AN INTER-INDUSTRY PLANNING MODEL FOR ZAMBIA BASED ON THE 1980 INPUT-OUTPUT TABLES FOR ZAMBIA: AN EXERCISE IN APPLICATION.

PAPER PRESENTED IN PARTIAL FULFILMENT OF THE MASTER OF ARTS DEGREE, DEVELOPMENT STUDIES

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PREFACE:

Most modern economics textbooks dealing with planning models dedicate a number of pages to the input-output model for planning. The input-output framework provides the user, in this case the planner, with a comprehensive tool for an overall view of the workings of an economy. Many LDCs construct some forms of input-output tables as a statistical exercise, unfortunately, that seems, in most cases, an end in itself. Extensive use of input-output tables is not a common occurrence in LDCs.

This paper is basically an exercise in input-output applications, using data from the 1980 input-output tables for Zambia. The paper is divided into four chapters: The first chapter is an introductory one, and looks at the overall economic performance of Zambia for the past decade. Also looked at in this chapter is the method of construction of the Zambian input-output tables, the data sources, and disaggregation criteria. Chapter 2 looks at the theoretical background to input-output analysis. In this section, a number of basic identities and mathematical relationships are looked at and outlined. In this same chapter, the input-output tables for Zambia are looked at in more detail, the emphasis being mainly how the tables for 1980 were updated to 1987 by using the RAS method developed by Richard A. Stone and his associates. The third chapter then goes on to establish certain input-output relations and solutions based on targets derived from the 1987 annual plan for Zambia. A number of issues are tackled in relation to these targets, notably employment generation, income generation, production increases required, increases in the rate of inflation, forward and backward linkages etc. This section also introduces the rank correlation method in the selection of 'key' sectors of the economy that the government should ideally be concentrating on. The last chapter then looks at the actual selection of 'key' sectors. This chapter also looks at the general problems in the use of input-output analysis, and how these problems were solved in the Zambian case. Problems such as questionnaire design and secondary production of industries are looked up here.

I would like to take this opportunity to thank first and foremost, and very sincerely, my companion and friend, Miss Grace Nijbroek for having accorded me the opportunity and encouragement to undertake this exercise. Without her, nothing would have been possible. I would also like to thank Mr. Jorge Victor Alarcon-Rivero for his invaluable help in this work. Thanks are also due to my second supervisor Dr. Fritz Haanappel and the ISS community in general for having made working there very pleasant- though sometimes rough!

OSTEN CHULU.

CHAPTER 1.

INTRODUCTION: ZAMBIA'S ECONOMIC REVIEW AND FUTURE PERFORMANCE.

1.0 GENERAL OVERVIEW.

Zambia's economic history can be traced back as far as the arrival of the giant mining companies from the south of Africa the latter half of the 19th century. The sole purpose that these mining companies had for coming to the area north of the Zambezi river was to exploit the abundant copper reserves that had been discovered close to the Katanga in the Congo. Colonialism soon followed the of the mining companies and established itself as the major exploitative force of the resources that were available. To facilitate this exploitation, a single rail route was constructed in order to ship copper from the "copperbelt" (the area rich in copper reserves) in the north to South Africa. Since then, Zambia's relations, both economic and political, have been inextricably linked to events occurring in the southernmost part of the continent. From the outset, Zambia has been confronted by a complex task of breaking the myriad of trade and institutional linkages binding it to the political and economic structure of South Africa. More than half a century of colonial rule brought about a marked dual economy. On the one hand there was a modern technologically sophisticated copper industry which was confined to one small area of the country and employed more than one sixth of the Zambian wage earners. Related to this modern sector was a scatterling of modern farms on either side of the rail link to the south. These farms were basically charged with the task of feeding the large labour force on the copperbelt. On the other hand, the rest of the economy remained backward, depending entirely on crude technologies for production to barely provide themselves with subsistence. The only primary link between the rural population and the cities was the steady drift of young men and women to the "line of rail" and the copperbelt to look for employment in the modern sector. Despite this duality, Zambia was still considered as one of the most prosperous countries in Africa south of the Sahara. This is manifested clearly in the general attitude of

the Zambians prior to 1975, when they considered their country as one which was "born with a copper spoon in its mouth!" The wealth, and the development of infrastructure that went with it, was founded on copper, which up to now accounts for more than 93% of total export revenues. When world copper prices slumped, so did the rest of the economy. A drop in the average copper price from 1,326 Kwacha per ton in 1974 to 794 Kwacha per ton in 1975 cut export revenues by more than 40 percent. This left a balance of payments deficit equivalent to 30 percent of the total Gross Domestic Product, and reduced government revenues to less than a fifth of what they had been.(Central Statistical Office, Monthly Digest of Statistics, 1980).

The economy has never fully recovered from this single event. Ever since, there has been a series of "painful" structural adjustments to try and arrest acute and recurring foreign exchange crises which trapped the country in a vicious circle of chronic debt, foreighn exchange shortages, falling output and galloping inflation. Future prospects look bleak, for current estimates suggest that the copper reserves, which form the basis of the economy, will be largely exhausted by the turn of the century. This means that the country will have to diversify and extricate itself away from the dependence on copper (which it developed over a period of more than 80 years) in just under 15 years. In the first instance, the government will have to look for alternative sectors to replace the ailing copper mining sector. Secondly, the labour force currently employed by the copper mining industry (20% of the total labour force employed in the formal sector-about 40% of total employment in the manufacturing and related fields) will have to be redeployed in other sectors.

1.1 AGGREGATE GDP AND SECTORAL PERFORMANCE.

The years since 1975 have been increasingly difficult for the Zambian economy. As the table below shows, GDP at constant prices more or less stagnated over the period 1975-1987. With a population growing at an annual rate of 3.4%, GDP per capita

declined at an annual rate of 3.7%. The economic decline begun with a sharp fall in the price of copper. The world copper price, which in real terms, had been exhibiting a softening trend in the early 1970's, collapsed in 1975. In the latter part of the 1970's and the first half of the 1980's, copper prices in real terms remained broadly at a plateau established by the 1975 low. The recession of the early 1980's brought a further deterioration in copper prices. Real income per capita measured in US dollars and adjusted for the terms of trade had fallen to less than one third of its 1974 level in 1984.

FIGURE 1. Trend of Gross Domestic Product.

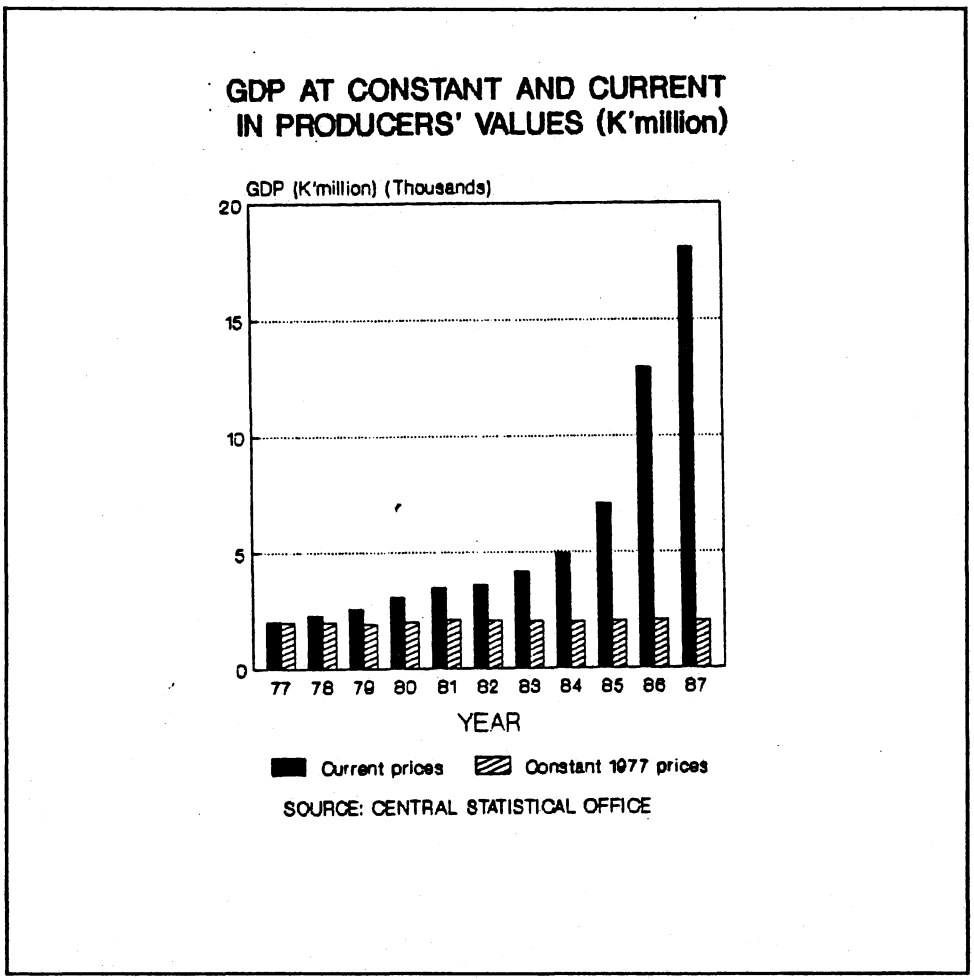


TABLE 1. Trend in copper prices (LME)

	Kwacha		Kwacha
1970	1010.42	1983	1984.51
1971	766.79	1984	2499.60
1972	764.29	1985	4471.15
1973	1155.56	1986	10700.20
1974	1326.14	1987	16172.50
1975	793.69	1988 Jan..	21399.10
1976	1007.28	Feb..	19225.00
1977	1015.91		
1978	1089.40		
1979	1571.30		
1980	1718.89		
1981	1513.31	Source: Monthly Digest of	
1982	1365.17	Statistics.	

1.2 SECTORAL PERFORMANCE, (KEY SECTORS).

1.2.1 MINING

Despite the minerals sector's critical importance to the economy, mining and quarrying accounted for only 14.5 percent of GDP (measured in current prices) in 1985. The contribution of the sector at constant prices (1977 producer prices) comes out at only 9.1 percent of GDP in 1985, compared with 20.4 percent for manufacturing and 17.5 percent for agriculture, forestry and fishing. The agricultural sector, over which plans to reorient the economy focus, has borne the unfortunate neglect and failure by the government in the last 25 years to give it the priority in practical resources in line with the priority accorded in political speeches.

1.2.2 AGRICULTURE

The agricultural sector in Zambia has perhaps the greatest

unfulfilled potential in comparison to the other sectors. Recent changes boosting producer prices and liberalising marketing, are beginning to have a positive, though slow, impact. With the breaking of one of the worst droughts in 1983, the sector has shown strong expansion, with growth rates of 9.3 percent in 1985, 5.6 percent in 1984 and 8.6 percent in 1983. However, it needs to more than double its contribution to GDP before it can replace the mining sector as the key pillar of the economy.

1.2.3 MANUFACTURING

The manufacturing sectors' growth was extremely limited before independence, constrained by policies which targeted the then Southern Rhodesia as the main manufacturing centre and Zambia as the main market. Responding to a growing domestic market, the manufacturing sector expanded very rapidly in the first decade after independence. Between 1964 and 1975, it achieved an annual growth rate of about 15 percent, with textiles, food processing, tobacco and chemicals registering particularly impressive expansion. The next five years saw growth rates fluctuate, but the overall trend was downward, and overall manufacturing output declined in real terms by nearly 9 percent between 1975 and 1980. There was some improvements in 1981, with output increasing by 10.5 percent, but performance deteriorated again in 1982 and 1983, with a slight recovery in 1984 and 1985 the latter year reflecting particularly the impact in the last quarter of the year of better import allocations under the foreign exchange auction. Overall, the manufacturing sector's contribution to GDP has remained virtually unchanged since 1977 at around 15-17 percent.

1.2.4 CONSTRUCTION

The construction sector has played a vital role in the Zambia economy because of the large construction component in past development projects and the fact that it is one of the largest employers of labour, coming fourth after mining, manufacturing

and agriculture with 7.1 percent of formal sector workers. Since 1977, however, its contribution to GDP has fallen from nearly 6 percent to about 4 percent. This reflects a number of factors including shortage of building materials as a result of scarcity of foreign exchange, lack of skilled workers and cutbacks in expenditure on construction, especially by the government and the mining sector, which in the past had been the main sources of work for the industry.

TABLE 2: GDP by Industrial Origin at Constant (1977) Prices.
(ZK mn at 1977 producers' values)

	1980	1981	1982	1983	1984	1985	1986	1987
Agriculture	304	329	290	315	332	363	364	380
Mining	205	215	215	222	200	189	173	164
Manufacturing	384	430	415	385	389	424	421	443
Electricity	66	71	76	72	71	74	74	79
Construction	103	79	84	89	89	77	81	97
Commerce	196	195	179	172	168	173	169	174
Hotel & Restaurants	40	53	53	56	49	52	49	49
Transport & Comms	118	118	119	119	116	120	107	111
Banks & Insurance	67	65	71	66	63	62	60	62
Real Estate etc.	145	153	156	168	180	180	183	192
Community services	346	394	394	356	355	366	362	373
Import Duties	42	36	28	19	18	18	22	26
Imputed bank charges	-19	-18	-20	-19	-18	-17	-17	-20
Total GDP	1996	2119	2059	2019	2012	2080	2052	2130

Source: Economic Review and Annual Plan.

1.3 FOREIGN TRADE AND THE BALANCE OF PAYMENTS:

1.3.1 FOREIGN TRADE

Zambia's foreign trade earnings depend almost entirely on copper,

with the result that the high earnings achieved in years of strong copper prices (1969-70, 1973-74 and 1979-80) have given way to shrinking receipts in recent years. The volume of imports has generally fluctuated less than export earnings but as the foreign exchange reserves built up in the late 1960s have been run down, imports have also been cut. The dollar value of imports fell by almost 10 percent from 1980 to 1982, and by almost 40 percent between 1982 and 1984, severely affecting performance of the crucial mining, manufacturing and transport sectors due to a shortage of raw materials, spare parts and new investment. (IMF, International Financial Statistics, 1986.)

FIGURE 2: Copper Prices and Exports:

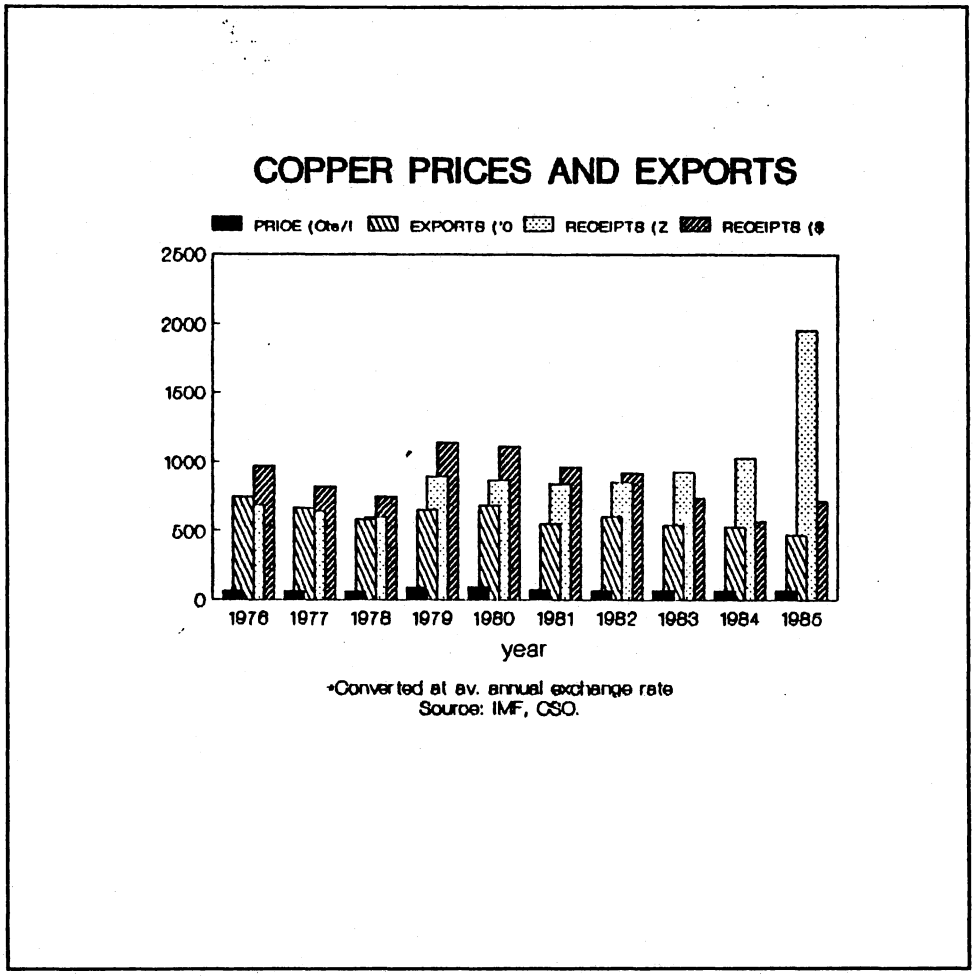


Figure 2 amply illustrates the impact of changes in world copper prices on export earnings and this in turn reflects the general economic trend that Zambia is currently facing.

1.3.2 BALANCE OF PAYMENTS

Falling copper prices during the early 1980s have had a devastating effect on the balance of payments and foreign exchange reserves, with currency shortages emerging as a serious constraint on output in all sectors of the economy. 1981 saw the current account deficit reach $742 million. Zambia's creditworthiness sunk to an all time low and thus it was unable to meet the terms of an SDR800 million extended fund facility from the IMF. Policy reforms since then, including severe restrictions on imports, have seen some improvements, however, debt rescheduling and continued foreign exchange shortages seem set to put pressure on the external account for some time to come. The country's balance of payments difficulties have resulted in a series of negotiations with the IMF, although two of the standby facilities agreed since 1981 have had to be suspended because worse than expected copper prices led to a failure to comply with conditionality. A series of other agreements followed, but these were however, also suspended largely because of the government's reluctance to reduce further the budget deficit and cut subsidies, combined with a dramatic decline in copper prices which helped precipitate the government falling into arrears on repayment of previous liabilities to the Fund.

TABLE 4: Balance of Payments:(1980-1985) ($ mn)

	1980	1981	1982	1983	1984	1985
--Merchandise exports fob	1457	996	942	923	893	788
Merchandise imports cif	-1114	-1065	-1004	-711	-612	-513
Trade balance	343	-69	-61	212	280	275
Exports of services	168	173	134	102	80	59
Imports of services	-872	-714	-657	-532	-500	-433
Net private transfers	-183	-157	-56	-49	-45	-33
Net official transfers	7	25	26	39	10	34
Balance on current account	-537	-742	-614	-228	-175	-98
Direct investment	62	-38	-	-	-	-
Other long term capital	108	594	224	126	61	-93
Short term capital	120	-93	77	-43	22	-13
Balance on capital account	290	463	301	83	83	-106
Errors and omissions	25	-181	-77	-308	-131	186
Counterpart items	32	52	35	23	13	-62
Exceptional financing	219	52	453	396	121	162
Liabilities constituting foreign authorities' reserves	-2	-3	-	-	-2	-
Change in reserves (- indicates increase)	-27	360	-98	34	91	-82

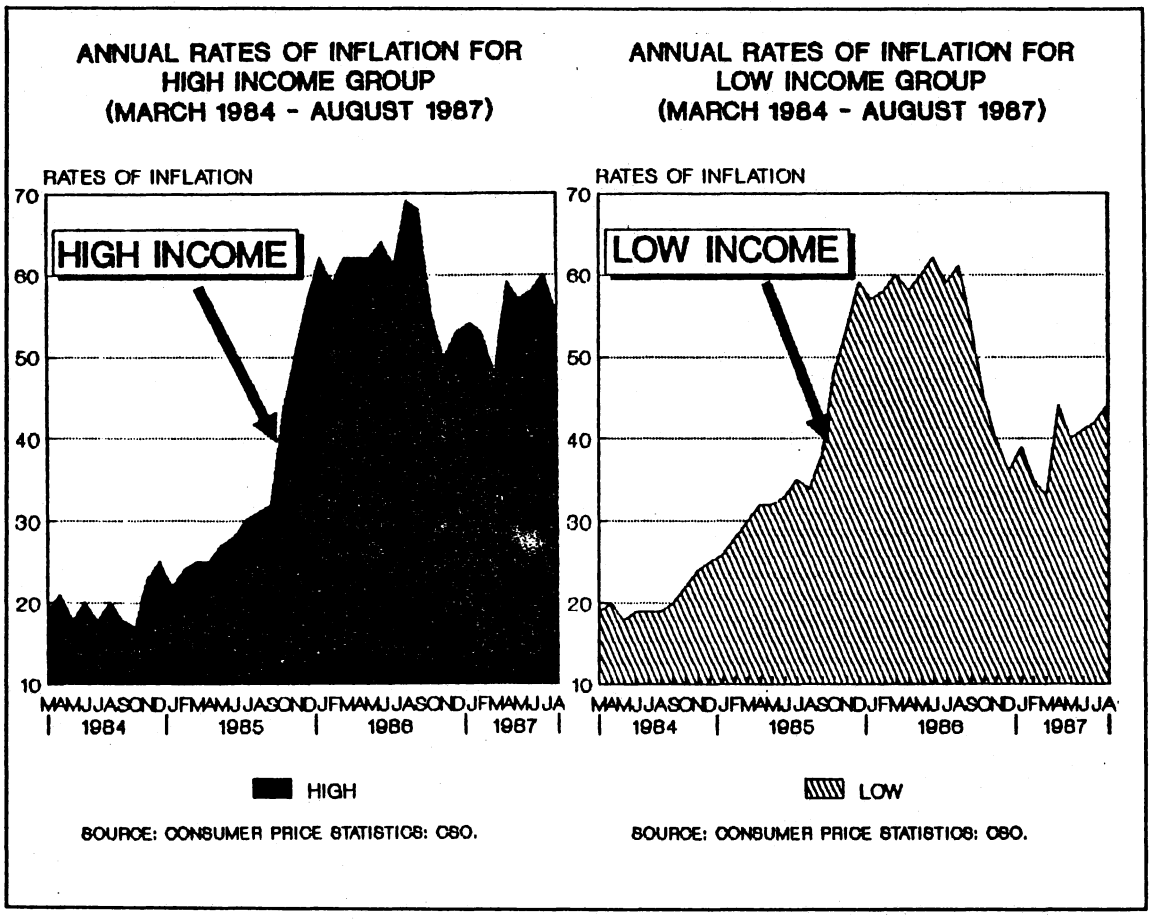
Source: IMF, International Financial Statistics.

1.3.3 INFLATION

The economic crisis that the country has undergone in the last years did not however go untackled. The government introduced, over the years, several drastic measures to try and contain the downward trend in development. A series of measures aimed at rationing resources, limiting imports of luxuries, devaluations of the currency to boost exports, price decontrols, etc, were instituted and culminated with the introduction of the foreign exchange auctioning system under the auspices of the IMF.

The measures described above brought with them unprecedented price rises which in essence "brought down the kwacha's

Figure 3: Monthly Inflation rates.



purchasing power against 1975 to 12.8% in 1986 and 8.7% in 1987 August. In other words, the kwacha's purchasing power had been eroded to less than 9 ngwee in August 1987 as against 1975" (see CSO, Consumer Price Statistics, 1987). Yearly "official" inflation rates have averaged 45% from 1975 onwards.
The figure below shows the rates of inflation for the high and low income groups.

2.0 WHY INPUT-OUTPUT ANALYSIS?

The fundamental concern of all economists, politicians, engineers etc remains focused on the need to accelerate the rate of

economic development. In order to achieve this, there arises a need to indulge in some kind of development planning exercise. The basic aim of development plans is to reduce the risk and uncertainty inherent in economic activity by making some prognosis about the future. (Bulmer-Thomas, V., 1982, pg 265).

Like many other Less Developed countries (LDCs), Zambia is unwilling to leave its economic destiny to be determined by the free interplay of market forces with no government interference. Government intervention in directing the economy requires a framework capable of reflecting the effects of a policy decision on the rest of the economy. In order to fully achieve optimum economic and social growth, and optimum utilization of available resources, a co-ordinated interplay of the various variable in the economy is necessary. The planning of an economy requires a framework capable of answering important questions related to sectoral interaction within an economy, and by its very nature, this framework should be macro-economic in character. This calls for a model that is of a level far greater in detail than that supplied by the usual macro-economic models - a model in which the different categories of the economy are shown to be inter-connected so as to provide the planner with a coherent picture of the simultaneous processes working in an economy. In this respect, the use of input-output tables as a basis for an inter-industry planning model, complete with primary, secondary and tertiary activities, each broken down into many sub-sectors, serves as one of the most ideal tools for a detailed planning process. Such a tool exists for Zambia, and it is the aim of this paper to extensively utilize the vast potential of input-output techniques to develop a systematic quantitative planning model for accelerated economic growth.

2.1 THE INPUT-OUTPUT TABLES FOR ZAMBIA.

The construction of input-output tables for Zambia begun with the 1969 data and four tables have been compiled ever since. The tables have been extensively used in the balancing and consistency checks of statistical data but have so far been

not used for planning purposes.

The 1980 Input-Output table for Zambia was constructed in 1984-85 by the Central Statistical Office (CSO) in conjunction with the University of Zambia (UNZA). The table is a 29 x 29 sector matrix, constructed within the traditional framework of input-output methodology. The basic criteria used for classification does however leave us with a shadow of doubt in that the basic technological homogeneity criteria was not taken into consideration. There was no attempt at differentiating between different levels of technology. Traditional versus modern, labour-intensive versus capital intensive techniques etc were not distinguished, leaving us with very broad categories such as agriculture (comprising of commercial and traditional agriculture in food crops, cash crops, livestock, etc.)

2.1.1 THE CLASSIFICATION OF ECONOMIC ACTIVITIES.

The classification of economic activities in the first table followed the classification laid down in the International Standard Industrial Classification of all economic activities, the ISIC of the United Nations.(see UN, A System of National Accounts, 1968). The original table of 1980 had 29 columns and 29 rows based on the two, three and sometimes four digit classification of economic activities depending on the level of detail for the particular industry. This in essence means that classification was done by way of commodity homogeneity criteria. This is a weakness inherent in all the tables constructed for the Zambian economy and efforts will be made later on to ratify this weakness by taking into consideration industry technology homogeneity criteria. Given below is the complete classification listing of all the 29 sectors;

ISIC CODE	ACTIVITY
11-13	Agriculture, Forestry, Fishing and Hunting
21-23	Metal mining
29	Other mining

311	Food manufacturing
313-314	Beverages and Tobacco
32	Textiles and Wearing apparel
33	Wood and Wood products
34	Paper and Paper products
351-354	Chemicals
355-356	Rubber products
36	Non-metallic mineral products
37	Basic metal products
38	Fabricated metal products
39	Other manufacturing n.e.c
41-42	Electricity Gas and Water
50	Construction
61-62	Wholesale and Retail trade
63	Hotels, Bars and Restaurants
7111	Rail transport
7112-7114	Road transport
7115-7192	Other transport
72	Posts and Telecommunications
810-820	Financial Institutions and Insurance
831	Real estate
832	Business services
931-932	Education
933	Health
941-949	Recreation and Cultural services
95-96	Government Administration, Social and Personal services.

2.2 THE TREATMENT OF CATEGORIES

2.2.1 INTERMEDIATE CONSUMPTION

Industries are all those establishments whose activities are financed by producing goods and services for sale in the market at a price that is sufficient to cover costs of production. This includes incorporated and corporated business,

private businesses, government industries (excluding those engaged in the usual social or community activities of the government, defence, security, etc). All non-durable goods and services which are used up in production were included in the inter-industry matrix. (i.e, goods with an expected lifetime of less than one year.)

2.2.2 HOUSEHOLD FINAL CONSUMPTION EXPENDITURE

For the 1980 table, in the absence of a household budget survey, Private final consumption expenditure was derived as a residual, i.e, subtracting intermediate output, government final consumption, gross capital formation and exports from gross output of each sector.

2.2.3 GOVERNMENT FINAL CONSUMPTION EXPENDITURE

The final consumption expenditure of government and non-profit services to households was taken as the value of services and goods produced for their own use on current account. This was taken as being equal to the gross output of the government (the sum of the value of their intermediate consumption of goods and services, compensation of employees, consumption of fixed capital and indirect taxes) less the sum of the value of their commodity and non-commodity sales, and the value of their own-account capital formation which is not segregated as an industry.

2.2.4 CHANGES IN STOCKS

Changes in stocks include materials and supplies which did not enter into the intermediate consumption of the period, work in progress, and finished products and goods in the possession of industries. The stocks at the beginning of the year of reference were deducted from those at the end of the year.

2.2.5 GROSS FIXED CAPITAL FORMATION

Gross fixed capital formation consists of the outlays of industries on additions of commodities to their fixed assets, reduced by their net sales (sales less purchases) of similar second hand and scrapped goods. These commodities were either purchased, or produced on own account. Items included were those that were durable for a lifetime of use one year or more, expenditure on the improvement and alteration of the durable goods which significantly extend the expected lifetime of use or productivity, expenses on reclamation of land and improvements of land, mines, or agricultural holdings, purchases of breeding stocks, draught animals, dairy cattle etc. The figures appearing in the gross fixed capital column were classified according to the sector of origin.

2.2.6 EXPORTS

Exports of goods and services were derived from international trade statistics of the CSO and included all goods and services recorded to have crossed the country's frontiers to residents or establishments abroad.

2.2.7 COMPENSATION OF EMPLOYEES

Compensation of employees was taken as all payments by producers of wages and salaries to employees. This included payments in cash and in kind, and contributions in respect of employees social security, pension, casualty insurance, life insurance and any similar schemes. This category also includes distributed profits of the industries.

2.2.8 CONSUMPTION OF FIXED CAPITAL

In very general terms, this can be defined as depreciation. In the 1980 tables, consumption of fixed capital for industries was derived from their provisions for depreciation, in the absence of which an allocation of the original cost of the asset

was made over its expected economic lifetime.

2.2.9 INDIRECT TAXES

This included import, export and exercise duties, sales taxes, entertainment duties, betting taxes, business licenses and transaction (e.g, stamp) duties, and real estate taxes. Also included were levies on value added, licenses in respect of motor vehicles, fees in respect of driving tests, passports, airport duties, court and similar services paid by producers.

2.2.10 SUBSIDIES

This included all grants on current account paid by the government to private industries which represent additions to the incomes of the producers from current production.

2.2.11 OPERATING SURPLUS

The operating surplus was taken as the excess of the value added by producers over the sum of the costs of employee compensation, consumption of fixed capital and net indirect taxes which they incurred during the period. In other words, it was derived as a residual. This, by definition, only goes to industries.(see UN, A System of National Accounts, 1968).

2.2.12 IMPORTS: COMPLEMENTARY AND COMPETITIVE.

A distinction was drawn between imports that were to be used for further production (raw materials etc) and those that were to go into final demand (the competitive imports). Also, accordingly, distinctions were made on imports in the final demand category by type of final demand. However, a separate matrix of imports by sector of origin was not constructed and hence the imports appear simply as one row in the matrix, representing import uses by the different production and consuming sectors. In the tables, imports appear as a single row

in the primary inputs quadrant. This means that the inter-industry matrix comprises only of domestic transactions. The import row consists of intermediate demand imports, (referred to as complementary imports) and final demand imports (competitive imports).

2.3 DATA SOURCES

2.3.1 AGRICULTURE, FORESTRY, FISHING AND HUNTING

Data for this sector is collected on an annual basis for two basic distinct categories, namely the commercial sector and the subsistence (traditional) sector. Data for the commercial sector does not really pose much of a problem in that most of the commercial farmers do maintain some kind of record of their activities throughout the year. An annual census is carried out every year by the CSO in conjunction with the Ministry of Agriculture and Water Development covering all known commercial farmers. This is known as the Annual Agriculture and Pastoral Production Survey (APPS) and covers most of the relevant material pertaining to production, type of crops grown, type of livestock reared, production costs, sources of finance, type of inputs, crop and livestock diseases, etc. Occasionally, a Comprehensive Agricultural Survey (CAS) is undertaken. This covers a wide range of activities than those covered under the APPS. Data for the purposes of input-output tables was extracted mainly from production expense data. This data lists down all the expenditures incurred during the year by the commercial farmers by kind of commodity purchased. Data on output is also listed in the same way. Marketed production, stocks, wages and salaries are also covered in the same schedule. Data on indirect taxes and subsidies to the agricultural sector are contained in The Estimates of Revenues and Expenditure produced by the government of Zambia.

The traditional sector, on the contrary, poses a considerable amount of headaches for the data collector and analyzers alike. The basic information that is asked for in the three surveys that

are undertaken each year follows much the same line as that of the commercial farmers survey. Due to the unreliable nature of this sector, and for the sake of accuracy and comparison, three surveys are undertaken in every agricultural season (1st April to 31st March). The first one is called The Early Warning Agricultural Survey (EWAS) and is conducted during the planting season. The basic data collected during this survey serves as an indicator for the types of crops that are grown by the traditional sector, the types of inputs and the problems faces early on in the season. This survey was conceived by the Food and Agricultural Organisation (FAO) in its 'Food Security Programme for Africa'. Following this survey, in mid-season, comes the Crop Forecasting Survey (CFS) which was first conceived by the United States Agency for International Development (US-AID) in its bid to develop the agricultural sector in Zambia. The data collected therein serves as a check on the earlier survey and serves as a consolidation, and confirmation of the farmers plans. (some of the farmers change their minds about growing a particular crop due to prevailing circumstances, prices, etc). After the harvesting season, or rather, during the harvesting season, a third and final survey is undertaken. This is called the Post-Harvest and area measurement survey (PHS). This basically serves to consolidate the findings of the first two surveys. Whereas this practice might seem wasteful in terms of resources, it is important to note that the three surveys were conceived of at different time by different organisations with different objectives. Each of the organisations puts out the necessary resources needed to carry out the surveys. In as far as the data collected is concerned, the CSO undertakes a comparative study of the results obtained in the three surveys and comes up with a single consolidated figure representative of all the three surveys. Data from the three surveys is collected using the same samples, down to household level. The sampling frame used is the same in all three cases.

Though all the survey mentioned above collect data on livestock, what is often used as "official" statistics is data obtainable from the Veterinary Department of the Ministry of

Agriculture and Water Development. This Department carries out annual censuses of livestock in the country through their field officers who are placed permanently in all livestock rearing areas of the country. Data from these officers is generally deemed more reliable than alternative sources due to their extensive coverage.

The Department of Fisheries provides data for the fisheries of Zambia. The CSO maintains some scanty data on fisheries which is supplemented by the Department of Fisheries. Indeed, fishing is not one of Zambia's strongest of activities. Non-commercial fishing has the inherent problem that data is virtually impossible to ascertain, albeit for the imputations undertaken by the fisheries department.

The Forestry Department provides data on the activities of the forestry sector. This is consolidated by the Agricultural Division of the CSO. Other than poaching, (to which no reliable statistics exist), Hunting has been banned in Zambia owing to considerations for conservation of animals, though time and again special licenses are issued for the hunting of specific animal species with the sole aim of controlling their numbers. Data on Hunting is obtained from the Ministry of Lands and Natural Resources. Owing to the magnitudes of the figures for the input output tables, the hunting figures were more or less insignificant.

2.3.2 MINING

There exists in Zambia two mining companies, The Zambia Consolidated Copper Mines and Maamba Collieries. These companies provide annual reports pertaining to their activities, production levels, accounts, inputs, expenses etc. The CSO obtains these reports and compiles accurate statistics based on them.

The other mining category includes all gemstone mining for which the Ministry of Mines keeps reliable statistics, and quarrying and sand pits. The major companies in this category also produce annual reports from which data is derived. The smaller companies are subject to a survey conducted by the CSO together with the rest of manufacturing activities and data

henceforth obtained.

2.3.3 MANUFACTURING, CONSTRUCTION AND ELECTRICITY

This is a broad sector requiring a very specialised survey. The CSO conducts what is termed as a Census of Industrial Production for all categories of manufacturing on an annual basis. Follow-up surveys are undertaken for non-responding units and data thereafter compiled. The degree of detail for this survey is quite comprehensive (four digit ISIC classification) and hence forth facilitated the further breakdown of the 29 x 29 sector matrix into a much more elaborate one. This will be discussed at length at a latter stage. Data on the different levels of production, vis-a-vis small scale and opposed to large scale modern modes of production is also collected in this survey.

This survey also includes enquiries on Electricity and water statistics and construction. Construction data is split up into large construction companies and small privately-owned units. Data is collected in much the same way as the rest of the manufacturing sector. Imputations on own-account constructions are made based on population growth in the rural areas and supplemented by findings from other surveys, notably, the agricultural surveys.

2.3.4 THE SERVICE SECTORS

The National Accounts division of the CSO is charged with the collection and analysis of tertiary sector data. In what is termed as the National Income Inquiry, Questionnaires are prepared and mailed to all known enterprises in the tertiary sector. The questionnaires are of course varied in accordance with the particular industry that the questionnaire is mailed to. A number of sectors falling under this category are quite straight forward in as far as data collection is concerned, and these are; Rail transport, Other transport, Financial

Institutions and Insurance, Posts and Telecommunications, Education, and Health. That is because these industries are large and often are a 'one company industry.' For instance, there are only two rail companies, both controlled by the government, one posts and telecommunication company, a few mission schools and hospitals (the rest are run by the government), etc. The Trade sector has a number of large entities and many small units which are difficult to trace. The response rate in this sector is quite low (45% including large companies), hence a follow up survey is conducted every year in which the non-responding units era physically followed to their operation areas and interviewed. This also serves as an opportunity to rectify mistakes found on the schedule. The same exercise is carried out for the other tertiary sectors in which problems of non-response are found.

2.4 VALUATION

2.4.1 INTERMEDIATE CONSUMPTION

The valuation of the intermediate transactions was originally at purchaser's values since the data in this matrix corresponded to the purchases of each industry of the commodities that were necessary for productive activities. The data used was based on actual expenditures paid by the purchasers on their intermediate inputs. The ideal conversion method would have been to have a knowledge of the sector of origin as well as the sector of destination of all commodities passing through the trade and transport sectors, and then to construct a complete table of trade margins and a complete table of transport margins incurred in the flows. For the purposes of analysis, a method was devised to subtract trade and transport margins from the intermediate inputs of industries and fill them into the trade row and the transport rows. Data on the agricultural sector was derived from the results obtained in the comprehensive agricultural survey of 1984, and the assumption was that the farmgate prices obtained therein changed by the same magnitude as the changes in the price

of agricultural products over the period from 1980. This change in the prices of agricultural products was applied to the farmgate prices of 1984 and extrapolated backwards to 1980 intermediate inputs of agricultural products to obtain the producer's values of intermediate inputs from the agricultural sector. The adjustment for trade and transport margins for the rest of the economy posed a considerable amount of problems and depended heavily on some very sweeping assumptions. The ideal situation would have been to have a knowledge of the proportion of purchases passing through wholesalers as opposed to those passing through retailers, and those commodities purchased directly from the manufacturers. In the absence of this, an average margin per type of input was calculated. This margin was an average of wholesalers margin on the product and that of the retailers. From data obtained from the wholesale and retail trade sectors, Two markups were derived and a simple average was calculated for each commodity group. This was then applied to each of the entries in the inter-industry matrix and the sum of all the margins was then allotted in the wholesale and retail trade row of the matrix.

Transport margins are ideally supposed to be quoted as so many units of domestic currency per unit of weight per unit of distance. Accurate transport margins can only be calculated if we have information per user per commodity on quantities bought and distance travelled. The method used to estimate the transport margins and distribute them was to take "transport expenses" from the operating expenditure accounts of each industry, sum this up over the whole sector, and divide this by the total sectoral output to obtain the share of transport costs to total output. This is then assumed to be the transport margin for that particular characteristic product of the sector. Discriminations were made for different forms of transport, and the margins for each calculated. The service sectors were assumed to have no transport margins on their output, thus no trade margins were subtracted form inputs originating from the service sectors.

There existed some commodities predominantly from the

subsistence sector which did not enter into the market in the familiar sense. Statistical data problems arose because the producers in this sector do not keep records of accounts, their "economy" is almost non-monetized, most of their output is not marketed and lastly, they era relatively difficult to access as they live mainly in rural areas scattered all over the country. The valuation of this sector's output was done at producer prices. The prices quoted were not adjusted for implicit transport costs and distributive margins due to their system of marketing, which Blades (1975) summarises as follows: "The prices are already producer prices by any common sense definition, they are all prices received directly by the producer when he sells his output." (Blades, D.W. 1975 pg.43).

2.4.2 FOREIGN SECTOR

The export vector of final demand was extracted from international trade statistics and the valuation of the goods and services exported was at f.o.b values. The transport costs and distributive margins were deducted from the values of commodities as shown in the international trade statistics and entered as exports of distributive and transport services in order to be valued at producer's prices. The handling charges of re-exports (goods imported, then exported without any further processing) were also added to the export vector as exports of services. The goods themselves were netted out from both imports and exports.

The valuation of imports was done at c.i.f values at the point of entry into the country. Import duties were treated like indirect taxes. The distributive and transport margins involved in transferring the goods from the point of entry were added on to the corresponding trade and transport rows. A problem came about when transport margins had to be calculated from the costs of transporting goods by way of the Tanzania-Zambia railways (A jointly owned freight company with consolidated accounts) and the Zambia Tanzania road services. What was required was a separation of which part of the services should be attributed to the

separate countries. The assumption taken was that of a fifty-fifty split of the value of services. Goods in this case had their transport margins boosted up to include those incurred by Zambian companies when the goods are still in Tanzania.

3.0 THE DISAGGREGATED INPUT-OUTPUT TABLES FOR ZAMBIA

3.1 THE METHOD OF DISAGGREGATION AND TECHNOLOGY DIFFERENTIATION

The original input-output tables for Zambia for 1980 were of a very aggregated nature (29 x 29) matrix. This basic table was then disaggregated to 61 sectors within the context of specific criteria to classify commodities and industry production. The production of commodities was disaggregated by different levels of technology and intermediate deliveries were separated by domestic and imported components (though the imported components simply appear as a single row). Product qualities were not distinguished in order to identify intra-category differences in market segments of non-homogeneous commodities (e.g, machine-made and hand made products) though here, one can say that this would follow the same pattern as the distinction applied separating large scale production and small scale production.

3.1.1 AGRICULTURE, FORESTRY, FISHING AND HUNTING.

Data on the disaggregation of this very broad sector was readily available, even by technology levels. The first step was to split up the broad sector into 7 subsectors, namely, Food Crops, Cash Crops, Livestock, Milk, Poultry and Eggs, Forestry and Fishing. These subsectors were the further divided up into their corresponding technological levels. The final picture that emerged from this is as follows:

Food Crops ------> Commercial
Food Crops ------> Non-commercial
Cash Crops ------> Commercial
Cash Crops ------> Non-commercial

Livestock ------> Commercial
Livestock ------> Non-commercial
Milk
Poultry & Eggs --> Commercial
Poultry & Eggs --> Non-commercial
Forestry
Fishing.

The definition used for commercial farming, whatever the product was all those farmers, with 10 hectares or more, producing primarily for marketing purposes. This included all large farms with modern techniques of production.

The non-commercial farmers were those that had less than 10 hectares, producing primarily for own consumption (subsistence). These could also market their surplus. The input structure and mode of production of this group of farmers (80% of the total farming population) is indeed distinct from that of the commercial farmers. No distinctions were made with respect to milk, forestry and fishing. The milk sector is basically dominated by the commercial farmers, the forestry sector is run by the government as an industry and the fishing sector is completely dominated by small scale fishermen.

3.1.2 MANUFACTURING

A considerable amount of disaggregation was undertaken for the manufacturing sector. Data for this exercise was obtained basically from the 1980 Census of Industrial Production produced by the CSO. This document contained detailed data on all manufacturing sector industries disaggregated up to four digit ISIC code level. The supplementary data needed to split the disaggregated data into different technological levels was obtained from the Small Industries Development Organisation statistical report of 1988 and a report published by the Rural Studies Bureau in 1985. Using this data, a distinction was clearly drawn between large scale manufacturers as opposed to small scale manufacturers where this distinction applies.The breakdown is as follows;

FOOD MANUFACTURING -----Slaughtering -----> Large
-Slaughtering -----> Small
-Dairy Products
-Canning of Fruits etc.
-Edible oils and Fats
-Grain mill products --> Large
-Grain mill products --> Small
-Bakery products
-Sugar refining
-Confectionary and other foods
BEVERAGES & TOBACCO ----Soft drinks, spirits & liquors
-Tobacco
TEXTILES & WEARING -----Spinning & Weaving
APPAREL: -Made up textiles
-Knitting & rope making
-Wearing apparel
-Leather products and Footwear
WOOD & WOOD PRODUCTS ---Sawmills
-Other wood products
CHEMICALS ----------Industrial chemicals
-Chemical products
-Petroleum & coal products
-Plastic products
-Rubber products
FABRICATED METAL -------Industrial machinery
PRODUCTS: -Agricultural machinery
-Electrical products
-Transport equipment
ELECTRICITY & WATER ----Electricity
-Water works and supply

The other sectors in the table remained the same as those in the 29 x 29 table owing to the fact that they could, and cannot be broken down into smaller units. This includes one industry sectors like tobacco, mining, insurance, banks, posts and telecommunications, etc. The final sectoral classifications and their respective descriptions can be found in the appendices.

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CHAPTER 2

1.0 THE INPUT OUTPUT MODEL FOR PLANNING: A THEORETICAL BACKGROUND

Many countries of the world are today unwilling to leave their economic destiny to be determined solely by the free interplay of market forces without any government interference. Government interference in the economy requires an insight by the government, into what effects any policy that is formulated will have in an economy. In this respect, what is required by the government is a tool that will clearly outline the effects of a particular policy on the various actors in the economy. For instance, if the government wishes to reduce the quantity of imports into a country, say, by a devaluation of its currency, it must find out how this decision is going to affect the rest of the economy in terms of price changes, production gains or losses, changes in income levels, etc., in fact it should have a knowledge of the entire spectrum of economic and social consequences of any policy option that can be thought of. In this regard, " planning an economy requires a framework capable of answering the important questions; by its very nature, this framework must be macro-economic .... the correct framework can only be supplied by an input-output table with primary, secondary and tertiary activity each broken down into many further divisions."(Bulmer-Thomas, 1982, xiii) But what should come to mind now is that the input-output tables are in effect simply an arrangement of economic data usually in a given year. No inferences can be drawn from the tables except the description of the economy in terms of inputs and outputs of the different sectors shown. In order to make any meaningful planning exercise, an input-output model is required. This model is of course based upon the data in the input-output tables. The input-output model, like any other model, is based on a number of underlying assumptions, and these have to be adhered to when making the analysis.

1.1 THE BASIC ASSUMPTIONS

A) HOMOGENEITY:

The homogeneity assumption can be split into two assumptions on classification.(a) The requirement of this assumption is that all products of a single sector should either be perfect substitutes for one another or they should be produced in strictly fixed proportions. There should be no substitution between products of different sectors. This means that the same product, or a close substitute should not be included in two different sectors (Infinite cross elasticity within a sector but no cross elasticity between sectors).(b) Each of the sectors should have a single and unique input structure (technological homogeneity). The classification criteria that was used in this analysis comes mainly from the second assumption, i.e, a classification that takes different technologies, or levels in technology as the basis.

B) COMPLEMENTARITY.

There is perfect complementarity between the factors of production. This is when a single factor of production cannot contribute independently to the production process, i.e, it is complementary to other factors. "If this factor is more abundantly available than the other factors, it is assumed to be irrelevant when explaining growth of production capacity." (Alarcon-Rivero, J.V, Handbook of Model Building, 1980, pg 166)

C) SUBSTITUTABILITY.

Substitutability exists if the increment of one factor of production leads to a corresponding increment in production, without changes of other factor inputs.

D) OTHER IMPORTANT ASSUMPTIONS.

There exists idle capacity in the economy. There is no

capacity constraint (No full employment). The total supply is exactly equal to the total demand. There are constant returns to scale, i.e, there is no possibility of shifting the plant. Production functions are linear and do not contain any error term, i.e, deterministic.

1.2 A BRIEF OUTLINE OF THE MAIN EQUATIONS.

The input-output model is essentially an application of the theory of general equilibrium to quantitative analysis. The model depends upon several fundamental types of relationships. The first one is the identity that total output of any given sector is absorbed by itself and by other industries. This is conveniently expressed by a set of balanced equations. In the second place, purchases from any sector depend, via a production function, on the level of output of the purchasing sector. The distinctive feature of input-output analysis is that it makes not only the above assumption, but also that of fixed coefficients of production, i.e, that a certain minimum amount of each input is required per unit of output. The model, in its simplest form, can be presented algebraically as follows:

Let x_{ij} = The internal flows of inputs from sector i to sector j
(i = 1 ... n and j = 1 ...n)

X_j = The output of sector j

f_{is} = The final demand of sector i goods in final demand category s. (s = 1 ... 5)

$a_{ij} = x_{ij}/X_j$

Then in full, the input-output model is described as;*

$$X_{ij} = \Sigma a_{ij}X_j + \Sigma f_{is} \quad (i \text{ and } j = 1 \ldots n \text{ and } s = 1 \ldots 5) \qquad (1)$$

*(see Alarcon-Rivero, J.V, Introduction to Input-Output Analysis, 1980, The Hague, ISS. for a detailed description of the model.)

The term a_{ij} is referred to as the input or technical coefficient. It tells us what proportion of inputs from sector i is used up in the production of one unit of output of sector j.

The system has n equations and (n+n.s) unknowns, i.e, outputs X_i and 5n items of final demand. If we consider all the items of final demand as exogenous, i.e, determined outside the system, then the system can be solved in terms of final demand because then we have n equations and n endogenous variables. in order to solve a system of say 50 equations, it is best if matrix algebra is used to represent the equations shown above. We know from above that

$$a_{ij} = x_{ij}/X_j \quad (i,j = 1 \ldots n) \qquad (2)$$

and we now introduce two other equations from the input-output model, namely those pertaining to the primary input segment of the system (the intersection of the primary cost quadrant containing wages and salaries, imports, operating surplus, consumption of fixed capital and indirect taxes and the sectoral columns) and the intersection of the same primary categories with final demand.) These will be written as

$$b_{kj} = c_{kj}/X_j \quad (k = 1 \ldots m \text{ and } j = 1 \ldots n) \qquad (3)$$

and

$$d_{is} = f_{is}/\Sigma f_{is} = f_{is}/F_s \quad (i = 1 \ldots n) \quad (s = 1 \ldots S) \qquad (4)$$

In matrix form the following matrices can be identified;

$A = [\, a_{ij}]$ dimension n x n
$B = [\, b_{kj}]$ dimension m x n
$D = [\, d_{is}]$ dimension n x s

where x_{ij}, $X_i = X_j$, and f_{is} are defined as before, and

c_{kj} = input of the primary factor k into the production of sector j

F_s = total final demand of sector s, (s = 1 ... S)

From the system in (1), it is clear that the total output of a sector is the sum of all its intermediate output plus the sum of all its final goods. This is equal to the sum of all its intermediate inputs plus the sum of imports and all its primary factors of production used in the production process and this is equal to its total demand i.e,

$$\Sigma a_{ij}X_j + \Sigma f_{is} = X_i \qquad (5)$$

and $$X_i = X_j,$$

$$\Sigma a_{ij}X_j + \Sigma c_{kj} = X_j \qquad (6)$$

So in matrix notation, equation (5) can be written as

$$X = AX + Df \qquad (7)$$

Where X is the column vector of total production
A is the matrix of technical (input) coefficients
f is column vector of final demand
D is the matrix of coefficients giving the composition of final demand.

Equation (6) can be manipulated and rewritten in matrix notation as

$$Y = BX \qquad (8)$$

Where Y is the column vector of imports and value added components B is the matrix of technical coefficients of imports and the primary factor costs (factor input coefficients). In equation (7), solving for X gives the following;

$$X = [I - A]^{-1}Df \qquad (9)$$

substituting this in (8) yields

$$Y = B[I - A]^{-1}Df \qquad (10)$$

Equations (9) and (10) are the basic solutions to the system of equations in input-output analysis. So far the model has been expressed in the value of the physical inputs and outputs in the economy in the base year, these values can as well be considered as physical quantities without any distortions by price levels. This implies that all prices in the input-output table for the reference year are unity. And prices in all the other years will be expressed in terms of those in the reference year (the base year). An equilibrium condition for prices, given the cost of production factors, can be obtained by adding down columns of the input-output table, given that the total cost must be equal to the value of total production (all costs expressed in those of the base year). This can be expressed as follows;

$$\begin{aligned}
&x_{11}P_1 + x_{21}P_2 + \ldots + x_{n1}P_n + c_{11}w_1 + \ldots + c_{m1}w_m = X_1P_1 \\
&\quad\vdots \\
&\quad\vdots \qquad (11) \\
&\quad\vdots \\
&x_{1n}P_1 + x_{2n}P_2 + \ldots + x_{nn}P_n + c_{1n}w_1 + \ldots + c_{mn}w_m = X_nP_n
\end{aligned}$$

where P_i = price of input i (producer's price)
w_k = price of primary production factor k

after substituting x_{ij} for $a_{ij}X_j$ and c_{kj} for $b_{kj}X_j$ above, we obtain

$$\begin{aligned}
&a_{11}X_1P_1 + \ldots + a_{n1}X_1P_n + b_{11}X_1w_1 + \ldots + b_{m1}X_1w_m = X_1P_1 \\
&\vdots \\
&\vdots \qquad (12) \\
&\vdots \\
&a_{1n}X_nP_1 + \ldots + a_{nm}X_nP_n + b_{1n}X_nw_1 + \ldots + b_{mn}X_nw_m = X_nP_n
\end{aligned}$$

When this system of equations is divided by X_j, the system then comprises n equations with n + m unknowns. This assumes that factor prices are the same for all sectors. If we consider factor prices as given, then product prices can be derived by

solving the system above. In matrix algebra, the sectoral prices are obtained by transposition as follows;

$$P = A'P + B'w \qquad (13)$$

Where p is the column vector of sectoral prices
w is the column vector of the prices of primary factors
A' and B' are the transposed matrices of technical coefficients and the coefficients of primary inputs respectively.

Solving the equation (13) for P gives

$$P = [I - A']^{-1}B'w. \qquad (14)$$

When prices are different for sectors, the (14) above becomes

$$P = [I - A]^{-1}[B_1w_1 + B_2w_2 + \ldots + B_mw_m] \qquad (15)$$

Where $w_1 \ldots w_m$ are the m vectors of factor prices for m sectors of primary cost. The matrices B_1, $B_2 \ldots B_m$ are the diagonal matrices of the coefficients of each primary factor.

The discussion of the detailed analysis and manipulations of the different segments of the input output system is beyond the scope of this paper. The brief presentation of the basic relationships that has been presented above provides ample insight into the workings of the input-output model. For the purpose of this paper, we shall mainly be concerned with the application of the model to empirical data. A lot more will be covered in the application of the model than what has been outlined here. Theoretical aspects that are going to be encountered will be dealt with in line with their applications.

1.3 THE INPUT-OUTPUT PLANNING MODEL FOR ZAMBIA

The basic model for Zambia is fundamentally based on the data contained in the 1980 input-output table described above. The

first step taken was to adjust the table for trade and transport margins, the method of which has been explained in the preceding chapter. There after, an extension was made to the input-output scheme to include household incomes and expenditures into the interindustry matrix. Here, households constitute an industry whose output is labour and whose inputs are consumption goods. In this way, the cyclical flow of income is shown.

The cyclical flow of income described above is very important in multiplier analysis. The multiplier effect of a sector can be explained as the relationship between the initial spending and the total effects generated by spending. In other words, it is the impact of the sector on the economy as a whole. The modern concept of an income multiplier is usually associated with John Maynard Keynes and can briefly be described as follows: A unit increment of "autonomous" investment causes an initial increase in income which generates successive rounds of consumer spending and incomes, each round producing numerically smaller increments until the process has fully worked itself out, i.e, has reached equilibrium. (O'Connor, R, and Henry, E.W, 1975, pg 41)

The term $B[I - A]^{-1}$ in equation (10) is Known as the "partial multipliers." This is the simplest form of multipliers that can be calculated in an input-output model. It can be said here, that these multipliers are less than unity. The extent to which these partial income multipliers in the $B[I - A]^{-1}$ matrix are less than unity depend on the share of imports, taxes and retained profits in the sector. In other words it depends on how much it "leaks" away from the system and thus the domestic system does not need to produce. It follows that in a closed economy, no external sector, with no taxes and retained profits, the partial income multiplier must equal unity. (Alarcon_Rivero, MAP, 1989)

If proper Keynesian-type multipliers for different sectors are to be derived from an input-output table, then households must be included in the inter-industry section. When this is done, the household income is treated as being spent within the system and as generating further economic activity. In the case of the Zambian system, The whole category column of household final consumption expenditure was included into the

inter-industry matrix. On the income side, the row of compensation of employees was shifted up into the inter-industry transactions matrix. This in essence "closes", albeit partially, our input-output model.

1.4 UPDATING THE TECHNICAL COEFFICIENTS TO 1987.

The period that has passed between 1980 and say 1987 is what may be considered, in economic analysis, as the medium term. In the medium and long term, we cannot safely assume that the input coefficients will be stable. So many different changes occur in the economy so as to affect a change in input coefficients. Among the most common are changes in the economic structure resulting from policy measures, for instance, tax reforms, subsidies, infrastructural investments, changes in the structure of population, technological change etc. Nevertheless, it is generally accepted that input-output coefficients do not all change in the direction nor to the same degree. This is due to the actual technology innovation that takes place and the capacity of a sector to adopt it. Studies about the stability of the coefficients suggest that in the medium term, some coefficients hardly change, another group change in a predictable way, whereas a third group changes drastically and in a not-so-easy way to predict. (Alarcon-Rivero, MAP, 1989).

The method that was chosen for updating input coefficients is the RAS method, an iterative method devised by R. Stone and his associates at Cambridge University (see Stone, R & Croft-Murray, G. 1972, Social Accounting and Economic Models) The method can be regarded as a statistical exercise of adjusting the base year matrix of intermediate consumption to fit the row and column totals of the "new" intermediate consumption matrix. These row and column totals are arrived at independently, using national accounts statistical data. As suggested by Stone, The RAS method consists of finding a set of multipliers to adjust the rows of the existing matrix and a set of multipliers to adjust the columns of the existing matrix so that the cells in the adjusted matrix will sum to the required row and column totals

relating to the new reference year.

The RAS method assumes that the data on output, final demand and primary inputs per sector is available for the new year to be referred to. With this data, the final demand quadrant (D) and the primary input quadrant (B) can be constructed, and thereby facilitating the derivation of totals for intermediate inputs and outputs (i.e, the row and column totals of the new interindustry transactions matrix.

Writing the ratio of total intermediate deliveries in year (t) to those in the base year (0), a column vector of ratios is obtained. We arrange the ratios in a diagonal matrix (denoted R_i^1) and post-multiply this to the base year flows (denoted A_o).

Thus, $A_1 = R_i^1 A_o$.

We then obtain the ratio of the column total for year t (the total inputs per sector) and the sum of the columns in A_1. We obtain a row vector of ratios which we then rearrange into a diagonal matrix S_i^1 and pre-multiply this to a_1.

Thus, $A_2 = S_i^1 A_1$.

Adding row wise, we obtain the total deliveries of inputs in the matrix A_2. We then take the ratio of total intermediate deliveries in year t to those obtained from A_2 and, again construct a diagonal of these new ratios, R_1^2. We post multiply this to A_2.

Thus, $A_3 = R_1^2 A_2$.

This procedure is repeated until the ratios obtained are equal or close to 1. O'Connor and Henry summarise the above procedure simply as determining two diagonal matrices $R\hat{}$ and $S\hat{}$ such that the matrix of intermediate technical coefficients for the new reference year called (A_1) is given by pre-multiplying the corresponding matrix for the base year (A_o) by $R\hat{}$ to obtain $R\hat{}(A_o)$, and post-multiplying this by $S\hat{}$ to obtain $R\hat{}(A_o)S\hat{}$.

(O'Connor and Henry, pg 91).

For updating the 1980 input-output table for Zambia, the only data that could fully satisfy the requirements of the RAS method related to the year 1987. In this year, a number of important surveys were carried out by the CSO, e.g., The Labour force survey, the Comprehensive agricultural survey, and the Annual census of industrial production. Data on primary inputs and final demand was obtained from the National accounts bulletin of 1987. Household expenditure was extracted from the 1987 household budget survey conducted by the Prices and Incomes Commission (PIC). Foreign trade statistics were easily obtained from the Monthly Digest of Statistics. The United Nations publications also provided invaluable information for the construction of the primary cost quadrant and the final demand quadrant for the purposes of updating. It is however important to note that some of the data used was still preliminary and/or provisional and hence some revisions in the data can not be ruled out. The RAS iterations were done on computer using Symphony. A macro was constructed to facilitate the iterations and the termination stage for the iterations was taken when the sum of squared differences between the estimated row and column totals and those calculated using RAS were between 0.001 and zero.

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CHAPTER 3

1.0 INPUT-OUTPUT ANALYSIS FOR ZAMBIA

The year 1986 was generally regarded as a transitional year when most of the effects of the adjustment policies introduced by the government starting from 1983, (e.g, decontrol of prices and imports and auctioning of the foreign exchange in october 1985) started to take effect. The economy continued to experience a decline mainly caused by the poor balance of payments situation due to the worsening market for copper, the failure to diversify exports and continued overdependence on imported inputs of machinery, technology and raw materials. The consequence of the poor performance of the economy has been insufficient foreign exchange earnings to pay for imports and domestic investment leading to general low output levels, capacity underutilisation and poor industrial growth. The sharp depreciation of the kwacha has also led to the increase in the cost of production throughout the economy. Thus, one set of inflationary pressure came from the supply side, exacerbated on the demand side by the increase in the government's budget deficit. The above changes in the economic environment inevitably led to the lowering of the standard of living of the masses, particularly those with no formal income. The unemployment levels deteriorated to unacceptable levels with many employers forced to cut back on operations and to lay off workers, as the impact of the foreign exchange auctioning began to take effect. Most of the existing industries, mines and services were all laying off workers and reducing employment as a cost saving measure. Thus rising inflation and increasing unemployment created a rather unstable socio-economic atmosphere which finally "exploded" in December 1986 when riots broke out in the industrialised Copperbelt province and left more than 13 people dead. This prompted the government to act (to save itself from collapse).

The first move was to reinstate food subsidies which it had

withdrawn under pressure from the IMF. The second (related to the IMF) was a withdrawal from the IMF package of foreign exchange auctioning. This point was infact very radical, in that under the IMF package, the Zambian Kwacha had depreciated from K2.714 per US Dollar in 1985 to over K21.000 per Dollar at the end of 1986. (a depreciation of more than 821 percent in just one year.) This was simply untenable, and hence the measures taken to curb the decline of the economy. From K21 per Dollar, the currency was appreciated to K8.12 per Dollar, and fixed there. This was the rate at which the mines would in a sense, remain viable. It was a minimum rate at which the mines would operate without running into foreign liquidity problems. This in essence meant an appreciation of the Kwacha as opposed to the Dollar, of 61.33 %

Other important objectives for 1987 included, among others;
1) The improvement of agricultural production in the short run through increased investments in appropriate areas of the sector and agro-based industries.

2) To deal with unemployment and redundancies by creating alternative employment opportunities (especially in agriculture)

3) To arrest the decline in the standard of living of the people through measures which would stabilise the consumer price levels and reduce domestic inflation.

4) To reduce the government budget deficit, by reducing subsidies, cutting down on administrative positions in the civil service (pruning)

5) Increase exports by K5,194 mn.

6) Imports of intermediate inputs estimated at K10,920 mn.

7) The trade deficit to be maintained at K479 mn.

8) An increase in investments of K2,200 mn to achieve an overall growth rate of 3.4 percent.

Given the above objectives, the next task is to examine what happens in the economy when all the objectives are applied to the model. The objectives state, at the outset, that exports should be increased by K5,194 million, and that there should be an increase in investments by K2,200 million. In order to find out the effect of these planned policies on the economy, we examine the changes that take place to the different aspects of the economy, namely, production increases, income generation, employment generation, inflation reduction and the improvement in the balance of payments by way of a limitation on imports. With the use of input-output techniques, all the above aspects of the economy can be examined individually, and conclusions drawn thereafter.

1.1 REQUIRED PRODUCTION INCREASES.

In order to meet the stipulated growth in exports, the domestic industries have to produce more both for the purposes of exportation and for feeding inputs to those industries that produce for export. (in this case, the copper industry which would account for K4,674 million, or 89 % of the total projected increase in exports.) To find out the sectoral and total production increases required, we have to examine the results of matrix $(I - A)^{-1}D*F_s$. This is simply a product of matrix $(I - A)^{-1}D$, the cumulative production coefficients by final demand category matrix, and column vector F_s, the vector of final demand categories showing the magnitudes of the increments in the different categories. The matrix A referred to here, denotes the matrix of domestic technical coefficients, i.e, $A = A_d$. This is so since the imports are separated out and appear as one row in quadrant B. The export expansion and the increase in investments yields the following results as far as production increases are concerned;

TABLE 5: REQUIRED PRODUCTION INCREASES.

INVCI - A)*D*Fs: REQUIRED PRODUCTION INCREASES

1	FOOD CROPS commercial	379.62	
2	FOOD CROPS non-commercial	421.98	
3	CASH CROPS commercial	264.08	
4	CASH CROPS non-commercial	58.98	
5	LIVESTOCK commercial	125.56	
6	LIVESTOCK non-commercial	34.94	
7	MILK	18.40	
8	POULTRY & EGGS commercial	42.39	
9	POULTRY & EGGS non-commercial	2.54	
10	FORESTRY	140.69	
11	FISHING	66.32	
12	METAL MINING	5373.71	
13	OTHER MINING	102.52	
14	SLAUGHTERING large	49.27	
15	SLAUGHTERING small	20.95	
16	DAIRY PRODUCTS	38.77	
17	CANNING OF FRUITS & FISH	9.81	
18	EDIBLE OILS & FATS	6.66	
19	GRAIN MILL PRODUCTS large scale	269.75	
20	GRAIN MILL PRODUCTS small scale	20.44	
21	BAKERY PRODUCTS	101.89	
22	SUGAR REFINING	125.29	
23	CONFECTIONARY AND OTHER FOODS	34.75	
24	SOFT DRINKS, SPIRITS AND LIQUORS	412.58	
25	TOBACCO	76.16	
26	SPINNING & WEAVING	84.00	
27	MADE UP TEXTILES	49.27	
28	KNITTING & ROPE PRODUCTS	35.62	
29	WEARING APPAREL	124.59	
30	LEATHER PRODUCTS & FOOTWEAR	34.88	
31	SAWMILLS	98.48	
32	OTHER WOOD PRODUCTS	52.75	
33	PAPER AND PAPER PRODUCTS	180.90	
34	INDUSTRIAL CHEMICALS	261.98	
35	CHEMICAL PRODUCTS	419.61	
36	PETROLEUM & COAL PRODUCTS	364.59	
37	PLASTIC PRODUCTS	157.28	
38	RUBBER PRODUCTS	140.47	
39	NON-METALLIC MINERAL PRODUCTS	272.07	
40	BASIC METAL PRODUCTS	149.90	
41	INDUSTRIAL MACHINERY	434.96	
42	AGRIC. & OTHER MACHINERY	31.17	
43	ELECTRICAL PRODUCTS	167.95	
44	TRANSPORT EQUIPMENT	202.05	
45	OTHER MANUFACTURING n.e.c	15.64	
46	ELECTRICITY	512.59	
47	WATER WORKS AND SUPPLY	43.64	
48	CONSTRUCTION	1606.15	
49	WHOLESALE AND RETAIL TRADE	851.19	
50	HOTELS, BARS AND RESTAURANTS	207.61	
51	RAIL TRANSPORT	231.55	
52	ROAD TRANSPORT	427.07	
53	OTHER TRANSPORT	391.82	
54	POSTS AND TELECOMMUNICATIONS	109.42	
55	FINANCIAL INSTITUTIONS & INSURANCE	675.32	
56	REAL ESTATE	155.78	
57	BUSINESS SERVICES	435.12	
58	EDUCATION	551.82	
59	HEALTH	154.54	
60	RECREATION AND CULTURAL SERVICES	63.73	
61	GOVT ADMIN. SOCIAL & PERSONAL SERVICES	361.13	
62	HOUSEHOLDS	4154.16	<-------Sector not "productive"
	TOTAL	18254.71	

The results above show us there would have to be an increase of K18,254.71 million worth of production in order to meet the proposed expansion. Most of this increase in output would have to come from the mining sector (29.44 %). The construction sector would also have to increase output by K1,606.15 million, accounting for 8.80 % of the total increase in output. It is important to note that the household sector is excluded from the final derivation of production increases because this sector is not, in itself, a productive sector (at least not directly).^T The service sectors also show some marked increase in their output, especially the financial institutions and insurance sector (K675.32million), the business services sector with K435.12 million, and education with K551.82 million. The other sectors follow more or less the same magnitudes.

1.2 BACKWARD AND FORWARD LINKAGES.

One of the objectives all LDCs set themselves is rapid growth in income per head and this rise in incomes is associated with rises in the share of industries in GDP. The industrialisation process can be carried out in several wats, but each new industrial investment will offer opportunities for other suppliers (backward linkages) and provide inputs for utilization by other users (forward linkages). It is therefore probable, that if concentration is directed towards those sectors with high forward and backward linkages, the industrialization process could be speeded up (Bulmer-Thomas, pg 190). In input-output analysis, linkages are reflected in the cumulative production coefficients matrix, the $[I - A]^{-1}$ matrix. It tells us by how much industries should increase their output to satisfy an increase in the final demand of a particular industry by one unit. The backward linkages are read column-wise form the table while forward linkages are read row-wise. In the event that certain 'key' sectors need to be selected, (Rasmussen, 1975, in Bulmer-Thomas, pg 191) suggests that to measure the direct backward linkages and take into account the indirect stimuli given to the economy at the same time, a direct and

indirect backward linkage index can be constructed by comparing the 'average' stimulus created by sector j with the overall average. This is given by:

$$Y_j = \left(\frac{1/n\Sigma r_{ij}}{1/n^2\Sigma r_{ij}} \right)$$

where r_{ij} denotes the i,j^{th} element of the Leontief inverse, n is the number of sectors, the numerator denotes the average stimulus imparted to other sectors by a unit's worth of final demand for sector j and the denominator denotes the average stimulus for the whole economy when all final demands increase by unity. It follows that $Y_j > 1$ implies a j^{th} sector where investments yield above average backward linkages, while the opposite is true where $Y_j < 1$. Likewise, high forward linkages occur when a sector's output is or could be used by many other sectors as an input; by expanding capacity in such a sector, 'inducements' are provided to using industries which are now incentivated to expand output top take advantage of the increased availability of inputs. Given the interpretation of the i,j^{th} element of the Leontief inverse, a suitable measure of forward linkages can therefore be given by the following expression, sometimes referred to as the dispersion index:

$$Z_i = \left(\frac{1/n\Sigma r_{ij}}{1/n^2\Sigma r_{ij}} \right)$$

such that $Z_i > 1$ implies a sector with high forward linkages, while the opposite is true where $Z_i < 1$. This unfortunately is not a reliable indicator of forward linkages since not all sectors are of equal importance in the structure of demand. For instance, a small sector (j) which relies heavily on sector i for inputs will lead to a biased index of forward linkages for sector i. Capacity expansion in sector i based on 'high' forward linkages might have a disappointing impact on the overall rate

of growth of the economy, because of the small size of (using) sector j. (Bulmer-Thomas, pg 192)

Laumers, 1976 suggests the weighting of elements in the leontief inverse by the importance of each sector in the structure of final demand. The method adopted for the Zambian table weighs the forward linkage index by sectoral shares in total output, i.e, by taking *.

$$X_j/\Sigma X_j \qquad (j = 1, 2, 3, \ldots, n).$$

*(see Laumas,P.S. (1976) The weighting problem in testing the linkage hypothesis. in Quarterly Journal of Economics, 90, pg. 308-312)

TABLE 6 BACKWARD AND FORWARD LINKAGES BY SECTOR.

		RANK	BACKWARD LINKAGES		RANK	FORWARD LINKAGES
1	CANNING OF FRUITS & FISH	1	3.62208	HOUSEHOLDS	1	31.67641
2	DAIRY PRODUCTS	2	3.23962	WHOLESALE AND RETAIL TRADE	2	9.50989
3	POULTRY & EGGS commercial	3	2.92016	CONSTRUCTION	3	5.99819
4	SLAUGHTERING large	4	2.89981	FOOD CROPS commercial	4	5.82355
5	GRAIN MILL PRODUCTS large scale	5	2.81193	GRAIN MILL PRODUCTS large scale	5	5.65261
6	POULTRY & EGGS non-commercial	6	2.78311	EDUCATION	6	5.35589
7	EDIBLE OILS & FATS	7	2.78232	OTHER TRANSPORT	7	5.19355
8	SLAUGHTERING small	8	2.73797	FINANCIAL INSTITUTIONS & INSURANCE	8	4.96400
9	GRAIN MILL PRODUCTS small scale	9	2.64798	CHEMICAL PRODUCTS	9	4.94386
10	AGRIC. & OTHER MACHINERY	10	2.48244	FOOD CROPS non-commercial	10	4.78407
11	LIVESTOCK commercial	11	2.47211	ROAD TRANSPORT	11	4.62448
12	METAL MINING	12	2.47111	SOFT DRINKS, SPIRITS AND LIQUORS	12	4.30413
13	LEATHER PRODUCTS & FOOTWEAR	13	2.43999	ELECTRICITY	13	3.83857
14	INDUSTRIAL MACHINERY	14	2.30978	BUSINESS SERVICES	14	3.82996
15	ELECTRICITY	15	2.30681	GOVT ADMIN. SOCIAL & PERSONAL SERVICES	15	3.75068
16	CONFECTIONARY AND OTHER FOODS	16	2.30536	PETROLEUM & COAL PRODUCTS	16	3.52080
17	MADE UP TEXTILES	17	2.28704	PAPER AND PAPER PRODUCTS	17	3.29263
18	OTHER MINING	18	2.28168	CASH CROPS commercial	18	3.03866
19	NON-METALLIC MINERAL PRODUCTS	19	2.26664	HOTELS, BARS AND RESTAURANTS	19	2.59019
20	BAKERY PRODUCTS	20	2.23303	PLASTIC PRODUCTS	20	2.53287
21	PAPER AND PAPER PRODUCTS	21	2.22643	REAL ESTATE	21	2.50353
22	ELECTRICAL PRODUCTS	22	2.15665	SUGAR REFINING	22	2.47411
23	PETROLEUM & COAL PRODUCTS	23	2.08293	INDUSTRIAL CHEMICALS	23	2.46149
24	WEARING APPAREL	24	2.07661	LIVESTOCK commercial	24	2.38991
25	KNITTING & ROPE PRODUCTS	25	2.07354	INDUSTRIAL MACHINERY	25	2.37137
26	INDUSTRIAL CHEMICALS	26	2.02476	NON-METALLIC MINERAL PRODUCTS	26	2.35927
27	OTHER WOOD PRODUCTS	27	2.02434	SPINNING & WEAVING	27	2.33200
28	SPINNING & WEAVING	28	2.00889	LIVESTOCK non-commercial	28	2.24007
29	RUBBER PRODUCTS	29	1.97310	HEALTH	29	2.19364
30	WATER WORKS AND SUPPLY	30	1.89065	FORESTRY	30	2.17733
31	WHOLESALE AND RETAIL TRADE	31	1.83736	POSTS AND TELECOMMUNICATIONS	31	2.06691
32	CONSTRUCTION	32	1.82469	RAIL TRANSPORT	32	2.05040
33	BASIC METAL PRODUCTS	33	1.82318	WEARING APPAREL	33	2.00311
34	SAWMILLS	34	1.81092	BASIC METAL PRODUCTS	34	1.92655
35	SUGAR REFINING	35	1.80632	LEATHER PRODUCTS & FOOTWEAR	35	1.88224
36	CASH CROPS non-commercial	36	1.76693	BAKERY PRODUCTS	36	1.79378
37	TRANSPORT EQUIPMENT	37	1.73020	RUBBER PRODUCTS	37	1.75810
38	MILK	38	1.69395	RECREATION AND CULTURAL SERVICES	38	1.74674
39	HOTELS, BARS AND RESTAURANTS	39	1.68702	TRANSPORT EQUIPMENT	39	1.73887
40	FISHING	40	1.67660	MADE UP TEXTILES	40	1.62740
41	LIVESTOCK non-commercial	41	1.64175	FISHING	41	1.60836
42	PLASTIC PRODUCTS	42	1.61977	TOBACCO	42	1.50144
43	EDUCATION	43	1.61869	POULTRY & EGGS commercial	43	1.50015
44	FOOD CROPS commercial	44	1.61395	OTHER MINING	44	1.49840
45	OTHER TRANSPORT	45	1.60390	SLAUGHTERING large	45	1.49446
46	HOUSEHOLDS	46	1.60153	DAIRY PRODUCTS	46	1.48547
47	GOVT ADMIN. SOCIAL & PERSONAL SERVICES	47	1.58076	MILK	47	1.47031
48	RAIL TRANSPORT	48	1.56829	CASH CROPS non-commercial	48	1.42140
49	FORESTRY	49	1.47443	ELECTRICAL PRODUCTS	49	1.38319
50	SOFT DRINKS, SPIRITS AND LIQUORS	50	1.47392	OTHER WOOD PRODUCTS	50	1.37201
51	TOBACCO	51	1.46916	KNITTING & ROPE PRODUCTS	51	1.33477
52	CASH CROPS commercial	52	1.42028	WATER WORKS AND SUPPLY	52	1.33254
53	OTHER MANUFACTURING n.e.c	53	1.36399	OTHER MANUFACTURING n.e.c	53	1.32801
54	POSTS AND TELECOMMUNICATIONS	54	1.34060	CONFECTIONARY AND OTHER FOODS	54	1.29897
55	HEALTH	55	1.32700	AGRIC. & OTHER MACHINERY	55	1.29080
56	CHEMICAL PRODUCTS	56	1.31317	GRAIN MILL PRODUCTS small scale	56	1.23173
57	FOOD CROPS non-commercial	57	1.23620	METAL MINING	57	1.21679
58	ROAD TRANSPORT	58	1.18277	SLAUGHTERING small	58	1.16439
59	RECREATION AND CULTURAL SERVICES	59	1.09533	EDIBLE OILS & FATS	59	1.11588
60	BUSINESS SERVICES	60	0.90620	CANNING OF FRUITS & FISH	60	1.10476
61	REAL ESTATE	61	0.85622	SAWMILLS	61	1.07094
62	FINANCIAL INSTITUTIONS & INSURANCE	62	0.81491	POULTRY & EGGS non-commercial	62	1.03048

1.3 IMPACT ON THE GENERATION OF INCOME.

The generation of income in the economy can be determined by pre-multiplying the matrix of income multipliers, B (having adjusted it for leaks, i.e, imports and indirect taxes) and matrix $(I - A)^{-1}D$, and then post-multiplying this by matrix F_s. Matrix B consists of three rows, namely the household sector, (having been shifted back from the interindustry matrix) the capital gains and remainder value added, these two consisting of operating surplus and consumption of fixed capital (depreciation)

The households will be the greatest beneficiaries of the increase in income, with a total of K4,154.16 million accruing to it. This is followed by company profits (operating surplus) equivalent to K3,884.47 million and the consumption of fixed capital with K871.42 million. The results are shown below;

TABLE 7. THE FULL IMPACT ON THE GENERATION OF INCOME

HOUSEHOLDS	4154.16
OPERATING SURPLUS	3884.47
CONSUMPTION OF FIXED CAPITAL	871.42
TOTAL	8910.05

1.4 THE FULL IMPACT ON THE GENERATION OF EMPLOYMENT

The issue of employment has always been a very critical one, both politically and socially. In a small economy like Zambia, the generation of employment has almost always lagged behind the rate of growth of population. The fast growing population, and hence the labour force, has outpaced the generation of employment, resulting in a substantial growth of unemployment. The term "labour force" here is used in the broad sense and consists of all those persons in the population above a specified age (12 years in the 1980 census) and are either employed, or unemployed, or looking for, and are available for

work. In Zambia, employment statistics have not been a nice picture to look at. Out of a labour force of 1,744,184 (1980), 27.5 percent were found without any work. Among the total unemployed. The proportions of the unemployed out of the total labour force in rural and urban areas were 23.8 and 33.2 percent respectively. Indications are that these figures are actually rising, especially with the spate of redundancies that have rocked the economy after the introduction of economic austerity measures. This is why the generation of employment has become one of the most urgent objectives of the government.

Several policy options have been proposed. Among which economic restructuring through the encouragement of small scale industries to boost employment, adoption of more labour intensive techniques of production, and the reorganisation and expansion of the educational system to produce the right type of manpower have been the most important. This is illustrated in the objectives contained in the annual plan for 1987 (NCDP, Economic Review and Annual Plan, 1987, pg 105). Briefly, they can be listed as follows;

1. To improve the planning, coordination, monitoring and evaluation of manpower development and utilization.

2. To promote and harmonize the planning and implementation of projects with their manpower implications in the restructuring of the economy in order to enhance productivity and employment.

3. To develop an optimal scheme aimed at setting priorities for "Zambianization" and educational requirements necessary for its implementation. Skills such as Accountancy, Engineering, Medicine and Agriculture will be given due priority.

4. Foster the development of employment through the development of cottage and small scale industries, the use of labour intensive production methods.

The full impact of the proposed expansion of the export sector and the investment sector can be examined using input-output techniques by looking at matrix $B_e(I - A)^{-1}D^*F_s$, where matrix B_e is the diagonal matrix of employment coefficients and the rest of the other matrices are as before. The elements

in the employment matrix denote the amount of labour required to produce one unit of output. The results of the calculations show the labour input into producing one unit of output (in this case, one unit refers to K1 million worth of output of a given sector. The results of the calculations are shown below.

Again, the results show that employment will be generated most in the mining sector, accounting for 25.99 percent of the total employment generation. This is followed immediately by construction with 11.34 percent of the total. The figures show (interestingly) that the agricultural sector, though it is supposed to be the sector with the greatest potential, does not react much to the proposed expansion. This could be due to the fact that it has very little interactions with the export and the capital formation sector.

TABLE 8. FULL IMPACT ON THE GENERATION OF EMPLOYMENT.

Be=INVCI - A)×D×Fs: EMPLOYMENT GENERATION

1	FOOD CROPS commercial	13.18
2	FOOD CROPS non-commercial	17.62
3	CASH CROPS commercial	12.07
4	CASH CROPS non-commercial	2.69
5	LIVESTOCK commercial	5.74
6	LIVESTOCK non-commercial	1.60
7	MILK	0.84
8	POULTRY & EGGS commercial	1.73
9	POULTRY & EGGS non-commercial	0.11
10	FORESTRY	30.26
11	FISHING	2.32
12	METAL MINING	233.07
13	OTHER MINING	6.31
14	SLAUGHTERING large	1.81
15	SLAUGHTERING small	1.51
16	DAIRY PRODUCTS	2.39
17	CANNING OF FRUITS & FISH	0.79
18	EDIBLE OILS & FATS	0.07
19	GRAIN MILL PRODUCTS large scale	6.16
20	GRAIN MILL PRODUCTS small scale	0.87
21	BAKERY PRODUCTS	4.42
22	SUGAR REFINING	15.59
23	CONFECTIONARY AND OTHER FOODS	1.38
24	SOFT DRINKS, SPIRITS AND LIQUORS	5.17
25	TOBACCO	0.72
26	SPINNING & WEAVING	3.34
27	MADE UP TEXTILES	1.73
28	KNITTING & ROPE PRODUCTS	0.93
29	WEARING APPAREL	9.07
30	LEATHER PRODUCTS & FOOTWEAR	1.11
31	SAWMILLS	9.46
32	OTHER WOOD PRODUCTS	3.93
33	PAPER AND PAPER PRODUCTS	6.92
34	INDUSTRIAL CHEMICALS	4.91
35	CHEMICAL PRODUCTS	8.28
36	PETROLEUM & COAL PRODUCTS	1.02
37	PLASTIC PRODUCTS	0.94
38	RUBBER PRODUCTS	3.72
39	NON-METALLIC MINERAL PRODUCTS	11.09
40	BASIC METAL PRODUCTS	8.38
41	INDUSTRIAL MACHINERY	21.46
42	AGRIC. & OTHER MACHINERY	0.74
43	ELECTRICAL PRODUCTS	5.03
44	TRANSPORT EQUIPMENT	3.38
45	OTHER MANUFACTURING n.e.c	0.23
46	ELECTRICITY	16.03
47	WATER WORKS AND SUPPLY	5.28
48	CONSTRUCTION	101.71
49	WHOLESALE AND RETAIL TRADE	31.68
50	HOTELS, BARS AND RESTAURANTS	16.19
51	RAIL TRANSPORT	30.55
52	ROAD TRANSPORT	21.88
53	OTHER TRANSPORT	1.52
54	POSTS AND TELECOMMUNICATIONS	5.61
55	FINANCIAL INSTITUTIONS & INSURANCE	27.45
56	REAL ESTATE	4.83
57	BUSINESS SERVICES	19.99
58	EDUCATION	69.13
59	HEALTH	24.71
60	RECREATION AND CULTURAL SERVICES	3.45
61	GOVT ADMIN. SOCIAL & PERSONAL SERVICES	42.70
62	HOUSEHOLDS	0.00
	TOTAL	896.82

1.5 TOTAL IMPORT REQUIREMENTS

In order to meet the export expansion, there has been, as already noted, a substantial rise in the output of the sectors. This increase in output means that these sectors have to increase their inputs in one way or another. Some of the required inputs are produced locally by other sectors, and some have to be imported. This section will analyze the extent to which each of the sectors will have to import some of their inputs in order to satisfy the proposed expansion. This will obviously have a bearing on the balance of payments position of the country with due regard to the import portion of their inputs. In order to examine the impact of the expansion objectives on import requirements, we have to look at matrix $B_i(I - A)^{-1}D^*F_s$. Here, B_i refers to the diagonal matrix of import coefficients. The results obtained show a marked departure from what has been observed previously. The household sector comes first in terms of import requirements (consumables). Then comes construction with K211 million in import requirements. The chemicals sector, comprising of several sub-sectors, and the fabricated metal products sector, also comprising of several sub-sectors come as major importers of inputs after construction. The agricultural and mining sectors also have their fair share of import requirements, with the latter taking in as much as K70.6 million in imported inputs. The data obtained in this calculation is important in that it gives an indication of the sectors that are most likely to put pressure on the country's balance of payments position.

The growth prospects that have been projected will require that the balance of payments position be improved. The obvious remedy is to expand exports as much as possible, while at the same time limiting imports. An examination of the figures obtained thus far should show us the impact of import increases, as we go to export rises, on the balance of payments position. If we go back to the initial conditions set forth in the annual plan, we find out that in 1987, import levels should be maintained at K10,920 million, meaning an increase of K6,626

million from the 1986 level of K4,294 million. This should give us a trade deficit equivalent to K479 million.

To find out what actually happens, consider the following;

1	Original import level	4,294.00
2	Projected import level	10,920.00
3	Increase projected	6,626.00
4	Of which additional input requirements	1,265.87
5	Basic import level (1 + 4)	5,559.87
6	Exports (New level)	10,441.00
7	B.O.P. deficit based on total increase projected (6 - 2)	- 479.00
8	B.O.P. deficit/surplus based on Basic import level (6 - 5)	4,881.13

The additional imports required to meet the export expansion is K1,265.87 million whereas that given by the planning office is K6,626 million. This is evidently needed to facilitate the importation of capital goods, government import expenditures n.e.c such as military expenditures, administrative imports (diplomatic missions etc). The final balance of payments position has to take into account not only exports and imports of goods and services, but also non-factor services like freight and insurance, transportation, travel, etc, investment errors and omissions and allocation of SDR's. The case for improving the balance of payments situation in Zambia lies in import restrictions (especially government imports) and an expansion in exports. The restriction in imports of final consumption goods, especially those that may be classified as non-necessary (non-basic) consumption goods could go a long way in improving the balance of payments position. Obviously necessary capital goods do not fall in this category. A reduction in 'imports' by

say the central government would entail a reduction in diplomatic missions and perks that go along with running a relatively large work force abroad. Other cuts would ofcourse entail the restriction of importations for military purposes, a reduction in the importation of luxurious limousines for the leadership, etc. These suggestions do however have political connotations and are therefore beyond the scope of this paper. Given below is a table of results for the total imported input requirements.

TABLE 9: IMPORT REQUIREMENTS.

Bi*INV(I - A)*D*Fs: IMPORTS REQUIREMENTS

1	FOOD CROPS commercial	40.28
2	FOOD CROPS non-commercial	4.24
3	CASH CROPS commercial	11.72
4	CASH CROPS non-commercial	8.34
5	LIVESTOCK commercial	10.49
6	LIVESTOCK non-commercial	3.01
7	MILK	0.00
8	POULTRY & EGGS commercial	1.00
9	POULTRY & EGGS non-commercial	0.00
10	FORESTRY	4.90
11	FISHING	0.32
12	METAL MINING	70.60
13	OTHER MINING	2.47
14	SLAUGHTERING large	0.72
15	SLAUGHTERING small	0.00
16	DAIRY PRODUCTS	5.69
17	CANNING OF FRUITS & FISH	1.35
18	EDIBLE OILS & FATS	0.92
19	GRAIN MILL PRODUCTS large scale	4.49
20	GRAIN MILL PRODUCTS small scale	0.00
21	BAKERY PRODUCTS	0.31
22	SUGAR REFINING	5.96
23	CONFECTIONARY AND OTHER FOODS	3.20
24	SOFT DRINKS, SPIRITS AND LIQUORS	3.70
25	TOBACCO	0.67
26	SPINNING & WEAVING	10.32
27	MADE UP TEXTILES	4.45
28	KNITTING & ROPE PRODUCTS	4.20
29	WEARING APPAREL	17.63
30	LEATHER PRODUCTS & FOOTWEAR	4.33
31	SAWMILLS	1.13
32	OTHER WOOD PRODUCTS	3.59
33	PAPER AND PAPER PRODUCTS	21.10
34	INDUSTRIAL CHEMICALS	101.07
35	CHEMICAL PRODUCTS	37.52
36	PETROLEUM & COAL PRODUCTS	133.16
37	PLASTIC PRODUCTS	67.36
38	RUBBER PRODUCTS	35.05
39	NON-METALLIC MINERAL PRODUCTS	5.08
40	BASIC METAL PRODUCTS	39.56
41	INDUSTRIAL MACHINERY	34.75
42	AGRIC. & OTHER MACHINERY	2.04
43	ELECTRICAL PRODUCTS	28.39
44	TRANSPORT EQUIPMENT	43.46
45	OTHER MANUFACTURING n.e.c	1.21
46	ELECTRICITY	8.33
47	WATER WORKS AND SUPPLY	0.00
48	CONSTRUCTION	211.08
49	WHOLESALE AND RETAIL TRADE	0.51
50	HOTELS, BARS AND RESTAURANTS	0.00
51	RAIL TRANSPORT	4.49
52	ROAD TRANSPORT	25.91
53	OTHER TRANSPORT	3.91
54	POSTS AND TELECOMMUNICATIONS	0.34
55	FINANCIAL INSTITUTIONS & INSURANCE	0.00
56	REAL ESTATE	0.00
57	BUSINESS SERVICES	0.00
58	EDUCATION	0.00
59	HEALTH	0.00
60	RECREATION AND CULTURAL SERVICES	0.00
61	GOVT ADMIN. SOCIAL & PERSONAL SERVICES	0.01
62	HOUSEHOLDS	231.49
	TOTAL	1265.87

1.5. SECTORAL AND NATIONAL INFLATION LEVEL

It has been mentioned earlier on that the IMF backed economic stabilisation programme that Zambia had undertaken in mid 1986 exercerbated the rise in prices in the domestic economy. the foreign exchange auctioning system pushed down the external value of the Kwacha from K2.714 = US$ 1.00 to K21.00 = US$1.00, a depreciation of 821 percent. This in effect brought down the purchasing power of the Kwacha and pushed up the annual inflation rate to more than 60 percent. This forced the government to rethink its relations with the IMF and soon afterwards, broke off all ties with the Fund. The government took steps to save the Kwacha from total collapse by revaluing the external value of the Kwacha (from K21.00 = $1.00 to K8.12 = $1.00, a revaluation of 61.33 percent. The results of this revaluation are manifested to a certain extent in the inflation levels which actually fell quite considerably at the beginning of 1987. Now we examine what our input-output will show us. A uniform revaluation of the external value of the Kwacha by 61.33 percent means a decrease in import prices of

$$61.33\% - 100$$
$$38.67\% - X$$

$$\text{Thus } X = \frac{38.67 \times 100}{61.33} = 63.05\%$$

In the first instance, production prices will go down in the magnitudes obtained from multiplying the import diagonal matrix B1 and the column vector of the percentage drop in prices of imports. This of course assumes that import prices paid by the different sectors are identical. The final impact of direct and indirect effects can then be calculated by simply multiplying the transpose of the first row of the $B(I - A)^{-1}$ matrix and the column vector of import price reductions. The first instance and final impact of direct and indirect effects price decreases are

shown below. The results indicate that in the first instance, the chemicals industry will respond immediately to the revaluation, registering the biggest price reductions. This is followed closely the fabricated metal products sectors. The rest of the economy experiences minor reductions in prices of between 0% and 8%. When all the direct and indirect effects have worked themselves out, the production price decreases will more or less uniform in the majority of the sectors. The non-commercial sector registers the lowest decline in production price decreases due to the fact that it has the least interaction with the foreign sector, and hence all changes in the foreign sector will not have much of an impact on the operations of the non-commercial sector. This can be said of all sectors which, in the final analysis, have little changes in production prices even after the direct and indirect effects have worked themselves out.

TABLE 10. PRICE CHANGES

PRODUCTION PRICE CHANGES DUE TO REVALUATION IN THE EXTERNAL VALUE OF THE DOMESTIC CURRENCY

		1	2	3
		FIRST INSTANCE PRODUCTION PRICE DECREASES %	FINAL IMPACT OF DIRECT AN INDIRECT EFFECTS %	THE DECREASE IN THE RATE OF INFLATION COLUMN 2 WEIGHTED BY SECTORAL SHARES IN TOTAL OUTPUT
1	FOOD CROPS commercial	6.68949	12.39425	0.23726
2	FOOD CROPS non-commercial	0.63366	2.665380	0.07082
3	CASH CROPS commercial	2.79853	6.920657	0.06518
4	CASH CROPS non-commercial	8.91684	15.69958	0.04039
5	LIVESTOCK commercial	5.26887	12.84137	0.07719
6	LIVESTOCK non-commercial	5.42518	10.41655	0.01859
7	MILK	0.00000	5.393777	0.00575
8	POULTRY & EGGS commercial	1.48321	11.90587	0.03083
9	POULTRY & EGGS non-commercial	0.00000	7.054922	0.00143
10	FORESTRY	2.19456	7.141970	0.01541
11	FISHING	0.30646	5.517053	0.01894
12	METAL MINING	0.82827	14.89022	2.18768
13	OTHER MINING	1.52103	11.76963	0.03827
14	SLAUGHTERING large	0.91848	12.27831	0.03235
15	SLAUGHTERING small	0.00000	10.75905	0.00557
16	DAIRY PRODUCTS	9.25718	23.32296	0.04228
17	CANNING OF FRUITS & FISH	8.68090	31.99174	0.00969
18	EDIBLE OILS & FATS	8.74660	22.99973	0.00445
19	GRAIN MILL PRODUCTS large scale	1.04813	11.70678	0.17276
20	GRAIN MILL PRODUCTS small scale	0.00000	12.89584	0.00839
21	BAKERY PRODUCTS	0.19160	7.696719	0.04650
22	SUGAR REFINING	2.99969	10.31698	0.06333
23	CONFECTIONARY AND OTHER FOODS	5.79891	15.34736	0.02896
24	SOFT DRINKS, SPIRITS AND LIQUORS	0.56558	29.30217	0.82045
25	TOBACCO	0.55520	30.96609	0.17019
26	SPINNING & WEAVING	7.74596	17.34102	0.10695
27	MADE UP TEXTILES	5.69683	21.76933	0.08363
28	KNITTING & ROPE PRODUCTS	7.42578	20.63031	0.05583
29	WEARING APPAREL	8.92257	23.10287	0.19698
30	LEATHER PRODUCTS & FOOTWEAR	7.81607	19.98288	0.06510
31	SAWMILLS	0.72444	10.84894	0.01970
32	OTHER WOOD PRODUCTS	4.28853	17.40343	0.04291
33	PAPER AND PAPER PRODUCTS	7.35249	23.00555	0.16929
34	INDUSTRIAL CHEMICALS	24.32071	35.93765	0.30156
35	CHEMICAL PRODUCTS	5.83602	34.09549	0.61045
36	PETROLEUM & COAL PRODUCTS	23.02371	34.63717	0.58103
37	PLASTIC PRODUCTS	26.99868	33.89333	0.25752
38	RUBBER PRODUCTS	15.75219	24.05828	0.14941
39	NON-METALLIC MINERAL PRODUCTS	1.17774	13.57842	0.12374
40	BASIC METAL PRODUCTS	16.63793	23.96985	0.05412
41	INDUSTRIAL MACHINERY	15.03639	16.59923	0.13958
42	AGRIC. & OTHER MACHINERY	4.13609	19.21477	0.03006
43	ELECTRICAL PRODUCTS	10.66472	21.77522	0.13118
44	TRANSPORT EQUIPMENT	13.55996	21.01176	0.17055
45	OTHER MANUFACTURING n.e.c	4.86581	8.255066	0.00911
46	ELECTRICITY	1.02385	11.32411	0.18795
47	WATER WORKS AND SUPPLY	0.00000	13.19662	0.02463
48	CONSTRUCTION	8.28467	19.79840	0.78165
49	WHOLESALE AND RETAIL TRADE	0.03783	3.502127	0.21917
50	HOTELS, BARS AND RESTAURANTS	0.00000	5.999148	0.07398
51	RAIL TRANSPORT	1.22185	19.21254	0.18365
52	ROAD TRANSPORT	3.82457	18.75358	0.32944
53	OTHER TRANSPORT	0.62986	20.73056	0.33766
54	POSTS AND TELECOMMUNICATIONS	0.19624	13.84444	0.07795
55	FINANCIAL INSTITUTIONS & INSURANCE	0.00000	8.492447	0.24784
56	REAL ESTATE	0.00000	9.691639	0.07787
57	BUSINESS SERVICES	0.00000	9.859031	0.19838
58	EDUCATION	0.00000	16.66671	0.52956
59	HEALTH	0.00000	20.40127	0.18560
60	RECREATION AND CULTURAL SERVICES	0.00000	12.77980	0.05664
61	GOVT. ADMIN, SOC & PERS SERVICES	0.00228	16.41987	0.75857
62	HOUSEHOLDS	3.51295	16.60794	4.01930
	TOTAL INFLATION			15.86171

The reduction in the overall rate of inflation can be calculated by taking the weighted average of price decreases after the final impact of direct and indirect effects have worked themselves out. The weights used are the sectoral shares in total output, i.e,

$X_j/\Sigma X_j \qquad (j = 1, 2, 3, \ldots, n)$.

The overall reduction in the rate of inflation comes out to be 15.86171 %. This is actually in line with the findings obtained from the consumer price statistics bulletin of the CSO in which it is shown that there was a marked decrease in the rate of increase in the rates of inflation rates in the high and low income groups. This could have been due to the reductions in the prices of imported inputs. The effect has however not been very significant on the part of the consumers, due, most likely , to demand pull factors that affect prices (CSO, Consumer Price Statistics, 1987).

1.6. A CRITERIA FOR CHOOSING THE MOST APPROPRIATE SECTORS TO INCENTIVATE IN ORDER TO ACHIEVE THE DESIRED OBJECTIVES IN THE MOST EFFECTIVE WAY. THE RANK CORRELATION METHOD.

Given the number of objectives that have to be met, and the limited resources available at the economy's disposal, it is important to know which sectors hold the best cards for Zambia so as to warrant themselves the title of "priority sectors" in the event that a policy needs to be implemented. Which of the sectors has the greatest potential in meeting the conditions set forward in plans. This is especially true when there is a limitation in the plan resulting from a limitation in resources, to the effect that the final demand categories of specific sectors can be incentivated. Then there is a need to choose which of the sectors are the most effective in achieving the desired goals. The goals desired herein depend on the urgency of the situation. In the long run, economic maximisation takes precedence over short term (usually political) objectives. Items like economic growth are usually medium term to long term

objectives, while, controlling inflation comes in as a short term to medium term solution. Different objectives have different sectors that can best achieve them.

Given the constraints that face most LDCs, it is important, as has already been said at the beginning of the first chapter, that policy makers have a tool with which they can determine which sectors of the economy best serves the purposes of growth, employment generation etc. The input-output framework is, in this regard, very suitable (despite its limitations) a tool for such an exercise.

The method used in this paper was proposed by Hirschman, 1958, and entails raking sectors in terms of their potential stimuli to growth via the inducement mechanism and to select key sectors for promotion corresponding to those with the highest backward and forward linkages. (Hirschman,A. 1958). However, this method has got some shortcomings in that there is no guarantee that the potential stimulus measured by backward and forward linkages will be translated into actual growth. Another point is that taking linkage analysis in isolation overlooks the importance of other equally, if not more pressing problems of the third world such as employment generation, the balance of payments difficulties, inflation, etc. With due respect to the second problem, the selection criteria for 'key' sectors should always bear in mind the other equally important objectives.

In light of the above, rankings were undertaken for five different sets of criteria, namely backward linkage indices, forward linkage indices, employment generation, inflation, and balance of payments. Given below in table 11 are the ranks of the different objective criteria that were identified as important for 'key' sector selection:

TABLE 11. SECTORAL RANKS FOR DIFFERENT CRITERIA.

		BACKWARD PRODUCTION LINKAGES	FORWARD PRODUCTION LINKAGES	EMPLOYMENT GENERATION	INFLATION	BALANCE OF PAYMENTS
1	FOOD CROPS commercial	57	4	17	49	22
2	FOOD CROPS non-commercial	44	10	13	28	43
3	CASH CROPS commercial	52	18	18	27	34
4	CASH CROPS non-commercial	36	48	40	18	31
5	LIVESTOCK commercial	11	24	27	30	33
6	LIVESTOCK non-commercial	41	28	46	9	16
7	MILK	38	47	55	4	1
8	POULTRY & EGGS commercial	3	43	45	15	10
9	POULTRY & EGGS non-commercial	6	62	60	1	1
10	FORESTRY	49	30	7	8	26
11	FISHING	40	41	42	10	4
12	METAL MINING	12	57	1	61	46
13	OTHER MINING	18	44	25	17	15
14	SLAUGHTERING large	4	45	43	16	8
15	SLAUGHTERING small	8	58	48	3	1
16	DAIRY PRODUCTS	2	46	41	19	28
17	CANNING OF FRUITS & FISH	1	60	56	7	13
18	EDIBLE OILS & FATS	7	59	61	2	9
19	GRAIN MILL PRODUCTS large scale	5	5	26	41	25
20	GRAIN MILL PRODUCTS small scale	9	56	54	5	1
21	BAKERY PRODUCTS	20	36	34	21	3
22	SUGAR REFINING	35	22	16	25	29
23	CONFECTIONARY AND OTHER FOODS	16	54	49	13	17
24	SOFT DRINKS, SPIRITS AND LIQUORS	50	12	30	60	19
25	TOBACCO	51	42	58	39	7
26	SPINNING & WEAVING	28	27	39	34	32
27	MADE UP TEXTILES	17	40	44	33	24
28	KNITTING & ROPE PRODUCTS	25	51	53	23	21
29	WEARING APPAREL	24	33	21	45	35
30	LEATHER PRODUCTS & FOOTWEAR	13	35	50	26	23
31	SAWMILLS	34	61	20	11	11
32	OTHER WOOD PRODUCTS	27	50	35	20	18
33	PAPER AND PAPER PRODUCTS	21	17	24	38	36
34	INDUSTRIAL CHEMICALS	26	23	32	52	47
35	CHEMICAL PRODUCTS	56	9	23	57	41
36	PETROLEUM & COAL PRODUCTS	23	16	51	56	48
37	PLASTIC PRODUCTS	42	20	52	51	45
38	RUBBER PRODUCTS	29	37	36	37	40
39	NON-METALLIC MINERAL PRODUCTS	19	26	19	35	27
40	BASIC METAL PRODUCTS	33	34	23	22	42
41	INDUSTRIAL MACHINERY	14	25	11	47	39
42	AGRIC. & OTHER MACHINERY	10	55	57	14	14
43	ELECTRICAL PRODUCTS	22	49	31	36	38
44	TRANSPORT EQUIPMENT	37	39	38	40	44
45	OTHER MANUFACTURING n.e.c	53	53	59	6	12
46	ELECTRICITY	15	13	15	44	30
47	WATER WORKS AND SUPPLY	30	52	29	12	1
48	CONSTRUCTION	32	3	2	57	49
49	WHOLESALE AND RETAIL TRADE	31	2	5	48	6
50	HOTELS, BARS AND RESTAURANTS	39	19	14	29	1
51	RAIL TRANSPORT	48	32	6	42	25
52	ROAD TRANSPORT	58	11	10	53	37
53	OTHER TRANSPORT	45	7	47	54	20
54	POSTS AND TELECOMMUNICATIONS	54	31	28	32	5
55	FINANCIAL INSTITUTIONS & INSURANCE	62	8	8	50	1
56	REAL ESTATE	61	21	33	31	1
57	BUSINESS SERVICES	60	14	12	46	1
58	EDUCATION	43	6	3	55	1
59	HEALTH	55	29	9	43	1
60	RECREATION AND CULTURAL SERVICES	59	30	37	24	1
61	GOVT ADMIN. SOCIAL & PERSONAL SERVI	47	15	4	58	2
62	HOUSEHOLDS	46	1	63	62	50

1.6.1 THE RANK CORRELATION METHOD IN INTER-INDUSTRY ANALYSIS.

This section is basically concerned with the actual identification of 'key' sectors following the previous steps of ranking industries according to different criteria. Development strategies often aim at maximizing growth and employment, and at reducing inflation and balance of payments deficits, and then reconciling both goals. In this respect, rank correlations analysis can be applied to the linkages derived from the input-output tables in order to determine any possible trade-offs between the different criteria and to identify key sectors and potential bottlenecks. Table 12 below shows the results for rank correlations of total linkage effects. (The rank correlation coefficient is a measure to compare two different rankings to which the same rule of ranking is applied, a standard measure of which is the Spearmans correlation coefficient defined as:

$$r = 1 - \frac{6\Sigma d^2}{n(n^2 - 1)} \qquad (-1 < r < 1)$$

where d = the difference between the ranks of corresponding pairs

n = number of observations.

TABLE 12 RANK CORRELATION MATRIX FOR PRODUCTION, EMPLOYMENT, INFLATION, AND BALANCE OF PAYMENTS.

RANK CORRELATION MATRIX FOR PRODUCTION, EMPLOYMENT, INFLATION, AND BALANCE OF PAYMENTS

	BACKWARD LINKAGES	FORWARD LINKAGES	EMPLOYMENT	INFLATION	BALANCE OF PAYMENTS
BACKWARD LINKAGES	1.00000				
FORWARD LINKAGES	-0.49460	1.00000			
EMPLOYMENT	-0.33766	0.52315	1.00000		
INFLATION	0.37896	-0.74989	-0.49193	1.00000	
BALANCE OF PAYMENTS	-0.14150	-0.33051	-0.18254	0.35096	1.00000

Several conclusions can be drawn from the above. First, rank correlations between backward linkages and forward linkages are negative reflecting a low degree of articulation between supplying sectors when there is a change in the sector using their outputs as inputs and, also between using industries when there is a change in the sector supplying inputs. Second, there is a negative correlation coefficient between backward linkages and employment reflecting a trade-off between sectoral output growth and employment generation, i.e, growth and employment generation actually work in opposite directions. This is easily reflected in table 11 in which those sectors with the highest ranks in sectoral output growth (backward linkages) have the

lowest ranks in as far as employment generation is concerned. There is a fairly positive coefficient of correlation (0.37896) between backward linkages and inflation implying that the relationship between production increases and reductions in inflation is positive but not strong. Backward linkages and balance of payments follow more or less the same pattern of relationship as that between backward linkages and employment generation. The coefficient here is -0.14150.

On the other hand there is a relatively mild relationship between forward linkages and employment generation (0.52315). This is not really high, but at least it shows us that when there is a change in the output of the sector supplying inputs, there is a chance that employment might increase in the sectors that are using this increase in supply of inputs, leading to a rise in employment levels. The correlation coefficient between forward linkages and inflation is fairly high and negative, reflecting a situation in which if there is an increase in the supply of inputs, the resulting increase in output of the using industries will result in an increase in the inflation rate. This is a good example of conflicting goals in the prevailing production structure.

The negative value of -0.49193 in the rank correlation between employment and inflation reflects one of the basic relationships in economics, that is, a rise in employment (without a corresponding increase in production) means that there will eventually be more money in circulation, and this will inevitably push up the price level. The same goes for balance of payments and employment generation, though to a much lesser extent. (The coefficient is -0.18254)

The inflation and balance of payments coefficient of 0.35096 is low and positive. This reflects the fact that there is little concordance between inflation and the balance of payments. A reduction in inflation levels might improve the balance of payments position, but to a very minimal extent.

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CHAPTER 4

CONCLUSIONS.

1.0 SELECTION OF KEY SECTORS

The most likely candidates for selection using results obtained from the preceding chapter can be determined by the criteria with the strongest positive correlation coefficients, in this case, backward linkages and inflation; forward linkages and employment. A new ranking system can then be constructed in the following steps;

1) We take the averages between the ranks of forward linkages and inflation, and re-rank them.

2) Then we take the averages between the ranks of forward linkages and employment generation and re-rank them.

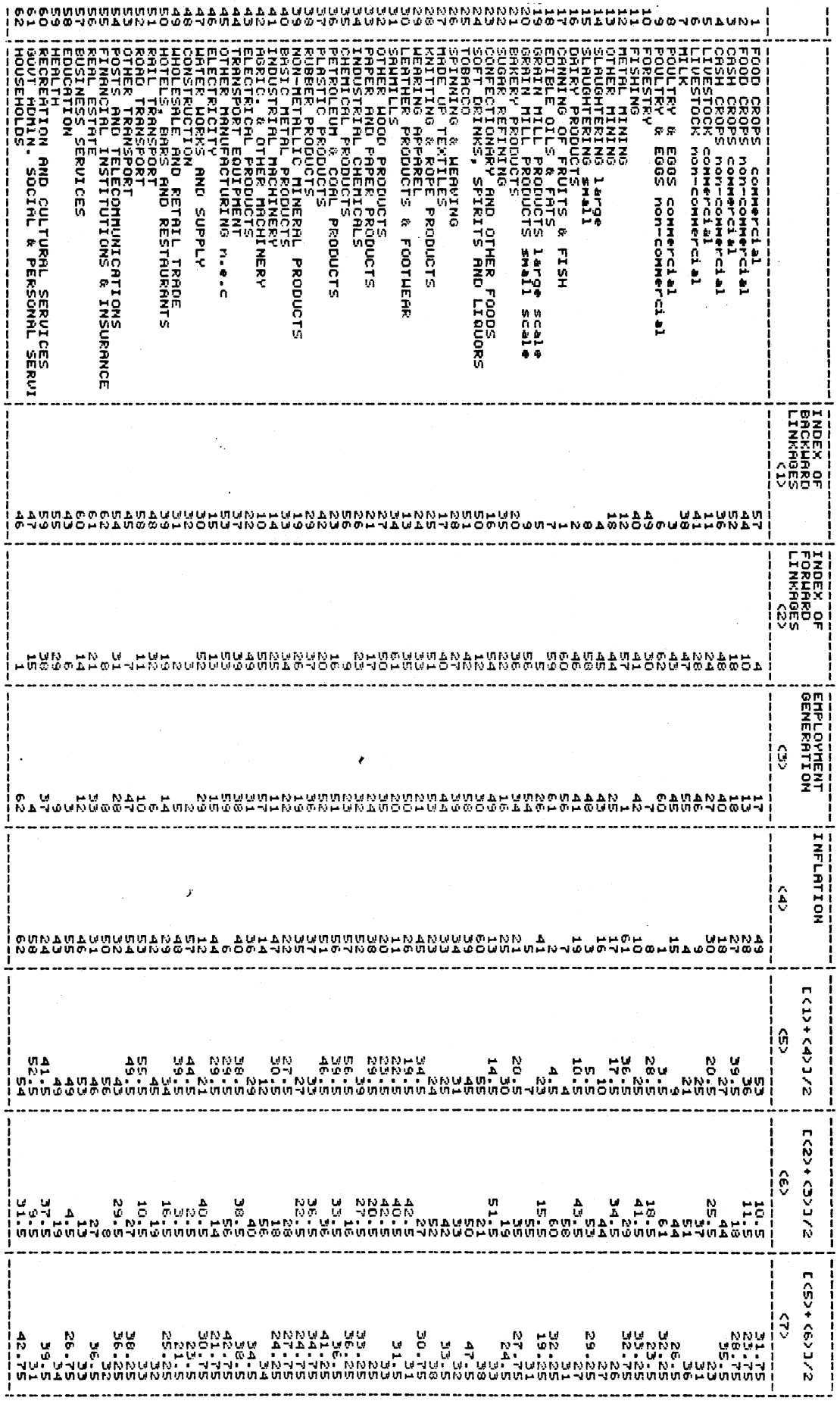
3) The third step is to take the average of the resulting rankings from (1) and (2) and rank these. The selection of key sectors can then be made on these final ranks obtained.

The results obtained from the operations above are shown in tables 13 and 14 and yield the following results; if we are to consider both forward and backward linkages together with employment generation and inflation reduction as our primary objectives, then the most likely sectors that can be considered as key sectors for the purposes of both economic growth and the other equally important goals of employment generation and the reduction in the level of inflation. Given the above, the results show the sectors that will maximise the already mentioned objectives. It is not surprising that sectors like grain mill products (large scale), commercial livestock, electricity, construction, forestry, industrial machinery, food crops (non-commercial), etc, provide the best prospects while sectors such as households, tobacco, recreation and cultural services, plastic products, etc do not fair very well in promoting growth of the economy.

It is surprising that the country's biggest sector, the metal mining sector, ranks 36^{th} based on the criteria chosen. This may be due to the fact that this sector has little backward

and forward linkages in the economy, since its operations are basically directed towards the foreign market, despite its being ranked first in terms of employment generation.

TABLE 13 AND 14: KEY SECTOR SELECTION.



1.1 CONCLUSIONS.

The analysis that has been presented in the preceding chapters was constrained by one fundamental problem; the problem of data. Though the input-output tables for Zambia appear quite elaborate in relation to the size of the economy and financial constraints, a lot must be done to improve the quality of the data for undertaking such an exercise. The data that is usually used in the construction of the tables is in the first place not specifically meant for input-output. The Central Statistical Office of Zambia collects data that is required by a multitude of users for different purposes, and as such the format that the data is presented in sometimes does not at all suit the applications to input-output tables. In the ideal case, there should be a separate survey for the purposes of constructing input-output tables, in which the correct pricing procedures are followed rather than relying on imputations about distributive margins and transport margins. The transactions that are collected should reflect the amounts spent, and the quantities consumed by all the actors in an economy, and all the deliveries. This, unfortunately, would be a very costly exercise. Due to differences in production technologies within particular sectors, a separate survey should be carried out on all the different categories of producers, starting from the informal sectors, the formal small scale sectors, the formal large scale sectors etc.

1.2 QUESTIONNAIRE DESIGN AND UNALLOCATED INPUTS AND OUTPUTS.

Questionnaires are also a limiting factor to the collection of detailed information. The construction of an input-output table requires that all purchases of new goods and services be allocated to sector of origin and that all sales be allocated to sector of destination. In practice, Whatever method of construction is used, there are always cases of unallocated inputs, which produce imbalances between supply and demand; if a proportion of purchases are unallocated, then sectoral supply will exceed demand while if sales in the make matrix are

unallocated, then commodity output will fall short of industry output. The major culprit for the existence of this problem is badly designed questionnaires; insufficient space is given for detailed answers and hence firms tend to lump all purchases that are not allocated a slot in the questionnaire as "other expenses" Some firms are not really aware of the purpose of the questionnaires so that they do not understand the need for detail. And like has already been said, input-output workers often have to use questionnaires designed for other purposes than input-output tables where commodity detail is important.

In the 1980 tables for Zambia, "other expenses" were broken down and reallocated into their corresponding sectors. For the agricultural sector, the "other" category was broken down according to data obtained from agricultural loan usage. The percentage distribution of agricultural loans by end use was taken as an indication for the distribution of the "other" category. This was due to the fact that there are no follow up surveys in agriculture because questionnaires are not mailed to the respondents, rather, statistical officers actually go out and interview the farmers individually. This reduces the need for follow up surveys, but still, the "other expenses" category appears even in this sector. For the manufacturing and service sectors, follow-up surveys were conducted in order to extract as much detail as possible from the respondents. An average breakdown of the sectoral distribution of inputs was obtained from the firms that were followed up, and grossed up for all the firms in that particular sector. This distribution of sectoral inputs was then used to break up the "other expenses" category accruing to each sector.

1.3 SECONDARY PRODUCTION

The lack of complete correspondence between industries and commodities (the existence of secondary production) present problems in deriving pure input-output tables. This gives rise to problems that concern the commodity homogeneity assumption that each industry or sector produces a unique product. Some

establishments produce other commodities which are not among the characteristic products of the industry to which they are classified. The problem lies in the fact that the different products produced by an industry require a different input structure, but then the industry purchases its inputs without particular distinction of the final output (main product vs by product). In this case, the transfer of outputs is comparatively simple since the production of non-characteristic products will be recorded in the make matrix. The transfer of inputs, on the other hand presents a problem as noted above.

Subsidiary production for Zambia's 1980 input output table was very small. This was probably due to the aggregation used. In most of the industries, it was negligible and transforming the tables to account for these secondary products would really have made no significant changes at the level of disaggregation. But, if in future more disaggregated tables are produced or subsidiary production becomes significant, there will be a need to perform transfers of inputs and outputs to their respective categories.

1.4 IMPORTS

Whereas the classification of imports into complementary and competitive is used for the Zambian tables, a more elaborate classification of all imports by commodity would be welcome, since this would show two entries for each transaction - one for domestic products and one for imports. The results would make possible a considerable flexibility in the treatment of imports^T and permit a very clear analysis to be made of the impact of demand on home and foreign supplies. This however requires very demanding statistical requirements and data which in most cases is not readily available.

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APPENDIX A!

1980 INPUT-OUTPUT TABLE, DOMESTIC TRANSACTIONS MATRIX, FINAL DEMAND AND VALUE ADDED M
(Kwacha million)

		INTERMEDIATE DEMAND OF INDUSTRIES									
		1	2	3	4	5	6	7	8	9	1
		FOOD CROPS COMM	FOOD CROPS NON-COMM	CASH CROPS COMM	CASH CROPS NON-COMM	LIVESTOCK COMM	LIVESTOCK NON-COMM	MILK COMM	POULTRY AND EGGS COMM	POULTRY AND EGGS NON-COMM	FORE
1	FOOD CROPS commercial	9.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	FOOD CROPS non-commercial	0.00	6.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3	CASH CROPS commercial	0.00	0.00	1.20	0.30	0.00	0.00	0.00	0.00	0.00	
4	CASH CROPS non-commercial	0.00	0.00	0.00	1.16	0.00	0.00	0.00	0.00	0.00	
5	LIVESTOCK commercial	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.00	
6	LIVESTOCK non-commercial	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7	MILK	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
8	POULTRY & EGGS commercial	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9	POULTRY & EGGS non-commercial	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	
10	FORESTRY	1.40	0.00	0.21	0.00	1.00	0.00	0.00	0.00	0.00	
11	FISHING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12	METAL MINING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
13	OTHER MINING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
14	SLAUGHTERING commercial	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
15	SLAUGHTERING non-commercial	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
16	DAIRY PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
17	CANNING OF FRUITS & FISH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
18	EDIBLE OILS & FATS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
19	GRAIN MILL PRODUCTS large scale	0.00	0.00	0.00	0.00	16.09	0.44	1.14	10.00	0.33	
20	GRAIN MILL PRODUCTS small scale	0.00	0.00	0.00	0.00	1.35	0.00	0.00	0.00	0.00	
21	BAKERY PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
22	SUGAR REFINING	0.00	0.00	0.00	0.00	0.87	0.20	0.00	0.00	0.00	
23	CONFECTIONARY AND OTHER FOODS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
24	SOFT DRINKS, SPIRITS AND LIQUORS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
25	TOBACCO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
26	SPINNING & WEAVING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
27	MADE UP TEXTILES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
28	KNITTING & ROPE PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
29	WEARING APPAREL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
30	LEATHER PRODUCTS & FOOTWEAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
31	SAWMILLS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
32	OTHER WOOD PRODUCTS crafts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
33	PAPER AND PAPER PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	
34	INDUSTRIAL CHEMICALS	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
35	CHEMICAL PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
36	PETROLEUM & COAL PRODUCTS	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
37	PLASTIC PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
38	RUBBER PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
39	NON-METALLIC MINERAL PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
40	BASIC METAL PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
41	INDUSTRIAL MACHINERY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
42	AGRIC. & OTHER MACHINERY	3.00	0.00	0.70	0.30	0.34	0.00	0.00	0.00	0.00	
43	ELECTRICAL PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
44	TRANSPORT EQUIPMENT	1.50	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	
45	OTHER MANUFACTURING n.e.c	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
46	ELECTRICITY	2.30	0.00	0.30	0.75	0.79	0.00	0.00	1.86	0.00	
47	WATER WORKS AND SUPPLY	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
48	CONSTRUCTION	1.93	0.00	0.53	0.50	0.34	0.00	0.60	0.62	0.00	
49	WHOLESALE AND RETAIL TRADE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
50	HOTELS, BARS AND RESTAURANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
51	RAIL TRANSPORT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
52	ROAD TRANSPORT	4.41	0.35	3.32	0.82	1.71	0.00	0.01	0.00	0.00	
53	OTHER TRANSPORT	2.00	0.00	1.21	0.10	0.03	0.00	0.01	1.06	0.00	
54	POSTS AND TELECOMMUNICATIONS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
55	FINANCIAL INSTITUTIONS & INSURANCE	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
56	REAL ESTATE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
57	BUSINESS SERVICES	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
58	EDUCATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
59	HEALTH	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
60	RECREATION AND CULTURAL SERVICES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
61	GOVERNMENT ADMININSTRATION, SOCIAL AND PERSONAL SERVICES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
61	CONSUMPTION OF GOODS AND SERVICES	26.75	7.01	8.57	4.53	22.69	0.64	1.76	13.58	0.33	
62	IMPORTS (FOB)	24.34	3.20	5.01	4.36	6.02	1.84	0.00	0.73	0.00	
63	TOTAL CONSUMPTION OF GOODS AND SERVICES	51.09	10.21	13.58	8.89	28.71	2.48	1.76	14.31	0.33	
64	COMPENSATION OF EMPLOYEES	15.63	23.45	7.34	2.43	2.16	3.24	0.87	1.31	0.01	
65	OPERATING SURPLUS	73.45	165.34	49.48	7.55	13.73	8.00	5.30	3.89	0.60	
66	CONSUMPTION OF FIXED CAPITAL	7.02	4.69	2.02	0.91	1.62	0.00	0.26	0.40	0.02	
67	NET INDIRECT TAXES										
68	TOTAL DEMAND (GROSS OUTPUT)	147.19	204.29	72.42	19.78	46.22	13.72	8.19	19.91	1.56	
69	EMPLOYMENT	6333	10567	4102	1119	2617	777	463	1006	80	

After subtraction of the imputed service charges of banks and other financial institutions.

APPENDIX A CONTD.

.0 STRY	11 FISHING	12 METAL MINING	13 OTHER MINING	14 SLAUGHTERING large	15 SLAUGHTERING small	16 DAIRY PRODUCTS	17 CANNING AND DRYING OF FRUITS, FISH AND MEATS	18 EDIBLE OILS AND FATS	19 GRAIN MILL PRODUCTS large	20 GRAIN MILL PRODUCTS small	21 BAKERY PRODUCTS	22 SUGAR REFINING	2 CONFE AND O PROD
0.00	0.00	20.50	0.00	0.00	0.00	0.00	0.18	0.02	42.75	2.54	0.01	0.00	
0.00	0.00	14.76	0.00	0.00	0.00	0.00	0.13	0.11	22.72	0.42	0.00	0.00	
0.00	0.00	19.45	0.00	0.00	0.00	0.00	0.11	0.40	6.37	0.00	0.00	5.57	
0.00	0.00	3.41	0.00	0.00	0.00	0.00	0.00	0.03	0.19	0.01	0.00	0.00	
0.00	0.00	7.88	0.00	10.22	0.00	4.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.31	3.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	2.68	0.00	0.00	0.00	0.00	0.52	0.00	
0.00	0.00	0.00	0.00	1.48	0.00	0.00	0.00	0.02	2.02	0.00	0.95	0.00	
0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.50	0.00	3.97	6.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	4.00	0.00	0.00	0.00	0.00	0.15	0.00	6.00	0.00	0.00	0.00	
0.00	0.00	59.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	8.58	1.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	2.01	0.00	0.00	0.00	0.00	0.87	0.01	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.30	0.00	0.21	0.41	
0.00	3.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.00	0.00	4.22	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.29	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	2.60	0.00	8.11	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
0.00	0.00	6.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.48	0.00	0.20	0.79	
0.00	0.00	34.36	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.11	
0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.02	
0.00	0.00	68.27	1.03	0.01	0.00	0.31	0.04	0.00	7.15	0.09	0.42	0.71	
0.00	0.00	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	15.56	0.06	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.24	
0.00	0.00	24.78	0.00	0.18	0.00	0.62	0.09	0.07	5.69	0.00	1.02	0.14	
1.50	0.00	13.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	31.00	0.40	0.00	0.00	0.40	0.05	0.08	0.49	0.09	0.00	0.10	
0.00	0.00	1.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	9.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	10.11	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	
0.00	0.00	0.07	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	41.33	0.10	0.27	0.00	0.12	0.05	0.00	0.41	0.00	0.21	1.29	
0.00	0.00	2.19	0.00	0.12	0.01	0.06	0.02	0.02	0.03	0.00	0.04	0.03	
0.41	0.00	34.82	0.00	0.00	0.00	0.01	0.00	0.00	0.02	0.01	0.03	0.14	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	21.51	0.00	0.07	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.07	
0.00	0.00	26.58	0.26	0.25	0.08	0.14	0.00	0.06	1.88	0.00	0.09	0.38	
0.00	2.48	21.73	0.17	0.40	0.03	0.02	0.50	0.50	0.03	0.01	0.00	0.76	
0.00	0.00	1.83	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	59.84	0.19	0.59	0.01	0.75	0.02	0.07	1.83	0.00	0.55	0.30	
0.00	0.00	0.00	0.04	0.32	0.00	0.11	0.00	0.02	0.38	0.00	0.50	0.00	
0.00	0.00	37.38	1.43	0.11	0.02	0.12	0.01	0.01	1.82	0.00	0.31	0.06	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2.41	5.50	616.45	12.07	14.45	3.94	11.36	1.51	1.43	115.22	3.17	20.55	11.27	
0.90	0.20	23.13	0.94	0.46	0.00	3.19	0.50	0.32	2.94	0.00	0.22	3.50	
3.31	5.70	639.58	13.01	14.91	3.94	14.55	2.01	1.75	118.16	3.17	20.77	14.77	
1.72	2.90	305.70	6.44	2.69	0.02	2.23	1.92	0.06	6.01	1.77	4.83	9.39	
11.04	16.93	129.12	3.01	2.01	0.01	-3.83	-1.88	-0.35	-12.76	0.01	18.98	17.30	
0.52	0.87	55.28	2.51	0.65	0.01	0.98	0.28	0.00	1.99	0.05	1.35	4.41	
		0.00	0.03	0.00	0.00	0.01	0.00	0.00	0.07	0.00	0.52	0.73	
16.59	26.40	1129.68	25.00	20.26	3.98	13.94	2.33	1.48	113.47	5.00	46.45	47.20	
4421	1145	60704	1908	921	355	1063	234	21	3210	265	2499	7275	

APPENDIX A CONTD.

3	24	25	26	27	28	29	30	31	32	33	34	35	36
CTION THER UCTS	SOFT DRINKS SPIRITS AND LIQUORS	TOBACCO	SPINNING AND WEAVING	MADE UP TEXTILES	KNITTING AND ROPE PRODUCTS	WEARING APPAREL	LEATHER PRODUCTS AND FOOTWEAR	SAWMILS	OTHER WOOD PRODUCTS AND FURNITURE	PAPER AND PAPER PRODUCTS	INDUSTRIAL CHEMICALS	OTHER CHEMICAL PRODUCTS	PETROLEU AND COA PRODUCT
0.00	4.21												
0.00	0.92												
0.00	3.59	0.90	1.50		0.04								
0.00	1.06	0.08											
0.00							0.80						
0.00							0.09						
1.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
0.00													
0.00													
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.96	0.00	0.51	0.00	0.00	0.
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
0.00													
0.00													
0.00													
0.00													
0.11	1.67												
0.00	2.00												
0.00	0.00												
0.71													
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
3.21	0.27										3.51		15.
0.01	2.87												
0.00	6.98	1.33									1.77		1.
0.00													
0.00	0.97	0.19		9.31	2.34	7.87			0.03				
0.00				0.50	0.83	1.60			0.35				
0.00						0.14			0.16				
0.00									0.47		0.32		0.
							7.89				0.30		0.
0.00	0.03	0.01											0.
0.00													0.
0.20	0.69	3.31	1.00			0.10	0.70	0.19	3.01	14.19	1.27		1.
0.00			2.30	1.00	1.77	8.21	0.40	0.02	0.14	1.09	2.11		14.
0.00	3.25	0.61	1.08	2.00	0.80	2.08		0.61	0.72	2.13	0.00		
0.27	1.00	0.20	0.51		0.48	0.04			0.08	0.41	1.24	0.20	1.
0.00			2.69						0.03				
0.00			1.72								0.25	0.17	0.
0.09	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.51	1.
0.00									0.31				
0.00	2.30	0.64	0.70	0.02	0.10	0.01		0.06	0.10	0.16	0.12	0.35	0.
0.00			0.16					0.10					
0.00			0.10	0.11									
0.00	1.06	0.01	0.01		0.01	0.09				0.09	0.11		0.
0.00			1.64		1.54	2.02	0.56						
0.01	0.92	0.20	0.42	0.50	0.03			0.16	0.10	0.36	1.24	0.33	0.
0.23	0.10									0.01	0.03		
0.60	0.64	0.12	0.41		0.14			0.01	0.04	0.40			
0.00													
0.00													
0.00								0.01		0.05			0.
0.50	3.30	0.65	1.31	0.67	0.03	0.33	0.15	0.47	0.52	1.15	1.52	0.23	1.
0.15	2.63	0.50	1.00	0.62	0.65			0.20	0.44	1.09	1.81	0.12	0.
0.00	0.27	0.05	0.11		0.14	0.20		0.06	0.06			0.07	0.
0.01	0.93	0.18	1.72	1.29	0.16	0.07	0.04	0.35	0.27	1.29	0.46		1.
0.01	0.44	0.08	0.40	0.05	0.22	0.02		0.10	0.06	0.36			0.
0.01	1.27	0.24	0.98	0.48	0.10			0.10	0.19	0.65			0.
0.00	0.34	0.06	0.22	0.20	0.02				0.04	0.32			0.
0.00													
0.00													
0.00													
7.31	43.80	9.36	19.98	17.13	9.40	22.79	10.63	4.40	7.16	24.26	16.06	1.98	40.
2.08	3.01	0.58	9.08	4.16	3.82	14.46	4.84	0.25	2.01	10.28	38.79	19.18	79.
9.39	46.81	9.94	29.06	21.29	13.22	37.24	15.47	4.65	9.17	34.54	54.85	21.16	114.
1.60	14.56	1.74	5.81	2.44	1.71	10.92	3.83	2.72	3.05	10.99	5.90	4.24	11.
3.21	18.49	2.69	15.58	5.93	5.03	15.04	5.02	5.51	6.41	9.35	1.33	1.69	6.
0.50	2.33	0.20	1.08	1.15	0.85	1.20	0.67	3.08	0.31	1.43	2.34	2.12	2.
0.01	132.50	27.69	-4.11	0.23	0.00	1.07	0.06	0.00	0.02	0.25	0.10	0.10	3.
14.51	215.29	42.26	47.42	29.54	20.81	65.56	25.05	15.96	18.36	56.56	64.52	29.31	137.
716	3342	498	2336	1288	675	5910	983	1662	1748	3680	1499	448	3

APPENDIX A CONTD.

	37	38	39	40	41	42	43	44	45	46	47	48	49
JM RL TS	PLASTIC PRODUCTS	RUBBER PRODUCTS	NON-METALLIC MINERAL PRODUCTS	BASIC METAL PRODUCTS	INDUSTRIAL MACHINERY & METAL PRODUCTS	AGRICULTURAL AND OTHER MACHINERY	ELECTRICAL PRODUCTS	TRANSPORT EQUIPMENT	OTHER MANUFACTURING n.e.c	ELECTRICITY	WATER WORKS AND SUPPLY	CONSTRUCTION	WHOLESALE AND RETAIL TRADE
													2.1
		2.88	3.89		7.21	0.37	0.80	1.42					1.0
		0.41	1.28		1.00			0.23					0.0
													0.1
													3.6
													0.3
.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.5
													0.1
													0.3
.00	0.00	0.80	7.30	0.00	8.60	0.53	1.30	1.00	0.00	1.21	0.00	0.18	0.6
.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.1
		1.50	4.23				0.95					4.01	
													0.1
													0.0
													0.0
													0.0
													0.0
													0.0
.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
.62													0.0
.42													
		0.31	0.38							0.30			
		0.23			0.45	0.50	0.25	0.04		0.12			
		1.16						0.21					
.10	0.06									0.09			0.2
.33										0.05			0.1
.00					0.10							0.78	
.14					0.90				0.52			2.00	
.30		0.18	0.18			0.21	0.11	0.06		0.10	0.01	0.84	6.0
.22			4.62									1.56	3.5
			1.77								1.22	0.29	5.6
.01	0.06		2.32							3.00	0.02	3.42	4.8
												0.79	3.5
.21	1.48		0.08					0.14				1.26	
.71	0.00	0.00	6.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.64	0.0
					12.56	2.99	9.67	6.17					
.35	0.57	0.32	1.00		6.31	0.21	2.10	0.42			0.07		
							0.80			0.52			0.6
.13			0.35										2.9
							0.09	0.40					0.1
.43	0.11	0.61	2.00	0.75	0.52	0.12	0.32	0.16	0.02	35.54	1.56	0.46	1.7
			0.05							3.00	0.30	0.31	0.0
		0.11	0.09	0.10	0.33	0.11	0.25	0.20	0.03	6.65	2.12	2.05	5.5
												0.01	
.16	0.03	0.07	0.04	0.01	0.10	0.02	0.05	0.04		0.47		0.09	26.7
.59	1.40	1.00	0.62	0.28	0.56	0.67	0.43	0.75	0.02	4.61		4.53	11.9
.06	1.61	1.04	0.58	0.19	0.24	0.83	0.88	0.61	0.02	3.16		3.44	22.6
.04	0.11		0.29	0.55	0.32	0.49	0.30	0.31	0.01	0.80		1.11	4.6
.16	0.33	1.65	1.46	0.14	1.50	0.72	0.89	1.64	0.13	2.29		2.55	21.0
.31	0.41	0.28	0.62	0.02	0.61	0.25	0.36	0.63	0.03			2.79	9.3
.31	0.62	0.55	0.96	0.06	0.20	0.65	0.81	0.76	0.07	0.47		0.80	11.8
.03	0.09	0.10	0.03		0.30	0.01	0.09	0.21	0.01	0.22		0.10	0.1
													0.0
												0.34	24.9
												5.20	1.3
.63	6.88	13.18	41.03	2.10	41.81	8.68	20.45	15.40	0.86	62.60	5.30	52.55	179.2
.41	38.99	18.57	2.04	7.14	11.51	1.23	12.20	20.92	1.02	3.29	0.00	62.17	0.4
.04	45.87	31.75	43.07	9.24	53.32	9.91	32.65	36.32	1.88	65.83	5.30	114.72	179.6
.07	1.27	7.30	6.87	3.80	22.05	1.55	3.55	4.57	0.62	21.80	2.03	70.75	86.4
.85	10.38	6.89	14.52	3.72	13.84	0.51	7.52	20.31	5.84	24.71	6.26	57.99	283.6
.49	0.30	1.56	5.54	0.67	2.21	0.25	2.23	0.46	0.14	15.28	0.00	7.35	11.7
.22	0.10	0.25	0.07	-0.07	1.03	0.01	0.37	0.75		0.00	0.76	0.41	-80.3
.67	58.42	47.75	70.07	17.36	92.45	12.03	46.32	62.41	8.48	127.62	14.35	251.22	481.1
364	431	1568	3539	1202	5651	756	1719	1293	158	4946	2150	23817	2219

APPENDIX A CONTD.

L	50 HOTELS BARS AND RESTAURANTS	51 RAIL TRANSPORT	52 ROAD TRANSPORT	53 OTHER TRANSPORT	54 POSTS AND TELECOMM-UNICATIONS	55 FINANCIAL INSTITUTIONS AND INSURANCE	56 REAL ESTATE	57 BUSINESS SERVICES	58 EDUCATION	59 HEALTH	60 RECREATION AND CULTURAL SERVICES	61 GOVERNMENT ADMINISTRATION SOCIAL AND PERSONAL SERVICES	TOTAL INTERMED DEMAND
8	0.08								2.00	1.36	0.86	9.80	35
4	0.05											4.21	51
0			0.29										56
0													8
6	0.03								0.07		0.01	4.65	30
7	0.02											1.53	6
3	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.88	6
1	0.04										0.01	2.78	7
1	0.01											0.79	1
0	0.02	0.13	0.00	0.00	3.82	0.56	0.05	0.00	0.00	0.00	0.00	0.87	42
5	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.32	14
													59
													21
0	2.38	0.52		1.23					8.65	1.31	0.01	1.42	15
3	0.90								3.27	0.02		0.37	4
6	1.01	0.42		1.48					0.06	0.05	0.01	0.64	8
1	0.74	0.37		0.32					0.41	0.82		0.27	4
2	0.29	0.02		0.57					0.69	0.66		0.18	3
9	2.31	0.60		0.21					17.75	1.41	0.02	1.00	71
1	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.23	0.72	0.00	0.21	6
4	1.37	0.09	0.00	0.28	0.00	0.00	0.00	0.00	0.30	0.40	0.00	0.47	22
0	0.31		0.37	0.78					0.30	0.30		0.10	36
	0.10			1.45								0.09	4
	1.32							0.40					13
	0.01												0
			0.11				0.30						2
	0.09		0.10	0.01			0.40		0.16	0.09	0.02	1.36	7
			0.20										1
6	0.01			0.01		0.20	0.45		0.10	0.04		0.79	2
0						0.35	0.60					0.63	10
									0.01			0.50	7
6	0.40	0.87	0.49	1.81	0.70	7.92	0.26	2.15	8.15	0.60	1.53	4.92	6
7													64
2			0.90							10.21		3.64	75
5	1.06	12.42	25.00	22.00	1.82	1.07	3.38	2.63	0.72	3.33	0.27	10.85	45
9				15.88						0.20		12.99	182
			6.93									1.18	36
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29
					0.84							1.59	55
												2.22	46
0	0.30				0.51					0.06	0.01	4.51	50
0	0.32	0.06	0.56		0.50	0.27	0.03	0.09	0.95	0.60	0.38	6.17	8
0									0.10		0.01	0.02	17
3	0.90	0.66	3.98	0.24		0.69	1.34	0.54	5.00	1.20	0.34	8.74	27
3	0.10								0.04	0.06		0.30	6
5	0.56	0.38	0.64	1.26	1.54	1.49	2.89	2.28	5.09	3.10	0.74	4.99	122
				0.09					1.19				7
5	0.04		0.21	1.74	0.32	2.35	0.46	5.33	1.11	0.10	0.70	1.88	84
7	0.60	5.14	10.42	7.01	1.18	5.81	1.12	1.41	1.06	0.91	2.00	1.42	0
1	0.59	8.38	6.78	18.69	0.93	3.90	0.41	0.83	1.01	0.67	2.01	1.52	1
9	0.64	0.36	0.79	2.02	1.33	1.65	0.27	3.08	1.25	0.48	0.73	5.58	69
3	1.15			0.88		22.85	1.01		0.12		0.02	1.39	117
8	1.87	0.25	0.80	2.63	0.35	3.52	1.90	6.01	0.73	0.25	0.74	3.19	121
4	0.62	0.05	0.52	5.23	2.51	4.99	1.89	7.67	1.60	0.57	1.83	4.54	50
3		0.36	0.20	2.31	0.42	3.09	0.12	2.17	3.58	1.30	0.29	3.61	154
1	0.04					0.15	0.08			0.29		1.13	40
4				0.26	0.08	0.71	0.01		0.01	0.03	3.80	2.15	96
4	0.25		0.01	0.68		6.27	2.25	6.55	6.56	0.64	0.97	13.28	19
													1
													32
													44
4	22.27	31.08	59.30	89.07	16.85	67.84	19.22	41.14	73.27	31.78	17.32	139.67	2199
5	0.00	2.22	12.77	1.95	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.02	464
9	22.27	33.30	72.07	91.02	17.06	67.84	19.22	41.14	73.27	31.78	17.32	139.69	2663
3	11.33	34.55	28.12	28.72	18.07	54.87	12.07	51.13	167.27	29.80	12.00	207.79	1371
9	54.68	1.01	16.19	-2.03	3.26	96.26	-11.00	56.69	2.93	8.05	3.49	6.25	1305
1	1.43	4.24	17.78	7.54	4.56	4.78	39.95	8.77	0.39	0.25	1.17	1.27	246
3	0.11	0.40	0.91	-0.01	0.34	0.64	1.54	0.67	0.45	0.09	0.10	0.22	91
9	94.82	73.50	135.07	125.24	43.29	224.39	61.78	156.40	244.31	69.95	34.08	355.22	5676
0	9160	12016	8575	600	2749	11300	2373	9017	37920	13854	2284	52042	369

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APPENDIX B

1987 INPUT-OUTPUT TABLE, DOMESTIC TRANSACTIONS MATRIX, FINAL DEMAND AND VALUE ADDED
(Kwacha million)

		INTERMEDIATE DEMAND OF INDUSTRIES									
		1	2	3	4	5	6	7	8	9	
		FOOD CROPS comm	FOOD CROPS non-comm	CASH CROPS comm	CASH CROPS non-comm	LIVESTOCK comm	LIVESTOCK non-comm	MILK comm	POULTRY AND EGGS comm	POULTRY AND EGGS non-comm	FC
1	FOOD CROPS commercial	12.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	FOOD CROPS non-commercial	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3	CASH CROPS commercial	0.00	0.00	2.01	1.59	0.00	0.00	0.00	0.00	0.00	
4	CASH CROPS non-commercial	0.00	0.00	0.00	1.31	0.00	0.00	0.00	0.00	0.00	
5	LIVESTOCK commercial	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00	
6	LIVESTOCK non-commercial	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7	MILK	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
8	POULTRY & EGGS commercial	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9	POULTRY & EGGS non-commercial	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
10	FORESTRY	1.69	0.00	0.25	0.00	1.01	0.00	0.00	0.00	0.00	
11	FISHING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12	METAL MINING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
13	OTHER MINING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
14	SLAUGHTERING large	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
15	SLAUGHTERING small	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
16	DAIRY PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
17	CANNING OF FRUITS & FISH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
18	EDIBLE OILS & FATS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
19	GRAIN MILL PRODUCTS large scale	0.00	0.00	0.00	0.00	19.99	1.36	1.09	10.71	1.18	
20	GRAIN MILL PRODUCTS small scale	0.00	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.00	
21	BAKERY PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
22	SUGAR REFINING	0.00	0.00	0.00	0.00	0.69	0.30	0.00	0.00	0.00	
23	CONFECTIONARY AND OTHER FOODS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
24	SOFT DRINKS, SPIRITS AND LIQUORS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
25	TOBACCO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
26	SPINNING & WEAVING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
27	MADE UP TEXTILES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
28	KNITTING & ROPE PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
29	WEARING APPAREL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
30	LEATHER PRODUCTS & FOOTWEAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
31	SAWMILLS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
32	OTHER WOOD PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
33	PAPER AND PAPER PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	
34	INDUSTRIAL CHEMICALS	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
35	CHEMICAL PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
36	PETROLEUM & COAL PRODUCTS	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
37	PLASTIC PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
38	RUBBER PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
39	NON-METALLIC MINERAL PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
40	BASIC METAL PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
41	INDUSTRIAL MACHINERY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
42	AGRIC. & OTHER MACHINERY	4.44	0.00	1.02	0.46	0.42	0.00	0.00	0.00	0.00	
43	ELECTRICAL PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
44	TRANSPORT EQUIPMENT	3.65	0.00	1.19	0.00	0.00	0.00	0.00	0.00	0.00	
45	OTHER MANUFACTURING n.e.c	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
46	ELECTRICITY	3.26	0.00	1.25	1.10	0.93	0.00	0.00	1.90	0.00	
47	WATER WORKS AND SUPPLY	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
48	CONSTRUCTION	7.10	0.00	1.91	1.91	1.04	0.00	1.11	1.64	0.00	
49	WHOLESALE AND RETAIL TRADE	3.22	0.09	1.71	0.22	4.49	0.00	0.03	2.41	0.00	
50	HOTELS, BARS AND RESTAURANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
51	RAIL TRANSPORT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
52	ROAD TRANSPORT	5.40	0.23	2.43	1.04	1.75	0.00	0.01	0.00	0.00	
53	OTHER TRANSPORT	2.40	0.00	1.43	0.12	0.03	0.00	0.01	0.92	0.00	
54	POSTS AND TELECOMMUNICATIONS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
55	FINANCIAL INSTITUTIONS & INSURANCE	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
56	REAL ESTATE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
57	BUSINESS SERVICES	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
58	EDUCATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
59	HEALTH	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
60	RECREATION AND CULTURAL SERVICES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
61	GOVERNMENT ADMININSTRATION, SOCIAL AND PERSONAL SERVICES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
61	CONSUMPTION OF GOODS AND SERVICES	45.14	10.38	15.19	7.75	31.62	1.65	2.24	17.62	1.18	
	IMPORTS f.o.b	18.80	2.47	3.87	3.37	4.65	1.42	0.00	0.56	0.00	
64	COMPENSATION OF EMPLOYEES	10.81	28.22	8.83	2.92	2.60	3.90	1.05	1.58	0.01	
65	OPERATING SURPLUS	85.93	199.13	58.83	8.66	14.80	9.54	6.26	3.72	0.66	
66	CONSUMPTION OF FIXED CAPITAL	8.45	5.64	2.43	1.10	1.95	0.00	0.31	0.48	0.02	
67	NET INDIRECT TAXES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
68	TOTAL DEMAND (GROSS OUTPUT)	177.13	245.85	87.15	23.80	55.62	16.51	9.86	23.96	1.88	
	EMPLOYMENT	6151	10264	3984	1087	2542	755	450	977	78	

| AT CONSTANT (1980) PRODUCER'S PRICES

APPENDIX B CONTD.

10	11	12	13	14	15	16	17	18	19	20	21	22	
RESTRY	FISHING	METAL MINING	OTHER MINING	SLAUGHTERING large	SLAUGHTERING small	DAIRY PRODUCTS	CANNING AND DRYING OF FRUITS, FISH AND MEATS	EDIBLE OILS AND FATS	GRAIN MILL PRODUCTS large	GRAIN MILL PRODUCTS small	BAKERY PRODUCTS	SUGAR REFINING	CON AND PR
0.00	0.00	16.93	0.00	0.00	0.00	0.00	0.34	0.04	61.93	2.55	0.02	0.00	
0.00	0.00	27.53	0.00	0.00	0.00	0.00	0.29	0.23	38.08	0.66	0.00	0.00	
0.00	0.00	27.48	0.00	0.00	0.00	0.00	0.18	0.60	8.09	0.00	0.00	5.99	
0.00	0.00	3.57	0.00	0.00	0.00	0.00	0.00	0.03	0.18	0.01	0.00	0.00	
0.00	0.00	12.27	0.00	3.85	0.00	3.85	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.59	4.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	2.85	0.00	0.00	0.00	0.00	0.77	0.00	
0.00	0.00	0.00	0.00	1.63	0.00	0.00	0.00	0.03	2.07	0.00	1.32	0.00	
0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.56	0.00	3.98	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	5.04	0.00	0.00	0.00	0.00	0.16	0.00	6.79	0.00	0.00	0.00	
0.00	0.00	82.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	8.68	2.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	1.84	0.00	0.00	0.00	0.00	0.79	0.01	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.26	0.00	0.24	0.47	
0.00	3.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.29	0.00	8.47	0.00	
0.00	.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.04	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	1.85	0.00	6.36	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	12.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	1.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.48	0.00	0.27	1.04	
0.00	0.00	33.85	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.13	
0.00	0.00	35.67	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.10	
0.00	0.00	23.14	0.45	.00	0.00	0.13	0.02	0.00	2.18	0.03	0.17	0.29	
0.00	0.00	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	17.90	0.09	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.33	
0.00	0.00	27.11	0.00	0.19	0.00	0.84	0.12	0.09	5.59	0.00	1.36	0.18	
0.77	0.00	10.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	48.99	0.78	0.00	0.00	0.78	0.09	0.14	0.70	0.12	0.00	0.19	
0.00	0.00	2.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	19.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	20.43	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31	
0.00	0.00	0.09	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	48.60	0.15	0.31	0.00	0.17	0.07	0.00	0.43	0.00	0.30	1.80	
0.00	0.00	2.40	0.00	0.13	0.01	0.08	0.03	0.02	0.03	0.00	0.05	0.04	
1.40	0.00	106.24	0.00	0.00	0.00	0.04	0.00	0.00	0.05	0.03	0.11	0.51	
0.75	1.02	11.11	3.31	3.97	0.48	3.80	0.05	0.02	9.09	0.63	2.06	2.64	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	25.47	0.00	0.08	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.10	
0.00	0.00	27.00	0.33	0.25	0.06	0.18	0.00	0.07	1.72	0.00	0.11	0.46	
0.00	2.52	21.65	0.21	0.39	0.02	0.02	0.59	0.56	0.03	0.01	0.00	0.90	
0.00	0.00	2.16	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	63.47	0.25	0.61	0.01	0.98	0.02	0.08	1.74	0.00	0.71	0.38	
0.00	0.00	0.00	0.05	0.33	0.00	0.14	0.00	0.02	0.36	0.00	0.64	0.00	
0.00	0.00	44.77	2.12	0.13	0.02	0.18	0.01	0.01	1.96	0.00	0.45	0.09	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3.48	7.09	795.07	15.79	18.60	5.02	15.91	2.15	1.97	147.99	4.03	26.25	15.94	
0.70	0.15	17.86	0.73	0.36	0.00	2.46	0.39	0.25	2.27	0.00	0.17	2.70	
2.07	3.49	367.89	7.75	3.24	0.02	2.68	2.31	0.07	7.23	2.13	5.81	11.30	
13.10	19.99	112.13	2.76	1.41	-0.26	-5.47	-2.38	-0.50	-23.42	-0.21	21.41	20.67	
0.63	1.05	66.53	3.02	0.78	0.01	1.18	0.34	0.00	2.39	0.06	1.62	5.31	
0.00	0.00	0.00	0.04	0.00	0.00	0.01	0.00	0.00	0.08	0.00	0.63	0.88	
19.96	31.77	1359.48	30.09	24.38	4.79	16.78	2.80	1.78	136.55	6.02	55.90	56.80	
4294	1112	58964	1853	895	345	1033	227	20	3118	257	2427	7066	

23	24	25	26	27	28	29	30	31	32	33	34	35	36
FECTION OTHER ODUCTS	SOFT DRINKS SPIRITS AND LIQUORS	TOBACCO	SPINNING AND WEAVING	MADE UP TEXTILES	KNITTING AND ROPE PRODUCTS	WEARING APPAREL	LEATHER PRODUCTS AND FOOTWEAR	SAWMILS	OTHER WOOD PRODUCTS AND FURNITURE	PAPER AND PAPER PRODUCTS	INDUSTRIAL CHEMICALS	OTHER CHEMICAL PRODUCTS	PETROL AND (PRODI
0.00	2.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	1.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	3.22	1.15	2.39	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.98	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.12	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.00	
1.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.00	0.54	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.10	1.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	1.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2.98	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.23	0.00	:
0.01	1.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	9.04	1.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.88	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	1.43	0.29	0.00	10.31	3.62	10.88	0.00	0.00	0.05	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.72	1.41	2.88	0.00	0.00	0.61	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.29	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.00	1.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.83	0.00	0.00	0.00	1.35	0.00	
0.00	0.05	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.27	0.62	2.43	1.25	0.00	0.00	0.11	0.69	0.12	2.46	14.04	3.18	0.00	
0.00	0.00	0.00	2.56	0.77	1.56	7.93	0.35	0.02	0.13	1.12	2.48	0.00	2
0.00	12.48	2.39	5.16	6.83	3.22	8.87	0.00	2.25	2.95	9.69	0.00	0.00	
0.11	0.30	0.06	0.20	0.00	0.15	0.01	0.00	0.00	0.03	0.15	0.95	0.35	
0.00	0.00	0.00	1.61	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	
0.00	0.00	0.00	2.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	0.94	
0.12	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	2.86	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	
0.00	3.21	0.91	1.25	0.02	0.15	0.02	0.00	0.08	0.15	0.26	0.43	2.83	
0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.23	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	1.89	0.02	0.02	0.00	0.02	0.18	0.00	0.00	0.00	0.19	0.50	0.00	
0.00	0.00	0.00	2.28	0.00	1.75	2.44	0.62	0.00	0.00	0.00	0.00	0.00	
0.01	0.96	0.21	0.56	0.46	0.03	0.00	0.00	0.16	0.11	0.44	3.30	1.99	
0.31	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.07	0.00	
2.22	1.72	0.33	1.41	0.00	0.40	0.00	0.00	0.03	0.12	1.28	0.00	0.00	
0.13	3.17	0.87	1.29	1.28	0.06	1.35	1.79	0.90	0.68	2.41	5.41	0.06	1
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.06	0.00	0.00	
0.61	3.03	0.59	1.50	0.53	0.03	0.33	0.14	0.40	0.50	1.22	3.50	1.20	
0.18	2.31	0.45	1.12	0.49	0.60	0.00	0.00	0.17	0.41	1.14	4.08	0.61	
0.00	0.28	0.05	0.15	0.00	0.15	0.23	0.00	0.06	0.07	0.00	0.00	0.42	
0.01	0.87	0.17	2.06	1.07	0.16	0.07	0.04	0.31	0.27	1.43	1.10	0.00	
0.01	0.41	0.08	0.48	0.02	0.22	0.02	0.00	0.09	0.06	0.40	0.00	0.00	
0.01	1.34	0.26	1.33	0.83	0.11	0.00	0.00	0.10	0.21	0.81	0.00	0.00	
0.00	0.33	0.06	0.28	0.17	0.02	0.00	0.00	0.00	0.04	0.37	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
10.25	57.11	12.18	29.57	23.70	13.70	35.58	15.73	5.71	10.03	35.56	38.13	11.27	8
1.61	2.32	0.45	7.01	3.21	2.95	11.17	3.74	0.19	1.55	7.94	29.96	14.81	5
1.93	17.52	2.09	6.99	3.54	2.06	13.14	4.61	3.27	3.67	13.23	7.10	17.86	
3.31	19.14	2.57	17.14	3.44	5.31	16.16	5.19	3.91	7.17	9.32	-0.47	113.08	
0.36	3.53	0.24	1.30	1.38	1.02	1.55	0.81	3.71	0.37	1.72	2.82	4.53	
0.01	159.45	33.32	-4.95	0.28	0.00	1.29	0.07	0.00	0.02	0.30	0.12	4.12	
17.46	259.08	50.86	57.07	35.55	25.04	78.90	30.15	16.80	22.82	68.07	77.64	165.67	15
695	3246	484	2269	1251	656	5741	955	1614	1698	2603	1456	3268	

APPENDIX B CONTD.

EUM OAL ICTS	37 PLASTIC PRODUCTS	38 RUBBER PRODUCTS	39 NON-METALLIC MINERAL PRODUCTS	40 BASIC METAL PRODUCTS	41 INDUSTRIAL MACHINERY & METAL PRODUCTS	42 AGRICULTURAL AND OTHER MACHINERY	43 ELECTRICAL PRODUCTS	44 TRANSPORT EQUIPMENT	45 OTHER MANUFACTURING n.e.c	46 ELECTRICITY	47 WATER WORKS AND SUPPLY	48 CONSTRUCTION	49 WHOLES AND RE TRAD
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	4.11	2.91	0.00	6.83	0.62	0.00	1.07	0.00	0.00	0.00	0.00	0
0.00	0.00	0.66	1.44	0.00	1.33	0.00	0.00	0.43	0.00	0.00	0.00	0.00	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	1.24	7.90	0.00	10.98	0.63	0.44	0.00	0.00	1.20	0.00	0.28	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	2.35	4.61	0.00	0.00	0.00	1.41	0.00	0.00	0.00	0.00	6.30	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
6.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
4.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	0.80	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0
0.00	0.00	0.65	0.00	0.00	1.05	1.09	0.67	0.13	0.00	0.22	0.00	0.00	0
0.00	0.00	3.41	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00	0
0.30	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0
1.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0
0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00	2.19	0
0.26	0.00	0.00	0.00	0.00	0.98	0.03	0.00	0.00	0.61	0.00	0.00	2.66	0
3.14	0.00	0.31	0.21	0.00	0.00	0.28	0.18	0.12	0.00	0.11	0.01	1.44	5
0.43	0.00	0.00	4.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.39	3
0.00	0.00	0.00	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.54	1.96	22
0.75	0.07	0.00	0.85	0.00	0.00	0.00	0.00	0.00	0.00	1.01	.00	1.80	1
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.03	2
0.53	4.32	0.00	0.10	0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.00	2.25	0
4.08	0.00	0.00	8.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.24	0
0.00	0.00	0.00	0.00	0.00	12.25	1.27	10.86	7.17	0.00	0.00	0.00	0.00	0
1.21	3.13	0.78	1.70	0.00	12.69	0.39	4.86	1.20	0.00	0.00	0.05	0.00	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.38	0.00	0.00	1.05	0.00	0.00	1
0.57	0.00	0.00	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.89	0.00	0.00	0.00	0.00	0
1.10	0.45	1.11	2.54	1.77	0.78	0.17	0.55	0.34	0.04	35.92	0.87	0.84	2
0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	3.25	0.16	0.53	0
0.00	0.00	0.47	0.30	0.71	1.28	0.40	1.12	1.10	0.16	20.08	3.10	9.71	16
1.41	1.54	1.73	2.37	0.26	4.82	2.10	2.93	6.03	0.21	5.15	0.01	7.04	3
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0
0.41	0.12	0.13	0.05	0.03	0.15	0.03	0.09	0.09	0.00	0.55	0.00	0.17	31
3.52	4.94	1.57	0.68	0.66	0.72	0.81	0.64	1.38	0.03	4.63	0.00	7.14	12
0.13	5.57	1.60	0.62	0.44	0.30	0.98	1.28	1.10	0.03	3.12	0.00	5.32	22
0.10	0.45	0.00	0.37	1.51	0.48	0.63	0.52	0.66	0.02	0.94	0.00	2.04	5
2.68	1.22	2.71	1.67	0.34	2.02	0.91	1.38	3.14	0.24	2.40	0.00	4.20	22
0.71	1.51	0.46	0.71	0.05	0.82	0.31	0.56	1.20	0.05	0.00	0.00	4.58	3
0.81	2.58	0.98	1.24	0.17	0.30	0.92	1.42	1.65	0.14	0.56	0.00	1.49	14
0.07	0.35	0.17	0.04	0.00	0.42	0.01	0.15	0.42	0.02	0.24	0.00	0.17	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67	31
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.78	2
5.18	26.53	25.24	53.15	5.93	58.46	11.61	31.59	29.14	1.56	81.14	6.75	95.23	228
6.69	30.11	14.34	1.58	5.51	8.89	0.95	9.42	16.16	0.79	2.49	0.00	48.01	0
7.32	1.53	8.78	8.27	4.57	26.54	1.87	4.27	5.50	0.75	26.23	2.44	85.14	104
1.95	11.05	6.92	14.58	4.15	13.48	-0.26	7.33	22.86	6.94	25.32	7.17	127.60	328
3.00	0.96	1.88	6.67	0.81	2.66	0.30	2.68	0.55	0.17	18.39	0.00	8.85	14
1.08	0.12	0.30	0.08	-0.08	1.24	0.01	0.45	0.90	0.00	0.00	0.91	0.49	-96
5.22	70.30	57.46	84.32	20.89	111.26	14.48	55.74	75.11	10.20	153.58	17.27	365.32	579
435	419	1523	3438	1168	5489	346	1670	1256	153	4804	2088	23134	21

APPENDIX B CONTD.

	50	51	52	53	54	55	56	57	58	59	60	61	
LE AIL	HOTELS BARS AND RESTAURANTS	RAIL TRANSPORT	ROAD TRANSPORT	OTHER TRANSPORT	POSTS AND TELECOMM-UNICATIONS	FINANCIAL INSTITUTIONS AND INSURANCE *	REAL ESTATE	BUSINESS SERVICES	EDUCATION	HEALTH	RECREATION AND CULTURAL SERVICES	GOVERNMENT ADMINISTRATION SOCIAL AND PER SONAL SERVICES	TOTAL INTERMI DEMAND
.88	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.22	1.23	0.30	6.39	1
.92	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.00	
.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
.18	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.01	5.55	
.71	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.27	
.47	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.81	
.35	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	2.42	
.29	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84	
.50	0.02	0.20	0.00	0.00	1.61	0.28	0.04	0.00	0.00	0.00	0.00	0.67	
.19	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.16	
.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
.15	2.28	1.19	0.00	2.67	0.00	0.00	0.00	0.00	8.91	0.26	0.01	1.62	
.01	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57	.00	0.00	0.07	
.04	0.83	0.48	0.00	1.59	0.00	0.00	0.00	0.00	0.03	0.02	.00	0.36	
.01	0.79	0.55	0.00	0.45	0.00	0.00	0.00	0.00	0.27	0.45	0.00	0.20	
.02	0.31	0.03	0.00	0.79	0.00	0.00	0.00	0.00	0.45	0.35	0.00	0.13	
.05	3.56	1.51	0.00	0.50	0.00	0.00	0.00	0.00	17.83	1.30	0.02	1.26	
.01	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.62	0.29	0.00	0.12	
.03	1.05	0.10	0.00	0.28	0.00	0.00	0.00	0.00	0.14	0.16	0.00	0.25	
.00	0.27	0.00	0.45	0.89	0.00	0.00	0.00	0.00	0.16	0.13	0.00	0.06	
.00	0.09	0.00	0.00	1.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	
.00	3.11	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.00	0.00	0.00	0.00	
.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
.00	0.00	0.00	0.28	0.00	0.00	0.00	0.00	0.43	0.00	0.00	0.00	0.00	
.00	0.18	0.00	0.28	0.03	0.00	0.00	0.00	0.64	0.00	0.20	0.09	0.02	1.91
.00	0.00	0.00	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
.36	0.02	0.00	0.00	0.02	0.00	0.30	0.54	0.00	0.09	0.03	0.00	0.83	
.20	0.00	0.00	0.00	0.00	0.00	0.75	1.03	0.00	0.00	0.00	0.00	0.95	
.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.33	
.55	0.49	1.48	0.83	2.90	0.77	8.31	0.25	1.28	6.21	0.37	1.09	4.16	
.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
.87	0.00	0.00	5.97	0.00	0.00	0.00	0.00	0.00	0.00	24.38	0.00	12.03	1
.63	0.40	5.20	10.97	9.81	0.62	0.39	0.36	0.89	0.17	0.65	0.06	2.81	
.34	0.00	0.00	0.00	19.36	0.00	0.00	0.00	0.00	0.00	0.09	0.00	8.36	
.00	0.00	0.00	12.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.04	
.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
.00	0.00	0.00	0.00	0.00	1.35	0.00	0.00	0.00	0.00	0.00	0.00	1.92	
.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.08	
.21	0.67	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00	0.07	0.01	7.00	
.80	0.71	0.19	1.73	0.00	1.01	0.59	0.05	0.18	1.32	0.68	0.50	9.52	
.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.01	0.02	
.01	1.17	1.19	7.14	0.41	0.00	0.88	1.36	0.64	4.05	0.79	0.26	7.85	1
.03	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.04	0.00	0.25	
.77	1.88	1.78	2.98	5.57	4.70	4.93	7.63	6.98	10.68	5.30	0.47	11.63	2
.64	1.65	4.11	6.43	3.25	2.45	1.57	2.07	1.12	1.54	0.75	0.36	3.91	1
.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	1.20	0.00	0.00	0.00	
.36	0.05	0.00	0.38	2.98	0.38	3.02	0.47	6.33	0.90	0.07	0.54	1.70	
.04	0.67	8.00	16.15	10.31	1.20	6.40	0.98	1.44	0.74	0.52	1.31	1.10	1
.50	0.65	12.80	10.31	26.96	0.93	4.21	0.35	0.83	0.69	0.37	1.29	1.16	1
.49	0.83	0.65	1.43	3.46	1.57	2.12	0.28	3.66	1.02	0.32	0.56	5.04	
.08	1.34	0.00	0.00	1.35	0.00	26.28	0.93	0.00	0.09	0.00	0.01	1.13	1
.71	2.18	0.41	1.29	4.03	0.37	4.03	1.74	6.38	0.53	0.15	0.51	2.58	
.04	0.82	0.09	0.95	9.07	3.00	6.48	1.96	9.22	1.32	0.38	1.42	4.15	1
.14	0.00	0.61	0.34	3.71	0.47	3.71	0.12	2.42	2.73	0.81	0.21	3.06	
.02	0.10	0.00	0.00	0.00	0.00	0.36	0.15	0.00	0.00	0.36	0.00	1.90	
.23	0.00	0.00	0.00	0.48	0.10	0.97	0.01	0.00	0.01	0.02	3.10	2.08	
.10	0.44	0.00	0.02	1.56	0.00	10.76	3.08	10.41	7.14	0.57	0.93	16.06	
.31	28.34	40.57	81.29	114.24	21.54	86.34	24.46	52.36	72.04	40.99	13.67	149.81	29
.35	0.00	1.71	9.86	1.51	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.02	3
.01	13.63	41.58	33.84	34.56	21.75	66.03	14.53	61.53	197.81	29.65	15.89	257.02	16
.98	70.28	-0.99	15.06	-8.66	2.75	111.15	-14.57	65.37	15.55	10.06	5.45	7.38	16
.09	1.72	5.10	21.40	9.07	5.49	5.75	48.08	10.55	3.99	2.56	4.98	11.00	3
.07	0.13	0.48	1.10	-0.01	0.41	0.77	1.85	0.81	4.61	0.92	1.02	2.25	1
.07	114.11	88.45	162.55	150.72	52.10	270.04	74.35	190.63	294.01	84.18	41.01	427.48	70
554	8897	11671	8329	583	2670	10976	2305	8758	36833	13457	2219	50550	3

APPENDIX B CONTD.

EDIATE	PRIVATE FINAL CONSUMPTION EXPENDITURE	GOVERNMENT FINAL CONSUMPTION EXPENDITURE	INCREASE IN STOCKS	GROSS FIXED CAPITAL FORMATION	EXPORTS (FOB)	TOTAL SUPPLY (PRODUCTION)
39.47	65.02	0.00	0.38	1.44	0.82	177.13
86.32	105.02	0.00	52.82	1.69	0.00	245.85
58.91	11.88	0.00	0.00	0.94	5.42	87.15
10.13	13.41	0.00	0.00	0.26	0.00	23.80
36.19	17.65	0.00	0.81	0.00	0.97	55.62
8.20	6.02	0.00	2.30	0.00	0.00	16.51
7.77	2.09	0.00	0.00	0.00	0.00	9.86
7.88	16.08	0.00	0.00	0.00	0.00	23.96
1.31	0.56	0.00	0.00	0.00	0.00	1.88
39.54	0.77	0.00	-21.30	0.50	0.45	19.96
16.41	15.36	0.00	0.00	0.00	0.00	31.77
82.39	10.11	0.00	60.33	0.00	1206.65	1359.48
25.53	3.04	0.00	0.90	0.00	0.62	30.09
17.13	8.69	1.11	-2.56	0.00	0.00	24.38
0.90	10.44	0.00	-6.54	0.00	0.00	4.79
7.19	12.80	0.17	-3.39	0.00	0.00	16.78
4.44	0.81	0.14	-2.59	0.00	0.00	2.80
3.11	0.08	1.30	-2.71	0.00	0.00	1.78
78.11	62.65	7.15	-11.36	0.00	0.00	136.55
4.86	6.05	0.00	-4.90	0.00	0.00	6.02
2.00	52.93	0.90	0.07	0.00	0.00	55.90
45.62	4.95	1.90	1.95	0.00	2.39	56.80
3.73	14.66	0.00	-0.93	0.00	0.00	17.46
24.92	193.00	0.00	41.16	0.00	0.00	259.08
0.03	35.40	0.00	12.92	0.00	2.50	50.86
29.28	19.57	3.27	4.76	0.00	0.18	57.07
12.79	13.21	8.41	1.15	0.00	0.00	35.55
5.25	12.27	3.38	3.54	0.00	0.00	25.04
4.51	61.79	4.37	8.22	0.00	0.00	78.90
16.63	4.85	2.70	5.36	0.00	0.00	30.15
15.00	1.25	0.00	-4.85	5.30	0.10	16.80
6.56	15.42	0.00	0.84	0.00	0.00	22.82
36.52	16.94	10.69	-26.11	0.00	0.03	68.07
32.25	8.84	0.89	-14.33	0.00	0.00	77.64
37.76	12.06	3.43	-18.78	0.00	1.20	165.67
37.25	88.28	3.04	-3.35	0.00	0.00	155.22
35.99	46.44	5.52	-15.65	0.00	0.00	70.30
42.84	0.93	0.00	12.77	0.19	0.73	57.46
37.02	12.88	0.00	2.29	0.00	2.19	84.32
42.66	0.63	0.00	-22.47	0.00	0.01	20.89
30.36	1.99	0.44	0.42	18.05	0.00	111.26
11.13	1.97	1.24	0.03	0.10	0.00	14.48
35.66	8.69	5.01	0.39	6.32	1.07	55.74
39.27	1.24	7.39	4.02	3.18	0.00	75.11
8.60	0.38	0.00	1.12	0.00	0.11	10.20
42.74	5.18	0.49	-7.59	0.00	12.76	153.58
8.32	8.95	0.00	0.00	0.00	0.00	17.27
30.31	52.66	3.70	-51.96	110.61	0.00	365.32
48.93	246.32	1.28	182.55	0.00	0.00	579.07
1.41	110.38	2.31	0.00	0.00	0.00	114.11
75.76	4.62	0.12	0.00	0.00	7.96	88.45
42.24	15.96	4.35	0.00	0.00	0.00	162.55
46.91	1.44	2.37	0.00	0.00	0.00	150.72
37.81	8.94	5.34	0.00	0.00	0.00	52.10
32.41	116.71	0.91	0.00	0.00	0.00	270.04
48.19	24.14	2.02	0.00	0.00	0.00	74.35
30.30	50.96	19.35	0.00	0.00	0.00	190.62
21.67	272.34	0.00	0.00	0.00	0.00	294.01
3.07	81.11	0.00	0.00	0.00	0.00	84.18
38.66	2.35	0.00	0.00	0.00	0.00	41.01
35.91	113.35	248.22	0.00	0.00	0.00	427.48
34.06	2114.57	363.52	180.27	155.20	1246.17	7013.79
38.62	124.79	287.27	7.72	172.21		1309.23
35.97		893.00				2542.21
38.94						1567.20
17.34						315.36
18.87						117.66
13.79	2239.36	1543.79	187.99	327.41	1246.17	12865.46
38560		2380				381540

APPENDIX C

ADJUSTED (1987) INPUT-OUTPUT TABLE AT CONSTANT (1980) PRODUCER'S VALUES
(Kwacha million)

		INTERMEDIATE DEMAND OF INDUSTRIES									
		1	2	3	4	5	6	7	8	9	
		FOOD CROPS COMM	FOOD CROPS NON-COMM	CASH CROPS COMM	CASH CROPS NON-COMM	LIVESTOCK COMM	LIVESTOCK NON-COMM	MILK COMM	POULTRY AND EGGS COMM	POULTRY AND EGGS NON-COMM	FI
1	FOOD CROPS commercial	12.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	FOOD CROPS non-commercial	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3	CASH CROPS commercial	0.00	0.00	2.01	1.59	0.00	0.00	0.00	0.00	0.00	
4	CASH CROPS non-commercial	0.00	0.00	0.00	1.31	0.00	0.00	0.00	0.00	0.00	
5	LIVESTOCK commercial	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00	
6	LIVESTOCK non-commercial	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7	MILK	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
8	POULTRY & EGGS commercial	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9	POULTRY & EGGS non-commercial	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
10	FORESTRY	1.69	0.00	0.25	0.00	1.01	0.00	0.00	0.00	0.00	
11	FISHING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12	METAL MINING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
13	OTHER MINING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
14	SLAUGHTERING large	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
15	SLAUGHTERING small	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
16	DAIRY PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
17	CANNING OF FRUITS & FISH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
18	EDIBLE OILS & FATS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
19	GRAIN MILL PRODUCTS large scale	0.00	0.00	0.00	0.00	13.93	1.36	1.09	10.71	1.18	
20	GRAIN MILL PRODUCTS small scale	0.00	0.00	0.00	0.00	0.93	0.00	0.00	0.00	0.00	
21	BAKERY PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
22	SUGAR REFINING	0.00	0.00	0.00	0.00	0.69	0.30	0.00	0.00	0.00	
23	CONFECTIONARY AND OTHER FOODS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
24	SOFT DRINKS, SPIRITS AND LIQUORS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
25	TOBACCO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
26	SPINNING & WEAVING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
27	MADE UP TEXTILES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
28	KNITTING & ROPE PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
29	WEARING APPAREL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
30	LEATHER PRODUCTS & FOOTWEAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
31	SAWMILLS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
32	OTHER WOOD PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
33	PAPER AND PAPER PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	
34	INDUSTRIAL CHEMICALS	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
35	CHEMICAL PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
36	PETROLEUM & COAL PRODUCTS	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
37	PLASTIC PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
38	RUBBER PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
39	NON-METALLIC MINERAL PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
40	BASIC METAL PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
41	INDUSTRIAL MACHINERY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
42	AGRIC. & OTHER MACHINERY	4.44	0.00	1.02	0.46	0.42	0.00	0.00	0.00	0.00	
43	ELECTRICAL PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
44	TRANSPORT EQUIPMENT	3.65	0.00	1.19	0.00	0.00	0.00	0.00	0.00	0.00	
45	OTHER MANUFACTURING n.e.c	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
46	ELECTRICITY	3.26	0.00	1.25	1.10	0.93	0.00	0.00	1.30	0.00	
47	WATER WORKS AND SUPPLY	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
48	CONSTRUCTION	7.10	0.00	1.91	1.91	1.04	0.00	1.11	1.64	0.00	
49	WHOLESALE AND RETAIL TRADE	3.22	0.09	1.71	0.22	4.49	0.00	0.03	2.41	0.00	
50	HOTELS, BARS AND RESTAURANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
51	RAIL TRANSPORT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
52	ROAD TRANSPORT	5.40	0.29	2.48	1.04	1.75	0.00	0.01	0.00	0.00	
53	OTHER TRANSPORT	2.40	0.00	1.45	0.12	0.03	0.00	0.01	0.92	0.00	
54	POSTS AND TELECOMMUNICATIONS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
55	FINANCIAL INSTITUTIONS & INSURANCE	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
56	REAL ESTATE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
57	BUSINESS SERVICES	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
58	EDUCATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
59	HEALTH	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
60	RECREATION AND CULTURAL SERVICES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
61	GOVT. ADMIN, SOC & PERS SERVICES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
62	HOUSEHOLDS	18.81	28.22	8.83	2.92	2.60	3.90	1.05	1.58	0.01	
63	CONSUMPTION OF GOODS AND SERVICES	63.95	38.60	22.02	10.68	34.22	5.55	3.29	19.19	1.20	
64	IMPORTS f.o.b	18.80	2.47	3.87	3.37	4.65	1.42	0.00	0.56	0.00	
65	OPERATING SURPLUS	85.93	199.13	58.83	8.66	14.80	9.54	6.26	3.72	0.66	
66	CONSUMPTION OF FIXED CAPITAL	8.45	5.64	2.45	1.10	1.95	0.00	0.31	0.48	0.02	
67	NET INDIRECT TAXES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
68	TOTAL DEMAND (GROSS OUTPUT)	177.13	245.85	87.15	23.80	55.62	16.51	9.86	25.96	1.88	
	EMPLOYMENT	6151	10264	3984	1087	2542	755	450	977	78	

* IMPUTED BANKING AND OTHER SERVICE CHARGES ARE DEDUCTED

APPENDIX C CONTD.

10	11	12	13	14	15	16	17	18	19	20	21	22	
ORESTRY	FISHING	METAL MINING	OTHER MINING	SLAUGHTERING large	SLAUGHTERING small	DAIRY PRODUCTS	CANNING AND DRYING OF FRUITS, FISH AND MEATS	EDIBLE OILS AND FATS	GRAIN MILL PRODUCTS large	GRAIN MILL PRODUCTS small	BAKERY PRODUCTS	SUGAR REFINING	CON AND PR
0.00	0.00	16.93	0.00	0.00	0.00	0.00	0.34	0.04	61.93	2.55	0.02	0.00	
0.00	0.00	27.53	0.00	0.00	0.00	0.00	0.29	0.23	38.08	0.66	0.00	0.00	
0.00	0.00	27.48	0.00	0.00	0.00	0.00	0.18	0.60	8.09	0.00	0.00	5.99	
0.00	0.00	3.57	0.00	0.00	0.00	0.00	0.00	0.03	0.18	0.01	0.00	0.00	
0.00	0.00	12.27	0.00	9.85	0.00	3.85	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.58	4.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	2.85	0.00	0.00	0.00	0.00	0.77	0.00	
0.00	0.00	0.00	0.00	1.63	0.00	0.00	0.00	0.03	2.07	0.00	1.32	0.00	
0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.56	0.00	3.98	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	5.04	0.00	0.00	0.00	0.00	0.16	0.00	6.79	0.00	0.00	0.00	
0.00	0.00	82.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	8.68	2.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	1.84	0.00	0.00	0.00	0.00	0.79	0.01	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.26	0.00	0.24	0.47	
0.00	3.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.29	0.00	8.47	0.00	
0.00	.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.04	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	1.85	0.00	6.36	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	12.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	1.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.48	0.00	0.27	1.04	
0.00	0.00	33.85	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.13	
0.00	0.00	35.67	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.10	
0.00	0.00	23.14	0.43	.00	0.00	0.13	0.02	0.00	2.18	0.03	0.17	0.29	
0.00	0.00	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	17.90	0.09	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.33	
0.00	0.00	27.11	0.00	0.19	0.00	0.84	0.12	0.09	5.59	0.00	1.36	0.18	
0.77	0.00	10.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	48.99	0.78	0.00	0.00	0.78	0.09	0.14	0.70	0.12	0.00	0.19	
0.00	0.00	2.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	19.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	20.43	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31	
0.00	0.00	0.09	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	48.60	0.15	0.31	0.00	0.17	0.07	0.00	0.43	0.00	0.30	1.80	
0.00	0.00	2.40	0.00	0.13	0.01	0.08	0.03	0.02	0.03	0.00	0.05	0.04	
1.40	0.00	106.24	0.00	0.00	0.00	0.04	0.00	0.00	0.05	0.03	0.11	0.51	
0.75	1.02	11.11	3.31	3.37	0.48	3.80	0.05	0.02	9.09	0.63	2.06	2.64	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	25.47	0.00	0.08	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.10	
0.00	0.00	27.00	0.33	0.25	0.06	0.18	0.00	0.07	1.72	0.00	0.11	0.46	
0.00	2.52	21.65	0.21	0.39	0.02	0.02	0.59	0.56	0.03	0.01	0.00	0.90	
0.00	0.00	2.16	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	63.47	0.25	0.61	0.01	0.98	0.02	0.08	1.74	0.00	0.71	0.38	
0.00	0.00	0.00	0.05	0.33	0.00	0.14	0.00	0.02	0.36	0.00	0.64	0.00	
0.00	0.00	44.77	2.12	0.13	0.02	0.18	0.01	0.01	1.96	0.00	0.45	0.09	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2.07	3.49	367.89	7.75	3.24	0.02	2.68	2.31	0.07	7.23	2.13	5.81	11.30	
5.55	10.58	1162.96	23.54	21.84	5.04	18.60	4.46	2.04	155.22	6.16	32.07	27.24	
0.70	0.15	17.86	0.73	0.36	0.00	2.46	0.39	0.25	2.27	0.00	0.17	2.70	
13.10	19.93	112.13	2.76	1.41	1.74	3.53	1.80	1.43	7.35	0.70	21.41	20.67	
0.63	1.05	66.53	3.02	0.79	0.01	1.18	0.34	0.00	2.39	0.06	1.62	5.31	
0.00	0.00	0.00	0.04	0.00	0.00	0.01	0.00	0.00	0.08	0.00	0.63	0.88	
19.96	31.77	1359.48	30.09	24.38	6.79	25.78	6.98	3.72	167.32	6.92	55.90	56.80	
4294	1112	58964	1853	895	345	1033	227	20	3118	257	2427	7066	

APPENDIX C CONTD.

23	24	25	26	27	28	29	30	31	32	33	34	35
FECTION OTHER ODUCTS	SOFT DRINKS SPIRITS AND LIQUORS	TOBACCO	SPINNING AND WEAVING	MADE UP TEXTILES	KNITTING AND ROPE PRODUCTS	WEARING APPAREL	LEATHER PRODUCTS AND FOOTWEAR	SAWMILS	OTHER WOOD PRODUCTS AND FURNITURE	PAPER AND PAPER PRODUCTS	INDUSTRIAL CHEMICALS	OTHER CHEMICAL PRODUCTS
0.00	2.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	1.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	3.22	1.15	2.39	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.98	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.12	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.00
1.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.54	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.10	1.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	1.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.98	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.23	0.00
0.01	1.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	9.04	1.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.88	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	1.43	0.29	0.00	10.31	3.62	10.88	0.00	0.00	0.05	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.72	1.41	2.88	0.00	0.00	0.61	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.29	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.00	1.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.83	0.00	0.00	0.00	1.35	0.00
0.00	0.05	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.27	0.62	2.43	1.25	0.00	0.00	0.11	0.69	0.12	2.46	14.04	3.18	0.00
0.00	0.00	0.00	2.56	0.77	1.56	7.93	0.35	0.02	0.13	1.12	2.48	0.00
0.00	12.48	2.39	5.16	6.83	3.22	8.87	0.00	2.25	2.95	9.69	0.00	0.00
0.11	0.30	0.06	0.20	0.00	0.15	0.01	0.00	0.00	0.03	0.15	0.95	0.35
0.00	0.00	0.00	1.61	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00
0.00	0.00	0.00	2.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	0.94
0.12	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	2.86
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00
0.00	3.21	0.91	1.25	0.02	0.15	0.02	0.00	0.08	0.15	0.26	0.43	2.83
0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.23	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	1.89	0.02	0.02	0.00	0.02	0.18	0.00	0.00	0.00	0.19	0.50	0.00
0.00	0.00	0.00	2.28	0.00	1.75	2.44	0.62	0.00	0.00	0.00	0.00	0.00
0.01	0.96	0.21	0.56	0.46	0.03	0.00	0.00	0.16	0.11	0.44	3.30	1.99
0.31	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.07	0.00
2.22	1.72	0.33	1.41	0.00	0.40	0.00	0.00	0.03	0.12	1.28	0.00	0.00
0.13	3.17	0.87	1.29	1.28	0.06	1.35	1.79	0.90	0.68	2.41	5.41	0.06
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.06	0.00	0.00
0.61	3.03	0.59	1.50	0.53	0.03	0.33	0.14	0.40	0.50	1.22	3.50	1.20
0.18	2.31	0.45	1.12	0.49	0.60	0.00	0.00	0.17	0.41	1.14	4.08	0.61
0.00	0.28	0.05	0.15	0.00	0.15	0.23	0.00	0.06	0.07	0.00	0.00	0.42
0.01	0.87	0.17	2.06	1.07	0.16	0.07	0.04	0.31	0.27	1.43	1.10	0.00
0.01	0.41	0.08	0.48	0.02	0.22	0.02	0.00	0.09	0.06	0.40	0.00	0.00
0.01	1.34	0.26	1.33	0.83	0.11	0.00	0.00	0.10	0.21	0.81	0.00	0.00
0.00	0.33	0.06	0.28	0.17	0.02	0.00	0.00	0.00	0.04	0.37	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.93	17.52	2.09	6.99	3.54	2.06	13.14	4.61	3.27	3.67	13.23	7.10	17.86
12.18	74.64	14.27	36.56	27.23	15.76	48.72	20.34	8.99	13.70	48.79	45.23	29.13
1.61	2.32	0.45	7.01	3.21	2.95	11.17	3.74	0.19	1.55	7.94	29.96	14.81
3.31	19.14	2.57	17.14	3.44	5.31	16.16	5.19	3.91	7.17	9.32	0.52	113.08
0.36	3.53	0.24	1.30	1.38	1.02	1.55	0.81	3.71	0.37	1.72	2.82	4.53
0.01	159.45	33.32	-4.95	0.28	0.00	1.29	0.07	0.00	0.02	0.30	0.12	4.12
17.46	259.08	50.86	57.07	35.55	25.04	78.90	30.15	16.80	22.82	68.07	78.64	165.67
695	3246	484	2269	1251	656	5741	955	1614	1698	2603	1456	3268

APPENDIX C CONTD.

3	37	38	39	40	41	42	43	44	45	46	47	48	49
LEUM COAL JCTS	PLASTIC PRODUCTS	RUBBER PRODUCTS	NON-METALLIC MINERAL PRODUCTS	BASIC METAL PRODUCTS	INDUSTRIAL MACHINERY & METAL PRODUCTS	AGRICULTURAL AND OTHER MACHINERY	ELECTRICAL PRODUCTS	TRANSPORT EQUIPMENT	OTHER MANUFACTURING n.e.c	ELECTRICITY	WATER WORKS AND SUPPLY	CONSTRUCTION	WHOLESA AND RET TRADE
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1
0.00	0.00	4.11	2.91	0.00	6.83	0.62	0.00	1.07	0.00	0.00	0.00	0.00	0
0.00	0.00	0.66	1.44	0.00	1.53	0.00	0.00	0.43	0.00	0.00	0.00	0.00	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	1.24	7.90	0.00	10.98	0.63	0.44	0.00	0.00	1.20	0.00	0.28	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	2.35	4.61	0.00	0.00	0.00	1.41	0.00	0.00	0.00	0.00	6.30	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
26.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
4.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	0.80	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0
0.00	0.00	0.65	0.00	0.00	1.05	1.09	0.67	0.13	0.00	0.22	0.00	0.00	0
0.00	0.00	3.41	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00	0
0.30	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0
1.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0
0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00	2.19	0
0.26	0.00	0.00	0.00	0.00	0.98	0.00	0.00	0.00	0.61	0.00	0.00	2.66	0
3.14	0.00	0.31	0.21	0.00	0.00	0.28	0.18	0.12	0.00	0.11	0.01	1.44	5
30.43	0.00	0.00	4.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.39	3
0.00	0.00	0.00	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.54	1.96	22
0.75	0.07	0.00	0.85	0.00	0.00	0.00	0.00	0.00	0.00	1.01	.00	1.80	1
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.03	2
0.53	4.32	0.00	0.10	0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.00	2.25	0
4.08	0.00	0.00	8.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.24	0
0.00	0.00	0.00	0.00	0.00	12.25	1.27	10.86	7.17	0.00	0.00	0.00	0.00	0
1.21	3.13	0.78	1.70	0.00	12.69	0.39	4.86	1.20	0.00	0.00	0.05	0.00	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.38	0.00	0.00	1.05	0.00	0.00	1
0.57	0.00	0.00	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.89	0.00	0.00	0.00	0.00	0
1.10	0.45	1.11	2.54	1.77	0.78	0.17	0.55	0.34	0.04	35.92	0.87	0.84	2
0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	3.25	0.16	0.53	0
0.00	0.00	0.47	0.30	0.71	1.28	0.40	1.12	1.10	0.16	20.08	3.10	9.71	16
11.41	1.54	1.73	2.37	0.26	4.82	2.10	2.93	6.03	0.21	5.15	0.01	7.04	3
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0
0.41	0.12	0.13	0.05	0.03	0.15	0.03	0.09	0.09	0.00	0.55	0.00	0.17	31
3.52	4.94	1.57	0.68	0.66	0.72	0.81	0.64	1.38	0.03	4.63	0.00	7.14	12
0.13	5.57	1.60	0.62	0.44	0.30	0.98	1.28	1.10	0.03	3.12	0.00	5.32	22
0.10	0.45	0.00	0.37	1.51	0.48	0.69	0.52	0.66	0.02	0.94	0.00	2.04	5
2.68	1.22	2.71	1.67	0.34	2.02	0.91	1.38	3.14	0.24	2.40	0.00	4.20	22
0.71	1.51	0.46	0.71	0.05	0.82	0.31	0.56	1.20	0.05	0.00	0.00	4.58	9
0.81	2.58	0.98	1.24	0.17	0.30	0.92	1.42	1.65	0.14	0.56	0.00	1.49	14
0.07	0.35	0.17	0.04	0.00	0.42	0.01	0.15	0.42	0.02	0.24	0.00	0.17	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67	31
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.78	2
7.32	1.53	8.78	8.27	4.57	26.54	1.87	4.27	5.50	0.75	26.23	2.44	133.14	374
92.50	28.06	34.03	61.41	10.50	84.99	13.47	35.86	34.64	2.31	107.37	9.19	228.37	602
56.69	30.11	14.34	1.58	5.51	8.89	0.95	9.42	16.16	0.79	2.49	0.00	48.01	0
1.95	11.05	6.92	14.58	4.15	13.48	0.14	7.33	22.86	6.94	25.32	7.17	79.61	58
3.00	0.96	1.88	6.67	0.81	2.66	0.30	2.68	0.55	0.17	18.39	0.00	8.85	14
1.08	0.12	0.30	0.08	-0.08	1.24	0.01	0.45	0.90	0.00	0.00	0.91	0.49	-96
55.22	70.30	57.46	84.32	20.89	111.26	14.88	55.74	75.11	10.20	153.58	17.27	365.32	579
435	419	1523	3438	1168	5489	346	1670	1256	153	4804	2088	23134	21

APPENDIX C CONTD.

	50	51	52	53	54	55	56	57	58	59	60	61	
LE AIL	HOTELS BARS AND RESTAURANTS	RAIL TRANSPORT	ROAD TRANSPORT	OTHER TRANSPORT	POSTS AND TELECOMM- UNICATIONS	FINANCIAL INSTITUTIONS AND INSURANCE ►	REAL ESTATE	BUSINESS SERVICES	EDUCATION	HEALTH	RECREATION AND CULTURAL SERVICES	GOVERNMENT ADMINISTRATION SOCIAL AND PER SONAL SERVICES	HOUSEHOL
.88	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.22	1.23	0.30	6.39	65
.32	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.00	105
.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11
.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13
.18	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.01	5.53	17
.71	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.27	6
.47	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.81	2
.35	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	2.42	16
.29	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84	0
.60	0.02	0.20	0.00	0.00	1.61	0.28	0.04	0.00	0.00	0.00	0.00	0.67	0
.19	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.16	15
.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10
.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3
.15	2.28	1.13	0.00	2.67	0.00	0.00	0.00	0.00	8.91	0.26	0.01	1.62	8
.01	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57	.00	0.00	0.07	10
.04	0.89	0.48	0.00	1.59	0.00	0.00	0.00	0.00	0.03	0.02	.00	0.36	12
.01	0.79	0.55	0.00	0.45	0.00	0.00	0.00	0.00	0.27	0.45	0.00	0.20	0
.02	0.31	0.03	0.00	0.79	0.00	0.00	0.00	0.00	0.45	0.35	0.00	0.13	0
.05	3.56	1.51	0.00	0.50	0.00	0.00	0.00	0.00	17.83	1.30	0.02	1.26	62
.01	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.62	0.29	0.00	0.12	6
.03	1.05	0.10	0.00	0.28	0.00	0.00	0.00	0.00	0.14	0.16	0.00	0.25	52
.00	0.27	0.00	0.45	0.89	0.00	0.00	0.00	0.00	0.16	0.13	0.00	0.06	4
.00	0.09	0.00	0.00	1.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	14
.00	3.11	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.00	0.00	0.00	0.00	193
.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	35
.00	0.00	0.00	0.28	0.00	0.00	0.00	0.43	0.00	0.00	0.00	0.00	0.00	19
.00	0.18	0.00	0.28	0.03	0.00	0.00	0.64	0.00	0.20	0.09	0.02	1.91	13
.00	0.00	0.00	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12
.36	0.02	0.00	0.00	0.02	0.00	0.30	0.54	0.00	0.09	0.03	0.00	0.83	61
.20	0.00	0.00	0.00	0.00	0.00	0.75	1.03	0.00	0.00	0.00	0.00	0.95	4
.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1
.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.33	15
.55	0.49	1.48	0.83	2.90	0.77	8.31	0.25	1.28	6.21	0.37	1.09	4.16	16
.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8
.87	0.00	0.00	5.97	0.00	0.00	0.00	0.00	0.00	0.00	24.38	0.00	12.09	12
.63	0.40	5.20	10.97	9.81	0.62	0.39	0.36	0.89	0.17	0.69	0.06	2.81	88
.34	0.00	0.00	0.00	19.36	0.00	0.00	0.00	0.00	0.00	0.09	0.00	8.36	46
.00	0.00	0.00	12.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.04	0
.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12
.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
.00	0.00	0.00	0.00	0.00	1.33	0.00	0.00	0.00	0.00	0.00	0.00	1.92	1
.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.08	1
.21	0.67	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00	0.07	0.01	7.00	8
.80	0.71	0.19	1.73	0.00	1.01	0.59	0.05	0.18	1.32	0.68	0.50	9.52	1
.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.01	0.02	0
.01	1.17	1.19	7.14	0.41	0.00	0.88	1.36	0.64	4.05	0.79	0.26	7.85	5
.03	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.04	0.00	0.25	8
.77	1.88	1.78	2.98	5.57	4.70	4.33	7.63	6.98	10.68	5.30	0.47	11.63	52
.64	1.65	4.11	6.43	3.25	2.45	1.57	2.07	1.12	1.54	0.75	0.36	3.91	246
.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	1.20	0.00	0.00	0.00	110
.36	0.05	0.00	0.38	2.98	0.38	3.02	0.47	6.33	0.90	0.07	0.54	1.70	4
.04	0.67	8.00	16.15	10.31	1.20	6.40	0.98	1.44	0.74	0.52	1.31	1.10	15
.50	0.65	12.80	10.51	26.96	0.93	4.21	0.35	0.83	0.69	0.37	1.29	1.16	1
.49	0.83	0.65	1.43	3.46	1.57	2.12	0.28	3.66	1.02	0.32	0.56	5.04	8
.08	1.54	0.00	0.00	1.35	0.00	26.28	0.93	0.00	0.09	0.00	0.01	1.13	116
.71	2.18	0.41	1.29	4.03	0.37	4.03	1.74	6.38	0.53	0.15	0.51	2.58	24
.04	0.82	0.09	0.95	9.07	3.00	6.48	1.96	9.22	1.32	0.38	1.42	4.15	50
.14	0.00	0.61	0.34	3.71	0.47	3.71	0.12	2.42	2.73	0.81	0.21	3.06	272
.02	0.10	0.00	0.00	0.00	0.00	0.36	0.15	0.00	0.00	0.36	0.00	1.90	81
.23	0.00	0.00	0.00	0.48	0.10	0.97	0.01	0.00	0.01	0.02	3.10	2.08	2
.10	0.44	0.00	0.02	1.56	0.00	10.76	3.08	10.41	7.14	0.57	0.99	16.06	113
.61	43.63	41.58	43.84	34.56	21.75	166.03	14.53	61.53	197.81	29.65	15.89	257.03	
.92	71.97	82.14	125.13	148.81	43.29	252.37	38.99	113.89	269.85	70.64	29.56	406.84	2114
.35	0.00	1.71	9.86	1.51	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.02	893
.38	40.28	0.21	5.06	1.35	2.75	11.15	5.43	65.37	15.55	10.06	5.45	7.37	0
.09	1.72	5.10	21.40	9.07	5.49	5.75	48.08	10.55	3.99	2.56	4.98	11.00	0
.67	0.13	0.48	1.10	-0.01	0.41	0.77	1.85	0.81	4.61	0.92	1.02	2.25	0
.07	114.11	89.65	162.55	160.72	52.10	270.04	94.35	190.62	294.01	84.18	41.01	427.48	3007
554	8897	11671	8329	583	2670	10976	2305	8758	36833	13457	2219	50550	

APPENDIX C CONTD.

62		65				
DS	TOTAL INTERMEDIATE DEMAND	GOVERNMENT	INCREASE IN STOCKS	GROSS FIXED CAPITAL FORMATION	EXPORTS (FOB)	TOTAL SUPPLY (PRODUCTION)
.02	174.49	0.00	0.38	1.44	0.82	177.13
.02	191.34	0.00	52.82	1.69	0.00	245.85
.88	80.79	0.00	0.00	0.94	5.42	87.15
.41	23.54	0.00	0.00	0.26	0.00	23.80
.65	53.84	0.00	0.81	0.00	0.97	55.62
.02	14.21	0.00	2.30	0.00	0.00	16.51
.09	9.86	0.00	0.00	0.00	0.00	9.86
.08	23.96	0.00	0.00	0.00	0.00	23.96
.56	1.88	0.00	0.00	0.00	0.00	1.88
.77	40.31	0.00	-21.30	0.50	0.45	19.96
.36	31.77	0.00	0.00	0.00	0.00	31.77
.11	92.50	0.00	60.33	0.00	1206.65	1359.48
.04	28.57	0.00	0.90	0.00	0.62	30.09
.69	25.83	1.11	-2.56	0.00	0.00	24.38
.44	11.33	0.00	-4.54	0.00	0.00	6.79
.80	20.00	0.17	5.61	0.00	0.00	25.78
.81	5.25	0.14	1.59	0.00	0.00	6.98
.08	3.19	1.30	-0.77	0.00	0.00	3.72
.65	140.76	7.15	19.40	0.00	0.00	167.32
.05	10.92	0.00	-4.00	0.00	0.00	6.92
.93	54.93	0.90	0.07	0.00	0.00	55.90
.95	50.56	1.90	1.95	0.00	2.39	56.80
.66	18.39	0.00	-0.93	0.00	0.00	17.46
.00	217.93	0.00	41.16	0.00	0.00	259.08
.40	35.43	0.00	12.92	0.00	2.50	50.86
.57	48.85	3.27	4.76	0.00	0.18	57.07
.21	25.99	8.41	1.15	0.00	0.00	35.55
.27	17.52	3.98	3.54	0.00	0.00	25.04
.79	66.30	4.37	8.22	0.00	0.00	78.90
.85	21.48	2.70	5.96	0.00	0.00	30.15
.25	16.25	0.00	-4.85	5.30	0.10	16.80
.42	21.98	0.00	0.84	0.00	0.00	22.82
.44	83.46	10.69	-26.11	0.00	0.03	68.07
.84	91.09	0.89	-13.34	0.00	0.00	78.64
.06	179.82	3.45	-18.78	0.00	1.20	165.67
.28	155.53	3.04	-3.35	0.00	0.00	155.22
.44	80.43	5.52	-15.65	0.00	0.00	70.30
.93	43.77	0.00	12.77	0.19	0.73	57.46
.88	79.91	0.00	2.23	0.00	2.19	84.32
.69	43.35	0.00	-22.47	0.00	0.01	20.89
.99	92.35	0.44	0.42	18.05	0.00	111.26
.97	13.10	1.24	0.03	0.50	0.00	14.88
.69	42.35	5.01	0.39	6.92	1.07	55.74
.24	54.51	7.39	4.02	9.18	0.00	75.11
.38	8.98	0.00	1.12	0.00	0.11	10.20
.18	147.93	0.49	-7.59	0.00	12.76	153.58
.95	17.27	0.00	0.00	0.00	0.00	17.27
.66	302.97	3.70	-51.96	110.61	0.00	365.32
.32	395.25	1.28	182.55	0.00	0.00	579.07
.38	111.79	2.31	0.00	0.00	0.00	114.11
.62	80.38	0.12	0.00	0.00	9.16	89.65
.96	158.20	4.35	0.00	0.00	0.00	162.55
.44	148.35	2.37	0.00	0.00	10.00	160.72
.94	46.75	5.34	0.00	0.00	0.00	52.10
.71	269.12	0.91	0.00	0.00	0.00	270.04
.14	72.33	2.02	0.00	0.00	0.00	94.35
.96	171.27	19.35	0.00	0.00	0.00	190.62
.34	294.01	0.00	0.00	0.00	0.00	294.01
.11	84.18	0.00	0.00	0.00	0.00	84.18
.35	41.01	0.00	0.00	0.00	0.00	41.01
.35	179.26	248.22	0.00	0.00	0.00	427.48
	2114.57	893.00	0.00	0.00	0.00	3007.57
.57	7183.20	1256.52	230.04	155.60	1257.37	10102.76
.00	1251.62	287.27	7.72	172.21		2970.44
.00	1231.73					1567.20
.00	317.34					315.36
.00	118.87					117.66
.57	10102.76	1543.79	237.76	327.81	1257.37	15073.42
	350560	2980				361540

APPENDIX D.

ADJUSTED (1987) INPUT-OUTPUT TABLE AT CONSTANT (1980) PRODUCER'S VALUES: TECHNICAL COEFFICIENTS.
(Kwacha Million)

		INTERMEDIATE DEMAND OF INDUSTRIES									
		1	2	3	4	5	6	7	8	9	
		FOOD CROPS comm	FOOD CROPS non-comm	CASH CROPS comm	CASH CROPS non-comm	LIVESTOCK comm	LIVESTOCK non-comm	MILK comm	POULTRY AND EGGS comm	POULTRY AND EGGS non-comm	FI
1	FOOD CROPS commercial	0.06826	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
2	FOOD CROPS non-commercial	0.00000	0.04068	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
3	CASH CROPS commercial	0.00000	0.00000	0.02301	0.06677	0.00000	0.00000	0.00000	0.00000	0.00000	
4	CASH CROPS non-commercial	0.00000	0.00000	0.00000	0.05491	0.00000	0.00000	0.00000	0.00000	0.00000	
5	LIVESTOCK commercial	0.00000	0.00000	0.00000	0.00000	0.00479	0.00000	0.00000	0.00000	0.00000	
6	LIVESTOCK non-commercial	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
7	MILK	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
8	POULTRY & EGGS commercial	0.00008	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
9	POULTRY & EGGS non-commercial	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
10	FORESTRY	0.00957	0.00000	0.00236	0.00000	0.01815	0.00000	0.00000	0.00000	0.00000	
11	FISHING	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
12	METAL MINING	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
13	OTHER MINING	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
14	SLAUGHTERING large	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
15	SLAUGHTERING small	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
16	DAIRY PRODUCTS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
17	CANNING OF FRUITS & FISH	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
18	EDIBLE OILS & FATS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
19	GRAIN MILL PRODUCTS large scale	0.00000	0.00000	0.00000	0.00000	0.35947	0.08218	0.11106	0.44714	0.63047	
20	GRAIN MILL PRODUCTS small scale	0.00000	0.00000	0.00000	0.00000	0.01780	0.00000	0.00000	0.00000	0.00000	
21	BAKERY PRODUCTS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
22	SUGAR REFINING	0.00000	0.00000	0.00000	0.00000	0.01246	0.01796	0.00000	0.00000	0.00000	
23	CONFECTIONARY AND OTHER FOODS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
24	SOFT DRINKS, SPIRITS AND LIQUORS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
25	TOBACCO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
26	SPINNING & WEAVING	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
27	MADE UP TEXTILES	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
28	KNITTING & ROPE PRODUCTS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
29	WEARING APPAREL	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
30	LEATHER PRODUCTS & FOOTWEAR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
31	SAWMILLS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
32	OTHER WOOD PRODUCTS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
33	PAPER AND PAPER PRODUCTS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00160	0.00000	
34	INDUSTRIAL CHEMICALS	0.00067	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
35	CHEMICAL PRODUCTS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
36	PETROLEUM & COAL PRODUCTS	0.00081	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
37	PLASTIC PRODUCTS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
38	RUBBER PRODUCTS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
39	NON-METALLIC MINERAL PRODUCTS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
40	BASIC METAL PRODUCTS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
41	INDUSTRIAL MACHINERY	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
42	AGRIC. & OTHER MACHINERY	0.02506	0.00000	0.01166	0.01933	0.00755	0.00000	0.00000	0.00000	0.00000	
43	ELECTRICAL PRODUCTS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
44	TRANSPORT EQUIPMENT	0.02063	0.00000	0.01371	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
45	OTHER MANUFACTURING n.e.c	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
46	ELECTRICITY	0.01841	0.00000	0.01436	0.04631	0.01680	0.00000	0.00000	0.07919	0.00000	
47	WATER WORKS AND SUPPLY	0.00321	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
48	CONSTRUCTION	0.04009	0.00000	0.02195	0.06010	0.01876	0.00000	0.11224	0.06849	0.00000	
49	WHOLESALE AND RETAIL TRADE	0.01815	0.00037	0.01960	0.04933	0.03078	0.00000	0.00272	0.10057	0.00000	
50	HOTELS, BARS AND RESTAURANTS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
51	RAIL TRANSPORT	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
52	ROAD TRANSPORT	0.03049	0.00118	0.02784	0.04373	0.03141	0.00000	0.00062	0.00000	0.00000	
53	OTHER TRANSPORT	0.01356	0.00000	0.01636	0.00523	0.00054	0.00000	0.00061	0.03823	0.00000	
54	POSTS AND TELECOMMUNICATIONS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
55	FINANCIAL INSTITUTIONS & INSURANCE	0.00253	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
56	REAL ESTATE	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
57	BUSINESS SERVICES	0.00228	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
58	EDUCATION	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
59	HEALTH	0.00105	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
60	RECREATION AND CULTURAL SERVICES	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
61	GOVT. ADMIN, SOC & PERS SERVICES	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
62	HOUSEHOLDS	0.10619	0.11479	0.10135	0.12285	0.04673	0.23615	0.10623	0.06580	0.00641	
63	CONSUMPTION OF GOODS AND SERVICES	0.25486	0.04223	0.15136	0.32572	0.56852	0.10015	0.22726	0.73522	0.63047	
64	IMPORTS f.o.b	0.10612	0.01005	0.04459	0.14145	0.08358	0.08606	0.00000	0.02353	0.00000	
65	OPERATING SURPLUS	0.48514	0.80998	0.67500	0.36398	0.26612	0.57764	0.63476	0.15507	0.35023	
66	CONSUMPTION OF FIXED CAPITAL	0.04763	0.02236	0.02789	0.04601	0.03505	0.00000	0.03175	0.02009	0.01282	
67	NET INDIRECT TAXES	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
68	TOTAL DEMAND (GROSS OUTPUT)	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	
	EMPLOYMENT	0.34726	0.41750	0.45713	0.45665	0.45701	0.45727	0.45657	0.40776	0.41548	

APPENDIX D CONTD.

10	11	12	13	14	15	16	17	18	19	20	21	22
ORESTRY	FISHING	METAL MINING	OTHER MINING	SLAUGHTERING large	SLAUGHTERING small	DAIRY PRODUCTS	CANNING AND DRYING OF FRUITS, FISH AND MEATS	EDIBLE OILS AND FATS	GRAIN MILL PRODUCTS large	GRAIN MILL PRODUCTS small	BAKERY PRODUCTS	SUGAR REFINING
0.00000	0.00000	0.01245	0.00000	0.00000	0.00000	0.00000	0.12168	0.02018	0.45352	0.42412	0.00035	0.00000
0.00000	0.00000	0.02025	0.00000	0.00000	0.00000	0.00000	0.10167	0.12844	0.27886	0.11021	0.00000	0.00000
0.00000	0.00000	0.02022	0.00000	0.00000	0.00000	0.00000	0.06518	0.33615	0.05923	0.00000	0.00000	0.10539
0.00000	0.00000	0.00262	0.00000	0.00000	0.00000	0.00000	0.00000	0.01964	0.00131	0.00147	0.00000	0.00000
0.00000	0.00000	0.00303	0.00000	0.40392	0.00000	0.22948	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.02395	0.22476	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.16993	0.00000	0.00000	0.00000	0.00000	0.01369	0.00000
0.00000	0.00000	0.00000	0.00000	0.06695	0.00000	0.00000	0.00000	0.01426	0.01514	0.00000	0.02359	0.00000
0.00000	0.00000	0.00000	0.00000	0.00667	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.02811	0.00000	0.00293	0.14957	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00371	0.00000	0.00000	0.00000	0.00000	0.05812	0.00000	0.04976	0.00000	0.00000	0.00000
0.00000	0.00000	0.06060	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00639	0.07228	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.01256	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.10994	0.00000	0.00000	0.00000	0.00000	0.01408	0.00016
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.02005	0.00000	0.00189	0.00000	0.00438	0.00819
0.00000	0.11192	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.03143	0.00000	0.15155	0.00000
0.00000	.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.03641	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.02325	0.00000	0.01355	0.00000	0.11381	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00921	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00126	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00464	0.00693	0.00350	0.00000	0.00483	0.01828
0.00000	0.00000	0.02490	0.00000	0.00000	0.00000	0.00000	0.00413	0.00617	0.00000	0.00000	0.00000	0.00226
0.00000	0.00000	0.02624	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00029	0.00000	0.00000	0.00182
0.00000	0.00000	0.01702	0.01433	0.00013	0.00000	0.00774	0.00569	0.00000	0.01595	0.00429	0.00311	0.00503
0.00000	0.00000	0.00042	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.01317	0.00283	0.00000	0.00000	0.00085	0.00000	0.00000	0.00000	0.00000	0.00000	0.00577
0.00000	0.00000	0.01994	0.00000	0.00782	0.00000	0.04939	0.04129	0.04795	0.04097	0.00000	0.02434	0.00320
0.03866	0.00000	0.00744	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.03604	0.02595	0.00000	0.00000	0.04658	0.03313	0.07915	0.00510	0.02001	0.00000	0.00330
0.00000	0.00000	0.00176	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.01459	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.01503	0.04147	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00549
0.00000	0.00000	0.00006	0.00455	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.03575	0.00483	0.01261	0.00000	0.01040	0.02466	0.00000	0.00317	0.00000	0.00539	0.03169
0.00000	0.00000	0.00177	0.00000	0.00522	0.00163	0.00485	0.00919	0.01372	0.00022	0.00000	0.00096	0.00069
0.07007	0.00000	0.07815	0.00000	0.00000	0.00000	0.00225	0.00000	0.00000	0.00040	0.00429	0.00200	0.00892
0.03734	0.03206	0.00817	0.10992	0.16287	0.09939	0.22679	0.01864	0.01391	0.06654	0.10474	0.03683	0.04643
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.01973	0.00000	0.00329	0.00000	0.00000	0.00000	0.00000	0.00039	0.00000	0.00000	0.00173
0.00000	0.00000	0.01986	0.01084	0.01009	0.01211	0.01048	0.00000	0.03815	0.01257	0.00000	0.00139	0.00806
0.00000	0.07921	0.01592	0.00695	0.01583	0.00446	0.00147	0.20888	0.31186	0.00020	0.00140	0.00000	0.01582
0.00000	0.00000	0.00159	0.00097	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.04669	0.00827	0.02486	0.00158	0.05862	0.00890	0.04649	0.01277	0.00000	0.01272	0.00665
0.00000	0.00000	0.00000	0.00174	0.01344	0.00000	0.00857	0.00000	0.01324	0.00264	0.00000	0.01153	0.00000
0.00000	0.00000	0.03293	0.07091	0.00523	0.00357	0.01059	0.00502	0.00750	0.01435	0.00000	0.00810	0.00150
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00023
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.10368	0.10985	0.27061	0.25760	0.13277	0.00503	0.15997	0.82403	0.04054	0.05297	0.35400	0.10398	0.19394
0.17418	0.22319	0.58484	0.52482	0.76289	1.04750	0.94851	0.76669	1.10374	1.08375	0.67054	0.46966	0.28060
0.03481	0.00486	0.01314	0.02413	0.01457	0.00000	0.14685	0.13770	0.13875	0.01663	0.00000	0.00304	0.04758
0.65599	0.62314	0.08248	0.09186	0.05768	-0.05504	-0.32635	-0.84860	-0.28303	-0.17150	-0.03454	0.38306	0.36397
0.03134	0.03295	0.04893	0.10040	0.03208	0.00251	0.07030	0.12017	0.00000	0.01754	0.01000	0.02906	0.09343
0.00000	0.00000	0.00000	0.00120	0.00000	0.00000	0.00072	0.00000	0.00000	0.00062	0.00000	0.01119	0.01547
1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000
2.15079	0.35001	0.43372	0.61591	0.36708	0.72031	0.61577	0.80957	0.11229	0.22834	0.42712	0.45418	1.24398

APPENDIX D CONTD.

23	24	25	26	27	28	29	30	31	32	33	34	35
FECTION OTHER ODUCTS	SOFT DRINKS SPIRITS AND LIQUORS	TOBACCO	SPINNING AND WEAVING	MADE UP TEXTILES	KNITTING AND ROPE PRODUCTS	WEARING APPAREL	LEATHER PRODUCTS AND FOOTWEAR	SAWMILS	OTHER WOOD PRODUCTS AND FURNITURE	PAPER AND PAPER PRODUCTS	INDUSTRIAL CHEMICALS	OTHER CHEMICAL PRODUCTS
0.00000	0.01080	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00585	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.01242	0.02253	0.04193	0.00000	0.00209	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00378	0.00148	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.03704	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00520	0.00000	0.00000	0.00000	0.00000	0.00000
0.09964	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.05369	0.00000	0.00787	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00566	0.00422	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00662	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.08108	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.17079	0.00073	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.05450	0.00000
0.00054	0.00757	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.03491	0.03458	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.07575	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00553	0.00564	0.00000	0.28992	0.14470	0.13794	0.00000	0.00000	0.00207	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.02028	0.05628	0.03651	0.00000	0.00000	0.02654	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00330	0.00000	0.00000	0.01255	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.02679	0.00000	0.01288	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.35915	0.00000	0.00000	0.00000	0.01735	0.00000
0.00000	0.00018	0.00032	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.01536	0.00238	0.04788	0.02191	0.00000	0.00000	0.00138	0.02305	0.00726	0.10795	0.20627	0.04101	0.00000
0.00000	0.00000	0.00000	0.04483	0.02176	0.06222	0.10052	0.01172	0.00099	0.00570	0.01650	0.03189	0.00000
0.00000	0.04817	0.04701	0.09035	0.19216	0.12852	0.11243	0.00000	0.13389	0.12935	0.14238	0.00000	0.00000
0.00635	0.00116	0.00120	0.00342	0.00000	0.00601	0.00017	0.00000	0.00000	0.00112	0.00214	0.01226	0.00210
0.00000	0.00000	0.00000	0.02816	0.00000	0.00000	0.00000	0.00000	0.00000	0.00104	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.03914	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00839	0.00569
0.00683	0.00030	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00181	0.00000	0.00000	0.01726
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00982	0.00000	0.00000	0.00000
0.00000	0.01239	0.01792	0.02188	0.00070	0.00584	0.00020	0.00000	0.00478	0.00653	0.00389	0.00553	0.01711
0.00000	0.00000	0.00000	0.00388	0.00000	0.00000	0.00000	0.00000	0.00619	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00402	0.00494	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00730	0.00036	0.00040	0.00000	0.00075	0.00226	0.00000	0.00000	0.00000	0.00279	0.00648	0.00000
0.00000	0.00000	0.00000	0.03994	0.00000	0.07002	0.03030	0.02050	0.00000	0.00000	0.00000	0.00000	0.00000
0.00082	0.00369	0.00417	0.00977	0.01299	0.00130	0.00000	0.00000	0.00949	0.00486	0.00651	0.04253	0.01201
0.01748	0.00037	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00017	0.00096	0.00000
0.12696	0.00665	0.00649	0.02475	0.00000	0.01578	0.00000	0.00000	0.00154	0.00504	0.01876	0.00000	0.00000
0.00771	0.01223	0.01713	0.02264	0.03608	0.00246	0.01712	0.05947	0.05383	0.02983	0.03535	0.06966	0.00034
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00060	0.00000	0.00091	0.00000	0.00000
0.03522	0.01170	0.01170	0.02632	0.01503	0.00113	0.00417	0.00453	0.02409	0.02181	0.01795	0.04502	0.00723
0.01036	0.00893	0.00883	0.01971	0.01364	0.02392	0.00000	0.00000	0.01005	0.01811	0.01669	0.05258	0.00370
0.00000	0.00109	0.00105	0.00257	0.00000	0.00612	0.00294	0.00000	0.00358	0.00293	0.00000	0.00000	0.00256
0.00074	0.00336	0.00358	0.03609	0.03022	0.00627	0.00092	0.00126	0.01873	0.01183	0.02103	0.01423	0.00000
0.00073	0.00158	0.00150	0.00836	0.00070	0.00859	0.00026	0.00000	0.00533	0.00262	0.00585	0.00000	0.00000
0.00083	0.00518	0.00509	0.02322	0.02328	0.00442	0.00000	0.00000	0.00604	0.00940	0.01196	0.00000	0.00000
0.00000	0.00128	0.00118	0.00483	0.00490	0.00082	0.00000	0.00000	0.00000	0.00183	0.00545	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.11027	0.06763	0.04117	0.12252	0.09953	0.08217	0.16656	0.15289	0.19484	0.16086	0.19431	0.03144	0.10780
0.58708	0.22045	0.23943	0.51813	0.66660	0.54723	0.45102	0.52194	0.34010	0.43953	0.52246	0.49103	0.06800
0.09199	0.00897	0.00881	0.12287	0.09037	0.11779	0.14154	0.12393	0.01149	0.06803	0.11663	0.38580	0.08340
0.18930	0.07389	0.05063	0.30037	0.09679	0.21196	0.20488	0.17204	0.23293	0.31418	0.13690	-0.00609	0.68258
0.02068	0.01361	0.00473	0.02278	0.03893	0.04085	0.01968	0.02675	0.22063	0.01635	0.02528	0.03627	0.02734
0.00069	0.61545	0.65523	-0.08667	0.00779	0.00000	0.01632	0.00240	0.00000	0.00105	0.00442	0.00155	0.02487
1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000
0.39802	0.12529	0.09517	0.39761	0.35191	0.26195	0.72767	0.31680	0.96073	0.74419	0.38243	0.18752	0.19726

APPENDIX D CONTD.

...6	37	38	39	40	41	42	43	44	45	46	47	48	49
...EUM ...OAL ...UCTS	PLASTIC PRODUCTS	RUBBER PRODUCTS	NON-METALLIC MINERAL PRODUCTS	BASIC METAL PRODUCTS	INDUSTRIAL MACHINERY & METAL PRODUCTS	AGRICULTURAL AND OTHER MACHINERY	ELECTRICAL PRODUCTS	TRANSPORT EQUIPMENT	OTHER MANUFACTURING n.e.c	ELECTRICITY	WATER WORKS AND SUPPLY	CONSTRUCTION	WHOLES... AND RE... TRADE
...0000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00...
...0000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00...
...0000	0.00000	0.07147	0.03450	0.00000	0.06140	0.04295	0.00000	0.01428	0.00000	0.00000	0.00000	0.00000	0.00...
...0000	0.00000	0.01154	0.01711	0.00000	0.01196	0.00000	0.00000	0.00579	0.00000	0.00000	0.00000	0.00000	0.00...
...0000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00...
...0000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00...
...0000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00...
...0000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00...
...0000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00...
...0000	0.00000	0.02160	0.09367	0.00000	0.09871	0.04360	0.00791	0.00000	0.00000	0.00783	0.00000	0.00077	0.0...
...0000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00...
...0000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00...
...0000	0.00000	0.04094	0.05472	0.00000	0.00000	0.00000	0.02525	0.00000	0.00000	0.00000	0.00000	0.01724	0.00...
...0000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00...
...0000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00...
...0000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00...
...0000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00...
...0000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00...
...0000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00...
...0000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00...
...0000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00...
...17379	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00...
...0000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00...
...2928	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00...
...0000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00...
...0000	0.00000	0.01396	0.00813	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00324	0.00000	0.00000	0.00...
...0000	0.00000	0.01136	0.00000	0.00000	0.00945	0.07524	0.01206	0.00177	0.00000	0.00142	0.00000	0.00000	0.00...
...0000	0.00000	0.05927	0.00000	0.00000	0.00000	0.00000	0.00000	0.00960	0.00000	0.00000	0.00000	0.00000	0.00...
...0194	0.00409	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00080	0.00000	0.00000	0.00...
...0919	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00064	0.00000	0.00000	0.00...
...0000	0.00000	0.00000	0.00000	0.00000	0.00207	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00599	0.00...
...0169	0.00000	0.00000	0.00000	0.00000	0.00882	0.00000	0.00000	0.00000	0.05932	0.00000	0.00000	0.00728	0.00...
...2023	0.00000	0.00536	0.00255	0.00000	0.00000	0.01906	0.00320	0.00160	0.00000	0.00071	0.00031	0.00395	0.00...
...3163	0.00000	0.00000	0.05818	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00653	0.00...
...0000	0.00000	0.00000	0.09842	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.14735	0.00536	0.0...
...0481	0.00101	0.00000	0.01005	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00655	0.00019	0.00493	0.00...
...0000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00283	0.00...
...0339	0.06139	0.00000	0.00118	0.00000	0.00000	0.00000	0.00000	0.00388	0.00000	0.00000	0.00000	0.00616	0.00...
...2629	0.00000	0.00000	0.09637	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.04445	0.00...
...0000	0.00000	0.00000	0.00000	0.00000	0.11014	0.08799	0.19477	0.09543	0.00000	0.00000	0.00000	0.00000	0.00...
...0777	0.04451	0.01361	0.02020	0.00000	0.11403	0.02720	0.08716	0.01598	0.00000	0.00000	0.00307	0.00000	0.00...
...0000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00...
...0000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.04270	0.00000	0.00000	0.00681	0.00000	0.00000	0.00...
...0369	0.00000	0.00000	0.00904	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.01...
...0000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00291	0.01185	0.00000	0.00000	0.00000	0.00000	0.00...
...0710	0.00639	0.01930	0.03007	0.08479	0.00699	0.01157	0.00988	0.00453	0.00397	0.23387	0.05061	0.00230	0.00...
...0000	0.00000	0.00000	0.00070	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.02119	0.00913	0.00144	0.00...
...0000	0.00000	0.00821	0.00351	0.03385	0.01151	0.02751	0.02004	0.01469	0.01545	0.13076	0.17961	0.02658	0.0...
...7353	0.02196	0.03019	0.02812	0.01233	0.04333	0.14480	0.05253	0.08023	0.02063	0.03351	0.00031	0.01926	0.00...
...0000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00006	0.00...
...0266	0.00176	0.00223	0.00061	0.00131	0.00135	0.00194	0.00155	0.00114	0.00000	0.00359	0.00000	0.00045	0.05...
...2269	0.07027	0.02733	0.00805	0.03155	0.00650	0.05577	0.01147	0.01833	0.00343	0.03017	0.00000	0.01355	0.0...
...0084	0.07927	0.02788	0.00739	0.02100	0.00273	0.06777	0.02303	0.01463	0.00336	0.02029	0.00000	0.01456	0.0...
...0066	0.00643	0.00000	0.00438	0.07216	0.00433	0.04750	0.00932	0.00883	0.00200	0.00610	0.00000	0.00558	0.00...
...1729	0.01730	0.04709	0.01980	0.01647	0.01819	0.06259	0.02430	0.04187	0.02328	0.01565	0.00000	0.01149	0.0...
...0460	0.02142	0.00796	0.00838	0.00235	0.00737	0.02166	0.01000	0.01603	0.00535	0.00000	0.00000	0.01253	0.01...
...0522	0.03670	0.01708	0.01470	0.00737	0.00274	0.06380	0.02548	0.02191	0.01415	0.00363	0.00000	0.00407	0.0...
...0047	0.00493	0.00298	0.00043	0.00000	0.00380	0.00091	0.00262	0.00561	0.00187	0.00157	0.00000	0.00047	0.00...
...0000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00...
...0000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00183	0.05...
...0000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.03498	0.00...
...4716	0.02174	0.15298	0.09804	0.21889	0.23851	0.12884	0.07664	0.07323	0.07311	0.17082	0.14146	0.23306	0.17...
...4877	0.37743	0.43925	0.63027	0.28377	0.52543	0.80177	0.56663	0.38736	0.15282	0.52833	0.39058	0.26066	0.39...
...6522	0.42828	0.24956	0.01868	0.26393	0.07989	0.06561	0.16902	0.21510	0.07719	0.01624	0.00000	0.13142	0.00...
...1259	0.15715	0.12040	0.17294	0.19835	0.12113	-0.01784	0.13153	0.30435	0.68037	0.16488	0.41499	0.34929	0.56...
...1930	0.01369	0.03267	0.07906	0.03859	0.02590	0.02078	0.04814	0.00737	0.01651	0.11973	0.00000	0.02421	0.02...
...0696	0.00171	0.00524	0.00100	-0.00403	0.01114	0.00083	0.00799	0.01202	0.00000	0.00000	0.05296	0.00135	-0.16...
...0000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00...
...2802	0.05960	0.26504	0.40772	0.55908	0.49337	0.23900	0.29959	0.16723	0.14993	0.31280	1.20910	0.63325	0.37...

APPENDIX D CONTD.

	50	51	52	53	54	55	56	57	58	59	60	61	
LE AIL	HOTELS BARS AND RESTAURANTS	RAIL TRANSPORT	ROAD TRANSPORT	OTHER TRANSPORT	POSTS AND TELECOMM-UNICATIONS	FINANCIAL INSTITUTIONS AND INSURANCE *	REAL ESTATE	BUSINESS SERVICES	EDUCATION	HEALTH	RECREATION AND CULTURAL SERVICES	GOVERNMENT ADMINISTRATION SOCIAL AND PER SONAL SERVICES	HOUSEHOL
325	0.00125	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00754	0.01460	0.02182	0.01495	0.02
332	0.00090	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.01403	0.03
000	0.00000	0.00000	0.00385	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00
018	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00
548	0.00045	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00026	0.00000	0.00025	0.01294	0.00
123	0.00038	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00532	0.00
254	0.00105	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00019	0.00190	0.00
060	0.00044	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00018	0.00566	0.00
050	0.00014	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00197	0.00
103	0.00019	0.00226	0.00000	0.00000	0.03099	0.00105	0.00058	0.00000	0.00000	0.00000	0.00000	0.00156	0.00
052	0.00061	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00973	0.00
000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00
000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00
026	0.01997	0.01350	0.00000	0.01770	0.00000	0.00000	0.00000	0.00000	0.03052	0.00309	0.00024	0.00380	0.00
001	0.00219	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00192	0.00003	0.00000	0.00017	0.00
008	0.00724	0.00540	0.00000	0.01056	0.00000	0.00000	0.00000	0.00000	0.00010	0.00025	0.00012	0.00085	0.00
002	0.00694	0.00623	0.00000	0.00298	0.00000	0.00000	0.00000	0.00000	0.00093	0.00530	0.00000	0.00047	0.00
003	0.00268	0.00033	0.00000	0.00524	0.00000	0.00000	0.00000	0.00000	0.00154	0.00420	0.00000	0.00031	0.00
008	0.03118	0.01713	0.00000	0.00332	0.00000	0.00000	0.00000	0.00000	0.06065	0.01546	0.00052	0.00294	0.00
001	0.00704	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00210	0.00349	0.00000	0.00027	0.00
005	0.00920	0.00108	0.00000	0.00187	0.00000	0.00000	0.00000	0.00000	0.00049	0.00185	0.00000	0.00058	0.00
000	0.00237	0.00000	0.00275	0.00533	0.00000	0.00000	0.00000	0.00000	0.00056	0.00158	0.00000	0.00014	0.00
000	0.00075	0.00000	0.00000	0.01078	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00012	0.00
000	0.02722	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00509	0.00000	0.00000	0.00000	0.00000	0.00
000	0.00026	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00
000	0.00000	0.00000	0.00173	0.00000	0.00000	0.00000	0.00584	0.00000	0.00000	0.00000	0.00000	0.00000	0.00
000	0.00160	0.00000	0.00172	0.00018	0.00000	0.00000	0.00854	0.00000	0.00069	0.00110	0.00058	0.00446	0.00
000	0.00000	0.00000	0.00357	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00
061	0.00013	0.00000	0.00000	0.00013	0.00000	0.00111	0.00722	0.00000	0.00032	0.00037	0.00000	0.00195	0.00
054	0.00000	0.00000	0.00000	0.00000	0.00000	0.00279	0.01384	0.00000	0.00000	0.00000	0.00000	0.00223	0.00
000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00
000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00002	0.00000	0.00000	0.00077	0.00
958	0.00428	0.01670	0.00509	0.01326	0.01487	0.03077	0.00535	0.00871	0.02112	0.00442	0.03667	0.00973	0.00
601	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00
949	0.00000	0.00000	0.03675	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.28958	0.00000	0.02823	0.00
281	0.00547	0.05892	0.06750	0.06508	0.01183	0.00146	0.00485	0.00469	0.00057	0.00752	0.00144	0.00657	0.02
508	0.00000	0.00000	0.00000	0.12848	0.00000	0.00000	0.00000	0.00000	0.00000	0.00112	0.00000	0.01954	0.01
000	0.00000	0.00000	0.07484	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00243	0.00
000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00
000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00
000	0.00000	0.00000	0.00000	0.00000	0.02546	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00449	0.00
000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00487	0.00
208	0.00589	0.00000	0.00000	0.00000	0.01938	0.00000	0.00000	0.00000	0.00000	0.00081	0.00052	0.01698	0.00
002	0.00624	0.00210	0.01062	0.00000	0.01938	0.00219	0.00071	0.00096	0.00449	0.00807	0.01209	0.02227	0.00
021	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00029	0.00000	0.00000	0.00019	0.00004	0.00
348	0.01022	0.01345	0.04394	0.00271	0.00000	0.00526	0.01833	0.00534	0.01376	0.00340	0.00623	0.01336	0.00
006	0.00106	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00010	0.00044	0.00000	0.00059	0.00
895	0.01650	0.02010	0.01833	0.03634	0.00913	0.01825	0.10258	0.03663	0.03634	0.06297	0.01153	0.02720	0.01
629	0.01449	0.04641	0.03953	0.02156	0.04710	0.00580	0.02779	0.00585	0.00523	0.00395	0.00875	0.00915	0.08
000	0.00000	0.00000	0.00000	0.00127	0.00000	0.00000	0.00000	0.00000	0.00408	0.00000	0.00000	0.00000	0.03
415	0.00046	0.00000	0.00233	0.01979	0.00727	0.01117	0.00634	0.03323	0.00308	0.00079	0.01305	0.00398	0.00
079	0.00589	0.09048	0.09335	0.06840	0.02249	0.02369	0.01223	0.00754	0.00252	0.00615	0.03198	0.00258	0.00
885	0.00568	0.14470	0.06341	0.17889	0.01777	0.01560	0.00475	0.00485	0.00235	0.00444	0.03152	0.00271	0.00
948	0.00731	0.00738	0.00877	0.02255	0.03017	0.00785	0.00371	0.01918	0.00346	0.00378	0.01359	0.01179	0.00
814	0.01178	0.00000	0.00000	0.00897	0.00000	0.09730	0.01246	0.00000	0.00050	0.00000	0.00053	0.00263	0.05
677	0.01909	0.00458	0.00794	0.02671	0.00710	0.01494	0.02356	0.03545	0.00181	0.00176	0.01231	0.00602	0.00
424	0.00717	0.00104	0.00585	0.06018	0.05756	0.02399	0.02633	0.04857	0.00448	0.00454	0.03450	0.00371	0.01
025	0.00000	0.00692	0.00208	0.02461	0.00993	0.01576	0.00155	0.01267	0.00929	0.00960	0.00506	0.00715	0.09
004	0.00085	0.00000	0.00000	0.00000	0.00000	0.00132	0.00204	0.00000	0.00000	0.00424	0.00000	0.00143	0.02
312	0.00000	0.00000	0.00000	0.00316	0.00194	0.00360	0.00015	0.00000	0.00003	0.00025	0.07565	0.00486	0.00
362	0.00382	0.00000	0.00015	0.01054	0.00000	0.07985	0.04144	0.05460	0.02430	0.00675	0.02418	0.03756	0.05
962	0.11949	0.47007	0.20813	0.22932	0.41742	0.24453	0.19537	0.32279	0.67281	0.35222	0.38744	0.60125	0.00
428	0.24838	0.45863	0.50011	0.75800	0.41346	0.31072	0.32900	0.27466	0.24504	0.48691	0.33335	0.35045	0.70
060	0.00000	0.01938	0.06067	0.00999	0.00311	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00004	0.29
811	0.61589	-0.01121	0.09266	-0.05744	0.05282	0.41160	-0.13595	0.34295	0.05283	0.11351	0.13279	0.01726	0.00
434	0.01508	0.05769	0.13164	0.06020	0.10534	0.02130	0.64656	0.05537	0.01358	0.05040	0.12143	0.02573	0.00
694	0.00116	0.00544	0.00674	-0.00008	0.00785	0.00289	0.02493	0.00423	0.01569	0.01005	0.02448	0.00027	0.00
000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00
222	0.77970	1.31948	0.51241	0.05868	0.51252	0.40647	0.31003	0.45944	1.25279	1.59861	0.54105	1.18252	0.00

APPENDIX D CONTD

62

DS	TOTAL INTERMEDIATE DEMAND	GOVERNMENT	INCREASE IN STOCKS	GROSS FIXED CAPITAL FORMATION	EXPORTS (FOB)	TOTAL SUPPLY (PRODUCTION)
162	0.01727	0.00000	0.00160	0.00439	0.00065	0.01175
492	0.01894	0.00000	0.22215	0.00516	0.00000	0.01651
395	0.00800	0.00000	0.00000	0.00286	0.00451	0.00578
446	0.00259	0.00000	0.00000	0.00080	0.00000	0.00153
587	0.00533	0.00000	0.00342	0.00000	0.00077	0.00569
200	0.00141	0.00000	0.00966	0.00000	0.00000	0.00110
070	0.00098	0.00000	0.00000	0.00000	0.00000	0.00065
555	0.00257	0.00000	0.00000	0.00000	0.00000	0.00159
019	0.00019	0.00000	0.00000	0.00000	0.00000	0.00012
026	0.00039	0.00000	-0.08958	0.00154	0.00056	0.00132
511	0.00314	0.00000	0.00000	0.00000	0.00000	0.00211
536	0.00916	0.00000	0.25373	0.00000	0.95366	0.09019
101	0.00283	0.00000	0.00378	0.00000	0.00049	0.00200
239	0.00256	0.00072	-0.01075	0.00000	0.00000	0.00162
347	0.00112	0.00000	-0.01909	0.00000	0.00000	0.00045
436	0.00190	0.00011	0.02359	0.00000	0.00000	0.00171
037	0.00052	0.00009	0.00669	0.00000	0.00000	0.00046
003	0.00032	0.00084	-0.00324	0.00000	0.00000	0.00025
063	0.01393	0.00463	0.08159	0.00000	0.00000	0.01110
201	0.00108	0.00000	-0.01682	0.00000	0.00000	0.00046
760	0.00544	0.00058	0.00029	0.00000	0.00000	0.00371
164	0.00500	0.00123	0.00819	0.00000	0.00190	0.00377
487	0.00182	0.00000	-0.00390	0.00000	0.00000	0.00116
417	0.02157	0.00000	0.17311	0.00000	0.00000	0.01719
177	0.00251	0.00000	0.05435	0.00000	0.00199	0.00327
651	0.00484	0.00212	0.02003	0.00000	0.00015	0.00379
459	0.00257	0.00545	0.00483	0.00000	0.00000	0.00256
408	0.00173	0.00258	0.01491	0.00000	0.00000	0.00166
055	0.00656	0.00283	0.03458	0.00000	0.00000	0.00523
161	0.00213	0.00175	0.02508	0.00000	0.00000	0.00200
041	0.00161	0.00000	-0.02041	0.01618	0.00008	0.00111
513	0.00218	0.00000	0.00352	0.00000	0.00000	0.00151
563	0.00826	0.00692	-0.10980	0.00000	0.00002	0.00452
294	0.00902	0.00058	-0.05611	0.00000	0.00000	0.00522
401	0.01780	0.00222	-0.07899	0.00000	0.00095	0.01099
935	0.01540	0.00197	-0.01409	0.00000	0.00000	0.01030
544	0.00796	0.00357	-0.06581	0.00000	0.00000	0.00466
031	0.00433	0.00000	0.05371	0.00059	0.00058	0.00381
428	0.00791	0.00000	0.00937	0.00000	0.00174	0.00559
023	0.00429	0.00000	-0.03450	0.00000	0.00001	0.00139
066	0.00914	0.00028	0.00176	0.05506	0.00000	0.00738
065	0.00130	0.00081	0.00013	0.00153	0.00000	0.00099
289	0.00419	0.00325	0.00163	0.02111	0.00165	0.00370
041	0.00540	0.00479	0.01689	0.02802	0.00000	0.00498
013	0.00089	0.00000	0.00470	0.00000	0.00009	0.00068
172	0.01464	0.00031	-0.03193	0.00000	0.01015	0.01019
238	0.00171	0.00000	0.00000	0.00000	0.00000	0.00115
751	0.02999	0.00240	-0.21854	0.33741	0.00000	0.02424
130	0.03912	0.00083	0.76778	0.00000	0.00000	0.03842
670	0.01107	0.00150	0.00000	0.00000	0.00000	0.00757
154	0.00796	0.00007	0.00000	0.00000	0.00729	0.00595
531	0.01566	0.00282	0.00000	0.00000	0.00000	0.01078
048	0.01468	0.00154	0.00000	0.00000	0.00795	0.01066
297	0.00463	0.00346	0.00000	0.00000	0.00000	0.00346
380	0.02664	0.00059	0.00000	0.00000	0.00000	0.01791
803	0.00716	0.00131	0.00000	0.00000	0.00000	0.00626
695	0.01695	0.01254	0.00000	0.00000	0.00000	0.01265
055	0.02910	0.00000	0.00000	0.00000	0.00000	0.01951
597	0.00833	0.00000	0.00000	0.00000	0.00000	0.00558
079	0.00406	0.00000	0.00000	0.00000	0.00000	0.00272
769	0.01774	0.16079	0.00000	0.00000	0.00000	0.02836
000	0.20951	0.57845	0.00000	0.00000	0.00000	0.19953
309	0.71101	0.91392	0.96753	0.47466	1.00000	0.67024
592	0.12389	0.18608	0.03247	0.52534	0.00000	0.19706
000	0.12192	0.00000	0.00000	0.00000	0.00000	0.11397
000	0.03141	0.00000	0.00000	0.00000	0.00000	0.02092
000	0.01177	0.00000	0.00000	0.00000	0.00000	0.00781
000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000
000	0.38750	0.01930	0.00000	0.00000	0.00000	0.35052

APPENDIX E

ADJUSTED (1987) INPUT-OUTPUT TABLE: INVERSE (I - A) MATR

		1	2	3	4	5	6	7	8	9
		FOOD CROPS	FOOD CROPS	CASH CROPS	CASH CROPS	LIVESTOCK	LIVESTOCK	MILK	POULTRY AND EGGS	POULT AND E
		COMM	NON-COMM	COMM	NON-COMM	COMM	NON-COMM	COMM	COMM	NON-C
1	FOOD CROPS commercial	1.09223	0.01200	0.01560	0.02235	0.21461	0.06819	0.07432	0.25864	0.3
2	FOOD CROPS non-commercial	0.01946	1.05486	0.01603	0.02303	0.13496	0.05235	0.05214	0.16754	0.2
3	CASH CROPS commercial	0.00719	0.00299	1.02888	0.08001	0.03329	0.01429	0.01255	0.03969	0.0
4	CASH CROPS non-commercial	0.00236	0.00135	0.00190	1.06078	0.00354	0.00319	0.00240	0.00467	0.0
5	LIVESTOCK commercial	0.00500	0.00288	0.00415	0.00572	1.01107	0.00640	0.00446	0.00891	0.0
6	LIVESTOCK non-commercial	0.00285	0.00148	0.00193	0.00277	0.00284	1.00326	0.00221	0.00388	0.0
7	MILK	0.00130	0.00073	0.00109	0.00147	0.00172	0.00162	1.00114	0.00243	0.0
8	POULTRY & EGGS commercial	0.00290	0.00178	0.00232	0.00333	0.00907	0.00521	0.00441	1.01171	0.0
9	POULTRY & EGGS non-commercial	0.00018	0.00010	0.00014	0.00020	0.00025	0.00022	0.00016	0.00034	1.0
10	FORESTRY	0.01491	0.00113	0.00588	0.00536	0.02700	0.00357	0.00433	0.01102	0.0
11	FISHING	0.00302	0.00192	0.00248	0.00358	0.02234	0.00848	0.00864	0.02815	0.0
12	METAL MINING	0.00133	0.00087	0.00110	0.00159	0.00155	0.00191	0.00127	0.00211	0.0
13	OTHER MINING	0.00257	0.00174	0.00178	0.00388	0.00360	0.00195	0.00408	0.00575	0.0
14	SLAUGHTERING large	0.00340	0.00180	0.00287	0.00377	0.00386	0.00402	0.00262	0.00606	0.0
15	SLAUGHTERING small	0.00140	0.00091	0.00115	0.00167	0.00163	0.00200	0.00133	0.00222	0.0
16	DAIRY PRODUCTS	0.00268	0.00150	0.00226	0.00302	0.00305	0.00334	0.00230	0.00466	0.0
17	CANNING OF FRUITS & FISH	0.00064	0.00034	0.00053	0.00071	0.00074	0.00076	0.00053	0.00114	0.0
18	EDIBLE OILS & FATS	0.00049	0.00020	0.00042	0.00050	0.00139	0.00078	0.00058	0.00189	0.0
19	GRAIN MILL PRODUCTS large scale	0.01657	0.01039	0.01364	0.01944	0.39725	0.10877	0.13154	0.49466	0.6
20	GRAIN MILL PRODUCTS small scale	0.00131	0.00084	0.00108	0.00155	0.01941	0.00185	0.00123	0.00209	0.0
21	BAKERY PRODUCTS	0.00682	0.00442	0.00563	0.00810	0.00792	0.00968	0.00645	0.01088	0.0
22	SUGAR REFINING	0.00667	0.00324	0.00539	0.00762	0.02645	0.02662	0.00720	0.01850	0.0
23	CONFECTIONARY AND OTHER FOODS	0.00245	0.00139	0.00206	0.00277	0.00274	0.00307	0.00211	0.00419	0.0
24	SOFT DRINKS, SPIRITS AND LIQUORS	0.02665	0.01715	0.02188	0.03165	0.03127	0.03761	0.02524	0.04264	0.0
25	TOBACCO	0.00439	0.00287	0.00362	0.00523	0.00510	0.00628	0.00418	0.00696	0.0
26	SPINNING & WEAVING	0.00594	0.00316	0.00463	0.00696	0.00665	0.00701	0.00487	0.00890	0.0
27	MADE UP TEXTILES	0.00494	0.00164	0.00325	0.00506	0.00433	0.00371	0.00266	0.00505	0.0
28	KNITTING & ROPE PRODUCTS	0.00240	0.00115	0.00193	0.00269	0.00264	0.00256	0.00183	0.00327	0.0
29	WEARING APPAREL	0.00817	0.00523	0.00671	0.00973	0.00959	0.01147	0.00773	0.01317	0.0
30	LEATHER PRODUCTS & FOOTWEAR	0.00197	0.00105	0.00156	0.00229	0.00252	0.00237	0.00176	0.00352	0.0
31	SAWMILLS	0.00062	0.00018	0.00042	0.00096	0.00061	0.00043	0.00100	0.00113	0.0
32	OTHER WOOD PRODUCTS	0.00261	0.00140	0.00203	0.00335	0.00290	0.00310	0.00295	0.00431	0.0
33	PAPER AND PAPER PRODUCTS	0.01153	0.00511	0.00900	0.01279	0.01655	0.01252	0.00995	0.02463	0.0
34	INDUSTRIAL CHEMICALS	0.00782	0.00335	0.00557	0.00848	0.01062	0.00804	0.00717	0.01460	0.0
35	CHEMICAL PRODUCTS	0.01874	0.00836	0.01434	0.02129	0.02653	0.01951	0.01591	0.03455	0.0
36	PETROLEUM & COAL PRODUCTS	0.02082	0.00912	0.01660	0.02371	0.03006	0.02193	0.01728	0.04050	0.0
37	PLASTIC PRODUCTS	0.01169	0.00501	0.01030	0.01245	0.01298	0.01141	0.00881	0.02322	0.0
38	RUBBER PRODUCTS	0.00621	0.00135	0.00505	0.00807	0.00761	0.00324	0.00350	0.00761	0.0
39	NON-METALLIC MINERAL PRODUCTS	0.00761	0.00290	0.00548	0.01078	0.02535	0.01059	0.01567	0.03482	0.0
40	BASIC METAL PRODUCTS	0.00660	0.00075	0.00382	0.00394	0.00479	0.00202	0.00174	0.00440	0.0
41	INDUSTRIAL MACHINERY	0.00483	0.00175	0.00350	0.00486	0.00792	0.00470	0.00404	0.00988	0.0
42	AGRIC. & OTHER MACHINERY	0.02792	0.00062	0.01276	0.02250	0.01391	0.00250	0.00246	0.00772	0.0
43	ELECTRICAL PRODUCTS	0.00227	0.00118	0.00181	0.00289	0.00282	0.00263	0.00190	0.00434	0.0
44	TRANSPORT EQUIPMENT	0.02590	0.00164	0.01706	0.00538	0.01004	0.00486	0.00439	0.01227	0.0
45	OTHER MANUFACTURING n.e.c	0.00110	0.00046	0.00084	0.00099	0.00105	0.00103	0.00074	0.00139	0.0
46	ELECTRICITY	0.03813	0.00435	0.02658	0.07933	0.04527	0.01254	0.01080	0.13060	0.0
47	WATER WORKS AND SUPPLY	0.00575	0.00098	0.00179	0.00348	0.00338	0.00238	0.00193	0.00604	0.0
48	CONSTRUCTION	0.07366	0.01119	0.04534	0.12444	0.06530	0.02804	0.13739	0.13897	0.0
49	WHOLESALE AND RETAIL TRADE	0.07438	0.02728	0.06261	0.07388	0.17594	0.06791	0.05671	0.22253	0.1
50	HOTELS, BARS AND RESTAURANTS	0.01389	0.00906	0.01145	0.01653	0.01612	0.01981	0.01318	0.02204	0.0
51	RAIL TRANSPORT	0.00739	0.00269	0.00605	0.00756	0.01365	0.00661	0.00544	0.01665	0.0
52	ROAD TRANSPORT	0.05622	0.00796	0.04693	0.07587	0.07165	0.01864	0.01925	0.05358	0.0
53	OTHER TRANSPORT	0.03835	0.00578	0.03600	0.03206	0.03505	0.01565	0.01606	0.09002	0.0
54	POSTS AND TELECOMMUNICATIONS	0.00776	0.00222	0.00564	0.00805	0.00863	0.00527	0.00485	0.01228	0.0
55	FINANCIAL INSTITUTIONS & INSURANCE	0.03094	0.01370	0.02183	0.03148	0.04029	0.03232	0.02510	0.05473	0.0
56	REAL ESTATE	0.01067	0.00416	0.00825	0.01162	0.01421	0.00987	0.00907	0.02028	0.0
57	BUSINESS SERVICES	0.02134	0.00762	0.01468	0.01983	0.02854	0.01892	0.01563	0.04003	0.0
58	EDUCATION	0.03685	0.02311	0.03033	0.04331	0.04266	0.05073	0.03413	0.05928	0.0
59	HEALTH	0.01142	0.00671	0.00848	0.01226	0.01217	0.01472	0.00985	0.01657	0.0
60	RECREATION AND CULTURAL SERVICES	0.00519	0.00196	0.00432	0.00583	0.01120	0.00481	0.00417	0.01451	0.0
61	GOVT ADMIN. SOCIAL & PERSONAL SERVICES	0.02212	0.01202	0.01730	0.02686	0.02579	0.02676	0.02267	0.03746	0.0
62	HOUSEHOLDS	0.27759	0.18166	0.22084	0.33082	0.32248	0.39720	0.26403	0.43968	0.2
	BACKWARD LINKAGES	1.61395	1.23620	1.42028	1.76693	2.47211	1.64175	1.69395	2.92016	2.7

APPENDIX E CONTD.

	10	11	12	13	14	15	16	17	18	19	20	21	22
	FORESTRY	FISHING	METAL MINING	OTHER MINING	SLAUGHTERING large	SLAUGHTERING small	DAIRY PRODUCTS	CANNING AND DRYING OF FRUITS, FISH AND MEATS	EDIBLE OILS AND FATS	GRAIN MILL PRODUCTS large	GRAIN MILL PRODUCTS small	BAKERY PRODUCTS	SUGAR REFINING
4	0.01619	0.07737	0.06427	0.04336	0.13231	0.06883	0.10708	0.24407	0.06671	0.53673	0.50553	0.12688	0.0287
3	0.01665	0.05481	0.07302	0.04446	0.09312	0.05407	0.08283	0.22306	0.17786	0.33255	0.16671	0.08151	0.0304
4	0.00429	0.01352	0.04151	0.01448	0.02353	0.01487	0.02718	0.11054	0.36791	0.07690	0.01521	0.03376	0.1194
5	0.00188	0.00255	0.00979	0.00558	0.00468	0.00356	0.00742	0.01402	0.02764	0.00568	0.00757	0.00405	0.0036
5	0.00416	0.00609	0.02196	0.01134	0.41617	0.00790	0.27210	0.03405	0.01419	0.00745	0.01284	0.01037	0.0074
5	0.00202	0.00251	0.00592	0.00541	0.02852	0.92872	0.00590	0.01369	0.00508	0.00345	0.00626	0.00320	0.0035
9	0.00109	0.00163	0.00311	0.00299	0.00285	0.00211	0.19452	0.00748	0.00381	0.00198	0.00387	0.01815	0.0019
0	0.00240	0.00485	0.00719	0.00641	0.07521	0.00566	0.00869	0.01752	0.02080	0.01999	0.00747	0.03009	0.0043
8	0.00016	0.00020	0.00042	0.00043	0.00708	0.00030	0.00054	0.00101	0.00042	0.00028	0.00047	0.00025	0.0002
0	1.03150	0.00383	0.02038	0.17442	0.01592	0.00422	0.02552	0.02318	0.02299	0.01560	0.01297	0.00892	0.0053
7	0.00258	1.00904	0.01182	0.00688	0.01517	0.00871	0.01329	0.07584	0.00692	0.05641	0.00798	0.01267	0.0045
6	0.00114	0.00140	1.06791	0.00304	0.00247	0.00212	0.00319	0.00770	0.00276	0.00192	0.00358	0.00180	0.0020
6	0.00273	0.00190	0.01539	1.08142	0.00431	0.00234	0.00838	0.01054	0.00734	0.00558	0.00391	0.00435	0.0028
1	0.00255	0.00497	0.00831	0.00704	1.00645	0.00484	0.00774	0.03409	0.01381	0.00479	0.00797	0.00422	0.0049
2	0.00120	0.00147	0.00356	0.00319	0.00260	1.00222	0.00385	0.00807	0.00292	0.00202	0.00375	0.00189	0.0021
7	0.00207	0.00372	0.00657	0.00564	0.00502	0.00392	1.12962	0.01683	0.00988	0.00379	0.00649	0.01923	0.0041
0	0.00048	0.00091	0.00165	0.00135	0.00125	0.00093	0.00150	1.00396	0.00246	0.00092	0.00152	0.00081	0.0009
6	0.00031	0.00116	0.00112	0.00089	0.00132	0.00070	0.00127	0.02369	1.00301	0.00277	0.00098	0.00621	0.0088
9	0.01397	0.13526	0.04609	0.03751	0.22180	0.10550	0.15980	0.10490	0.04530	1.06979	0.04352	0.19505	0.0249
4	0.00111	0.00139	0.00349	0.00297	0.00967	0.00207	0.00776	0.00763	0.00283	0.00189	1.00348	0.03823	0.0019
3	0.00582	0.00729	0.01734	0.01549	0.01267	0.01078	0.01627	0.03955	0.01482	0.00983	0.01817	1.00918	0.0103
6	0.00467	0.00972	0.02008	0.01542	0.02039	0.02672	0.02126	0.06044	0.02165	0.02047	0.01521	0.12526	1.0098
4	0.00189	0.00337	0.00591	0.00512	0.00449	0.00356	0.00547	0.01540	0.00892	0.00343	0.00593	0.00306	0.0035
6	0.02264	0.02801	0.07046	0.06100	0.04946	0.04196	0.06416	0.15314	0.05690	0.03925	0.07075	0.03620	0.0403
5	0.00377	0.00460	0.01119	0.01002	0.00814	0.00698	0.01050	0.02533	0.00910	0.00633	0.01177	0.00594	0.0066
7	0.00429	0.00538	0.01399	0.01166	0.01000	0.00794	0.01317	0.02921	0.01213	0.00825	0.01357	0.00734	0.0079
3	0.00226	0.00295	0.00805	0.00650	0.00567	0.00423	0.00749	0.01577	0.00753	0.00514	0.00806	0.00399	0.0042
2	0.00160	0.00206	0.00599	0.00489	0.00378	0.00301	0.00480	0.01070	0.00484	0.00311	0.00504	0.00264	0.0052
9	0.00696	0.00859	0.02120	0.01859	0.01538	0.01287	0.01986	0.04677	0.01758	0.01191	0.02166	0.01114	0.0123
3	0.00154	0.00209	0.00600	0.00449	0.00418	0.00285	0.00552	0.01051	0.00545	0.00329	0.00472	0.00300	0.0029
3	0.00072	0.00037	0.01120	0.00088	0.00078	0.00051	0.00117	0.00194	0.00110	0.00066	0.00101	0.00053	0.0005
0	0.00243	0.00238	0.00813	0.00576	0.00435	0.00350	0.00620	0.01310	0.00577	0.00353	0.00623	0.00315	0.0035
7	0.00851	0.01350	0.02999	0.02400	0.02452	0.01636	0.03182	0.06420	0.04431	0.02253	0.02514	0.02436	0.0365
3	0.00571	0.00782	0.04762	0.01595	0.01466	0.01001	0.02221	0.04238	0.02729	0.01546	0.01655	0.01205	0.0129
0	0.01424	0.01778	0.07210	0.03759	0.04023	0.02708	0.05599	0.08789	0.04671	0.03260	0.04189	0.02784	0.0293
3	0.01357	0.02541	0.06372	0.05251	0.03883	0.02705	0.05376	0.11046	0.06680	0.04480	0.04620	0.02971	0.0310
8	0.00788	0.02201	0.02631	0.02159	0.02218	0.01499	0.02484	0.08206	0.07026	0.01604	0.02416	0.01331	0.0164
3	0.00271	0.00435	0.02434	0.01018	0.00844	0.00519	0.01058	0.01755	0.01627	0.00741	0.00764	0.00529	0.0110
2	0.00783	0.01119	0.04213	0.01237	0.02850	0.01152	0.06250	0.07659	0.06755	0.05704	0.01405	0.04411	0.0124
7	0.04101	0.00196	0.02235	0.01759	0.00434	0.00245	0.01189	0.01326	0.01533	0.00591	0.00825	0.00325	0.0035
2	0.00283	0.00506	0.05588	0.03975	0.00860	0.00556	0.07019	0.06002	0.10202	0.01386	0.03114	0.00916	0.0099
3	0.00065	0.00258	0.00535	0.00231	0.00752	0.00261	0.00611	0.01004	0.00742	0.01506	0.01406	0.00424	0.0028
0	0.00183	0.00217	0.02172	0.00481	0.00444	0.00323	0.00562	0.01121	0.00467	0.00323	0.00534	0.00291	0.0032
8	0.00298	0.00502	0.02587	0.05293	0.01082	0.00666	0.01315	0.02100	0.01456	0.01791	0.01803	0.00835	0.0121
8	0.00065	0.00082	0.00244	0.00722	0.00156	0.00121	0.00203	0.00431	0.00186	0.00135	0.00212	0.00112	0.0012
0	0.01154	0.01246	0.08115	0.02886	0.05722	0.01589	0.05273	0.08804	0.04349	0.03850	0.03324	0.03278	0.0574
9	0.00154	0.00198	0.00739	0.00378	0.00950	0.00433	0.01029	0.02002	0.01003	0.00483	0.00509	0.00418	0.0041
0	0.09364	0.02993	0.15347	0.06720	0.07369	0.03661	0.10247	0.13714	0.08870	0.06456	0.08015	0.04699	0.0505
7	0.07797	0.09251	0.14085	0.23280	0.31022	0.17670	0.40672	0.29203	0.14735	0.15963	0.23329	0.13151	0.1201
0	0.01189	0.01465	0.03533	0.03161	0.02574	0.02201	0.03316	0.08023	0.02926	0.02001	0.03713	0.01674	0.0209
1	0.00632	0.00985	0.03642	0.02111	0.02671	0.01361	0.03039	0.03457	0.02377	0.01422	0.01884	0.01161	0.0125
7	0.01455	0.02749	0.07218	0.04885	0.06941	0.03889	0.07368	0.10274	0.12723	0.06221	0.05244	0.03279	0.0378
9	0.01374	0.11536	0.06611	0.04468	0.06693	0.03095	0.05632	0.34121	0.43537	0.04566	0.04565	0.03063	0.0478
0	0.00724	0.00755	0.01761	0.01528	0.01281	0.00781	0.01671	0.03049	0.02343	0.00997	0.01209	0.00759	0.0079
5	0.02207	0.02868	0.11981	0.06900	0.08393	0.04241	0.14534	0.14513	0.11223	0.05681	0.06616	0.05401	0.0457
7	0.00789	0.01225	0.02460	0.02506	0.03506	0.01387	0.03759	0.05078	0.04719	0.01847	0.02181	0.02925	0.0134
0	0.01310	0.02409	0.07788	0.11532	0.04456	0.02801	0.06045	0.09933	0.07070	0.04361	0.03968	0.03402	0.0253
2	0.00074	0.04020	0.09375	0.08347	0.06847	0.05707	0.08624	0.21269	0.08678	0.05312	0.09576	0.04925	0.0553
7	0.00382	0.01084	0.02629	0.02348	0.01927	0.01637	0.02482	0.05938	0.02150	0.01540	0.02801	0.01406	0.0155
0	0.00526	0.00643	0.01037	0.01516	0.01964	0.01114	0.02578	0.02155	0.01169	0.01047	0.01534	0.00868	0.0081
6	0.01939	0.02237	0.05741	0.05036	0.04162	0.03145	0.09503	0.11444	0.05215	0.03191	0.05250	0.02916	0.0305
7	0.23012	0.29081	0.70709	0.63313	0.51477	0.44108	0.60387	1.60102	0.57508	0.40031	0.74408	0.37518	0.4197
1	1.47443	1.67660	2.47111	2.28168	2.89981	2.73797	3.23962	3.62208	2.78232	2.81193	2.64748	2.23803	1.8063

	23	24	25	26	27	28	29	30	31	32	33	34	35
	CONFECTION AND OTHER PRODUCTS	SOFT DRINKS SPIRITS AND LIQUORS	TOBACCO	SPINNING AND WEAVING	MADE UP TEXTILES	KNITTING AND ROPE PRODUCTS	WEARING APPAREL	LEATHER PRODUCTS AND FOOTWEAR	SAWMILS	OTHER WOOD PRODUCTS AND FURNITURE	PAPER AND PAPER PRODUCTS	INDUSTRIAL CHEMICALS	OTHER CHEMICAL PRODUCTS
5	0.07572	0.02674	0.01147	0.02775	0.02835	0.02205	0.02742	0.04330	0.02865	0.02941	0.03614	0.02730	0.01326
5	0.05768	0.02088	0.01150	0.02832	0.02891	0.02255	0.02820	0.03940	0.02946	0.03019	0.03703	0.02723	0.01373
6	0.03432	0.01950	0.02859	0.05646	0.02290	0.01753	0.01571	0.00992	0.00862	0.00988	0.01070	0.01697	0.00595
4	0.00385	0.00593	0.00328	0.00409	0.00361	0.00287	0.00338	0.00363	0.00340	0.00359	0.00428	0.00358	0.00218
9	0.00883	0.00461	0.00299	0.00741	0.00756	0.00596	0.00704	0.06634	0.00740	0.00765	0.00936	0.00865	0.00328
4	0.00353	0.00162	0.00136	0.00342	0.00350	0.00272	0.00339	0.01209	0.00356	0.00363	0.00446	0.00337	0.00164
8	0.10267	0.00251	0.00082	0.00189	0.00194	0.00152	0.00180	0.00219	0.00193	0.00197	0.00239	0.00215	0.00083
5	0.00573	0.00197	0.00163	0.00411	0.00419	0.00327	0.00404	0.00504	0.00424	0.00436	0.00534	0.00389	0.00197
6	0.00026	0.00012	0.00010	0.00026	0.00027	0.00020	0.00024	0.00031	0.00027	0.00027	0.00033	0.00027	0.00011
5	0.00733	0.00387	0.00453	0.00898	0.00628	0.00536	0.00468	0.00525	0.06025	0.00653	0.01590	0.00578	0.00585
3	0.00938	0.00254	0.00176	0.00441	0.00449	0.00350	0.00434	0.00615	0.00455	0.00467	0.00573	0.00415	0.00212
2	0.00701	0.00092	0.00077	0.00193	0.00197	0.00154	0.00195	0.00225	0.00203	0.00208	0.00254	0.00178	0.00096
8	0.00625	0.00135	0.00116	0.00288	0.00341	0.00272	0.00254	0.00229	0.00240	0.00272	0.00338	0.00285	0.00235
5	0.00486	0.00244	0.00204	0.00517	0.00521	0.00424	0.00450	0.00501	0.00475	0.00517	0.00632	0.00553	0.00213
2	0.00211	0.00097	0.00081	0.00204	0.00208	0.00162	0.00204	0.00235	0.00213	0.00218	0.00268	0.00187	0.00100
1	0.01028	0.00680	0.00173	0.00394	0.00395	0.00329	0.00366	0.00408	0.00382	0.00406	0.00490	0.00460	0.00174
4	0.00091	0.00729	0.00061	0.00097	0.00096	0.00082	0.00090	0.00097	0.00090	0.00096	0.00117	0.00156	0.00040
7	0.00227	0.00049	0.00030	0.00076	0.00073	0.00068	0.00063	0.00066	0.00061	0.00071	0.00084	0.00142	0.00027
3	0.12162	0.01281	0.00970	0.02441	0.02493	0.01938	0.02378	0.05002	0.02486	0.02571	0.03167	0.02344	0.01153
7	0.00199	0.00092	0.00076	0.00191	0.00194	0.00152	0.00190	0.00322	0.00198	0.00203	0.00250	0.00179	0.00093
0	0.01026	0.00471	0.00392	0.00988	0.01006	0.00790	0.00990	0.01142	0.01033	0.01060	0.01296	0.00921	0.00486
6	0.18329	0.00680	0.00408	0.01252	0.01146	0.01269	0.01467	0.01144	0.00885	0.01033	0.01281	0.06894	0.00486
9	1.00109	0.00952	0.00169	0.00360	0.00360	0.00302	0.00338	0.00372	0.00348	0.00371	0.00447	0.00441	0.00160
5	0.04051	1.05456	0.05125	0.04231	0.04212	0.03670	0.04733	0.04593	0.04025	0.04227	0.05214	0.11752	0.01905
4	0.00062	0.00303	1.00252	0.00635	0.00648	0.00507	0.00640	0.00740	0.00668	0.00683	0.00837	0.00587	0.00315
4	0.00804	0.00939	0.00893	1.00909	0.30414	0.16787	0.15714	0.00842	0.00792	0.02400	0.00979	0.00999	0.00398
8	0.00433	0.00212	0.00186	0.00549	1.02532	0.06116	0.04167	0.00449	0.00466	0.03816	0.00524	0.00462	0.00217
9	0.00529	0.00151	0.00125	0.00553	0.00380	1.00282	0.00660	0.00317	0.00303	0.01583	0.00380	0.00368	0.00170
3	0.01284	0.00564	0.00473	0.01270	0.01261	0.01059	1.01332	0.01302	0.01238	0.03962	0.01578	0.02442	0.00580
3	0.00306	0.00135	0.00121	0.00448	0.00407	0.00457	0.00570	1.56394	0.00295	0.00333	0.00431	0.03110	0.00130
9	0.00138	0.00051	0.00062	0.00073	0.00059	0.00055	0.00050	0.00053	1.00054	0.00058	0.00077	0.00056	0.00027
0	0.00447	0.00177	0.00157	0.00611	0.00420	0.00743	0.00551	0.00560	0.00347	1.00374	0.00447	0.00326	0.00176
3	0.04005	0.01077	0.06710	0.04814	0.02774	0.02223	0.02618	0.06283	0.02482	0.15320	1.28071	0.07356	0.00650
4	0.01365	0.00503	0.00535	0.05731	0.04681	0.08202	0.12116	0.02980	0.01054	0.02322	0.03369	1.04749	0.00550
9	0.03375	0.06236	0.06792	0.12026	0.24967	0.17491	0.15830	0.03428	0.15986	0.18534	0.20950	0.03984	1.01206
7	0.03750	0.01418	0.01264	0.03222	0.02939	0.02956	0.02615	0.02701	0.02629	0.02959	0.03597	0.04427	0.01372
4	0.01641	0.00808	0.00714	0.04565	0.02541	0.01989	0.01818	0.01505	0.01503	0.01850	0.01997	0.02228	0.00647
1	0.00965	0.00372	0.00355	0.04922	0.02037	0.01279	0.01272	0.00511	0.00676	0.00815	0.00834	0.01837	0.00805
9	0.02688	0.00609	0.00465	0.01099	0.01244	0.01032	0.00998	0.00938	0.01040	0.01331	0.01417	0.00885	0.02269
2	0.00296	0.00370	0.00358	0.00702	0.00527	0.00388	0.00345	0.00252	0.00577	0.01351	0.00441	0.00403	0.00333
3	0.00776	0.01875	0.02439	0.03496	0.01925	0.01913	0.01263	0.00574	0.01319	0.01705	0.01538	0.01416	0.02215
0	0.00302	0.00133	0.00095	0.00593	0.00282	0.00192	0.00210	0.00236	0.00769	0.00162	0.00189	0.00153	0.00073
9	0.00314	0.00148	0.00129	0.00739	0.00376	0.00252	0.00379	0.00338	0.00321	0.00345	0.00386	0.00332	0.00151
1	0.00795	0.01048	0.00332	0.00693	0.00609	0.00555	0.00793	0.00650	0.00532	0.00586	0.00999	0.01373	0.00235
7	0.00124	0.00087	0.00071	0.04141	0.01312	0.07752	0.03839	0.03328	0.00117	0.00357	0.00152	0.00235	0.00056
7	0.02868	0.01448	0.01492	0.03591	0.04297	0.02391	0.02435	0.01722	0.02903	0.02736	0.03224	0.07813	0.02289
6	0.02094	0.00195	0.00116	0.00288	0.00303	0.00224	0.00265	0.00275	0.00273	0.00279	0.00359	0.00469	0.00149
7	0.18497	0.02705	0.02446	0.06776	0.04832	0.05214	0.03687	0.03851	0.04155	0.04519	0.06880	0.04705	0.01692
8	0.10069	0.04879	0.04912	0.10289	0.11841	0.07226	0.09728	0.17603	0.12614	0.10927	0.13340	0.15073	0.03405
8	0.02093	0.00960	0.00799	0.02012	0.02050	0.01606	0.02021	0.02383	0.02108	0.02160	0.02645	0.01862	0.00994
9	0.01019	0.00493	0.00480	0.01171	0.01251	0.00836	0.00917	0.01353	0.01181	0.01095	0.01425	0.01408	0.00360
0	0.07113	0.02707	0.02647	0.06442	0.05686	0.03412	0.03772	0.03566	0.05093	0.05411	0.05631	0.08607	0.01797
1	0.04477	0.02503	0.02343	0.05844	0.05400	0.05021	0.03250	0.02675	0.03629	0.05050	0.05474	0.09972	0.01350
5	0.00864	0.00540	0.00500	0.01278	0.01079	0.01429	0.01078	0.00790	0.01223	0.01256	0.01633	0.01017	0.00598
5	0.04267	0.02193	0.02039	0.08161	0.08455	0.04745	0.04567	0.04558	0.05781	0.05532	0.07474	0.05607	0.01713
1	0.01607	0.00836	0.00784	0.02510	0.01680	0.02221	0.01362	0.01484	0.01878	0.01762	0.02482	0.01573	0.00554
9	0.02701	0.01718	0.01626	0.05269	0.05815	0.03175	0.02683	0.02543	0.03005	0.03701	0.04478	0.02862	0.01011
2	0.05499	0.02677	0.02287	0.05944	0.06151	0.04512	0.05372	0.06058	0.05523	0.05960	0.07637	0.05113	0.02578
4	0.01558	0.00713	0.00592	0.01497	0.01524	0.01192	0.01499	0.01732	0.01566	0.01602	0.01963	0.01378	0.00736
1	0.00726	0.00338	0.00383	0.00733	0.00814	0.00524	0.00668	0.01138	0.00847	0.00755	0.00924	0.01005	0.00245
9	0.03587	0.01462	0.01256	0.03393	0.03389	0.02580	0.02905	0.03295	0.03129	0.03236	0.04049	0.02923	0.01368
2	0.41862	0.19177	0.15950	0.40162	0.40987	0.32053	0.40473	0.46764	0.42207	0.43192	0.52876	0.37092	0.19906
2	2.30536	1.47392	1.46916	2.00889	2.28704	2.07354	2.07661	2.43999	1.81092	2.02431	2.22643	2.02476	1.31317

36	37	38	39	40	41	42	43	44	45	46	47	48
PETROLEUM AND COAL PRODUCTS	PLASTIC PRODUCTS	RUBBER PRODUCTS	NON-METALLIC MINERAL PRODUCTS	BASIC METAL PRODUCTS	INDUSTRIAL MACHINERY & METAL PRODUCTS	AGRICULTURAL AND OTHER MACHINERY	ELECTRICAL PRODUCTS	TRANSPORT EQUIPMENT	OTHER MANUFACTU-RING n.e.c	ELECTRICITY	WATER WORKS AND SUPPLY	CONSTRUCTION
0.02242	0.01925	0.03024	0.02713	0.03476	0.04057	0.04478	0.02977	0.02263	0.01315	0.03704	0.02461	0.03501
0.02265	0.01935	0.03094	0.02780	0.03582	0.04173	0.04546	0.03036	0.02291	0.01346	0.03799	0.02543	0.03586
0.02941	0.01452	0.08506	0.05140	0.00976	0.08267	0.06004	0.01504	0.02290	0.00857	0.01109	0.00739	0.01187
0.00345	0.00360	0.01589	0.02368	0.00403	0.01867	0.00550	0.00469	0.00893	0.00149	0.00438	0.00310	0.00491
0.00675	0.00597	0.00805	0.00718	0.00889	0.01026	0.01280	0.00805	0.00627	0.00341	0.00976	0.00611	0.00919
0.00281	0.00235	0.00374	0.00337	0.00429	0.00502	0.00556	0.00369	0.00281	0.00163	0.00460	0.00306	0.00442
0.00170	0.00156	0.00207	0.00186	0.00227	0.00263	0.00342	0.00210	0.00165	0.00087	0.00250	0.00154	0.00228
0.00323	0.00290	0.00449	0.00401	0.00517	0.00600	0.00666	0.00442	0.00334	0.00195	0.00551	0.00367	0.00529
0.00023	0.00020	0.00028	0.00026	0.00030	0.00036	0.00047	0.00029	0.00024	0.00012	0.00035	0.00022	0.00037
0.00808	0.01031	0.03526	0.12438	0.00790	0.12038	0.05702	0.02866	0.00583	0.00194	0.01710	0.00600	0.01400
0.00345	0.00304	0.00481	0.00431	0.00555	0.00645	0.00709	0.00473	0.00357	0.00210	0.00592	0.00397	0.00582
0.00149	0.00128	0.00211	0.00190	0.00248	0.00288	0.00305	0.00207	0.00154	0.00092	0.00260	0.00176	0.00245
0.00391	0.00471	0.04678	0.06806	0.00377	0.00348	0.00476	0.03155	0.00246	0.00133	0.00695	0.00610	0.02488
0.00390	0.00518	0.00563	0.00465	0.00600	0.00659	0.00904	0.00553	0.00424	0.00223	0.00658	0.00387	0.00581
0.00157	0.00136	0.00223	0.00200	0.00260	0.00303	0.00322	0.00217	0.00163	0.00097	0.00273	0.00185	0.00256
0.00325	0.00367	0.00433	0.00370	0.00478	0.00524	0.00684	0.00424	0.00315	0.00173	0.00515	0.00316	0.00460
0.00102	0.00092	0.00105	0.00091	0.00112	0.00123	0.00169	0.00103	0.00078	0.00041	0.00124	0.00073	0.00109
0.00204	0.00098	0.00081	0.00067	0.00081	0.00080	0.00142	0.00079	0.00058	0.00028	0.00092	0.00047	0.00076
0.01921	0.01753	0.02657	0.02358	0.03034	0.03531	0.03934	0.02611	0.01988	0.01148	0.03237	0.02131	0.03021
0.00148	0.00130	0.00208	0.00186	0.00241	0.00281	0.00318	0.00204	0.00159	0.00090	0.00255	0.00171	0.00239
0.00762	0.00672	0.01083	0.00970	0.01263	0.01464	0.01573	0.01058	0.00788	0.00469	0.01330	0.00896	0.01241
0.19016	0.00918	0.01043	0.01449	0.01122	0.01174	0.01628	0.00980	0.00745	0.00397	0.01366	0.00741	0.01194
0.00302	0.00330	0.00393	0.00338	0.00437	0.00479	0.00615	0.00383	0.00283	0.00158	0.00468	0.00290	0.00419
0.07128	0.02613	0.04250	0.04356	0.04911	0.05689	0.06145	0.04117	0.03076	0.01833	0.05214	0.03497	0.04913
0.00490	0.00421	0.00696	0.00626	0.00815	0.00948	0.01005	0.00680	0.00507	0.00303	0.00857	0.00581	0.00801
0.00719	0.00802	0.03527	0.01687	0.00981	0.01419	0.03466	0.01215	0.00840	0.00448	0.01500	0.00697	0.01003
0.00360	0.00476	0.01972	0.00446	0.00518	0.01699	0.03388	0.01826	0.00600	0.00361	0.00739	0.00369	0.00545
0.00283	0.00623	0.06260	0.00311	0.00372	0.00417	0.00502	0.00312	0.01223	0.00207	0.00405	0.00256	0.00401
0.01302	0.01226	0.01310	0.01262	0.01512	0.01779	0.01909	0.01279	0.00965	0.00727	0.01698	0.01077	0.01526
0.02067	0.00276	0.00354	0.00504	0.00355	0.00405	0.00552	0.00338	0.00286	0.00151	0.00519	0.00244	0.00402
0.00046	0.00051	0.00067	0.00067	0.00091	0.00319	0.00115	0.00097	0.00058	0.00033	0.00171	0.00158	0.00674
0.00440	0.00276	0.00414	0.00367	0.00450	0.01492	0.00587	0.00486	0.00368	0.06099	0.00567	0.00436	0.01157
0.05196	0.01572	0.02647	0.02361	0.01995	0.02244	0.05676	0.02315	0.01778	0.01605	0.02321	0.01319	0.02494
0.14837	0.00890	0.01580	0.07813	0.01168	0.01311	0.01983	0.01090	0.00884	0.00508	0.01540	0.00956	0.02160
0.03336	0.02132	0.04009	0.13517	0.02892	0.03677	0.06442	0.03029	0.02413	0.02059	0.03861	0.17009	0.04167
1.03025	0.03035	0.03125	0.03646	0.03426	0.03420	0.05038	0.02985	0.02272	0.01165	0.04521	0.02196	0.03633
0.01322	1.02276	0.02002	0.01535	0.01970	0.01958	0.03477	0.01909	0.01411	0.00693	0.02238	0.01200	0.02147
0.01205	0.07198	1.00873	0.00870	0.00809	0.00665	0.01451	0.00687	0.00962	0.00242	0.01024	0.00562	0.01323
0.03661	0.00627	0.00932	1.11751	0.01164	0.01199	0.01527	0.01003	0.00741	0.00457	0.01905	0.01870	0.05996
0.00403	0.00774	0.00593	0.01159	1.00746	0.13209	0.09788	0.21856	0.09957	0.00166	0.00531	0.00272	0.00358
0.01648	0.05608	0.02361	0.03547	0.00835	1.13594	0.04237	0.11002	0.02289	0.00297	0.00838	0.01090	0.00869
0.00145	0.00116	0.00282	0.00237	0.00182	0.00324	1.00301	0.00168	0.00151	0.00070	0.00199	0.00133	0.00207
0.00265	0.00241	0.00363	0.00345	0.00593	0.00475	0.00693	1.04875	0.00302	0.00151	0.01347	0.00311	0.00432
0.01162	0.00502	0.00863	0.01905	0.00736	0.00801	0.01179	0.00755	1.00548	0.00247	0.00721	0.00414	0.00807
0.00157	0.00136	0.00672	0.00204	0.00145	0.00178	0.00282	0.00458	0.01359	1.00067	0.00182	0.00102	0.00159
0.04017	0.02720	0.04545	0.06698	0.12796	0.04479	0.05594	0.05453	0.03068	0.01217	1.32757	0.08065	0.02327
0.00277	0.00199	0.00321	0.00430	0.00537	0.00396	0.00450	0.00338	0.00231	0.00124	0.03136	1.01304	0.00457
0.03695	0.03791	0.05760	0.05787	0.09611	0.07818	0.11201	0.07869	0.05600	0.03355	0.22571	0.22143	1.06961
0.15270	0.08132	0.11567	0.12031	0.10385	0.15322	0.27135	0.14217	0.14022	0.05437	0.13913	0.06441	0.10778
0.01550	0.01346	0.02203	0.01977	0.02575	0.02993	0.05186	0.02151	0.01604	0.00958	0.02710	0.01832	0.02535
0.01539	0.01338	0.01475	0.01245	0.01334	0.01559	0.02901	0.01631	0.01413	0.00557	0.01824	0.00678	0.01150
0.05069	0.10760	0.06365	0.04342	0.06761	0.04616	0.12025	0.05201	0.04830	0.01659	0.07827	0.02363	0.04969
0.04055	0.12433	0.06552	0.04091	0.05558	0.03772	0.13828	0.06352	0.04500	0.01608	0.06577	0.02015	0.04381
0.00847	0.01680	0.01041	0.01456	0.08439	0.02459	0.07371	0.03646	0.02452	0.00620	0.01959	0.00732	0.01512
0.05578	0.04976	0.09384	0.06373	0.06276	0.07595	0.13724	0.07497	0.08002	0.04341	0.07154	0.03304	0.05696
0.01748	0.03718	0.02497	0.02388	0.01900	0.02629	0.05189	0.02858	0.03031	0.01245	0.01959	0.01202	0.02862
0.02794	0.06447	0.04972	0.04613	0.04063	0.03613	0.12007	0.06113	0.04713	0.02668	0.03723	0.01872	0.03404
0.04221	0.04399	0.06239	0.05315	0.06083	0.08219	0.08948	0.06110	0.04924	0.02751	0.07354	0.04748	0.06678
0.01154	0.00998	0.01639	0.01472	0.01710	0.02223	0.02374	0.01600	0.01199	0.00715	0.02011	0.01361	0.01895
0.00984	0.00592	0.00817	0.00818	0.00766	0.01050	0.01826	0.00973	0.00983	0.00378	0.00998	0.00500	0.00978
0.02476	0.02574	0.03614	0.03182	0.03946	0.04429	0.05774	0.03647	0.02681	0.01640	0.04621	0.03225	0.07408
0.30989	0.26625	0.43992	0.39564	0.51515	0.59931	0.68520	0.42960	0.32018	0.19164	0.54167	0.36699	0.50638
2.08293	1.61977	1.97310	2.26664	1.82318	2.30978	2.48244	2.15665	1.73020	1.36399	2.30801	1.89065	1.82469

APPENDIX E CONTD.

49	50	51	52	53	54	55	56	57	58	59	60	61
WHOLESALE AND RETAIL TRADE	HOTELS BARS AND RESTAURANTS	RAIL TRANSPORT	ROAD TRANSPORT	OTHER TRANSPORT	POSTS AND TELECOMM-UNICATIONS	FINANCIAL INSTITUTIONS AND INSURANCE *	REAL ESTATE	BUSINESS SERVICES	EDUCATION	HEALTH	RECREATION AND CULTURAL SERVICES	GOVERNMENT ADMINISTRATION SOCIAL AND PER SONAL SERVICES
0.04264	0.04666	0.07944	0.03913	0.06279	0.05887	0.04173	0.03497	0.04906	0.12120	0.07407	0.08159	0.09761
0.04126	0.03643	0.07673	0.04003	0.06165	0.06041	0.04229	0.03561	0.04993	0.10126	0.05548	0.05758	0.09516
0.01073	0.01095	0.02299	0.02390	0.03342	0.01809	0.01094	0.00981	0.01261	0.02499	0.01656	0.01510	0.02146
0.00434	0.00277	0.00787	0.00560	0.00679	0.00720	0.00456	0.00392	0.00536	0.00896	0.00578	0.00633	0.00859
0.01548	0.01602	0.02556	0.01076	0.02690	0.01492	0.01110	0.01003	0.01281	0.03185	0.01314	0.01479	0.03333
0.00566	0.00551	0.00870	0.00483	0.00742	0.00726	0.00523	0.00453	0.00615	0.01218	0.00597	0.00694	0.01478
0.00502	0.00411	0.00589	0.00280	0.00744	0.00379	0.00263	0.00227	0.00307	0.00483	0.00302	0.00381	0.00666
0.00607	0.00579	0.01144	0.00583	0.01005	0.00870	0.00625	0.00527	0.00737	0.01472	0.00762	0.00858	0.01718
0.00083	0.00047	0.00070	0.00036	0.00067	0.00052	0.00043	0.00039	0.00052	0.00089	0.00043	0.00052	0.00268
0.00671	0.00443	0.01184	0.00892	0.01069	0.04384	0.00665	0.00601	0.00643	0.00975	0.00763	0.00738	0.01232
0.00627	0.00640	0.01221	0.00620	0.00976	0.00937	0.00690	0.00587	0.00818	0.01611	0.00878	0.00912	0.02252
0.00250	0.00149	0.00477	0.00273	0.00385	0.00416	0.00284	0.00239	0.00336	0.00557	0.00338	0.00393	0.00524
0.00353	0.00238	0.00589	0.00739	0.00622	0.00677	0.00337	0.00485	0.00417	0.00607	0.00511	0.00424	0.00625
0.00771	0.02360	0.02764	0.00787	0.03211	0.00989	0.00740	0.00573	0.00848	0.04263	0.01088	0.00999	0.01549
0.00264	0.00375	0.00502	0.00287	0.00410	0.00438	0.00302	0.00252	0.00355	0.00778	0.00359	0.00413	0.00567
0.00564	0.01125	0.01684	0.00605	0.02206	0.00774	0.00544	0.00445	0.00632	0.00996	0.00638	0.00772	0.01029
0.00160	0.00780	0.00880	0.00147	0.00556	0.00185	0.00135	0.00110	0.00166	0.00322	0.00673	0.00184	0.00266
0.00108	0.00344	0.00287	0.00137	0.00797	0.00124	0.00091	0.00071	0.00096	0.00312	0.00531	0.00127	0.00173
0.03565	0.05826	0.08168	0.03451	0.06182	0.05146	0.03666	0.03037	0.04305	0.13743	0.05874	0.04972	0.07889
0.00258	0.00902	0.00487	0.00269	0.00415	0.00407	0.00284	0.00238	0.00333	0.00779	0.00690	0.00386	0.00569
0.01291	0.01679	0.02566	0.01404	0.02194	0.02119	0.01453	0.01219	0.01714	0.02876	0.01904	0.02004	0.02721
0.01339	0.01167	0.03567	0.02989	0.04292	0.01955	0.01258	0.01118	0.01476	0.02841	0.01714	0.01723	0.02234
0.00476	0.00353	0.00981	0.00550	0.01981	0.00704	0.00468	0.00401	0.00558	0.00899	0.00557	0.00685	0.00866
0.05040	0.05790	0.09735	0.05738	0.08008	0.08293	0.05642	0.04771	0.06988	0.10971	0.06706	0.07783	0.10353
0.00822	0.00516	0.01570	0.00898	0.01266	0.01370	0.00936	0.00786	0.01106	0.01832	0.01113	0.01293	0.01725
0.00985	0.00656	0.01845	0.01606	0.01587	0.01579	0.01107	0.01385	0.01287	0.02075	0.01309	0.01506	0.02141
0.00538	0.00498	0.00982	0.00913	0.00892	0.00687	0.00607	0.01425	0.00715	0.01160	0.00792	0.00871	0.01583
0.00387	0.00220	0.00752	0.01294	0.00681	0.00608	0.00414	0.00351	0.00465	0.00750	0.00483	0.00577	0.00753
0.01610	0.00986	0.02930	0.01704	0.02481	0.02530	0.01864	0.02206	0.02065	0.03386	0.02084	0.02388	0.03376
0.00482	0.00260	0.00779	0.00546	0.00773	0.00585	0.00909	0.02569	0.00535	0.00705	0.00451	0.00552	0.01046
0.00082	0.00051	0.00129	0.00086	0.00130	0.00162	0.00080	0.00123	0.00103	0.00147	0.00117	0.00101	0.00139
0.00445	0.00267	0.00820	0.00498	0.00707	0.00786	0.00490	0.00486	0.00587	0.00938	0.00608	0.00661	0.00969
0.03665	0.01773	0.06157	0.03303	0.06524	0.04952	0.06407	0.02407	0.03302	0.06209	0.02846	0.06425	0.04730
0.01923	0.00788	0.03181	0.02470	0.03073	0.02076	0.01364	0.01399	0.01538	0.02344	0.01626	0.01767	0.02312
0.07078	0.02093	0.06041	0.07709	0.05395	0.04964	0.03891	0.03433	0.03848	0.06105	0.32843	0.04810	0.08763
0.04158	0.02322	0.13336	0.11468	0.13675	0.06305	0.03800	0.03514	0.04589	0.06228	0.04708	0.05176	0.06511
0.02915	0.01135	0.05417	0.02982	0.18589	0.02958	0.02160	0.01782	0.02310	0.03428	0.02327	0.03045	0.05293
0.00872	0.00392	0.01923	0.09114	0.02657	0.01034	0.00779	0.00705	0.00710	0.00955	0.00874	0.01045	0.01335
0.01240	0.01004	0.02311	0.01512	0.02232	0.02026	0.01177	0.01452	0.01442	0.02481	0.02234	0.01523	0.02152
0.00449	0.00395	0.00567	0.00481	0.00591	0.01518	0.00352	0.00302	0.00393	0.00606	0.00521	0.00563	0.01244
0.00846	0.00659	0.01447	0.01110	0.02145	0.04700	0.00759	0.00672	0.00879	0.01310	0.01472	0.01027	0.02136
0.00213	0.00191	0.00392	0.00223	0.00385	0.00911	0.00236	0.00208	0.00279	0.00537	0.00322	0.00367	0.00960
0.00627	0.00873	0.00730	0.00483	0.00675	0.02752	0.00509	0.00467	0.00623	0.00835	0.00595	0.00679	0.02556
0.01753	0.01104	0.01498	0.01953	0.01238	0.02987	0.01026	0.00771	0.01001	0.01733	0.01621	0.02328	0.03476
0.00186	0.00101	0.00282	0.00262	0.00245	0.00265	0.00180	0.00247	0.00192	0.00338	0.00201	0.00259	0.00347
0.02608	0.02679	0.05643	0.08751	0.04326	0.02860	0.02528	0.04208	0.02714	0.05139	0.03851	0.03592	0.05784
0.00332	0.00361	0.00647	0.00480	0.00563	0.00505	0.00355	0.00356	0.00414	0.00731	0.00506	0.00494	0.00738
0.07906	0.04897	0.10733	0.06074	0.12642	0.16543	0.07015	0.15117	0.09621	0.11982	0.11771	0.07934	0.11124
1.10071	0.07941	0.22715	0.15299	0.18778	0.19439	0.10493	0.11444	0.12036	0.19610	0.12477	0.14407	0.18845
0.02602	1.01548	0.04980	0.02846	0.04166	0.04320	0.02961	0.02483	0.03493	0.06186	0.03515	0.04085	0.05442
0.06773	0.00844	1.02508	0.01883	0.04624	0.02770	0.02462	0.01837	0.04762	0.02262	0.01339	0.03087	0.02336
0.06434	0.02737	0.16678	1.15557	0.15767	0.07159	0.06003	0.04366	0.04443	0.05445	0.04312	0.08115	0.05511
0.08808	0.02820	0.23449	0.12223	1.29145	0.06499	0.05052	0.03784	0.04016	0.04850	0.03930	0.08080	0.05116
0.02212	0.01369	0.02836	0.02266	0.04692	1.04768	0.01961	0.01384	0.03208	0.01974	0.01548	0.02449	0.02949
0.08719	0.04288	0.08783	0.05785	0.08895	0.07453	1.15671	0.05791	0.05650	0.09372	0.05817	0.06745	0.09257
0.03663	0.03031	0.03915	0.03015	0.06615	0.03541	0.03484	1.04069	0.05503	0.03167	0.02113	0.03608	0.03569
0.05997	0.02693	0.06412	0.04574	0.13087	0.10744	0.05416	0.05523	1.08532	0.05842	0.03688	0.08207	0.06368
0.07076	0.04084	0.13991	0.07878	0.13744	0.12240	0.09307	0.06696	0.10417	1.15780	0.10034	0.11267	0.14744
0.01942	0.01243	0.03676	0.02105	0.02983	0.03208	0.02361	0.02074	0.02619	0.04296	1.03035	0.03041	0.04448
0.06591	0.00553	0.01620	0.01066	0.01741	0.01574	0.01215	0.00853	0.00903	0.01417	0.00930	1.09241	0.01848
0.04758	0.02858	0.07286	0.04366	0.07954	0.06759	0.09080	0.06492	0.11066	0.10521	0.05784	0.08703	1.11542
0.51967	0.30979	0.99254	0.56764	0.80037	0.86600	0.59168	0.49708	0.60894	1.15774	0.70373	0.81720	1.09042
1.83736	1.68702	1.56829	1.18277	1.60390	1.34060	0.81491	0.85622	0.90620	1.61869	1.32700	1.09533	1.58076

62	
JSEHOLDS	FORWARD LINKAGES
0.09978	5.82355
0.10361	4.78407
0.02457	3.03866
0.01124	1.42140
0.02392	2.38991
0.01732	2.24007
0.00603	1.47031
0.01479	1.50015
0.00080	1.03048
0.00930	2.17733
0.01594	1.60836
0.00726	1.21679
0.00612	1.49840
0.01497	1.49446
0.00760	1.16489
0.01250	1.46547
0.00282	1.10476
0.00168	1.11588
0.08639	5.65261
0.00701	1.23173
0.03678	1.79378
0.02670	2.47411
0.01155	1.29897
0.14254	4.30413
0.02390	1.50144
0.02622	2.33200
0.01361	1.62740
0.00950	1.33477
0.04350	2.00311
0.00867	1.88224
0.00153	1.07094
0.01165	1.37201
0.04224	3.29263
0.02768	2.46149
0.06905	4.94386
0.07491	3.52040
0.04150	2.53287
0.01032	1.75810
0.02402	2.35927
0.00622	1.92655
0.01452	2.37137
0.00512	1.29080
0.00975	1.36319
0.01345	1.73887
0.00882	1.32801
0.03535	3.83857
0.00810	1.33254
0.09244	5.99819
0.22287	9.50989
0.07531	2.59019
0.02208	2.05040
0.05439	4.62448
0.04675	5.19375
0.01825	2.06601
0.11362	4.96400
0.03434	2.50353
0.06301	3.82946
0.19211	5.35589
0.05580	2.19364
0.01609	1.74674
0.09986	3.75068
1.51072	31.67641
1.60153	

APPENDIX F. INVERSE(I - A): CUMMULATIVE PRODUCTION COEFFICIENTS BY FINAL DEMAND CATEGORY

		INCREASE IN STOCKS	GROSS FIXED CAPITAL FORMATION	EXPORTS (FOB)
1	FOOD CROPS commercial	-0.01200	0.02253	0.06722
2	FOOD CROPS non-commercial	0.46877	0.02484	0.07183
3	CASH CROPS commercial	0.00847	0.01815	0.04365
4	CASH CROPS non-commercial	0.00677	0.00457	0.00979
5	LIVESTOCK commercial	0.00828	0.00538	0.02146
6	LIVESTOCK non-commercial	-0.03010	0.00240	0.00617
7	MILK	-0.00166	0.00122	0.00320
8	POULTRY & EGGS commercial	0.00177	0.00282	0.00733
9	POULTRY & EGGS non-commercial	0.00082	0.00019	0.00045
10	FORESTRY	-0.18242	0.01715	0.02101
11	FISHING	-0.00030	0.00317	0.01174
12	METAL MINING	0.54426	.00000	1.03755
13	OTHER MINING	0.00783	0.01165	0.01616
14	SLAUGHTERING commercial	-0.01564	0.00312	0.00836
15	SLAUGHTERING non-commercial	-0.05327	0.00136	0.00359
16	DAIRY PRODUCTS	-0.02610	0.00246	0.00662
17	CANNING OF FRUITS & FISH	-0.01834	0.00059	0.00168
18	EDIBLE OILS & FATS	-0.02338	0.00042	0.00119
19	GRAIN MILL PRODUCTS large scale	-0.00238	0.01647	0.04674
20	GRAIN MILL PRODUCTS small scale	-0.03946	0.00128	0.00351
21	BAKERY PRODUCTS	0.01125	0.00663	0.01746
22	SUGAR REFINING	-0.00447	0.00523	0.02014
23	CONFECTIONARY AND OTHER FOODS	-0.00158	0.00223	0.00594
24	SOFT DRINKS, SPIRITS AND LIQUORS	0.37024	0.02618	0.07114
25	TOBACCO	0.11566	0.00387	0.01221
26	SPINNING & WEAVING	0.06992	0.00566	0.01422
27	MADE UP TEXTILES	0.01850	0.00301	0.00576
28	KNITTING & ROPE PRODUCTS	0.03938	0.00239	0.00596
29	WEARING APPAREL	0.08089	0.00947	0.02492
30	LEATHER PRODUCTS & FOOTWEAR	0.07496	0.00199	0.00570
31	SAWMILLS	-0.03653	0.01923	0.01112
32	OTHER WOOD PRODUCTS crafts	0.00814	0.00579	0.00814
33	PAPER AND PAPER PRODUCTS	-0.25645	0.01263	0.03032
34	INDUSTRIAL CHEMICALS	-0.20906	0.00973	0.04360
35	CHEMICAL PRODUCTS	-0.07282	0.02367	0.07216
36	PETROLEUM & COAL PRODUCTS	-0.59649	0.01340	0.05589
37	PLASTIC PRODUCTS	-0.10561	0.01113	0.02681
38	RUBBER PRODUCTS	0.10226	0.00754	0.02591
39	NON-METALLIC MINERAL PRODUCTS	-0.02290	0.03766	0.04657
40	BASIC METAL PRODUCTS	-0.18717	0.01703	0.02242
41	INDUSTRIAL MACHINERY	0.01443	0.07192	0.05942
42	AGRIC. & OTHER MACHINERY	0.00176	0.00183	0.00548
43	ELECTRICAL PRODUCTS	0.01755	0.02457	0.02255
44	TRANSPORT EQUIPMENT	0.05911	0.03271	0.02573
45	OTHER MANUFACTURING n.e.c	0.02081	0.00131	0.00264
46	ELECTRICITY	-0.09343	0.01598	0.09588
47	WATER WORKS AND SUPPLY	-0.00091	0.00237	0.00764
48	CONSTRUCTION	-0.37604	0.36967	0.13410
49	WHOLESALE AND RETAIL TRADE	1.62250	0.04756	0.12526
50	HOTELS, BARS AND RESTAURANTS	0.03139	0.01353	0.03559
51	RAIL TRANSPORT	0.10190	0.00681	0.03752
52	ROAD TRANSPORT	0.03194	0.02735	0.07370
53	OTHER TRANSPORT	0.06062	0.02360	0.06167
54	POSTS AND TELECOMMUNICATIONS	0.00821	0.00458	0.01805
55	FINANCIAL INSTITUTIONS & INSURANCE	0.09412	0.04457	0.11757
56	REAL ESTATE	0.02941	0.01406	0.02472
57	BUSINESS SERVICES	0.07821	0.01476	0.07744
58	EDUCATION	0.05612	0.03541	0.09372
59	HEALTH	0.01593	0.01009	0.02545
60	RECREATION AND CULTURAL SERVICES	0.09421	0.00443	0.00955
61	GOVT ADMN, SOCIAL/PERSONAL SERVICES	0.03899	0.03965	0.07273
62	HOUSEHOLDS	0.48129	0.27215	0.71672
63	GOVERNMENT	0.01860	0.01504	0.03889

APPENDIX G

B*INV(I - A): INCOME MULTIPLIERS ADJUSTED FOR LEAKS

	1	2	3	4	5	6	7	8	
	FOOD CROPS COMM	FOOD CROPS non-COMM	CASH CROPS COMM	CASH CROPS non-COMM	LIVESTOCK COMM	LIVESTOCK non-COMM	MILK COMM	POULTRY AND EGGS COMM	POUL AND non-
HOUSEHOLDS	0.27759	0.18166	0.22884	0.33082	0.32248	0.39720	0.26403	0.43968	0.
OPERATING SURPLUS	0.71626	0.91808	0.83559	0.65141	0.70374	0.79161	0.85351	0.71297	0.
CONSUMPTION OF FIXED CAPITAL	0.09060	0.03580	0.05920	0.10015	0.10858	0.03474	0.06553	0.12070	0.

B * INVERSE(I - A)*D

TOTAL INTERMEDIATE DEMAND	GOVERNMENT	INCREASE IN STOCKS	GROSS FIXED CAPITAL FORMATION	EXPORTS (FOB)
HOUSEHOLDS	0.50771	0.42706	0.23291	0.70115
OPERATING SURPLUS	0.49489	0.86286	0.30382	0.61919
CONSUMPTION OF FIXED CAPITAL	0.08576	0.08041	0.04686	0.14793

9	10	11	12	13	14	15	16	17	18	19	20	21	2
_TRY EGGS -comm	FORESTRY	FISHING	METAL MINING	OTHER MINING	SLAUGHTERING large	SLAUGHTERING small	DAIRY PRODUCTS	CANNING AND DRYING OF FRUITS, FISH AND MEATS	EDIBLE OILS AND FATS	GRAIN MILL PRODUCTS large	GRAIN MILL PRODUCTS small	BAKERY PRODUCTS	SUG REFI
.26207	0.23812	0.29081	0.70709	0.63313	0.51477	0.44103	0.66387	1.60102	0.57508	0.40031	0.74408	0.37518	0.
.79849	0.84158	0.84070	0.61936	0.63952	0.69817	0.78358	0.47160	0.17129	0.49398	0.70470	0.69968	0.77116	0.
.08542	0.05708	0.07667	0.14774	0.18411	0.13949	0.05048	0.20125	0.29619	0.14363	0.11417	0.10124	0.10506	0.

APPENDIX G CONTD.

22	23	24	25	26	27	28	29	30	31	32	33	34	35
AR NING	CONFECTION AND OTHER PRODUCTS	SOFT DRINKS SPIRITS AND LIQUORS	TOBACCO	SPINNING AND WEAVING	MADE UP TEXTILES	KNITTING AND ROPE PRODUCTS	WEARING APPAREL	LEATHER PRODUCTS AND FOOTWEAR	SAWMILS	OTHER WOOD PRODUCTS AND FURNITURE	PAPER AND PAPER PRODUCTS	INDUSTRIAL CHEMICALS	OTHER CHEMIC PRODUC
41971	0.41862	0.19177	0.15950	0.40162	0.40937	0.32053	0.40473	0.46764	0.42207	0.43192	0.52876	0.37092	0.19
68881	0.66212	0.25027	0.22589	0.70605	0.63302	0.62518	0.59801	0.60442	0.60736	0.70521	0.60231	0.32267	0.78
14394	0.10071	0.04265	0.03167	0.09166	0.11032	0.10176	0.07459	0.09015	0.27448	0.07688	0.09761	0.10937	0.04

APPENDIX G CONTD.

	36	37	38	39	40	41	42	43	44	45	46	47	48
AL TS	PETROLEUM AND COAL PRODUCTS	PLASTIC PRODUCTS	RUBBER PRODUCTS	NON-METALLIC MINERAL PRODUCTS	BASIC METAL PRODUCTS	INDUSTRIAL MACHINERY & METAL PRODUCTS	AGRICULTURAL AND OTHER MACHINERY	ELECTRICAL PRODUCTS	TRANSPORT EQUIPMENT	OTHER MANUFACTU-RING n.e.c	ELECTRICITY	WATER WORKS AND SUPPLY	CONSTRUCTI
906	0.30989	0.26625	0.43992	0.39564	0.51515	0.59931	0.63520	0.42960	0.32018	0.19164	0.54167	0.36699	0.5063
827	0.36106	0.37681	0.51337	0.65929	0.50213	0.62647	0.59225	0.51601	0.60176	0.83160	0.60376	0.77376	0.6484
882	0.09522	0.08874	0.10607	0.16419	0.11402	0.10237	0.15027	0.13220	0.07038	0.04290	0.22306	0.04944	0.0918

APPENDIX G CONTD.

ON	49 WHOLESALE AND RETAIL TRADE	50 HOTELS BARS AND RESTAURANTS	51 RAIL TRANSPORT	52 ROAD TRANSPORT	53 OTHER TRANSPORT	54 POSTS AND TELECOMM-UNICATIONS	55 FINANCIAL INSTITUTIONS AND INSURANCE *	56 REAL ESTATE	57 BUSINESS SERVICES	58 EDUCATION	59 HEALTH	60 RECREATION AND CULTURAL SERVICES	61 GOVERNMENT ADMINISTRATI SOCIAL AND P SONAL SERVIC
18	0.51967	0.30979	0.99254	0.56764	0.80037	0.86600	0.59168	0.49708	0.69894	1.15774	0.70373	0.81720	1.0904
13	0.91077	0.82927	0.52045	0.49589	0.46274	0.57333	0.76043	0.12507	0.69017	0.62306	0.68482	0.55980	0.6069
57	0.10922	0.06879	0.18480	0.23176	0.21265	0.20134	0.09498	0.71959	0.14454	0.10950	0.10356	0.22157	0.1260

	62
HOUSEHOLDS ON ER ES	
2	0.51072
4	0.60841
3	0.09643