planning process in a mixed (and indeed predominantly privately owned) manufacturing sector such as Zimbabwe's is a complex task, especially when the external conditions are unfavourable and when the development process is making heavy demands on scarce resources.

Analysis of the possibilities for the future of the manufacturing sector was undertaken in a UNIDO study^{1/} of the manufacturing sector, which was a wide ranging analysis of the structure, size and ownership of the sector, sub-sectoral organizations, linkages, its place in the world economy, government policy, capacity utilization and maintenance, technology, exports, regional co-operation, and investment. The study led to a high-level government workshop held in Zimbabwe in December 1985 at which the findings of the study were discussed by concerned ministries and institutions, including the private sector, and recommendations were made as to the future direction of industrial policy.

Among these were the following:

- a strengthening of the capabilities of the Ministry of Industry and Technology especially in terms of the analysis of investment, import and export and technology strategies;
- a national industrial maintenance policy;
- a technological policy based on the market orientation of the sector, including an Institute for Industrial Research;
- measures to increase exports, including incentives, increased competitiveness and rationalized countertrade;

1/ UNIDO, The Manufacturing Sector in Zimbabwe, 1986.

- continued import substitution including fuels and chemicals, steel diversification and capital goods, together with closer monitoring of the effect of investment decision on local capabilities;
- enhanced analysis and adaptive approaches to regional co-operation schemes (SADCC and PTA); and
- new approaches to investment, including targetted incentives, government activity directed towards new areas, and a more active state role in defining directions for investment.

3.2 Objectives and prospects

Overview

The First Five-Year National Development Plan, covering the period 1986-1990, was published in April 1986. The broad objectives are as follows:

- (a) Transformation and control of the economy and economic expansion;
- (b) Land reform and efficient utilization of land;
- (c) Raising the standards of living of the entire population, in particular the peasant population;
- (d) Enlargement of employment opportunities and manpower development;
- (e) Development of science and technology; and
- (f) Maintenance of a correct balance between the environment and development.

The Plan is based on an annual average growth of 5.1 per cent in GDP, with sectoral targets of 5.0 per cent for agriculture and forestry, 6.5 per cent for mining, and 6.5 per cent for manufacturing. The assumptions are that these three sectors will receive 47 per cent of total investment, that the world economy will continue to improve, with an average OECD growth rate of 3.0 per cent per annum, that transport will not be a constraint and that the agricultural sector will not be unduly affected by low rainfall.

The Plan builds on the experience gained during the period of the Transitional Plan. The progress made in the expansion of the social sectors and infrastructure was counterbalanced by budgetary deficits and severe strains on the balance of payments. The present Plan looks to a more favourable external environment and improved climatic conditions. But the approach taken attempts to be a realistic one, and it is recognized that problems will remain. One which may well increase is that of unemployment: it is given as the reason why so large a proportion of total investment will be dedicated to the three sectors: agriculture, mining and manufacturing, in order to expand employment opportunities particularly for the large number of school-leavers entering the labour market.

Agriculture

Because of the close linkages between agriculture and manufacturing and in particular because of the important manufacturing activities of agricultural marketing bodies, the planned role for the agriculture sector is of great importance. Main features include the following:

- An expansion of cotton production by small-scale producers, with increased use of cotton lint in the textile industry and for exports;
- Continued examination of the possibilities for sugar-based ethanol production;
- Expansion of horticultural crops, with an impact on greenhouses, cooling rooms, packaging and canning;
- Declining trends in cattle numbers to be reversed; and
- Rural development programmes will continue through resettlement schemes (15,000 families annually) with re-organization and public works schemes.

Mining

Stagnation in mining will be countered through promotion and development of existing operations; encouragement of exploration by both government and the private sector, including foreign capital; and increased government participation in the mining sector. The two state bodies, the Mining Development Corporation and the Minerals Marketing Corporation, will be key development agents.

Manufacturing

The manufacturing sector is characterized as "... the key sector for changing the structure of the Zimbabwean economy and for achieving rapid and sustained overall economic growth and development." As noted above, the projected annual average growth rate of the sector is 6.5 per cent, and this is to lead to a share of GDP of almost 30 per cent by 1990. Employment is to increase from 169,000 employers in 1985 to nearly 200,000 in 1990, an average annual growth rate of 3.4 per cent. Investment over the period is to be \$1,390 million, of which 30 per cent is to come from the public sector. Exports are an important part of the picture: their projected annual average growth rate of 8.2 per cent is well above that for the sector as a whole. Indeed, capital goods exports are to grow at an even higher rate, of between 13 and 14 per cent.

The Plan makes detailed recommendations about some sub-branches of manufacturing. The important export role of ferro-alloys and steel will continue, but local use, especially in the capital goods industry, of ZISCO's output will be furthered, and a modernization and diversification of ZISCO will promote more use of local inputs. The export possibilities of textiles, clothing, leather and shoes, food processing are also emphasized.

On the import side, the need to reduce dependence on imported inputs to manufacturing, and particularly imported fuels and chemicals, is noted. These products amount to 21.0 per cent and 17.0 per cent of total merchandise imports. Consequently, coal-based fertilizers and sugar-based ethanol are singled out for the future.

Capital goods imports, 30 per cent of total merchandise imports, will amount to \$2,500 million over the period. Such dimensions impel reconsideration of past performance, and the government proposes to introduce counter-trade and offset measures, together with requirements for joint production of capital goods between foreign manufacturers and local firms.

Many of the structural weaknesses of Zimbabwe's manufacturing sector (its skewed geographical distribution, high dependence on imported inputs and oligopoly and monopoly characteristics) will be addressed through institutional action, particularly through the Industrial Development Corporation (IDC), the Small Enterprise Development Corporation (SEDCO), and local authorities, in order to encourage decentralization and wider ownership. Small-scale industries and co-operatives will be an important means.

Scientific and technological progress will stress the examination of technological processes, changes in the structure of the economy, and the mastery and adaptation of imported technology. The proposed Council for Industrial Research, together with a strengthened Standards Association of Zimbabwe would be important instruments. Research activity by the former may meet the need, identified elsewhere in the Plan, for an industrial R & D establishment.

Energy

In this area the objectives are security and self-sufficiency, increased production from conventional sources (coal and hydro-power), and increased rural consumption of coal and electricity both to raise the quality of rural life and also to reduce the destruction of the forests.

Industrial furnaces are to undergo conversion from diesel to gas and coal tar fuel. Efficient stoves for coal and wood burning will be introduced into rural households. The ethanol content of ethanol petrol mixture is to be increased to 20 per cent and perhaps 25 per cent by 1990, and output of electricity will be increased by an average of about 6 per cent per annum over the plan period, partly through additional thermal capacity at Hwange. Biogas plants installation will continue at the rate of three plants per year.

3.3 Recent policy measures

The objectives and strategies as set out in the First Five Year National Development Plan (1986-1990) will undoubtedly be followed by a series of government actions directed towards achieving these aims. Moreover, the developing consensus on national industrial policy can also be expected to have an impact in the policy field. At the moment however, Zimbabwean industry operates within an environment determined by a number of distinct measures introduced since Independence.

Foreign exchange control affects most sectors, but particularly manufacturers since raw materials, capital goods, spare parts come largely from abroad. The basic body concerned is the Joint Allocations Committee, which includes representatives from the Treasury, Economic Planning, as well as Industry and Trade and Commerce. Foreign exchange allocations are decided by an allocation to the sectoral Ministries from a pre-determined total, and allocations are made to individual manufacturers on application to the Ministry. This system is called Industrial Import Control. However many industrial imports are imported by wholesalers, for whom a separate scheme Commercial Import Control administered by another Ministry (Trade and Commerce) is in operation. A new firm seeking allocations, or a manufacturer proposing importing new or additional machinery must go to the Industrial Projects Committee of the Ministry of Industry and Technology. The same Ministries as on the Joint Allocations Committee are represented, and so is the Reserve Bank of Zimbabwe.

A major improvement in the foreign exchange position was brought about by the introduction of the Export Revolving Fund in April 1983. This allows an exporter access to foreign exchange for purchase of intermediate inputs. The foreign exchange is then repaid from export earnings. The Fund is administered by the Reserve Bank of Zimbabwe, and is based on a US\$70 million loan from the World Bank. This share is expected to be renewed for a further five year period in 1987. The main drawback is that it applies only to exporters: other manufacturers have to follow the traditional path to obtain foreign exchange. Overall, the foreign currency allocations to the manufacturing sector did not grow in real terms between 1981 and 1985, although for the second half of 1985 the allocations were increased by 30 per cent. Some of the 1985 growth of the sector can be attributed to this.

The Export Incentive Scheme gives a tax free cash payment to exporters (9 per cent of the f.o.b. value) if the goods are on an approved list and if they have a minimum local content of 25 per cent and a consignment value of at least \$100,000. This scheme is regarded as of great importance to many manufacturers.

The regional role of Zimbabwe has had a particular impact in the field of trade through the Preferential Trade Area (PTA) agreement. Signed in 1984, this has reduced the tariffs on a range of goods between Zimbabwe and 15 other countries in Eastern and Southern Africa. The Reserve Bank of Zimbabwe also acts as the clearing house for a payments scheme, allowing trade in local currencies but only to the extent that bilateral trade is balanced. Imbalances have to be corrected in hard currency. The tariff reductions are not yet very significant for Zimbabwe's trade because they have taken place on a range of goods in which the other countries do not really compete with Zimbabwe: however as a step towards further free trade in the region and a clear sign of commitment to it they are very significant for the long-term development of manufacturing. The other countries, many of whom are also Zimbabwe's partners in the Southern African Development Co-ordination Conference (SADCC)^{1/} are, in general, at an earlier stage of industrialization and continued adjustment will be needed to ensure complementarity of structure. The PTA tariff reductions at first applied only to goods produced by companies within the region not owned by those outside the region, but this requirement has now been eliminated.

1/ Member countries of SADCC include Angola, Botswana, Lesotho, Malawi, Mozambique, Swaziland, Namibia, Zambia and Zimbabwe.

SADCC aims at a co-ordinated policy among its members with respect to industry and all other economic sectors. It is intended to promote the growth and development of the region and to reduce its dependence on the Republic of South Africa. Industrial projects for Zimbabwe in such areas as special steel, polyester staple, blanket production, textiles, chemicals, pesticides, fertilizers, and pulp and paper, have all been or are being examined at the SADCC level.^{1/}

An outline of government policy in the field of foreign investment was published in 1982.^{2/} The criteria for examination of proposals include introduction of managerial or technological expertise, training, employment promotion, improvement in quality or range of goods or services, promotion of rural development, export promotion or import substitution, and research and development. Local participation should preferably be at least 20 per cent, and shares be available to the government if requested.

The new National Plan gives more explicit commitment to foreign investment, and recognizes the need for a "clear statement of policy on foreign investment, joint-ventures and transfer of technology, including re-examination of legal issues involved." A total of \$200 million of direct foreign investment in joint ventures with the government and local companies is projected for the Plan period, especially in natural resource exploitation, fuels and chemicals (including fertilizers). Specific project areas are to be included in a Zimbabwe Investment Register which is intended to also serve potential local and foreign investors.

Another aspect of foreign investment is the degree to which dividends and profits can be remitted. In relation to investments since 1979, the limit is 50 per cent, but for remittances in relation to investments before then, the limit is 25 per cent.

Price control (especially on essential consumer goods) has been a continuing feature of policy. A new Labour Act has given new guarantees of the rights of workers. Public policy on employment affects several aspects of manufacturing, including the bringing in of expertise from abroad. Finally, price increases in electricity (in order to meet the cost of the Wankie thermal power station project) seriously affected manufacturing costs.

3.4 Institutional framework for industry

The Ministry of Finance, Economic Planning and Development has fundamental responsibility for steering the economy and thus determines the operating environment for industry, as for other sectors. Apart from this, a major role is played by the Ministry of Industry and Technology. The most important long-term function of industrial planning is furthered by a Planning and Policy Formulation Section within the Department of Planning and Technology, while a Techno-Economic Analysis Section within the same Department is responsible for analysis of resources, structure and linkages at sub-sectoral levels. The operational activities of the Ministry include the administration of Industrial Import Control, participation in the Industrial Projects Committee, and a number of other functions related to the implementation of government regulations.

1/ SADCC, "Progress of the SADCC Regional Plan of Industrial Co-operation".

2/ Government of the Republic of Zimbabwe, "Foreign Investment: Policy, Guidelines and Procedures", Cmd. R.Z. 15 - 1982.

The Ministry of Trade and Commerce implements the Commercial Import Control System and the price control system. A variety of controls exist depending on how essential the commodities are regarded as being. Other functions include the promotion of foreign trade. The Ministry also oversees the Small Enterprise Development Corporation (SEDCO), which is described below.

The Ministry of Labour, Manpower Planning and Social Welfare has important functions in the areas of industrial training and the implementation of labour legislation and regulations. These include the hiring and firing of workers, the control of minimum wages and the granting of permits for expatriate staff.

Other Ministries related to the manufacturing sector include the Ministry of Mines and the Ministry of Agriculture, the former being concerned with processing and marketing activities of mineral products including those of the Zimbabwe Mining Development Corporation (ZMDC) and the Minerals Marketing Corporation (MMC). The agriculture sector contains a number of parastatals including the Cold Storage Commission (beef processing and exporting) the National Dairy Board and others.

The principal executive arm of industrial policy is the Industrial Development Corporation (IDC). Its origins go back to 1963, and a partly private shareholding continued until 1984, but it is now wholly government-owned. Its activities have been in three main areas. Firstly, it acts as a holding company for the State's interest in a number of industrial companies, indeed all state companies except ZISCO. (A summary of IDC interests is presented in Annex Table A-1). Secondly, it has a more active role as an agent of rescue operations, intervention by the State when companies are about to founder. (Examples include Delswa, a clothing manufacturer, and Lancashire Steel, taken over jointly with ZISCO). Thirdly, it plays a positive role as a vehicle of state investment, though it welcomes joint ventures with foreign and/or local companies and does not necessarily insist on a majority stake. For instance it holds 44 per cent of a Zimbabwe Pencil (Pte) Ltd., formed as a joint venture in 1983. Such a role will be very important in the areas identified in the National Plan.

Smaller enterprises are catered for by the Small Enterprise Development Corporation (SEDCO), which is intended to stimulate rural enterprises especially by acting as a provider of credit and institutional support. Its activities have so far, however, been mainly confined to the trade and commerce sector. In 1985, 27 per cent of its loans were granted to industry.^{1/}

Somewhat in between IDC and SEDCO in terms of scale of industrial projects to be undertaken is the Zimbabwe Development Bank (ZDB). This body, established in 1984, has direct support from external bodies, including the African Development Bank, the Commonwealth Development Corporation, the European Investment Bank, and the Government of the Federal Republic of Germany, Finland and the Netherlands. The government holds 51 per cent of the share capital. This gives it, to some extent, its own foreign exchange "window", although its projects like all others would be cleared with the Industrial Projects Committee. It can work through loans, equity participation, guarantees and underwriting.

1/ The Economist Intelligence Unit, Country Report Zimbabwe, No.3 1986.

The largest state-owned industry is the Zimbabwe Iron and Steel Company (ZISCO). It is one of the largest manufacturing employers and an important export earner. It is in the true sense an institution within the manufacturing sector in Zimbabwe since it is at the heart of a complex of metallurgical and engineering industries and it is the focus of much of national industrial policy, as well as being a resource for the Southern Africa region as a whole. It is in the process of refurbishment and diversification, and the National Plan foresees a continued pivotal role for it. A related development is the formation of the Zimbabwe Iron and Steel Institute in January 1986.

A National Development Corporation, an umbrella organization to co-ordinate all state enterprise bodies, is in the process of formation.

The Standards Association of Zimbabwe (formerly the Standards Association of Central Africa) is Zimbabwe's official industrial standards body. It defines Zimbabwean standards, and carries out laboratory testing of products and certifies them. It also acts as an information centre on foreign standards.

Of private institutions, perhaps the most important is the Confederation of Zimbabwe Industries (CZI). This represents the majority of the private sector manufacturers, although several state-owned companies are also members. It has an important role in providing advisory services to its members on many aspects of manufacturing, and also represents its members' views in negotiation with the Government. As well as the CZI itself, there is a large number of individual sub-sectoral associations.

4. RESOURCES FOR INDUSTRIAL DEVELOPMENT

4.1 Human resources

The total labour force in Zimbabwe is 2.5 million, i.e. one-third of the population. Of this total, 1.0 million, or 42 per cent, are communal farmers. Of the remainder of the labour force 1.0 million are employed in the formal sector, 0.1 million in the informal sector, and the balance, (0.3 million), unemployed. The unemployment rate is thus 11 per cent of the labour force including communal farmers and 19 per cent excluding communal farmers.

Total employment in the formal sector has fluctuated between 0.985 and 1.050 million from 1975-1984. However, with a growing population this means that the share of the adult population employed has fallen, from 33.5 per cent in 1973 to 26.5 per cent in 1981.

"It is clear, however, that it has not been possible to create new jobs in the formal sector to the extent that would be needed with regard to the fast growing population."^{1/}

The above figures refer to 1982, when the total population was recorded as 7.5 million. The population in 1985 was estimated to be 8.4 million. The population growth rate is falling but is still high, with an estimated 2.76 per cent per annum growth during the Plan period 1986-1990.^{2/}

The population of working age is 4.2 million, or 50.0 per cent of the total and is projected to be 5 million, i.e. 54.0 per cent in 1990.^{3/} Figures such as these show the pressure of demographic trends on public policy. Expansion has to take place in such a way as to absorb as much as possible these additions to the labour force. Table 22 shows the present and expected future structure of employment given by the National Plan. The sex distribution of the above variables is given in Table 23.

Education is a sector which has undergone very remarkable change since independence. Primary education enrolment increased from 819,128 to 2,044,487 between 1979 and 1983. The figures for secondary education are even more striking. Enrolment increased from 66,215 to 316,438, a rise of 378 per cent between 1979 and 1983.

1/ Central Statistical Office, Statistical Yearbook of Zimbabwe 1985. p.44.

2/ First Five-Year National Development Plan 1986-1990, Volume 1, p.9.

3/ Ibid., p.18.

Table 22: Employees by economic sectors, 1984-1990
(Wage earners only)

Branch	thousand persons			Average annual increase 1985-90 per cent
	1984	1985	1990	
1. Agriculture and forestry	262	260	290	2.2
2. Mining and quarrying	56	56	65	3.0
3. Manufacturing	167	169	190	3.0
4. Electricity and water	7	7	8	2.7
5. Construction	45	45	52	2.9
6. Finance, insurance and real estate	16	16	18	2.7
7. Distribution, hotels and restaurants	80	83	99	3.6
8. Transport and communication	50	50	61	4.1
9. Public administration	88	88	100	2.6
10. Education	82	82	97	3.7
11. Health	19	19	23	3.9
12. Domestic services	99	99	99	0.0
13. Other services	55	55	65	3.4
Total	1,026	1,029	1,173	2.7

Source: First Five-Year National Development Plan, 1986-1990, Table XII, p.19.

Table 23: Employment data, by sex
(as percentages of total)

	Men	Women
Formal sector	47	8
Informal sector	0.7	5
Unemployed	9	5
Farming	24	20
Economically inactive	20	53
Total	100	100

Source: Central Statistical Office, Statistical Yearbook of Zimbabwe 1985, p.44.

Table 24 summarizes the higher education position. The largest group in terms of enrolments is that of the technical colleges: this includes part-time students. The second largest group is teacher training, as might be expected from the rapid expansion of primary and secondary education. The University of Zimbabwe of its total of 3,314 students, had 2,656 full-time undergraduates. Of these, the largest group was commercial and law (700) followed by social studies (520). Engineering (180) and science (220) were thus relatively small. However, specific industrial skills were more in evidence at the technical colleges, where engineering disciplines had nearly 2,000 students, to which could be added another 700 or so studying printing, science and technology, or mathematics and science.

Recent data on the skills breakdown of the industrial labour force are not available. The latest are those from the National Manpower Survey in 1981, a major analysis that was conducted soon after independence. It showed that while manufacturing had 19.9 per cent of total employment, it had only 9.3 per cent of professionals. On the other hand, it had above-average numbers of skilled and semi-skilled workers (21.8 per cent and 25.6 per cent respectively). As regards unskilled workers, 19.0 per cent were employed in manufacturing.

Table 24: Enrolment in higher education, 1975-1983

	1975	1976	1977	1978	1979	1980	1981	1982	1983
Agricultural colleges	159	155	164	133	171	173	169	530	528
Teachers' training colleges	2,932	2,861	2,985	2,982	3,082	2,824	3,484	4,873	6,481
Technical colleges ^{1/}	4,033	4,472	3,852	3,694	3,663	3,469	6,048	6,962	7,791
University of Zimbabwe	1,355	1,506	1,617	1,798	1,481	1,873	2,525	3,091	3,314

Source: Central Statistical Office. Statistical Yearbook of Zimbabwe 1985, Table 5.8, p.67.

^{1/} Includes part-time students. Figures are as of the beginning of the academic year which starts in January, except for the agricultural colleges (September) and the University of Zimbabwe (March).

The apprenticeship system saw its peak intake in 1982, when a total of 1,848 apprentices were taken on. Of these 391 (21 per cent) were for electrical training and 797 (43 per cent) for mechanical training. The reduced levels of economic activity meant that the total number of apprentices taken on (which include those for non-manufacturing training such as building and hairdressing) fell to 999 in 1984, of which 254 were for electrical training and 436 for mechanical. On the other hand, 1984 also saw the high number of 801 apprentices graduating, of whom 197 had received electrical, and 304 had received mechanical training.^{1/}

4.2 Agricultural resources

Agriculture had an average share of GDP of 14.2 per cent over the five year period 1980-1984. This was over ten percentage points less than manufacturing. However, this statistic is only one aspect. Agriculture, although declining in its share, still has a very large share of formal employment, around 25 per cent. It also accounts for 41 per cent of total merchandise exports,^{2/} although this figure includes some processed products (such as frozen beef, cotton lints, etc.) which should in fact be classified as manufactures. Table 25 gives indicators of agricultural resources and production.

Agriculture is divided into two main parts: commercial and communal. Commercial farming covers around 50 per cent of total arable land. It is in general modern and export-oriented in character, with large-scale farming of beef, tobacco, cotton, etc. backed up by a good marketing and research organization. But it is widely recognized that the small-scale producers in the communal lands have shown, since Independence, an equally good performance, and that productivity increases in Zimbabwean agriculture have been one of the increasingly cited success stories of development.

The major products are highly organized in terms of marketing; The Agricultural Marketing Authority (AMA) has four constituent bodies: the Grain Marketing Board (GMB), the Cold Storage Commission (CSC), the Dairy Marketing Board and the Cotton Marketing Board. The GMB deals with grain, oilseeds and coffee, and the Cold Storage Commission with beef and livestock (including sheep marketing).

The other commodities are marketed in a variety of ways, including a regulatory statutory marketing board for tobacco and a producer co-operative for pork (COLCOM).^{3/}

Tobacco is the largest export item with a total value of \$232.6 million in 1983: it amounted to no less than 20.6 per cent of all merchandise exports and is expected to continue to play a major role in the country's exports. For the export market, manufacturing activities are largely confined to packing and grading.

1/ Ministry of Labour, Manpower Planning and Social Welfare, Annual Review of Manpower, 1984.

2/ First Five-Year National Development Plan, 1986-1990, Vol. 1, p.25.

3/ Commercial Agriculture in Zimbabwe Annual 1984/85, Modern Farming Publication Trust, Harare, p.104.

Table 25: Indicators of agricultural resources and production, 1961-1984, (selected years)

DESCRIPTION	UNIT	1961	1965	1970	1975	1982	1983	1984	ANNUAL RATE OF CHANGE			
									1961-70	1971-80	1976-80	1979-83
LAND USE												
TOTAL LAND	100000	30667	30667	30667	30667	30667						
ARABLE+P.COR. CROPS LAND		1319	2105	2307	2526	2782						
IRRIGATED LAND		22	34	46	70	130						
FORESTS & WOODLAND		29310	28010	28010	28010	28010						
POPULATION												
TOTAL	1000	3750	4432	5100	6219	7000	8168	8461	3.9	3.3	3.5	3.5
AGRICULTURAL		2377	2947	3391	3813	4341	4650		3.1	2.4	2.5	2.4
LABOUR FORCE												
TOTAL	1000	1396	1611	1875	2121	2355	2620		3.3	2.6	2.7	2.8
AGRICULTURAL		750	1071	1198	1300	1471	1499		2.5	1.7	1.8	1.9
INDUSTRIAL ACCOUNTS												
TOTAL GDP CURRENT	BILL \$	377	1016	1467	3511	7302						
AGRICULTURAL GDP		182	170	222	604	947						
PRODUCTION												
AGRIC. PRODUCTION												
TOTAL CEREALS	1000MT	1264	1135	1329	2216	2130	1339	1302	6.0	-1.6	-4.9	-2.3
ROOT CROPS		62	65	69	70	85	94	104	.9	.9	2.1	4.5
TOTAL PULSES		17	15	24	27	51	47	47	3.5	-1.8	-4.6	22.9
OIL CROPS		24	22	52	83	73	44	69	4.7	.6	-5.6	-7.0
TOTAL MEAT		95	101	125	131	122	170	130	2.2	-1.9	-5.7	-1.1
MILK TOTAL		113	127	165	180	157	165	170	3.8	.5	-4.4	-5.4
LIVESTOCK INVENTORY												
CATTLE	10000	3553	3547	5190	6132	5440	5000	5000	3.8	.2	-5.2	1.5
SHEEP		332	400	811	750	399	455	500	10.4	-5.1	-12.3	-4.7
GOATS		421	700	1500	1953	964	1090	1200	16.1	-4.9	-13.0	-6.0
PIGS		112	130	200	209	182	192	195	6.9	-2.3	-11.0	8.5
FISHERY PRODUCTION												
FRESHWATER & SALINE	1000MT		2	2	4	18	18		31.7	21.2	33.3	15.5
SHELLFISH												
AGRIC. PLANTS												
FORESTRY PRODUCTION												
FUELWOOD & CHARCOAL	100000	3959	4500	5318	6170	5472	5470		3.3	1.9	4.3	2.9
INDUSTRIAL WOODWOOD	100000	300	452	497	546	1439	1226		3.1	13.3	18.4	2.1
SALWOOD & PANELS	100000	55	77	77	100	244	170		3.4	14.4	13.5	-1.9
PAPER	100000	9	19	34	30	67	65		19.4	5.1	12.1	5.9
MAJOR COMMODITIES												
INDUSTRIAL PRODUCTION												
RAIZE	1000MT	1014	822	900	1747	1657	1023	1073				
TABACCO	100000	100	126	55	87	92	90	115				
IND. CATTREAN	100000	72	75	88	90	84	88	88				
COTTON LINT	100000		6	34	55	56	55	75				
SUGAR CANE	100000	335	1525	1979	2620	3507	3700	3940				
ALUMINUM	100000	79	61	120	170	115	32	70				
WHEAT	100000	1	6	50	130	219	124	55				
FAWEL OIL	100000		2	2	4	18	18					
CAD MILK	100000	110	127	165	180	157	165	170				
VEGETABLES	100000	73	80	96	113	125	126	127				
INDICES OF PRODUCTION 1970=100												
FOOD PRODUCTION		56	54	72	97	98	85	87	3.7	.2	-4.3	-1.3
AGRIC. PRODUCTION		57	63	68	96	100	92	100	2.4	1.8	-1.0	-1.3
PER CAPUT FOOD PROD.		89	76	84	97	77	63	64	-1.2	-3.0	-7.5	-3.7
PER CAPUT AGRIC. PROD.		94	89	80	98	79	70	74	-1.5	-1.5	-4.3	-4.7
FOOD SUPPLY /CAP/DAV												
CALORIES	NUMBER	2145	2120	2093	2132	2120						
PROTEIN	GRAMS	64.2	68.4	56.6	56.5	55.0						
FATS	GRAMS	64.7	63.9	47.5	49.2	49.8						
CALOR. AS OF REQUIR.	PERCENT	89.7	88.7	85.9	89.2	88.7						
MAJOR FOOD CONSUMED (SHARE OF TOT. CALOR.)												
RAIZE	PERCENT	44.0	42.3	41.5	41.3	43.6						
SUGAR & HONEY		5.3	6.0	8.2	9.1	11.2						
WHEAT		7.5	6.1	7.3	8.7	9.8						
OIL AND FAT		2.0	3.5	6.1	6.8	7.8						
WHEAT+SORG.		17.3	19.2	14.9	13.4	6.7						
MEANS OF PRODUCTION												
TRACTORS AGRIC. IN USE	NUMBER	12567	14500	17000	19000	20700						
FERTILIZER PRODUCTION	100000	11	20	69	110	122			20.9	-1.7	4.5	
FERTILIZER CONSUMPTION	100000	61	75	106	147	148			11.5	-1.0	9.0	

Table 25 (Cont.)

DESCRIPTION	UNIT	1961	1965	1972	1975	1982	1983	ANNUAL RATE OF CHANGE			
								1961-70	1971-80	1976-80	1979-83
EXPORTS											
TOTAL MERCHANDISE	10000 \$	35320	65210	17253	86560	120137	110000				
AGRIC. PRODUCTS		12090	10021	12630	30015	51706	44310				
MEAT		710	1000	2003	6591	979	1690				
DAIRY PRODUCTS		63	147		63	3					
CEREALS		1192	212	705	8020	6162	5206				
OIL SEEDS		6	16	235	566	303	260				
VEGETABLE OILS		11	85		106	122	61				
AGRIC. RESIDUES				80	52	69					
FISHERY PRODUCTS				10	19	12	10				
FORESTRY PRODUCTS		233	477			829	670				
HAJJA COMMODITIES (SHARE IN AG+LIFE)											
TOBACCO	PERCENT	72.3	72.2	66.9	28.7	68.3	66.3				
COTTON LINT			-3	13.1	8.1	13.2	13.7				
SUGAR, C. B&B		2.0	9.9	10.1	17.7	11.1	9.8				
WHEAT		2.1	-4	5.3	28.2	18.6	10.8				
COFFEE, GREEN			-1	-4	1.3	3.7	3.8				
SUGAR, REF MD		-1	-8	-3	1.8	2.8	2.5				
TEA		-7	-1	-4	1.6	6.5	2.1				
MEAT, FEAL		3.9	5.7	20.9	10.4	1.8	1.8				
SUGAR, NAT 20		-2	-3	1.2	-8	1.8	1.1				
MEAT, PNEP		-6	2.2	1.3	-7	-6	1.3				
IMPORTS											
TOTAL MERCHANDISE	10000 \$	30309	31540	13060	76990	162700	130000				
AGRIC. PRODUCTS		1201	2012	1082	3171	5301	4932				
MEAT		53	69		55	47					
DAIRY PRODUCTS		68	117	95	61	319	312				
CEREALS		591	820	620	1103	295	2032				
OIL SEEDS			11		85	231					
VEGETABLE OILS		55	166		63	163	85				
AGRIC. RESIDUES				350	4611	5557					
FISHERY PRODUCTS				366	670	282	200				
FORESTRY PRODUCTS		1411	1212			2667	1843				
HAJJA COMMODITIES (SHARE IN AG+LIFE)											
WHEAT	PERCENT	11.4	8.3			12.5	6.3				
OTHER PAPER		16.3	10.6	6.3	7.3	11.7	11.8				
CHEM UN PMP		-8	1.2			11.6	9.1				
WHEAT DRY		3.2	5.3	5.1	6.1	6.8	10.9				
MEAT		23.7	13.3	20.9	20.8	2.1	8.1				
MILK SK ON C		-3	-6		-9	5.1	6.6				
WHEAT			3.5		-1		-2.8				
SUGAR, NAT 20		-6	1.6	5.6	6.2	2.1	8.8				
SUGAR, REF MD		5.6	3.6			3.5	1.7				
INDICES OF TRADE											
AGRIC. PRODUCTS	1974-76 = 100										
VALUE OF EXPORT		37	53	36	100	167	133	-3.6	10.3	5.4	5.8
VALUE OF IMPORT		53	97	67	100	162	110	-5	2.6	-1.4	2.4
JUST VALUE OF EXPORT		56	61	57	100	162	130	-7	7.8	10.3	5.5
VALUE OF IMPORT		63	149	56	129	169	241	-6.8	7.8	34.3	17.9
VALUE OF EXPORT		121	273	182	127	181	207	-3.8	-6.8	12.8	31.6
JUST VALUE OF IMPORT		63	69	62	99	160	156		8.6	7.1	7.5
FOOD PRODUCTS											
VALUE OF EXPORT		16	27	32	100	90	91	10.9	7.8	-1.3	-1
VALUE OF IMPORT		30	72	72	100	72	93	9.7	-1	-11.6	1.3
JUST VALUE OF EXPORT		65	66	67	112	178	133	-6	7.7	17.7	6.4
VALUE OF IMPORT		82	132	69	139	130	232	-6.2	3.3	66.5	25.4
VALUE OF EXPORT		103	262	136	133	90	223	-6.2	-12.8	8.6	49.8
JUST VALUE OF IMPORT		63	61	56	106	195	173	3.6	8.1	5.6	16.6
SOCI ECONOMIC INDICATORS											
AGROP AS TOTGDP		21	17	15	17	16					
AGROP AS TICPOP		69	66	66	61	58	57				
AGROP AS TOTGDP		36	41	33	46	48	42				
AGROP AS TICPOP		6	8	3	6	2	6				
AGROP AS TOTGDP		62	56	37	50	36	36				
ARABLE LAND AS TOTLAND		5	5	6	7	7					
IRRIGATED AS ARABLE		1	2	2	3	6					
AGROP PER ARABLE	KG/HA	1.3	1.4	1.4	1.5	1.6					
FERT USE PER ARABLE	KG/HA	22	36	45	56	53					
TRACTORS PER ARABLE	NO/1000A	7	7	7	8	7					

Source: FAO, Country Tables, 1985.

Grain output includes maize (1.8 million tonnes 1985/86) and wheat (0.2 million tonnes).^{1/} Zimbabwe now has a considerable maize surplus. The communal lands have been taking a steadily increasing share of marketed output. Zimbabwe is also well placed to contribute to food security within the region. As a member of SADCC, Zimbabwe acts as the co-ordinator for agricultural development.

Other crops include sorghum, soya beans, groundnuts and tea, coffee and sugar. The last three are very important in export terms, with tea exports being \$25 million in 1984, coffee \$29 million and raw sugar \$41 million. A further \$15 million worth of refined sugar was also exported.

Cotton, whose value to manufacturing was stressed in section 2 of this Review, is another crop where the influence of small-scale producers in the communal lands is also increasing. In the 1985/86 season they supplied 50 per cent of the seed cotton purchased by the Cotton Marketing Board.

In general agriculture's support for manufacturing activity is very important and will continue to be so in view of the growth foreseen in the First Five-Year Plan. The already impressive progress in small-scale production indicates that agriculture will also provide a growing market for manufactures, especially those appropriate as inputs or equipment for smaller scale production

4.3 Mining resources

Zimbabwe's mining sector has declined in importance over the years in relation to GDP, where its share at current prices fell from 7.6 per cent in 1974 to 5.6 per cent in 1983. In export terms, however, it is much more important. Items such as asbestos, lithium ore, copper slimes, other metallic ores and concentrates and coal and coke amounted to \$85 million in export receipts in 1983. The sector also provides raw materials to manufacturing for further processing. Ferro-alloys, ingots and billets, iron and steel bars, rods and sections; copper, nickels and tin metal alone amounted to \$281 million in 1983.

The main mineral production figures are given in Table 26. As can be seen, gold is around 40 per cent of the value of mining output and by far the most important mineral. Prospects for further development are regarded as good, and there are possibilities for increased value-added through processing. The problems for other minerals however lie in the generally depressed conditions of world markets and the increasing difficulties in recovering new reserves. Technological development and the encouragement of new smaller-scale production by co-operatives are some of the ways in which it is hoped to continue progress in the mining sector. As it stands, however, it forms a very important complex of linkages with the manufacturing sector, through the processing of ores and the supply of chemicals, equipment and engineering services.

^{1/} Crop purchases by marketing boards, African Economic Digest, April 1986.

Table 26. Mineral production, 1984 and 1985

	Quantity thousand tonnes 1984	Value Z\$ million 1984	Value Z\$ million 1985
Asbestos	165.3	80.8	84.5
Gold	478 ^{a/}	214.1	241.3
Chrome ore	476.5	29.7	33.7
Coal ^{b/}	3,110	58.3	66.8
Copper ^{c/}	22.7	33.8	43.3
Nickel ^{c/}	10,251	59.7	73.4
Iron ore	925	14.5	
Silver	893 ^{a/}	9.0	
Cobalt	78	1.0	86.6
Tin metal	1,210	18.5	
Other ^{d/}		27.1	
Total		546.5	629.6

Source: Statistical Year Book of Zimbabwe 1985, Central Statistical Office Harare, Zimbabwe.

Note: Table excludes production from sand and stone quarries.

- a/ In thousands of fine ounces.
- b/ Coal sold, not coal produced.
- c/ Metal content.
- d/ Mainly precious stones, phosphate, tantalite, amgenesite, limestone and lithium.

4.4 Energy resources

Zimbabwe is well endowed with coal and hydro-electric power potential. The largest coalfields are in the Hwange region, where the first phase of a large coal fired electric power generation system has now come on stream. The capital costs of this project were very high, and the need to repay the loans incurred to finance it have meant that electricity prices have had to be increased sharply in recent years. This has had serious negative effects on both the mining and manufacturing sectors.

Zimbabwe's coal reserves are very large (estimated at 30,000 million tons) and an increased use of coal can be anticipated. A move away from the use of firewood in rural areas is regarded as essential in order to halt deforestation, an issue now increasingly serious.

The hydroelectric potential of Zimbabwe have already been exploited to some degree, by the Kariba complex on the Zambezi river. It is operated as a joint project between Zambia and Zimbabwe through the Central African Power Corporation. Zimbabwe in effect imports a third of its electricity consumption from Zambia. Considerable scope exists for increased supplies from hydroelectric sources. Biomass plants are being brought into operation.

The main problem with Zimbabwe's energy resources is that they contain no petroleum: all petroleum fuels have to be imported. The sugar/ethanol plant already in operation has allowed for some reduction in the quantities imported and there is scope for further improvement, although diesel fuel, on which the agricultural community depends, cannot be extended by the addition of ethanol. However, the fall in world oil prices will allow a breathing space during which further adjustments can be made. The railway electrification programme has already had an important impact on diesel oil savings, (as well as providing a stimulus to local engineering suppliers). An oil refinery is under discussion. It has been decided that Zimbabwe should have its own oil refining capacity.

4.5 Technical assistance to industry

Ever since independence Zimbabwe has been a focus for bilateral and multilateral technical assistance. The ZIMCORD Conference in 1981 marked a major system of undertakings from donors to support the newly independent country, amounting to a total of US\$2.2 billion.

Net disbursement of Overseas Development Assistance (ODA) in 1984 amounted to 5.8 per cent of GNP, i.e. slightly more than the average for sub-Saharan Africa (SSA), as a whole, but lower than the average 6.8 per cent for the group of middle-income oil importers within SSA to which Zimbabwe belongs. Bilateral aid represents almost 82 per cent of the total which is a high share, exceeded by only a few other countries in Africa.^{1/} ODA amounted to US\$297.5 million in 1984.^{2/} Many donor countries and groups are involved. One important feature has been commodity import programmes (CIPs), which have in some cases contributed to meeting manufactures' import requirements and directly eased the foreign exchange shortages. SADCC is also an important focus of development assistance from multilateral and bilateral donors, and many projects underway or projected can benefit Zimbabwe directly, especially in the areas of improved communications (including port facilities and railways in Mozambique).

UNIDO has been extensively concerned with technical assistance to Zimbabwe, and a list of ongoing and completed projects appears in Annex B. Particularly notable has been the involvement with ZISCO over several years, where the upgrading and modernization of the plant together with diversification has been a major focus. This continues to be one of the major concerns for the next UNDP Country Programme Cycle. ZISCO has not only been the focus of training activities but is also being used as a regional centre for training in technical assistance projects for the southern Africa region.

The further beneficiation and enhanced processing of Zimbabwe's mineral resources is another area in which UNIDO has been particularly involved. This has included glass and refractory brick development projects. Assistance to SEDCO, to the Standards Association of Zimbabwe and to the Zimbabwe Development Bank are other examples of UNIDO activity. The study of the manufacturing sector and its prospects carried out by UNIDO, already referred to, was an input to a donor co-ordination conference held in Zimbabwe in 1986, where bilateral and multilateral agencies discussed assistance to the manufacturing sector in the future.

1/ World Bank, "Financing Adjustment with Growth in Sub-Saharan Africa", February 1986, Statistical Annex, Table 18.

2/ Ibid, Table 19.

The UNDP Country Programme regards ZISCO as a key area of attention for assistance in the next cycle. The other areas singled out are feasibility studies of pulp and paper and fertilizers. The chemical industry as a whole is an increasing concern of the Government.

Training is a third issue which will continue to be a focus of assistance. It is particularly necessary for Zimbabwe in order to reap the returns on the investments now being made in general education. The increasingly sophisticated areas into which Zimbabwean industry will have to move will reinforce the need for highly developed schemes of training.

In conclusion, some other emerging issues may be mentioned which are relevant to the question of external assistance and to some extent to industrial development as a whole. One of these is whether new projects offer increased opportunities to local manufacturers in the country. Zimbabwe has engineers and engineering companies who are capable of producing much in the way of machines and equipment. Yet in many cases (and often in spite of state involvement) investment decisions have been made which involved the importation of expensive equipment much of which could have been made locally. There is increasing concern in Zimbabwe about this issue and it is important that project formulation takes it fully into account.

The question of modernization is also important. The manufacturing sector is, to some extent, hampered by old and often outmoded equipment (the two words are not synonymous). Clearly there is still a need for new industries but here are many openings for programmes of rehabilitation also. ZISCO is the best example. Closely linked is the question of energy conservation and energy efficient processes. Seven large industrial plants account for over 85 per cent of the energy used by the manufacturing sector.

Industry at present is located almost entirely in urban areas, and decentralization is part of the government's objectives for the sector. But the role of the sector in providing the products needed for rural development is as important as its role in providing employment. The development of the rural areas, where the majority of the population lives, will demand a considerable range of products for agriculture, health, education and construction. Assessment of new possibilities in manufacturing has to include analysis of how far these needs can be met, including the role of small industry development.

The applications of microelectronics and information technology that have so far taken place appear limited. Manufacturers are in many cases aware of these possibilities but few steps have been taken (due to foreign exchange shortages or protection against foreign competition) to implement them. Nor is there yet sufficient government action in this field. It is surprising that Zimbabwe with an advanced manufacturing base should lag behind some other African countries in this area, one which will determine the shape of its manufacturing sector in the years to come. Applications of automation, control, CAD/CAM, etc., have to be kept in mind in looking at new industrial projects: the immediate direct employment implications that may result have to be balanced against skills generated and manufacturing processes encouraged as well as a possibly longer economic life for the project in question.

ANNEX A
STATISTICAL TABLES

Table A-1: Industrial Development Corporation of Zimbabwe Ltd. (IDC),
Investments at 30 June 1984 and 1983 - by category of industry

	1984		1983	
	\$'000	%	\$'000	%
Chemical	193	0.52	190	0.53
Clothing	971	2.59	415	1.15
Electrical and electronic	77	0.21	92	0.25
Engineering	670	1.79	643	1.78
Film	376	1.00	397	1.10
Financial services	771	2.06	637	1.76
Hotel	1	-	1	0.01
Industrial property	37	0.09	40	0.11
Metal products	7,940	21.20	7,512	20.77
Mining	11,732	31.32	16,295	45.06
Motor assembly	6,720	17.94	5,987	16.56
Non-metallic mineral products	2,794	7.46	2,583	7.14
Quarrying	77	0.21	34	0.09
Spinning, weaving, knitting and finishing of textiles	3,945	10.53	1,265	3.50
Tanning and manufacturing of leather goods	30	0.08	43	0.12
Transport	21	0.05	27	0.07
Furniture	950	2.54	-	-
Pencils	153	0.41	-	-
	37,458	100.00	36,161	100.00

Source: Industrial Development Corporation, Annual Report and Accounts 1984.

Table A-2: Manufacturing sectors' sales of own products, 1978-1983
(Z\$ thousand)

Commodity	1978	1979	1980	1981	1982	1983
Fresh meat, poultry and fish	87,453	91,184	89,283	99,164	147,681	161,248
Other meat including canned meat	11,184	14,027	17,034	17,182	25,970	29,218
Dairy produce including dried milk	31,514	36,731	46,756	58,293	75,807	70,950
Wheat meal	23,906	5,374	50,711	60,384	94,907	115,265
Bakery products	36,102	1,626	54,780	70,358	82,763	97,204
Tea, coffee and sugar	25,987	30,872	34,318	41,267	46,905	44,063
Margarine, oils and fats	28,098	34,756	39,517	52,221	58,847	59,078
Canned fruit and vegetables, frozen and pre-packed foods	5,886	5,863	6,289	8,533	9,013	12,526
Other foods, including flour and food supplements	40,607	46,772	61,018	82,595	92,644	123,166
Sugar confectionery	5,689	6,360	9,214	12,893	16,485	17,352
Animal foodstuffs	25,143	37,102	54,109	71,307	90,882	78,948
Beer, wine and spirits	46,435	51,115	61,630	55,323	93,479	217,574
Soft drinks	19,240	21,657	27,209	31,068	41,475	47,548
Drugs, medicines and medical appliances	9,410	10,333	14,019	17,975	20,105	34,682
Toilet preparations and cleaning materials	38,605	47,925	67,221	88,443	97,729	113,105
Clothing	67,795	86,113	115,500	154,506	172,132	157,765
Footwear	24,754	32,576	40,508	56,534	73,118	65,687
Household linen, blankets and carpets	17,837	21,268	29,068	33,663	41,185	40,867
Furniture, including mattresses	21,350	27,054	42,617	59,544	61,265	56,766
Electrical appliances, radio and T.V. sets	14,794	15,881	15,527	21,569	23,010	91,757
Domestic hardware and non-electrical appliances	7,965	8,225	11,726	13,514	13,441	7,474
Miscellaneous consumer products other than food, drink and clothing ^{1/}	19,124	22,671	30,422	42,328	46,848	54,544
Newspapers, books, printing and publishing	31,423	41,643	49,126	70,015	77,072	76,551
Fertilizers & agricultural chemicals	58,812	58,692	83,238	106,839	121,114	125,637
Motor vehicles and parts including tyres	35,870	46,767	74,529	86,228	104,122	105,066
Lint, yarn, piece goods, canvas and woven cloth mainly for textiles and clothing industry	111,810	148,055 ^{2/}	179,204	204,759	182,634	211,749
Wooden products, sawn timber, manufactured timber and semi- finished products mainly for construction and furniture industry	13,980	23,804 ^{3/}	32,160	41,491	30,739	39,738
Non-metallic products, e.g. bricks, cement, tar mainly for the construction industry	33,969	40,259	55,794	59,558	84,133	98,073
Paints and allied products	8,775	10,239	13,215	18,418	22,230	26,153
Sacks, bags, container (all materials), industrial paper and board	55,946	68,693	82,766	48,553	126,929	167,034
Railway equipment including sleepers	9,213	3,479	3,100	5,764	11,939	10,134
Agricultural, mining and industrial machinery and equipment and metal products including cable	126,101	147,159	208,805	273,587	285,716	195,636
Industrial chemicals, gas and other basic manufactures for industrial consumption n.e.s.	62,382	77,635	1204,143	122,618	142,438	181,323
Basic metal products including alloys	142,403	186,488	242,992	235,814	214,250	318,116
Tobacco processing (excluding value of leaf processed) and cigarettes	34,721	44,182	48,934	59,293	65,264	130,825
Total	1,334,294	1,622,580	2,096,482	2,481,601	2,894,269	3,411,022

Source: The Census of Production 1983/84, CSO, Zimbabwe, Table 11, p.96.

- Note:
- 1/ Includes a small element of non-consumer goods.
 - 2/ Not comparable owing to change in accounting practice by major contributor.
 - 3/ Not comparable due to changes in re-classification.

Annex A-3 : VALUES OF KEY VARIABLES (CURRENT PRICES): 33 SUBSECTORS AND TOTAL
IN THOUSANDS OF DOLLARS(LABOUR IN THOUSANDS), 1983

SUBSECTOR	GROSS OUTPUT	VALUE ADDED	WAGES	LABOUR	SERVICES PAYMENTS
1* Slaughtering, processing of meat(201)	288564	92834	24555	6218	6032
2* Canning,preserving,fruit,vegetables(203)	2795	928	606	206	320
3* Grain mill products,animal feeds(205)	286364	31374	27707	6230	15663
4* Bakery products(206)	93778	23709	13815	4782	4514
5* Chocolate and sugar confectionery(208)	19756	6775	2622	1057	2011
6* Dairy and other n.e.c.(202,204,207,209)	251786	73587	34566	8468	14627
7* Beer,wine and spirits(211,212,213)	228520	166807	23366	4701	23441
8* Soft drinks and carbonated waters(214)	50046	26451	10653	2564	3842
9* Tobacco (221,222)	130909	96086	21751	6167	15519
10* Cotton (incl.textiles, carpets)(223,225)	268294	67018	40455	15181	25347
11* Knitted products,rope,cordage(224)	34909	13566	9944	3565	2849
12* Other textile products(226)	21811	7747	6505	1861	2198
13* Wearing apparel(229)	130054	52327	38711	14783	11407
14* Footwear(234)	66171	37082	18601	5081	5075
15* Sawmilling,wood excl.furniture(236)	51120	22655	18896	5525	3295
16* Furniture,fixtures,excl.metal(238)	48874	16861	12549	5194	7968
17* Pulp,paper and products(239,240)	99583	35704	24304	4663	7787
18* Printing,publishing,etc.(242)	82962	45867	26689	4528	8794
19* Fertilizer,insecticides(244)	127384	-6851	17841	2590	6284
20* Paints,varnishes,fillers(246)	32377	16982	3501	583	3344
21* Soaps,detergents,toiletries,pharm.(247)	129128	49254	21576	3104	12229
22* Matches,inks,glues,and chem.n.e.c.(248)	28677	12487	5553	929	2031
23* Basic chemicals,petrolm.prods.(243,250,251)	30750	6652	6561	688	2438
24* Rubber products(253)	48554	19964	9847	1724	5683
25* Plastic products(255)	78460	37875	18109	3956	4267
26* Structural clay prods.incl.bricks(258)	10427	5740	3897	1595	715
27* Glass,cement etc.(256,257,259,260)	94097	47537	23238	5495	9541
28* Non-ferrous,iron,steel(basic)(262,264)	318458	93602	79039	15550	45138
29* Metal products,machinery(268)	248856	112362	65574	15962	21210
30* Electrical machinery/equipment(278,279)	100369	46498	24899	5815	9548
31* Motor vehicles(283)	103319	52792	21933	4554	5494
32* Other vehicles etc.(282,284,285,286)	32384	17595	12555	1918	2001
33* Other manufacturing(231,290,291)	42150	17007	10524	2981	4630
34* Total manufacturing	3583686	1346830	680943	168318	297257

Source: Central Statistical office, Census of Production 1983/84, Table 2.

Annex A-4 : INVESTMENT (CURRENT PRICES): 33 SUBSECTORS AND TOTAL
IN THOUSANDS OF DOLLARS, 1983

SUBSECTOR	INVESTMENT: LAND,BUILDING	INVESTMENT: PLANT	INVESTMENT: VEHICLES	INVESTMENT: TOTAL
1* Slaughtering, processing of meat(201)	3083	549	428	4059
2* Canning,preserving,fruit,vegetables(203)	26	55	.	81
3* Grain mill products,animal feeds(205)	1727	6967	2125	10821
4* Bakery products(206)	712	1375	1231	3318
5* Chocolate and sugar confectionery(208)	132	1237	210	1579
6* Dairy and other n.e.c.(202,204,207,209)	9035	11233	5885	26154
7* Beer,wine and spirits(211,212,213)	533	2432	3218	6182
8* Soft drinks and carbonated waters(214)	4541	2232	766	7539
9* Tobacco (221,222)	6608	8286	765	15659
10* Cotton (incl.textiles, carpets)(223,225)	1225	10657	470	12353
11* Knitted products,rope,cordage(224)	1	399	96	496
12* Other textile products(226)	78	1007	115	1200
13* Wearing apparel(229)	676	1343	524	2543
14* Footwear(234)	679	1829	175	2683
15* Sawmilling,wood excl.furniture(236)	490	1012	634	2136
16* Furniture,fixtures,excl.metal(238)	266	2489	313	3068
17* Pulp,paper and products(239,240)	745	1757	447	2949
18* Printing,publishing,etc.(242)	1958	10756	567	13282
19* Fertilizer,insecticides(244)	1185	1387	387	2959
20* Paints,varnishes,fillers(246)	858	1030	203	2091
21* Soaps,detergents,toiletries,pharm.(247)	1557	4680	741	7180
22* Matches,inks,glues,and chem.n.e.c.(248)	571	713	341	1625
23* Basic chemicals,petroleum.prods.(243,250,251)	994	1000	310	2303
24* Rubber products(253)	47	2247	2502	4795
25* Plastic products(255)	1965	5119	699	7784
26* Structural clay prods.incl.bricks(258)	18	231	132	117
27* Glass,cement etc.(256,257,259,260)	669	4781	993	6442
28* Non-ferrous,iron,steel(basic)(262,264)	1252	8248	553	10050
29* Metal products,machinery(268)	2222	6892	3082	12176
30* Electrical machinery/equipment(278,279)	835	3389	526	4750
31* Motor vehicles(283)	5116	2278	1061	8455
32* Other vehicles etc.(282,284,285,28A)	17	286	304	608
33* Other manufacturing(231,290,291)	760	2776	332	3869
34* Total manufacturing	50583	110868	29852	191303

Source: Ibid. Table 4.

ANNEX B

**THE COMPLETED, APPROVED AND/OR OPERATIONAL TECHNICAL CO-OPERATION
PROJECTS OF UNIDO**

UNIDO's Approved and/or Operational Technical Co-operation Projects
(approved = PAD issued)

Republic of ZIMBABWE

Backstopping Responsibility (Spec.Act.Code)	Project Number	Project Title
IO/INFR (31.3.K)	US/ZIM/84/232*	Strengthening of the Standards Association of Central Africa (SACA)
IO/INFR (31.3.L)	DP/ZIM/83/016*	Small industries support services - Small Enterprise Development Corporation (SEDCO) (phase II of DP/ZIM/80/020)
IO/FEAS (31.6.A)	DG/ZIM/84/028*	Assistance to Zimbabwe Development Bank
IO/MET (31.8.C)	DP/ZIM/85/007*	Bar rod rolling mill at ZISCO STEEL
IO/CHEM (32.1.B)	DP/ZIM/83/006*	Strengthening Government support services in the non-metallic mineral sector
IO/CHEM (32.1.B)	UC/ZIM/85/199	Assistance in laboratory scale investigation on magnesite ore and magnesite bricks
IO/CHEM (32.1.D)	UC/ZIM/85/244	Preparatory assistance towards the establishment of an institute for research and development of traditional medicine
IO/CHEM (32.1.I)	SI/ZIM/85/801	Assistance to the fertilizer industry in Zimbabwe
IS/REG (62.2.Z)	DP/ZIM/84/018	Study of the manufacturing sector
IO/MET (31.8.C)	DP/ZIM/86/004/ A/01/37	Assistance to ZISCOSTEEL in improvement of metallurgical quality control

* Large-scale project (= total allotment \$150,000 or above)

UNIDO's Completed Technical Co-operation Projects

Republic of ZIMBABWE

<u>Backstopping Responsibility</u>	<u>Progr. Element (old S.A.C.)</u>	<u>Project Number</u>	<u>Project Title</u>
IO/INFR	(31.3.K)	UC/ZIM/82/228	Assistance to the Standards Association of Central Africa, Zimbabwe
IO/INFR	(31.3.L)	DP/ZIM/80/020	Small-scale and rural-based ubdystrues syooirt servuces (continued under DP/ZIM/83/016)
IO/FCTY	(31.4.B)	UC/ZIM/82/202	In-plant group training programme in the field of iron and steel industry for Zimbabwe (Austria)
IO/T/MET	J13207	SI/ZIM/82/801	Assistance in the processing of ores of light non-ferrous metals
IO/I/MET	J13208	SI/ZIM/84/801	Assistance to ZISCOSTEEL in electrical maintenance of iron-making, steel-making and rolling mill equipment
IO/CHEM	(32.1.B)	RP/ZIM/82/002	Assistance in the establishment of a refractory brick plant
IO/CHEM	(32.1.B)	RP/ZIM/84/001	Assistance in the estbalishment of a refractory brick plant
IO/T/CHEM/PH	(J13422	SI/ZIM/84/802	Pharmaceutical industry development adviser
CPE/REL	(70.3.2)	RP/ZIM/82/001	Visit of the Under-Secretary, Ministry of Industry, Zimbabwe

ANNEX C
LEADING COMPANIES IN ZIMBABWE, 1986

Leading companies in Zimbabwe, 1986
(values in US\$ millions)

Rank	Company	Type of business	Sales turnover	Net profit/(loss)	Net assets	Employees
1	Zimbabwe Mineral Marketing Corporation	Minerals	379	1.7	-	150
2	Delta Corporation	Brewery	307	11.4	111	7,563
3	Grain Marketing Board	Grain	215	65.3	285	3,500
4	TA Holdings	Milling, mining chemicals	161	2.5	56	7,100
5	National Railways of Zimbabwe	Railways	145	(55.1)	242	19,287
6	Int. Food Holdings*	Grain	139	-	6.4	53
7	National Foods	Foods	129	5.9	60	4,108
8	Cold Storage Commission	Foods	110	(14.6)	118	3,900
9	Zisco	Steel	72 (est)	-	60 (est)	6,000
10	Bindura Nickel	Nickel	57	7.7	47	4,456
11	Wankie Colliery	Coal	56	10.8	83	4,855
12	ZSR	Sugar	49	1.6	11	1,690
13	Zimbabwe Alloys	Chrome	47	4.1	50	2,437
14	Hippo Valley Estates	Sugar	46	5.5	72	6,584
15	Dunlop Zimbabwe	Tyres, rubber	43	3.0	19	1,426
16	David Whitehead & Sons	Textiles	42	5.7	30	4,000
17	Hunyani Holdings	Timber pulp	41	4.2	35	2,083
18	Rio Tinto Zimbabwe	Gold, emeralds	40	7.1	34	3,297
19	PGI	Glass, timber	39	2.3	22	2,097
20	Agricor	Maize	36	1.4	13	683
21	Art Printers	Paper, plastics	32	3.1	35	1,800
22	TSL	Distribution	31	3.4	27	2,500
23	Cairns Holdings	Food, beverages	29	2.2	16	1,116
24	Apex Group	Retail, manufacturing, engineering	23	1.3	5	1,441
25	BAT	Tobacco	23	0.8	13	419

Source: South, March 1987.

* 1984.

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