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The Manufacturing-Service Sector Linkage:
A Conceptual and Empirical Investigation

prepared for

Global and Conceptual Studies Branch
Division of Industrial Studies

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Table of Contents

Introduction	1
 <u>Part I. Some Aggregate Relationships</u>	
I-A The Theoretical Framework	2
I-B Empirical Framework	4
I-C Decomposition Analysis	5
I-D Regression Analysis	12
I-E Discussion	15
Figures I-1 - II-24	16
 <u>Part II. Some Disaggregate Relationships</u>	
II-A The Conceptual Framework	41
II-B Description of Data	44
II-C Distributive Services (DS)	49
II-D Producer Services (RS)	65
II-E Personal Services (ES)	80
II-F Social Services (SS)	95
II-G Manufacturing Sector (M)	110
II-H Backward, Forward and Total Linkages	132
II-I Income elasticity of Demand of Manufacturing and Services	143
II-J Discussions	147
Conclusion	148
References	149
Appendix A	
Appendix B	
Appendix C	
Appendix D	

The Manufacturing-Service Sector Linkage:
A Conceptual and Empirical Investigation

Introduction

The present study develops a general conceptual framework on the relationship between the manufacturing sector and the service sector. Part I of our cross-country study deals with aggregate relationships. In Section I-C of Part I, a decomposition technique is employed to analyze the source of growth of the service sector. Part II deals with disaggregate relationships. The concepts of Backward Dependency Ratio and Sectorial Sales Ratio are developed in Sections II-A to describe the linkages between the manufacturing sector and the service sector. In order to study the evolution of sectors over different stages of development, the regression technique developed by Chenery (1979) et al (see sections I-C, II-A and various sections in Part II) is employed. The present general framework can easily be applied to study other sectors and their relationships with the manufacturing sector.

Part I. Some Aggregate Relationships

I-A The Theoretical Framework

In the past, some work has been written on the growth of the service sector and its relationships with manufacturing and agricultural sectors. For example, Clark (1957) and Fisher (1939) had long predicted that countries could be expected to follow a sequence of primary, secondary and tertiary production in the course of development. The primary sector produces basic goods. The growth potential of this sector is somewhat limited. The secondary sector (manufacturing) produces goods for intermediate needs. The tertiary (service) sector produces luxury goods and intermediate inputs, in

form of various services, to other sectors. The potential of development of service industries in modern society is therefore, very good from these predictions.

There are three explanations for this phenomenon in the literature. The first one is the "Engel's Law" type of explanation based on the (income elastic) demand for services. As the economy develops, higher income per capita induces proportionally a much higher demand for services. The second explanation is based on the "productivity difference" between the service sector and other industrial sectors. The lower rate of increase in labour productivity in the service sector relative to manufacturing induces a rise in the price of services relative to other goods. This would further induce a continuous transfer of labour to the service sector. This productivity explanation also has its short comings. The increase in the relative price of services would reduce the demand for services through the price elasticity of demand. This would further reduce the expansion of the service sector.

The third explanation is the provision of services as intermediate inputs to the manufacturing sector. This development reflects the division of labour across industries as the economy grows. The growth of services is related to the increasing demand from the manufacturing sector for intermediate service inputs. This explanation also has its short comings. This means, the decline of the manufacturing sector at the Advanced Stage of industrial development would reduce the expansion of the service sector. In the Early Stage of economic development, the informal sector which is unique to less developed countries begins to grow. This growth is a result of the rapid rural-urban migration. The informal sector basically absorbs the new urban migrants and provides small-scale services mainly catering to the needs of low-income groups. Hence, the employment in the service sector is larger than the employment in the manufacturing sector.

At the Intermediate Stage of economic development, a network of interindustry linkages begins to develop. Output in the manufacturing sector rises rapidly. The employment in the service sector also rises partly through the increase in interindustry demand for services and partly through the increase in (final) consumption demand for services. Employment in the

service sector probably rises at a slower rate than those in the manufacturing sector.

At the Advanced Stage of economic development, the manufacturing sector begins to decline in absolute terms. This decline is consistent with the "product cycles" theory, that the traditional "smokestack industries" begin to move to newly industrialized countries with lower labour costs. The employment share of social services tends to rise due to the (elastic) income induced demand for social services (the Engel's Law) and the "technological gap" between the manufacturing sector and service sector. There are, however, factors that work against the expansion of employment in the service sector. The first one is, the decline in the manufacturing sector may lead to a decline in the service sector through the manufacturing-service linkage. The second one is, the rise in the price of services from the "technological gap" may lead to a decrease in the demand for services through the price elasticity of demand. The net employment effect on service sector is in fact, unclear.

At the Advanced Stage (or the deindustrialization stage) of development, the rate of employment growth of the manufacturing sector begins to fall while the rate of employment growth of the service sector begins to rise. There must be a turning point where the employment growth rate of the two sectors are identical. Beyond this point, the employment growth rate of the service sector begins to rise faster than the manufacturing sector. The main source of employment growth of the service sector must come from the manufacturing sector.

I-B Empirical Framework

In our empirical analysis, twenty-six countries are selected. The sample is selected to give a roughly equal number of countries in each of the following categories; the industrial market economies, the upper middle-income economies, the lower middle-income economies and the low-income economies. The selection is limited by availability of data from the International Labor Organization (ILO) statistical yearbook. Less developed countries with a

small population (less than two million) are excluded. The oil exporting nations that have very small agricultural sector are also excluded.

Employment data used in our study is compiled from the ILO, Yearbook of Labour Statistics and from the Handbook of World Development Statistic (UN 1983). The ILO started to collect employment data on the service sector as early as 1960 (for some countries 1963). The present study utilizes all the available data from 1960 to 1983. The average values of all these years were taken for our analysis. The period 1960 to 1983 is subdivided into two: the pre-oil shock period and the post-oil shock period. The data between 1972 to 1975 is ignored since it reflects structural changes from the oil shock.

The first part of the study is a cross-country decomposition analysis. The source of employment growth of the service sector is decomposed into three components; that which come from the agricultural sector, that which comes from the manufacturing sector and that which come from other industrial sectors. The second part of the study is regression analysis. This analysis follows the traditional analysis developed by Chenery (1979), Chenery and Taylor (1968), Chenery and Syrquin (1975) and recently by Gemell (1983). These works basically argued that the employment growth of sectors varies ultimately with the "level of development". The latter can be approximately by the per capita income and population size. A cross-country comparison is used because different countries are at different levels of development.

Finally, the above techniques are used to examine the product (GDP) growth rate of the service sector, the manufacturing sector and the agricultural sector. The results generally confirm the conclusions in the employment studies.

I-C Decomposition Analysis

The growth rate of employment of the service sector r^s can be decomposed into the following components:

$$r^s - r = A^a(r^s - r^a) + A^m(r^s - r^m) + A^o(r^s - r^o) + A^e(r^s - r^e) \quad (1)$$

$$r = A^a r^a + A^m r^m + A^o r^o + A^s r^s + A^e r^e \quad (2)$$

$$A^a + A^m + A^o + A^s + A^e = 1 \quad (3)$$

where r is the total employment growth rate in the economy. r^a , r^m , r^o , r^s and r^e are the employment growth rate in the agricultural sector, manufacturing sector, other industrial sectors (mining, construction and electricity and gas) and residual sectors (error and omissions etc.) respectively. A^a , A^m , A^o , A^s and A^e are the employment share of agricultural sector, manufacturing sector, other industrial sectors and residual sectors respectively. They must sum up to 1 as stated in equation (3). The left hand side of equation (1) is the growth of the service sector employment beyond the total employment growth rate of the economy. This can be decomposed into four components as in the right hand side of equation (1). The first term $A^a(r^s - r^a)$ is the contribution of labourers from the agricultural sector to the service sector. The second term is the contribution of labourers from the manufacturing sector, the third term is the contribution from the other industrial sectors, and the fourth term is the contribution from the residual sector (or simply, error and omissions). This decomposition is definitional, not causal. This crude decomposition does tell us from which sector the labourers are coming when the service sector expands.

Table I-1 presents the decomposition results. The percentage contribution of each sector are presented ($= A_i(r^s - r^i) / (|r^s - r|) \times 100\%$). The value in the denominator $|r^s - r|$ is in absolute value. Hence, each numerical value in Table I-1 would carry a sign identical to the sign of $r^s - r^i$. The post- and pre-oil shock periods are distinguished.

Table 1-1 Source of Employment Growth
of the Service Sector (in percentage term)

<u>Countries</u>	From the Agricultural Sector	From the Manufacturing Sector	From the Industrial Sector
	$Ba \frac{g^s - g^a}{I_g^s - g^I} \times 100\%$	$Bm \frac{g^s - g^m}{I_g^s - g^I} \times 100\%$	$Bo \frac{g^s - g^o}{I_g^s - g^I} \times 100\%$
<u>I. Industrial Market Economies</u>			
Germany (60-72)	+52.06	+23.38	+24.55
Germany (75-83)	+23.23	+66.23	+10.54
France (60-72)	+61.49	+29.02	+9.47
France (75-83)	+24.89	+56.06	+19.05
Italy (60-72)	+96.72	+1.19	+2.10
Italy (75-83)	+30.99	+57.74	+10.88
Canada (60-72)	+51.32	+37.00	+11.56
Canada (75-83)	+17.39	+55.83	+26.95
United States (60-72)	+17.60	+27.16	+19.21
United States (75-83)	+13.93	+81.37	+4.59
Japan (60-72)	+97.86	+7.26	-3.79
Japan (75-83)	+53.79	+39.11	+7.96
<u>II. Upper Middle-income Economies</u>			
Korea (63-72)	+115.96	-14.90	-0.92
Korea (75-83)	+81.24	+18.11	+0.65
Chile (63-72)	+21.95	-130.89	+11.41
Chile (75-83)	+43.44	+37.23	+16.67
Mexico (60-72)	+128.57	-23.24	-5.24
Mexico (75-83)	+102.67	-4.87	-1.89
Algeria (60-72)	+362.55	-49.59	-412.96
Algeria (75-81)	+44.65	-28.95	+84.30
Greece (60-72)	+1,256.77	-849.37	-307.39
Greece (75-81)	+70.72	+13.39	+15.90
Brazil (60-72)	+92.57	-5.52	+12.95
Brazil (75-81)	+863.44	+55.60	-819.02

III. Lower Middle-income Economies

Thailand (60-72)	+108.33	-6.84	-1.39
Thailand (75-80)	+113.44	-8.34	-5.17
Columbia (60-72)	+1,124.42	-1,315.28	+284.27
Columbia (75-81)	+14.03	-77.31	-40.46
Philippines (60-72)	+88.48	+11.81	-0.63
Philippines (75-83)	-102.93	+29.06	-33.17
Ivory Coast (60-72)	+118.03	-28.85	+10.81
Ivory Coast (75-81)	+111.87	-55.76	-156.11
Turkey (60-72)	+129.86	-32.80	+2.94
Turkey (75-81)	+44.42	+65.45	-9.87
Indonesia (60-72)	+281.96	-10.86	-171.11
Indonesia (75-81)	+72.62	-27.51	+54.89
Nigeria (60-72)	+14,066.70	-752.93	-13,396.50
Nigeria (75-81)	+103.38	-32.42	+29.04
Morocco (60-72)	-151.42	-71.43	+122.85
Morocco (75-81)	+27.02	-16.93	+89.92

IV. Low-income Economies

Sri Lanka (60-72)	+110.41	-43.11	+32.75
Sri Lanka (75-80)	+54.20	+23.96	+21.74
Tanzania (60-72)	+211.26	-139.48	+31.02
Tanzania (75-80)	+75.16	-6.81	+31.64
Ghana (60-72)	-32.35	-46.23	-21.40
Ghana (75-79)	-949.67	+622.85	+220.01
Kenya (60-72)	+115.13	-25.90	+10.60
Kenya (75-83)	+100.72	-0.85	+0.11
India (60-72)	+743.88	-218.85	-427.71
India (75-83)	+137.38	-132.38	+94.47
Madagascar (60-72)	+423.30	-295.99	-27.32
Madagascar (73-81)	-121.99	+26.70	-4.71

Source: Data compiled from ILO, Yearbook of Labor Statistics
and Handbook of World Development Statistics, UN 1983.

The following observations are in order.

(1) From the early period (1960-1970) to the later period (1975-1983), the source of employment growth of the service industry that comes from the agricultural (manufacturing) sector goes down (up). This pattern is more pronounced in the industrial market economies and less pronounced in the lower middle-income economies. This pattern confirms that the employment share of the agricultural (manufacturing) sector is decreasing (increasing) with time and with the level of industrialization. It also confirms that the declining (increasing) growth rate in the agricultural (manufacturing) sector is gradually petering out (see equation 1).

(2) It can be observed that the service sector is the leading sector in employment growth (signs in the three columns are positive) among the high-income countries and that the manufacturing sector (or other industrial sectors) is the leading sector in employment growth (sign in the second (or third) column is negative) among the lower-income countries. The same decomposition is carried out using GDP growth rates. In Table I-2, g , g^a , g^m , g^o , and g^s is the GDP growth rate of the entire economy, the agricultural sector, manufacturing sector, other industrial sector and the service sector. B_a , B_m , B_o and B_s are the GDP sectorial share of the respective sectors.

Table I-2 presents the GDP growth rate decompositions. Two observations are in order.

(1) In the earlier period (1960 to 1971), the second column in Table I-2 is negative. In the later period (1976 to 1980), most of the negative signs in the second column turn positive. This means, the GDP growth rate of the manufacturing sector is faster than the GDP growth rate of the service sector in earlier periods; in later periods, the service sector in most of the sampled nations grows faster than the manufacturing sector.

(2) In the first column of Table I-2, most of the sample countries (except 5) have a larger numerical value in the earlier period than in the later period. These two observations more or less confirm the results in the employment

Table 1-2 Source of GDP Growth
of the Service Sector (in percentage term)

<u>Countries</u>	From the Agricultural Sector	From the Manufacturing Sector	From the Industrial Sector
	$Ba \frac{g^s - g^a}{I g^s - g^I} \times 100\%$	$Bm \frac{g^s - g^m}{I g^s - g^I} \times 100\%$	$Bo \frac{g^s - g^o}{I g^s - g^I} \times 100\%$
<u>I. Industrial Market Economies</u>			
Germany (61-71)	+42.34	-186.63	+44.30
Germany (76-80)	+9.69	+78.77	+11.54
France (61-71)	+108.42	-168.60	-39.82
France (76-80)	+6.82	+56.31	+36.87
Italy (61-71)	+583.65	-814.26	+330.62
Italy (76-80)	+14.67	-128.56	+13.89
Canada (61-71)	+5216.48	-4892.69	-223.50
Canada (76-80)	-11.48	+35.81	+75.67
United States (61-71)	+65.58	-34.66	+69.08
United States (76-80)	+18.28	+21.64	+60.08
Japan (61-71)	+94.13	-11.33	+17.21
Japan (76-80)	+406.52	-843.04	+336.53
<u>II. Upper Middle-income Economies</u>			
Korea (61-71)	+317.75	-172.12	-45.64
Korea (76-80)	+1410.61	-1132.92	-117.69
Chile (61-71)	+80.52	-203.20	+22.74
Chile (76-80)	+35.31	+22.24	+42.46
Mexico (61-71)	+1058.94	-923.36	-235.61
Mexico (76-80)	+257.42	-115.54	-241.88
Algeria (61-71)	+383.51	-50.84	-432.66
Algeria (76-80)	+43.40	-28.41	+85.01
Greece (61-71)	+1373.18	-973.89	-299.37
Greece (76-80)	+71.25	+13.26	+15.49
Brazil (61-71)	+92.58	-22.27	+29.69
Brazil (76-80)	+843.20	+55.37	-798.67

III. Lower Middle-income Economies

Thailand (61-71)	+158.39	-48.53	-9.86
Thailand (76-80)	+149.36	-23.24	-26.11
Columbia (61-71)	+104.63	-5.90	+1.27
Columbia (76-80)	+50.57	+31.67	+17.75
Philippines (61-71)	+208.11	-240.07	-68.08
Philippines (76-80)	+22.84	-51.16	-71.68
Ivory Coast (61-71)	+118.10	-28.90	+10.79
Ivory Coast (76-80)	+112.12	-56.05	-156.10
Turkey (61-71)	+129.87	-32.81	+2.95
Turkey (76-80)	+45.93	+67.81	-13.74
Indonesia (61-71)	+279.15	-10.77	-168.38
Indonesia (76-80)	+72.63	-27.52	+54.90
Nigeria (61-71)	-145.29	-779.38	-1386.90
Nigeria (76-80)	+103.40	-32.46	+29.06
Morocco (61-71)	-149.46	-70.31	+119.71
Morocco (76-80)	+27.06	-16.98	+89.92

IV. Low-income Economies

Sri Lanka (61-71)	+2477.58	-1735.80	+641.75
Sri Lanka (75-80)	+76.21	+71.66	-47.85
Tanzania (61-71)	+143.25	-48.45	+5.17
Tanzania (76-80)	+45.40	+56.90	-2.29
Ghana (61-71)	-77.53	-20.41	-2.07
Ghana (76-80)	+70.56	+15.37	+14.06
Kenya (61-71)	-24.95	-36.37	-38.68
Kenya (76-80)	+142.39	-46.65	+4.24
India (61-71)	+108.52	-2.67	-5.85
India (76-80)	+82.48	+4.96	+12.56
Madagascar (61-71)	+427.66	-295.58	-28.03
Madagascar (76-80)	-122.06	+27.80	-5.62

Source: UNIDO Data Tape based on Yearbook of National Accounts Statistics, UN various years.

decomposition analysis. The decomposition study on GDP is not as clear as the decomposition study on employment. In the work by Chenery and Syrquin (1975), they also obtained clearer results in their employment study than in GDP study.

I-D Regression Analysis

This section examines the relationships of the agricultural sector, the manufacturing sector, other industrial sectors and service sector at different levels of development. Following Chenery (1960), Chenery and Taylor (1968) and others, we use income per capita across country to approximate the level of development. The size of population is also used as a proxy for the size of domestic market. The employment share of these four sectors are examined in Table I-3 and Figures I-1, I-2, I-3 and I-4. The differential employment growth rates of these sectors (i.e. r^s-r , r^m-r , r^o-r , r^a-r , r^m-r^a , r^m-r^s , r^s-r^a) are shown in Table I-2, and Figures I-5 to I-11.

In the regression equations, dummy variables are used. D1 and D2 are the dummies for periods (1960-1972) and (1975-1983) respectively. D5, D6, D7 and D8 are dummies for the structure of sample countries. According to Chenery and Syrquin (1975) and the updated study by UNIDO (1980), countries can be grouped according to their policy orientations. They are:

- (1) the primary specialization countries (D5=1, D6=D7=D8=0);
- (2) import substitution countries (D6=1, D5=D7=D8=0);
- (3) balanced development countries (D7=1, D5=D6=D8=0); and
- (4) industrial specializing countries (D8=1, D5=D6=D7=0) (see Appendix B).

In our regression analysis, many functional forms have been tested. Only the best functional forms are reported. The double log functional form is not used because r_i and r sometimes take negative values.

In the diagrams, the stars (*) are the simulated values from the modified regression equations, which consists of all the right hand side variables (of Y and N) except the dummy variables. For example, take the first equation in Table I-3. Let z be $z = 1.636 - 0.263\text{Ln}(Y) + 0.022(\text{Ln}(Y))^2 - 0.272\text{Ln}(N) + 0.031(\text{Ln}(N))^2$. The (*) in the figures is the simulated value of z with

respect to Y. The value of N is the average N of the sample countries. The alphabets are the "adjusted" data points (observed values). Because of the way z (or the stars in the Figures) is defined, the observed values of A^S must be adjusted by the dummy variables. The adjusted values are simply $= A^S - 0.053D2 + 0.022D5 - 0.148D6 - 0.06D8$. These adjusted values are plotted on the Y-axis. The advantage of this method is it is not necessary to plot one equation for each dummy variable. Noted that some of the t-values (in brackets) are low for variables y and the dummies. This is due to multicollinearity among these variables. The F-test without the y and higher orders of y variables (not reported here) shows that the impact of the variables y and higher orders of y is statistically significant. The F-test without all the dummies (i.e. all of D5, D6, D8) shows that the dummy variables are statistically significant explanatory variables. From these regressions and simulations, the following features are found:

(1) The employment share of the manufacturing sector rises with the level of development and peaks at a level between \$ 4,500 - \$ 6,000 per capita (1970 constant US dollar). Then the employment share of the manufacturing sector starts to fall (see Figure I-3). The product (GDP) share of the manufacturing sector also shows the same pattern (Figure I-13).

(2) The decline of the manufacturing employment seems to peter out when per capita income has reached a high level. In Figure I-8, the curve of $r^m - r + 0.17D5 - 0.1D5 + 0.04D6 - 0.13D8$ bends upwards towards zero at around \$ 8,000 per capita. However, the slowing down of the product growth rate of the manufacturing sector does not seem to peter out. When per capita income has reached a high level; in Figure I-19, the curve of $g^m - g + 0.15D2 - 0.05D5 + 0.05D6 - 0.13D8$ does not seem to bend upwards towards zero at high per capita income.

(3) The employment share in the service sector falls rapidly and then rises again slowly at low level of per capita income (see Figure I-1). This confirms the pattern of development in the Early Stage where the employment in the informal sector dominates the employment in the manufacturing sector. The employment share of services goes down as the employment in the manufacturing sector begins to grow. The employment share of services then rises slowly again as the economy moves well into the Intermediate Stage of development.

(4) In Figure I-1, when per capita income is very high, service sector employment, in fact, rises at a slower rate. In Figure I-11, $r^S - r + 0.01D2 + 0.02D5 + 0.04D6 - 0.12D8$ also falls with the level of development.

(5) The product share (GDP) of services in Figure I-15 also shows that when per capita income is very high the product share of services tends to rise at a slower rate. Figure I-22 suggests that the product growth rate of services, g^S , tends to be the same as the GDP growth rate of the economy when per capita income rises.

(6) Noted that in Figure I-11, when per capita income is around \$ 8,000, $r^S - r + 0.01D2 + 0.02D5 + 0.04D6 - 0.12D8$ is around -0.05 . The data points G, I, and K suggest that $D2=1, D8=1, D5=D6=0$ (see Figure I-1, footnotes). Hence, $r^S - r$ must take a positive value of $+0.11$. That is the service sector employment growth rate is larger than the average employment growth rate.

(7) The actual and estimated differential growth rate between r^m and r^S are presented in Figure I-6. At higher per capita income, the difference between r^m and r^S gets smaller. A careful examination of $r^m - r$ and $r^S - r$ reveals that the value in $r^m - r$ is much larger than $r^S - r$. Thus, $r^m - r^S$ reflects mostly the dominating behavior of $r^m - r$.

(8) In Figure I-6, when the per capita income is around \$ 2,700, r^m approximately equals r^S .* The manufacturing sector employment is slowing down to the same rate as the service sector which is rapidly rising. The Intermediate Stage of development must have finished and the Advanced Stage of economic development must have begun. The GDP growth rate regression in Figure I-17 suggests this turning point occurs at a higher per capita income: g^m equals g^S at around \$ 3,500.**

* country "j" (Italy 1960-1972) has a per capita income of around \$ 2,700. This means, $D2=0, D5=D6=0, D8=1$. $r^m - r^S = -0.02 - 0.169D2 + 0.125D5 - 0.006D6 + 0.025D8$ approx. 0. (see equation 4 Table I-2).

** country "l" (France 1960-1972) has a per capita income of around \$ 3,500. This means $D2=D5=D6=0, D8=1$. Hence, $g^m - g^S = -0.125 - 0.166D2 + 0.045D5 - 0.043D6 + 0.147D8 = 0.022$ approx. 0.

(9) The agricultural sector is declining with the level of development either in terms of employment share or in terms of product share (see Figures I-2 and I-12). The differential growth rates of $r^m - r^a$, $r^s - r^a$, $r^a - r$, $g^m - g^a$, $g^s - g^a$ and $g^a - g$, (in Figures I-5, I-7, I-9, I-16, I-17, I-20) also confirm this trend.

(10) The other industrial sectors (mining, construction and electricity and gas) expand rapidly in the Early Stage of development. Then at the Intermediate Stage and the Advanced Stage, these sectors begin to decline. This pattern is clearly shown in Figures I-4 and I-14. The differential growth rate pattern of $r^o - r$ and $g^o - g$ also confirm this (Figure I-10 and I-21). One plausible explanation is: in the embryonic stage of development, the other industrial sectors are important for the infrastructure of the economy. In subsequent stages of development the importance of this role gradually diminishes.

I-E Discussions

From points (4) and (5), the service sector does not seem to "take-off" into self-sustained growth in the Advanced Stage of development. This sector is growing, but at a slower rate. Although the employment growth rate of the service sector is higher than the national employment growth rate average, this difference in growth rates declines gradually when the economy reaches the Advanced Stage of development. One plausible explanation is the offsetting factors discussed earlier. When the manufacturing sector declines in the Advanced Stage, the service sector must be affected through the manufacturing-service linkage. In addition, the "productivity gap" can result in a higher service price which can force the service sector to decline through the price elasticity of demand.

Finally, the behavior patterns of the manufacturing sector, agricultural sector and other industrial sectors seem to conform with the pattern of development described earlier.

Table I-3 EMPLOYMENT SHARE REGRESSION

$$A_8 = 1.636 - 0.263 \times \text{Ln}(Y) + 0.022 \times (\text{Ln}(Y))^2 - 0.272 \times \text{Ln}(N) + 0.031 \times (\text{Ln}(N))^2$$

(3.06) (1.61) (1.86) (4.16) (3.58)

F = 9.03; R² = 0.63

$$+ 0.053D_2 - 0.022D_5 + 0.148D_6 + 0.060D_8$$

(2.20) (0.58) (3.75) (1.28)

$$A_9 = -0.134 + 0.090 \times \text{Ln}(Y) - 0.013 \times (\text{Ln}(Y))^2 + 0.304 \times \text{Ln}(N) - 0.040 \times (\text{Ln}(N))^2$$

(0.16) (0.34) (0.69) (2.87) (2.81)

F = 6.55; R² = 0.55

$$- 0.044D_2 - 0.095D_5 - 0.202D_6 - 0.090D_8$$

(1.14) (1.52) (3.17) (1.20)

$$A_{10} = 0.086 + 5.371 \times 10^{-5} \times Y - 5.157 \times 10^{-9} \times Y^2 + 0.00014 \times N + 0.0039D_2$$

(3.94) (3.82) (2.93) (2.17) (0.27)

F = 11.69; R² = 0.65

$$- 0.0012D_5 + 0.070D_6 + 0.0433D_8$$

(0.054) (2.99) (1.55)

$$A_0 = -0.838 + 0.237 \times \text{Ln}(Y) - 0.016(\text{Ln}(Y))^2 + 0.022 \times \text{Ln}(N) - 0.004D_2$$

(1.95)* (1.93)* (1.76)* (2.09) (0.202)

F = 4.40; R² = 0.41

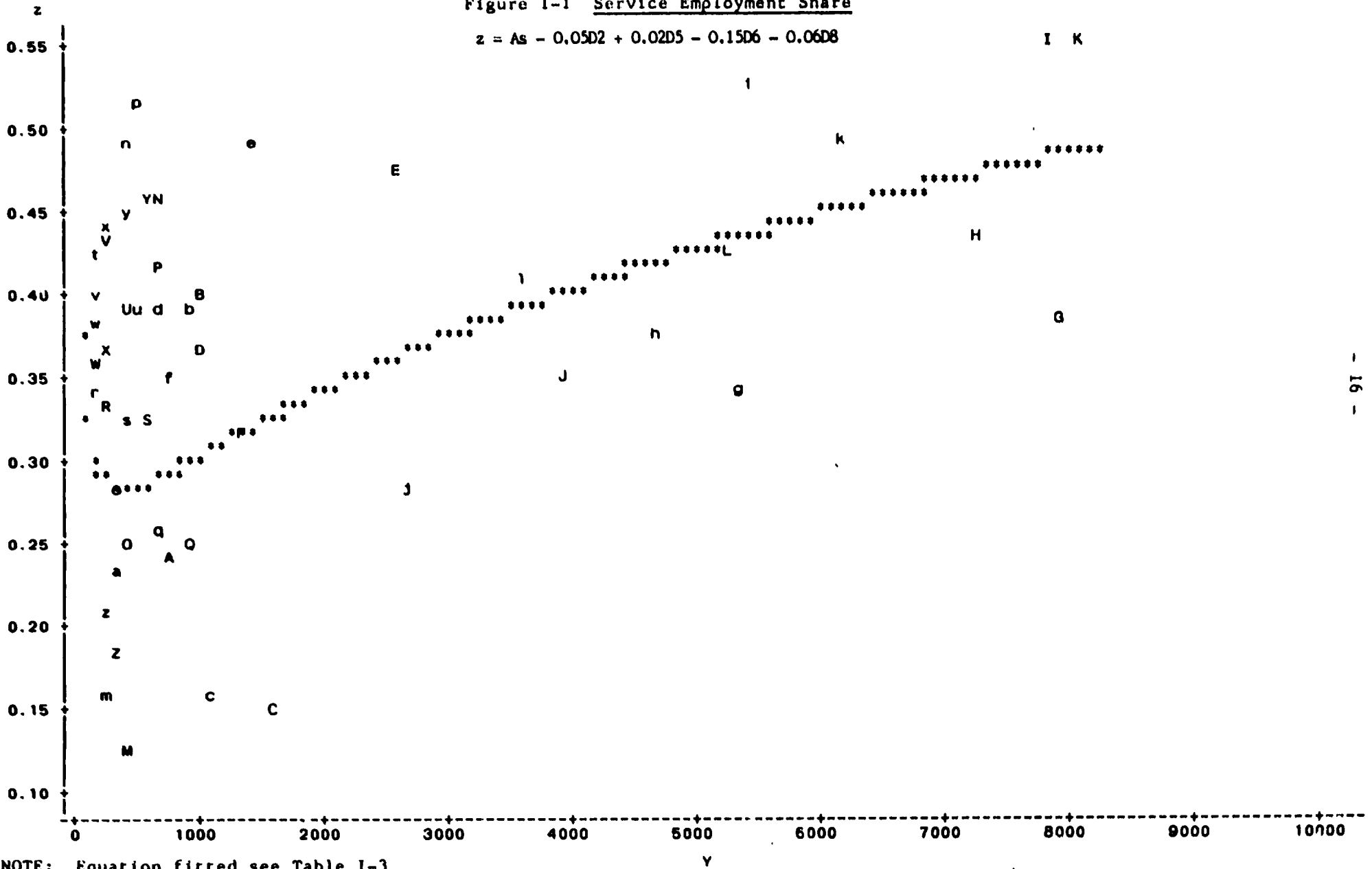
$$+ 0.128D_5 - 0.0082D_6 - 0.014D_8$$

(4.07) (0.26) (0.37)

Note: * significant at the 10% level;
numbers in brackets are t-values.

Figure I-1 Service Employment Share

$$z = As - 0.05D2 + 0.02D5 - 0.15D6 - 0.06D8$$



NOTE: Equation fitted see Table I-3

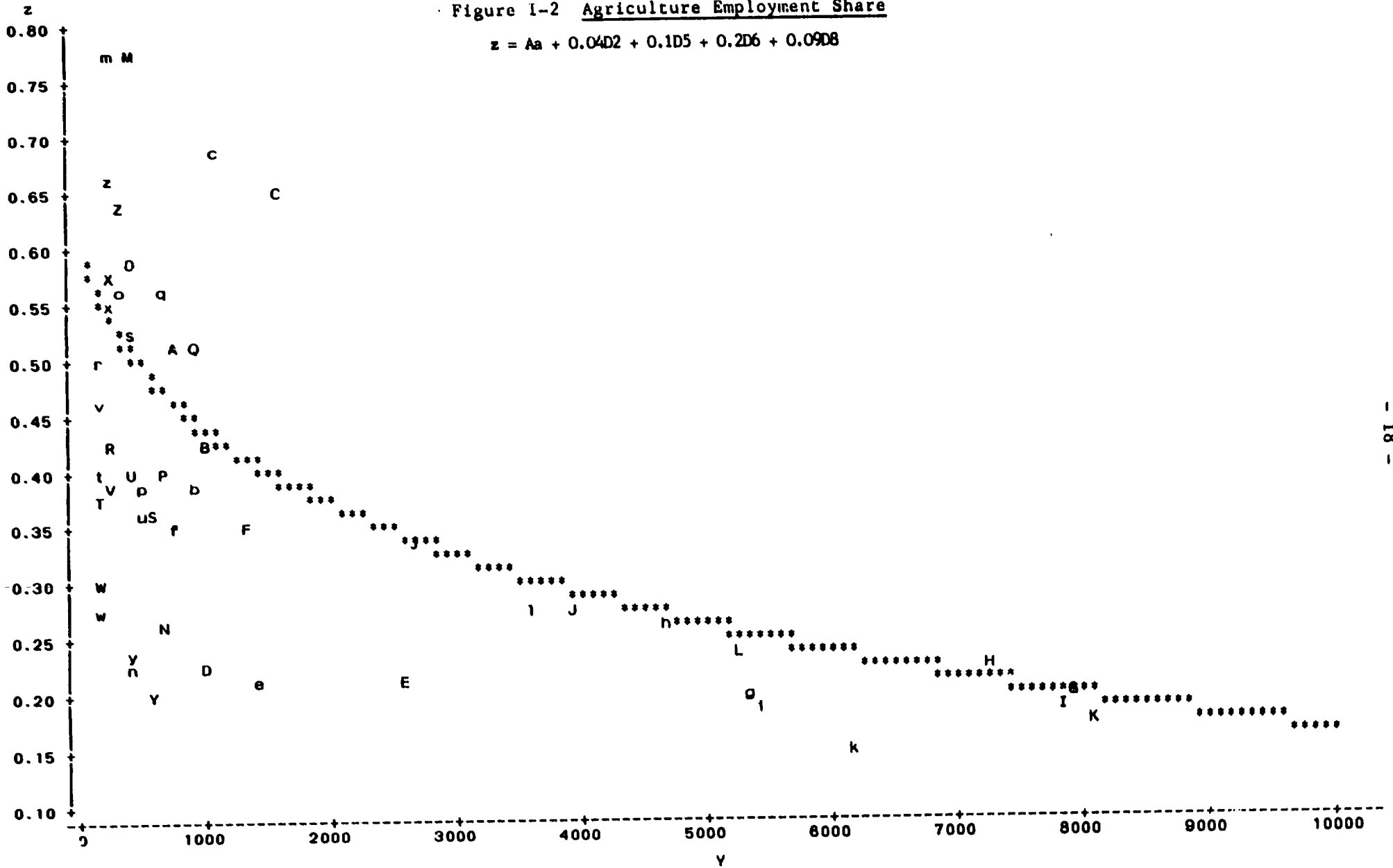
(contin. Figure I-1)

Note: *** fixed equation

point "a" in Figure I-1 corresponds to adjusted observation from Korea (63-73);
point "A" in Figure I-1 corresponds to adjusted observation from Korea (75-83);
point "b", Chile (63-72); point "B", Chile (75-83);
point "c", Mexico (60-72); point "C", Mexico (75-83);
point "d", Algeria (60-72); point "D", Algeria (75-81);
point "e", Greece (60-72); point "E", Greece (75-81);
point "f", Brazil (60-72); point "F", Brazil (75-81);
point "g", Germany (60-72); point "G", Germany (75-83);
point "h", France (60-72); point "H", France (75-83);
point "i", Canada (60-72); point "I", Canada (75-83);
point "j", Italy (60-72); point "J", Italy (75-83);
point "k", USA (60-72); point "K", USA (75-83);
point "l", Japan (60-72); point "L", Japan (75-83);
point "m", Thailand (60-72); point "M", Thailand (75-80);
point "n", Colombia (60-72); point "N", Colombia (75-81);
point "o", Philippines (60-72); point "O", Philippines (75-83);
point "p", Ivory Coast (60-72); point "P", Ivory Coast (75-81);
point "q", Turkey (60-72); point "Q", Turkey (75-81);
point "r", Indonesia (60-72); point "R", Indonesia (75-81);
point "s", Nigeria (60-72); point "S", Nigeria (75-81);
point "t", Tanzania (60-72); point "T", Tanzania (75-80);
point "u", Ghana (60-72); point "U", Ghana (75-79);
point "v", Kenya (60-72); point "V", Kenya (75-83);
point "w", India (60-72); point "W", India (75-80);
point "x", Madagascar (60-72); point "X", Madagascar (75-81);
point "y", Morocco (60-72); point "Y", Morocco (75-81);
point "z", Sri Lanka (60-72); point "Z", Sri Lanka (75-80).

Figure I-2 Agriculture Employment Share

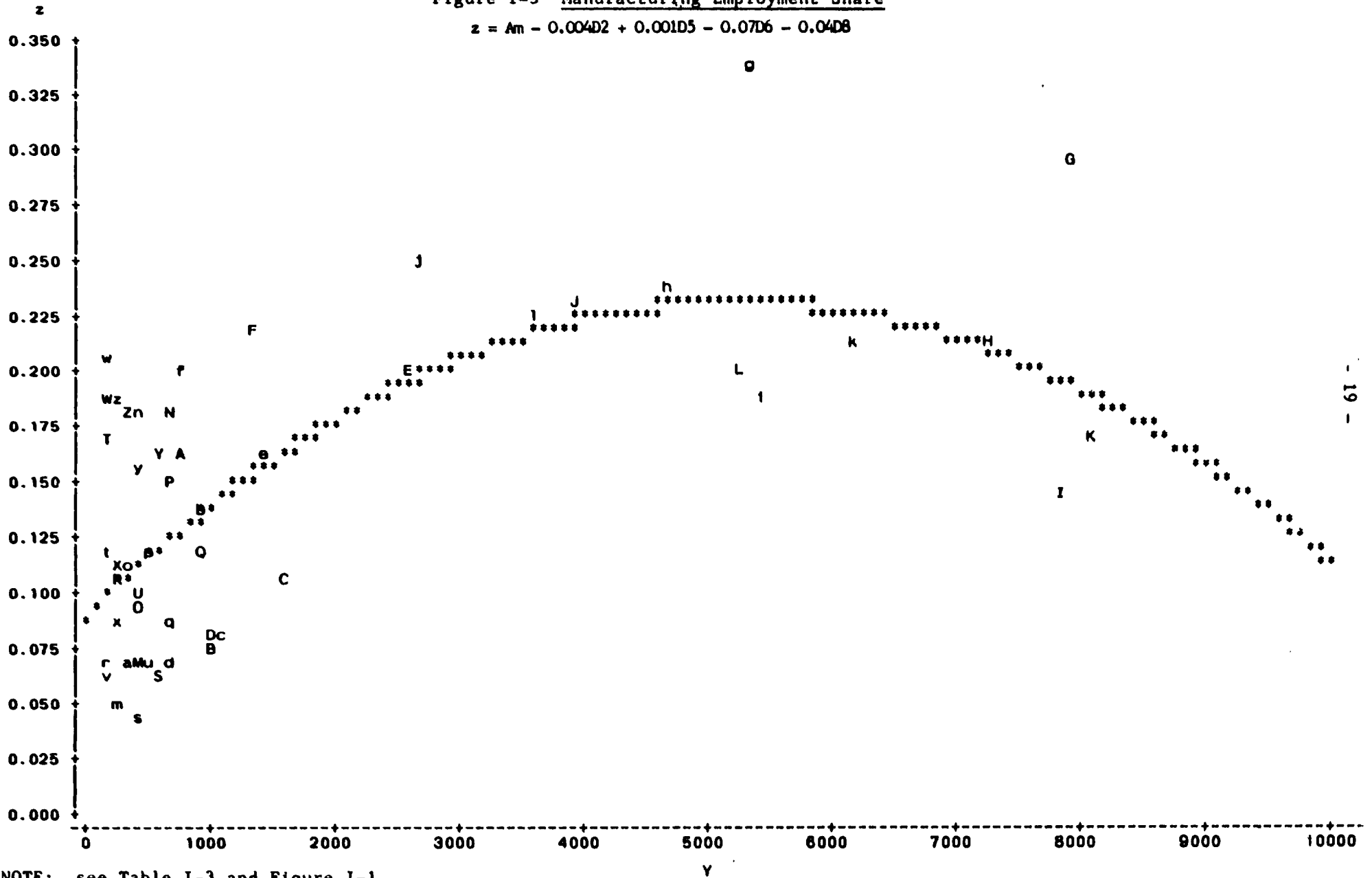
$$z = Aa + 0.04D2 + 0.1D5 + 0.2D6 + 0.09D8$$



NOTE: see Table I-3 and Figure I-1

Figure I-3 Manufacturing Employment Share

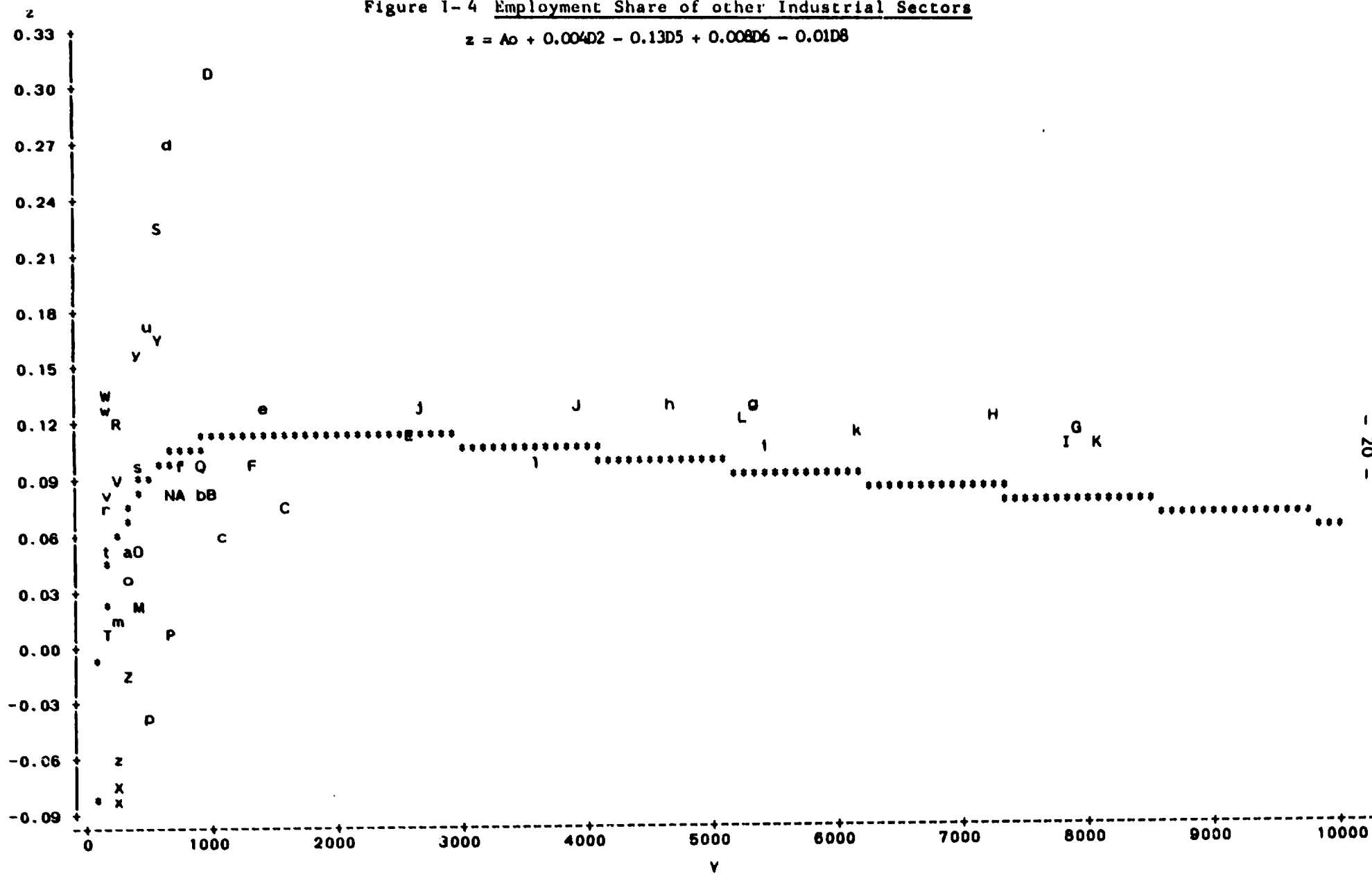
$$z = Am - 0.004D2 + 0.001D5 - 0.07D6 - 0.04D8$$



NOTE: see Table I-3 and Figure I-1

Figure 1-4 Employment Share of other Industrial Sectors

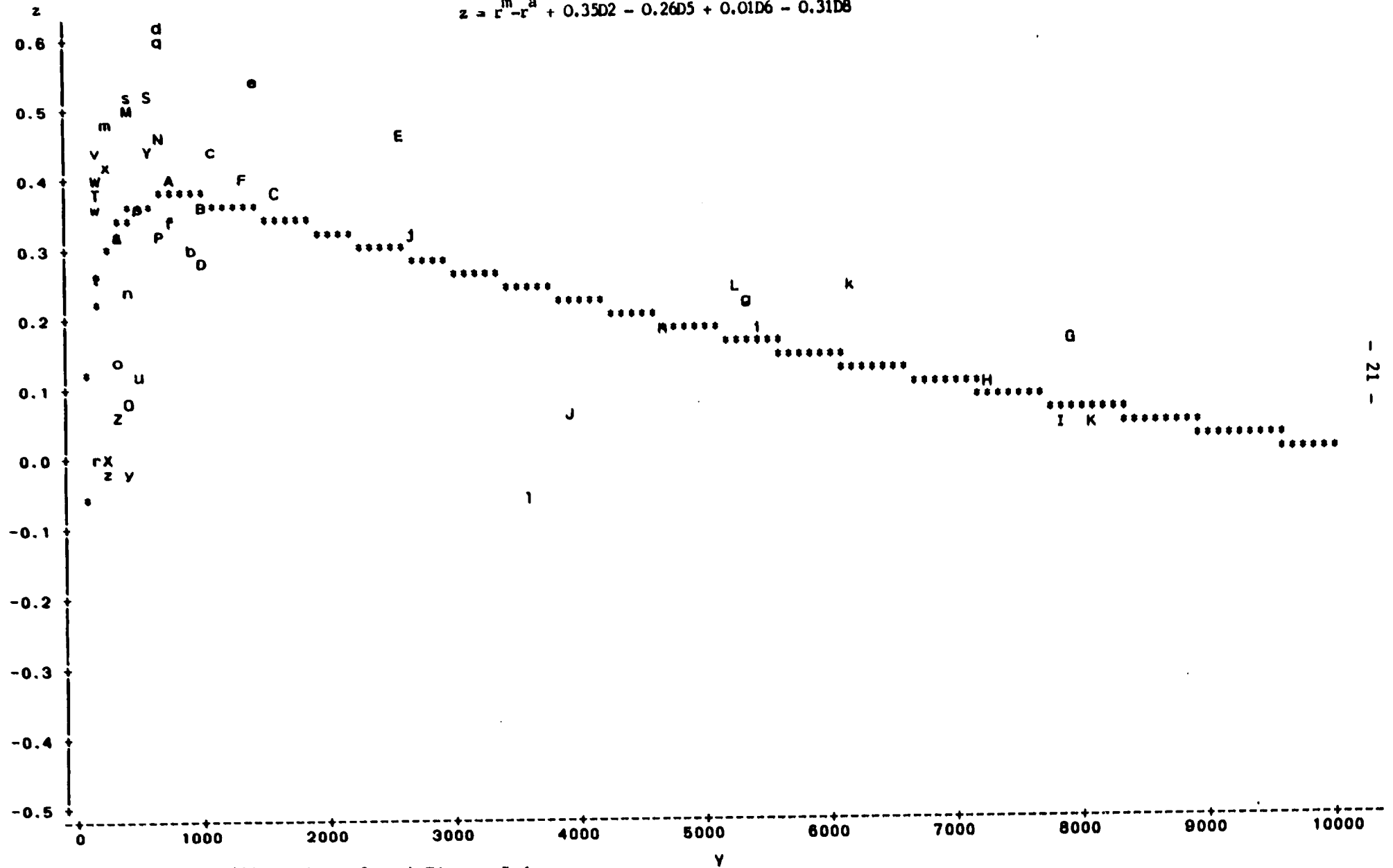
$$z = A_0 + 0.00402Y - 0.13D5 + 0.00806Y^2 - 0.0108Y^3$$



NOTE: see Table 1-3 and Figure 1-2

Figure I-5 Differential Employment Growth Rates ($r^m - r^a$)

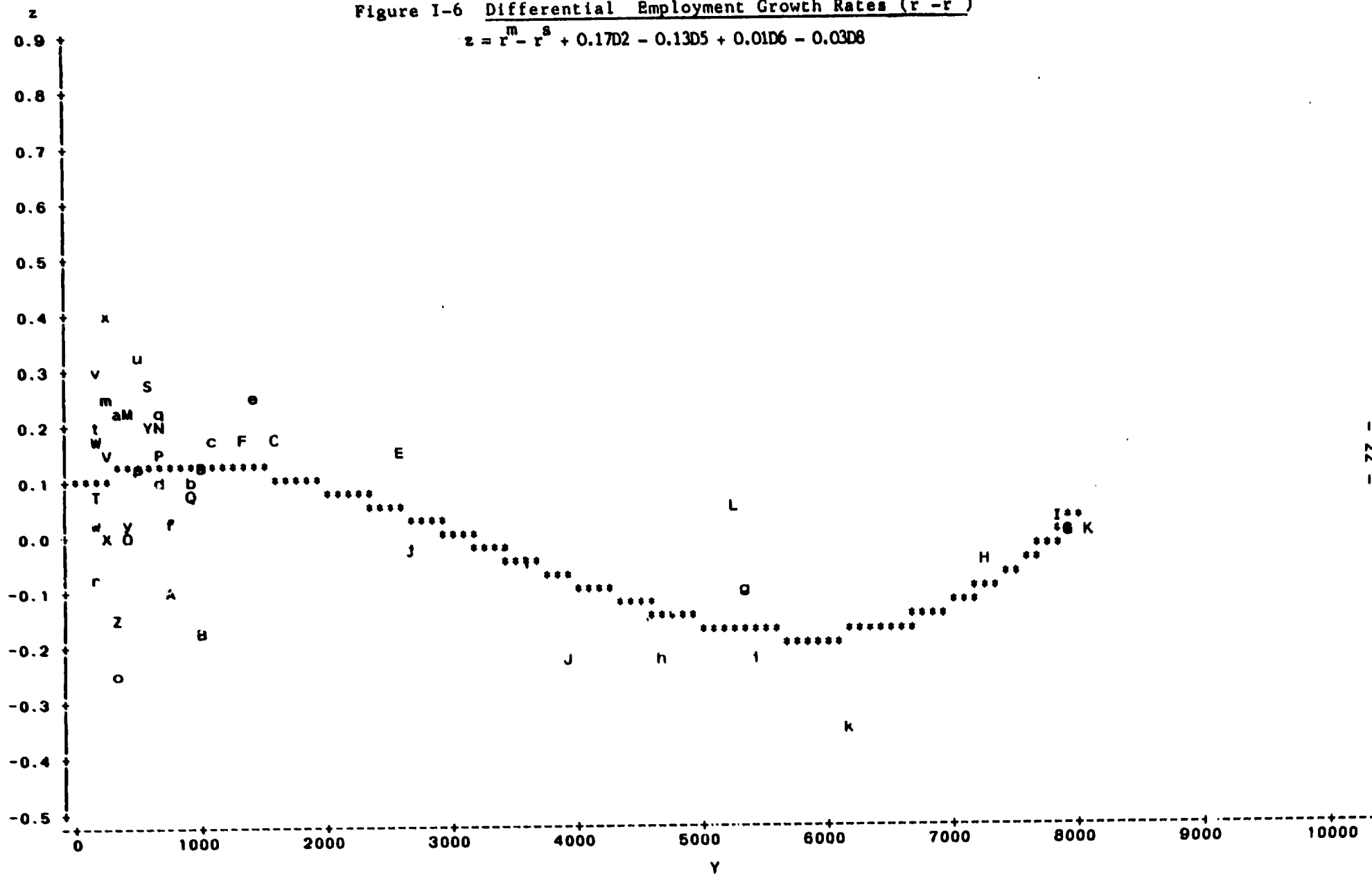
$$z = r^m - r^a + 0.3502 - 0.2605 + 0.0106 - 0.3108$$



NOTE: see equations (3) Table I-2 and Figure I-1

Figure I-6 Differential Employment Growth Rates ($r^m - r^s$)

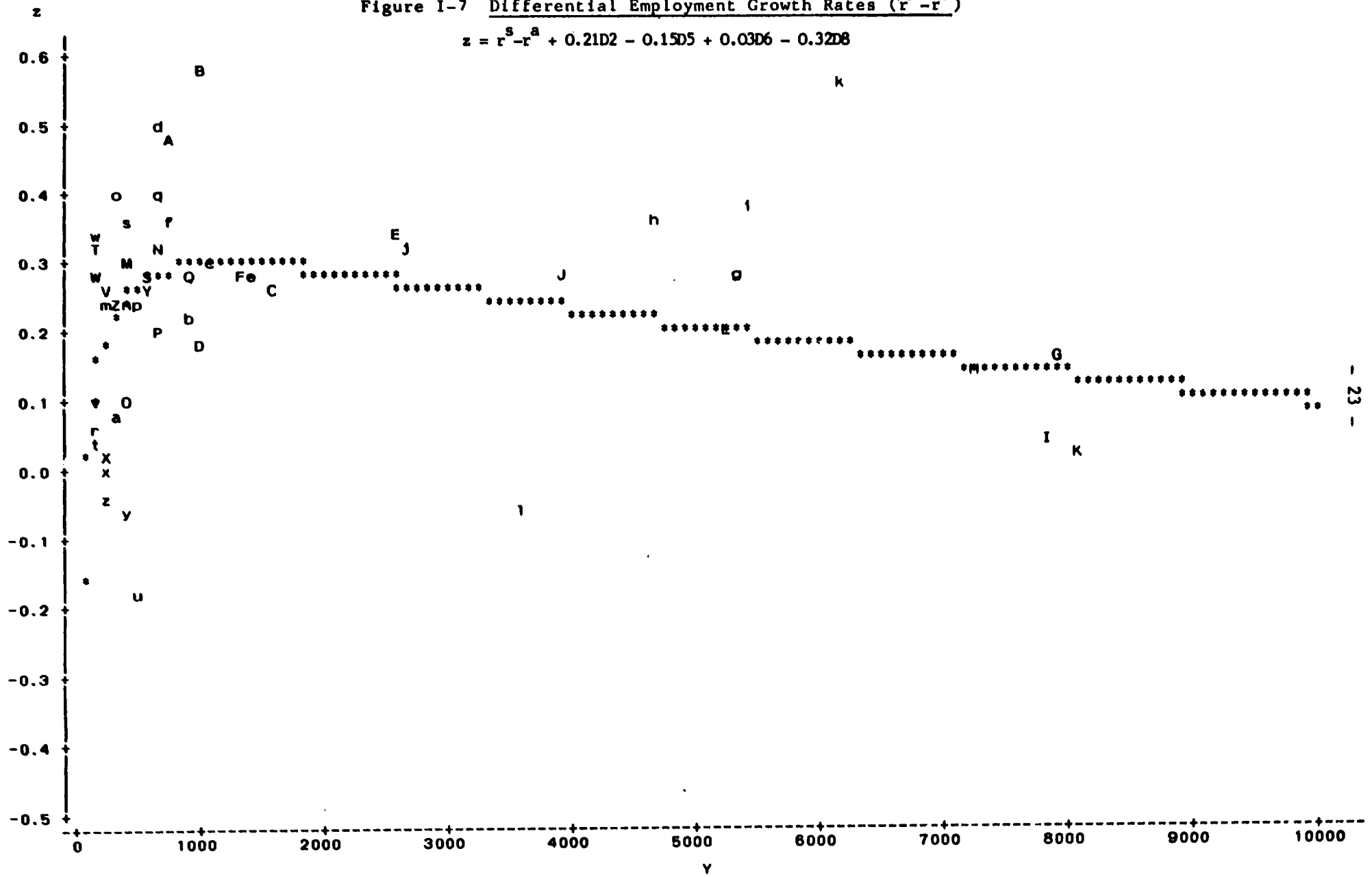
$$z = r^m - r^s + 0.17D2 - 0.13D5 + 0.01D6 - 0.03D8$$



NOTE: see equation (4) Table I-2 and also Figure I-1

Figure I-7 Differential Employment Growth Rates ($r^S - r^A$)

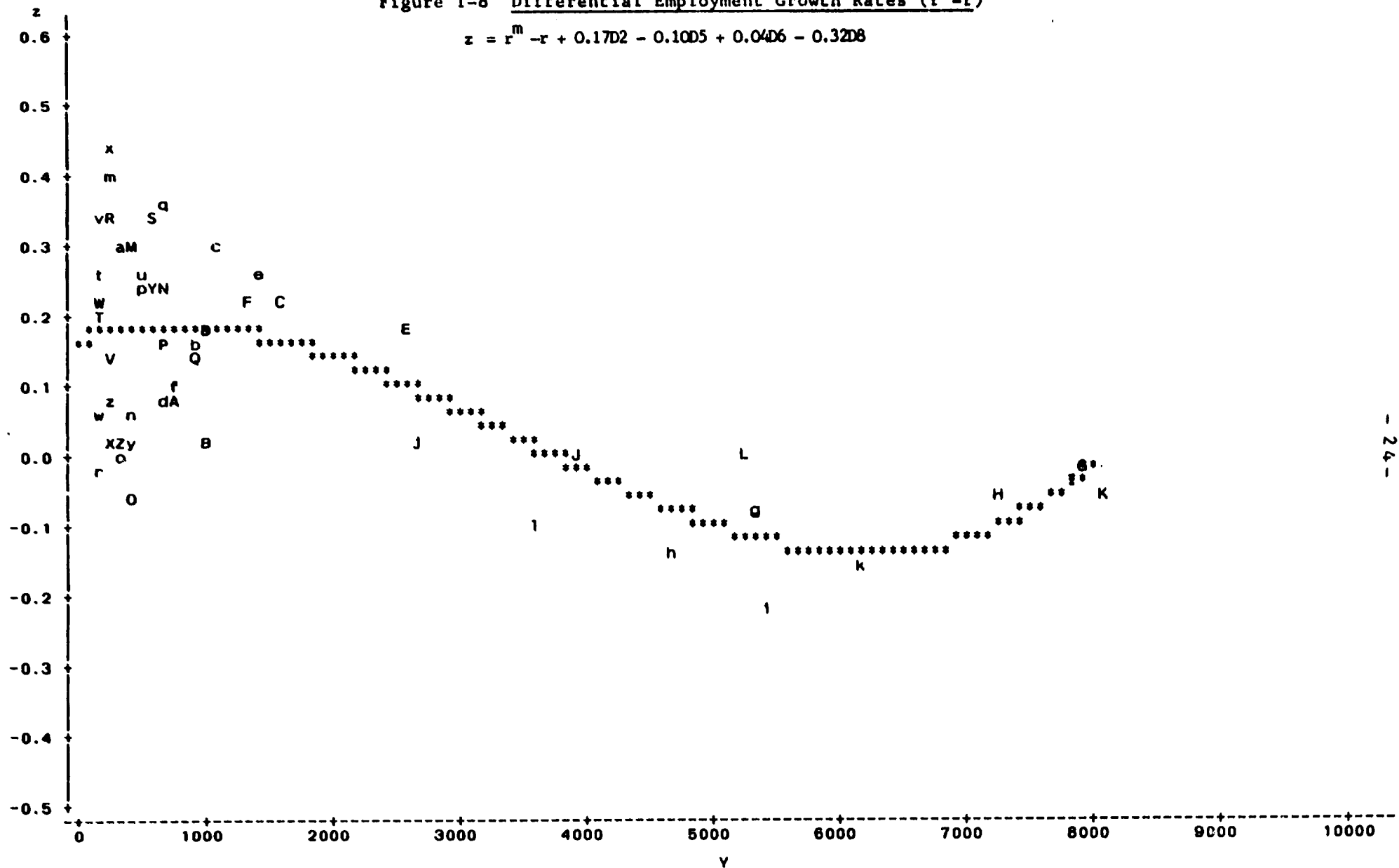
$$z = r^S - r^A + 0.21D2 - 0.15D5 + 0.03D6 - 0.32D8$$



NOTE: see equation (6) Table I-2 and Figure I-1

Figure I-8 Differential Employment Growth Rates ($r^m - r$)

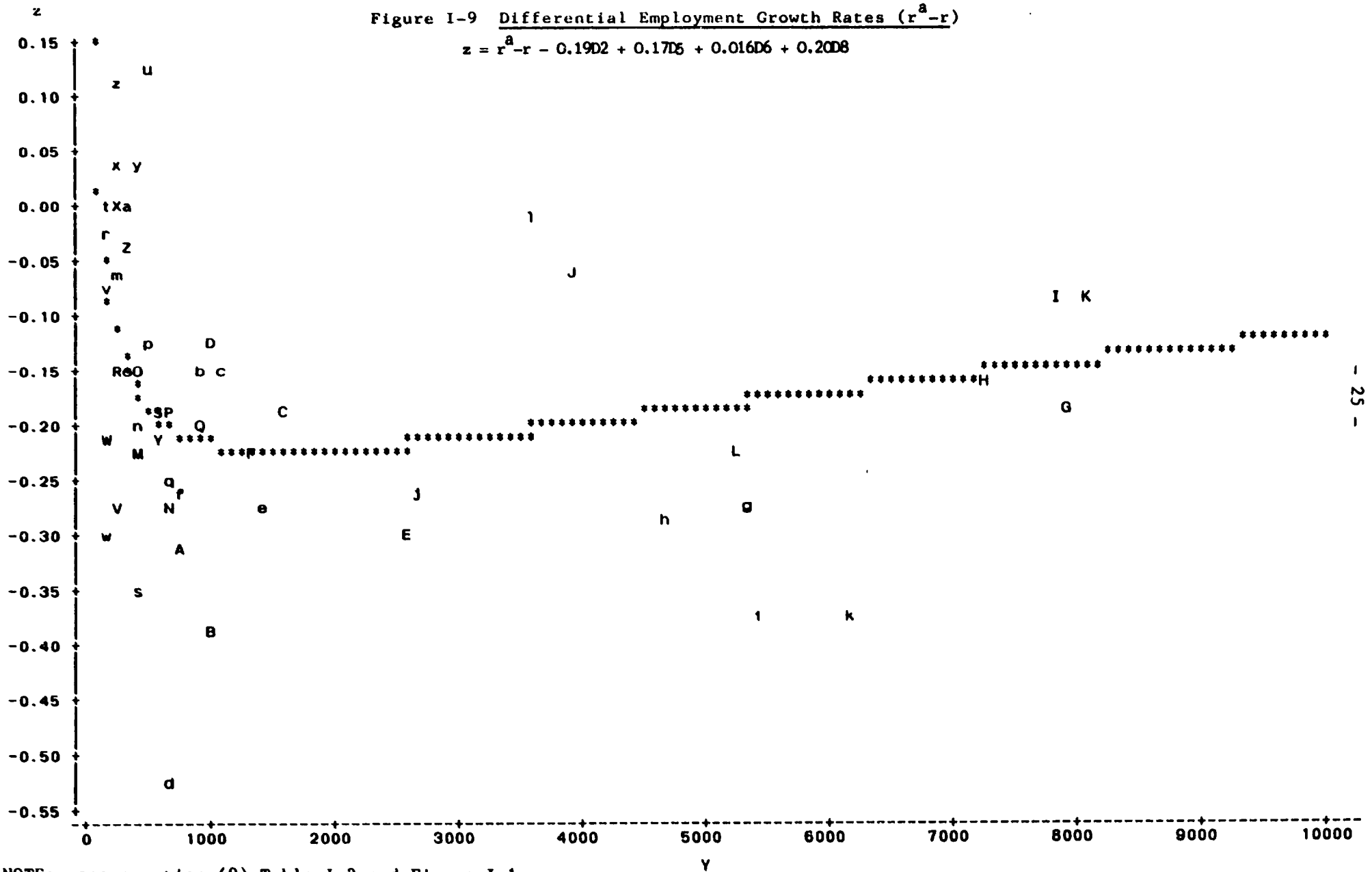
$$z = r^m - r + 0.17D2 - 0.10D5 + 0.04D6 - 0.32D8$$



NOTE: see equation (8) Table I-2 and Figure I-1

Figure I-9 Differential Employment Growth Rates ($r^a - r$)

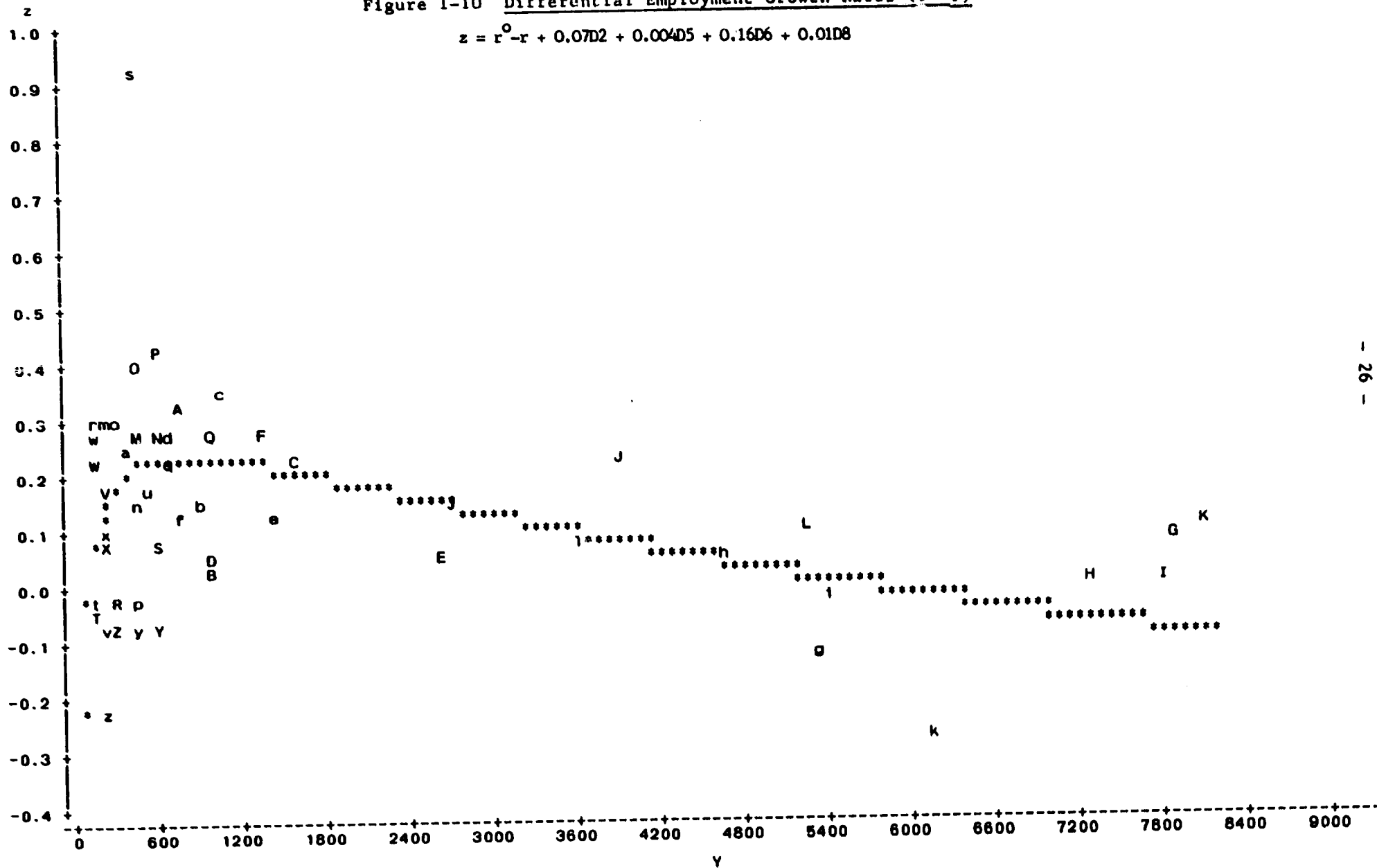
$$z = r^a - r - 0.1902 + 0.1705 + 0.01606 + 0.2008$$



NOTE: see equation (9) Table I-2 and Figure I-1

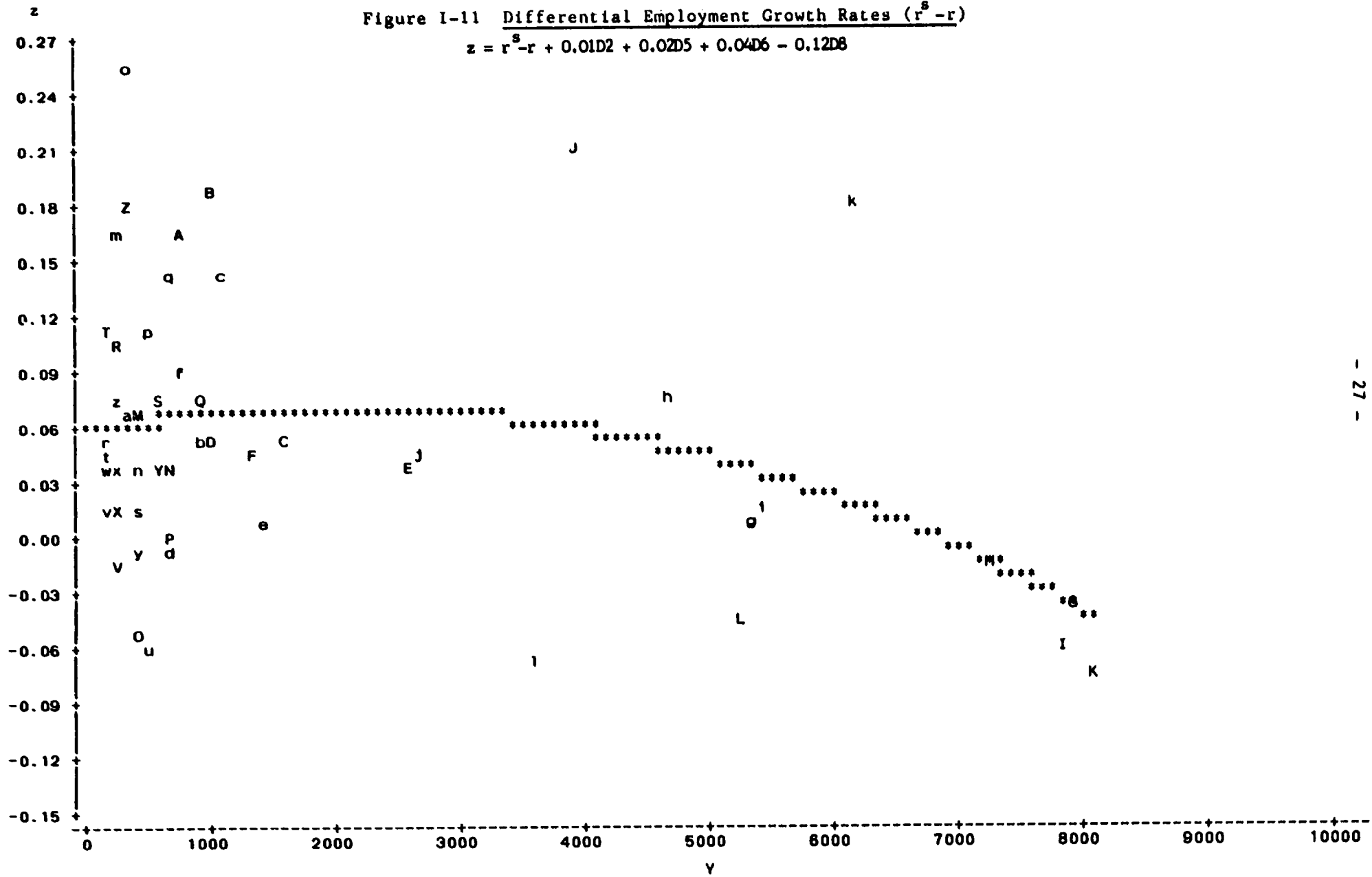
Figure I-10 Differential Employment Growth Rates ($r^0 - r$)

$$z = r^0 - r + 0.07D2 + 0.004D5 + 0.16D6 + 0.01D8$$



NOTE: see equation (10) Table I-2 and also Figure I-1

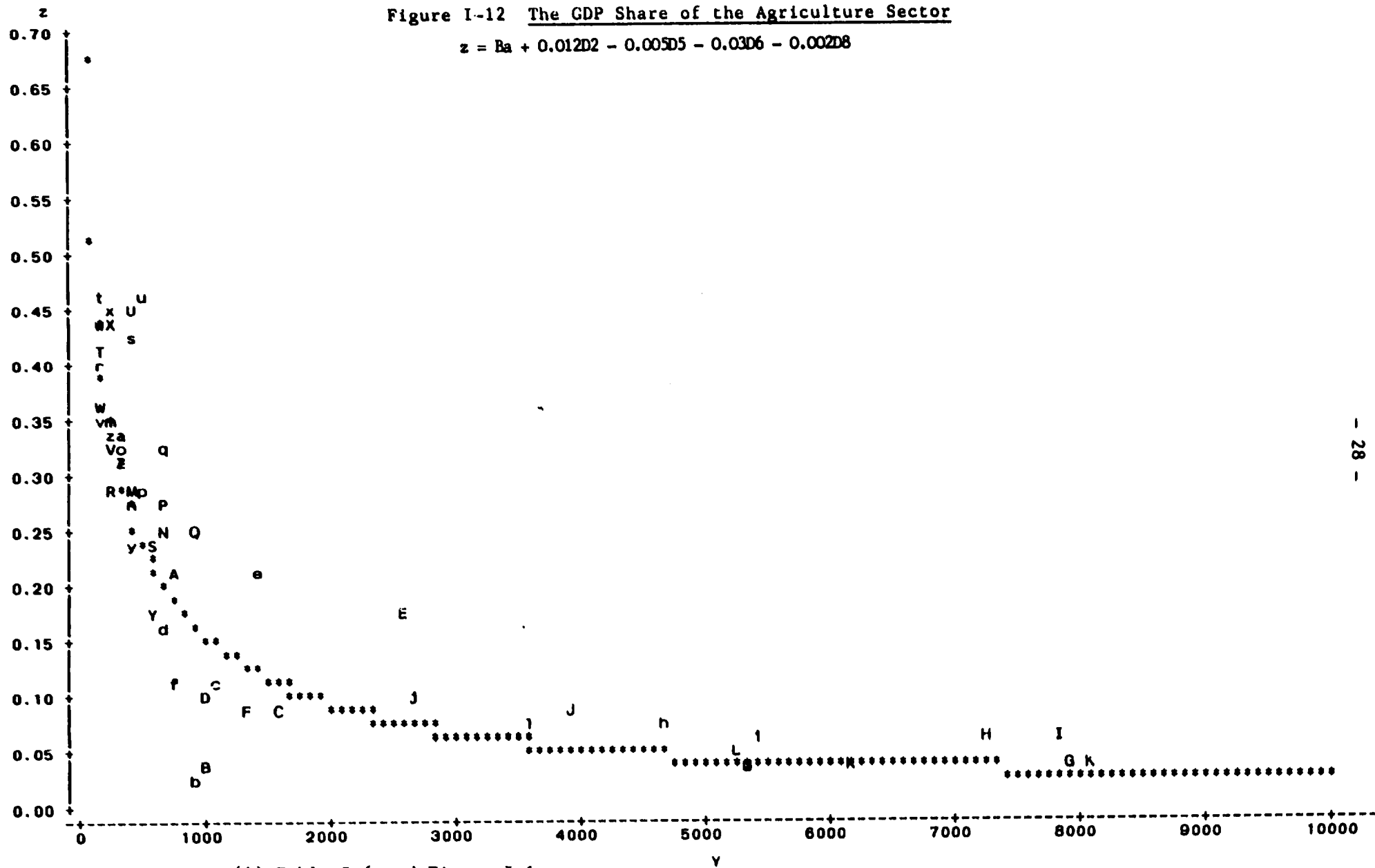
Figure I-11 Differential Employment Growth Rates ($r^S - r$)
 $z = r^S - r + 0.01D2 + 0.02D5 + 0.04D6 - 0.12D8$



NOTE: see equation (11) Table I-2 and Figure I-1

Figure I-12 The GDP Share of the Agriculture Sector

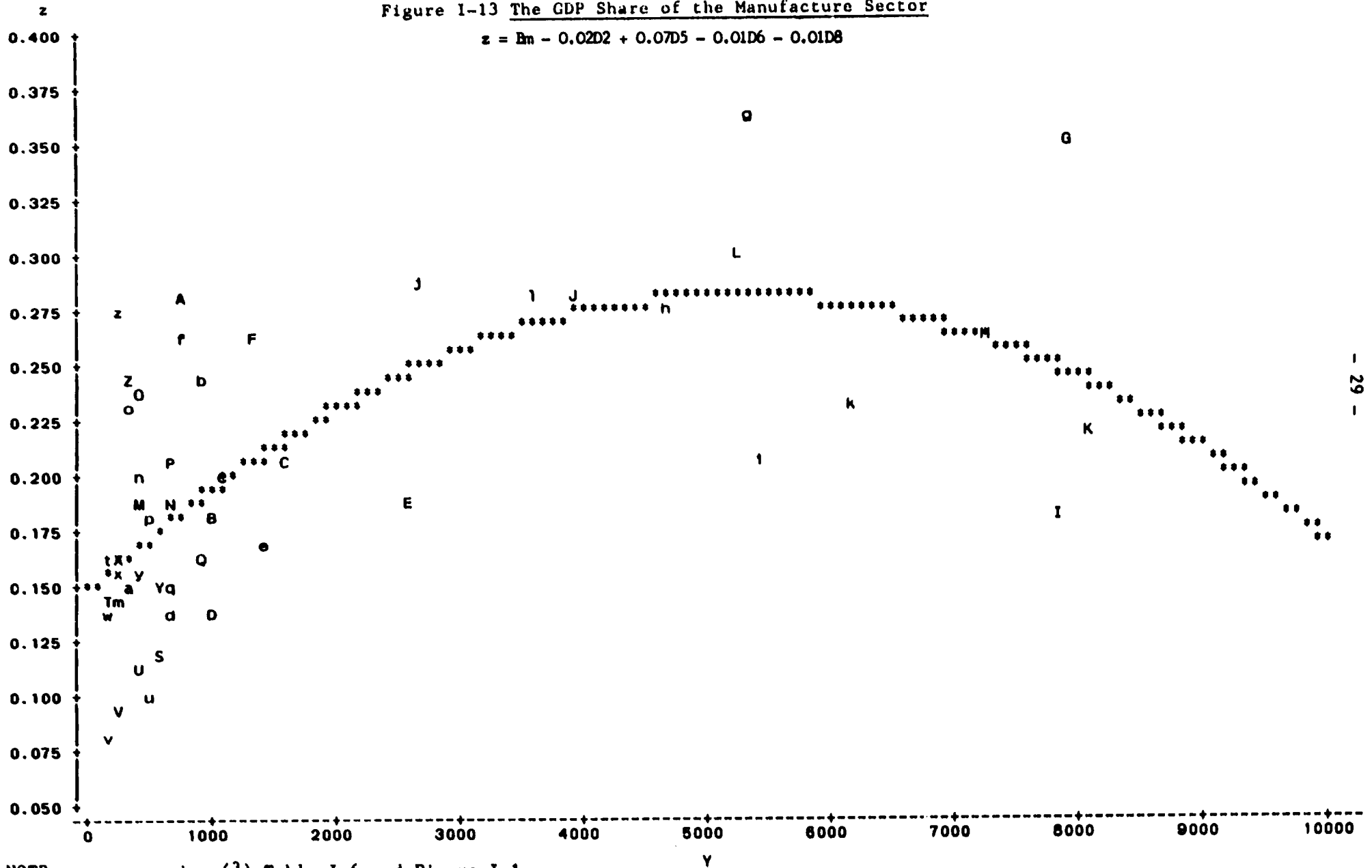
$$z = Ba + 0.012D2 - 0.005D5 - 0.03D6 - 0.002D8$$



NOTE: see equation (1) Table I-6 and Figure I-1

Figure I-13 The GDP Share of the Manufacture Sector

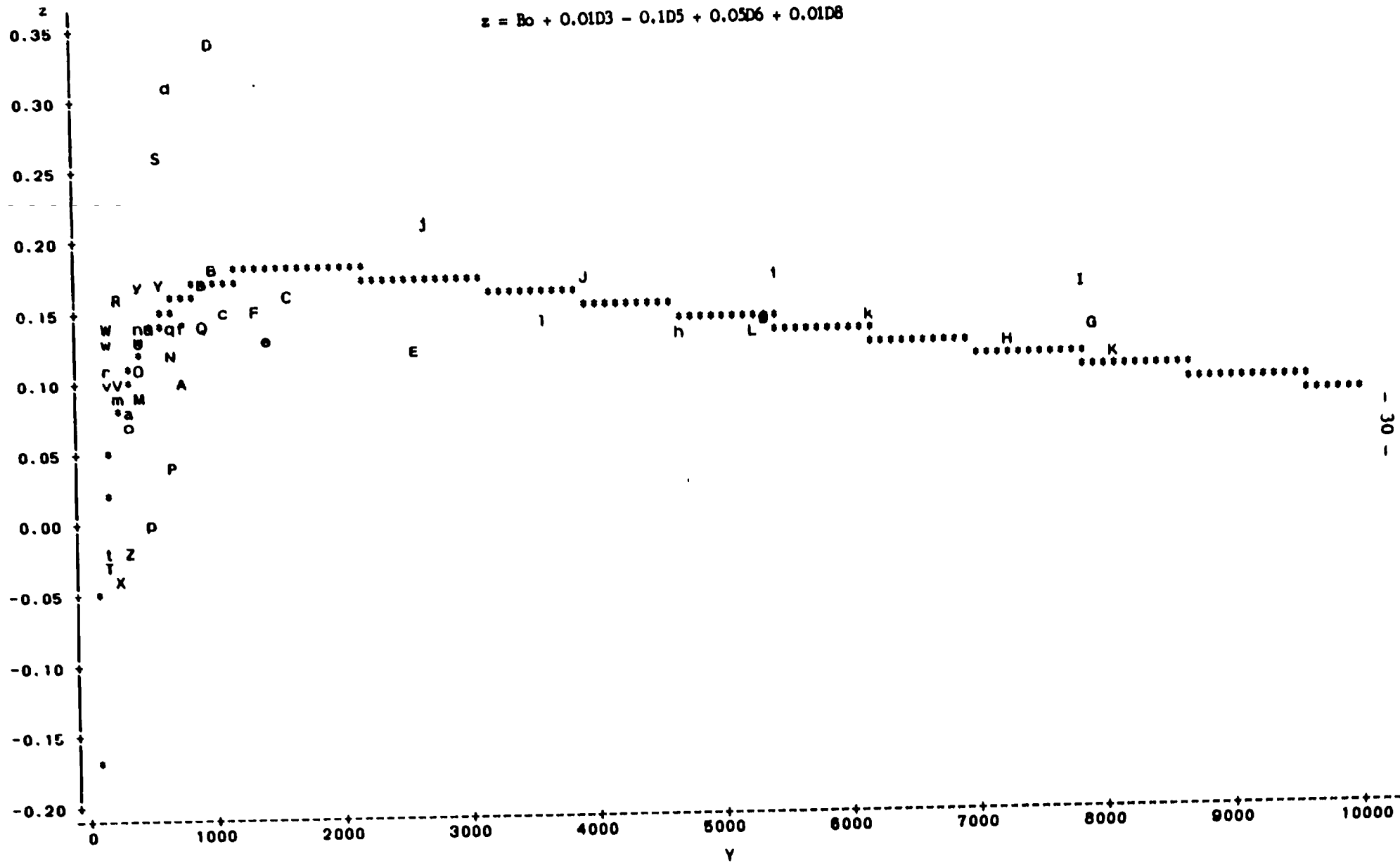
$$z = Bm - 0.0202 + 0.0705 - 0.0106 - 0.0108$$



NOTE: see equation (3) Table I-6 and Figure I-1

Figure I-14 The GDP Share of other Industrial Sectors

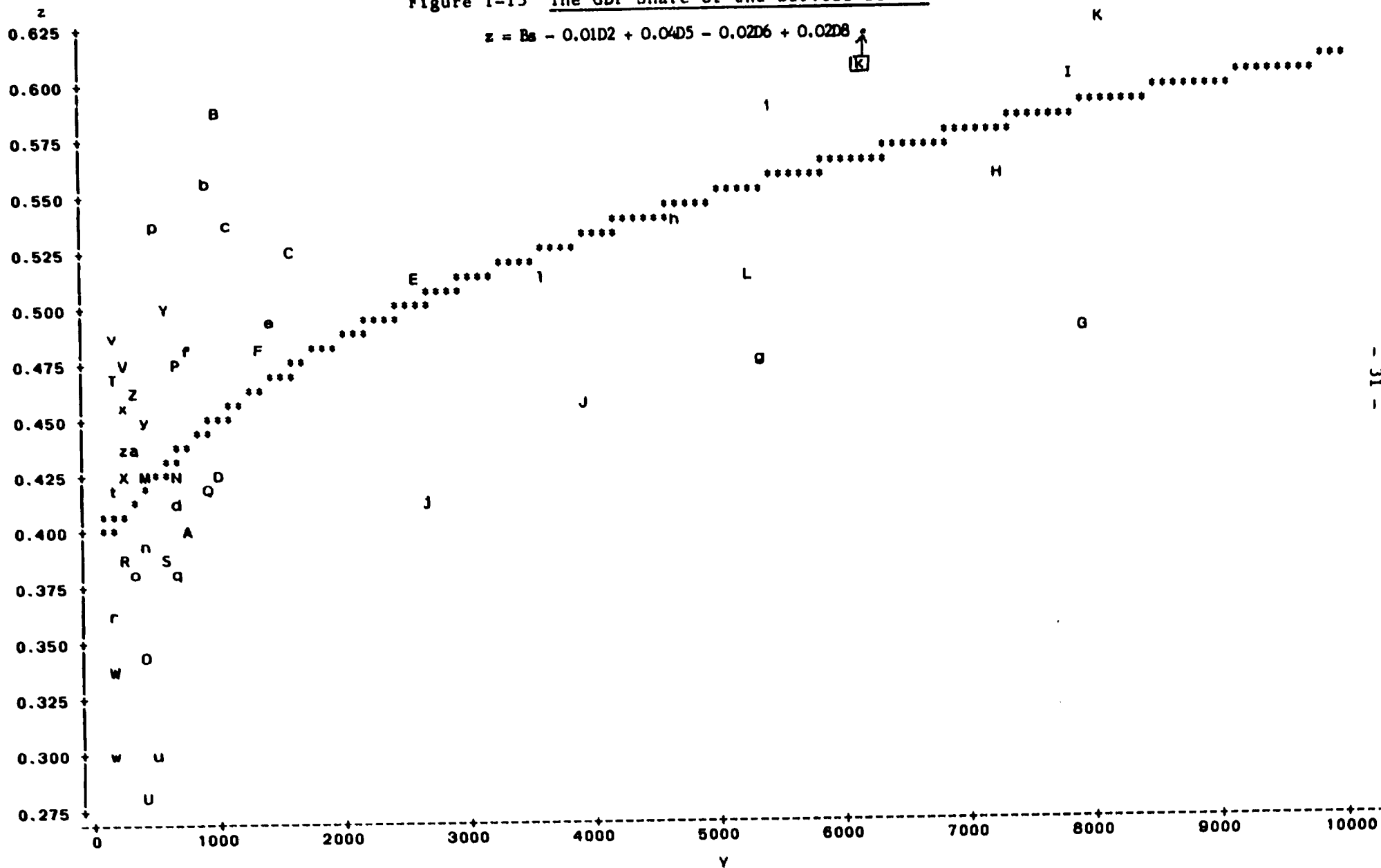
$$z = B_0 + 0.01D_3 - 0.1D_5 + 0.05D_6 + 0.01D_8$$



NOTE: see equation (4) Table I-6 and Figure I-1

Figure I-15 The GDP Share of the Service Sector

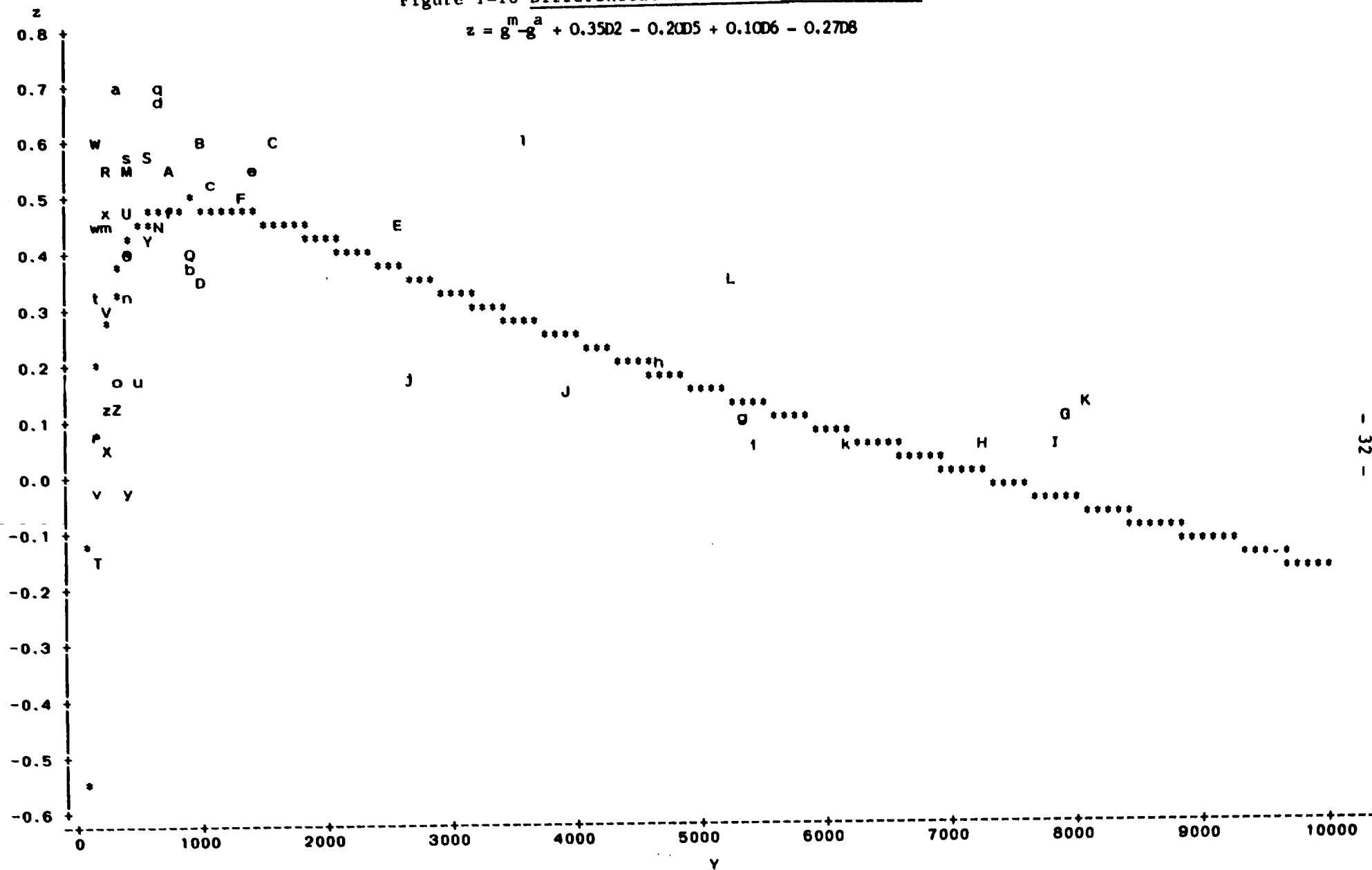
$$z = B_0 - 0.01D_2 + 0.04D_5 - 0.02D_6 + 0.02D_8$$



NOTE: see equation (5) Table I-6 and Figure I-1

Figure I-16 Differential GDP Growth Rates ($g^m - g^a$)

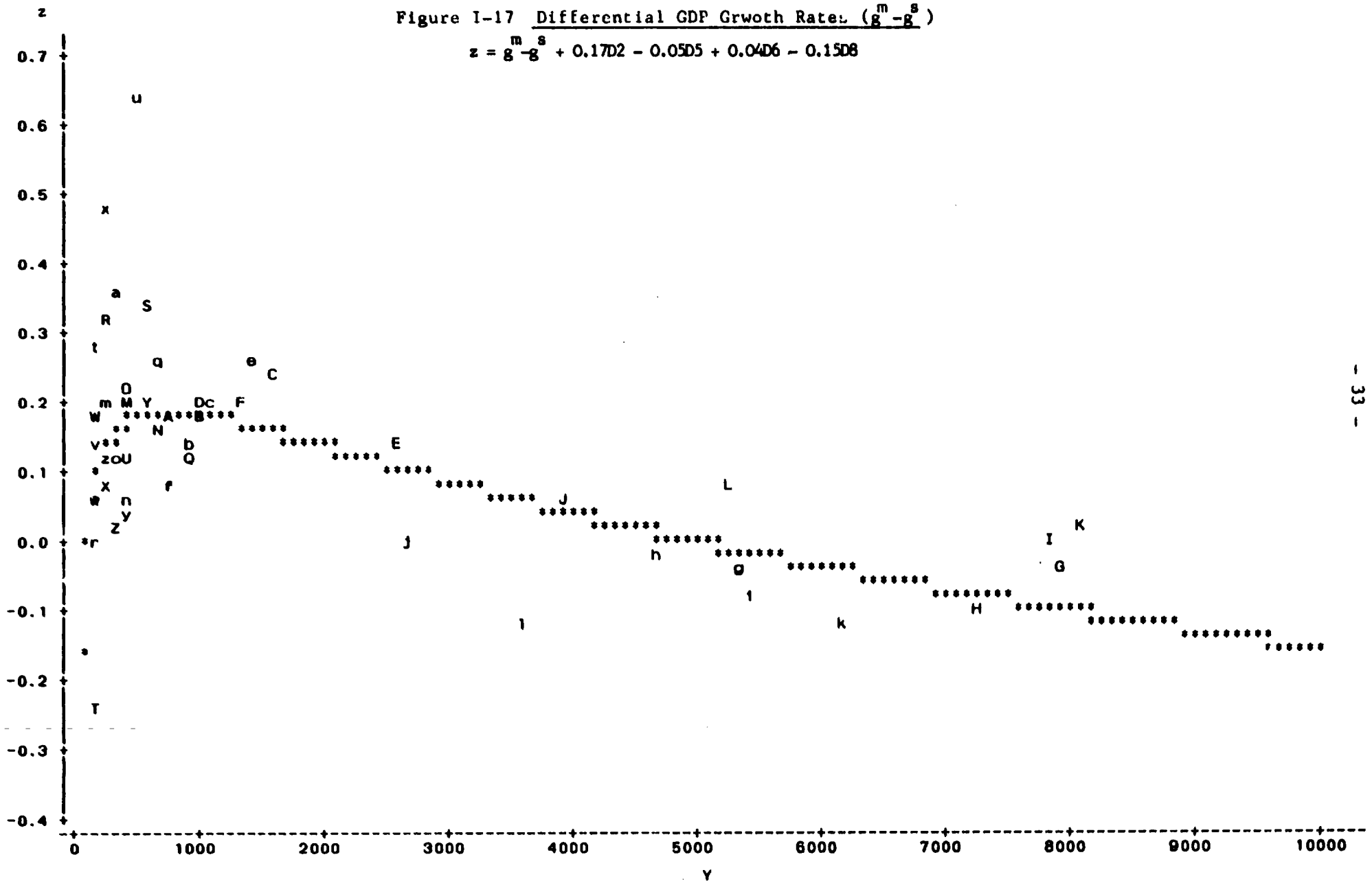
$$z = g^m - g^a + 0.35D2 - 0.20D5 + 0.10D6 - 0.27D8$$



NOTE: see equation (1) Tabel I-5 and Figure I-1

Figure I-17 Differential GDP Growth Rate: $(g^m - g^s)$

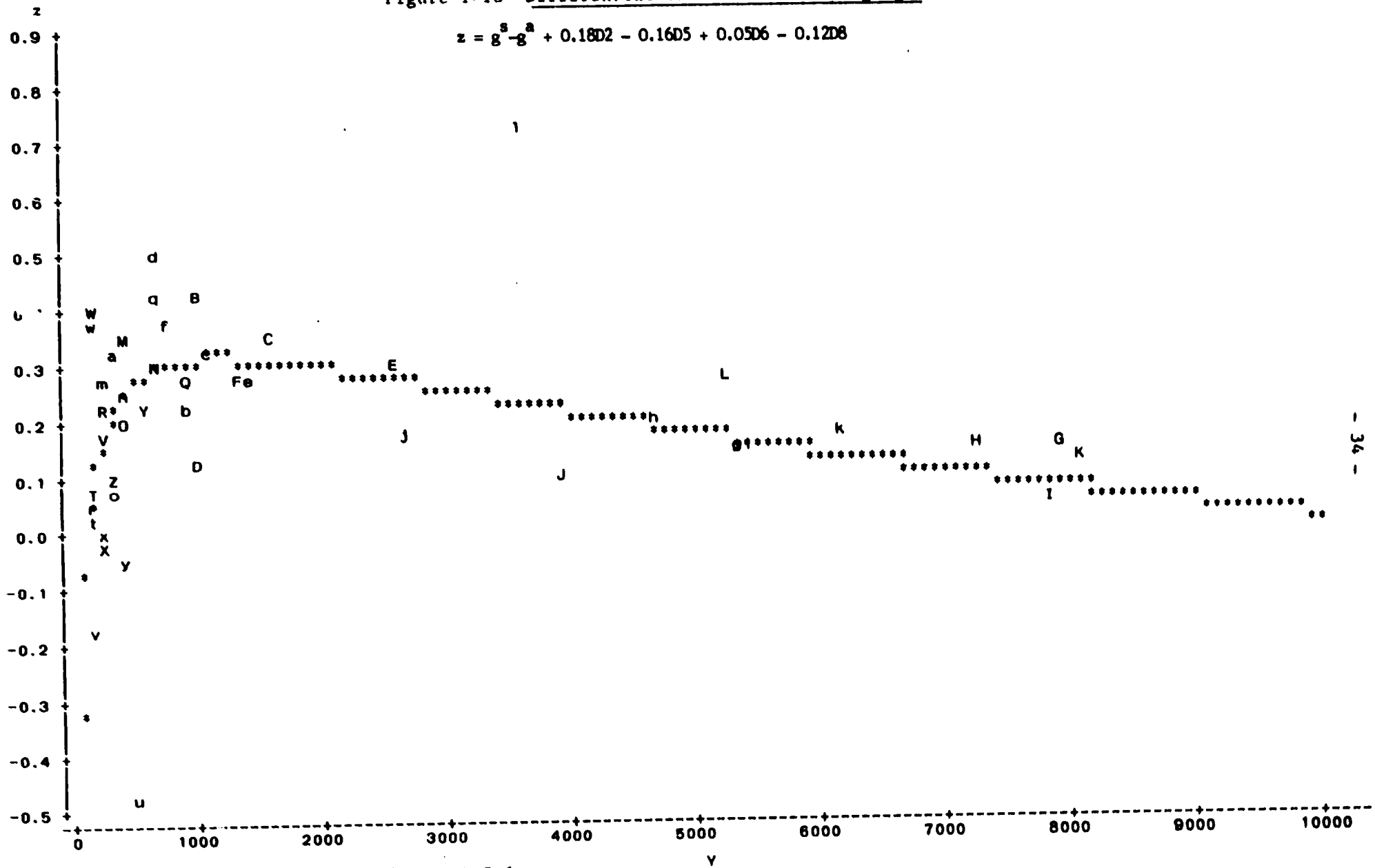
$$z = g^m - g^s + 0.17D2 - 0.05D5 + 0.04D6 - 0.15D8$$



NOTE: see equation (2) Table 1-5 and Figure I-1

Figure I-18 Differential GDP Growth Rates ($g^s - g^a$)

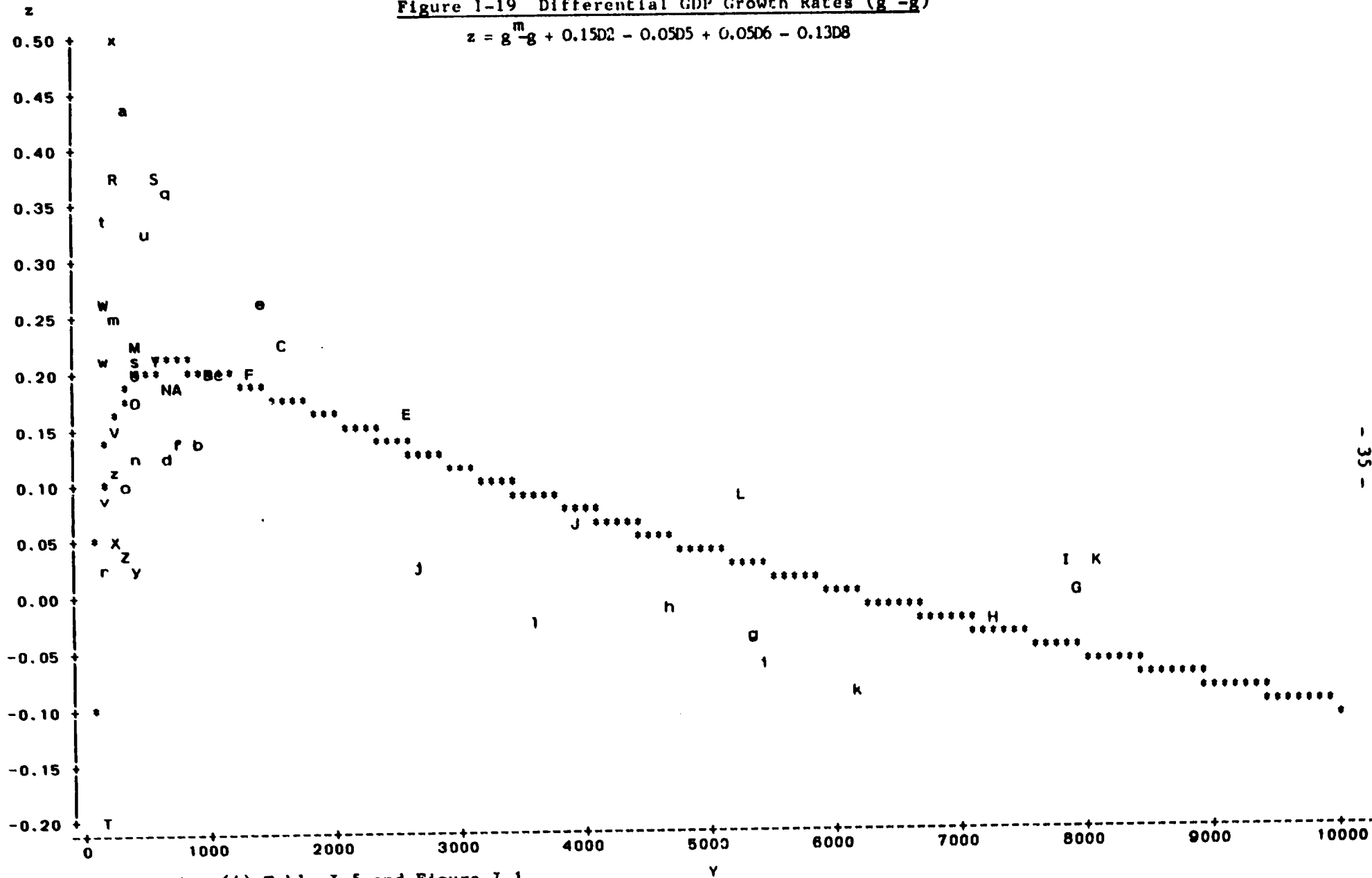
$$z = g^s - g^a + 0.1802 - 0.1605 + 0.0506 - 0.1208$$



NOTE: see equation (3) Table I-5 and Figure I-1

Figure I-19 Differential GDP Growth Rates ($g^m - g$)

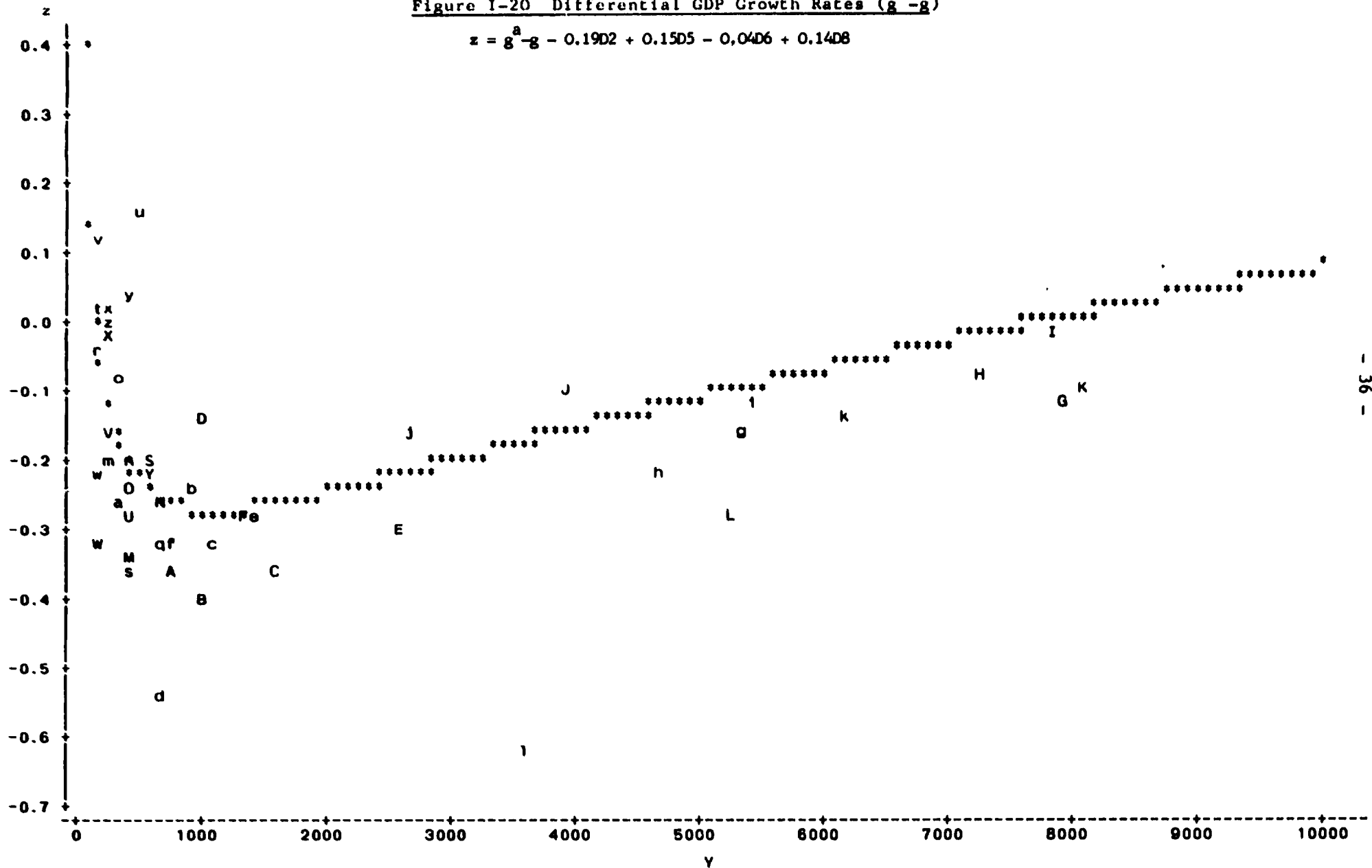
$$z = g^m - g + 0.1502 - 0.0505 + 0.0506 - 0.1308$$



NOTE: see equation (4) Table I-5 and Figure I-1

Figure I-20 Differential GDP Growth Rates ($g^a - g$)

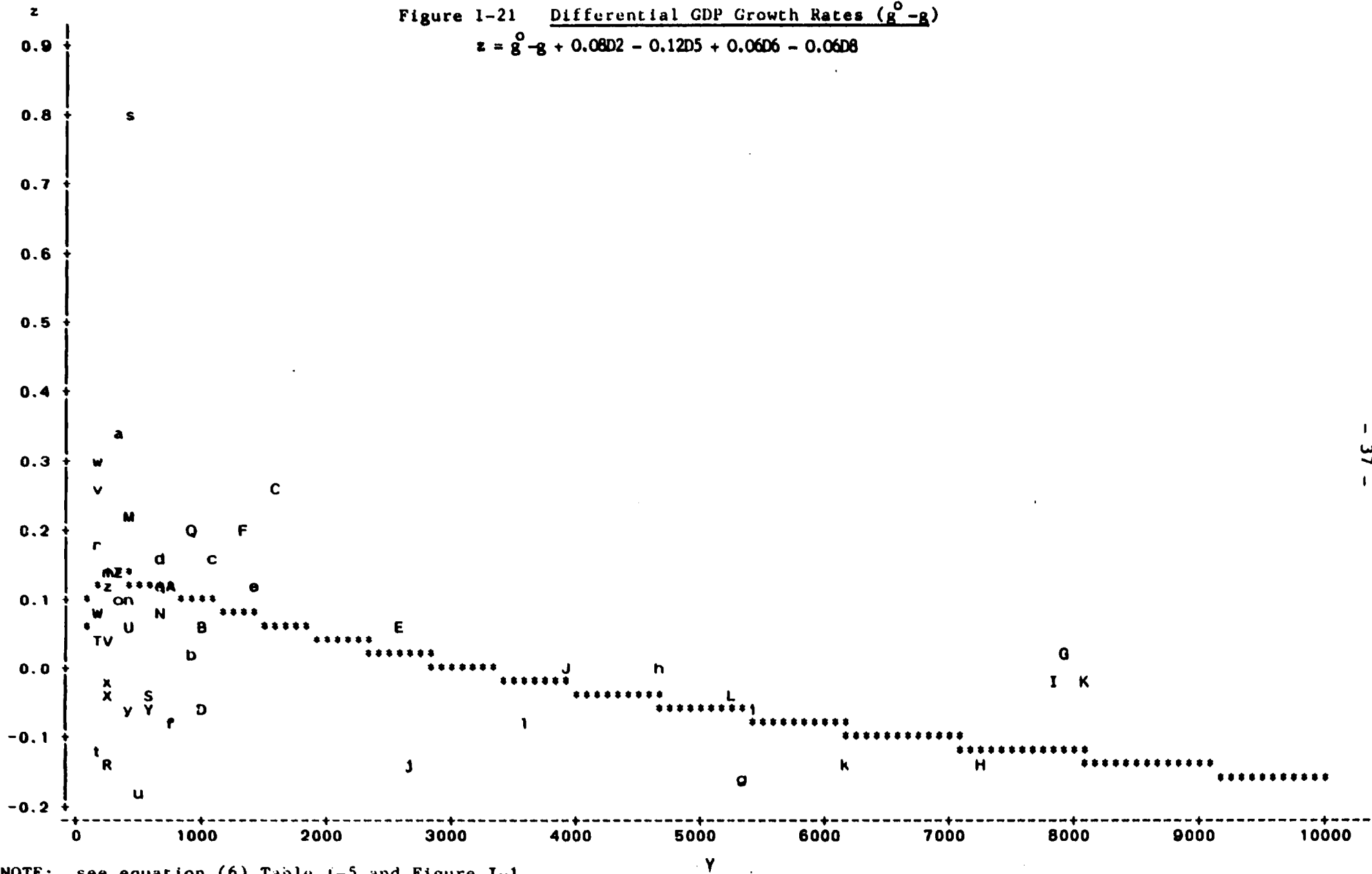
$$z = g^a - g - 0.1902 + 0.1505 - 0.0406 + 0.1408$$



NOTE: see equation (5) Table 1-5 Figure I-1

Figure 1-21 Differential GDP Growth Rates ($g^o - g$)

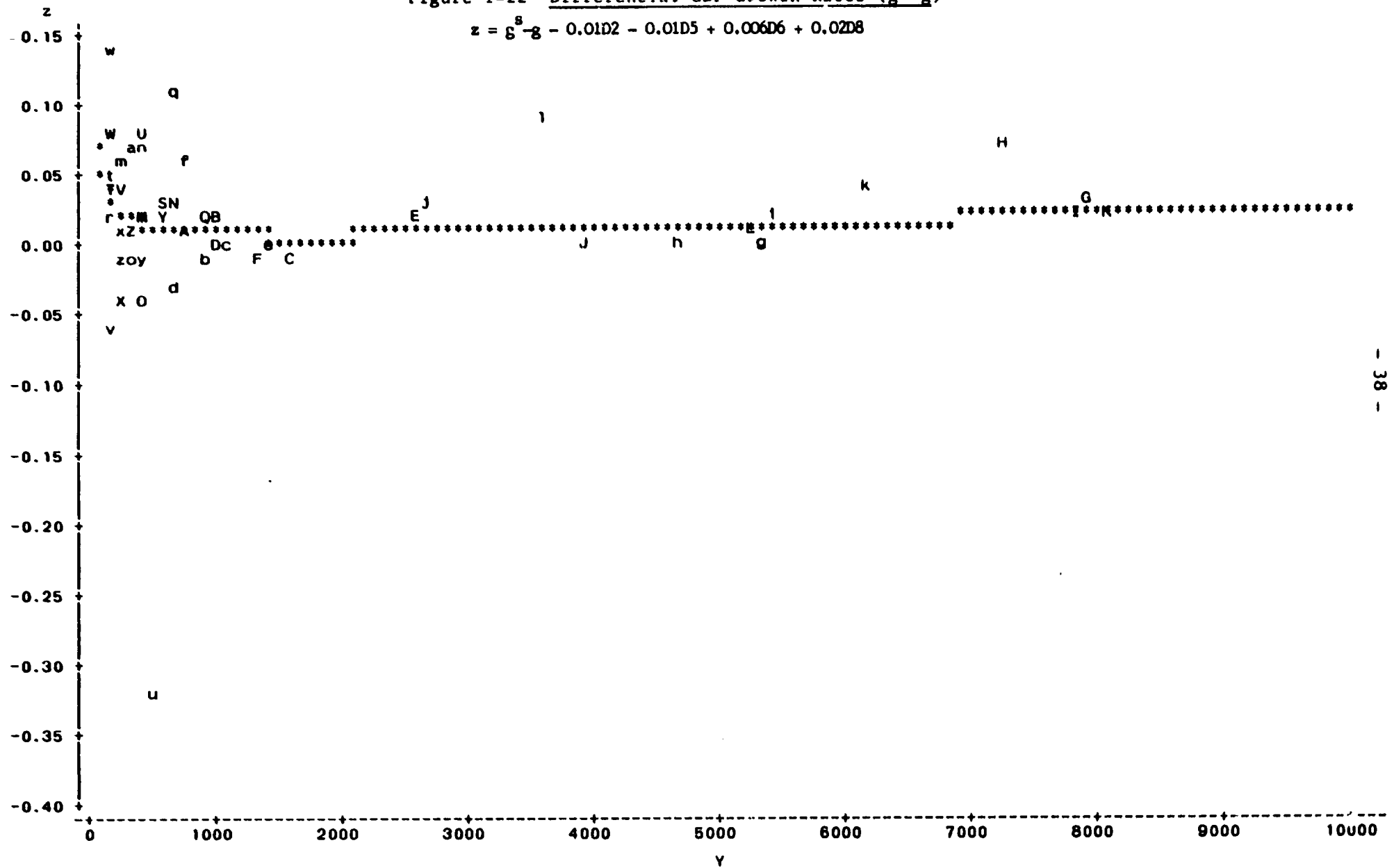
$$z = g^o - g + 0.0802 - 0.1205 + 0.0606 - 0.0608$$



NOTE: see equation (6) Table 1-5 and Figure I-1

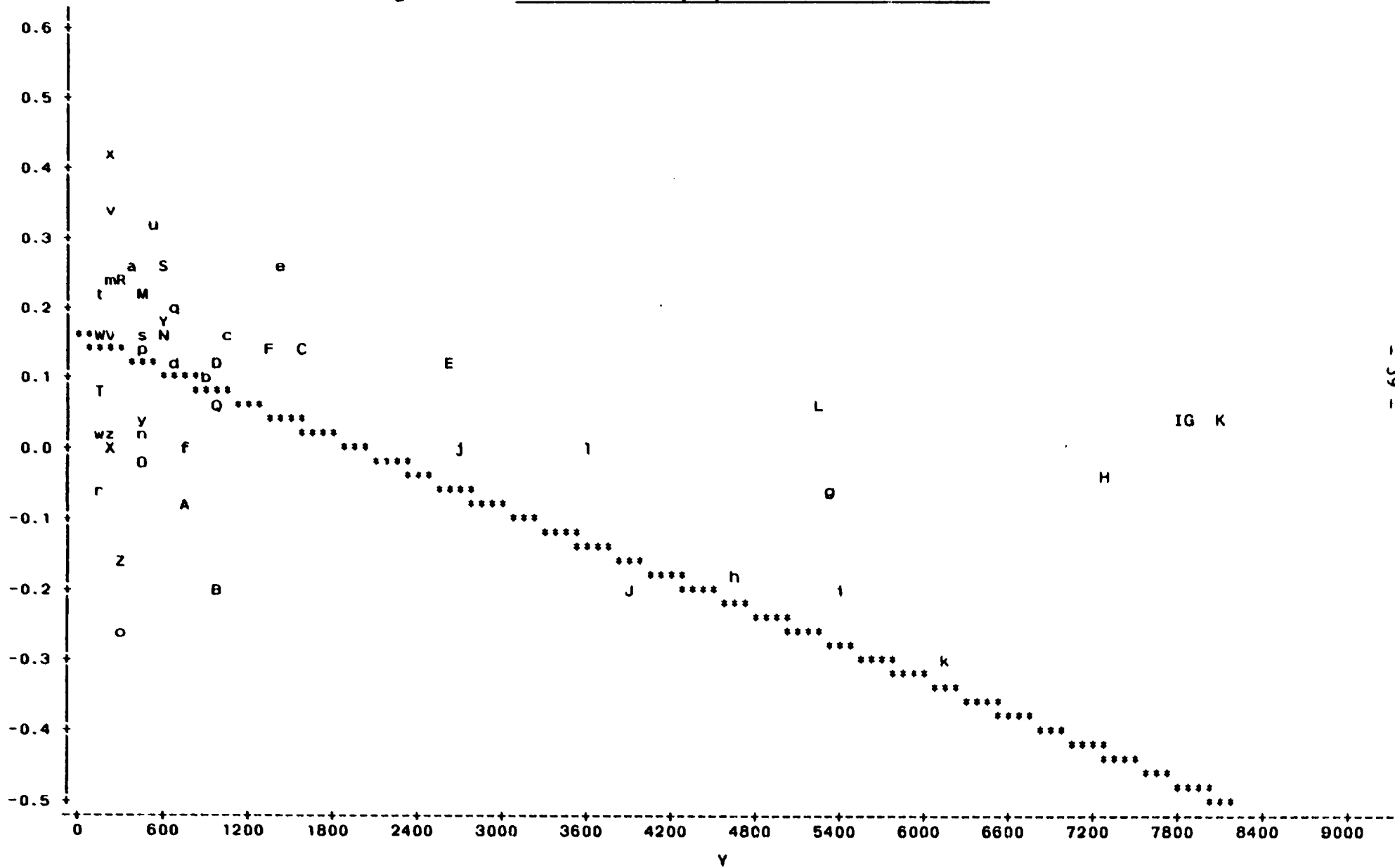
Figure 1-22 Differential GDP Growth Rates ($g^S - g$)

$$z = g^S - g - 0.01D2 - 0.01D5 + 0.006D6 + 0.02D8$$



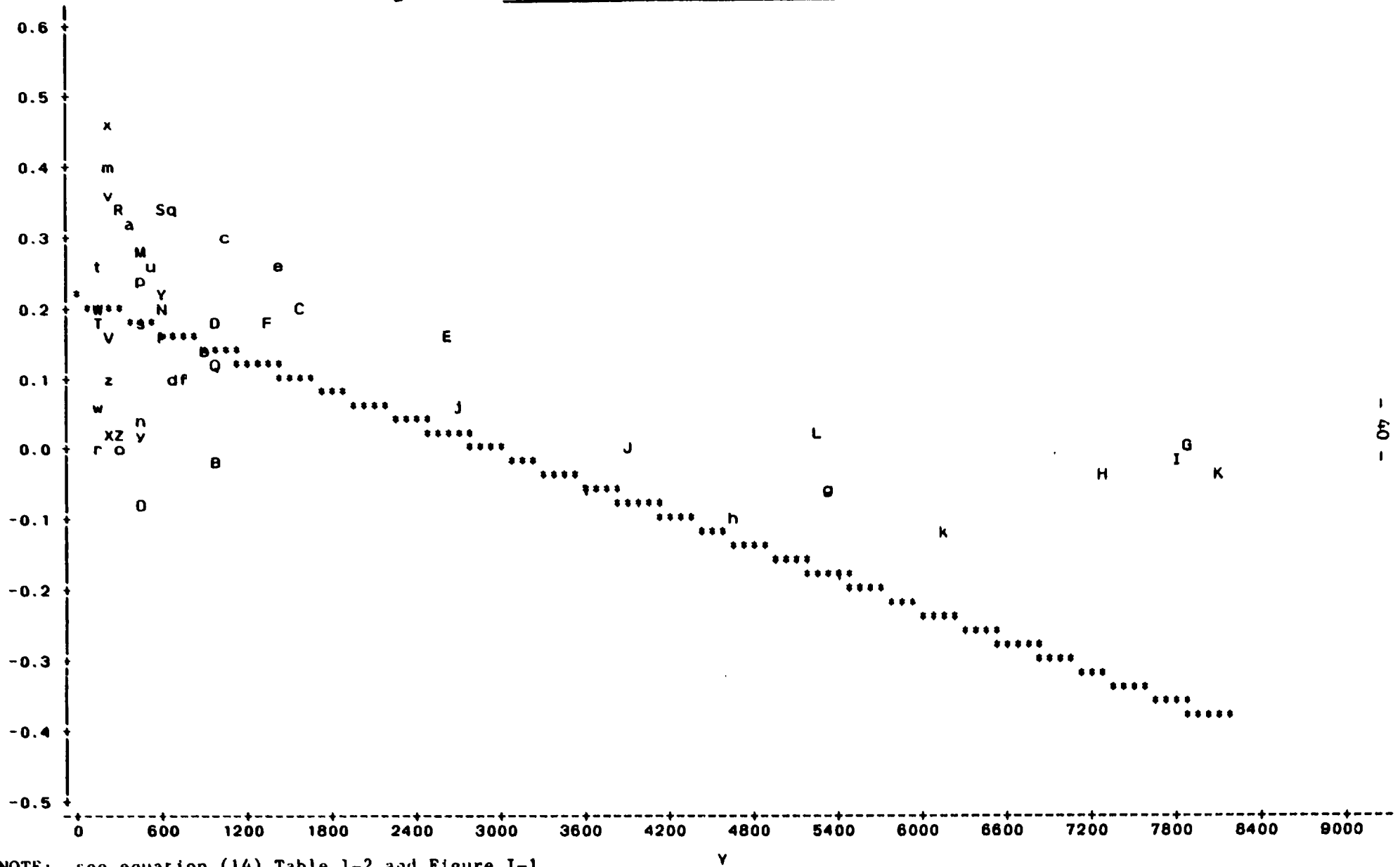
NOTE: see equation (7), Table 1-5 and Figure I-1

Figure I-23 Differential Employment Growth Rates ($r^m - r^s$)



NOTE: see equation (13) Table I-2 and Figure I-1

Figure I-24 Differential Employment Growth Rates ($r^m - r$)



NOTE: see equation (14) Table 1-2 and Figure I-1

Part II. Some Disaggregate Relationships

The second part of the present study deals with the linkages between the manufacturing sector and the service sector. The input-output tables of twenty-six countries are employed for this study. The service sector is also broken down into three distinct categories: distributive service, producer services, personal services and social services. Each of these categories will be discussed separately in sections II-C, II-D, II-E and II-F. The differences in Forward, Backward and Total linkages between these sectors will be compared in section II-H. The average propensity to consume of these sectors will be presented in section II-I.

II-A The Conceptual Framework

Two concepts are employed to describe the symbiotic interrelationship between sectors.

The Backward Dependency Ratio and the Sectorial Sales Ratio. The Backward Dependency Ratio of the j th sector on input i , iB_j , is defined as:

$$iB_j = a_{ij} / \sum_j a_{ij}$$

where a_{ij} is the value of the input-output coefficients (imports included). This ratio indicates how important or critical input i is to sector j . The Sectorial Sales Ratio of sector i with output going to the j th sector, iF_j , is defined as:

$$iF_j = a_{ij} / (\sum_1 a_{ij} + C_i)$$

where a_{ij} is the value of the input-output coefficient (excluding imports) and C_i is the domestic consumption and export demands of sector i . The output of sector i goes to intermediate (input) demands and final consumption demands.

This ratio indicates how important the sales to sector j is from the viewpoint of sector i.*

An innovative feature of the present empirical study is to disaggregate the service industry into four distinct categories. The service sector represents a rather heterogeneous mixture of diverse activities. We employ the classification system suggested by Gershuny and Miles (1983) and categorize service activities into two major groups. Marketed services and non-marketed services. These two major groups are further subdivided into finer and more homogeneous groups as follows:

(A) Marketed Services

(1) Distributive Services

- a. transportation and storage
- b. communication
- c. wholesale and retail trade (excluding eating and drinking places)

(2) Producer Services

- a. banking, credits, and other financial services
- b. insurance
- c. real estate
- d. engineering, architectural services
- e. accounting and bookkeeping
- f. business services
- g. legal services

(3) Personal Services

- a. domestic services
- b. hotels and lodging places
- c. eating and drinking places
- d. repair services
- e. laundry and dry cleaning
- f. barber and beauty shops
- g. entertainment and recreational services

(B) Non-Market Services

(4) Social Services

- a. medical, health, hospitals
- b. education
- c. welfare
- d. non-profit organizations
- e. public administration, postal, legal, military services
- f. professional and social services.

* when both ratios iB_j are large, sector j "depends" heavily on sector i as the source of input and the destination of output.

The present study also subdivides the manufacturing sector into three categories at the (ISIC) two-digits level. This classification is based partly on the degree of industrial processing accumulated in a particular commodity. The categories are:

- (1) Agrofood processing and light industries (AL):
ISIC 31, 32 and 33;
- (2) Energy and basic industries (EB):
ISIC 34, 35, 36 and 37;
- (3) Capital goods industries (CG):
ISIC 38;

Since the above classification is a bit arbitrary, a t-test is used in our empirical work to ensure the means and variances of each classified category are distinct from each other.

Finally, the Backward Dependency Ratio and the Sectorial Sales Ratio between the manufacturing sector and the four categories of service subsectors are examined for twenty-six countries. Inferences on the symbiotic relationships between manufacturing and services over different stages of development can be drawn from cross-country comparisons of these two ratios. This study is repeated for the case where the manufacturing sector is subdivided into three categories. This level of disaggregation also reveals some details of the interrelationships between the manufacturing subsectors and services. Another more detailed disaggregation of the manufacturing sector into eight categories (ISIC 31 to 38) is performed. This more refined analysis is used to confirm and cross-check the results of previous cases.

Under these categories, the Backward Dependency Ratio and the Sectorial Sales Ratio of various sectors, classified by country's per capita income, are presented in Tables II-II to II-78. Each table is supplemented by a t-test for each income group. Regression analysis on every Backward Dependency Ratio and every Sectorial Sales Ratio are also performed. The explanatory variables are the level of per capita income, population size, a dummy variable D2 to distinguish whether the input-output table is compiled before (D2=0) or after the "oil shock" (D2=1), and three more dummy variables (D5, D6, D8) to distinguish countries according to their structure (see Appendix B). Only the "best fit" functional forms are presented in Tables II-5 to II-10.

II-B Description of Data

The input-output tables of twenty six countries (UNIDO data base) are chosen for our study. This sample is selected in such a way to give a balanced number of low income countries, lower middle-income countries, upper middle-income countries and industrial market-economy countries. Less developed countries which have a small population (less than one million) are excluded. Countries with incomplete recording of the service sector in the input-output tables are also excluded.

The following sources of statistical errors are present in our study.

(1) The input-output tables are compiled in different years between 1968 and 1975. During these turbulent years the world economies had undergone some serious structural changes (eg. the "oil shock").

(2) In the input-output tables of most less developed countries, import values are included in the coefficients. There are no separate tables to record imports. The calculations of forward linkage and Sectorial Sales Ratio are, therefore, bias. It is possible for the value of the forward linkage and Sectorial Sales Ratio (eg. see Appendix D, Kenya and Indonesia) to be greater than one.

(3) There are also errors in our estimations due to different classification method employed by different countries. Some major regrouping work is necessary to standardize all the input-output tables.

(4) The recording of the input-output values for social services are grossly bias. Since most of the social services appear as public goods, it is difficult to record the exact contributions from this particular sector. Very often the input-output coefficients with respect to social services record zero values in places where they obviously should not.*

* Because of this reason (and also point (3) above which also give a zero entry), we abandoned the double log form of equations in our regression. For those entries that do not have zero values, the double log forms generally give better results (not reported here).

Table II-1(a) Backward Dependency Ratio at Different Level of Aggregation

(I) Aggregate Level (Backward Dependency Ratio)

Output of Industries	M	DS	RS	ES	SS
<u>Composition of Inputs</u>					
Manufacturing (M)	(+,•) ^w	(-,•)	X	X	X
Distributive Services (M)	X	X	X	X	X
Producer Services (RS)	(+,•)	(•,•)	X	(•,•)	(•,•)
Personal Services (ES)	(+,•) ^w	(•,•)	X	X	X
Social Services (SS)	X	X	X	X	(+,•) ^w
Backward Linkage (BL)	X	X	X	X	X
Total Linkage (TL)	(0,+)	(•,-) ^w	X	(+,•)	X

(II) Disaggregation of the Manufacturing Sector (Backward Dependency Ratio)

Output of Industries	AL	EB	CG	DS	RS	ES	SS
<u>Composition of Inputs</u>							
Agrofood processing and Light Industries (AL)				X	(-,•) ^w	X	X
Energy & Basic Indus. (EB)				(-,•)	X	X	(•,+)
Capital Goods Indus. (CG)				X	X	X	X
DS	X	X	X				
RS	(+,•)	(+,•)	(+,•)				
ES	X	(+,+) ^w	X				
SS	X	X	(+,•)				
Backward Linkage (BL)	X	X	X				

Table II-1(b)
 (III) Further Disaggregation of the Manufacturing Sector
 (Backward Dependency Ratio)

Output of Industries	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
Inputs												
ISIC 31									X	(-,*) ^w	X	X
ISIC 32									X	X	X	X
ISIC 33									X	X	X	X
ISIC 34									(*,*)	X	X	(*,+)
ISIC 35									(-,*)	X	X	(*,+)
ISIC 36									X	X	X	X
ISIC 37									(*,*)	X	X	X
ISIC 38												
DS	X	X	X	X	X	X	X	X				
RS	(+,*)	(*,*)	(*,*)	(+,*)	(+,*) ^w	(+,*)	(+,*)	X				
ES	X	X	(+,*)	(*,+)	(*,*)	(+,*) ^w	(*,*) ^w	(*,+) ^w				
SS	X	(+,*) ^w	(+,*) ^w	X	X	X	X	X				

Notes:

- Agrofood processing and light industries: ISIC 31, 32, 33;
- Energy and Basic product ISIC 34, 35, 36, 37;
- Capital Good Industries ISIC 38;
- X indicates no significant statistical relationship between the respective ratio on (Y,N);
- (+,*) the sign in brackets (+, - or *), indicates the sign of the regression coefficient that is significantly (5%) positive, negative or insignificantly different from zero. The first (second) sign in bracket is equivalent to the sign of partial derivative with respect to the Y(N) component;
- "w" superscript distinguishes that the statistical relationship, as indicated by a lower value of R², F-statistic or t-statistic, is weak.

Table II-2(a) Sectorial Sales Ratio at Different Level of Aggregation

(I) Aggregate Level (Sectorial Sales Ratio)

<u>Output of Industries</u>	M	DS	RS	ES	SS	Forward Linkage (FL)	Average Propensity to consume (C/GDP)
<u>Composition of Inputs</u>							
Manu. (M)	(•, +)	X	(+, •)	(•, •)	X	(•, +)	(•, -)
Dist. Ser. (M)	X	(•, -)	(+, •)	(+, •)	X	X	(•, +) ^W
Prod. Ser. (RS)	X	(-, •) ^W	X	X	(-, -) ^W	X	(+, •)
Pers. Ser. (ES)	(+, +)	X	X	X	X	X	(•, •)
Soc. Ser. (SS)	X	X	X	X	(+, •)	(+, •) ^W	(•, +)

(II) Disaggregation of the Manufacturing Sector (Sectorial Sales Ratio)

<u>Output of Industries</u>	AL	EB	CG	DS	RS	ES	SS	Forward Linkage (FL)
<u>Composition of Inputs</u>								
AL				X	X	(•, •)	X	(•, +)
CB				(-, •) ^W	(+, •)	(+, •) ^W	(•, +) ^W	X
CG				X	(+, •) ^W	X	X	X
DS	(-, •)	X	X					
RS	X	X	(•, •)					
ES	X	(•, +)	(+, +)					
SS	X	X	(•, •)					

Table 11-2(b)
 (III) Further Disaggregation of the Manufacturing Sector
 (Sectoral Sales Ratio)

Output of Industries	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
<u>Inputs</u>												
ISIC 31									X	X	(•,•)	X
ISIC 32									X	(+,•)	(+,•)	X
ISIC 33									X	X	X	X
ISIC 34									X	X	X	(•,+)
ISIC 35									X	(+,•)	(•,•)	(•,+)
ISIC 36									X	X	X	X
ISIC 37									(•,•)	X	X	X
ISIC 38												
DS	(-,•)	X	X	(•,•)	X	(•,+) ^w	(•,+)					
RS	X	X	(-,•) ^w	(•,•) ^w	X	X	X					
ES	X	(•,+)	(+,•) ^w	(+,+)	(•,+) ^w	(•,+)	(•,+)					
SS	X	X	X	X	X	X	X					

Notes:

See Table II.1.2

II-C Distributive Services (DS)

Tables II-11, II-5, II-1 and II-2 summarize the role of DS. Among other things, these tables highlight the following:

(1) DS plays a central role in the intersectoral dependency between manufacturing and services. In first place, the value of input purchase (Backward Dependency Ratio) and the value of output sales (Sectorial Sales Ratio) of DS depends heavily on the manufacturing sector (particularly, Energy and Basic Products (EB)) in comparison with other service sectors. The Backward Dependency Ratio of DS on the manufacturing sector range between 0.3 to 0.4, the largest in comparison to other services. The Sectorial Sales Ratio (range between 0.1 to 0.18) is also the largest in comparison to other service sectors. In the second place, the input purchase and the output sales of the manufacturing sector forwards DS, are the largest among all the service sectors.

(2) The Backward Dependency Ratio and the Sectorial Sales Ratio (at a more disaggregated level) of DS towards the manufacturing sector decrease as the level of income per capita rises (Tables II-1 and II-5). The Backward Dependency Ratio and the Sectorial Sales Ratio of DS towards other services rise as the level of income per capita rises. This seems to suggest two things. A) As the economy becomes more developed, services in general, become more specialized and more skill-intensive. The inputs of DS gradually requires more and more sophisticated and skill-intensive services at more advanced stages of development. And, B) the manufacturing products become a less critical input to DS as the economy develops.

(3) DS seems to rely on itself rather substantially as a source of input. The Backward Dependency Ratio of DS on DS is approximately 0.31.

Table II-3 DISTRIBUTIVE SERVICE

(I) Backward Dependency Ratio

(A) Manufacturing Sectors

$$\text{MBDS} = 0.44 - 4.28 \times 10^{-9} \times Y^2 + 1.94 \times 10^{-4} \times N - 0.15D5 - 0.006D6 - 0.078D8 \quad F = 2.84; R^2 = 0.42$$

(6.82) (1.96)* (0.48) (1.87)* (0.07) (0.81)

$$\text{EBBDS} = 0.29 - 3.18 \times 10^{-9} \times Y^2 + 0.854 \times 10^{-4} \times N - 0.17D5 - 0.004D6 - 0.061D8 \quad F = 5.59; R^2 = 0.58$$

(7.39) (2.34) (0.60) (3.43) (0.08) (1.21)

$$\text{34BDS} = 0.03 + 5.34 \times 10^{-3} \times \text{Ln}(N) - 0.036D5 - 0.01D6 - 0.014D8 \quad F = 3.81; R^2 = 0.42$$

(1.93) (1.48) (3.06) (0.797) (1.21)

$$\text{35BDS} = 0.25 - 2.50 \times 10^{-5} \times Y + 7.34 \times 10^{-5} \times N - 0.142D5 - 0.0014D6 - 0.04D8 \quad F = 4.05; R^2 = 0.50$$

(6.02) (2.31) (0.49) (2.74) (0.03) (0.62)

$$\text{37BDS} = 0.004 - 5.70 \times 10^{-4} \times \text{Ln}(N) - 0.002D5 - 0.006D6 - 0.0009D8 \quad F = 3.94; R^2 = 0.43$$

(1.10) (0.78) (0.69) (2.26) (0.35)

(B) Service Sectors

$$\text{RSBDS} = 0.104 + 1.29 \times 10^{-9} \times Y^2 - 0.003D5 + 0.034D6 + 0.091D8 \quad F = 3.54; R^2 = 0.40$$

(2.68) (0.968) (0.068) (0.68) (1.55)

$$\text{ESBDS} = 0.181 + 1.52 \times 10^{-9} \times Y^2 - 0.144D5 - 0.115D6 - 0.148D8 \quad F = 3.63; R^2 = 0.41$$

(5.42) (1.33) (3.50) (2.64) (2.92)

(II) Sectorial Sales Ratio

(A) Manufacturing Sectors

DSFAL	=	0.265	- 0.019Ln(Y)	- 0.101D5	- 0.046D6	- 0.059D8	F = 3.81;	R ² = 0.42	
		(3.51)	(1.74)*	(3.44)	(1.54)	(1.84)			
DSF31	=	0.178	- 0.013Ln(Y)	- 0.07D5	- 0.034D6	- 0.041D8	F = 5.39;	R ² = 0.51	
		(4.07)	(2.11)	(4.10)	(1.99)	(2.21)			
DSF34	=	0.007	+ 7.38 x 10 ⁻⁷ x Y	- 0.69 x 10 ⁻⁵ x N	- 0.005D5	+ 0.002D6	+ 0.0003D8	F = 4.09;	R ² = 0.51
		(3.26)	(1.36)	(0.92)	(1.95)	(0.75)	(0.102)		
DSF36	=	- 0.0005	+ 0.0014Ln(N)	+ 0.0003D5	+ 0.0035D6	+ 0.0038D8	F = 3.05;	R ² = 0.37	
		(0.18)	(2.09)	(0.13)	(1.56)	(1.80)			
DSF37	=	0.0045	+ 0.49 x 10 ⁻⁴ x N	- 0.0036D5	+ 0.0059D6	- 0.0015D8	F = 6.48;	R ² = 0.55	
		(1.50)	(4.61)	(0.98)	(1.56)	(0.43)			

(B) Service Sectors

DSFDS	=	0.042	+ 0.021Ln(Y)	- 0.037Ln(N)	+ 0.114D5	+ 0.017D6	+ 0.043D8	F = 3.08;	R ² = 0.44
		(0.34)	(1.24)	(2.74)	(2.48)	(0.37)	(0.86)		
DSFRS	=	0.004	+ 4.54 x 10 ⁻¹⁰ x Y ²	- 1.09 x 10 ⁻⁵ x N	+ 0.002D5	+ 0.0011D6	+ 0.005D8	F = 9.66;	R ² = 0.71
		(1.27)	(4.05)	(0.92)	(0.60)	(0.27)	(1.00)		
DSFES	=	0.018	+ 5.098 x 10 ⁻¹⁰ x Y ²	- 0.010D5	- 0.004D6	- 0.010D8	F = 6.86;	R ² = 0.57	
		(4.50)	(3.80)	(2.07)	(0.75)	(1.70)			

$$\text{TLDS} = 2.38 - 0.180\text{Ln}(N) + 0.227D5 - 0.082D6 + 0.168D8$$

(8.12) (2.81) (1.07) (0.37) (0.80)

$$F = 2.72; * R^2 = 0.34$$

For References

$$\text{DSFM} = 0.25 + 3.74 \times 10^{-7} \times N^2 - 0.16D5 - 0.065D6 - 0.107D8$$

(5.25) (1.23) (2.66) (1.06) (1.83)

$$F = 2.03; R^2 = 0.28$$

$$\text{DSFEB} = 0.065 + 1.48 \times 10^{-7} \times N^2 - 0.04D5 + 0.0014D6 - 0.018D8$$

(4.13) (1.49) (2.12) (0.07) (0.96)

$$F = 2.04; R^2 = 0.28$$

Note: * significant at the 10% level;
 numbers in brackets are the t-values.

Table II-4a BACKWARD DEPENDENCY RATIO OF DISTRIBUTIVE SERVICES (DS)

COUNTRIES	MANUFACTURING SECTOR	DISTRIBUTIVE SERVICES	PRODUCER SERVICES	PERSONAL SERVICES	SOCIAL SERVICES
LOW INCOME ECONOMIES					
GHANA	0.2923	0.4659	0.1272	0.0169	0.0000
INDIA	0.3609	0.4171	0.0583	0.0213	0.0006
KEYNA	0.3332	0.3675	0.2312	0.0262	0.0003
MADAGASCAR	0.2257	0.1583	0.1599	0.0100	0.0356
SRI LANKA	0.4663	0.4047	0.0029	0.0000	0.0469
TANZANIA	0.2908	0.4698	0.1095	0.0372	0.0104
AVERAGE	0.3282	0.3806	0.1148	0.0186	0.0156
LOWER MIDDLE-INCOME ECONOMIES					
COLUMBIA	0.2523	0.5338	0.1550	0.0307	0.0000
INDONESIA	0.4538	0.2000	0.2140	0.0580	0.0207
IVORY COST	0.3824	0.3217	0.0193	0.1641	0.0681
MOROCCO	0.2940	0.2135	0.0617	0.3862	0.0000
NIGERIA	0.1191	0.6064	0.0582	0.0030	0.0000
PHILIPPINES	0.3880	0.1586	0.1941	0.1339	0.0000
THAILAND	0.5037	0.1708	0.1174	0.1221	0.0010
TURKEY	0.6008	0.1367	0.1440	0.0672	0.0000
AVERAGE	0.3743	0.2927	0.1205	0.1206	0.0112
UPPER MIDDLE-INCOME ECONOMIES					
ALGERIA	0.1752	0.4555	0.1854	0.0130	0.0000
BRAZIL	0.5397	0.2173	0.0000	0.1450	0.0000
CHILE	0.5515	0.2157	0.1306	0.0346	0.0163
GREECE	0.5805	0.1757	0.0474	0.0892	0.0010
KOREA	0.4617	0.2473	0.2124	0.0000	0.0073
MEXICO	0.3743	0.1825	0.2745	0.1152	0.0103
AVERAGE	0.4472	0.2490	0.1417	0.0662	0.0058
INDUSTRIAL MARKET ECONOMIES					
CANADA	0.1328	0.4606	0.2167	0.1130	0.0000
FRANCE	0.1437	0.4566	0.1460	0.0913	0.0035
GERMANY	0.2543	0.1645	0.3008	0.1031	0.0131
ITALY	0.1838	0.3160	0.1703	0.0948	0.0002
JAPAN	0.3999	0.2883	0.1933	0.0613	0.0070
USA	0.1425	0.2439	0.3688	0.1037	0.0725
AVERAGE	0.2095	0.3217	0.2327	0.0945	0.0130

Table II-4b
t-test on Mean Differences;
Backward Dependency Ratio of Distributive Services

<u>Category</u>	<u>Manufacturing Sector</u>	<u>DS</u>	<u>RS</u>	<u>ES</u>	<u>SS</u>
IND VS UMI	(-3.154,R)	(+1.130,A)	(+1.660,A)	(+1.128,A)	(+0.867,A)
IND VS LMI	(-2.413,R)	(+0.362,A)	(+2.637,R)	(-0.605,A)	(+0.337,A)
IND VS LI	(-2.205,R)	(-0.825,A)	(+2.478,R)	(+8.402,R)	(+0.028,A)
UMI VS LMI	(+0.886,A)	(-0.568,A)	(+0.435,A)	(-1.115,A)	(-0.605,A)
UMI VS LI	(+1.682,A)	(-2.069,A)	(+0.505,A)	(+1.932,A)	(-1.114,A)
LMI VS LI	(+0.729,A)	(-1.105,A)	(+0.139,A)	(+2.381,R)	(-0.370,A)

Note: IND: Industrial market economies;
 UMI: Upper Middle-income economies;
 LMI: Lower Middle-income economies;
 LI: Low income economies;
 - numbers in brackets are the t-values of the difference in mean;
 - R means reject the null hypothesis that the means are equal;
 - A means accept the null hypothesis that the means are equal.

Table 11-5a

**BACKWARD DEPENDENCY RATIO OF DISTRIBUTIVE SERVICES (DS)
ON VARIOUS MANUFACTURING INDUSTRIES OR MANUFACTURING SUBSECTORS**

COUNTRIES	MANUFACTURING SECTOR		
	AGROFOOD PROCESSING & LIGHT INDUSTRIES (ISIC 31,32,33)	ENERGY AND BASIC PRODUCTS (ISIC 34,35,36,37)	CAPITAL GOODS (ISIC 38)
LOW INCOME ECONOMIES			
GHANA	0.0148	0.1968	0.0766
INDIA	0.0360	0.1524	0.1616
KEYNA	0.0223	0.1802	0.1307
MADAGASCAR	0.0157	0.1116	0.0845
SRI LANKA	0.0440	0.1935	0.2258
TANZANIA	0.0460	0.0887	0.1242
AVERAGE	0.0298	0.1539	0.1339
LOWER MIDDLE-INCOME ECONOMIES			
COLUMBIA	0.0050	0.1706	0.0740
INDONESIA	0.0223	0.1880	0.2405
IVORY COST	0.0200	0.1960	0.1364
MOROCCO	0.0262	0.1878	0.0793
NIGERIA	0.0217	0.0974	0.0000
PHILIPPINES	0.0316	0.3242	0.0304
THAILAND	0.0662	0.3192	0.1142
TURKEY	0.0222	0.4420	0.1355
AVERAGE	0.0269	0.2406	0.1013
UPPER MIDDLE-INCOME ECONOMIES			
ALGERIA	0.0280	0.0502	0.0937
BRAZIL	0.0524	0.3203	0.1664
CHILE	0.0456	0.3580	0.1459
GREECE	0.0329	0.3490	0.1982
KOREA	0.0224	0.3608	0.0776
MEXICO	0.0181	0.2606	0.0906
AVERAGE	0.0332	0.2832	0.1287
INDUSTRIAL MARKET ECONOMIES			
CANADA	0.0051	0.0919	0.0347
FRANCE	0.0150	0.0608	0.0657
GERMANY	0.0331	0.1148	0.1029
ITALY	0.0381	0.1047	0.0406
JAPAN	0.0188	0.2197	0.1523
USA	0.0079	0.0933	0.0395
AVERAGE	0.0197	0.1142	0.0726

Table II-5b
t-test on Mean Differences;
Backward Dependency Ratio of Distributive Services
on Manufacturing Subsectors

(I) t-test; Ho: identical means for different country groups

<u>Category</u>	<u>AL</u>	<u>EB</u>	<u>CG</u>
IND VS UMI	(-1.755,A)	(-3.135,R)	(-2.039,A)
IND VS LMI	(-0.873,A)	(-2.794,R)	(-0.885,A)
IND VS LI	(-1.280,A)	(-1.370,A)	(-2.085,A)
UMI VS LMI	(+0.765,A)	(+0.676,A)	(+0.834,A)
UMI VS LI	(+0.431,A)	(+2.469,R)	(-0.173,A)
LMI VS LI	(-0.344,A)	(+2.000,A)	(-0.946,A)

(II) Ho: Manufacturing Subsectors (AL, EB, CG) have identical means and variances

AL vs EB	t = -8.08;	F = +53.41;	Reject Ho
AL vs CG	t = -6.67;	F = +16.39;	Reject Ho
CG vs EB	t = -3.80;	F = +3.26;	Reject Ho

Note: see Table II-4b

Table II-6a

BACKWARD DEPENDENCY RATIO OF DISTRIBUTIVE SERVICES (DS)
ON VARIOUS MAJOR GROUPS (ISIC) OF THE MANUFACTURING SECTOR

COUNTRIES	MANUFACTURING SECTOR							
	FOOD, BEVER. & TOBACCO ISIC 31	TEXTILE & LEATHER PRO ISIC 32	LUMBER & WOOD PRO ISIC 33	PULP, PAPER & PRINTING ISIC 34	CHEMICAL PRODUCTS ISIC 35	N-METAL PRO MINERAL ISIC 36	BASIC METAL INDUSTRIES ISIC 37	FABRICATED METAL PRO ISIC 38
LOW INCOME ECONOMIES								
GHANA	0.0070	0.0035	0.0042	0.0155	0.1602	0.0000	0.0211	0.0766
INDIA	0.0085	0.0176	0.0100	0.0213	0.1308	0.0000	0.0002	0.1616
KENYA	0.0100	0.0081	0.0043	0.0237	0.1556	0.0009	0.0000	0.1307
MADAGASCAR	0.0042	0.0074	0.0041	0.0417	0.0673	0.0026	0.0000	0.0845
SRI LANKA	0.0000	0.0440	0.0000	0.0000	0.1935	0.0000	0.0000	0.2250
TANZANIA	0.0000	0.0288	0.0172	0.0090	0.0445	0.0353	0.0000	0.1242
AVERAGE	0.0049	0.0182	0.0066	0.0185	0.1253	0.0065	0.0036	0.1339
LOWER MIDDLE-INCOME ECONOMIES								
COLUMBIA	0.0000	0.0040	0.0010	0.0193	0.1442	0.0003	0.0067	0.0740
INDONESIA	0.0084	0.0117	0.0023	0.0166	0.1706	0.0009	0.0000	0.2405
IVORY COST	0.0000	0.0190	0.0009	0.0000	0.1948	0.0009	0.0003	0.1364
MOROCCO	0.0033	0.0071	0.0158	0.0315	0.1540	0.0000	0.0023	0.0793
NIGERIA	0.0003	0.0119	0.0095	0.0176	0.0788	0.0000	0.0000	0.0000
PHILIPPINES	0.0243	0.0033	0.0040	0.0766	0.2430	0.0016	0.0030	0.0304
THAILAND	0.0105	0.0409	0.0148	0.0434	0.2721	0.0035	0.0001	0.1142
TURKEY	0.0037	0.0097	0.0088	0.0164	0.4252	0.0003	0.0001	0.1355
AVERAGE	0.0063	0.0135	0.0071	0.0277	0.2105	0.0009	0.0016	0.1013
UPPER MIDDLE-INCOME ECONOMIES								
ALGERIA	0.0000	0.0036	0.0245	0.0000	0.0321	0.0182	0.0000	0.0937
BRAZIL	0.0201	0.0160	0.0163	0.0817	0.2307	0.0063	0.0016	0.1664
CHILE	0.0210	0.0165	0.0081	0.0567	0.2959	0.0020	0.0034	0.1459
GREECE	0.0036	0.0102	0.0191	0.0537	0.2939	0.0007	0.0008	0.1982
KOREA	0.0010	0.0173	0.0041	0.0238	0.3338	0.0032	0.0000	0.0776
MEXICO	0.0001	0.0147	0.0033	0.0443	0.2017	0.0019	0.0126	0.0906
AVERAGE	0.0076	0.0130	0.0126	0.0434	0.2313	0.0054	0.0031	0.1287
INDUSTRIAL MARKET ECONOMIES								
CANADA	0.0005	0.0027	0.0019	0.0221	0.0675	0.0009	0.0014	0.0347
FRANCE	0.0000	0.0070	0.0080	0.0343	0.0190	0.0075	0.0000	0.0657
GERMANY	0.0202	0.0108	0.0020	0.0719	0.0419	0.0011	0.0000	0.1029
ITALY	0.0070	0.0126	0.0185	0.0608	0.0425	0.0014	0.0000	0.0406
JAPAN	0.0009	0.0085	0.0095	0.0424	0.1760	0.0013	0.0001	0.1523
USA	0.0038	0.0036	0.0005	0.0267	0.0622	0.0012	0.0031	0.0395
AVERAGE	0.0054	0.0075	0.0067	0.0430	0.0682	0.0022	0.0008	0.0726

Table II-6b
t-test on Mean Differences;
Backward Dependency Ratio of Distributive Services

Category	IND vs UMI	IND vs LMI	IND vs LI	UMI vs LMI	UMI vs LI	LMI vs LI
ISIC 31	(-0.430,A)	(-0.211,A)	(+0.125,A)	(+0.262,A)	(+0.600,A)	(+0.400,A)
ISIC 32	(-2.051,A)	(-1.288,A)	(-1.627,A)	(-0.087,A)	(-0.772,A)	(-0.620,A)
ISIC 33	(-1.295,A)	(-0.116,A)	(+0.023,A)	(+1.315,A)	(+1.368,A)	(+0.149,A)
ISIC 34	(-0.025,A)	(+1.331,A)	(+2.472,R)	(+1.104,A)	(+1.919,A)	(+0.903,A)
ISIC 35	(-3.272,R)	(-3.266,R)	(-1.746,A)	(+0.360,A)	(+2.107,R)	(+1.932,A)
ISIC 36	(-1.094,A)	(+1.133,A)	(-0.722,A)	(+1.635,A)	(-0.171,A)	(-0.954,A)
ISIC 37	(-1.125,A)	(-0.797,A)	(-0.782,A)	(+0.705,A)	(-0.117,A)	(-0.551,A)
ISIC 38	(-2.039,A)	(-0.885,A)	(-2.085,A)	(+0.834,A)	(-0.173,A)	(-0.946,A)

Note: IND: Industrial market economies;
 UMI: Upper Middle-income economies;
 LMI: Lower Middle-income economies;
 LI: Low income economies;
 - numbers in brackets are the t-values of the difference in mean;
 - R means reject the null hypothesis that the means are equal;
 - A means accept the null hypothesis that the means are equal.

Table II-7a

 SECTORIAL SALES RATIO OF DISTRIBUTIVE SERVICES (DS)

COUNTRIES	MANUFACTURING SECTOR	DISTRIBUTIVE SERVICES	PRODUCER SERVICES	PERSONAL SERVICES	SOCIAL SERVICES
LOW INCOME ECONOMIES					
GHANA	0.0508	0.1517	0.0016	0.0183	0.0000
INDIA	0.2201	0.1033	0.0042	0.0122	0.0254
KENYA	0.1154	0.1740	0.0044	0.0025	0.0304
MADAGASCAR	0.0186	0.1607	0.0101	0.0020	0.0349
SRI LANKA	0.1250	0.0464	0.0067	0.0044	0.0097
TANZANIA	0.1854	0.0920	0.0059	0.0097	0.0517
	-----	-----	-----	-----	-----
AVERAGE	0.1192	0.1213	0.0055	0.0082	0.0253
LOWER MIDDLE-INCOME ECONOMIES					
COLUMBIA	0.1630	0.1691	0.0102	0.0166	0.0105
INDONESIA	0.1180	0.0454	0.0048	0.0163	0.0093
IVORY COST	0.0291	0.2823	0.0027	0.0107	0.0671
MOROCCO	0.5025	0.0592	0.0016	0.0156	0.0194
NIGERIA	0.0726	0.1046	0.0054	0.0019	0.0000
PHILIPPINES	0.2353	0.0327	0.0053	0.0160	0.0000
THAILAND	0.1592	0.0430	0.0062	0.0323	0.0068
TURKEY	0.2002	0.0322	0.0038	0.0222	0.0000
	-----	-----	-----	-----	-----
AVERAGE	0.1850	0.0961	0.0050	0.0165	0.0141
UPPER MIDDLE-INCOME ECONOMIES					
ALGERIA	0.0994	0.3937	0.0045	0.0051	0.0000
BRAZIL	0.1329	0.0276	0.0013	0.0089	0.0016
CHILE	0.3882	0.0656	0.0077	0.0022	0.0107
GREECE	0.1086	0.0474	0.0032	0.0084	0.0023
KOREA	0.2121	0.0726	0.0218	0.0040	0.0089
MEXICO	0.1802	0.0310	0.0067	0.0168	0.0054
	-----	-----	-----	-----	-----
AVERAGE	0.1869	0.1063	0.0075	0.0076	0.0048
INDUSTRIAL MARKET ECONOMIES					
CANADA	0.0972	0.1854	0.0513	0.0453	0.0029
FRANCE	0.0953	0.1193	0.0236	0.0276	0.0283
GERMANY	0.1948	0.0581	0.0210	0.0223	0.0470
ITALY	0.1173	0.0879	0.0091	0.0154	0.0127
JAPAN	0.1837	0.1142	0.0115	0.0313	0.0264
USA	0.1580	0.0643	0.0220	0.0239	0.0169
	-----	-----	-----	-----	-----
AVERAGE	0.1411	0.1049	0.0231	0.0276	0.0224

Table II-7b
t-test on Mean Differences;
Sectorial Sales Ratio of Distributive Services

<u>Category</u>	<u>Manufacturing Sector</u>	<u>DS</u>	<u>RS</u>	<u>ES</u>	<u>SS</u>
IND VS UMI	(-0.967,A)	(-0.024,A)	(+2.274,A)	(+4.310,R)	(+2.720,R)
IND VS LMI	(-0.812,A)	(+0.240,A)	(+2.911,R)	(+2.165,A)	(+0.819,A)
IND VS LI	(+0.606,A)	(-0.596,A)	(+2.811,R)	(+3.975,R)	(-0.305,A)
UMI VS LMI	(+0.028,A)	(+0.156,A)	(+0.804,A)	(-2.377,R)	(-1.148,A)
UMI VS LI	(+1.255,A)	(-0.245,A)	(+0.627,A)	(-0.179,A)	(-2.662,R)
LMI VS LI	(+1.098,A)	(-0.680,A)	(-0.341,A)	(+2.054,A)	(-1.027,A)

Note: see Table II-4b

Table II- 8a

SECTORIAL SALES RATIO OF DISTRIBUTIVE SERVICES (DS)
ON VARIOUS MANUFACTURING INDUSTRIES OR MANUFACTURING SUBSECTORS

COUNTRIES	MANUFACTURING SECTOR		
	AGROFOOD PROCESSING & LIGHT INDUSTRIES (ISIC 31,32,33)	ENERGY AND BASIC PRODUCTS (ISIC 34,35,36,37)	CAPITAL GOODS (ISIC 38)
LOW INCOME ECONOMIES			
GHANA	0.0329	0.0140	0.0018
INDIA	0.0820	0.0733	0.0560
KEYNA	0.0660	0.0260	0.0235
MADAGASCAR	0.0115	0.0025	0.0043
SRI LANKA	0.0787	0.0198	0.0249
TANZANIA	0.1159	0.0417	0.0115
AVERAGE	0.0645	0.0295	0.0203
LOWER MIDDLE-INCOME ECONOMIES			
COLUMBIA	0.0833	0.0642	0.0134
INDONESIA	0.0659	0.0174	0.0329
IVORY COST	0.0201	0.0034	0.0048
MOROCCO	0.2555	0.1331	0.1057
NIGERIA	0.0308	0.0389	0.0025
PHILIPPINES	0.1506	0.0661	0.0161
THAILAND	0.0953	0.0311	0.0287
TURKEY	0.0985	0.0661	0.0333
AVERAGE	0.1000	0.0525	0.0297
UPPER MIDDLE-INCOME ECONOMIES			
ALGERIA	0.0314	0.0404	0.0272
BRAZIL	0.0638	0.0469	0.0205
CHILE	0.2012	0.1474	0.0355
GREECE	0.0605	0.0295	0.0179
KOREA	0.0898	0.0728	0.0439
MEXICO	0.0841	0.0591	0.0342
AVERAGE	0.0885	0.0660	0.0299
INDUSTRIAL MARKET ECONOMIES			
CANADA	0.0307	0.0411	0.0235
FRANCE	0.0277	0.0331	0.0327
GERMANY	0.0703	0.0579	0.0655
ITALY	0.0513	0.0309	0.0342
JAPAN	0.0579	0.0582	0.0584
USA	0.0468	0.0597	0.0486
AVERAGE	0.0474	0.0468	0.0438

Table II-8b
t-test on Mean Differences:
Sectorial Sales Ratio of Distributive Services
on Manufacturing Subsectors

(I) t-test; Ho: identical means for different country groups

<u>Category</u>	<u>AL</u>	<u>EB</u>	<u>CG</u>
IND VS UMI	(-1.644,A)	(-1.055,A)	(+1.794,A)
IND VS LMI	(-1.923,A)	(-0.376,A)	(+1.053,A)
IND VS LI	(-1.027,A)	(+1.489,A)	(+2.237,R)
UMI VS LMI	(-0.322,A)	(+0.602,A)	(+0.014,A)
UMI VS LI	(+0.841,A)	(+1.809,A)	(+1.053,A)
LMI VS LI	(+1.160,A)	(+1.313,A)	(+0.660,A)

(II) Ho: Manufacturing Subsectors (AL, EB, CG) have identical means and variances

AL vs EB	t = +2.21;	F = +2.67;	Reject Ho
AL vs CG	t = +3.94;	F = +5.82;	Reject Ho
CG vs EB	t = -2.28;	F = +2.18;	Reject Ho (based on t-values)

Note: see Table II- 4b

Table II-9a

SECTORIAL SALES RATIO OF DISTRIBUTIVE SERVICES (DS)
ON VARIOUS MAJOR GROUPS (ISIC) OF THE MANUFACTURING SECTOR

COUNTRIES	MANUFACTURING SECTOR							
	FOOD, BEVER. & TOBACCO ISIC 31	TEXTILE & LEATHER PRO ISIC 32	LUMBER & WOOD PRO ISIC 33	PULP, PAPER & PRINTING ISIC 34	CHEMICAL PRODUCTS ISIC 35	N-METAL PRO MINERAL ISIC 36	BASIC METAL INDUSTRIES ISIC 37	FABRICATED METAL PRO ISIC 38
LOW INCOME ECONOMIES								
GHANA	0.0133	0.0119	0.0078	0.0027	0.0057	0.0032	0.0023	0.0018
INDIA	0.0436	0.0344	0.0041	0.0068	0.0281	0.0097	0.0288	0.0560
KEYNA	0.0495	0.0110	0.0055	0.0078	0.0122	0.0080	0.0000	0.0235
MADAGASCAR	0.0064	0.0042	0.0009	0.0012	0.0011	0.0003	0.0000	0.0043
SRI LANKA	0.0508	0.0279	0.0000	0.0000	0.0145	0.0047	0.0007	0.0249
TANZANIA	0.0640	0.0436	0.0084	0.0050	0.0249	0.0118	0.0000	0.0115
AVERAGE	0.0379	0.0222	0.0044	0.0039	0.0144	0.0059	0.0053	0.0203
LOWER MIDDLE-INCOME ECONOMIES								
COLUMBIA	0.0622	0.0180	0.0031	0.0167	0.0241	0.0050	0.0184	0.0134
INDONESIA	0.0495	0.0100	0.0065	0.0039	0.0079	0.0050	0.0006	0.0329
IVORY COST	0.0118	0.0052	0.0030	0.0000	0.0027	0.0004	0.0003	0.0048
MOROCCO	0.1391	0.0962	0.0202	0.0157	0.1068	0.0000	0.0106	0.1057
NIGERIA	0.0101	0.0190	0.0017	0.0087	0.0146	0.0000	0.0176	0.0025
PHILIPPINES	0.1238	0.0199	0.0068	0.0052	0.0481	0.0051	0.0078	0.0161
THAILAND	0.0680	0.0205	0.0068	0.0054	0.0155	0.0059	0.0043	0.0287
TURKEY	0.0522	0.0367	0.0095	0.0081	0.0268	0.0125	0.0187	0.0333
AVERAGE	0.0646	0.0282	0.0072	0.0077	0.0308	0.0042	0.0097	0.0297
UPPER MIDDLE-INCOME ECONOMIES								
ALGERIA	0.0133	0.0116	0.0065	0.0000	0.0380	0.0024	0.0000	0.0272
BRAZIL	0.0396	0.0186	0.0056	0.0058	0.0200	0.0076	0.0136	0.0205
CHILE	0.1163	0.0714	0.0135	0.0175	0.1123	0.0095	0.0080	0.0355
GREECE	0.0306	0.0251	0.0049	0.0054	0.0126	0.0067	0.0047	0.0179
KOREA	0.0375	0.0446	0.0077	0.0087	0.0483	0.0103	0.0055	0.0439
MEXICO	0.0509	0.0267	0.0064	0.0081	0.0322	0.0065	0.0123	0.0342
AVERAGE	0.0480	0.0330	0.0074	0.0076	0.0439	0.0072	0.0073	0.0299
INDUSTRIAL MARKET ECONOMIES								
CANADA	0.0190	0.0052	0.0064	0.0110	0.0137	0.0035	0.0129	0.0235
FRANCE	0.0164	0.0062	0.0051	0.0154	0.0093	0.0085	0.0000	0.0327
GERMANY	0.0410	0.0139	0.0153	0.0146	0.0287	0.0146	0.0000	0.0655
ITALY	0.0250	0.0236	0.0027	0.0070	0.0166	0.0073	0.0000	0.0342
JAPAN	0.0298	0.0170	0.0110	0.0101	0.0200	0.0114	0.0167	0.0584
USA	0.0272	0.0115	0.0080	0.0143	0.0225	0.0071	0.0158	0.0486
AVERAGE	0.0264	0.0129	0.0081	0.0121	0.0185	0.0087	0.0076	0.0438

Table II- 9b
t-test on Mean Differences;
Sectorial Sales Ratio of Distributive Services

Category	IND vs UMI	IND vs LMI	IND vs LI	UMI vs LMI	UMI vs LI	LMI vs LI
ISIC 31	(-1.442,A)	(-2.264,R)	(-1.151,A)	(-0.753,A)	(+0.585,A)	(+1.408,A)
ISIC 32	(-2.151,R)	(-1.437,A)	(-1.337,A)	(+0.354,A)	(+0.994,A)	(+0.502,A)
ISIC 33	(+0.292,A)	(+0.322,A)	(+1.569,A)	(+0.097,A)	(+1.574,A)	(+1.104,A)
ISIC 34	(+1.654,A)	(+1.779,A)	(+4.432,R)	(-0.045,A)	(+1.381,A)	(+1.597,A)
ISIC 35	(-1.711,A)	(-1.008,A)	(+0.789,A)	(+0.696,A)	(+1.937,A)	(+1.294,A)
ISIC 36	(+0.803,A)	(+2.080,A)	(+1.194,A)	(+1.569,A)	(+0.594,A)	(-0.749,A)
ISIC 37	(+0.056,A)	(-0.497,A)	(+0.391,A)	(-0.698,A)	(+0.399,A)	(+0.817,A)
ISIC 38	(+1.794,A)	(+1.053,A)	(+2.237,R)	(+0.014,A)	(+1.052,A)	(+0.659,A)

Note: IND: Industrial market economies;
 UMI: Upper Middle-income economies;
 LMI: Lower Middle-income economies;
 LI: Low income economies;
 - numbers in brackets are the t-values of the difference in mean;
 - R means reject the null hypothesis that the means are equal;
 - A means accept the null hypothesis that the means are equal.

II-D Producer Services (RS)

Since producer services consist of financial services and other professional (technical) services, this sector serves the entire economy rather than concentrating its services to a few specific sectors. Tables II-1, II-2, II-6 and II-21 reveal the following:

(1) The Backward Dependency Ratio of other service sectors on manufacturing products range between 0.33 to 0.45. This ratio is much lower for producer services. The average value is about 0.18. The Sectorial Sales Ratio of producer services to manufacturing is about 0.12. Hence, in terms of input and output of producer services towards manufacturing, producer services seem rather independent of the manufacturing sector.

(2) The manufacturing sector becomes more and more dependent on producer services as the economy develops to the Advanced Stage. This can be illustrated by the Backward Dependency Ratio and the Sectorial Sales Ratio of the manufacturing sectors towards producer services (Tables II-1, II-2).

(3) Distributive services also become more and more dependent on producer services as the economy develops to the Advanced Stage. The Backward Dependency Ratio and the Sectorial Sales Ratio of distributive services towards producer services can illustrate this (Tables II-1, II-2 and II-6).

(4) The sales of producer services to distributive and social services decrease as per capita income rises (see the Sectorial Sales Ratio in Table II-2).

(5) Producer services seems to rely on themselves rather heavily as a source of input. The Backward Dependency Ratio of producer services on producer services is approximately 0.37.

Table II-10 PRODUCER SERVICES

(I) Backward Dependency Ratio

(A) Manufacturing Sectors

$$\text{ALBRS} = 0.031 - 1.67 \times 10^{-5} \times Y - 0.013D5 - 0.009D6 + 0.098D8$$

(1.17) (2.47) (0.40) (0.27) (2.25)

F = 2.16; * R² = 0.29

$$\text{31BRS} = 0.014 - 1.64 \times 10^{-5} \times Y - 0.006D5 + 0.002D6 + 0.099D8$$

(0.56) (2.57) (0.18) (0.07) (2.62)

F = 2.48; R² = 0.32

(II) Sectorial Sales Ratio

(A) Manufacturing Sectors

$$\text{RSFCG} = 0.028 - 3.15 \times 10^{-5} \times N - 0.017D5 - 0.011D6 + 0.018D8$$

(2.80) (0.88) (1.35) (0.82) (1.47)

F = 3.48; R² = 0.40

$$\text{RSF33} = 0.008 - 9.19 \times 10^{-7} \times Y - 0.87 \times 10^{-5} \times N - 0.003D5 - 0.003D6 + 0.004D8$$

(3.99) (1.84)* (1.25) (1.27) (1.21) (1.43)

F = 2.20; R² = 0.35

$$\text{RSF34} = 0.014 - 0.0009 \times \ln(Y) - 0.006D5 - 0.002D6 + 0.006D8$$

(1.43) (0.62) (1.56) (0.49) (1.51)

F = 3.19; R² = 0.38

(B) Service Sectors

$$\text{RSFDS} = 0.38 - 0.0038 \times (\text{Ln}(Y))^2 - 0.028\text{Ln}(N) - 0.03\text{D5} - 0.09\text{D6} + 0.12\text{D8}$$

(3.67) (2.16) (1.44) (0.39) (0.13) (1.68)

$$F = 1.74; \quad R^2 = 0.30$$

$$\text{RSFSS} = 0.137 - 0.011 \times \text{Ln}(Y) - 0.009\text{Ln}(N) - 0.02\text{D5} - 0.019\text{D6} + 0.036\text{D8}$$

(2.97) (1.72)* (1.83)* (1.23) (1.07) (1.91)

$$F = 2.80; \quad R^2 = 0.41$$

Note: * significant at the 10% level;
numbers in brackets are t-values.

Table II-11a BACKWARD DEPENDENCY RATIO OF PRODUCER SERVICES (RS)

COUNTRIES	MANUFACTURING SECTOR	DISTRIBUTIVE SERVICES	PRODUCER SERVICES	PERSONAL SERVICES	SOCIAL SERVICES
LOW INCOME ECONOMIES					
GHANA	0.0705	0.0224	0.5641	0.0032	0.0000
INDIA	0.0782	0.1483	0.1973	0.0683	0.0056
KEYNA	0.1511	0.0891	0.6440	0.0614	0.0000
MADAGASCAR	0.1679	0.1121	0.4476	0.0085	0.0000
SRI LANKA	0.4359	0.5128	0.0256	0.0000	0.0256
TANZANIA	0.3641	0.1361	0.0378	0.0255	0.0088
AVERAGE	0.1613	0.1701	0.3194	0.0278	0.0067
LOWER MIDDLE-INCOME ECONOMIES					
COLUMBIA	0.0847	0.0673	0.7686	0.0136	0.0000
INDONESIA	0.1017	0.1192	0.1287	0.0575	0.1373
IVORY COST	0.0660	0.0202	0.6896	0.1718	0.0342
MOROCCO	0.1110	0.0937	0.3239	0.3840	0.0000
NIGERIA	0.2513	0.3323	0.2508	0.0004	0.0000
PHILIPPINES	0.0889	0.0295	0.7504	0.0868	0.0000
THAILAND	0.2517	0.1349	0.1154	0.2179	0.0040
TURKEY	0.1473	0.2498	0.1644	0.3775	0.0000
AVERAGE	0.1378	0.1309	0.3990	0.1637	0.0219
UPPER MIDDLE-INCOME ECONOMIES					
ALGERIA	0.4222	0.0525	0.2345	0.0122	0.0000
BRAZIL	0.5123	0.1544	0.0000	0.2696	0.0000
CHILE	0.3846	0.1566	0.3234	0.0367	0.0317
GREECE	0.1179	0.1472	0.5593	0.1251	0.0109
KOREA	0.3728	0.1370	0.0896	0.1906	0.0163
MEXICO	0.1511	0.1472	0.1471	0.4963	0.0000
AVERAGE	0.3268	0.1325	0.2223	0.1884	0.0098
INDUSTRIAL MARKET ECONOMIES					
CANADA	0.3539	0.1465	0.2658	0.1688	0.0007
FRANCE	0.1064	0.0850	0.7050	0.0526	0.0038
GERMANY	0.1286	0.0547	0.6453	0.0506	0.0270
ITALY	0.0606	0.0436	0.7069	0.0466	0.0000
JAPAN	0.1152	0.0982	0.2947	0.1012	0.0051
USA	0.0834	0.0805	0.5732	0.0626	0.0610
AVERAGE	0.1414	0.0848	0.5318	0.0804	0.0162

Table II-11b
t-test on Mean Differences;
Backward Dependency Ratio of Producer Services

<u>Category</u>	<u>Manufacturing Sector</u>	<u>DS</u>	<u>RS</u>	<u>ES</u>	<u>SS</u>
IND VS UMI	(-2.390,R)	(-2.169,R)	(+2.665,R)	(-1.431,R)	(+0.577,R)
IND VS LMI	(+0.069,A)	(-1.118,A)	(+1.016,A)	(-1.450,A)	(-0.290,A)
IND VS LI	(-0.275,A)	(-1.179,A)	(+1.549,A)	(+2.287,R)	(+0.899,A)
UMI VS LMI	(+2.728,R)	(+0.039,A)	(-1.350,A)	(+0.272,A)	(-0.681,A)
UMI VS LI	(+1.017,A)	(-0.518,A)	(-0.708,A)	(+2.172,A)	(+0.478,A)
LMI VS LI	(-0.722,A)	(-0.487,A)	(-0.531,A)	(+2.452,R)	(+0.873,A)

Note: see Table II-4b

Table II- 12a

BACKWARD DEPENDENCY RATIO OF PRODUCER SERVICES (RS)
ON VARIOUS MANUFACTURING INDUSTRIES OR MANUFACTURING SUBSECTORS

COUNTRIES	MANUFACTURING SECTOR		
	AGROFOOD PROCESSING & LIGHT INDUSTRIES (ISIC 31,32,33)	ENERGY AND BASIC PRODUCTS (ISIC 34,35,36,37)	CAPITAL GOODS (ISIC 38)
LOW INCOME ECONOMIES			
GHANA	0.0064	0.0577	0.0064
INDIA	0.0037	0.0662	0.0034
KEYNA	0.0048	0.0714	0.0749
MADAGASCAR	0.0060	0.0982	0.0338
SRI LANKA	0.0000	0.3077	0.0000
TANZANIA	0.0018	0.0430	0.0114
AVERAGE	0.0038	0.1074	0.0216
LOWER MIDDLE-INCOME ECONOMIES			
COLUMBIA	0.0016	0.0749	0.0045
INDONESIA	0.0022	0.0622	0.0323
IVORY COST	0.0014	0.0019	0.0105
MOROCCO	0.0017	0.0844	0.0069
NIGERIA	0.0241	0.2272	0.0000
PHILIPPINES	0.0281	0.0553	0.0033
THAILAND	0.0364	0.1659	0.0338
TURKEY	0.0016	0.1180	0.0008
AVERAGE	0.0122	0.0987	0.0115
UPPER MIDDLE-INCOME ECONOMIES			
ALGERIA	0.0573	0.0122	0.3475
BRAZIL	0.0000	0.4951	0.0000
CHILE	0.0441	0.2233	0.0491
GREECE	0.0029	0.0984	0.0086
KOREA	0.2909	0.0571	0.0081
MEXICO	0.0018	0.1138	0.0177
AVERAGE	0.0662	0.1667	0.0718
INDUSTRIAL MARKET ECONOMIES			
CANADA	0.0321	0.1372	0.1800
FRANCE	0.0000	0.0833	0.0201
GERMANY	0.0255	0.0645	0.0377
ITALY	0.0148	0.0393	0.0060
JAPAN	0.0060	0.0764	0.0110
USA	0.0034	0.0521	0.0239
AVERAGE	0.0136	0.0755	0.0465

Table II-12b
Backward Dependency Ratio of Distributive Services
on Manufacturing Subsectors

(I) t-test; Ho: identical means for different country groups

<u>Category</u>	<u>AL</u>	<u>EB</u>	<u>CG</u>
IND VS UMI	(-1.134,A)	(-1.248,A)	(-0.410,A)
IND VS LMI	(+0.200,A)	(-0.815,A)	(+1.271,A)
IND VS LI	(+1.834,A)	(-0.740,A)	(+0.842,A)
UMI VS LMI	(+1.166,A)	(+0.894,A)	(+1.081,A)
UMI VS LI	(+1.355,A)	(+0.719,A)	(+0.884,A)
LMI VS LI	(+1.571,A)	(-0.180,A)	(-0.799,A)

(II) Ho: Manufacturing Subsectors (AL, EB, CG) have identical means and variances

AL vs EB	t = -3.78;	F = +3.37;	Reject Ho
AL vs CG	t = -0.70;	F = +1.66;	Accept Ho
CG vs EB	t = -3.01;	F = +2.02;	Reject Ho (based on t-values)

Note: see Table II-4b

Table II-13a BACKWARD DEPENDENCY RATIO OF PRODUCER SERVICES (RS)
ON VARIOUS MAJOR GROUPS (ISIC) OF THE MANUFACTURING SECTOR

COUNTRIES	MANUFACTURING SECTOR							
	FOOD, BEVER. & TOBACCO ISIC 31	TEXTILE & LEATHER PRO ISIC 32	LUMBER & WOOD PRO ISIC 33	PULP, PAPER & PRINTING ISIC 34	CHEMICAL PRODUCTS ISIC 35	N-METAL PRO MINERAL ISIC 36	BASIC METAL INDUSTRIES ISIC 37	FABRICATED METAL PRO ISIC 38
LOW INCOME ECONOMIES								
GHANA	0.0000	0.0000	0.0064	0.0513	0.0064	0.0000	0.0000	0.0064
INDIA	0.0000	0.0005	0.0033	0.0627	0.0034	0.0000	0.0000	0.0034
KEYNA	0.0000	0.0000	0.0048	0.0389	0.0325	0.0000	0.0000	0.0749
MADAGASCAR	0.0000	0.0060	0.0000	0.0922	0.0060	0.0000	0.0000	0.0338
SRI LANKA	0.0000	0.0000	0.0000	0.0000	0.2821	0.0256	0.0000	0.0000
TANZANIA	0.0000	0.0018	0.0000	0.0342	0.0088	0.0000	0.0000	0.0114
AVERAGE	0.0000	0.0014	0.0024	0.0466	0.0565	0.0043	0.0000	0.0216
LOWER MIDDLE-INCOME ECONOMIES								
COLUMBIA	0.0000	0.0016	0.0000	0.0688	0.0047	0.0007	0.0007	0.0045
INDONESIA	0.0014	0.0005	0.0003	0.0443	0.0176	0.0002	0.0000	0.0323
IVORY COST	0.0000	0.0004	0.0010	0.0000	0.0019	0.0000	0.0000	0.0105
MOROCCO	0.0000	0.0017	0.0000	0.0729	0.0116	0.0000	0.0000	0.0069
NIGERIA	0.0164	0.0065	0.0012	0.1949	0.0323	0.0000	0.0000	0.0000
PHILIPPINES	0.0000	0.0008	0.0273	0.0225	0.0187	0.0134	0.0007	0.0033
THAILAND	0.0015	0.0126	0.0223	0.1162	0.0464	0.0029	0.0004	0.0338
TURKEY	0.0000	0.0016	0.0000	0.0610	0.0570	0.0000	0.0000	0.0008
AVERAGE	0.0024	0.0032	0.0065	0.0726	0.0238	0.0022	0.0002	0.0115
UPPER MIDDLE-INCOME ECONOMIES								
ALGERIA	0.0000	0.0000	0.0573	0.0000	0.0052	0.0069	0.0000	0.3475
BRAZIL	0.0000	0.0000	0.0000	0.4926	0.0025	0.0000	0.0000	0.0000
CHILE	0.0224	0.0081	0.0136	0.1534	0.0651	0.0046	0.0002	0.0491
GREECE	0.0000	0.0000	0.0029	0.0761	0.0223	0.0000	0.0000	0.0086
KOREA	0.2803	0.0101	0.0005	0.0377	0.0163	0.0031	0.0000	0.0081
MEXICO	0.0000	0.0015	0.0002	0.0722	0.0359	0.0040	0.0017	0.0177
AVERAGE	0.0505	0.0033	0.0124	0.1387	0.0245	0.0031	0.0003	0.0718
INDUSTRIAL MARKET ECONOMIES								
CANADA	0.0253	0.0063	0.0006	0.0752	0.0568	0.0029	0.0023	0.1800
FRANCE	0.0000	0.0000	0.0000	0.0814	0.0019	0.0000	0.0000	0.0201
GERMANY	0.0155	0.0092	0.0009	0.0281	0.0362	0.0002	0.0000	0.0377
ITALY	0.0000	0.0007	0.0140	0.0277	0.0111	0.0005	0.0000	0.0060
JAPAN	0.0000	0.0020	0.0040	0.0679	0.0084	0.0001	0.0000	0.0110
USA	0.0018	0.0013	0.0003	0.0281	0.0229	0.0009	0.0002	0.0239
AVERAGE	0.0071	0.0033	0.0033	0.0514	0.0229	0.0008	0.0004	0.0465

Table II-13b
t-test on Mean Differences:
Backward Dependency Ratio of Distributive Services

Category	IND vs UMI	IND vs LMI	IND vs LI	UMI vs LMI	UMI vs LI	LMI vs LI
ISIC 31	(-0.936,A)	(+0.967,A)	(+1.614,A)	(+1.040,A)	(+1.094,A)	(+1.199,A)
ISIC 32	(-0.015,A)	(+0.011,A)	(+1.059,A)	(+0.025,A)	(+0.912,A)	(+1.040,A)
ISIC 33	(-0.963,A)	(-0.700,A)	(+0.344,A)	(+0.588,A)	(+1.076,A)	(+0.976,A)
ISIC 34	(-1.171,A)	(-0.888,A)	(+0.293,A)	(+0.861,A)	(+1.231,A)	(+1.049,A)
ISIC 35	(-0.131,A)	(-0.081,A)	(-0.730,A)	(+0.065,A)	(-0.691,A)	(-0.714,A)
ISIC 36	(-1.930,A)	(-0.805,A)	(-0.812,A)	(+0.476,A)	(-0.265,A)	(-0.462,A)
ISIC 37	(+0.211,A)	(+0.448,A)	(+1.110,A)	(+0.252,A)	(+1.125,A)	(+2.002,A)
ISIC 38	(+0.410,A)	(+1.271,A)	(+0.842,A)	(+1.081,A)	(+0.884,A)	(-0.798,A)

Note: IND: Industrial market economies;
 UMI: Upper Middle-income economies;
 LMI: Lower Middle-income economies;
 LI: Low income economies;
 - numbers in brackets are the t-values of the difference in mean;
 - R means reject the null hypothesis that the means are equal;
 - A means accept the null hypothesis that the means are equal.

Table II- 14a SECTORIAL SALES RATIO OF PRODUCER SERVICES (RS)

COUNTRIES	MANUFACTURING SECTOR	DISTRIBUTIVE SERVICES	PRODUCER SERVICES	PERSONAL SERVICES	SOCIAL SERVICES
LOW INCOME ECONOMIES					
GHANA	0.0127	0.1146	0.1114	0.0000	0.0000
INDIA	0.1139	0.0515	0.0202	0.0242	0.0000
KEYNA	0.2859	0.4636	0.1358	0.0401	0.1137
MADAGASCAR	0.1322	0.4295	0.1067	0.0067	0.0271
SRI LANKA	0.0000	0.0042	0.0042	0.0000	0.0508
TANZANIA	0.0302	0.0631	0.0049	0.0028	0.0194
AVERAGE	0.0958	0.1878	0.0639	0.0123	0.0352
LOWER MIDDLE-INCOME ECONOMIES					
COLUMBIA	0.0967	0.1019	0.2414	0.0105	0.0133
INDONESIA	0.0873	0.2203	0.0235	0.0177	0.0252
IVORY COST	0.0727	0.1208	0.6519	0.0070	0.0290
MOROCCO	0.1803	0.1778	0.0587	0.0830	0.1096
NIGERIA	0.0927	0.1332	0.0539	0.0035	0.0000
PHILIPPINES	0.0600	0.1021	0.3465	0.0251	0.0000
THAILAND	0.0601	0.1029	0.0186	0.0211	0.0038
TURKEY	0.3505	0.2597	0.0191	0.0394	0.0000
AVERAGE	0.1250	0.1523	0.1767	0.0259	0.0226
UPPER MIDDLE-INCOME ECONOMIES					
ALGERIA	0.1208	0.1224	0.0155	0.0006	0.0000
BRAZIL	0.0000	0.0000	0.0000	0.0000	0.0000
CHILE	0.1410	0.1582	0.0635	0.0326	0.0555
GREECE	0.4234	0.1052	0.0991	0.0040	0.0000
KOREA	0.2193	0.1789	0.0318	0.0137	0.0245
MEXICO	0.0771	0.1105	0.0159	0.0563	0.0092
AVERAGE	0.1636	0.1126	0.0376	0.0179	0.0149
INDUSTRIAL MARKET ECONOMIES					
CANADA	0.1403	0.1128	0.1204	0.0477	0.0110
FRANCE	0.1190	0.0498	0.2562	0.0177	0.0374
GERMANY	0.0969	0.1061	0.2475	0.0114	0.0409
ITALY	0.0968	0.0788	0.2448	0.0292	0.0619
JAPAN	0.1522	0.1530	0.0690	0.0281	0.0445
USA	0.1063	0.0929	0.1496	0.0363	0.0375
AVERAGE	0.1186	0.0989	0.1813	0.0284	0.0389

Table II-14b
t-test on Mean Differences:
Sectorial Sales Ratio of Producer Services

<u>Category</u>	<u>Manufacturing Sector</u>	<u>DS</u>	<u>RS</u>	<u>ES</u>	<u>SS</u>
IND VS UMI	(-0.744,A)	(-0.470,A)	(+4.025,R)	(+0.998,A)	(+2.135,R)
IND VS LMI	(-0.178,A)	(-2.081,A)	(+0.053,A)	(+0.239,A)	(+1.107,A)
IND VS LI	(+0.505,A)	(-1.053,A)	(+2.890,R)	(+1.891,A)	(+0.197,A)
UMI VS LMI	(+0.557,A)	(-1.198,A)	(-1.702,A)	(-0.624,A)	(-0.486,A)
UMI VS LI	(+0.913,A)	(-0.865,A)	(-0.907,A)	(+0.490,A)	(-1.031,A)
LMI VS LI	(+0.520,A)	(-0.412,A)	(+1.343,A)	(+1.206,A)	(-0.526,A)

Note: see Table II- 4b

Table II-15a

SECTORIAL SALES RATIO OF PRODUCER SERVICES (RS)
ON VARIOUS MANUFACTURING INDUSTRIES OR MANUFACTURING SUBSECTORS

COUNTRIES	MANUFACTURING SECTOR		
	AGROFOOD PROCESSING & LIGHT INDUSTRIES (ISIC 31,32,33)	ENERGY AND BASIC PRODUCTS (ISIC 34,35,36,37)	CAPITAL GOODS (ISIC 38)
LOW INCOME ECONOMIES			
GHANA	0.0051	0.0070	0.0006
INDIA	0.0295	0.0502	0.0331
KENYA	0.1368	0.0685	0.0806
MADAGASCAR	0.0922	0.0177	0.0208
SRI LANKA	0.0000	0.0000	0.0000
TANZANIA	0.0211	0.0060	0.0018
AVERAGE	0.0474	0.0249	0.0228
LOWER MIDDLE-INCOME ECONOMIES			
COLUMBIA	0.0369	0.0424	0.0140
INDONESIA	0.0323	0.0261	0.0265
IVORY COST	0.0537	0.0095	0.0080
MOROCCO	0.1189	0.0332	0.0278
NIGERIA	0.0436	0.0424	0.0062
PHILIPPINES	0.0300	0.0216	0.0069
THAILAND	0.0309	0.0237	0.0047
TURKEY	0.1391	0.1356	0.0583
AVERAGE	0.0607	0.0421	0.0190
UPPER MIDDLE-INCOME ECONOMIES			
ALGERIA	0.0413	0.0575	0.0217
BRAZIL	0.0000	0.0000	0.0000
CHILE	0.0610	0.0514	0.0268
GREECE	0.1840	0.1597	0.0790
KOREA	0.0882	0.0736	0.0502
MEXICO	0.0344	0.0282	0.0130
AVERAGE	0.0682	0.0617	0.0318
INDUSTRIAL MARKET ECONOMIES			
CANADA	0.0339	0.0575	0.0447
FRANCE	0.0337	0.0362	0.0469
GERMANY	0.0169	0.0329	0.0470
ITALY	0.0377	0.0259	0.0320
JAPAN	0.0318	0.0667	0.0514
USA	0.0257	0.0447	0.0328
AVERAGE	0.0300	0.0440	0.0425

Table II-15b
Sectorial Sales Ratio of Distributive Services
on Manufacturing Subsectors

(I) t-test; Ho: identical means for different country groups

<u>Category</u>	<u>AL</u>	<u>EB</u>	<u>CG</u>
IND VS UMI	(-1.455,A)	(-0.767,A)	(+0.884,A)
IND VS LMI	(-1.971,A)	(+0.126,A)	(+3.229,R)
IND VS LI	(-0.773,A)	(+1.466,A)	(+1.487,A)
UMI VS LMI	(+0.247,A)	(+0.750,A)	(+0.958,A)
UMI VS LI	(+0.602,A)	(+1.476,A)	(+0.518,A)
LMI VS LI	(+0.488,A)	(+0.956,A)	(-0.265,A)

(II) Ho: Manufacturing Subsectors (AL, EB, CG) have identical means and variances

AL vs EB	t = +0.78;	F = +1.55;	Accept Ho
AL vs CG	t = +2.35;	F = +3.92;	Reject Ho
CG vs EB	t = -1.71;	F = +2.53;	Reject Ho (based on F-values)

Note: see Table II-4b

Table II-16a

SECTORIAL SALES RATIO OF PRODUCER SERVICES (RS)
ON VARIOUS MAJOR GROUPS (ISIC) OF THE MANUFACTURING SECTOR

COUNTRIES	MANUFACTURING SECTOR							
	FOOD, BEVER. & TOBACCO ISIC 31	TEXTILE & LEATHER PRO ISIC 32	LUMBER & WOOD PRO ISIC 33	PULP, PAPER & PRINTING ISIC 34	CHEMICAL PRODUCTS ISIC 35	N-METAL PRO MINERAL ISIC 36	BASIC METAL INDUSTRIES ISIC 37	FABRICATED METAL PRO ISIC 38
LOW INCOME ECONOMIES								
GHANA	0.0006	0.0006	0.0038	0.0013	0.0032	0.0013	0.0013	0.0006
INDIA	0.0115	0.0174	0.0006	0.0043	0.0220	0.0046	0.0194	0.0331
KEYNA	0.0724	0.0465	0.0178	0.0255	0.0361	0.0089	0.0000	0.0806
MADAGASCAR	0.0634	0.0257	0.0032	0.0086	0.0064	0.0027	0.0000	0.0208
SRI LANKA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
TANZANIA	0.0141	0.0059	0.0011	0.0008	0.0025	0.0027	0.0000	0.0018
AVERAGE	0.0270	0.0160	0.0044	0.0067	0.0117	0.0030	0.0034	0.0228
LOWER MIDDLE-INCOME ECONOMIES								
COLUMBIA	0.0206	0.0140	0.0023	0.0055	0.0253	0.0037	0.0079	0.0140
INDONESIA	0.0204	0.0072	0.0046	0.0032	0.0214	0.0025	0.0009	0.0265
IVORY COST	0.0337	0.0139	0.0062	0.0000	0.0077	0.0015	0.0003	0.0080
MOROCCO	0.0590	0.0491	0.0108	0.0076	0.0226	0.0000	0.0029	0.0278
NIGERIA	0.0163	0.0236	0.0037	0.0066	0.0215	0.0000	0.0143	0.0062
PHILIPPINES	0.0208	0.0073	0.0019	0.0032	0.0146	0.0019	0.0019	0.0069
THAILAND	0.0163	0.0120	0.0026	0.0018	0.0159	0.0041	0.0019	0.0047
TURKEY	0.0643	0.0673	0.0075	0.0174	0.0683	0.0226	0.0273	0.0583
AVERAGE	0.0314	0.0243	0.0049	0.0057	0.0247	0.0046	0.0072	0.0190
UPPER MIDDLE-INCOME ECONOMIES								
ALGERIA	0.0118	0.0202	0.0093	0.0000	0.0536	0.0039	0.0000	0.0217
BRAZIL	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHILE	0.0318	0.0218	0.0074	0.0096	0.0277	0.0081	0.0059	0.0268
GREECE	0.0872	0.0853	0.0116	0.0202	0.0617	0.0182	0.0597	0.0790
KOREA	0.0287	0.0501	0.0094	0.0106	0.0483	0.0111	0.0036	0.0502
MEXICO	0.0210	0.0111	0.0022	0.0038	0.0168	0.0054	0.0021	0.0130
AVERAGE	0.0301	0.0314	0.0066	0.0074	0.0347	0.0078	0.0119	0.0318
INDUSTRIAL MARKET ECONOMIES								
CANADA	0.0164	0.0070	0.0105	0.0182	0.0194	0.0066	0.0132	0.0447
FRANCE	0.0201	0.0102	0.0034	0.0056	0.0268	0.0038	0.0000	0.0469
GERMANY	0.0073	0.0062	0.0034	0.0144	0.0132	0.0054	0.0000	0.0470
ITALY	0.0133	0.0175	0.0069	0.0076	0.0134	0.0050	0.0000	0.0320
JAPAN	0.0087	0.0188	0.0043	0.0118	0.0297	0.0067	0.0185	0.0514
USA	0.0156	0.0066	0.0036	0.0126	0.0243	0.0029	0.0049	0.0328
AVERAGE	0.0136	0.0110	0.0054	0.0117	0.0211	0.0051	0.0061	0.0425

Table II-16b
t-test on Mean Differences;
Sectorial Sales Ratio of Distributive Services

Category	IND vs UMI	IND vs LMI	IND vs LI	UMI vs LMI	UMI vs LI	LMI vs LI
ISIC 31	(-1.320,A)	(-2.497,R)	(-7.009,A)	(-0.096,A)	(+0.171,A)	(+0.299,A)
ISIC 32	(-1.572,A)	(-1.624,A)	(-0.645,A)	(+0.477,A)	(+1.046,A)	(+0.769,A)
ISIC 33	(-0.585,A)	(+0.261,A)	(+0.315,A)	(+0.797,A)	(+0.670,A)	(+0.178,A)
ISIC 34	(+1.175,A)	(+2.260,R)	(+1.132,A)	(+0.459,A)	(+0.126,A)	(-0.240,A)
ISIC 35	(-1.336,A)	(-0.494,A)	(+1.455,A)	(+0.854,A)	(+2.020,A)	(+1.479,A)
ISIC 36	(-1.022,A)	(+0.189,A)	(+1.727,A)	(+0.875,A)	(+1.715,A)	(+0.541,A)
ISIC 37	(-0.570,A)	(-0.231,A)	(+0.585,A)	(+0.463,A)	(+0.835,A)	(+0.812,A)
ISIC 38	(+0.884,A)	(+3.229,R)	(+1.486,A)	(+0.958,A)	(+0.517,A)	(-0.265,A)

Note: IND: Industrial market economies;
 UMI: Upper Middle-income economies;
 LMI: Lower Middle-income economies;
 LI: Low income economies;
 - numbers in brackets are the t-values of the difference in mean;
 - R means reject the null hypothesis that the means are equal;
 - A means accept the null hypothesis that the means are equal.

II-E Personal Services (ES)

In the early stage of industrialization, personal services are the informal sector of the economy. At this stage, personal services are relatively labour-intensive and unsophisticated services, mainly catering to the rural poor and urban masses. At a later stage of industrialization, the range of personal services expands. The services provided become increasingly specialized and increasingly skill-intensive. The informal sector virtually disappears and is replaced by a more sophisticated personal service sector. Tables II-1, II-2, II-7 and II-31 to II-40 reveals the following.

(1) The Sectorial Sales Ratio of personal services to manufacturing is small (approx. 0.05). The Backward Dependency Ratio and the Sectorial Sales Ratio of manufacturing sector towards personal services are small (0.013 and 0.02 respectively). However, the Backward Dependency Ratio of personal services on manufacturing is rather big (approx. 0.44). These figures suggest that other than this significant amount of inputs of manufacturing product (mostly processed food, beverage and tobacco (Table II-35)), to personal services, the economic relationship between manufacturing sector and personal services in general are very weak.

(2) The Backward Dependency Ratio and the Sectorial Sales Ratio of the manufacturing sector towards personal services rise with the level of industrialization. The Sectorial Sales Ratio of personal services to manufacturing also rises with the level of development. This is perhaps due to the growing importance of repair services to the manufacturing sector in the process of industrialization in spite of the low volumes of inputs and sales of these sectors as discussed in the preceding paragraph. This also reflects the structural change that takes place in the personal services, i.e. from informal services to more sophisticated services.

(3) The Sectorial Sales Ratio of Distributive Services to personal services also rises with the level of development.

(4) Different from distributive services and producer services, personal services depends very little on itself as an input (ESBES approx. 0.086)

Table II-17 PERSONAL SERVICE

(1) Backward Dependency Ratio

(B) Service Sectors

$$\text{RSBES} = 0.008 + 0.0098\text{Ln}(N) - 0.005\text{D5} + 0.027\text{D6} + 0.085\text{D8}$$

$$(0.17) \quad (0.84) \quad (0.16) \quad (0.74) \quad (2.46)$$

F = 3.44; R² = 0.50

(1) Sectorial Sales Ratio

(A) Manufacturing Sectors

$$\text{ESF31} = 0.05 + 0.899 \times 10^{-5} \times Y + 0.191 \times 10^{-3} \times N - 0.021\text{D5} - 0.04\text{D6} - 0.038\text{D8}$$

$$(2.28) \quad (1.74)^* \quad (2.65) \quad (0.85) \quad (1.54) \quad (1.23)$$

F = 3.11; R² = 0.44

$$\text{ESF32} = 0.017 + 0.254 \times 10^{-5} \times Y + 8.85 \times 10^{-5} \times N - 0.014\text{D5} - 0.014\text{D6} - 0.014\text{D8}$$

$$(2.65) \quad (1.53) \quad (3.83) \quad (1.77) \quad (1.73) \quad (1.45)$$

F = 4.70; R² = 0.54

$$\text{ESFCG} = 0.003 + 0.431 \times 10^{-5} \times Y + 4.63 \times 10^{-5} \times N + 0.001\text{D5}$$

$$(0.44) \quad (3.03) \quad (2.33) \quad (0.18)$$

$$- 0.005\text{D6} - 0.36 \times 10^{-4}\text{D8}$$

$$(0.64) \quad (0.004)$$

F = 6.42; R² = 0.62

$$\text{ESF32} = 0.008 + 8.65 \times 10^{-8} \times N^2 - 0.003\text{D5} - 0.006\text{D6} - 0.005\text{D8}$$

$$(2.11) \quad (1.01) \quad (0.97) \quad (1.62) \quad (1.39)$$

F = 7.77; R² = 0.60

$$\text{ESF33} = -0.005 + 9.1 \times 10^{-4}\text{Ln}(Y) + 0.001\text{D5} - 0.001\text{D6} - 0.001\text{D8}$$

$$(1.77) \quad (2.45) \quad (1.01) \quad (1.01) \quad (0.76)$$

F = 2.31; R² = 0.31

$$E_{.4} = 0.002 + 0.12 \times 10^{-5} \times Y + 1.45 \times 10^{-5} \times N - 0.003D5 - 0.002D6 - 0.001D8 \quad F = 6.96; \quad R^2 = 0.64$$

(1.42) (2.91) (2.52) (1.48) (1.11) (0.53)

$$ESF35 = 0.016 + 7.08 \times 10^{-8} \times N^2 - 0.01D5 - 0.01D6 - 0.008D8 \quad F = 2.96; \quad R^2 = 0.36$$

(3.80) (2.66) (2.18) (2.13) (1.41)

$$ESF36 = 0.002 + 2.79 \times 10^{-8} \times N^2 - 0.0006D5 - 0.0013D6 - 0.001D8 \quad F = 3.74; \quad R^2 = 0.42$$

(7.72) (3.38) (0.36) (0.79) (0.66)

$$ESF37 = 0.0014 + 4.31 \times 10^{-8} \times N^2 - 0.0015D5 + 0.31 \times 10^{-4}D6 - 0.0007D8 \quad F = 19.22; \quad R^2 = 0.79$$

(1.85) (8.71) (1.55) (0.03) (0.76)

Total Linkages (TL)

$$TLES = 1.36 + 4.78 \times 10^{-9} \times Y^2 - 0.22D5 - 0.097D6 - 0.128D8 \quad F = 5.33; \quad R^2 = 0.50$$

(22.06) (2.27) (2.98) (1.22) (1.37)

Note: * significant at the 10% level;
 numbers in brackets are the t-values.

Table II-18a BACKWARD DEPENDENCY RATIO OF PERSONAL SERVICES (FS)

COUNTRIES	MANUFACTURING SECTOR	DISTRIBUTIVE SERVICES	PRODUCER SERVICES	PERSONAL SERVICES	SOCIAL SERVICES
LOW INCOME ECONOMIES					
GHANA	0.2322	0.2477	0.0000	0.0000	0.0000
INDIA	0.0885	0.1102	0.0615	0.0219	0.0000
KEYNA	0.7727	0.0199	0.0757	0.0006	0.0000
MADAGASCAR	0.4826	0.0569	0.0703	0.1659	0.0000
SRI LANKA	0.3355	0.0839	0.0000	0.0000	0.0000
TANZANIA	0.3150	0.2898	0.0286	0.0802	0.0023
AVERAGE	0.3711	0.1347	0.0393	0.0448	0.0004
LOWER MIDDLE-INCOME ECONOMIES					
COLUMBIA	0.6797	0.1148	0.0349	0.0156	0.0000
INDONESIA	0.4457	0.1432	0.0341	0.0053	0.0075
IVORY COST	0.2170	0.1072	0.0097	0.4507	0.1051
MOROCCO	0.5523	0.0781	0.0399	0.2399	0.0000
NIGERIA	0.1700	0.3336	0.0464	0.0000	0.0000
PHILIPPINES	0.4251	0.1226	0.0754	0.1775	0.0000
THAILAND	0.5530	0.2079	0.0389	0.0527	0.0015
TURKEY	0.4829	0.2012	0.0466	0.1546	0.0000
AVERAGE	0.4407	0.1636	0.0407	0.1370	0.0143
UPPER MIDDLE-INCOME ECONOMIES					
ALGERIA	0.6759	0.0586	0.0086	0.0258	0.0000
BRAZIL	0.5777	0.2765	0.0000	0.0266	0.0000
CHILE	0.4558	0.0208	0.0775	0.0065	0.0003
GREECE	0.4082	0.1313	0.0076	0.1695	0.0000
KOREA	0.3131	0.1912	0.2296	0.0000	0.0107
MEXICO	0.3834	0.1585	0.2235	0.1984	0.0002
AVERAGE	0.4690	0.1395	0.0911	0.0711	0.0019
INDUSTRIAL MARKET ECONOMIES					
CANADA	0.3162	0.1958	0.1507	0.1670	0.0000
FRANCE	0.5450	0.1626	0.0798	0.0900	0.0009
GERMANY	0.6187	0.1466	0.0747	0.0177	0.0049
ITALY	0.6068	0.0939	0.1069	0.0434	0.0004
JAPAN	0.3860	0.2002	0.0901	0.1254	0.0069
USA	0.4876	0.1261	0.2004	0.1019	0.0379
AVERAGE	0.4934	0.1542	0.1186	0.0909	0.0085

Table II-18b
t-test on Mean Differences;
Backward Dependency Ratio of Personal Services

<u>Category</u>	<u>Manufacturing Sector</u>	<u>DS</u>	<u>RS</u>	<u>ES</u>	<u>SS</u>
IND VS UMI	(+0.330,A)	(+0.357,A)	(+0.562,A)	(+0.466,A)	(+1.066,A)
IND VS LMI	(+0.670,A)	(-0.280,A)	(+3.604,R)	(-0.779,A)	(-0.401,A)
IND VS LI	(+1.130,A)	(+0.410,A)	(+3.171,R)	(+1.311,A)	(+1.358,A)
UMI VS LMI	(+0.345,A)	(-0.507,A)	(+1.125,A)	(-1.002,A)	(-0.944,A)
UMI VS LI	(+0.885,A)	(+0.082,A)	(+1.113,A)	(+0.583,A)	(+0.824,A)
LMI VS LI	(+0.612,A)	(+0.543,A)	(+0.091,A)	(+1.504,A)	(+1.066,A)

Note: see Table II- 4b

Table II-19a BACKWARD DEPENDENCY RATIO OF PERSONAL SERVICES (ES)
ON VARIOUS MANUFACTURING INDUSTRIES OR MANUFACTURING SUBSECTORS

COUNTRIES	MANUFACTURING SECTOR		
	AGROFOOD PROCESSING & LIGHT INDUSTRIES (ISIC 31,32,33)	ENERGY AND BASIC PRODUCTS (ISIC 34,35,36,37)	CAPITAL GOODS (ISIC 38)
LOW INCOME ECONOMIES			
GHANA	0.2260	0.0031	0.0000
INDIA	0.0604	0.0157	0.0051
KEYNA	0.7349	0.0303	0.0075
MADAGASCAR	0.0395	0.2709	0.1408
SRI LANKA	0.3097	0.0194	0.0065
TANZANIA	0.2085	0.0802	0.0263
AVERAGE	0.2631	0.0699	0.0310
LOWER MIDDLE-INCOME ECONOMIES			
COLUMBIA	0.5856	0.0844	0.0085
INDONESIA	0.3780	0.0499	0.0171
IVORY COST	0.0068	0.0850	0.0785
MOROCCO	0.2364	0.1685	0.1435
NIGERIA	0.1600	0.0100	0.0000
PHILIPPINES	0.2183	0.1793	0.0117
THAILAND	0.4446	0.0592	0.0438
TURKEY	0.3383	0.1034	0.0267
AVERAGE	0.2960	0.0925	0.0412
UPPER MIDDLE-INCOME ECONOMIES			
ALGERIA	0.5611	0.0744	0.0386
BRAZIL	0.4242	0.0450	0.1034
CHILE	0.3441	0.0887	0.0199
GREECE	0.0356	0.3028	0.0454
KOREA	0.0236	0.2696	0.0160
MEXICO	0.0302	0.1489	0.1898
AVERAGE	0.2365	0.1549	0.0688
INDUSTRIAL MARKET ECONOMIES			
CANADA	0.1399	0.1498	0.0104
FRANCE	0.2754	0.0719	0.1890
GERMANY	0.3999	0.0674	0.1507
ITALY	0.2891	0.0973	0.2200
JAPAN	0.2095	0.1367	0.0267
USA	0.2676	0.0586	0.1510
AVERAGE	0.2636	0.0970	0.1246

Table II-19b
t-test on Mean Differences:
Backward Dependency Ratio of Personal Services
on Manufacturing Subsectors

(I) t-test; Ho: identical means for different country groups

<u>Category</u>	<u>AL</u>	<u>EB</u>	<u>CG</u>
IND VS UMI	(+0.263,A)	(-1.242,A)	(+1.250,A)
IND VS LMI	(-0.446,A)	(+0.175,A)	(+2.130,A)
IND VS LI	(+0.004,A)	(+0.607,A)	(+2.247,A)
UMI VS LMI	(-0.515,A)	(+1.288,A)	(+0.856,A)
UMI VS LI	(-0.187,A)	(+1.403,A)	(+1.073,A)
LMI VS LI	(+2.710,A)	(+0.486,A)	(+0.366,A)

(II) Ho: Manufacturing Subsectors (AL, EB, CG) have identical means and variances

AL vs EB	t = +4.11;	F = +5.33;	Reject Ho
AL vs CG	t = +5.17;	F = +7.09;	Reject Ho
CG vs EB	t = -1.82;	F = +1.33;	Accept Ho

Note: see Table II-4b

Table II- 20a BACKWARD DEPENDENCY RATIO OF PERSONAL SERVICES (ES)
ON VARIOUS MAJOR GROUPS (ISIC) OF THE MANUFACTURING SECTOR

COUNTRIES	MANUFACTURING SECTOR							
	FOOD, BEVER. & TOBACCO ISIC 31	TEXTILE & LEATHER PRO ISIC 32	LUMBER & WOOD PRO ISIC 33	PULP, PAPER & PRINTING ISIC 34	CHEMICAL PRODUCTS ISIC 35	N-METAL PRO MINERAL ISIC 36	BASIC METAL INDUSTRIES ISIC 37	FABRICATED METAL PRO ISIC 38
LOW INCOME ECONOMIES								
GHANA	0.2260	0.0000	0.0000	0.0031	0.0000	0.0000	0.0000	0.0000
INDIA	0.0602	0.0000	0.0002	0.0009	0.0104	0.0044	0.0000	0.0051
KEYNA	0.7275	0.0020	0.0053	0.0040	0.0237	0.0026	0.0000	0.0075
MADAGASCAR	0.0316	0.0079	0.0000	0.0600	0.2109	0.0000	0.0000	0.1406
SRI LANKA	0.2839	0.0258	0.0000	0.0000	0.0129	0.0065	0.0000	0.0065
TANZANIA	0.1901	0.0034	0.0149	0.0447	0.0355	0.0000	0.0000	0.0263
AVERAGE	0.2532	0.0065	0.0034	0.0188	0.0489	0.0022	0.0000	0.0310
LOWER MIDDLE-INCOME ECONOMIES								
COLUMBIA	0.5782	0.0063	0.0011	0.0296	0.0476	0.0021	0.0051	0.0085
INDONESIA	0.3694	0.0082	0.0004	0.0064	0.0385	0.0049	0.0000	0.0171
IVORY COST	0.0000	0.0068	0.0000	0.0000	0.0831	0.0018	0.0000	0.0785
MOROCCO	0.1852	0.0067	0.0445	0.0192	0.1342	0.0000	0.0151	0.1435
NIGERIA	0.1600	0.0000	0.0000	0.0100	0.0000	0.0000	0.0000	0.0000
PHILIPPINES	0.2111	0.0064	0.0008	0.0518	0.1253	0.0021	0.0000	0.0117
THAILAND	0.4164	0.0239	0.0043	0.0070	0.0432	0.0009	0.0021	0.0438
TURKEY	0.3216	0.0149	0.0018	0.0242	0.0494	0.0254	0.0043	0.0267
AVERAGE	0.2802	0.0092	0.0066	0.0185	0.0652	0.0054	0.0033	0.0412
UPPER MIDDLE-INCOME ECONOMIES								
ALGERIA	0.5439	0.0034	0.0138	0.0000	0.0344	0.0400	0.0000	0.0386
BRAZIL	0.3900	0.0292	0.0051	0.0000	0.0425	0.0000	0.0025	0.1034
CHILE	0.3281	0.0132	0.0028	0.0111	0.0720	0.0046	0.0009	0.0189
GREECE	0.0081	0.0102	0.0172	0.1064	0.1910	0.0045	0.0009	0.0454
KOREA	0.0012	0.0180	0.0043	0.0195	0.2325	0.0177	0.0000	0.0160
MEXICO	0.0007	0.0280	0.0015	0.0263	0.1018	0.0168	0.0041	0.1898
AVERAGE	0.2120	0.0170	0.0075	0.0272	0.1124	0.0139	0.0014	0.0688
INDUSTRIAL MARKET ECONOMIES								
CANADA	0.1291	0.0078	0.0030	0.1164	0.0318	0.0010	0.0006	0.0104
FRANCE	0.2561	0.0175	0.0017	0.0136	0.0566	0.0017	0.0000	0.1890
GERMANY	0.3627	0.0202	0.0170	0.0181	0.0371	0.0122	0.0000	0.1507
ITALY	0.2711	0.0121	0.0059	0.0238	0.0699	0.0037	0.0000	0.2200
JAPAN	0.1927	0.0048	0.0120	0.0998	0.0293	0.0075	0.0001	0.0267
USA	0.2510	0.0161	0.0005	0.0157	0.0347	0.0077	0.0004	0.1510
AVERAGE	0.2438	0.0131	0.0067	0.0479	0.0432	0.0056	0.0002	0.1246

Table II-20b
t-test on Mean Differences;
Backward Dependency Ratio of Personal Services

Category	IND vs UMI	IND vs LMI	IND vs LI	UMI vs LMI	UMI vs LI	LMI vs LI
ISIC 31	(+0.309,A)	(-0.514,A)	(-0.876,A)	(-0.586,A)	(-0.291,A)	(+0.224,A)
ISIC 32	(-0.815,A)	(+1.118,A)	(+1.392,A)	(+1.616,A)	(+1.812,A)	(+0.549,A)
ISIC 33	(-0.200,A)	(+0.013,A)	(+0.971,A)	(+0.137,A)	(+1.122,A)	(+0.539,A)
ISIC 34	(+0.819,A)	(+1.461,A)	(+1.321,A)	(+0.497,A)	(+0.429,A)	(-0.019,A)
ISIC 35	(-2.035,A)	(-1.253,A)	(-0.169,A)	(+1.274,A)	(+1.358,A)	(+0.445,A)
ISIC 36	(-1.330,A)	(+0.066,A)	(+1.637,A)	(+1.275,A)	(+1.921,A)	(+0.995,A)
ISIC 37	(-1.828,A)	(-1.717,A)	(+1.785,A)	(-0.990,A)	(+2.121,R)	(+1.818,A)
ISIC 38	(+1.250,A)	(+2.129,R)	(+2.247,R)	(+0.855,A)	(+1.073,A)	(+0.365,A)

Note: IND: Industrial market economies;
 UMI: Upper Middle-income economies;
 LMI: Lower Middle-income economies;
 LI: Low income economies;
 - numbers in brackets are the t-values of the difference in mean;
 - R means reject the null hypothesis that the means are equal;
 - A means accept the null hypothesis that the means are equal.

Table II-21a SECTORIAL SALES RATIO OF PERSONAL SERVICES (ES)

COUNTRIES	MANUFACTURING SECTOR	DISTRIBUTIVE SERVICES	PRODUCER SERVICES	PERSONAL SERVICES	SOCIAL SERVICES
LOW INCOME ECONOMIES					
GHANA	0.0000	0.0573	0.0024	0.0000	0.0000
INDIA	0.1589	0.0221	0.0082	0.0101	0.0101
KEYNA	0.0047	0.0362	0.0089	0.0002	0.0249
MADAGASCAR	0.0000	0.0424	0.0032	0.0249	0.0275
SRI LANKA	0.0000	0.0000	0.0000	0.0000	0.0000
TANZANIA	0.0415	0.0686	0.0105	0.0253	0.1480
AVERAGE	0.0342	0.0378	0.0055	0.0101	0.0351
LOWER MIDDLE-INCOME ECONOMIES					
COLUMBIA	0.0046	0.0227	0.0048	0.0053	0.0132
INDONESIA	0.0204	0.0759	0.0134	0.0035	0.0055
IVORY COST	0.1478	0.2806	0.0443	0.0880	0.0901
MOROCCO	0.0706	0.1506	0.0094	0.0675	0.0233
NIGERIA	0.0000	0.0340	0.0005	0.0000	0.0000
PHILIPPINES	0.1036	0.0698	0.0397	0.0586	0.0000
THAILAND	0.0409	0.0852	0.0279	0.0227	0.0036
TURKEY	0.0386	0.0344	0.0124	0.0371	0.0000
AVERAGE	0.0533	0.0942	0.0191	0.0353	0.0170
UPPER MIDDLE-INCOME ECONOMIES					
ALGERIA	0.0219	0.0177	0.0017	0.0035	0.0000
BRAZIL	0.0000	0.2039	0.0249	0.0095	0.0000
CHILE	0.0155	0.0273	0.0047	0.0018	0.0256
GREECE	0.0373	0.0334	0.0037	0.0151	0.0082
KOREA	0.0000	0.0000	0.3316	0.0000	0.0000
MEXICO	0.0674	0.0518	0.0598	0.0558	0.0082
AVERAGE	0.0237	0.0557	0.0711	0.0143	0.0070
INDUSTRIAL MARKET ECONOMIES					
CANADA	0.0769	0.0700	0.0911	0.0594	0.0031
FRANCE	0.0497	0.0635	0.0390	0.0407	0.0385
GERMANY	0.1179	0.1098	0.0587	0.0081	0.0880
ITALY	0.0842	0.0648	0.0238	0.0175	0.0222
JAPAN	0.0839	0.0631	0.0308	0.0510	0.0240
USA	0.0806	0.0765	0.0478	0.0541	0.0283
AVERAGE	0.0822	0.0746	0.0485	0.0385	0.0340

Table II-21b
t-test on Mean Differences;
Sectorial Sales Ratio of Personal Services

<u>Category</u>	<u>Manufacturing Sector</u>	<u>DS</u>	<u>RS</u>	<u>ES</u>	<u>SS</u>
IND VS UMI	(+4.259, R)	(+0.604, A)	(-0.419, A)	(+1.989, A)	(+2.167, A)
IND VS LMI	(+1.429, A)	(-0.628, A)	(+2.578, R)	(+0.216, A)	(+1.065, A)
IND VS LI	(+1.758, A)	(+2.963, R)	(+4.290, R)	(+2.861, R)	(-0.041, A)
UMI VS LMI	(-1.414, A)	(-0.896, A)	(+0.978, A)	(-1.447, A)	(-0.861, A)
UMI VS LI	(-0.377, A)	(+0.559, A)	(+1.239, A)	(+0.423, A)	(-1.198, A)
LMI VS LI	(+0.606, A)	(+1.769, A)	(+2.249, A)	(+1.984, A)	(-0.711, A)

Note: see Table II-4b

Table II- 22a

SECTORIAL SALES RATIO OF PERSONAL SERVICES (ES)
ON VARIOUS MANUFACTURING INDUSTRIES OR MANUFACTURING SUBSECTORS

COUNTRIES	MANUFACTURING SECTOR		
	AGROFOOD PROCESSING & LIGHT INDUSTRIES (ISIC 31,32,33)	ENERGY AND BASIC PRODUCTS (ISIC 34,35,36,37)	CAPITAL GOODS (ISIC 38)
LOW INCOME ECONOMIES			
GHANA	0.0000	0.0000	0.0000
INDIA	0.0607	0.0631	0.0331
KEYNA	0.0017	0.0008	0.0022
MADAGASCAR	0.0000	0.0000	0.0000
SRI LANKA	0.0000	0.0000	0.0000
TANZANIA	0.0274	0.0094	0.0029
AVERAGE	0.0150	0.0122	0.0064
LOWER MIDDLE-INCOME ECONOMIES			
COLUMBIA	0.0023	0.0015	0.0008
INDONESIA	0.0113	0.0043	0.0047
IVORY COST	0.0818	0.0261	0.0323
MOROCCO	0.0438	0.0185	0.0082
NIGERIA	0.0000	0.0000	0.0000
PHILIPPINES	0.0397	0.0503	0.0118
THAILAND	0.0199	0.0147	0.0053
TURKEY	0.0164	0.0142	0.0074
AVERAGE	0.0269	0.0162	0.0088
UPPER MIDDLE-INCOME ECONOMIES			
ALGERIA	0.0085	0.0051	0.0082
BRAZIL	0.0000	0.0000	0.0000
CHILE	0.0073	0.0058	0.0021
GREECE	0.0181	0.0113	0.0077
KOREA	0.0000	0.0000	0.0000
MEXICO	0.0305	0.0289	0.0076
AVERAGE	0.0107	0.0085	0.0043
INDUSTRIAL MARKET ECONOMIES			
CANADA	0.0279	0.0277	0.0176
FRANCE	0.0135	0.0172	0.0185
GERMANY	0.0203	0.0358	0.0615
ITALY	0.0272	0.0300	0.0263
JAPAN	0.0171	0.0288	0.0355
USA	0.0164	0.0253	0.0373
AVERAGE	0.0204	0.0274	0.0328

Table II-22b
Sectorial Sales Ratio of Personal Services
on Manufacturing Subsectors

(I) t-test; Ho: identical means for different country groups

<u>Category</u>	<u>AL</u>	<u>EB</u>	<u>CG</u>
IND VS UMI	(+1.792,A)	(+3.731,R)	(+4.156,R)
IND VS LMI	(-0.655,A)	(+1.781,A)	(+3.162,R)
IND VS LI	(+0.518,A)	(+1.438,A)	(+3.089,R)
UMI VS LMI	(-1.501,A)	(-1.051,A)	(-1.143,A)
UMI VS LI	(-0.377,A)	(-0.373,A)	(+0.332,A)
LMI VS LI	(+0.852,A)	(+0.335,A)	(+0.378,A)

(II) Ho: Manufacturing Subsectors (AL, EB, CG) have identical means and variances

AL vs EB	t = +0.55;	F = +1.44;	Accept Ho
AL vs CG	t = +1.23;	F = +1.64;	Accept Ho
CG vs EB	t = -0.75;	F = +1.13;	Accept Ho

Note: see Table II-4b

Table II-23a

SECTORIAL SALES RATIO OF PERSONAL SERVICES (ES)
ON VARIOUS MAJOR GROUPS (ISIC) OF THE MANUFACTURING SECTOR

COUNTRIES	MANUFACTURING SECTOR							
	FOOD, BEVER. & TOBACCO ISIC 31	TEXTILE & LEATHER PRO ISIC 32	LUMBER & WOOD PRO ISIC 33	PULP, PAPER & PRINTING ISIC 34	CHEMICAL PRODUCTS ISIC 35	N-METAL PRO MINERAL ISIC 36	BASIC METAL INDUSTRIES ISIC 37	FABRICATED METAL PRO ISIC 38
LOW INCOME ECONOMIES								
GHANA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
INDIA	0.0239	0.0349	0.0019	0.0093	0.0282	0.0114	0.0143	0.0331
KEYNA	0.0011	0.0005	0.0000	0.0003	0.0003	0.0002	0.0000	0.0022
MADAGASCAR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SRI LANKA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
TANZANIA	0.0162	0.0097	0.0014	0.0007	0.0029	0.0058	0.0000	0.0029
AVERAGE	0.0069	0.0075	0.0006	0.0017	0.0052	0.0029	0.0024	0.0064
LOWER MIDDLE-INCOME ECONOMIES								
COLUMBIA	0.0018	0.0004	0.0001	0.0001	0.0010	0.0001	0.0003	0.0008
INDONESIA	0.0082	0.0026	0.0004	0.0007	0.0028	0.0007	0.0001	0.0047
IVORY COST	0.0514	0.0221	0.0083	0.0000	0.0215	0.0040	0.0005	0.0323
MOROCCO	0.0298	0.0126	0.0014	0.0078	0.0100	0.0000	0.0007	0.0082
NIGERIA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PHILIPPINES	0.0278	0.0093	0.0025	0.0047	0.0380	0.0055	0.0021	0.0118
THAILAND	0.0124	0.0064	0.0011	0.0016	0.0099	0.0016	0.0016	0.0053
TURKEY	0.0076	0.0080	0.0008	0.0043	0.0074	0.0009	0.0015	0.0074
AVERAGE	0.0174	0.0077	0.0018	0.0024	0.0113	0.0016	0.0008	0.0088
UPPER MIDDLE-INCOME ECONOMIES								
ALGERIA	0.0032	0.0028	0.0025	0.0000	0.0039	0.0012	0.0000	0.0082
BRAZIL	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHILE	0.0046	0.0022	0.0005	0.0012	0.0036	0.0006	0.0004	0.0021
GREECE	0.0107	0.0063	0.0011	0.0019	0.0055	0.0021	0.0019	0.0077
KOREA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MEXICO	0.0218	0.0072	0.0015	0.0003	0.0141	0.0043	0.0071	0.0076
AVERAGE	0.0067	0.0031	0.0000	0.0000	0.0045	0.0014	0.0016	0.0043
INDUSTRIAL MARKET ECONOMIES								
CANADA	0.0210	0.0039	0.0030	0.0000	0.0156	0.0021	0.0020	0.0176
FRANCE	0.0038	0.0080	0.0017	0.0047	0.0004	0.0077	0.0000	0.0185
GERMANY	0.0115	0.0045	0.0043	0.0188	0.0009	0.0073	0.0000	0.0615
ITALY	0.0155	0.0109	0.0008	0.0098	0.0135	0.0067	0.0000	0.0263
JAPAN	0.0099	0.0043	0.0029	0.0086	0.0149	0.0018	0.0034	0.0355
USA	0.0088	0.0042	0.0033	0.0089	0.0112	0.0021	0.0031	0.0373
AVERAGE	0.0118	0.0060	0.0027	0.0098	0.0116	0.0046	0.0014	0.0328

Table II-23b
t-test on Mean Differences;
Sectorial Sales Ratio of Personal Services

Category	IND vs UMI	IND vs LMI	IND vs LI	UMI vs LMI	UMI vs LI	LMI vs LI
ISIC 31	(+1.203,A)	(-0.841,A)	(+0.990,A)	(-1.499,A)	(-0.028,A)	(+1.387,A)
ISIC 32	(+1.678,A)	(-0.608,A)	(-0.270,A)	(-1.599,A)	(-0.761,A)	(+0.025,A)
ISIC 33	(+2.750,R)	(+0.770,A)	(+3.457,R)	(-0.876,A)	(+0.674,A)	(+1.241,A)
ISIC 34	(+4.329,R)	(+3.379,R)	(+3.279,R)	(-1.135,A)	(-0.404,A)	(+0.365,A)
ISIC 35	(+2.636,R)	(+0.058,A)	(+1.305,A)	(-1.366,A)	(-0.138,A)	(+0.947,A)
ISIC 36	(+2.408,R)	(+2.165,R)	(+0.765,A)	(-0.259,A)	(-0.752,A)	(-0.619,A)
ISIC 37	(-0.104,A)	(+0.805,A)	(-0.388,A)	(+0.607,A)	(-0.310,A)	(-0.641,A)
ISIC 38	(+4.156,R)	(+3.162,R)	(+3.088,R)	(-1.143,A)	(-0.373,A)	(+0.377,A)

Note: IND: Industrial market economies;
 UMI: Upper Middle-income economies;
 LMI: Lower Middle-income economies;
 LI: Low income economies;
 - numbers in brackets are the t-values of the difference in mean;
 - R means reject the null hypothesis that the means are equal;
 - A means accept the null hypothesis that the means are equal.

II-F Social Services (SS)

Social services go through some fundamental changes in the process of industrialization. In the early stage of industrialization social services are provided through non-market mechanism: for example, health and old age care are provided by the immediate family in the Early Stage. At the later stage of industrialization, social services are provided mostly by the government through the political process. This is due to the public good nature of some social services. Thus, the contributions of social services to industrialization and to the manufacturing sectors go beyond the intersectorial input-output relationships. The following conclusions can be drawn from Tables II-1, II-2, II-8 and II-41 to II-50.

(1) The Backward Dependency Ratio of social services on manufacturing is around 0.34. This shows a significant input of social services is from the manufacturing sector (mainly, the Energy and Basic industries). The sales of social services to manufacturing (the Sectorial Sales Ratio) is very low. The sales and purchase of manufacturing sector to and from social services are also very low. (Sectorial Sales Ratio and Backward Dependency Ratio are around 0.01). As mentioned above, since most of social services have the nature of public goods, this weak relationship between manufacturing products and social services understates the actual relationship between these two sectors.

(2) At a later stage of development, the energy and basic products become a less important input to social services (EBBSS falls as y rises). On the contrary, social services become a more important input to the capital good industries as the economy develops (both SSBCG and SSFCG rise as y increases).

Table II-24 SOCIAL SERVICE

(I) Backward Dependency Ratio

(A) Manufacturing Sectors

$$\text{EBBSS} = 0.184 - 3.51 \times 10^{-9} \times Y^2 + 0.98 \times 10^{-3}N - 0.13D5 - 0.02D6 + 0.02D8 \quad F = 4.31; R^2 = 0.52$$

(2.95) (1.66) (4.38) (1.70) (0.26) (0.22)

$$\text{34BSS} = 0.049 + 4.92 \times 10^{-7} \times N^2 - 0.015D5 - 0.017D6 - 0.002D8 \quad F = 3.67; R^2 = 0.41$$

(2.36) (3.68) (0.55) (0.63) (0.07)

$$\text{35ESS} = 0.135 - 2.50 \times 10^{-9} \times Y^2 + 7.20 \times 10^{-4} \times N - 0.117D5 - 0.007D6 + 0.003D8 \quad F = 3.93; R^2 = 0.50$$

(2.72) (1.48) (4.06) (1.92) (0.11) (0.04)

(B) Service Sectors

$$\text{RSBSS} = 0.03 + 2.05 \times 10^{-9} \times Y^2 - 0.00015N + 0.032D5 + 0.019D6 + 0.124D8 \quad F = 3.98; R^2 = 0.50$$

(0.69) (1.33) (0.90) (0.57) (0.33) (1.84)

$$\text{SSBSS} = 0.024 + 2.92 \times 10^{-9} \times Y^2 \quad F = 10.39; R^2 = 0.30$$

(1.38) (3.22)

(II) Sectorial Sales Ratio

(A) Manufacturing Sector

$$\text{SSFCG} = -0.014 + 0.0015\text{Ln}(Y) + 0.0011\text{Ln}(N) + 0.002D5 + 0.0005D6 + 0.004D8 \quad F = 3.85; R^2 = 0.49$$

(2.15) (1.63) (1.55) (0.77) (0.20) (1.38)

(B) Service Sectors

$$\text{SSFSS} = 0.004 + 1.35 \times 10^{-9} \times Y^2$$

(0.55) (3.89)

$$F = 15.17; \quad R^2 = 0.39$$

Forward Lingade (FL)

$$\text{FLSS} = 0.003 + 2.50 \times 10^{-9} \times Y^2 + 0.036D5 + 0.005D6 + 0.006D8$$

(0.11) (2.45) (0.98) (0.14) (0.12)

$$F = 2.95; \quad R^2 = 0.36$$

Note: significant at the 10% level;
numbers in brackets are the t-values.

Table II-25a BACKWARD DEPENDENCY RATIO OF SOCIAL SERVICES (SS)

COUNTRIES	MANUFACTURING SECTOR	DISTRIBUTIVE SERVICES	PRODUCER SERVICES	PERSONAL SERVICES	SOCIAL SERVICES
LOW INCOME ECONOMIES					
GHANA	0.0000	0.0000	0.0000	0.0000	0.0000
INDIA	0.7413	0.2104	0.0000	0.0200	0.0015
KEYNA	0.4128	0.1489	0.1316	0.0419	0.0029
MADAGASCAR	0.4110	0.0896	0.0263	0.0169	0.0390
SRI LANKA	0.1132	0.5472	0.2264	0.0000	0.0000
TANZANIA	0.1984	0.3087	0.0394	0.0940	0.0000
AVERAGE	0.3128	0.2174	0.0706	0.0288	0.0072
LOWER MIDDLE-INCOME ECONOMIES					
COLUMBIA	0.5225	0.1077	0.0659	0.0582	0.0000
INDONESIA	0.4382	0.1401	0.0831	0.0142	0.1811
IVORY COST	0.4571	0.1373	0.0083	0.0946	0.1240
MOROCCO	0.5338	0.1264	0.0687	0.1079	0.0000
NIGERIA	0.0000	0.0000	0.0000	0.0000	0.0000
PHILIPPINES	0.0000	0.0000	0.0000	0.0000	0.0000
THAILAND	0.4736	0.2248	0.0359	0.0434	0.0440
TURKEY	0.0000	0.0000	0.0000	0.0000	0.0000
AVERAGE	0.3031	0.0920	0.0327	0.0398	0.0436
UPPER MIDDLE-INCOME ECONOMIES					
ALGERIA	0.0000	0.0000	0.0000	0.0000	0.0000
BRAZIL	0.6928	0.2203	0.0000	0.0000	0.0000
CHILE	0.5282	0.0777	0.1017	0.0719	0.0533
GREECE	0.4494	0.1059	0.0001	0.2670	0.1046
KOREA	0.4573	0.1486	0.1425	0.0000	0.0120
MEXICO	0.5732	0.1497	0.1080	0.0864	0.0219
AVERAGE	0.4502	0.1172	0.0587	0.0709	0.0320
INDUSTRIAL MARKET ECONOMIES					
CANADA	0.1955	0.1680	0.4923	0.1150	0.0009
FRANCE	0.4169	0.1270	0.1284	0.0648	0.0593
GERMANY	0.3277	0.0934	0.0814	0.0580	0.3500
ITALY	0.3400	0.0907	0.2654	0.0644	0.0000
JAPAN	0.4252	0.1871	0.1578	0.0655	0.0048
USA	0.1653	0.0886	0.2053	0.0529	0.2761
AVERAGE	0.3118	0.1258	0.2218	0.0701	0.1152

Table II-25b
t-test on Mean Differences;
Backward Dependency Ratio of Social Services

<u>Category</u>	<u>Manufacturing Sector</u>	<u>DS</u>	<u>RS</u>	<u>ES</u>	<u>SS</u>
IND VS UMI	(-1.215,A)	(+0.254,A)	(+2.482,R)	(-0.018,A)	(+1.260,A)
IND VS LMI	(+0.087,A)	(+0.983,A)	(+3.086,R)	(+1.684,A)	(+1.042,A)
IND VS LI	(-0.009,A)	(-1.138,A)	(+2.146,A)	(+2.408,R)	(+1.680,A)
UMI VS LMI	(+1.114,A)	(+0.591,A)	(+0.877,A)	(+0.690,A)	(-0.390,A)
UMI VS LI	(+0.943,A)	(-1.189,A)	(-0.261,A)	(+0.941,A)	(+1.391,A)
LMI VS LI	(-0.069,A)	(-1.493,A)	(-0.972,A)	(+0.520,A)	(+1.414,A)

Note: see Table II-4b

Table II-26a

BACKWARD DEPENDENCY RATIO OF SOCIAL SERVICES (SS)
ON VARIOUS MANUFACTURING INDUSTRIES OR MANUFACTURING SUBSECTORS

COUNTRIES	MANUFACTURING SECTOR		
	AGROFOOD PROCESSING & LIGHT INDUSTRIES (ISIC 31,32,33)	ENERGY AND BASIC PRODUCTS (ISIC 34,35,36,37)	CAPITAL GOODS (ISIC 38)
LOW INCOME ECONOMIES			
GHANA	0.0000	0.0000	0.0000
INDIA	0.0098	0.6170	0.0165
KEYNA	0.2173	0.1465	0.0490
MADAGASCAR	0.1224	0.1925	0.0790
SRI LANKA	0.0377	0.0189	0.0189
TANZANIA	0.0827	0.0710	0.0431
AVERAGE	0.0783	0.1743	0.0344
LOWER MIDDLE-INCOME ECONOMIES			
COLUMBIA	0.1764	0.1504	0.1838
INDONESIA	0.1120	0.2446	0.0676
IVORY COST	0.0842	0.0873	0.1748
MOROCCO	0.0914	0.1975	0.2265
NIGERIA	0.0000	0.0000	0.0000
PHILIPPINES	0.0000	0.0000	0.0000
THAILAND	0.0913	0.3144	0.0370
TURKEY	0.0000	0.0000	0.0000
AVERAGE	0.0694	0.1243	0.0862
UPPER MIDDLE-INCOME ECONOMIES			
ALGERIA	0.0000	0.0000	0.0000
BRAZIL	0.2290	0.3565	0.0174
CHILE	0.1727	0.2599	0.0837
GREECE	0.0214	0.3905	0.0024
KOREA	0.0258	0.3525	0.0689
MEXICO	0.0765	0.4129	0.0402
AVERAGE	0.0876	0.2954	0.0351
INDUSTRIAL MARKET ECONOMIES			
CANADA	0.0180	0.0921	0.0705
FRANCE	0.0877	0.1201	0.1968
GERMANY	0.0663	0.1532	0.1064
ITALY	0.0561	0.1415	0.1397
JAPAN	0.0501	0.3059	0.0585
USA	0.0295	0.1025	0.0286
AVERAGE	0.0513	0.1528	0.1001

Table II-26b
Backward Dependency Ratio of Social Services
on Manufacturing Subsectors

(I) t-test; Ho: identical means for different country groups

<u>Category</u>	<u>AL</u>	<u>EB</u>	<u>CG</u>
IND VS UMI	(-0.922,A)	(-2.025,A)	(+2.266,R)
IND VS LMI	(-0.771,A)	(-0.220,A)	(+2.388,A)
IND VS LI	(-0.771,A)	(-0.220,A)	(+2.389,R)
UMI VS LMI	(+0.410,A)	(+2.245,R)	(-1.412,A)
UMI VS LI	(+0.182,A)	(+1.075,A)	(+0.038,A)
LMI VS LI	(-0.220,A)	(-0.486,A)	(+1.470,A)

(II) Ho: Manufacturing Subsectors (AL, EB, CG) have identical means and variances

AL vs EB	t = -3.27;	F = +5.52;	Reject Ho
AL vs CG	t = +0.31;	F = +1.01;	Accept Ho
CG vs EB	t = -3.45;	F = +5.55;	Reject Ho

Note: see Table II-4b

Table II-27a BACKWARD DEPENDENCY RATIO OF SOCIAL SERVICES (SS)
ON VARIOUS MAJOR GROUPS (ISIC) OF THE MANUFACTURING SECTOR

COUNTRIES	MANUFACTURING SECTOR							
	FOOD, BEVER. & TOBACCO ISIC 31	TEXTILE & LEATHER ISIC 32	LUMBER & WOOD PRO ISIC 33	PULP, PAPER & PRINTING ISIC 34	CHEMICAL PRODUCTS ISIC 35	N-METAL MINERAL ISIC 36	BASIC METAL INDUSTRIES ISIC 37	FABRICATED METAL PRO ISIC 38
LOW INCOME ECONOMIES								
GHANA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
INDIA	0.0043	0.0045	0.0011	0.2050	0.4114	0.0005	0.0000	0.0165
KEYNA	0.2080	0.0087	0.0007	0.0559	0.0899	0.0006	0.0000	0.0490
MADAGASCAR	0.0781	0.0412	0.0031	0.1497	0.0292	0.0136	0.0000	0.0790
SRI LANKA	0.0000	0.0377	0.0000	0.0000	0.0189	0.0000	0.0000	0.0189
TANZANIA	0.0424	0.0312	0.0092	0.0456	0.0165	0.0089	0.0000	0.0431
AVERAGE	0.0555	0.0205	0.0023	0.0781	0.0943	0.0039	0.0000	0.0344
LOWER MIDDLE-INCOME ECONOMIES								
COLUMBIA	0.1204	0.0512	0.0048	0.0517	0.0789	0.0082	0.0116	0.1838
INDONESIA	0.0240	0.0784	0.0096	0.0551	0.1819	0.0076	0.0000	0.0676
IVORY COST	0.0281	0.0277	0.0284	0.0000	0.0816	0.0057	0.0000	0.1748
MOROCCO	0.0518	0.0381	0.0015	0.0469	0.1506	0.0000	0.0000	0.2265
NIGERIA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PHILIPPINES	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
THAILAND	0.0348	0.0466	0.0098	0.0677	0.2133	0.0299	0.0035	0.0370
TURKEY	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
AVERAGE	0.0324	0.0302	0.0088	0.0277	0.0883	0.0064	0.0019	0.0862
UPPER MIDDLE-INCOME ECONOMIES								
ALGERIA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
BRAZIL	0.2203	0.0087	0.0000	0.0000	0.3449	0.0116	0.0000	0.0174
CHILE	0.1408	0.0263	0.0057	0.1007	0.1460	0.0097	0.0035	0.0837
GREECE	0.0000	0.0214	0.0000	0.0887	0.3006	0.0013	0.0000	0.0024
KOREA	0.0025	0.0166	0.0067	0.0827	0.2590	0.0108	0.0000	0.0669
MEXICO	0.0508	0.0206	0.0051	0.0486	0.3452	0.0168	0.0024	0.0402
AVERAGE	0.0691	0.0156	0.0029	0.0534	0.2326	0.0084	0.0010	0.0351
INDUSTRIAL MARKET ECONOMIES								
CANADA	0.0000	0.0179	0.0001	0.0148	0.0768	0.0005	0.0000	0.0705
FRANCE	0.0561	0.0116	0.0201	0.0753	0.0427	0.0021	0.0000	0.1968
GERMANY	0.0374	0.0270	0.0019	0.0415	0.1005	0.0113	0.0000	0.1064
ITALY	0.0360	0.0122	0.0079	0.0489	0.0875	0.0051	0.0000	0.1397
JAPAN	0.0226	0.0111	0.0164	0.0732	0.2251	0.0039	0.0038	0.0585
USA	0.0211	0.0082	0.0002	0.0219	0.0780	0.0020	0.0005	0.0286
AVERAGE	0.0289	0.0147	0.0078	0.0459	0.1018	0.0041	0.0007	0.1001

Table II-27b
t-test on Mean Differences:
Backward Dependency Ratio of Social Services

Category	IND vs UMI	IND vs LMI	IND vs LI	UMI vs LMI	UMI vs LI	LMI vs LI
ISIC 31	(-1.048,A)	(-0.218,A)	(-0.784,A)	(+0.972,A)	(+0.272,A)	(-0.641,A)
ISIC 32	(-0.194,A)	(-1.473,A)	(-0.739,A)	(-1.339,A)	(-0.587,A)	(+0.769,A)
ISIC 33	(+1.287,A)	(+0.203,A)	(+1.419,A)	(-1.052,A)	(+0.288,A)	(+1.191,A)
ISIC 34	(-0.357,A)	(+1.230,A)	(-0.845,A)	(+1.275,A)	(-0.584,A)	(-1.352,A)
ISIC 35	(-2.139,R)	(+0.337,A)	(+0.107,A)	(+2.282,R)	(+1.624,A)	(-0.084,A)
ISIC 36	(-1.374,A)	(-0.581,A)	(+0.072,A)	(+0.437,A)	(+1.243,A)	(+0.575,A)
ISIC 37	(-0.287,A)	(-0.736,A)	(+1.160,A)	(-0.574,A)	(+1.552,A)	(+1.301,A)
ISIC 38	(+2.266,R)	(+0.334,A)	(+2.388,R)	(-1.412,A)	(+0.037,A)	(+1.469,A)

Note: IND: Industrial market economies;
 UMI: Upper Middle-income economies;
 LMI: Lower Middle-income economies;
 LI: Low income economies;
 - numbers in brackets are the t-values of the difference in mean;
 - R means reject the null hypothesis that the means are equal;
 - A means accept the null hypothesis that the means are equal.

Table II-28a **SECTORIAL SALES RATIO OF SOCIAL SERVICES (SS)**

COUNTRIES	MANUFACTURING SECTOR	DISTRIBUTIVE SERVICES	PRODUCER SERVICES	PERSONAL SERVICES	SOCIAL SERVICES
LOW INCOME ECONOMIES					
GHANA	0.0000	0.0000	0.0000	0.0000	0.0000
INDIA	0.0000	0.0003	0.0004	0.0000	0.0004
KEYNA	0.0023	0.0002	0.0000	0.0000	0.0009
MADAGASCAR	0.0000	0.0234	0.0000	0.0000	0.0098
SRI LANKA	0.0098	0.0314	0.0020	0.0000	0.0000
TANZANIA	0.0000	0.0039	0.0007	0.0001	0.0000
AVERAGE	0.0020	0.0099	0.0005	0.0000	0.0019
LOWER MIDDLE-INCOME ECONOMIES					
COLUMBIA	0.0000	0.0000	0.0000	0.0000	0.0000
INDONESIA	0.0056	0.0097	0.0115	0.0018	0.0251
IVORY COST	0.0059	0.0481	0.0036	0.0085	0.0488
MOROCCO	0.0000	0.0000	0.0000	0.0000	0.0000
NIGERIA	0.0000	0.0000	0.0000	0.0000	0.0000
PHILIPPINES	0.0000	0.0000	0.0000	0.0000	0.0000
THAILAND	0.0014	0.0008	0.0006	0.0008	0.0043
TURKEY	0.0000	0.0000	0.0000	0.0000	0.0000
AVERAGE	0.0016	0.0073	0.0020	0.0014	0.0098
UPPER MIDDLE-INCOME ECONOMIES					
ALGERIA	0.0000	0.0000	0.0000	0.0000	0.0000
BRAZIL	0.0000	0.0000	0.0000	0.0000	0.0000
CHILE	0.0110	0.0079	0.0025	0.0000	0.0116
GREECE	0.0000	0.0007	0.0006	0.0000	0.0057
KOREA	0.0088	0.0063	0.0076	0.0007	0.0021
MEXICO	0.0039	0.0104	0.0000	0.0002	0.0047
AVERAGE	0.0040	0.0042	0.0018	0.0001	0.0040
INDUSTRIAL MARKET ECONOMIES					
CANADA	0.0000	0.0000	0.0030	0.0000	0.0002
FRANCE	0.0055	0.0012	0.0013	0.0002	0.0168
GERMANY	0.0105	0.0041	0.0093	0.0007	0.1575
ITALY	0.0106	0.0001	0.0000	0.0001	0.0000
JAPAN	0.0314	0.0058	0.0012	0.0023	0.0014
USA	0.0797	0.0399	0.0348	0.0150	0.1103
AVERAGE	0.0229	0.0085	0.0083	0.0030	0.0477

Table II-28b
t-test on Mean Differences;
Sectorial Sales Ratio of Social Services

<u>Category</u>	<u>Manufacturing Sector</u>	<u>DS</u>	<u>RS</u>	<u>ES</u>	<u>SS</u>
IND VS UMI	(+1.542,A)	(+0.651,A)	(+1.160,A)	(+1.199,A)	(+1.555,A)
IND VS LMI	(+1.750,A)	(+0.135,A)	(+1.116,A)	(+0.634,A)	(+1.319,A)
IND VS LI	(+1.706,A)	(-0.162,A)	(+1.417,A)	(+1.249,A)	(+1.632,A)
UMI VS LMI	(+1.067,A)	(-0.503,A)	(-0.101,A)	(-1.182,A)	(-0.874,A)
UMI VS LI	(+0.752,A)	(-0.953,A)	(+0.997,A)	(+1.092,A)	(+0.895,A)
LMI VS LI	(-0.226,A)	(-0.311,A)	(+0.994,A)	(+1.301,A)	(+1.208,A)

Note: see Table II- 4b

Table II- 29a

SECTORIAL SALES RATIO OF SOCIAL SERVICES (SS)
ON VARIOUS MANUFACTURING INDUSTRIES OR MANUFACTURING SUBSECTORS

COUNTRIES	MANUFACTURING SECTOR		
	AGROFOOD PROCESSING & LIGHT INDUSTRIES (ISIC 31,32,33)	ENERGY AND BASIC PRODUCTS (ISIC 34,35,36,37)	CAPITAL GOODS (ISIC 38)
LOW INCOME ECONOMIES			
GHANA	0.0000	0.0000	0.0000
INDIA	0.0000	0.0000	0.0000
KENYA	0.0012	0.0012	0.0000
MADAGASCAR	0.0000	0.0000	0.0000
SRI LANKA	0.0079	0.0020	0.0000
TANZANIA	0.0000	0.0000	0.0000
AVERAGE	0.0015	0.0005	0.0000
LOWER MIDDLE-INCOME ECONOMIES			
COLUMBIA	0.0000	0.0000	0.0000
INDONESIA	0.0033	0.0014	0.0010
IVORY COST	0.0030	0.0004	0.0019
MOROCCO	0.0000	0.0000	0.0000
NIGERIA	0.0000	0.0000	0.0000
PHILIPPINES	0.0000	0.0000	0.0000
THAILAND	0.0001	0.0012	0.0001
TURKEY	0.0000	0.0000	0.0000
AVERAGE	0.0008	0.0004	0.0004
UPPER MIDDLE-INCOME ECONOMIES			
ALGERIA	0.0000	0.0000	0.0000
BRAZIL	0.0000	0.0000	0.0000
CHILE	0.0064	0.0039	0.0006
GREECE	0.0000	0.0000	0.0000
KOREA	0.0043	0.0029	0.0014
MEXICO	0.0000	0.0039	0.0000
AVERAGE	0.0018	0.0018	0.0003
INDUSTRIAL MARKET ECONOMIES			
CANADA	0.0000	0.0000	0.0000
FRANCE	0.0003	0.0012	0.0041
GERMANY	0.0030	0.0026	0.0048
ITALY	0.0001	0.0072	0.0032
JAPAN	0.0023	0.0112	0.0176
USA	0.0157	0.0451	0.0177
AVERAGE	0.0036	0.0112	0.0079

Table II-29b
t-test on Mean Differences;
Sectorial Sales Ratio of Social Services
on Manufacturing Subsectors

(I) t-test; Ho: identical means for different country groups

<u>Category</u>	<u>AL</u>	<u>EB</u>	<u>CG</u>
IND VS UMI	(+0.654,A)	(+1.341,A)	(+2.382,A)
IND VS LMI	(+1.100,A)	(+1.551,A)	(+2.376,A)
IND VS LI	(+0.742,A)	(+1.529,A)	(+2.500,A)
UMI VS LMI	(-0.783,A)	(+1.682,A)	(-0.057,A)
UMI VS LI	(+0.163,A)	(+1.431,A)	(+1.434,A)
LMI VS LI	(-0.514,A)	(-0.364,A)	(+1.480,A)

(II) Ho: Manufacturing Subsectors (AL, EB, CG) have identical Means and variances

AL vs EB	t = -0.75;	F = +6.32;	Reject Ho (based on F-values)
AL vs CG	t = -0.16;	F = +1.82;	Accept Ho
CG vs EB	t = -0.62;	F = +3.47;	Reject Ho (based on F-values)

Note: see Table II-4b

Table II-30a

SECTORIAL SALES RATIO OF SOCIAL SERVICES (SS)
ON VARIOUS MAJOR GROUPS (ISIC) OF THE MANUFACTURING SECTOR

COUNTRIES	MANUFACTURING SECTOR							
	FOOD, BEVER. & TOBACCO ISIC 31	TEXTILE & LEATHER PRO ISIC 32	LUMBER & WOOD PRO ISIC 33	PULP, PAPER & PRINTING ISIC 34	CHEMICAL PRODUCTS ISIC 35	N-METAL PRO MINERAL ISIC 36	BASIC METAL INDUSTRIES ISIC 37	FABRICATED METAL PRO ISIC 38
LOW INCOME ECONOMIES								
GHANA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
INDIA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
KEYNA	0.0012	0.0000	0.0000	0.0000	0.0012	0.0000	0.0000	0.0000
MADAGASCAR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SRI LANKA	0.0079	0.0000	0.0000	0.0000	0.0020	0.0000	0.0000	0.0000
TANZANIA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
AVERAGE	0.0015	0.0000	0.0000	0.0000	0.0005	0.0000	0.0000	0.0000
LOWER MIDDLE-INCOME ECONOMIES								
COLUMBIA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
INDONESIA	0.0024	0.0008	0.0001	0.0003	0.0008	0.0003	0.0000	0.0010
IVORY COST	0.0021	0.0006	0.0003	0.0000	0.0004	0.0001	0.0000	0.0019
MOROCCO	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NIGERIA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PHILIPPINES	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
THAILAND	0.0001	0.0000	0.0000	0.0000	0.0011	0.0000	0.0000	0.0001
TURKEY	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
AVERAGE	0.0006	0.0002	0.0001	0.0000	0.0003	0.0000	0.0000	0.0004
UPPER MIDDLE-INCOME ECONOMIES								
ALGERIA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
BRAZIL	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHILE	0.0048	0.0016	0.0001	0.0005	0.0032	0.0000	0.0002	0.0006
GREECE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
KOREA	0.0018	0.0023	0.0002	0.0003	0.0019	0.0006	0.0001	0.0014
MEXICO	0.0000	0.0000	0.0000	0.0000	0.0039	0.0000	0.0000	0.0000
AVERAGE	0.0011	0.0007	0.0000	0.0001	0.0015	0.0001	0.0000	0.0003
INDUSTRIAL MARKET ECONOMIES								
CANADA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
FRANCE	0.0002	0.0001	0.0000	0.0001	0.0010	0.0001	0.0000	0.0041
GERMANY	0.0017	0.0009	0.0004	0.0007	0.0015	0.0005	0.0000	0.0048
ITALY	0.0001	0.0000	0.0000	0.0004	0.0067	0.0001	0.0000	0.0032
JAPAN	0.0013	0.0008	0.0002	0.0006	0.0080	0.0007	0.0019	0.0176
USA	0.0079	0.0051	0.0027	0.0090	0.0182	0.0050	0.0129	0.0177
AVERAGE	0.0019	0.0012	0.0006	0.0018	0.0059	0.0011	0.0025	0.0079

Table II-30b
t-test on Mean Differences;
Sectorial Sales Ratio of Social Services

Category	IND vs UMI	IND vs LMI	IND vs LI	UMI vs LMI	UMI vs LI	LMI vs LI
ISIC 31	(+0.526,A)	(+1.008,A)	(+0.200,A)	(+0.607,A)	(-0.273,A)	(-0.703,A)
ISIC 32	(+0.551,A)	(+1.193,A)	(+1.423,A)	(+1.081,A)	(+1.539,A)	(+1.505,A)
ISIC 33	(+1.190,A)	(+1.166,A)	(+1.288,A)	(-0.201,A)	(+1.341,A)	(+1.335,A)
ISIC 34	(+1.159,A)	(+1.215,A)	(+1.246,A)	(+0.874,A)	(+1.506,A)	(+1.168,A)
ISIC 35	(+1.519,A)	(+2.002,A)	(+1.905,A)	(+1.651,A)	(+1.224,A)	(-0.631,A)
ISIC 36	(+1.177,A)	(+1.268,A)	(+1.328,A)	(+0.592,A)	(+1.078,A)	(+1.251,A)
ISIC 37	(+1.144,A)	(+1.166,A)	(+1.167,A)	(+1.331,A)	(+1.384,A)	(+1.000,A)
ISIC 38	(+2.383,R)	(+2.376,R)	(+2.499,R)	(-0.057,A)	(+1.434,A)	(+1.479,A)

Note: IND: Industrial market economies;
 UMI: Upper Middle-income economies;
 LMI: Lower Middle-income economies;
 LI: Low income economies;
 - numbers in brackets are the t-values of the difference in mean;
 - R means reject the null hypothesis that the means are equal;
 - A means accept the null hypothesis that the means are equal.

II-G Manufacturing Sector (M)

Tables II-1, II-2, II-9 and II-51 to II-66 reveal the following:

(1) Out of the entire service sector, the manufacturing sector is more closely related to distributive services than other types of services. The values of DSBM and MFDS in Tables II-51 and II-59 are higher than other types of services.

(2) Out of the entire service sector the manufacturing sector is the least related to social services in terms of input purchase (SSBM) and the least related to producer services in terms of output sales (MFRS).

(3) The manufacturing sector depends quite largely on itself as the source of inputs and destination of sales. The Backward Dependency Ratio of the manufacturing sector on itself is 0.47 on average. The Sectorial Sales Ratio of manufacturing sector to itself is approximately 0.25. The Backward Dependency Ratio rises with the level of per capita income.

(4) Although the manufacturing sector depends very little on producer services and personal services, this dependency starts to grow with the level of development. The ratios RSBM, ESBM, MFRS and MFES rise with the level of development. This is because as the level of industrialization increases, the demand for intermediate services also increases. This increase is stimulated by the process of specialization and the increased complexity of the economic system.

Table II-31 MANUFACTURING SECTOR

(I) Backward Dependency Ratio

(A) Service Sectors

RSBM	=	0.013 + 0.595 x 10 ⁻⁵ x Y + 0.005D5 + 0.005D6 + 0.015D8	F = 12.88; R ² = 0.71
		(0.95) (3.54) (0.61) (0.57) (1.52)	
ESBM	=	0.017 + 0.33 x 10 ⁻⁵ x Y - 0.007D5 - 0.013D6 - 0.015D8	F = 2.19;* R ² = 0.30
		(2.87) (2.18) (1.02) (1.70) (1.70)	
RSBAL	=	0.011 + 0.29 x 10 ⁻⁵ x Y + 0.0018D5 + 0.0018D6 + 0.018D8	F = 12.61; R ² = 0.71
		(2.30) (2.29) (0.29) (0.30) (2.43)	
RSBEB	=	0.02 + 0.95 x 10 ⁻⁵ x Y + 0.015D5 + 0.004D6 - 0.0007D8	F = 4.41; R ² = 0.46
		(1.67) (3.06) (0.99) (0.22) (0.04)	
RSBCG	=	0.019 + 0.45 x 10 ⁻⁵ x Y + 0.01D5 + 0.01D6 + 0.024D8	F = 3.94; R ² = 0.43
		(1.72) (1.61) (0.83) (0.90) (1.44)	
ESBEB	=	0.026 + 0.28 x 10 ⁻⁵ x Y + 3.90 x 10 ⁻⁵ x N - 0.02D5 - 0.02D6 - 0.022D8	F = 3.08; R ² = 0.44
		(4.08) (1.78)* (1.78)* (2.50) (2.50) (2.40)	
SSBCG	=	- 0.017 + 0.0022 x Ln(Y) + 0.0006Ln(N) + 0.004D5 + 0.0008D6 + 0.003D8	F = 3.47; R ² = 0.47
		(2.36) (2.22) (0.71) (1.33) (0.26) (1.20)	
RSB31	=	0.01 + 4.22 x 10 ⁻¹⁰ x Y ² + 0.0007D5 + 0.001D6 + 0.01D8	F = 8.08; R ² = 0.61
		(2.20) (2.56) (0.12) (0.19) (1.40)	

RSB32	=	0.02 + 0.99 x 10 ⁻⁴ x Ln(Y) - 0.0025Ln(N) - 0.001D5 + 0.0001D6 + 0.04D8	F = 5.90; R ² = 0.60
		(0.79) (0.23) (0.74) (0.11) (0.01) (3.19)	
RSB33	=	0.03 - 0.0007(Ln(N)) ² + 0.009D5 + 0.008D6 + 0.05D8	F = 5.11; R ² = 0.49
		(2.22) (1.32) (0.69) (0.56) (3.60)	
RSB34	=	0.03 + 1.12 x 10 ⁻⁹ x Y ² + 0.003D5 + 0.005D6 + 0.03D8	F = 8.10; R ² = 0.61
		(2.14) (2.7) (0.18) (0.34) (1.34)	
RSB35	=	0.017 + 1.045 x 10 ⁻⁵ x Y + 0.016D5 + 0.009D6 - 0.002D8	F = 3.31; R ² = 0.39
		(1.17) (2.78) (0.90) (0.42) (0.10)	
RSB36	=	0.025 + 1.312 x 10 ⁻⁹ x Y ² + 0.008D5 + 0.02D6 + 0.01D8	F = 4.00; R ² = 0.43
		(1.65) (2.52) (0.41) (1.09) (0.57)	
ESB33	=	0.011 + 0.307 x 10 ⁻⁵ x Y + 2.406 x 10 ⁻⁵ x N - 0.004D5 - 0.009D6 - 0.014D8	F = 2.84; R ² = 0.49
		(2.49) (2.73) (1.53) (0.80) (1.56) (2.06)	
ESB34	=	0.043 + 0.335 x 10 ⁻⁵ x Y + 8.44 x 10 ⁻⁵ x N - 0.043D5 - 0.035D6 - 0.035D8	F = 3.10; R ² = 0.44
		(3.63) (1.13) (2.04) (3.02) (2.35) (2.00)	
ESB35	=	0.025 + 0.26 x 10 ⁻⁵ x Y + 3.42 x 10 ⁻⁵ x N - 0.02D5 - 0.019D6 - 0.023D8	F = 2.80; R ² = 0.41
		(4.04) (1.67) (1.58) (2.66) (2.40) (2.48)	
ESB36	=	0.01 + 0.32 x 10 ⁻⁵ x Y + 8.47 x N	F = 4.91; R ² = 0.30
		(1.87) (1.89)* (2.4)	
ESB37	=	0.016 + 7.69 x 10 ⁻⁸ x N ² - 0.011D5 - 0.008D6 - 0.013D8	F = 3.16; R ² = 0.38
		(3.44) (2.67) (1.93) (1.52) (2.41)	

$$\text{SSB32} = 0.0003 + 1.22 \times 10^{-10} \times Y^2 + 0.55 \times 10^{-5} \times N \quad F = 5.15; \quad R^2 = 0.31$$

(0.295) (3.01) (0.90)

$$\text{SSB33} = -0.0002 + 1.31 \times 10^{-10} \times Y^2 + 0.69 \times 10^{-5} \times N \quad F = 6.00; \quad R^2 = 0.34$$

(0.28) (3.19) (1.12)

(B) Manufacturing Sector

$$\text{MBM} = 0.122 + 0.046 \ln(Y) + 0.003D5 + 0.05D6 + 0.073D8 \quad F = 3.40; \quad R^2 = 0.39$$

(0.68) (1.75)* (0.05) (0.69) (0.96)

(II) Sectorial Sales Ratio

(A) Service Sectors

$$\text{MFRS} = 0.004 + 4.60 \times 10^{-10} \times Y^2 - 1.68 \times 10^{-5} \times N \quad F = 9.83; \quad R^2 = 0.46$$

(1.90) (4.37) (1.07)

$$\text{MFES} = 0.023 + 2.86 \times 10^{-10} \times Y^2 - 0.014D5 - 0.0005D6 - 0.002D8 \quad F = 3.54; \quad R^2 = 0.40$$

(3.99) (1.44) (1.99) (0.07) (0.27)

$$\text{ALFES} = 0.023 + 4.054 \times 10^{-10} \times Y^2 + 9.80 \times 10^{-7} \times N - 0.012D5 + 0.006D6 + 0.015D8 \quad F = 3.03; \quad R^2 = 0.43$$

(2.27) (1.16) (0.03) (0.93) (0.43) (0.94)

$$\text{EBFRS} = 0.009 + 6.12 \times 10^{-10} \times Y^2 - 2.09 \times 10^{-5} \times N \quad F = 19.31; \quad R^2 = 0.63$$

(4.16) (6.14) (1.402)

$$\text{CGFRS} = 0.0032 + 6.805 \times 10^{-10} \times Y^2 - 0.279 \times 10^{-4} \times N \quad F = 5.98; \quad R^2 = 0.34$$

(0.754) (3.40) (0.895)

$$\text{EBFES} = 0.027 + 3.50 \times 10^{-10} \times Y^2 - 0.127 \times 10^{-4} \times N - 0.018D5 - 0.014D6 - 0.018D8 \quad F = 2.98; \quad R^2 = 0.43$$

(5.30) (2.00)* (0.69) (2.92) (2.17) (2.36)

EBFDS	=	0.103 - 0.95 x 10 ⁻⁵ x Y				F = 9.10; R ² = 0.28
		(11.1) (3.02)				
EBFSS	=	0.015 + 2.25 x 10 ⁻⁷ x N ² + 0.02D5 + 0.0014D6 + 0.017D8				F = 3.28; R ² = 0.39
		(1.13) (2.75) (1.22) (0.08) (1.06)				
31FES	=	0.029 + 7.28 x 10 ⁻¹⁰ x Y ² - 0.012D5 + 0.015D6 + 0.026D8				F = 5.23; R ² = 0.50
		(2.1) (1.52) (0.71) (0.84) (1.25)				
32FES	=	0.004 + 2.53 x 10 ⁻¹⁰ x Y ² - 0.003D5 - 0.0003D6 - 0.004D8				F = 10.35; R ² = 0.66
		(2.98) (4.96) (1.65) (0.16) (1.64)				
32FRS	=	0.00017 + 1.59 x 10 ⁻¹⁰ x Y ²				F = 24.47; R ² = 0.51
		(0.29) (4.95)				
35FRS	=	0.004 + 6.74 x 10 ⁻¹⁰ x Y ² - 1.86 x 10 ⁻⁵ x N + 0.0024D5 + 0.0001D6 - 0.005D8				F = 4.30; R ² = 0.52
		(0.64) (3.75) (0.98) (0.37) (0.02) (0.63)				
35FES	=	0.29 + 0.186 x 10 ⁻⁵ x Y - 0.021D5 - 0.015D6 - 0.021D8				F = 3.47; R ² = 0.40
		(5.47) (1.40) (3.30) (2.27) (2.60)				
37FDS	=	0.011 - 0.002 x Ln(N) - 0.004D5 + 0.011D6 - 0.0021D8				F = 4.17; R ² = 0.44
		(1.59) (1.32) (0.79) (2.11) (0.43)				
34FSS	=	0.027 + 7.75 x 10 ⁻⁷ x N ² + 0.069D5 - 0.0013D6 + 0.023D8				F = 4.25; R ² = 0.45
		(0.68) (3.05) (1.40) (0.03) (0.46)				
35FSS	=	0.0074 + 0.00022N + 0.0082D5 + 0.0035D6 + 0.016D8				F = 8.42; R ² = 0.62
		(0.65) (5.36) (0.60) (0.25) (1.20)				

(B) Manufacturing Sector

$$\text{MPM} = 0.104 + 0.33\text{Ln}(N) - 0.044D5 + 0.05D6 + 0.088D8$$

(3.05) (4.39) (-1.78) (1.92) (3.57)

$$F = 19.24; R^2 = 0.79$$

Forward Linkages (FL)

$$\text{FLM} = 0.39 + 0.361 \times 10^{-5} \times Y + 0.00033 \times N - 0.058D5 + 0.073D6 + 0.094D8$$

(9.95) (0.37) (2.43) (1.24) (1.50) (1.63)

$$F = 5.11; R^2 = 0.56$$

$$\text{FLAL} = 0.255 + 0.33 \times 10^{-5} \times Y + 0.00016 \times N - 0.082D5 + 0.01D6 + 0.106D8$$

(10.70) (0.55) (1.93)* (2.86) (0.35) (2.99)

$$F = 15.62; R^2 = 0.80$$

Total Linkages (TL)

$$\text{TLM} = 4.187 + 1.415 \times 10^{-5} \times Y + 0.0051 \times N - 1.864D5 - 0.229D6 + 0.605D8$$

(10.39) (-0.14) (3.72) (3.63) (0.51) (1.01)

$$F = 9.45; R^2 = 0.70$$

Note: * significant at the 10% level;
numbers in brackets are t-values.

Table II-32a BACKWARD DEPENDENCY RATIO OF MANUFACTURING SECTOR (M)

COUNTRIES	MANUFACTURING SECTOR	DISTRIBUTIVE SERVICES	PRODUCER SERVICES	PERSONAL SERVICES	SOCIAL SERVICES
LOW INCOME ECONOMIES					
GHANA	0.4888	0.1036	0.0094	0.0000	0.0000
INDIA	0.4391	0.1539	0.0223	0.0265	0.0000
KEYNA	0.5051	0.0712	0.0416	0.0010	0.0010
MADAGASCAR	0.2681	0.0078	0.0211	0.0000	0.0000
SRI LANKA	0.2953	0.1459	0.0000	0.0000	0.0020
TANZANIA	0.1961	0.3347	0.0185	0.0080	0.0000
AVERAGE	0.3654	0.1362	0.0188	0.0059	0.0005
LOWER MIDDLE-INCOME ECONOMIES					
COLUMBIA	0.4068	0.1140	0.0326	0.0014	0.0000
INDONESIA	0.3525	0.1185	0.0193	0.0035	0.0027
IVORY COST	0.4818	0.0180	0.0063	0.0470	0.0046
MOROCCO	0.3899	0.2661	0.0092	0.0266	0.0000
NIGERIA	0.3164	0.2729	0.0263	0.0000	0.0000
PHILIPPINES	0.3370	0.1369	0.0137	0.0239	0.0000
THAILAND	0.3922	0.1102	0.0119	0.0102	0.0003
TURKEY	0.4590	0.1476	0.0337	0.0131	0.0000
AVERAGE	0.3919	0.1480	0.0191	0.0157	0.0009
UPPER MIDDLE-INCOME ECONOMIES					
ALGERIA	0.7388	0.0297	0.0473	0.0042	0.0000
BRAZIL	0.6096	0.1099	0.0000	0.0000	0.0000
CHILE	0.3644	0.3239	0.0295	0.0050	0.0058
GREECE	0.5582	0.0778	0.0369	0.0193	0.0000
KOREA	0.6110	0.0894	0.0322	0.0000	0.0013
MEXICO	0.4866	0.1577	0.0284	0.0223	0.0006
AVERAGE	0.5615	0.1314	0.0291	0.0084	0.0013
INDUSTRIAL MARKET ECONOMIES					
CANADA	0.5252	0.0707	0.0790	0.0364	0.0000
FRANCE	0.5008	0.0821	0.0784	0.0161	0.0037
GERMANY	0.5905	0.0968	0.0482	0.0194	0.0058
ITALY	0.5016	0.0788	0.0390	0.0230	0.0045
JAPAN	0.5951	0.1011	0.0419	0.0178	0.0083
USA	0.6140	0.1099	0.0774	0.0200	0.0265
AVERAGE	0.5545	0.0899	0.0607	0.0221	0.0081

Table II- 32b
t-test on Mean differences;
Backward Dependency Ratio of the Manufacturing Sector

<u>Category</u>	<u>Manufacturing Sector</u>	<u>DS</u>	<u>RS</u>	<u>ES</u>	<u>SS</u>
IND VS UMI	(-0.124,A)	(-0.975,A)	(+3.082,R)	(+2.728,R)	(+1.739,A)
IND VS LMI	(+5.588,R)	(-1.906,A)	(+4.717,R)	(+0.995,A)	(+1.851,A)
IND VS LI	(+3.339,R)	(-1.012,A)	(+4.267,R)	(+3.085,R)	(+1.985,A)
UMI VS LMI	(+3.044,R)	(-0.322,A)	(+1.331,A)	(-1.046,A)	(+0.297,A)
UMI VS LI	(+2.653,R)	(-0.077,A)	(+1.188,A)	(+0.432,A)	(+0.798,A)
LMI VS LI	(+0.470,A)	(+0.218,A)	(+0.045,A)	(+1.376,A)	(+0.655,A)

Note: see Table II-4b

Table II- 33a BACKWARD DEPENDENCY RATIO OF VARIOUS MANUFACTURING INDUSTRIES
OR MANUFACTURING SUBSECTORS ON VARIOUS SERVICES

AGROFOOD PROCESSING & LIGHT INDUSTRIES (ISIC 31,32,33)				
COUNTRIES	DISTRIBUTIVE SERVICES	PRODUCER SERVICES	PERSONAL SERVICES	SOCIAL SERVICES
LOW INCOME ECONOMIES				
GHANA	0.1220	0.0068	0.0000	0.0000
INDIA	0.1197	0.0120	0.0211	0.0000
KEYNA	0.0819	0.0401	0.0007	0.0010
MADAGASCAR	0.0054	0.0165	0.0000	0.0000
SRI LANKA	0.1168	0.0000	0.0000	0.0020
TANZANIA	0.2675	0.0165	0.0067	0.0000
AVERAGE	0.1189	0.0153	0.0048	0.0005
LOWER MIDDLE-INCOME ECONOMIES				
COLUMBIA	0.0868	0.0185	0.0010	0.0000
INDONESIA	0.1057	0.0114	0.0031	0.0025
IVORY COST	0.0215	0.0081	0.0450	0.0040
MOROCCO	0.2124	0.0095	0.0259	0.0000
NIGERIA	0.2022	0.0216	0.0000	0.0000
PHILIPPINES	0.1339	0.0105	0.0140	0.0000
THAILAND	0.1065	0.0099	0.0080	0.0000
TURKEY	0.1334	0.0246	0.0102	0.0000
AVERAGE	0.1253	0.0143	0.0134	0.0008
UPPER MIDDLE-INCOME ECONOMIES				
ALGERIA	0.0159	0.0274	0.0027	0.0000
BRAZIL	0.0983	0.0000	0.0000	0.0000
CHILE	0.2795	0.0213	0.0039	0.0056
GREECE	0.0677	0.0250	0.0146	0.0000
KOREA	0.0878	0.0300	0.0000	0.0014
MEXICO	0.1390	0.0239	0.0190	0.0000
AVERAGE	0.1147	0.0213	0.0067	0.0012
INDUSTRIAL MARKET ECONOMIES				
CANADA	0.0720	0.0616	0.0425	0.0000
FRANCE	0.0586	0.0546	0.0107	0.0005
GERMANY	0.1114	0.0268	0.0106	0.0054
ITALY	0.0738	0.0326	0.0160	0.0001
JAPAN	0.1272	0.0350	0.0145	0.0024
USA	0.0976	0.0561	0.0122	0.0156
AVERAGE	0.0901	0.0445	0.0178	0.0040

Table II- 33b
t-test on Mean differences;
Backward Dependency Ratio of the Agrofood Processing
and Light Industries on various services

<u>Category</u>	<u>DS</u>	<u>RS</u>	<u>ES</u>	<u>SS</u>
IND VS UMI	(-0.641,A)	(+3.115,R)	(+1.834,A)	(+1.073,A)
IND VS LMI	(-1.448,A)	(+4.725,R)	(+0.588,A)	(+1.260,A)
IND VS LI	(-0.790,A)	(+3.560,R)	(+2.131,A)	(+1.409,A)
UMI VS LMI	(-0.248,A)	(+1.414,A)	(-1.058,A)	(+0.335,A)
UMI VS LI	(-0.083,A)	(+0.836,A)	(+0.409,A)	(+0.698,A)
LMI VS LI	(+0.156,A)	(-0.176,A)	(+1.350,A)	(+0.502,A)

Note: see Table II- 4b

Table II-34a BACKWARD DEPENDENCY RATIO OF VARIOUS MANUFACTURING INDUSTRIES
OR MANUFACTURING SUBSECTORS ON VARIOUS SERVICES

ENERGY AND BASIC PRODUCTS (ISIC 34,35,36,37)				
COUNTRIES	DISTRIBUTIVE SERVICES	PRODUCER SERVICES	PERSONAL SERVICES	SOCIAL SERVICES
LOW INCOME ECONOMIES				
GHANA	0.0736	0.0133	0.0000	0.0000
INDIA	0.1787	0.0343	0.0367	0.0000
KEYNA	0.0476	0.0296	0.0005	0.0014
MADAGASCAR	0.0288	0.0761	0.0000	0.0000
SRI LANKA	0.1582	0.0000	0.0000	0.0027
TANZANIA	0.6673	0.0325	0.0160	0.0000
AVERAGE	0.1924	0.0310	0.0089	0.0007
LOWER MIDDLE-INCOME ECONOMIES				
COLUMBIA	0.1787	0.0569	0.0018	0.0000
INDONESIA	0.1041	0.0370	0.0045	0.0040
IVORY COST	0.0082	0.0032	0.0322	0.0013
MOROCCO	0.3394	0.0081	0.0336	0.0000
NIGERIA	0.4174	0.0344	0.0000	0.0000
PHILIPPINES	0.1375	0.0176	0.0415	0.0000
THAILAND	0.0897	0.0196	0.0152	0.0011
TURKEY	0.1738	0.0465	0.0171	0.0000
AVERAGE	0.1811	0.0279	0.0182	0.0008
UPPER MIDDLE-INCOME ECONOMIES				
ALGERIA	0.0483	0.0898	0.0039	0.0000
BRAZIL	0.1505	0.0000	0.0000	0.0000
CHILE	0.4020	0.0352	0.0061	0.0067
GREECE	0.1027	0.0675	0.0283	0.0000
KOREA	0.0887	0.0312	0.0000	0.0012
MEXICO	0.1685	0.0338	0.0310	0.0019
AVERAGE	0.1601	0.0429	0.0115	0.0016
INDUSTRIAL MARKET ECONOMIES				
CANADA	0.0760	0.0823	0.0333	0.0000
FRANCE	0.1202	0.1005	0.0234	0.0033
GERMANY	0.1063	0.0605	0.0218	0.0054
ITALY	0.0907	0.0458	0.0359	0.0133
JAPAN	0.0742	0.0426	0.0141	0.0068
USA	0.1291	0.1011	0.0195	0.0466
AVERAGE	0.0994	0.0721	0.0247	0.0126

Table II-34b
t-test on Mean differences;
Backward Dependency Ratio of the Energy and Basic
Product Industries (ISIC 34, 35, 36, 37) on various services

<u>Category</u>	<u>DS</u>	<u>RS</u>	<u>ES</u>	<u>SS</u>
IND VS UMI	(-1.159,A)	(+1.749,A)	(+1.946,A)	(+1.532,A)
IND VS LMI	(-1.682,A)	(+3.501,R)	(+0.980,A)	(+1.670,A)
IND VS LI	(-0.943,A)	(+2.740,R)	(+2.251,A)	(+1.686,A)
UMI VS LMI	(-0.299,A)	(+1.039,A)	(-0.825,A)	(+0.719,A)
UMI VS LI	(-0.291,A)	(+0.722,A)	(+0.317,A)	(+0.817,A)
LMI VS LI	(-0.104,A)	(-0.244,A)	(+1.124,A)	(+0.156,A)

Note: see Table II-4b

Table II- 35a BACKWARD DEPENDENCY RATIO OF VARIOUS MANUFACTURING INDUSTRIES
OR MANUFACTURING SUBSECTORS ON VARIOUS SERVICES

CAPITAL GOODS (ISIC 38)					
COUNTRIES		DISTRIBUTIVE SERVICES	PRODUCER SERVICES	PERSONAL SERVICES	SOCIAL SERVICES
LOW INCOME ECONOMIES					
		0.0842	0.0105	0.0000	0.0000
	GHANA	0.1931	0.0320	0.0272	0.0000
	INDIA	0.0870	0.0706	0.0028	0.0000
	KEYNA	0.0282	0.0518	0.0000	0.0000
	MADAGASCAR	0.4596	0.0000	0.0000	0.0000
	SRI LANKA	0.5059	0.0271	0.0135	0.0000
	TANZANIA				
	AVERAGE	0.2263	0.0320	0.0073	0.0000
LOWER MIDDLE-INCOME ECONOMIES					
		0.1367	0.0686	0.0034	0.0000
	COLUMBIA	0.1659	0.0295	0.0041	0.0023
	INDONESIA	0.0214	0.0050	0.0734	0.0105
	IVORY COST	0.3833	0.0097	0.0211	0.0000
	MOROCCO	0.2918	0.0547	0.0000	0.0000
	NIGERIA	0.1693	0.0284	0.0492	0.0000
	PHILIPPINES	0.1592	0.0075	0.0106	0.0001
	THAILAND	0.1497	0.0342	0.0153	0.0000
	TURKEY				
	AVERAGE	0.1847	0.0297	0.0221	0.0016
UPPER MIDDLE-INCOME ECONOMIES					
		0.0531	0.0556	0.0102	0.0000
	ALGERIA	0.0868	0.0000	0.0000	0.0000
	BRAZIL	0.3479	0.0659	0.0080	0.0040
	CHILE	0.0858	0.0462	0.0265	0.0000
	GREECE	0.0892	0.0355	0.0000	0.0010
	KOREA	0.1991	0.0319	0.0168	0.0000
	MEXICO				
	AVERAGE	0.1437	0.0392	0.0103	0.0008
INDUSTRIAL MARKET ECONOMIES					
		0.0618	0.0907	0.0300	0.0000
	CANADA	0.0814	0.0894	0.0173	0.0079
	FRANCE	0.0790	0.0568	0.0246	0.0065
	GERMANY	0.0780	0.0439	0.0243	0.0046
	ITALY	0.1103	0.0485	0.0258	0.0159
	JAPAN	0.1028	0.0727	0.0282	0.0179
	USA				
	AVERAGE	0.0856	0.0670	0.0250	0.0088

Table II-35b
t-test on Mean differences:
Backward Dependency Ratio of Capital Goods Industries
(ISIC 38) on various services

<u>Category</u>	<u>DS</u>	<u>RS</u>	<u>ES</u>	<u>SS</u>
IND VS UMI	(-1.257,A)	(+2.221,R)	(+3.260,R)	(+2.777,R)
IND VS LMI	(-2.540,R)	(+3.215,R)	(+0.312,A)	(+2.333,R)
IND VS LI	(-1.666,A)	(+2.591,R)	(+3.657,R)	(+3.148,R)
UMI VS LMI	(-0.688,A)	(+0.767,A)	(-1.179,A)	(-0.541,A)
UMI VS LI	(-0.863,A)	(+0.506,A)	(+0.487,A)	(+1.276,A)
LMI VS LI	(-0.451,A)	(-0.174,A)	(+1.454,A)	(+1.247,A)

Note: see Table II-4b.

Table II-36a SECTORIAL SALES RATIO OF MANUFACTURING SECTOR (M)

COUNTRIES	MANUFACTURING SECTOR	DISTRIBUTIVE SERVICES	PRODUCER SERVICES	PERSONAL SERVICES	SOCIAL SERVICES
LOW INCOME ECONOMIES					
GHANA	0.2398	0.0957	0.0051	0.0172	0.0000
INDIA	0.2797	0.0398	0.0010	0.0043	0.0399
KEYNA	0.2718	0.0524	0.0025	0.0321	0.0279
MADAGASCAR	0.1032	0.0372	0.0025	0.0028	0.0260
SRI LANKA	0.1520	0.0321	0.0034	0.0105	0.0012
TANZANIA	0.0925	0.0485	0.0024	0.0090	0.0283
AVERAGE	0.1898	0.0509	0.0028	0.0127	0.0206
LOWER MIDDLE-INCOME ECONOMIES					
COLUMBIA	0.2712	0.0373	0.0060	0.0458	0.0237
INDONESIA	0.2423	0.0711	0.0028	0.0351	0.0202
IVORY COST	0.1496	0.0646	0.0017	0.0042	0.0430
MOROCCO	0.2153	0.0238	0.0006	0.0323	0.0239
NIGERIA	0.1508	0.0368	0.0073	0.0017	0.0000
PHILIPPINES	0.2140	0.0296	0.0060	0.0206	0.0000
THAILAND	0.2108	0.0471	0.0043	0.0320	0.0053
TURKEY	0.2856	0.0648	0.0010	0.0244	0.0000
AVERAGE	0.2174	0.0469	0.0037	0.0245	0.0145
UPPER MIDDLE-INCOME ECONOMIES					
ALGERIA	0.2008	0.0123	0.0030	0.0048	0.0000
BRAZIL	0.2999	0.0278	0.0017	0.0076	0.0020
CHILE	0.1995	0.0766	0.0087	0.0219	0.0331
GREECE	0.2612	0.0525	0.0009	0.0088	0.0033
KOREA	0.3617	0.0338	0.0148	0.0016	0.0068
MEXICO	0.2719	0.0311	0.0034	0.0199	0.0100
AVERAGE	0.2658	0.0390	0.0054	0.0108	0.0092
INDUSTRIAL MARKET ECONOMIES					
CANADA	0.3566	0.0264	0.0613	0.0361	0.0017
FRANCE	0.2315	0.0149	0.0118	0.0369	0.0370
GERMANY	0.3117	0.0235	0.0129	0.0247	0.0432
ITALY	0.2583	0.0177	0.0044	0.0345	0.0165
JAPAN	0.3953	0.0579	0.0049	0.0221	0.0220
USA	0.3830	0.0163	0.0099	0.0402	0.0137
AVERAGE	0.3227	0.0261	0.0175	0.0324	0.0223

Table II- 36b
t-test on Mean differences;
Sectorial Sales Ratio of the Manufacturing Sector

<u>Category</u>	<u>Manufacturing Sector</u>	<u>DS</u>	<u>RS</u>	<u>ES</u>	<u>SS</u>
IND VS UMI	(+1.527,A)	(-1.140,A)	(+1.330,A)	(+4.914,R)	(+1.635,A)
IND VS LMI	(+3.230,R)	(-2.267,R)	(+1.551,A)	(+1.280,A)	(+0.933,A)
IND VS LI	(+3.014,R)	(-2.151,A)	(+1.658,A)	(+3.715,R)	(+0.197,A)
UMI VS LMI	(+1.576,A)	(-0.707,A)	(+0.715,A)	(-2.160,R)	(-0.709,A)
UMI VS LI	(+1.779,A)	(-0.905,A)	(+1.150,A)	(-0.341,A)	(-1.368,A)
LMI VS LI	(+0.713,A)	(-0.355,A)	(+0.854,A)	(+1.702,A)	(-0.699,A)

Note: see Table II- 4b

Table II- 37a SECTORIAL SALES RATIO OF VARIOUS MANUFACTURING INDUSTRIES
OR MANUFACTURING SUBSECTORS ON VARIOUS SERVICES

AGROFOOD PROCESSING & LIGHT INDUSTRIES (ISIC 31,32,33)				
COUNTRIES	DISTRIBUTIVE SERVICES	PRODUCER SERVICES	PERSONAL SERVICES	SOCIAL SERVICES
LOW INCOME ECONOMIES				
GHANA	0.0089	0.0008	0.0309	0.0000
INDIA	0.0090	0.0001	0.0067	0.0012
KENYA	0.0084	0.0002	0.0733	0.0353
MADAGASCAR	0.0039	0.0001	0.0003	0.0117
SRI LANKA	0.0043	0.0000	0.0139	0.0006
TANZANIA	0.0113	0.0001	0.0088	0.0174
	-----	-----	-----	-----
AVERAGE	0.0076	0.0002	0.0223	0.0110
LOWER MIDDLE-INCOME ECONOMIES				
COLUMBIA	0.0012	0.0002	0.0615	0.0124
INDONESIA	0.0059	0.0001	0.0502	0.0087
IVORY COST	0.0083	0.0001	0.0003	0.0195
MOROCCO	0.0040	0.0000	0.0263	0.0078
NIGERIA	0.0137	0.0014	0.0033	0.0000
PHILIPPINES	0.0038	0.0030	0.0169	0.0000
THAILAND	0.0121	0.0012	0.0501	0.0020
TURKEY	0.0050	0.0000	0.0356	0.0000
	-----	-----	-----	-----
AVERAGE	0.0067	0.0008	0.0305	0.0063
UPPER MIDDLE-INCOME ECONOMIES				
ALGERIA	0.0053	0.0011	0.0106	0.0000
BRAZIL	0.0062	0.0000	0.0128	0.0015
CHILE	0.0117	0.0018	0.0307	0.0200
GREECE	0.0059	0.0000	0.0015	0.0003
KOREA	0.0043	0.0303	0.0003	0.0010
MEXICO	0.0032	0.0001	0.0034	0.0029
	-----	-----	-----	-----
AVERAGE	0.0061	0.0056	0.0099	0.0043
INDUSTRIAL MARKET ECONOMIES				
CANADA	0.0032	0.0179	0.0514	0.0005
FRANCE	0.0045	0.0000	0.0532	0.0223
GERMANY	0.0102	0.0086	0.0534	0.0292
ITALY	0.0086	0.0025	0.0385	0.0064
JAPAN	0.0112	0.0011	0.0490	0.0106
USA	0.0029	0.0013	0.0707	0.0079
	-----	-----	-----	-----
AVERAGE	0.0068	0.0052	0.0527	0.0128

Table II-37b
t-test on Mean differences;
Sectorial Sales Ratio of Agrofood Processing and
Light Industries (ISIC 31, 32, 33) on various services

<u>Category</u>	<u>DS</u>	<u>RS</u>	<u>ES</u>	<u>SS</u>
IND VS UMI	(+0.347,A)	(-0.059,A)	(+6.804,R)	(+1.567,A)
IND VS LMI	(+0.013,A)	(+1.566,A)	(+2.443,R)	(+1.282,A)
IND VS LI	(-0.457,A)	(+1.765,A)	(+2.569,R)	(+0.246,A)
UMI VS LMI	(-0.330,A)	(+0.965,A)	(-2.227,R)	(-0.494,A)
UMI VS LI	(-0.910,A)	(+1.074,A)	(-1.039,A)	(-1.040,A)
LMI VS LI	(-0.467,A)	(+1.326,A)	(+0.601,A)	(-0.765,A)

Note: see Table II-4b

Table II-38a **SECTORIAL SALES RATIO OF VARIOUS MANUFACTURING INDUSTRIES
OR MANUFACTURING SUBSECTORS ON VARIOUS SERVICES**

ENERGY AND BASIC PRODUCTS (ISIC 34,35,36,37)				
COUNTRIES	DISTRIBUTIVE SERVICES	PRODUCER SERVICES	PERSONAL SERVICES	SOCIAL SERVICES
LOW INCOME ECONOMIES				
GHANA	0.1708	0.0110	0.0006	0.0000
INDIA	0.0559	0.0028	0.0026	0.1104
KEYNA	0.0938	0.0039	0.0042	0.0328
MADAGASCAR	0.1387	0.0108	0.0119	0.0919
SRI LANKA	0.0766	0.0139	0.0035	0.0012
TANZANIA	0.0837	0.0091	0.0129	0.0573
	-----	-----	-----	-----
AVERAGE	0.1033	0.0086	0.0059	0.0489
LOWER MIDDLE-INCOME ECONOMIES				
COLUMBIA	0.0928	0.0195	0.0210	0.0251
INDONESIA	0.1611	0.0095	0.0215	0.0616
IVORY COST	0.1260	0.0002	0.0062	0.0313
MOROCCO	0.0632	0.0018	0.0409	0.0368
NIGERIA	0.0794	0.0174	0.0003	0.0000
PHILIPPINES	0.0853	0.0128	0.0299	0.0000
THAILAND	0.1120	0.0107	0.0128	0.0132
TURKEY	0.1497	0.0026	0.0164	0.0000
	-----	-----	-----	-----
AVERAGE	0.1087	0.0093	0.0186	0.0210
UPPER MIDDLE-INCOME ECONOMIES				
ALGERIA	0.0142	0.0003	0.0021	0.0000
BRAZIL	0.0514	0.0052	0.0018	0.0032
CHILE	0.1445	0.0146	0.0124	0.0473
GREECE	0.1176	0.0026	0.0243	0.0108
KOREA	0.0792	0.0068	0.0042	0.0158
MEXICO	0.0682	0.0080	0.0244	0.0228
	-----	-----	-----	-----
AVERAGE	0.0792	0.0063	0.0115	0.0166
INDUSTRIAL MARKET ECONOMIES				
CANADA	0.0486	0.0631	0.0454	0.0021
FRANCE	0.0263	0.0384	0.0203	0.0444
GERMANY	0.0396	0.0242	0.0100	0.0754
ITALY	0.0410	0.0115	0.0225	0.0280
JAPAN	0.0793	0.0082	0.0195	0.0394
USA	0.0344	0.0199	0.0155	0.0274
	-----	-----	-----	-----
AVERAGE	0.0449	0.0276	0.0222	0.0361

Table II- 38b
t-test on Mean differences;
Sectorial Sales Ratio of Energy and Basic Products Industries
(ISIC 34, 35, 36, 37) on various services

<u>Category</u>	<u>DS</u>	<u>RS</u>	<u>ES</u>	<u>SS</u>
IND VS UMI	(-1.678,A)	(+2.482,R)	(+1.616,A)	(+1.607,A)
IND VS LMI	(-4.430,R)	(+2.094,A)	(+0.530,A)	(+1.201,A)
IND VS LI	(-3.057,R)	(+2.226,A)	(+3.007,R)	(-0.604,A)
UMI VS LMI	(-1.303,A)	(-0.929,A)	(-1.126,A)	(-0.415,A)
UMI VS LI	(-0.930,A)	(-0.863,A)	(+1.158,A)	(-1.608,A)
LMI VS LI	(-0.253,A)	(+0.227,A)	(+2.521,R)	(-1.371,A)

Note: see Table II-4b

Table II-39a SECTORIAL SALES RATIO OF VARIOUS MANUFACTURING INDUSTRIES
OR MANUFACTURING SUBSECTORS ON VARIOUS SERVICES

CAPITAL GOODS (ISIC 38)					
COUNTRIES		DISTRIBUTIVE SERVICES	PRODUCER SERVICES	PERSONAL SERVICES	SOCIAL SERVICES
LOW INCOME ECONOMIES					
		0.1343	0.0080	0.0000	0.0000
	GHANA	0.0823	0.0002	0.0011	0.0041
	INDIA	0.0730	0.0044	0.0011	0.0118
	KEYNA	0.0748	0.0028	0.0044	0.0267
	MADAGASCAR	0.1288	0.0000	0.0017	0.0017
	SRI LANKA	0.3617	0.0074	0.0131	0.1072
	TANZANIA	-----	-----	-----	-----
	AVERAGE	0.1924	0.0038	0.0036	0.0253
LOWER MIDDLE-INCOME ECONOMIES					
		0.1476	0.0043	0.0078	0.1124
	COLUMBIA	0.1743	0.0042	0.0062	0.0144
	INDONESIA	0.0798	0.0009	0.0052	0.0568
	IVORY COST	0.0286	0.0002	0.0373	0.0451
	MOROCCO	0.0000	0.0000	0.0000	0.0000
	NIGERIA	0.0321	0.0030	0.0079	0.0000
	PHILIPPINES	0.0550	0.0030	0.0130	0.0021
	THAILAND	0.0771	0.0000	0.0071	0.0000
	TURKEY	-----	-----	-----	-----
	AVERAGE	0.0743	0.0019	0.0106	0.0289
UPPER MIDDLE-INCOME ECONOMIES					
		0.0178	0.0066	0.0007	0.0000
	ALGERIA	0.0374	0.0000	0.0059	0.0002
	BRAZIL	0.1882	0.0103	0.0089	0.0487
	CHILE	0.0832	0.0003	0.0045	0.0001
	GREECE	0.0210	0.0012	0.0003	0.0037
	KOREA	0.0374	0.0020	0.0490	0.0035
	MEXICO	-----	-----	-----	-----
	AVERAGE	0.0642	0.0034	0.0116	0.0094
INDUSTRIAL MARKET ECONOMIES					
		0.0232	0.1050	0.0040	0.0020
	CANADA	0.0173	0.0057	0.0324	0.0443
	FRANCE	0.0224	0.0089	0.0142	0.0330
	GERMANY	0.0124	0.0014	0.0396	0.0214
	ITALY	0.0681	0.0015	0.0047	0.0093
	JAPAN	0.0125	0.0078	0.0343	0.0065
	USA	-----	-----	-----	-----
	AVERAGE	0.0260	0.0217	0.0215	0.0194

Table II-39b
t-test on Mean differences:
Sectorial Sales Ratio of Capital Goods Industries
(ISIC 38) on various services

<u>Category</u>	<u>DS</u>	<u>RS</u>	<u>ES</u>	<u>SS</u>
IND VS UMI	(-1.367,A)	(+1.091,A)	(+0.997,A)	(+0.969,A)
IND VS LMI	(-2.110,A)	(+1.182,A)	(+1.438,A)	(-0.595,A)
IND VS LI	(-2.493,R)	(+1.070,A)	(+2.653,R)	(-0.320,A)
UMI VS LMI	(-0.298,A)	(+0.791,A)	(+0.116,A)	(-1.194,A)
UMI VS LI	(-1.798,A)	(-0.176,A)	(+1.016,A)	(-0.853,A)
LMI VS LI	(-1.699,A)	(-1.170,A)	(+1.556,A)	(+0.163,A)

Note: see Table II-4b

II-H Backward, Forward and Total Linkages

The backward, forward and total linkages (Hirschman 1958) is a useful way to assess the impact of the manufacturing sector and service sectors on the economy at large. The backward linkage of sector j measures the total direct inputs of goods and services ($BL_j = \sum_i A_{ij}$ where A_{ij} is the input-output coefficient). The forward linkage measures the total direct sales of goods and services of sector i to other sectors ($FL_i = \sum_j A_{ij}$). The total linkage (the column sums of the Leontief inverse matrix $(I-A)^{-1}$) measures the direct inputs and the indirect inputs in successive rounds. Inferences on total output and employment impacts of a certain sector can be drawn from the total linkages. Tables II-67 to II-76 report the values of these linkages of service sectors and manufacturing sector. Some salient features of these empirical findings are:

- (1) The total linkage of the manufacturing sector is very large (the value is around 4.0). Among the service sectors, the Distributive Services have the largest total linkage (around 1.83).
- (2) The total linkage of Personal Services rises with the level of industrialization. From Table II-67, the total linkage of manufacturing sector seems to rise with the level of development. However, this steady rise of the total linkage in the manufacturing sector is statistically weak as shown by the regression in Table II-68, II-1 and II-9.
- (3) The forward linkage of producer services is the largest among the service sector (= 0.55) in fact, this magnitude is even larger than the forward linkage of the manufacturing sector (= 0.45). Social services have the weakest forward linkage. However, the impact of social services is definitely under-recorded because, most social services have the nature of public goods.
- (4) The forward linkage of social services seems to rise with the level of development (Table II-8). This result is rather doubtful because of the amount of zero elements recorded in Table II-69. The t-test in Table II-70 also produces contradictory evidence.

Table II-40a TOTAL LINKAGES OF VARIOUS SECTORS

COUNTRIES	MANUFACTURING SECTOR	DISTRIBUTIVE SERVICES	PRODUCER SERVICES	PERSONAL SERVICES	SOCIAL SERVICES
LOW INCOME ECONOMIES					
GHANA	2.6040	1.8816	1.2654	1.1240	1.0000
INDIA	5.3146	1.6265	1.1013	1.1851	1.2886
KEYNA	4.5195	2.4047	1.2112	1.2837	1.6048
MADAGASCAR	2.1510	2.5456	1.1765	1.0524	1.4497
SRI LANKA	2.4180	1.3387	1.0238	1.0977	1.0721
TANZANIA	2.0807	1.5785	1.1590	1.1487	1.5018
AVERAGE	3.1813	1.8959	1.1562	1.1486	1.3345
LOWER MIDDLE-INCOME ECONOMIES					
COLUMBIA	4.1178	1.7160	1.4358	1.3065	1.2431
INDONESIA	3.0636	1.7412	1.1412	1.2384	1.2115
IVORY COST	3.4181	3.1918	3.1421	1.2733	2.0105
MOROCCO	4.2929	1.7581	1.0921	1.5087	1.4311
NIGERIA	2.1304	1.7536	1.1256	1.0228	1.0000
PHILIPPINES	4.6907	1.7656	1.7631	1.4110	1.0000
THAILAND	4.2540	1.5895	1.1518	1.3426	1.0816
TURKEY	5.8531	1.9033	1.0663	1.4064	1.0000
AVERAGE	3.9776	1.9274	1.4898	1.3137	1.2472
UPPER MIDDLE-INCOME ECONOMIES					
ALGERIA	2.2130	2.1651	1.0637	1.0451	1.0000
BRAZIL	3.9873	1.4508	1.0420	1.0824	1.0152
CHILE	3.7208	1.7546	1.1503	1.3497	1.4100
GREECE	4.4195	1.7318	1.1333	1.1795	1.0546
KOREA	5.6701	1.6574	1.6045	1.0710	1.1420
MEXICO	4.5201	1.5365	1.1453	1.3051	1.1096
AVERAGE	4.0885	1.7160	1.1898	1.1721	1.1219
INDUSTRIAL MARKET ECONOMIES					
CANADA	5.8567	2.0578	1.9538	1.6327	1.0466
FRANCE	3.7560	1.5833	1.5933	1.3512	1.5029
GERMANY	4.9015	1.7553	1.7907	1.2740	1.9598
ITALY	4.0949	1.6660	1.5376	1.3281	1.3276
JAPAN	6.3417	2.0019	1.3056	1.4521	1.3817
USA	5.5414	1.5648	1.5851	1.4666	1.7058
AVERAGE	5.0820	1.7715	1.6277	1.4175	1.4874

Table II-40b
t-test on Mean Differences;
Total Linkages

<u>Category</u>	<u>Manufacturing Sector</u>	<u>DS</u>	<u>RS</u>	<u>ES</u>	<u>SS</u>
IND VS UMI	(+1.596,A)	(+0.416,A)	(+3.520,R)	(+3.293,R)	(+2.550,R)
IND VS LMI	(+1.926,A)	(-0.770,A)	(+0.518,A)	(+1.409,A)	(+1.353,A)
IND VS LI	(+2.716,R)	(-0.578,A)	(+4.849,R)	(+4.344,R)	(+0.921,A)
UMI VS LMI	(+0.182,A)	(-1.009,A)	(-1.134,A)	(-1.918,A)	(-0.919,A)
UMI VS LI	(+1.243,A)	(-0.812,A)	(+0.367,A)	(+0.379,A)	(-1.757,A)
LMI VS LI	(+1.156,A)	(+0.117,A)	(+1.319,A)	(+2.704,R)	(-0.545,A)

Note: see Table II-4b

Table II-41a FORWARD LINKAGES OF VARIOUS SECTORS

COUNTRIES	MANUFACTURING SECTOR	DISTRIBUTIVE SERVICES	PRODUCER SERVICES	PERSONAL SERVICES	SOCIAL SERVICES
LOW INCOME ECONOMIES					
GHANA	0.5422	0.3008	0.2462	0.0597	0.0000
INDIA	0.4916	0.4801	0.2490	0.2202	0.0011
KENYA	0.4845	0.3924	1.1824	0.0922	0.0047
MADAGASCAR	0.2418	0.2469	0.8992	0.0971	0.0278
SRI LANKA	0.3230	0.3025	0.0720	0.0000	0.0863
TANZANIA	0.2625	0.6212	0.1387	0.3408	0.0118
AVERAGE	0.3909	0.3907	0.4646	0.1350	0.0236
LOWER MIDDLE-INCOME ECONOMIES					
COLUMBIA	0.4851	0.4239	0.5258	0.0522	0.0000
INDONESIA	0.5641	0.3471	0.4970	0.1681	0.0607
IVORY COST	0.3904	0.4992	0.9346	0.8188	0.1195
MOROCCO	0.3818	0.8914	0.9547	0.4231	0.0000
NIGERIA	0.2844	0.2966	0.5465	0.0477	0.0000
PHILIPPINES	0.3656	0.3446	0.5525	0.3320	0.0000
THAILAND	0.4139	0.3385	0.2696	0.2037	0.0079
TURKEY	0.4762	0.3202	0.9990	0.1554	0.0000
AVERAGE	0.4202	0.4327	0.6599	0.2751	0.0235
UPPER MIDDLE-INCOME ECONOMIES					
ALGERIA	0.3467	0.6094	0.4380	0.0581	0.0000
BRAZIL	0.4430	0.2395	0.0000	0.2384	0.0000
CHILE	0.4565	0.6119	0.9045	0.0872	0.0350
GREECE	0.4541	0.2322	0.8203	0.1026	0.0152
KOREA	0.5295	0.4039	0.5820	0.3407	0.0296
MEXICO	0.4352	0.3014	0.3771	0.2646	0.0275
AVERAGE	0.4442	0.3997	0.5203	0.1819	0.0179
INDUSTRIAL MARKET ECONOMIES					
CANADA	0.6172	0.4534	0.6089	0.3310	0.0032
FRANCE	0.4186	0.3522	0.5750	0.2990	0.0287
GERMANY	0.5008	0.4330	0.5608	0.4614	0.1673
ITALY	0.4135	0.2999	0.5529	0.2872	0.0140
JAPAN	0.6240	0.4951	0.5090	0.3005	0.0517
USA	0.5605	0.3555	0.4860	0.3047	0.2927
AVERAGE	0.5224	0.3982	0.5488	0.3306	0.0963

Table II-41b
t-test on Mean Differences;
Forward Linkages

<u>Category</u>	<u>Manufacturing Sector</u>	<u>DS</u>	<u>RS</u>	<u>ES</u>	<u>SS</u>
IND VS UMI	(+1.736,A)	(-0.020,A)	(+0.210,A)	(+2.755,R)	(+1.622,A)
IND VS LMI	(+2.092,A)	(-0.456,A)	(-1.157,A)	(+0.591,A)	(+1.444,A)
IND VS LI	(+2.006,A)	(+0.116,A)	(+0.446,A)	(+3.417,R)	(+1.447,A)
UMI VS LMI	(+0.610,A)	(-0.332,A)	(-0.852,A)	(-0.919,A)	(-0.335,A)
UMI VS LI	(+0.912,A)	(+0.099,A)	(+0.241,A)	(+0.681,A)	(-0.349,A)
LMI VS LI	(+0.477,A)	(+0.468,A)	(+0.929,A)	(+1.358,A)	(-0.004,A)

Note: see Table II-4b

Table II-42a , BACKWARD LINKAGES OF VARIOUS SECTORS

COUNTRIES	MANUFACTURING SECTOR	DISTRIBUTIVE SERVICES	PRODUCER SERVICES	PERSONAL SERVICES	SOCIAL SERVICES
LOW INCOME ECONOMIES					
GHANA	0.4907	0.3256	0.1975	0.7709	0.0000
INDIA	0.6364	0.2475	0.1023	0.4622	0.2672
KEYNA	0.5380	0.4735	0.2108	0.3649	0.3064
MADAGASCAR	0.3849	1.0151	0.2385	0.1505	0.2521
SRI LANKA	0.5148	0.1146	0.1653	0.1718	0.1041
TANZANIA	0.4716	0.1958	0.1287	0.3152	0.3249
AVERAGE	0.5061	0.3954	0.1738	0.3726	0.2091
LOWER MIDDLE-INCOME ECONOMIES					
COLUMBIA	0.6666	0.3168	0.3140	0.3384	0.2858
INDONESIA	0.6875	0.2268	0.1829	0.6581	0.1385
IVORY COST	0.6955	0.3176	0.9697	0.3651	0.3976
MOROCCO	0.5522	0.2774	0.1312	0.2813	0.2889
NIGERIA	0.4766	0.1726	0.2149	0.3726	0.0000
PHILIPPINES	0.6350	0.2064	0.4618	0.3302	0.0000
THAILAND	0.6715	0.2533	0.1634	0.4544	0.0982
TURKEY	0.6222	0.2353	0.1180	0.2401	0.0000
AVERAGE	0.6259	0.2508	0.3255	0.3800	0.1511
UPPER MIDDLE-INCOME ECONOMIES					
ALGERIA	0.6243	0.2813	0.1350	0.3903	N.A.
BRAZIL	0.4919	0.1268	0.0468	0.3574	0.2721
CHILE	0.5475	0.3042	0.1963	0.2734	0.2172
GREECE	0.6795	0.2934	0.2164	0.0961	0.0574
KOREA	0.7367	0.2980	0.4669	0.2299	0.1752
MEXICO	0.6162	0.1697	0.1078	0.2816	0.2135
AVERAGE	0.6160	0.2456	0.1948	0.2715	0.1871
INDUSTRIAL MARKET ECONOMIES					
CANADA	0.6686	0.3859	0.4438	0.4332	0.2209
FRANCE	0.4623	0.2753	0.3635	0.4523	0.2837
GERMANY	0.5278	0.3531	0.3835	0.4595	0.4499
ITALY	0.5150	0.2783	0.3463	0.4038	0.2223
JAPAN	0.6946	0.4074	0.2346	0.4120	0.2955
USA	0.6146	0.2658	0.2768	0.5119	0.3894
AVERAGE	0.5805	0.3276	0.3414	0.4454	0.3103

N.A. = Not applicable

Table II-4b
t-test on Mean Differences;
Backward Linkages

<u>Category</u>	<u>Manufacturing Sector</u>	<u>DS</u>	<u>RS</u>	<u>ES</u>	<u>SS</u>
IND VS UMI	(-0.681,A)	(+2.030,A)	(+2.178,A)	(+3.835,R)	(+2.369,R)
IND VS LMI	(-0.980,A)	(+2.460,R)	(+0.153,A)	(+1.353,A)	(+2.389,R)
IND VS LI	(+1.467,A)	(-0.498,A)	(+4.495,R)	(+0.772,A)	(+1.565,A)
UMI VS LMI	(-0.220,A)	(-0.143,A)	(+1.123,A)	(+1.742,A)	(-0.547,A)
UMI VS LI	(+2.229,R)	(-1.091,A)	(+0.331,A)	(-0.989,A)	(-0.347,A)
LMI VS LI	(+2.780,R)	(-1.072,A)	(+1.488,A)	(+0.072,A)	(-0.762,A)

Note: see Table II-4b

Table II-43a FORWARD LINKAGES OF THE DISAGGREGATED MANUFACTURING SECTORS

COUNTRIES	MANUFACTURING SECTOR		
	AGROFOOD PROCESSING & LIGHT INDUSTRIES (ISIC 31,32,33)	ENERGY AND BASIC PRODUCTS (ISIC 34,35,36,37)	CAPITAL GOODS (ISIC 38)
LOW INCOME ECONOMIES			
GHANA	0.2834	0.8810	0.9641
INDIA	0.2505	0.9383	0.4159
KEYNA	0.3958	0.6343	0.4550
MADAGASCAR	0.0832	0.6929	0.4652
SRI LANKA	0.1788	0.7703	0.5201
TANZANIA	0.1569	0.4915	0.7034
AVERAGE	0.2214	0.7347	0.5873
LOWER MIDDLE-INCOME ECONOMIES			
COLUMBIA	0.2876	0.8841	0.7680
INDONESIA	0.2317	1.2775	0.8615
IVORY COST	0.1751	0.6174	0.4280
MOROCCO	0.2615	0.6425	0.3915
NIGERIA	0.1704	0.5005	0.0373
PHILIPPINES	0.1850	0.7584	0.3352
THAILAND	0.2980	0.7061	0.3569
TURKEY	0.2831	0.8480	0.3558
AVERAGE	0.2368	0.7793	0.4443
UPPER MIDDLE-INCOME ECONOMIES			
ALGERIA	0.2743	0.5752	0.2670
BRAZIL	0.2744	0.6972	0.3227
CHILE	0.2737	0.7081	0.5622
GREECE	0.3144	0.7573	0.4178
KOREA	0.3854	0.7874	0.4336
MEXICO	0.2578	0.7319	0.3956
AVERAGE	0.2967	0.7095	0.3998
INDUSTRIAL MARKET ECONOMIES			
CANADA	0.4244	0.7463	0.6596
FRANCE	0.3191	0.6833	0.3548
GERMANY	0.3809	0.7429	0.4380
ITALY	0.3200	0.7141	0.3186
JAPAN	0.4191	0.8620	0.4846
USA	0.4470	0.8105	0.4543
AVERAGE	0.3851	0.7598	0.4517

Table II-43b
t-test on Mean Differences;
Forward Linkages of the Disaggregated Manufacturing Sector

<u>Category</u>	<u>AL</u>	<u>EB</u>	<u>CG</u>
IND VS UMI	(+2.984,R)	(+1.253,A)	(+0.809,A)
IND VS LMI	(+5.059,R)	(-0.221,A)	(+0.070,A)
IND VS LI	(+3.313,R)	(+0.348,A)	(-1.371,R)
UMI VS LMI	(+2.222,R)	(-0.785,A)	(-0.434,A)
UMI VS LI	(+1.566,A)	(-0.343,A)	(-1.964,A)
LMI VS LI	(+0.317,A)	(+0.416,A)	(+1.124,A)

Note: see Table II-4b

Table II-44a BACKWARD LINKAGES OF THE DISAGGREGATED MANUFACTURING SECTORS

COUNTRIES	MANUFACTURING SECTOR		
	AGROFOOD PROCESSING & LIGHT INDUSTRIES (ISIC 31,32,33)	ENERGY AND BASIC PRODUCTS (ISIC 34,35,36,37)	CAPITAL GOODS (ISIC 38)
LOW INCOME ECONOMIES			
GHANA	0.4989	0.5058	0.3785
INDIA	0.6874	0.6022	0.5970
KEYNA	0.6420	0.6000	0.3178
MADAGASCAR	0.5187	0.1076	0.1318
SRI LANKA	0.5799	0.4327	0.2692
TANZANIA	0.5446	0.3010	0.3371
AVERAGE	0.5786	0.4249	0.3386
LOWER MIDDLE-INCOME ECONOMIES			
COLUMBIA	0.6964	0.6171	0.6170
INDONESIA	0.7258	0.6315	0.6330
IVORY COST	0.7119	0.7179	0.6233
MOROCCO	0.6686	0.4761	0.3583
NIGERIA	0.5557	0.4398	0.1980
PHILIPPINES	0.6642	0.6124	0.4885
THAILAND	0.6755	0.6708	0.6937
TURKEY	0.7037	0.5474	0.5380
AVERAGE	0.6752	0.5891	0.5187
UPPER MIDDLE-INCOME ECONOMIES			
ALGERIA	0.6679	0.5477	0.6112
BRAZIL	0.6060	0.3950	0.4194
CHILE	0.6088	0.4864	0.4325
GREECE	0.7281	0.5986	0.6258
KOREA	0.7218	0.7566	0.7426
MEXICO	0.6485	0.5899	0.5742
AVERAGE	0.6635	0.5824	0.5676
INDUSTRIAL MARKET ECONOMIES			
CANADA	0.6675	0.7020	0.6344
FRANCE	0.5369	0.4565	0.4050
GERMANY	0.5530	0.5328	0.5111
ITALY	0.5619	0.4800	0.4808
JAPAN	0.7293	0.7439	0.6172
USA	0.6765	0.6099	0.5665
AVERAGE	0.6209	0.5875	0.5358

Table II-44b
t-test on Mean Differences;
Backward Linkages of the Disaggregated Manufacturing Sector

<u>Category</u>	<u>AL</u>	<u>EB</u>	<u>CG</u>
IND VS UMI	(-1.086,A)	(+0.364,A)	(-0.515,A)
IND VS LMI	(-1.442,A)	(-0.028,A)	(+0.249,A)
IND VS LI	(+0.952,A)	(+1.766,A)	(+2.750,R)
UMI VS LMI	(-0.409,A)	(-0.447,A)	(+0.631,A)
UMI VS LI	(+2.295,R)	(+1.481,A)	(+2.859,R)
LMI VS LI	(+2.735,R)	(+1.924,A)	(+2.102,A)

Note: see Table II-4b .

(5) From Table II-69 and II-73 the forward linkage of the manufacturing sector (particularly the Agrofood and light industries) seems to rise with the level of development. However, (see the t-test in Table II-70 and the regressions in Table II-9) this relationship is statistically not very strong.

(6) The backward linkage of the manufacturing sector is very large (0.57 on the average). The backward linkage of personal services is the largest among the service sector (0.37).

II-I Income elasticity of Demand of Manufacturing and Services

Many investigators (Clark 1957, Kuznets 1957 among others) have argued that the growth of the service sector and in post-industrial society is related to the high income elasticity of demand for services. The lower income elasticity of demand for manufacturing products is partly responsible for the decline of the manufacturing sector relative to the service sector. Our empirical investigations (Table II-77, II-78 and II-10) partially confirm this. The following observations are in order:

(1) In Table II-10, the average propensity to consume of manufacturing products and various services (C/GDP) are regressed against per capita income and population. The t-values on per capita income is not significantly different from zero for all equations except the equation for producer services. The income per capita variable is then deleted (except of course for producer services) and the equations are retested. The F-test (not reported) shows that the new set regression equations are statistically identical to previous set of equations. This means, the average propensities to consume of manufacturing products, distributive services, personal services and social services are generally independent of per capita income. Hence, the income elasticities of demand must equal to one. Since the average propensity to consume of producer services varies positively with the level of per capita income, income elasticity of demand for producer services must be greater than one.

Table II-45 CONSUMPTION

Average Propensity to Consume (C/GDP) of:

(A) Manufacturing Sector:

$$CM/GDP = 0.46 + 0.0026Ln(Y) - 0.036Ln(N) - 0.10D5 - 0.096D6 - 0.11D8 \quad F = 3.16; \quad R^2 = 0.44$$

(3.94) (0.16) (2.77) (2.33) (2.16) (2.34)

(B) Service Sectors:

$$CRS/GDP = 0.013 + 1.105 \times 10^{-5} \times Y + 5.12 \times N + 0.008D5 + 0.015D6 + 0.011D8 \quad F = 4.09; \quad R^2 = 0.51$$

(0.78) (2.70) (0.90) (0.39) (0.73) (0.44)

$$CBS/GDP = 0.097 + 0.758 \times 10^{-5} \times Y - 0.07D5 - 0.027D6 - 0.054D8 \quad F = 3.53; \quad R^2 = 0.40$$

(5.06) (1.56) (2.95) (1.13) (1.85)

$$CSS/GDP = -0.05 + 0.0044LN(Y) + 0.008Ln(N) + 0.013D5 + 0.007D6 + 0.026D8 \quad F = 3.34; \quad R^2 = 0.46$$

(1.34) (0.87) (2.007)* (0.97) (0.53) (1.76)

$$CDS/GDP = 0.036 + 0.012Ln(Y) + 0.021Ln(N) - 0.004D5 + 0.043D6 - 0.0005D8 \quad F = 2.14; * \quad R^2 = 0.35$$

(0.86) (0.977) (2.06) (0.12) (1.30) (0.01)

Note: * significant at the 10% level;
numbers in brackets are t-values.

Table II-46a AVERAGE PROPENSITY TO CONSUME (C/GDP) OF VARIOUS SECTORS

COUNTRIES	MANUFACTURING SECTOR	DISTRIBUTIVE SERVICES	PRODUCER SERVICES	PERSONAL SERVICES	SOCIAL SERVICES
LOW INCOME ECONOMIES					
GHANA	0.1398	0.1705	0.0658	0.0225	0.0000
INDIA	0.1515	0.0830	0.0440	0.0373	0.0336
KEYNA	0.2639	0.0859	0.0072	0.0765	0.0142
MADAGASCAR	0.4641	0.0735	0.0019	0.0267	0.0049
SRI LANKA	0.2728	0.1576	0.0202	0.0863	0.0192
TANZANIA	0.1768	0.0501	0.0676	0.0155	0.0101
AVERAGE	0.2448	0.1034	0.0378	0.0441	0.0137
LOWER MIDDLE-INCOME ECONOMIES					
COLUMBIA	0.4560	0.5305	0.4958	0.9531	0.0404
INDONESIA	0.2205	0.1167	0.0267	0.0305	0.0494
IVORY COST	0.3429	0.0558	0.0017	0.0148	0.0208
MOROCCO	0.4274	0.0101	0.0009	0.0962	0.0000
NIGERIA	0.1138	0.2006	0.0285	0.0043	0.0017
PHILIPPINES	0.3589	0.1014	0.0321	0.0632	0.0000
THAILAND	0.3038	0.1540	0.0612	0.0802	0.0242
TURKEY	0.2673	0.1419	0.0000	0.0970	0.0000
AVERAGE	0.3113	0.1639	0.0809	0.1674	0.0171
UPPER MIDDLE-INCOME ECONOMIES					
ALGERIA	0.2610	0.0217	0.0285	0.0399	0.0000
BRAZIL	0.2611	0.1902	0.0000	0.0093	0.0053
CHILE	0.3486	0.0379	0.0054	0.1159	0.0566
GREECE	0.2874	0.1912	0.0030	0.1738	0.0172
KOREA	0.2429	0.1264	0.0360	0.0171	0.0367
MEXICO	0.2885	0.2019	0.0881	0.0933	0.0199
AVERAGE	0.2816	0.1282	0.0269	0.0749	0.0226
INDUSTRIAL MARKET ECONOMIES					
CANADA	0.2441	0.1457	0.0787	0.1500	0.0147
FRANCE	0.2231	0.1540	0.0790	0.0785	0.0711
GERMANY	0.2237	0.1119	0.1057	0.0467	0.0174
ITALY	0.2427	0.1530	0.0682	0.0775	0.0384
JAPAN	0.1756	0.1376	0.0866	0.0946	0.0681
USA	0.2859	0.5340	0.4553	0.6907	0.6218
AVERAGE	0.2325	0.2060	0.1456	0.1897	0.1386

Table II-46b
t-test on Mean Differences;
Average Propensity to Consume (C/GDP)

<u>Category</u>	<u>Manufacturing Sector</u>	<u>DS</u>	<u>RS</u>	<u>ES</u>	<u>SS</u>
IND VS UMI	(-2.322,R)	(+1.055,A)	(+1.866,A)	(+1.098,A)	(+1.189,A)
IND VS LMI	(-1.874,A)	(+0.486,A)	(+0.751,A)	(+0.147,A)	(+1.248,A)
IND VS LI	(-0.238,A)	(+1.490,A)	(+1.692,A)	(+1.429,A)	(+1.285,A)
UMI VS LMI	(-0.704,A)	(-0.546,A)	(-0.887,A)	(-0.798,A)	(+0.500,A)
UMI VS LI	(+0.710,A)	(+0.643,A)	(-0.560,A)	(+1.064,A)	(+0.910,A)
LMI VS LI	(+1.051,A)	(+1.012,A)	(+0.702,A)	(+1.085,A)	(+0.399,A)

Note: see Table II-4b

(2) The average propensity to consume of manufacturing products is around 0.27 for all the sampled nations. This is less than the average propensity to consume of services (i.e. the total of distributive, producer, personal and social services) which is around 0.39.

II-J Discussions

The linkage between the manufacturing sector and the service sectors (i.e. all of DS, RS, ES, and SS) are not very large. On the average, the Backward Dependency Ratio of the manufacturing sector on the (entire) service is approximately 0.17. The Sectorial Sales Ratio of the (entire) service sector to the manufacturing sector is approximately 0.13. Hence, the decline of the manufacturing sector in the Advanced Stage of industrialization probably does not affect the service sector very much.

The average propensity to consume of the manufacturing sector is around 0.27 and the average propensity to consume of the (entire) service sector is around 0.39. This shows that the impact of income induced demand on various sectors (the Engel's Law) as suggested by Kuznets (1957) and others must be significant.

Although the manufacturing sector is a declining sector at the Advanced Stage, it is still a very "influential" sector: the total linkage of the manufacturing sector is very high.

Among the various service sectors the distributive sector is the most "dependent" service sector on manufacturing products (i.e. the manufacturing sector is very important for DS). The producer service is the least "dependant" service sector on manufacturing products.

Conclusion

Part I of our empirical study supports the general patterns of development of the agricultural sector, manufacturing sector, other industrial sector and service sector, predicted in the literature (eg. Clark 1957, Kuznets 1957, etc.). We do not observe, however, that the service sector would "take-off" into rapid self-sustain growth in the Advanced Stage of development. This sector is growing but also at a slower rate above the national growth rate. One plausible explanation is from the linkage between manufacturing sector and the service sector. When the manufacturing sector contracts, the service sector should be affected as well.

Part II of the present study deals with the linkages between manufacturing sector and the service sector at various levels of disaggregation. The linkage between these two sectors is not very large. If the relationship was very large, the service sector would probably decline much more in the Advanced Stage of industrialization.

There is also some evidence that as industrialization advances, the demand for intermediate services also increases: this increase is due to the increased complexity and degree of specialization of the system.

The average propensities to consume of the manufacturing products and social services are very large. The income elasticity of demand for services is greater than one. These suggest that the Engel's Law type of explanation in the literature on the rise and fall of the service and manufacturing sectors is an important one.

Finally, the impact of the manufacturing sector on the rest of the economy is very large in spite of the fact that it is a declining sector in the Advanced Stage of industrialization. This is evident from the large magnitude of total linkage of the manufacturing sector.

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Appendix A

Notations

r	employment growth rate of the economy
r ^s	employment growth rate of the services sector
r ^a	employment growth rate of the agricultural sector
r ^m	employment growth rate of the manufacturing sector
r ^o	employment growth rate of other industrial sectors (mining, construction, electricity and gas)
r ^e	employment growth rate of the residual sector of the economy
A ^a	is the employment share of the agricultural sector
A ^m	is the employment share of the manufacturing sector
A ^s	is the employment share of the service sector
A ^o	is the employment share of other industrial sector
A ^e	is the employment share of the residual sector
g	product growth rate (GDP) of the economy
g ^s	product growth rate (GDP) of the service sector
g ^a	product growth rate (GDP) of the agricultural sector
g ^m	product growth rate (GDP) of the manufacturing sector
g ^o	product growth rate (GDP) of the other industrial sectors
g ^e	product growth rate (GDP) of the residual sector
B ^a	is the product share (GDP) of the agricultural sector
B ^m	is the product share (GDP) of the manufacturing sector
B ^s	is the product share (GDP) of the service sector
B ^o	is the product share (GDP) of other industrial sector
B ^e	is the product share (GDP) of the residual sectors
Y	income per capita in 1970 constant US dollars
N	size of population
D1,D2	Dummy variables for the pre and post oil share period
D5,D6,D7,D8	Dummy variables for the structural index of sample countries (see Appendix B)
M	Manufacturing Sector
AL	Agrofood Processing and Light Industries (ISIC 31, 32, 33)
EB	Energy and Basic Industries (ISIC 34, 35, 36, 37)
CG	Capital Goods Industries (ISIC 38)
DS	Distributive Services
RS	Producer Services
ES	Personal Services
SS	Social Services
iBj	is the Backward Dependency Ratio of the jth sector on input from ith sector
iFj	is the Sectorial Sales Ratio of the ith sector with output going to the jth sector i and j can be M, AL, EB, CG, DS, RS, ES or SS
Ci	is consumption of the ith sector
BLj	is the Backward Linkage of the jth sector ($= \sum_i A_{ij}$ where A_{ij} are the input-output coefficients)
FLi	is the Forward Linkage of the ith sector ($= \sum_j A_{ij}$)
TLi	is the Total Linkages of the ith sector

Appendix B

Structural Index of the Sample Countries

<u>Countries</u>	<u>D5</u>	<u>D6</u>	<u>D7</u>	<u>D8</u>
USA	0	0	0	1
Japan	0	0	0	1
Canada	0	0	0	1
France	0	0	0	1
Germany	0	0	0	1
Italy	0	0	0	1
Korea	0	0	0	1
Chile	0	1	0	0
Mexico	0	1	0	0
Algeria	1	0	0	0
Greece	0	0	1	0
Brazil	0	1	0	0
Thailand	0	0	1	0
Columbia	0	1	0	0
Philippines	0	0	1	0
Ivory Coast	1	0	0	0
Turkey	0	1	0	0
Indonesia	1	0	0	0
Nigeria	1	0	0	0
Morocco	0	0	1	0
Sri Lanka	1	0	0	0
Tanzania	1	0	0	0
Ghana	0	1	0	0
Kenya	0	0	0	1
India	1	0	0	0
Madagascar	1	0	0	0

Notes:

Primary specialization countries D5 = 1, D6 = D7 = D8 = 0

Import substitution countries D6 = 1, D5 = D7 = D8 = 0

Balanced development countries D7 = 1, D5 = D6 = D8 = 0

Industrial specializing countries D8 = 1, D5 = D6 = D7 = 0

Compiled from Chenery (1979) and from "World Industry Since 1960: Progress and Prospects" special Issues of Industrial Development Survey for the Third General Conference, UNIDO (1980).

Table II-47

 BACKWARD DEPENDENCY RATIO OF THE DISAGGREGATED MANUFACTURING SECTOR

COUNTRIES	ISIC 31				ISIC 32			
	DS	RS	ES	SS	DS	RS	ES	SS
LOW INCOME ECONOMIES								
GHANA	0.0891	0.0015	0.0000	0.0000	0.1548	0.0030	0.0000	0.0000
INDIA	0.1173	0.0087	0.0153	0.0000	0.1162	0.0164	0.0281	0.0000
KEYNA	0.0768	0.0265	0.0006	0.0012	0.0959	0.0960	0.0015	0.0000
MADAGASCAR	0.0034	0.0129	0.0000	0.0000	0.0188	0.0431	0.0000	0.0000
SRI LANKA	0.0865	0.0000	0.0000	0.0023	0.3230	0.0000	0.0000	0.0000
TANZANIA	0.2942	0.0221	0.0079	0.0000	0.2171	0.0099	0.0052	0.0000
AVERAGE	0.1112	0.0119	0.0040	0.0006	0.1543	0.0281	0.0058	0.0000
LOWER MIDDLE-INCOME ECONOMIES								
COLUMBIA	0.0846	0.0135	0.0010	0.0000	0.0895	0.0334	0.0008	0.0000
INDONESIA	0.1028	0.0094	0.0030	0.0024	0.0825	0.0132	0.0037	0.0032
IVORY COST	0.0185	0.0074	0.0413	0.0041	0.0291	0.0109	0.0637	0.0042
MOROCCO	0.1655	0.0068	0.0252	0.0000	0.3230	0.0159	0.0300	0.0000
NIGERIA	0.1252	0.0153	0.0000	0.0000	0.2909	0.0273	0.0000	0.0000
PHILIPPINES	0.1329	0.0088	0.0118	0.0000	0.1491	0.0213	0.0276	0.0000
THAILAND	0.1069	0.0074	0.0070	0.0000	0.0963	0.0161	0.0109	0.0000
TURKEY	0.1278	0.0205	0.0085	0.0000	0.1342	0.0321	0.0134	0.0000
AVERAGE	0.1080	0.0111	0.0122	0.0008	0.1493	0.0213	0.0188	0.0009
UPPER MIDDLE-INCOME ECONOMIES								
ALGERIA	0.0130	0.0151	0.0020	0.0000	0.0154	0.0351	0.0023	0.0000
BRAZIL	0.0893	0.0000	0.0000	0.0000	0.1161	0.0000	0.0000	0.0000
CHILE	0.2311	0.0159	0.0036	0.0060	0.4145	0.0318	0.0049	0.0058
GREECE	0.0607	0.0210	0.0154	0.0000	0.0724	0.0300	0.0132	0.0000
KOREA	0.0962	0.0256	0.0000	0.0016	0.0788	0.0309	0.0000	0.0014
MEXICO	0.1180	0.0205	0.0190	0.0000	0.1836	0.0322	0.0186	0.0000
AVERAGE	0.1014	0.0164	0.0067	0.0013	0.1468	0.0266	0.0065	0.0012
INDUSTRIAL MARKET ECONOMIES								
CANADA	0.0669	0.0446	0.0480	0.0000	0.0734	0.0759	0.0355	0.0000
FRANCE	0.0518	0.0486	0.0045	0.0004	0.0554	0.0695	0.0266	0.0006
GERMANY	0.1030	0.0183	0.0096	0.0047	0.0935	0.0415	0.0100	0.0069
ITALY	0.0635	0.0203	0.0161	0.0002	0.0957	0.0427	0.0180	0.0000
JAPAN	0.1135	0.0165	0.0146	0.0024	0.1370	0.0758	0.0132	0.0031
USA	0.0948	0.0568	0.0110	0.0131	0.0881	0.0523	0.0115	0.0168
AVERAGE	0.0823	0.0342	0.0173	0.0035	0.0905	0.0596	0.0191	0.0049

Table II-48 BACKWARD DEPENDENCY RATIO OF THE DISAGGREGATED MANUFACTURING SECTOR

COUNTRIES	ISIC 33				ISIC 34			
	DS	RS	ES	SS	DS	RS	ES	SS
LOW INCOME ECONOMIES								
GHANA	0.1762	0.0311	0.0000	0.0000	0.1395	0.0233	0.0000	0.0000
INDIA	0.2258	0.0089	0.0254	0.0000	0.1830	0.0325	0.0599	0.0000
KEYNA	0.1197	0.0912	0.0000	0.0000	0.0900	0.0698	0.0013	0.0000
MADAGASCAR	0.0245	0.0344	0.0000	0.0000	0.0317	0.0880	0.0000	0.0000
SRI LANKA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
TANZANIA	0.5489	0.0251	0.0100	0.0000	0.7602	0.0409	0.0117	0.0000
AVERAGE	0.1825	0.0318	0.0059	0.0000	0.2007	0.0424	0.0122	0.0000
LOWER MIDDLE-INCOME ECONOMIES								
COLUMBIA	0.1373	0.0494	0.0024	0.0000	0.2904	0.0463	0.0005	0.0000
INDONESIA	0.2968	0.0465	0.0036	0.0023	0.2100	0.0382	0.0064	0.0079
IVORY COST	0.0263	0.0075	0.0367	0.0032	0.0000	0.0000	0.0000	0.0000
MOROCCO	0.3144	0.0162	0.0159	0.0000	0.3224	0.0151	0.1139	0.0000
NIGERIA	0.2747	0.0456	0.0000	0.0000	0.4027	0.0301	0.0000	0.0000
PHILIPPINES	0.1154	0.0126	0.0169	0.0000	0.1107	0.0265	0.0392	0.0000
THAILAND	0.1488	0.0164	0.0088	0.0000	0.1556	0.0151	0.0168	0.0004
TURKEY	0.1706	0.0174	0.0066	0.0000	0.2151	0.0598	0.0517	0.0000
AVERAGE	0.1855	0.0264	0.0114	0.0007	0.2134	0.0289	0.0285	0.0010
UPPER MIDDLE-INCOME ECONOMIES								
ALGERIA	0.0323	0.0611	0.0080	0.0000	0.0000	0.0000	0.0000	0.0000
BRAZIL	0.1229	0.0000	0.0000	0.0000	0.1353	0.0000	0.0000	0.0000
CHILE	0.3042	0.0419	0.0041	0.0008	0.2227	0.0307	0.0060	0.0037
GREECE	0.1115	0.0323	0.0176	0.0000	0.1124	0.0512	0.0281	0.0000
KOREA	0.1147	0.0483	0.0000	0.0009	0.1185	0.0501	0.0000	0.0013
MEXICO	0.2314	0.0334	0.0205	0.0000	0.1592	0.0316	0.0247	0.0000
AVERAGE	0.1528	0.0362	0.0084	0.0003	0.1247	0.0273	0.0098	0.0008
INDUSTRIAL MARKET ECONOMIES								
CANADA	0.0916	0.1159	0.0275	0.0000	0.0881	0.1133	0.0417	0.0000
FRANCE	0.1170	0.0600	0.0151	0.0006	0.2019	0.0562	0.0230	0.0013
GERMANY	0.1829	0.0409	0.0168	0.0058	0.1126	0.1109	0.0479	0.0058
ITALY	0.0489	0.0763	0.0062	0.0000	0.0843	0.0547	0.0478	0.0029
JAPAN	0.1622	0.0319	0.0164	0.0012	0.1012	0.0595	0.0333	0.0029
USA	0.1305	0.0610	0.0193	0.0206	0.1433	0.1314	0.0318	0.0432
AVERAGE	0.1222	0.0643	0.0169	0.0047	0.1219	0.0877	0.0376	0.0094

Table II-49 BACKWARD DEPENDENCY RATIO OF THE DISAGGREGATED MANUFACTURING SECTOR

COUNTRIES	ISIC 35				ISIC 36			
	DS	RS	ES	SS	DS	RS	ES	SS
LOW INCOME ECONOMIES								
GHANA	0.0814	0.0163	0.0000	0.0000	0.1818	0.0260	0.0000	0.0000
INDIA	0.1261	0.0276	0.0301	0.0000	0.2595	0.0343	0.0726	0.0000
KEYNA	0.0296	0.0206	0.0002	0.0019	0.1300	0.0355	0.0016	0.0000
MADAGASCAR	0.0336	0.0771	0.0000	0.0000	0.0159	0.0520	0.0000	0.0000
SRI LANKA	0.1483	0.0000	0.0000	0.0034	0.1892	0.0000	0.0000	0.0000
TANZANIA	0.7062	0.0239	0.0087	0.0000	0.5714	0.0445	0.0297	0.0000
AVERAGE	0.1875	0.0276	0.0065	0.0009	0.2246	0.0321	0.0173	0.0000
LOWER MIDDLE-INCOME ECONOMIES								
COLUMBIA	0.1303	0.0660	0.0024	0.0000	0.1413	0.0505	0.0008	0.0000
INDONESIA	0.0619	0.0370	0.0039	0.0028	0.2821	0.0309	0.0071	0.0081
IVORY COST	0.0074	0.0030	0.0306	0.0012	0.0095	0.0046	0.0443	0.0020
MOROCCO	0.3349	0.0068	0.0223	0.0000	0.0000	0.0000	0.0000	0.0000
NIGERIA	0.3790	0.0421	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PHILIPPINES	0.1420	0.0169	0.0444	0.0000	0.1381	0.0204	0.0592	0.0000
THAILAND	0.0725	0.0214	0.0167	0.0016	0.1939	0.0388	0.0190	0.0000
TURKEY	0.1514	0.0504	0.0194	0.0000	0.2868	0.0680	0.0096	0.0000
AVERAGE	0.1599	0.0304	0.0175	0.0007	0.1315	0.0266	0.0175	0.0013
UPPER MIDDLE-INCOME ECONOMIES								
ALGERIA	0.0483	0.0892	0.0032	0.0000	0.0471	0.0977	0.0151	0.0000
BRAZIL	0.1597	0.0000	0.0000	0.0000	0.2270	0.0000	0.0000	0.0000
CHILE	0.5393	0.0334	0.0067	0.0096	0.3262	0.0695	0.0074	0.0009
GREECE	0.1011	0.0593	0.0313	0.0000	0.1404	0.0463	0.3311	0.0000
KOREA	0.0797	0.0278	0.0000	0.0011	0.1500	0.0562	0.0000	0.0031
MEXICO	0.1786	0.0393	0.0295	0.0037	0.1986	0.0702	0.0495	0.0000
AVERAGE	0.1845	0.0415	0.0118	0.0024	0.1814	0.0567	0.0172	0.0007
INDUSTRIAL MARKET ECONOMIES								
CANADA	0.0543	0.0595	0.0402	0.0000	0.1149	0.1688	0.0446	0.0000
FRANCE	0.0600	0.1330	0.0116	0.0049	0.1881	0.0643	0.0645	0.0013
GERMANY	0.0878	0.0403	0.0098	0.0051	0.1656	0.0608	0.0274	0.0060
ITALY	0.0840	0.0408	0.0279	0.0215	0.1217	0.0497	0.0454	0.0007
JAPAN	0.0663	0.0492	0.0190	0.0127	0.2064	0.0610	0.0123	0.0065
USA	0.1084	0.1225	0.0192	0.0419	0.2176	0.0929	0.0236	0.0739
AVERAGE	0.0768	0.0742	0.0213	0.0143	0.1690	0.0829	0.0363	0.0147

63

Table II-50 BACKWARD DEPENDENCY RATIO OF THE DISAGGREGATED MANUFACTURING SECTOR

COUNTRIES	ISIC 37				ISIC 38			
	DS	RS	ES	SS	DS	RS	ES	SS
LOW INCOME ECONOMIES								
GHANA	0.0279	0.0056	0.0000	0.0000	0.0842	0.0105	0.0000	0.0000
INDIA	0.2545	0.0480	0.0302	0.0000	0.1931	0.0320	0.0272	0.0000
KEYNA	0.0000	0.0000	0.0000	0.0000	0.0870	0.0706	0.0028	0.0000
MADAGASCAR	0.0000	0.0000	0.0000	0.0000	0.0282	0.0518	0.0000	0.0000
SRI LANKA	0.2222	0.0000	0.0000	0.0000	0.4596	0.0000	0.0000	0.0000
TANZANIA	0.0000	0.0000	0.0000	0.0000	0.5059	0.0271	0.0135	0.0000
AVERAGE	0.0841	0.0089	0.0050	0.0000	0.2263	0.0320	0.0073	0.0000
LOWER MIDDLE-INCOME ECONOMIES								
COLUMBIA	0.2257	0.0465	0.0017	0.0000	0.1367	0.0686	0.0034	0.0000
INDONESIA	0.1745	0.0638	0.0035	0.0021	0.1659	0.0295	0.0041	0.0023
IVORY COST	0.0349	0.0054	0.0309	0.0000	0.0214	0.0050	0.0734	0.0105
MOROCCO	0.4309	0.0115	0.0198	0.0000	0.3833	0.0097	0.0211	0.0000
NIGERIA	0.4627	0.0284	0.0000	0.0000	0.2918	0.0547	0.0000	0.0000
PHILIPPINES	0.1323	0.0129	0.0145	0.0000	0.1693	0.0284	0.0492	0.0000
THAILAND	0.0630	0.0078	0.0084	0.0000	0.1592	0.0075	0.0106	0.0001
TURKEY	0.1533	0.0291	0.0057	0.0000	0.1497	0.0342	0.0153	0.0000
AVERAGE	0.2097	0.0257	0.0105	0.0003	0.1847	0.0297	0.0221	0.0016
UPPER MIDDLE-INCOME ECONOMIES								
ALGERIA	0.0000	0.0000	0.0000	0.0000	0.0531	0.0556	0.0102	0.0000
BRAZIL	0.1229	0.0000	0.0000	0.0000	0.0868	0.0000	0.0000	0.0000
CHILE	0.1592	0.0296	0.0030	0.0026	0.3479	0.0659	0.0080	0.0040
GREECE	0.0710	0.1105	0.0205	0.0000	0.0858	0.0462	0.0265	0.0000
KOREA	0.0753	0.0173	0.0000	0.0004	0.0892	0.0355	0.0000	0.0010
MEXICO	0.1417	0.0102	0.0309	0.0000	0.1991	0.0319	0.0168	0.0000
AVERAGE	0.0950	0.0279	0.0091	0.0005	0.1437	0.0392	0.0103	0.0008
INDUSTRIAL MARKET ECONOMIES								
CANADA	0.0969	0.0768	0.0099	0.0000	0.0618	0.0907	0.0300	0.0000
FRANCE	0.0000	0.0000	0.0000	0.0000	0.0814	0.0894	0.0173	0.0079
GERMANY	0.0000	0.0000	0.0000	0.0000	0.0790	0.0568	0.0246	0.0065
ITALY	0.0000	0.0000	0.0000	0.0000	0.0780	0.0439	0.0243	0.0046
JAPAN	0.0510	0.0282	0.0040	0.0027	0.1103	0.0485	0.0258	0.0159
USA	0.1291	0.0422	0.0089	0.0503	0.1028	0.0727	0.0282	0.0179
AVERAGE	0.0462	0.0245	0.0038	0.0088	0.0856	0.0670	0.0250	0.0088

Table II- 51 **SECTORIAL SALES RATIO OF THE DISAGGREGATED MANUFACTURING SECTOR**

COUNTRIES	ISIC 31				ISIC 32			
	DS	RS	ES	SS	DS	RS	ES	SS
LOW INCOME ECONOMIES								
GHANA	0.0080	0.0000	0.0583	0.0000	0.0070	0.0000	0.0000	0.0000
INDIA	0.0045	0.0000	0.0142	0.0011	0.0090	0.0000	0.0000	0.0011
KEYNA	0.0051	0.0000	0.0984	0.0458	0.0146	0.0000	0.0010	0.0068
MADAGASCAR	0.0014	0.0000	0.0004	0.0099	0.0081	0.0006	0.0003	0.0174
SRI LANKA	0.0000	0.0000	0.0169	0.0000	0.0176	0.0000	0.0047	0.0023
TANZANIA	0.0000	0.0000	0.0147	0.0163	0.0172	0.0002	0.0004	0.0159
AVERAGE	0.0032	0.0000	0.0338	0.0122	0.0123	0.0001	0.0011	0.0073
LOWER MIDDLE-INCOME ECONOMIES								
COLUMBIA	0.0000	0.0000	0.0824	0.0115	0.0040	0.0008	0.0028	0.0156
INDONESIA	0.0029	0.0001	0.0652	0.0025	0.0148	0.0001	0.0052	0.0292
IVORY COST	0.0000	0.0000	0.0000	0.0105	0.0271	0.0001	0.0011	0.0220
MOROCCO	0.0008	0.0000	0.0313	0.0067	0.0039	0.0001	0.0027	0.0116
NIGERIA	0.0003	0.0016	0.0055	0.0000	0.0211	0.0011	0.0000	0.0000
PHILIPPINES	0.0036	0.0000	0.0196	0.0000	0.0035	0.0008	0.0042	0.0000
THAILAND	0.0028	0.0001	0.0678	0.0011	0.0296	0.0017	0.0107	0.0040
TURKEY	0.0015	0.0000	0.0638	0.0000	0.0056	0.0001	0.0040	0.0000
AVERAGE	0.0015	0.0002	0.0420	0.0040	0.0137	0.0006	0.0038	0.0103
UPPER MIDDLE-INCOME ECONOMIES								
ALGERIA	0.0000	0.0000	0.0208	0.0000	0.0020	0.0000	0.0002	0.0000
BRAZIL	0.0038	0.0000	0.0189	0.0023	0.0065	0.0000	0.0030	0.0002
CHILE	0.0081	0.0014	0.0441	0.0246	0.0157	0.0012	0.0044	0.0112
GREECE	0.0012	0.0000	0.0006	0.0000	0.0047	0.0000	0.0011	0.0008
KOREA	0.0005	0.0689	0.0000	0.0002	0.0064	0.0020	0.0005	0.0012
MEXICO	0.0000	0.0000	0.0001	0.0029	0.0097	0.0003	0.0115	0.0029
AVERAGE	0.0023	0.0117	0.0141	0.0050	0.0075	0.0006	0.0034	0.0027
INDUSTRIAL MARKET ECONOMIES								
CANADA	0.0005	0.0230	0.0775	0.0000	0.0086	0.0172	0.0142	0.0024
FRANCE	0.0000	0.0000	0.0812	0.0233	0.007?	0.0000	0.0116	0.0100
GERMANY	0.0109	0.0091	0.0846	0.0288	0.0116	0.0107	0.0093	0.0411
ITALY	0.0029	0.0000	0.0659	0.0075	0.0080	0.0003	0.0045	0.0039
JAPAN	0.0009	0.0000	0.0802	0.0085	0.0178	0.0013	0.0039	0.0083
USA	0.0024	0.0012	0.1133	0.0096	0.0049	0.0018	0.0156	0.0080
AVERAGE	0.0029	0.0055	0.0838	0.0129	0.0097	0.0052	0.0099	0.0123

Table II-52 **SECTORIAL SALES RATIO OF THE DISAGGREGATED MANUFACTURING SECTOR**

COUNTRIES	ISIC 33				ISIC 34			
	DS	RS	ES	SS	DS	RS	ES	SS
LOW INCOME ECONOMIES								
GHANA	0.0150	0.0050	0.0000	0.0000	0.1053	0.0766	0.0048	0.0000
INDIA	0.0539	0.0021	0.0005	0.0029	0.0777	0.0265	0.0014	0.3647
KEYNA	0.0297	0.0035	0.0098	0.0020	0.0715	0.0124	0.0032	0.0728
MADAGASCAR	0.0536	0.0000	0.0000	0.0156	0.2085	0.0409	0.0106	0.2873
SRI LANKA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
TANZANIA	0.1013	0.0000	0.0150	0.0460	0.0677	0.0574	0.0574	0.2931
AVERAGE	0.0422	0.0018	0.0042	0.0111	0.0884	0.0356	0.0129	0.1696
LOWER MIDDLE-INCOME ECONOMIES								
COLUMBIA	0.0073	0.0000	0.0037	0.0104	0.0680	0.1156	0.0476	0.0558
INDONESIA	0.0150	0.0003	0.0014	0.0186	0.1046	0.0497	0.0204	0.1024
IVORY COST	0.0041	0.0007	0.0000	0.0715	0.0000	0.0000	0.0000	0.0000
MOROCCO	0.0388	0.0000	0.0789	0.0021	0.0840	0.0122	0.0370	0.0692
NIGERIA	0.1420	0.0017	0.0000	0.0000	0.0987	0.1025	0.0019	0.0000
PHILIPPINES	0.0093	0.0561	0.0013	0.0000	0.1553	0.0401	0.0666	0.0000
THAILAND	0.0475	0.0132	0.0085	0.0038	0.1531	0.0752	0.0153	0.0285
TURKEY	0.0255	0.0000	0.0024	0.0000	0.0590	0.0141	0.0409	0.0000
AVERAGE	0.0362	0.0090	0.0120	0.0133	0.0903	0.0512	0.0287	0.0320
UPPER MIDDLE-INCOME ECONOMIES								
ALGERIA	0.0264	0.0062	0.0015	0.0000	0.0000	0.0000	0.0000	0.0000
BRAZIL	0.0213	0.0000	0.0017	0.0000	0.0868	0.0344	0.0000	0.0000
CHILE	0.0321	0.0087	0.0039	0.0101	0.1128	0.0494	0.0077	0.0902
GREECE	0.0486	0.0006	0.0105	0.0000	0.1368	0.0155	0.0646	0.0186
KOREA	0.0141	0.0009	0.0011	0.0047	0.0549	0.0470	0.0032	0.0387
MEXICO	0.0104	0.0002	0.0029	0.0034	0.0758	0.0331	0.0281	0.0175
AVERAGE	0.0255	0.0028	0.0036	0.0030	0.0778	0.0299	0.0173	0.0275
INDUSTRIAL MARKET ECONOMIES								
CANADA	0.0065	0.0017	0.0060	0.0000	0.0402	0.1190	0.1216	0.0012
FRANCE	0.0242	0.0000	0.0034	0.0520	0.0573	0.1446	0.0148	0.1072
GERMANY	0.0045	0.0021	0.0164	0.0061	0.1058	0.0451	0.0115	0.0870
ITALY	0.0425	0.0241	0.0081	0.0091	0.1076	0.0366	0.0249	0.0436
JAPAN	0.0363	0.0045	0.0181	0.0224	0.1067	0.0501	0.0982	0.0651
USA	0.0013	0.0008	0.0010	0.0004	0.0519	0.0566	0.0220	0.0309
AVERAGE	0.0192	0.0055	0.0088	0.0150	0.0781	0.0753	0.0488	0.0558

Table II-53 **SECTORIAL SALES RATIO OF THE DISAGGREGATED MANUFACTURING SECTOR**

COUNTRIES	ISIC 35				ISIC 36			
	DS	RS	ES	SS	DS	RS	ES	SS
LOW INCOME ECONOMIES								
GHANA	0.3393	0.0030	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
INDIA	0.0949	0.0003	0.0033	0.1455	0.0000	0.0000	0.0052	0.0007
KEYNA	0.1103	0.0024	0.0044	0.0275	0.0050	0.0000	0.0038	0.0014
MADAGASCAR	0.1692	0.0013	0.0188	0.0282	0.0125	0.0000	0.0000	0.0252
SRI LANKA	0.1075	0.0179	0.0033	0.0016	0.0000	0.0053	0.0053	0.0000
TANZANIA	0.0780	0.0034	0.0107	0.0248	0.0987	0.0000	0.0000	0.0214
AVERAGE	0.1499	0.0047	0.0068	0.0379	0.0194	0.0009	0.0024	0.0081
LOWER MIDDLE-INCOME ECONOMIES								
COLUMBIA	0.1574	0.0025	0.0237	0.0264	0.0014	0.0014	0.0039	0.0104
INDONESIA	0.2083	0.0038	0.0236	0.0653	0.0053	0.0002	0.0145	0.0131
IVORY COST	0.1634	0.0002	0.0080	0.0381	0.0050	0.0000	0.0012	0.0180
MOROCCO	0.0716	0.0003	0.0450	0.0387	0.0000	0.0000	0.0000	0.0000
NIGERIA	0.1200	0.0046	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PHILIPPINES	0.0933	0.0063	0.0305	0.0000	0.0053	0.0388	0.0045	0.0000
THAILAND	0.1564	0.0049	0.0153	0.0146	0.0149	0.0023	0.0180	0.0152
TURKEY	0.2763	0.0024	0.0151	0.0000	0.0008	0.0000	0.0346	0.0000
AVERAGE	0.1558	0.0031	0.0202	0.0229	0.0041	0.0053	0.0096	0.0071
UPPER MIDDLE-INCOME ECONOMIES								
ALGERIA	0.0102	0.0002	0.0011	0.0000	0.0449	0.0017	0.0099	0.0000
BRAZIL	0.0752	0.0001	0.0035	0.0062	0.0080	0.0000	0.0000	0.0008
CHILE	0.1957	0.0070	0.0165	0.0435	0.0110	0.0042	0.0088	0.0242
GREECE	0.1949	0.0012	0.0302	0.0164	0.0015	0.0000	0.0025	0.0002
KOREA	0.0996	0.0026	0.0049	0.0157	0.0081	0.0042	0.0032	0.0056
MEXICO	0.1011	0.0048	0.0319	0.0365	0.0043	0.0024	0.0236	0.0080
AVERAGE	0.1128	0.0026	0.0147	0.0197	0.0130	0.0021	0.0080	0.0065
INDUSTRIAL MARKET ECONOMIES								
CANADA	0.0903	0.0661	0.0244	0.0044	0.0059	0.0178	0.0041	0.0002
FRANCE	0.0147	0.0016	0.0286	0.0283	0.0177	0.0000	0.0026	0.0042
GERMANY	0.0248	0.0233	0.0095	0.0846	0.0020	0.0004	0.0100	0.0306
ITALY	0.0297	0.0058	0.0269	0.0308	0.0026	0.0007	0.0039	0.0046
JAPAN	0.1621	0.0023	0.0108	0.0739	0.0056	0.0001	0.0131	0.0061
USA	0.0490	0.0187	0.0197	0.0445	0.0051	0.0039	0.0227	0.0060
AVERAGE	0.0618	0.0196	0.0203	0.0444	0.0065	0.0038	0.0094	0.0086

Table II-54

 SECTORIAL SALES RATIO OF THE DISAGGREGATED MANUFACTURING SECTOR

COUNTRIES	ISIC 37				ISIC 38			
	DS	RS	ES	SS	DS	RS	ES	SS
LOW INCOME ECONOMIES								
GHANA	0.0460	0.0000	0.0000	0.0000	0.4343	0.0080	0.0000	0.0000
INDIA	0.0003	0.0000	0.0000	0.0000	0.0823	0.0002	0.0011	0.0041
KEYNA	0.0000	0.0000	0.0000	0.0000	0.0730	0.0044	0.0011	0.0118
MADAGASCAR	0.0000	0.0000	0.0000	0.0000	0.0746	0.0026	0.0044	0.0267
SRI LANKA	0.0000	0.0000	0.0000	0.0000	0.1288	0.0000	0.0017	0.0017
TANZANIA	0.0000	0.0000	0.0000	0.0000	0.3617	0.0074	0.0131	0.1072
AVERAGE	0.0077	0.0000	0.0000	0.0000	0.1924	0.0038	0.0036	0.0253
LOWER MIDDLE-INCOME ECONOMIES								
COLUMBIA	0.0169	0.0009	0.0059	0.0090	0.1476	0.0043	0.0078	0.1124
INDONESIA	0.0002	0.0002	0.0000	0.0000	0.1743	0.0042	0.0062	0.0144
IVORY COST	0.0016	0.0000	0.0000	0.0000	0.0796	0.0009	0.0052	0.0568
MOROCCO	0.0051	0.0000	0.0245	0.0000	0.0286	0.0002	0.0373	0.0451
NIGERIA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PHILIPPINES	0.0076	0.0016	0.0000	0.0000	0.0321	0.0030	0.0079	0.0000
THAILAND	0.0002	0.0001	0.0022	0.0007	0.0550	0.0030	0.0130	0.0021
TURKEY	0.0001	0.0000	0.0026	0.0000	0.0771	0.0000	0.0071	0.0000
AVERAGE	0.0040	0.0004	0.0044	0.0012	0.0743	0.0019	0.0106	0.0289
UPPER MIDDLE-INCOME ECONOMIES								
ALGERIA	0.0000	0.0000	0.0000	0.0000	0.0178	0.0066	0.0007	0.0000
BRAZIL	0.0011	0.0000	0.0004	0.0000	0.0374	0.0000	0.0059	0.0002
CHILE	0.0120	0.0001	0.0011	0.0055	0.1882	0.0103	0.0089	0.0487
GREECE	0.0013	0.0000	0.0003	0.0000	0.0832	0.0003	0.0045	0.0001
KOREA	0.0000	0.0000	0.0000	0.0000	0.0210	0.0012	0.0003	0.0037
MEXICO	0.0159	0.0006	0.0032	0.0006	0.0374	0.0020	0.0490	0.0035
AVERAGE	0.0051	0.0001	0.0008	0.0010	0.0642	0.0034	0.0116	0.0094
INDUSTRIAL MARKET ECONOMIES								
CANADA	0.0032	0.0044	0.0007	0.0000	0.0232	0.1050	0.0040	0.0020
FRANCE	0.0000	0.0000	0.0000	0.0000	0.0173	0.0057	0.0324	0.0443
GERMANY	0.0000	0.0000	0.0000	0.0000	0.0224	0.0089	0.0142	0.0330
ITALY	0.0000	0.0000	0.0000	0.0000	0.0124	0.0014	0.0396	0.0214
JAPAN	0.0001	0.0000	0.0000	0.0013	0.0681	0.0015	0.0047	0.0093
USA	0.0045	0.0003	0.0004	0.0006	0.0125	0.0078	0.0343	0.0065
AVERAGE	0.0013	0.0008	0.0002	0.0003	0.0260	0.0217	0.0215	0.0194

Appendix D

ALGERIA (1974) BACKWARD DEPENDENCY RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)
COMPOSITION OF INPUTS					
MANUFACTURING	0.7388	0.1752	0.4222	0.6759	0.0000
DISTRIBUTIVE SERVICES (DS)	0.0297	0.4555	0.0525	0.0586	0.0000
PRODUCER SERVICES (RS)	0.0473	0.1854	0.2345	0.0086	0.0000
PERSONAL SERVICES (ES)	0.0042	0.0130	0.0122	0.0258	0.0000
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0000
BACKWARD LINKAGE (BL)	0.6243	0.2813	0.1350	0.3903	N.A.
TOTAL LINKAGE (TL)	2.2130	2.1651	1.0637	1.0451	1.0000

ALGERIA (1974) DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS
COMPOSITION OF INPUTS							
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.5166	0.0196	0.0109	0.0280	0.0573	0.5611	0.0000
ENERGY AND BASIC INDUSTRIES (EB)	0.1628	0.5907	0.0687	0.0502	0.0122	0.0744	0.0000
CAPITAL GOOD INDUSTRIES (CG)	0.0266	0.1627	0.7122	0.0937	0.3475	0.0386	0.0000
DISTRIBUTIVE SERVICES (DS)	0.0159	0.0483	0.0531	0.4555	0.0525	0.0586	0.0000
PRODUCER SERVICES (RS)	0.0274	0.0898	0.0556	0.1854	0.2345	0.0086	0.0000
PERSONAL SERVICES (ES)	0.0027	0.0039	0.0102	0.0130	0.0122	0.0258	0.0000
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
BACKWARD LINKAGE (BL)	0.6679	0.5477	0.6112	0.2813	0.1350	0.3903	N.A.

ALGERIA (1974) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.4504	0.0000	0.0000	0.0000	0.0024	0.0000	0.0000	0.0001	0.0000	0.0000	0.5439	0.0000
ISIC 32	0.0007	0.5140	0.0353	0.0000	0.0033	0.0000	0.0000	0.0036	0.0036	0.0000	0.0034	0.0000
ISIC 33	0.0320	0.0139	0.6101	0.0000	0.0108	0.0663	0.0000	0.0072	0.0245	0.0573	0.0138	0.0000
ISIC 34	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ISIC 35	0.0273	0.3580	0.0911	0.0000	0.6001	0.0844	0.0000	0.0549	0.0321	0.0052	0.0344	0.0000
ISIC 36	0.0042	0.0000	0.0053	0.0000	0.0111	0.1931	0.0000	0.0139	0.0182	0.0069	0.0400	0.0000
ISIC 37	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ISIC 38	0.0229	0.0137	0.0944	0.0000	0.1660	0.1129	0.0000	0.7122	0.0937	0.3475	0.0386	0.0000
DS	0.0130	0.0154	0.0323	0.0000	0.0483	0.0471	0.0000	0.0531	0.0555	0.0525	0.0586	0.0000
RS	0.0151	0.0351	0.0611	0.0000	0.0892	0.0977	0.0000	0.0556	0.1854	0.2345	0.0086	0.0000
ES	0.0020	0.0024	0.0080	0.0000	0.0032	0.0151	0.0000	0.0102	0.0130	0.0122	0.0258	0.0000
SS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

NOTE: NA = Not applicable
 AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 SOURCE: UNIDO DATA BASE

BRAZIL (1970) BACKWARD DEPENDENCY RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)
COMPOSITION OF INPUTS					
MANUFACTURING	0.6096	0.5397	0.5123	0.5777	0.6928
DISTRIBUTIVE SERVICES (DS)	0.1099	0.2173	0.1544	0.2765	0.2203
PRODUCER SERVICES (RS)	0.0000	0.0000	0.0000	0.0000	0.0000
PERSONAL SERVICES (ES)	0.0000	0.1450	0.2696	0.0266	0.0000
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0000
BACKWARD LINKAGE (BL)	0.4919	0.1268	0.0468	0.3574	0.2721
TOTAL LINKAGE (TL)	3.9873	1.4508	1.0420	1.0824	1.0152

BRAZIL (1970) DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS
COMPOSITION OF INPUTS							
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.3280	0.0432	0.0155	0.0524	0.0000	0.4242	0.2280
ENERGY AND BASIC INDUSTRIES (EB)	0.0845	0.5841	0.4180	0.3203	0.4951	0.0450	0.3565
CAPITAL GOOD INDUSTRIES (CG)	0.0158	0.0126	0.4034	0.1664	0.0000	0.1034	0.0174
DISTRIBUTIVE SERVICES (DS)	0.0983	0.1505	0.0868	0.2173	0.1544	0.2765	0.2203
PRODUCER SERVICES (RS)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PERSONAL SERVICES (ES)	0.0000	0.0000	0.0000	0.1450	0.2696	0.0266	0.0000
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
BACKWARD LINKAGE (BL)	0.6060	0.3950	0.4194	0.1268	0.0468	0.3574	0.2721

BRAZIL (1970) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.2548	0.0310	0.0027	0.0114	0.0737	0.0006	0.0002	0.0001	0.0201	0.0000	0.3900	0.2203
ISIC 32	0.0230	0.4430	0.0370	0.0062	0.0180	0.0067	0.0000	0.0041	0.0159	0.0000	0.0292	0.0087
ISIC 33	0.0012	0.0023	0.2428	0.0095	0.0028	0.0031	0.0011	0.0113	0.0163	0.0000	0.0051	0.0000
ISIC 34	0.0142	0.0098	0.0031	0.5596	0.0311	0.0497	0.0004	0.0054	0.0817	0.4926	0.0000	0.0000
ISIC 35	0.0173	0.1815	0.1256	0.1073	0.4351	0.1939	0.0917	0.0950	0.2307	0.0025	0.0425	0.3449
ISIC 36	0.0050	0.0003	0.0094	0.0019	0.0193	0.1663	0.0018	0.0134	0.0063	0.0000	0.0000	0.0116
ISIC 37	0.0002	0.0010	0.0303	0.0147	0.0047	0.0337	0.6001	0.3042	0.0016	0.0000	0.0025	0.0000
ISIC 38	0.0154	0.0037	0.0615	0.0024	0.0177	0.0110	0.0115	0.4034	0.1664	0.0000	0.1034	0.0174
DS	0.0893	0.1161	0.1229	0.1353	0.1597	0.2270	0.1229	0.0868	0.2173	0.1544	0.2765	0.2203
RS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ES	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1450	0.2696	0.0266	0.0000
SS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 SOURCE: UNIDO DATA BASE

CANADA (1975) BACKWARD DEPENDENCY RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)
COMPOSITION OF INPUTS					
MANUFACTURING	0.5252	0.1328	0.3539	0.3162	0.1955
DISTRIBUTIVE SERVICES (DS)	0.0707	0.4606	0.1465	0.1958	0.1680
PRODUCER SERVICES (RS)	0.0790	0.2167	0.2656	0.1597	0.4923
PERSONAL SERVICES (ES)	0.0364	0.1130	0.1688	0.1670	0.1150
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0007	0.0000	0.0009
BACKWARD LINKAGE (BL)	0.6686	0.3859	38	0.4332	0.2209
TOTAL LINKAGE (TL)	5.8567	2.0578	38	1.6327	1.0466

CANADA (1975) DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS
COMPOSITION OF INPUTS							
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.3325	0.0274	0.0160	0.0051	0.0321	0.1399	0.0180
ENERGY AND BASIC INDUSTRIES (EB)	0.0952	0.3217	0.2410	0.0919	0.1372	0.1498	0.0927
CAPITAL GOOD INDUSTRIES (CG)	0.0270	0.0190	0.5118	0.0347	0.1800	0.0104	0.0705
DISTRIBUTIVE SERVICES (DS)	0.0720	0.0760	0.0618	0.4606	0.1465	0.1958	0.1680
PRODUCER SERVICES (RS)	0.0616	0.0823	0.0907	0.2677	0.2658	0.1597	0.4923
PERSONAL SERVICES (ES)	0.0425	0.0333	0.0300	0.1130	0.1688	0.1670	0.1150
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0007	0.0000	0.0009
BACKWARD LINKAGE (BL)	0.6675	0.7020	0.6344	0.3859	0.4438	0.4332	0.2209

D.3

CANADA (1975) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.2640	0.0000	0.0000	0.0027	0.0074	0.0014	0.0000	0.0000	0.0005	0.0253	0.1291	0.0000
ISIC 32	0.0107	0.6336	0.0368	0.0072	0.0101	0.0037	0.0001	0.0031	0.0027	0.0063	0.0078	0.0179
ISIC 33	0.0007	0.0003	0.2209	0.0686	0.0005	0.0053	0.0014	0.0079	0.0019	0.0006	0.0030	0.0001
ISIC 34	0.0461	0.0238	0.0180	0.3413	0.0159	0.0473	0.0011	0.0070	0.0221	0.0752	0.1164	0.0148
ISIC 35	0.0345	0.0712	0.0505	0.1214	0.2260	0.1008	0.0328	0.0436	0.0675	0.0568	0.0318	0.0768
ISIC 36	0.0128	0.0002	0.0107	0.0041	0.0036	0.2287	0.0143	0.0116	0.0009	0.0029	0.0010	0.0005
ISIC 37	0.0004	0.0011	0.0203	0.0075	0.0063	0.0178	0.2471	0.2210	0.0014	0.0023	0.0006	0.0000
ISIC 38	0.0241	0.0096	0.0564	0.0092	0.0134	0.0341	0.0352	0.5088	0.0347	0.1800	0.0104	0.0705
DS	0.0669	0.0734	0.0916	0.0881	0.0543	0.1149	0.0969	0.0618	0.4606	0.1465	0.1958	0.1680
RS	0.0446	0.0759	0.1159	0.1133	0.0595	0.1688	0.0768	0.0907	0.2167	0.2658	0.1597	0.4923
ES	0.0480	0.0355	0.0275	0.0417	0.0402	0.0446	0.0099	0.0300	0.1130	0.1688	0.1670	0.1150
SS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0007	0.0000	0.0009

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 SOURCE: UNIDO DATA BASE

CHILE (1970) BACKWARD DEPENDENCY RATIO					
OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)
COMPOSITION OF INPUTS					
MANUFACTURING	0.3644	0.5515	0.3846	0.4558	0.5282
DISTRIBUTIVE SERVICES (DS)	0.3239	0.2157	0.1566	0.0208	0.0777
PRODUCER SERVICES (RS)	0.0295	0.1306	0.3234	0.0775	0.1017
PERSONAL SERVICES (ES)	0.0050	0.0346	0.0367	0.0085	0.0719
SOCIAL SERVICES (SS)	0.0058	0.0163	0.0317	0.0003	0.0533
BACKWARD LINKAGE (BL)	0.5475	0.3042	0.1963	0.2734	0.2172
TOTAL LINKAGE (TL)	3.7208	1.7546	1.1503	1.3498	1.4100

CHILE (1970) DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)								
OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS	
COMPOSITION OF INPUTS								
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.2667	0.0187	0.0242	0.0456	0.0441	0.3441	0.1727	
ENERGY AND BASIC INDUSTRIES (EB)	0.0677	0.2958	0.4065	0.3580	0.2233	0.0887	0.2599	
CAPITAL GOOD INDUSTRIES (CG)	0.0181	0.0186	0.0928	0.1459	0.0491	0.0199	0.0837	
DISTRIBUTIVE SERVICES (DS)	0.2795	0.4020	0.3479	0.2157	0.1566	0.0208	0.0777	
PRODUCER SERVICES (RS)	0.0213	0.0352	0.0659	0.1306	0.3234	0.0775	0.1017	
PERSONAL SERVICES (ES)	0.0039	0.0061	0.0080	0.0346	0.0367	0.0085	0.0719	
SOCIAL SERVICES (SS)	0.0058	0.0067	0.0040	0.0163	0.0317	0.0003	0.0533	
BACKWARD LINKAGE (BL)	0.6088	0.4864	0.4325	0.3042	0.1963	0.2734	0.2172	

CHILE (1970) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)												
OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.2131	0.0305	0.0008	0.0004	0.0049	0.0015	0.0049	0.0028	0.0210	0.0224	0.3281	0.1408
ISIC 32	0.0040	0.3537	0.0315	0.0024	0.0200	0.0026	0.0022	0.0118	0.0165	0.0081	0.0132	0.0263
ISIC 33	0.0054	0.0018	0.2717	0.0027	0.0021	0.0075	0.0019	0.0096	0.0081	0.0136	0.0028	0.0057
ISIC 34	0.0195	0.0170	0.0040	0.4216	0.0248	0.0605	0.0040	0.0203	0.0567	0.1534	0.0111	0.1007
ISIC 35	0.0356	0.0640	0.0799	0.1404	0.1622	0.1051	0.0712	0.1039	0.2959	0.0651	0.0720	0.1480
ISIC 36	0.0037	0.0006	0.0039	0.0020	0.0084	0.0851	0.0100	0.0126	0.0020	0.0046	0.0046	0.0097
ISIC 37	0.0004	0.0029	0.0099	0.0010	0.0041	0.0110	0.2073	0.2697	0.0034	0.0002	0.0009	0.0035
ISIC 38	0.0178	0.0148	0.0345	0.0077	0.0188	0.0379	0.0230	0.0926	0.1459	0.0491	0.0199	0.0837
DS	0.2311	0.4145	0.3042	0.2227	0.5393	0.3252	0.1592	0.3479	0.2157	0.1566	0.0208	0.0777
RS	0.0159	0.0318	0.0419	0.0307	0.0334	0.0695	0.0296	0.0659	0.1306	0.3234	0.0775	0.1017
ES	0.0036	0.0049	0.0041	0.0060	0.0067	0.0074	0.0030	0.0080	0.0346	0.0367	0.0085	0.0719
SS	0.0060	0.0058	0.0008	0.0037	0.0096	0.0009	0.0026	0.0040	0.0163	0.0317	0.0003	0.0533

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 SOURCE: UNIDO DATA BASE

COLOMBIA (1977) BACKWARD DEPENDENCY RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)
COMPOSITION OF INPUTS					
MANUFACTURING	0.4068	0.2523	0.0847	0.6797	0.5225
DISTRIBUTIVE SERVICES (DS)	0.1140	0.5338	0.0673	0.1148	0.1077
PRODUCER SERVICES (RS)	0.0326	0.1550	0.7686	0.0349	0.0659
PERSONAL SERVICES (ES)	0.0014	0.0307	0.0136	0.0156	0.0582
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0000
BACKWARD LINKAGE (BL)	0.6666	0.3168	0.3140	0.3384	0.2858
TOTAL LINKAGE (TL)	4.1178	1.7160	1.4358	1.3065	1.2431

COLOMBIA (1977) DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS
COMPOSITION OF INPUTS							
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.2238	0.0699	0.0249	0.0050	0.0016	0.5856	0.1764
ENERGY AND BASIC INDUSTRIES (EB)	0.0585	0.4718	0.3642	0.1706	0.0749	0.0844	0.1504
CAPITAL GOOD INDUSTRIES (CG)	0.0137	0.0400	0.3909	0.0740	0.0045	0.0085	0.1838
DISTRIBUTIVE SERVICES (DS)	0.0866	0.1787	0.1367	0.5338	0.0673	0.1148	0.1077
PRODUCER SERVICES (RS)	0.0185	0.0569	0.0686	0.1550	0.7686	0.0349	0.0659
PERSONAL SERVICES (ES)	0.0010	0.0018	0.0034	0.0307	0.0136	0.0156	0.0582
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
BACKWARD LINKAGE (BL)	0.6964	0.6171	0.6170	0.3168	0.3140	0.3384	0.2858

COLOMBIA (1977) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.1245	0.0579	0.0036	0.0253	0.0768	0.0008	0.0003	0.0000	0.0000	0.0000	0.5782	0.1204
ISIC 32	0.0035	0.5016	0.0494	0.0043	0.0363	0.0031	0.0057	0.0039	0.0040	0.0016	0.0063	0.0512
ISIC 33	0.0005	0.0007	0.2687	0.0014	0.0025	0.0023	0.0152	0.0210	0.0010	0.0000	0.0011	0.0048
ISIC 34	0.0125	0.0056	0.0024	0.3867	0.0732	0.0505	0.0074	0.0115	0.0193	0.0688	0.0296	0.0517
ISIC 35	0.0118	0.1088	0.0964	0.1116	0.3546	0.1405	0.0529	0.0779	0.1442	0.0047	0.0476	0.0789
ISIC 36	0.0050	0.0003	0.0060	0.0024	0.0126	0.1436	0.0037	0.0109	0.0003	0.0007	0.0021	0.0082
ISIC 37	0.0104	0.0022	0.0470	0.0100	0.0183	0.0443	0.4503	0.2639	0.0067	0.0007	0.0051	0.0116
ISIC 38	0.0101	0.0249	0.0289	0.0453	0.0220	0.0854	0.0573	0.3909	0.0740	0.0045	0.0085	0.1838
DS	0.0846	0.0895	0.1373	0.2904	0.1303	0.1413	0.2257	0.1367	0.5338	0.0673	0.1148	0.1077
RS	0.0135	0.0334	0.0494	0.0463	0.0660	0.0505	0.0465	0.0686	0.1550	0.7686	0.0349	0.0659
ES	0.0010	0.0008	0.0024	0.0005	0.0024	0.0008	0.0017	0.0034	0.0307	0.0136	0.0156	0.0582
SS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 SOURCE: UNIDO DATA BASE

FRANCE (1975)		BACKWARD DEPENDENCY RATIO			
OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)
COMPOSITION OF INPUTS					
MANUFACTURING	0.5008	0.1437	0.1064	0.5450	0.4169
DISTRIBUTIVE SERVICES (DS)	0.0821	0.4566	0.0850	0.1626	0.1270
PRODUCER SERVICES (RS)	0.0784	0.1460	0.7050	0.0798	0.1284
PERSONAL SERVICES (ES)	0.0161	0.0913	0.0526	0.0900	0.0648
SOCIAL SERVICES (SS)	0.0037	0.0035	0.0038	0.0009	0.0593
BACKWARD LINKAGE (BL)	0.4623	0.2753	0.3635	0.4523	0.2837
TOTAL LINKAGE (TL)	3.7560	1.5833	1.5933	1.3512	1.5030

FRANCE (1975)		DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)						
OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS	
COMPOSITION OF INPUTS								
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.2858	0.0261	0.0199	0.0150	0.0000	0.2754	0.0877	
ENERGY AND BASIC INDUSTRIES (EB)	0.0749	0.5481	0.0948	0.0608	0.0833	0.0719	0.1201	
CAPITAL GOOD INDUSTRIES (CG)	0.0274	0.0309	0.4447	0.0657	0.0201	0.1890	0.1968	
DISTRIBUTIVE SERVICES (DS)	0.0586	0.1202	0.0814	0.4566	0.0850	0.1626	0.1270	
PRODUCER SERVICES (RS)	0.0546	0.1005	0.0894	0.1460	0.7050	0.0798	0.1284	
PERSONAL SERVICES (ES)	0.0107	0.0234	0.0173	0.0913	0.0526	0.0900	0.0648	
SOCIAL SERVICES (SS)	0.0005	0.0033	0.0079	0.0035	0.0038	0.0009	0.0593	
BACKWARD LINKAGE (BL)	0.5369	0.4665	0.4050	0.2753	0.3635	0.4523	0.2837	

FRANCE (1975)		FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)										
OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.1776	0.0185	0.0000	0.0013	0.0298	0.0000	0.0000	0.0000	0.0000	0.0000	0.2561	0.0561
ISIC 32	0.0004	0.5711	0.0455	0.0038	0.0124	0.0039	0.0000	0.0112	0.0070	0.0000	0.0175	0.0116
ISIC 33	0.0064	0.0002	0.1928	0.0000	0.0002	0.0024	0.0000	0.0087	0.0080	0.0000	0.0017	0.0201
ISIC 34	0.0261	0.0259	0.0014	0.5888	0.0393	0.0372	0.0000	0.0061	0.0343	0.0814	0.0136	0.0753
ISIC 35	0.0187	0.1057	0.0934	0.0474	0.4724	0.0731	0.0000	0.0742	0.0190	0.0019	0.0566	0.0427
ISIC 36	0.0060	0.0000	0.0094	0.0027	0.0460	0.2516	0.0000	0.0145	0.0075	0.0000	0.0017	0.0021
ISIC 37	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ISIC 38	0.0149	0.0368	0.0944	0.0111	0.0365	0.0454	0.0000	0.4447	0.0657	0.0201	0.1890	0.1968
DS	0.0518	0.0554	0.1170	0.2019	0.0600	0.1881	0.0000	0.0814	0.4566	0.0850	0.1626	0.1270
RS	0.0486	0.0695	0.0600	0.0562	0.1330	0.0643	0.0000	0.0894	0.1460	0.7050	0.0798	0.1284
ES	0.0045	0.0266	0.0151	0.0230	0.0116	0.0645	0.0000	0.0173	0.0913	0.0526	0.0900	0.0648
SS	0.0004	0.0006	0.0006	0.0013	0.0049	0.0013	0.0000	0.0079	0.0035	0.0038	0.0009	0.0593

NOTE · AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 SOURCE: UNIDO DATA BASE

GERMANY (1975) BACKWARD DEPENDENCY RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)
COMPOSITION OF INPUTS					
MANUFACTURING	0.5905	0.2543	0.1286	0.6187	0.3277
DISTRIBUTIVE SERVICES (DS)	0.0968	0.1645	0.0547	0.1466	0.0934
PRODUCER SERVICES (RS)	0.0482	0.3008	0.6453	0.0747	0.0814
PERSONAL SERVICES (ES)	0.0194	0.1031	0.0506	0.0177	0.0580
SOCIAL SERVICES (SS)	0.0058	0.0130	0.0270	0.0049	0.3500
BACKWARD LINKAGE (BL)	0.5278	0.3531	0.3835	0.4595	0.4499
TOTAL LINKAGE (TL)	4.9015	1.7553	1.7907	1.2740	1.9598

GERMANY (1975) DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS
COMPOSITION OF INPUTS							
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.3439	0.0379	0.0171	0.0331	0.0255	0.3999	0.0663
ENERGY AND BASIC INDUSTRIES (EB)	0.0969	0.5866	0.1110	0.1148	0.0645	0.0674	0.1532
CAPITAL GOOD INDUSTRIES (CG)	0.0324	0.0488	0.4971	0.1029	0.0377	0.1507	0.1064
DISTRIBUTIVE SERVICES (DS)	0.1114	0.1063	0.0790	0.1645	0.0547	0.1466	0.0934
PRODUCER SERVICES (RS)	0.0268	0.0605	0.0568	0.3008	0.6453	0.0747	0.0814
PERSONAL SERVICES (ES)	0.0106	0.0218	0.0246	0.1031	0.0506	0.0177	0.0580
SOCIAL SERVICES (SS)	0.0054	0.0054	0.0065	0.0131	0.0270	0.0049	0.3500
BACKWARD LINKAGE (BL)	0.5530	0.5328	0.5111	0.3531	0.3835	0.4595	0.4499

GERMANY (1975) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.2644	0.0151	0.0013	0.0049	0.0205	0.0024	0.0000	0.0017	0.0202	0.0155	0.3627	0.0374
ISIC 32	0.0010	0.5084	0.0331	0.0087	0.0170	0.0031	0.0000	0.0048	0.0108	0.0092	0.0202	0.0270
ISIC 33	0.0011	0.0062	0.3471	0.0187	0.0052	0.0228	0.0000	0.0105	0.0020	0.0009	0.0170	0.0019
ISIC 34	0.0283	0.0170	0.0192	0.4978	0.0345	0.0708	0.0000	0.0193	0.0719	0.0261	0.0181	0.0415
ISIC 35	0.0196	0.1494	0.1079	0.0769	0.5620	0.0585	0.0000	0.0769	0.0419	0.0362	0.0371	0.1005
ISIC 36	0.0136	0.0003	0.0138	0.0027	0.0244	0.3436	0.0000	0.0149	0.0011	0.0002	0.0122	0.0113
ISIC 37	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ISIC 38	0.0213	0.0325	0.0847	0.0355	0.0574	0.0366	0.0000	0.4971	0.1029	0.0377	0.1507	0.1064
DS	0.1030	0.0935	0.1829	0.1126	0.0878	0.1656	0.0000	0.0790	0.1645	0.0547	0.1466	0.0934
RS	0.0183	0.0415	0.0409	0.1109	0.0403	0.0608	0.0000	0.0568	0.3008	0.6453	0.0747	0.0814
ES	0.0096	0.0100	0.0168	0.0479	0.0098	0.0274	0.0000	0.0246	0.1031	0.0506	0.0177	0.0580
SS	0.0047	0.0069	0.0058	0.0058	0.0051	0.0060	0.0000	0.0065	0.0131	0.0270	0.0049	0.3500

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 SOURCE: UNIDO DATA BASE

GHANA (1968) BACKWARD DEPENDENCY RATIO					
OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)
COMPOSITION OF INPUTS					
MANUFACTURING	0.4888	0.2923	0.0705	0.2322	0.0000
DISTRIBUTIVE SERVICES (DS)	0.1036	0.4659	0.0224	0.2477	0.0000
PRODUCER SERVICES (RS)	0.0094	0.1272	0.5641	0.0000	0.0000
PERSONAL SERVICES (ES)	0.0000	0.0169	0.0032	0.0000	0.0000
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0000
BACKWARD LINKAGE (BL)	0.4907	0.3256	0.1975	0.7709	0.0000
TOTAL LINKAGE (TL)	2.6040	1.8816	1.2654	1.1240	1.0000

GHANA (1968) DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)								
OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS	
COMPOSITION OF INPUTS								
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.2542	0.0012	0.0105	0.0148	0.0064	0.2260	0.0000	
ENERGY AND BASIC INDUSTRIES (EB)	0.1178	0.5814	0.0632	0.1968	0.0577	0.0031	0.0000	
CAPITAL GOOD INDUSTRIES (CG)	0.0034	0.0024	0.7579	0.0766	0.0064	0.0000	0.0000	
DISTRIBUTIVE SERVICES (DS)	0.1220	0.0736	0.0842	0.4659	0.0224	0.2477	0.0000	
PRODUCER SERVICES (RS)	0.0068	0.0133	0.0105	0.1272	0.5641	0.0000	0.0000	
PERSONAL SERVICES (ES)	0.0000	0.0000	0.0000	0.0169	0.0032	0.0000	0.0000	
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
BACKWARD LINKAGE (BL)	0.4989	0.5058	0.3785	0.3256	0.1975	0.7709	0.0000	

GHANA (1968) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)												
OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.1106	0.0030	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0070	0.0000	0.2260	0.0000
ISIC 32	0.0000	0.5923	0.0155	0.0000	0.0000	0.0000	0.0000	0.0000	0.0035	0.0000	0.0000	0.0000
ISIC 33	0.0061	0.0000	0.1088	0.0000	0.0033	0.0000	0.0000	0.0105	0.0042	0.0064	0.0000	0.0000
ISIC 34	0.0184	0.0000	0.0052	0.6395	0.0391	0.0649	0.0056	0.0000	0.0155	0.0513	0.0031	0.0000
ISIC 35	0.0276	0.1042	0.0829	0.0814	0.3290	0.0390	0.6769	0.0316	0.1602	0.0064	0.0000	0.0000
ISIC 36	0.0215	0.0000	0.0000	0.0000	0.0098	0.0909	0.0056	0.0000	0.0000	0.0000	0.0000	0.0000
ISIC 37	0.0092	0.0565	0.0933	0.0233	0.0098	0.0260	0.0975	0.0316	0.0211	0.0000	0.0000	0.0000
ISIC 38	0.0000	0.0000	0.0207	0.0000	0.0000	0.0000	0.0056	0.7579	0.0766	0.0064	0.0000	0.0000
DS	0.0891	0.1548	0.1762	0.1395	0.0814	0.1818	0.0279	0.0842	0.4659	0.0224	0.2477	0.0000
RS	0.0015	0.0030	0.0311	0.0233	0.0163	0.0260	0.0056	0.0105	0.1272	0.5641	0.0000	0.0000
ES	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0169	0.0032	0.0000	0.0000
SS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 SOURCE: UNIDO DATA BASE

GREECE (1970) BACKWARD DEPENDENCY RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)
COMPOSITION OF INPUTS					
MANUFACTURING	0.5582	0.5805	0.1179	0.4082	0.4494
DISTRIBUTIVE SERVICES (DS)	0.0778	0.1757	0.1472	0.1313	0.1059
PRODUCER SERVICES (RS)	0.0369	0.0474	0.5593	0.0076	0.0000
PERSONAL SERVICES (ES)	0.0193	0.0892	0.1251	0.1695	0.2670
SOCIAL SERVICES (SS)	0.0000	0.0010	0.0109	0.0000	0.1046
BACKWARD LINKAGE (BL)	0.6795	0.2934	0.2164	0.0961	0.0574
TOTAL LINKAGE (TL)	4.4196	1.7318	1.1333	1.1785	1.0546

GREECE (1970) DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS
COMPOSITION OF INPUTS							
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.4409	0.0272	0.0175	0.0329	0.0029	0.0356	0.0214
ENERGY AND BASIC INDUSTRIES (EB)	0.0513	0.4540	0.4596	0.3490	0.0984	0.3028	0.3905
CAPITAL GOOD INDUSTRIES (CG)	0.0130	0.0492	0.3402	0.1982	0.0086	0.0454	0.0024
DISTRIBUTIVE SERVICES (DS)	0.0677	0.1027	0.0858	0.1757	0.1472	0.1313	0.1059
PRODUCER SERVICES (RS)	0.0250	0.0675	0.0462	0.0474	0.5593	0.0076	0.0000
PERSONAL SERVICES (ES)	0.0146	0.0283	0.0265	0.0892	0.1251	0.1695	0.2670
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0010	0.0109	0.0000	0.1046
BACKWARD LINKAGE (BL)	0.7281	0.5986	0.6258	0.2934	0.2164	0.0961	0.0574

D.9

GREECE (1970) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.2350	0.0192	0.0003	0.0014	0.0308	0.0010	0.0070	0.0002	0.0036	0.0000	0.0081	0.0000
ISIC 32	0.0124	0.6954	0.0191	0.0021	0.0198	0.0001	0.0030	0.0019	0.0102	0.0000	0.0102	0.0214
ISIC 33	0.0004	0.0004	0.4812	0.0000	0.0010	0.0033	0.0036	0.0154	0.0191	0.0029	0.0172	0.0000
ISIC 34	0.0189	0.0080	0.0142	0.6512	0.0405	0.0586	0.0059	0.0114	0.0537	0.0761	0.1064	0.0887
ISIC 35	0.0186	0.0493	0.0514	0.0756	0.3210	0.1793	0.0455	0.0474	0.2939	0.0223	0.1910	0.3006
ISIC 36	0.0044	0.0000	0.0034	0.0003	0.0094	0.1359	0.0106	0.0047	0.0007	0.0000	0.0045	0.0013
ISIC 37	0.0000	0.0001	0.0413	0.0015	0.0179	0.0041	0.3724	0.3961	0.0008	0.0000	0.0009	0.0000
ISIC 38	0.0134	0.0093	0.0375	0.0303	0.0322	0.0599	0.0877	0.3402	0.1982	0.0086	0.0454	0.0024
DS	0.0607	0.0724	0.1115	0.1124	0.1011	0.1404	0.0710	0.0858	0.1757	0.1472	0.1313	0.1059
RS	0.0210	0.0300	0.0323	0.0512	0.0593	0.0463	0.1105	0.0462	0.0474	0.5593	0.0076	0.0000
ES	0.0154	0.0132	0.0176	0.0281	0.0313	0.0311	0.0205	0.0265	0.0892	0.1251	0.1695	0.2670
SS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0010	0.0109	0.0000	0.1046

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38

SOURCE: UNIDO DATA BASE

INDIA (1973) BACKWARD DEPENDENCY RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)
COMPOSITION OF INPUTS					
MANUFACTURING	0.4391	0.3609	0.0782	0.0885	0.7413
DISTRIBUTIVE SERVICES (DS)	0.1539	0.4171	0.1483	0.1102	0.2104
PRODUCER SERVICES (RS)	0.0223	0.0583	0.1973	0.0815	0.0000
PERSONAL SERVICES (ES)	0.0265	0.0213	0.0683	0.0219	0.0200
SOCIAL SERVICES (SS)	0.0000	0.0006	0.0056	0.0000	0.0015
BACKWARD LINKAGE (BL)	0.6364	0.2475	0.1023	0.4622	0.2672
TOTAL LINKAGE (TL)	5.3146	1.6265	1.1013	1.1851	1.2887

INDIA (1973) DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS
COMPOSITION OF INPUTS							
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.1966	0.0566	0.0281	0.0360	0.0037	0.0604	0.0098
ENERGY AND BASIC INDUSTRIES (EB)	0.0576	0.3866	0.3954	0.1524	0.0662	0.0157	0.6170
CAPITAL GOOD INDUSTRIES (CG)	0.0181	0.0420	0.2941	0.1616	0.0034	0.0051	0.0165
DISTRIBUTIVE SERVICES (DS)	0.1197	0.1787	0.1931	0.4171	0.1483	0.1102	0.2104
PRODUCER SERVICES (RS)	0.0120	0.0343	0.0320	0.0583	0.1973	0.0615	0.0000
PERSONAL SERVICES (ES)	0.0211	0.0367	0.0272	0.0213	0.0683	0.0219	0.0200
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0006	0.0056	0.0000	0.0015
BACKWARD LINKAGE (BL)	0.6874	0.6022	0.5970	0.2475	0.1023	0.4622	0.2672

INDIA (1973) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.1113	0.0057	0.0036	0.0065	0.0297	0.0005	0.0000	0.0001	0.0085	0.0000	0.0602	0.0043
ISIC 32	0.0230	0.2567	0.0102	0.0243	0.0320	0.0753	0.0082	0.0100	0.0176	0.0005	0.0000	0.0044
ISIC 33	0.0057	0.0041	0.2027	0.0091	0.0079	0.0183	0.0178	0.0180	0.0100	0.0033	0.0002	0.0011
ISIC 34	0.0066	0.0073	0.0151	0.3949	0.0213	0.0120	0.0081	0.0068	0.0213	0.0627	0.0009	0.2050
ISIC 35	0.0163	0.0844	0.0502	0.1107	0.3174	0.0683	0.0604	0.0585	0.1309	0.0034	0.0104	0.4114
ISIC 36	0.0025	0.0003	0.0028	0.0101	0.0087	0.0909	0.0135	0.0051	0.0000	0.0000	0.0044	0.0005
ISIC 37	0.0009	0.0038	0.0080	0.0061	0.0169	0.0242	0.3676	0.3250	0.0002	0.0000	0.0000	0.0000
ISIC 38	0.0152	0.0203	0.0419	0.0351	0.0334	0.0544	0.0570	0.2941	0.1616	0.0034	0.0051	0.0165
DS	0.1173	0.1162	0.2258	0.1830	0.1261	0.2595	0.2545	0.1931	0.4171	0.1483	0.1102	0.2104
RS	0.0087	0.0164	0.0089	0.0325	0.0276	0.0343	0.0480	0.0320	0.0583	0.1973	0.0615	0.0000
ES	0.0153	0.0281	0.0254	0.0599	0.0301	0.0726	0.0302	0.0272	0.0213	0.0683	0.0219	0.0200
SS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0006	0.0056	0.0000	0.0015

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 SOURCE: UNIDO DATA BASE

INDONESIA (1975) BACKWARD DEPENDENCY RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)
COMPOSITION OF INPUTS					
MANUFACTURING	0.3525	0.4538	0.1017	0.4457	0.4382
DISTRIBUTIVE SERVICES (DS)	0.1185	0.2000	0.1192	0.1432	0.1401
PRODUCER SERVICES (RS)	0.0193	0.2140	0.1287	0.0341	0.0831
PERSONAL SERVICES (ES)	0.0035	0.0580	0.0575	0.0053	0.0142
SOCIAL SERVICES (SS)	0.0027	0.0207	0.1373	0.0075	0.1811
BACKWARD LINKAGE (BL)	0.6875	0.2268	0.1829	0.6581	0.1385
TOTAL LINKAGE (TL)	3.0636	1.7412	1.1412	1.2384	1.2115

INDONESIA (1975) DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS
COMPOSITION OF INPUTS							
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.1765	0.0419	0.0200	0.0223	0.0022	0.3780	0.1120
ENERGY AND BASIC INDUSTRIES (EB)	0.0358	0.2972	0.2334	0.1880	0.0622	0.0499	0.2446
CAPITAL GOOD INDUSTRIES (CG)	0.0157	0.0325	0.4627	0.2405	0.0323	0.0171	0.0676
DISTRIBUTIVE SERVICES (DS)	0.1057	0.1041	0.1659	0.2000	0.1192	0.1432	0.1401
PRODUCER SERVICES (RS)	0.0114	0.0370	0.0295	0.2140	0.1287	0.0341	0.0831
PERSONAL SERVICES (ES)	0.0031	0.0045	0.0041	0.0580	0.0575	0.0053	0.0142
SOCIAL SERVICES (SS)	0.0025	0.0040	0.0023	0.0207	0.1373	0.0075	0.1811
BACKWARD LINKAGE (BL)	0.7258	0.6315	0.6330	0.2268	0.1829	0.6581	0.1385

INDONESIA (1975) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.0652	0.0004	0.0003	0.0000	0.0259	0.0099	0.0000	0.0000	0.0084	0.0014	0.3694	0.0240
ISIC 32	0.0018	0.6217	0.0046	0.0126	0.0160	0.0134	0.0001	0.0015	0.0117	0.0005	0.0082	0.0784
ISIC 33	0.0006	0.0011	0.1003	0.0119	0.0054	0.0056	0.0004	0.0185	0.0023	0.0003	0.0004	0.0096
ISIC 34	0.0064	0.0049	0.0021	0.3931	0.0110	0.0229	0.0010	0.0023	0.0166	0.0443	0.0064	0.0551
ISIC 35	0.0130	0.0773	0.0699	0.1923	0.2445	0.1108	0.0248	0.1212	0.1706	0.0176	0.0385	0.1819
ISIC 36	0.0021	0.0000	0.0035	0.0027	0.0069	0.0682	0.0003	0.0021	0.0009	0.0002	0.0049	0.0076
ISIC 37	0.0000	0.0000	0.0205	0.0001	0.0000	0.0001	0.4928	0.1079	0.0000	0.0000	0.0000	0.0000
ISIC 38	0.0159	0.0142	0.0196	0.0348	0.0314	0.0241	0.1080	0.4627	0.2405	0.0323	0.0171	0.0675
DS	0.1028	0.0825	0.2967	0.2100	0.0619	0.2821	0.1745	0.1659	0.2000	0.1192	0.1432	0.1401
RS	0.0094	0.0132	0.0465	0.0382	0.0370	0.0309	0.0638	0.0295	0.2140	0.1287	0.0341	0.0831
ES	0.0030	0.0037	0.0036	0.0064	0.0039	0.0071	0.0035	0.0041	0.0580	0.0575	0.0053	0.0142
SS	0.0024	0.0032	0.0023	0.0079	0.0028	0.0081	0.0021	0.0023	0.0207	0.1373	0.0075	0.1811

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 SOURCE: UNIDO DATA BASE

ITALY (1970)		BACKWARD DEPENDENCY RATIO				
OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)	
COMPOSITION OF INPUTS						
MANUFACTURING	0.5016	0.1838	0.0606	0.6068	0.3400	
DISTRIBUTIVE SERVICES (DS)	0.0788	0.3160	0.0436	0.0939	0.0907	
PRODUCER SERVICES (RS)	0.0390	0.1703	0.7069	0.1069	0.2654	
PERSONAL SERVICES (ES)	0.0230	0.0948	0.0466	0.0433	0.0644	
SOCIAL SERVICES (SS)	0.0045	0.0002	0.0000	0.0004	0.0000	
BACKWARD LINKAGE (BL)	0.5150	0.2783	0.3463	0.4038	0.2223	
TOTAL LINKAGE (TL)	4.0949	1.6660	1.5376	1.3281	1.3276	

ITALY (1970)		DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)						
OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS	
COMPOSITION OF INPUTS								
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.3679	0.0397	0.0137	0.0381	0.0148	0.2891	0.0561	
ENERGY AND BASIC INDUSTRIES (EB)	0.0829	0.5720	0.0976	0.1047	0.0393	0.0973	0.1415	
CAPITAL GOOD INDUSTRIES (CG)	0.0121	0.0177	0.3574	0.0406	0.0060	0.2200	0.1397	
DISTRIBUTIVE SERVICES (DS)	0.0738	0.0907	0.0780	0.3160	0.0436	0.0939	0.0907	
PRODUCER SERVICES (RS)	0.0326	0.0458	0.0439	0.1703	0.7069	0.1069	0.2654	
PERSONAL SERVICES (ES)	0.0160	0.0359	0.0244	0.0948	0.0466	0.0434	0.0644	
SOCIAL SERVICES (SS)	0.0001	0.0133	0.0046	0.0002	0.0000	0.0004	0.0000	
BACKWARD LINKAGE (BL)	0.5619	0.4800	0.4808	0.2783	0.3463	0.4038	0.2223	

ITALY (1970)		FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)										
OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.1907	0.0373	0.0044	0.0000	0.0361	0.0000	0.0000	0.0000	0.0070	0.0000	0.2711	0.0360
ISIC 32	0.0013	0.5690	0.0421	0.0093	0.0149	0.0007	0.0000	0.0028	0.0126	0.0007	0.0121	0.0122
ISIC 33	0.0023	0.0034	0.4822	0.0042	0.0050	0.0220	0.0000	0.0109	0.0185	0.0140	0.0059	0.0079
ISIC 34	0.0187	0.0189	0.0074	0.5779	0.0385	0.0418	0.0000	0.0161	0.0608	0.0277	0.0238	0.0489
ISIC 35	0.0250	0.1090	0.0975	0.0979	0.5024	0.0702	0.0000	0.0705	0.0425	0.0111	0.0699	0.0875
ISIC 36	0.0054	0.0009	0.0138	0.0004	0.0346	0.3050	0.0000	0.0110	0.0014	0.0005	0.0037	0.0051
ISIC 37	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ISIC 38	0.0114	0.0076	0.0380	0.0130	0.0121	0.0422	0.0000	0.3574	0.0406	0.0060	0.2200	0.1397
DS	0.0635	0.0957	0.0489	0.0843	0.0840	0.1217	0.0000	0.0780	0.3160	0.0436	0.0939	0.0907
RS	0.0203	0.0427	0.0763	0.0547	0.0408	0.0497	0.0000	0.0439	0.1703	0.7069	0.1069	0.2654
ES	0.0161	0.0180	0.0062	0.0478	0.0279	0.0454	0.0000	0.0244	0.0948	0.0466	0.0434	0.0644
SS	0.0002	0.0000	0.0000	0.0029	0.0215	0.0007	0.0000	0.0046	0.0002	0.0000	0.0004	0.0000

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 SOURCE: UNIDO DATA BASE

IVORY COST (1976) BACKWARD DEPENDENCY RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)
COMPOSITION OF INPUTS					
MANUFACTURING	0.4818	0.3824	0.0660	0.2170	0.4571
DISTRIBUTIVE SERVICES (DS)	0.0180	0.3217	0.0202	0.1072	0.1373
PRODUCER SERVICES (RS)	0.0063	0.0193	0.6896	0.0097	0.0083
PERSONAL SERVICES (ES)	0.0470	0.1641	0.1718	0.4507	0.0946
SOCIAL SERVICES (SS)	0.0045	0.0681	0.0342	0.1051	0.1240
BACKWARD LINKAGE (BL)	0.6955	0.3176	0.9697	0.3651	0.3976
TOTAL LINKAGE (TL)	3.4181	3.1918	3.1421	1.2733	2.0108

IVORY COST (1976) DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS
COMPOSITION OF INPUTS							
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.2261	0.0322	0.0064	0.0200	0.0014	0.0068	0.0842
ENERGY AND BASIC INDUSTRIES (EB)	0.0782	0.3139	0.3244	0.1960	0.0019	0.0850	0.0873
CAPITAL GOOD INDUSTRIES (CG)	0.0688	0.0399	0.5281	0.1364	0.0105	0.0785	0.1748
DISTRIBUTIVE SERVICES (DS)	0.0215	0.0082	0.0214	0.3217	0.0202	0.1072	0.1373
PRODUCER SERVICES (RS)	0.0081	0.0032	0.0050	0.0193	0.6896	0.0097	0.0083
PERSONAL SERVICES (ES)	0.0450	0.0322	0.0734	0.1641	0.1718	0.4507	0.0946
SOCIAL SERVICES (SS)	0.0040	0.0013	0.0105	0.0681	0.0342	0.1051	0.1240
BACKWARD LINKAGE (BL)	0.7119	0.7179	0.6233	0.3176	0.9697	0.3651	0.3976

IVORY COST (1976) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.1550	0.0057	0.0000	0.0000	0.0350	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0281
ISIC 32	0.0043	0.4390	0.0027	0.0000	0.0010	0.0000	0.0000	0.0017	0.0190	0.0004	0.0068	0.0277
ISIC 33	0.0044	0.0010	0.2289	0.0000	0.0011	0.2000	0.0000	0.0047	0.0009	0.0010	0.0000	0.0284
ISIC 34	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ISIC 35	0.0359	0.1548	0.1420	0.0000	0.2445	0.0236	0.0181	0.0653	0.1948	0.0019	0.0831	0.0816
ISIC 36	0.0090	0.0004	0.0000	0.0000	0.0068	0.6280	0.0020	0.0072	0.0009	0.0000	0.0018	0.0057
ISIC 37	0.0000	0.0005	0.0000	0.0000	0.0007	0.0413	0.8571	0.2519	0.0003	0.0000	0.0000	0.0000
ISIC 38	0.0692	0.0582	0.0825	0.0000	0.0399	0.0440	0.0174	0.5281	0.1364	0.0105	0.0785	0.1748
DS	0.0185	0.0291	0.0263	0.0000	0.0075	0.0095	0.0349	0.0214	0.3217	0.0202	0.1072	0.1372
RS	0.0074	0.0109	0.0075	0.0000	0.0030	0.0046	0.0054	0.0050	0.0193	0.6896	0.0097	0.0083
ES	0.0413	0.0637	0.0367	0.0000	0.0306	0.0443	0.0309	0.0734	0.1641	0.1718	0.4507	0.0945
SS	0.0041	0.0042	0.0032	0.0000	0.0012	0.0020	0.0000	0.0105	0.0681	0.0342	0.1051	0.1240

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 SOURCE: UNIDO DATA BASE

JAPAN (1975) BACKWARD DEPENDENCY RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)
COMPOSITION OF INPUTS					
MANUFACTURING	0.5951	0.3999	0.1152	0.3860	0.4252
DISTRIBUTIVE SERVICES (DS)	0.1011	0.2883	0.0982	0.2002	0.1871
PRODUCER SERVICES (RS)	0.0419	0.1933	0.2947	0.0901	0.1578
PERSONAL SERVICES (ES)	0.0178	0.0613	0.1012	0.1254	0.0655
SOCIAL SERVICES (SS)	0.0083	0.0070	0.0051	0.0069	0.0048
BACKWARD LINKAGE (BL)	0.6946	0.4074	0.2346	0.4120	0.2955
TOTAL LINKAGE (TL)	6.3417	2.0019	1.3056	1.4521	1.3817

JAPAN (1975) DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS
COMPOSITION OF INPUTS							
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.2812	0.0154	0.0125	0.0188	0.0060	0.2095	0.0501
ENERGY AND BASIC INDUSTRIES (EB)	0.0703	0.5634	0.2673	0.2197	0.0764	0.1367	0.3059
CAPITAL GOOD INDUSTRIES (CG)	0.0225	0.0152	0.4582	0.1523	0.0110	0.0267	0.0585
DISTRIBUTIVE SERVICES (DS)	0.1272	0.0742	0.1103	0.2883	0.0982	0.2002	0.1871
PRODUCER SERVICES (RS)	0.0350	0.0426	0.0485	0.1933	0.2947	0.0901	0.1578
PERSONAL SERVICES (ES)	0.0145	0.0141	0.0258	0.0613	0.1012	0.1254	0.0655
SOCIAL SERVICES (SS)	0.0024	0.0068	0.0159	0.0070	0.0051	0.0069	0.0048
BACKWARD LINKAGE (BL)	0.7293	0.7439	0.6172	0.4074	0.2346	0.4120	0.2955

D.14

JAPAN (1975) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.1869	0.0114	0.0007	0.0009	0.0083	0.0004	0.0000	0.0000	0.0009	0.0000	0.1927	0.0226
ISIC 32	0.0011	0.4846	0.0142	0.0043	0.0062	0.0047	0.0007	0.0043	0.0085	0.0020	0.0048	0.0111
ISIC 33	0.0035	0.0018	0.2157	0.0551	0.0008	0.0073	0.0018	0.0082	0.0095	0.0040	0.0120	0.0164
ISIC 34	0.0136	0.0077	0.0169	0.6097	0.0181	0.0314	0.0013	0.0076	0.0424	0.0679	0.0998	0.0732
ISIC 35	0.0199	0.1067	0.0340	0.0451	0.3244	0.1196	0.1063	0.0428	0.1760	0.0084	0.0293	0.2251
ISIC 36	0.0139	0.0000	0.0045	0.0006	0.0051	0.1710	0.0096	0.0111	0.0013	0.0001	0.0075	0.0039
ISIC 37	0.0012	0.0007	0.0168	0.0025	0.0036	0.0307	0.6492	0.2059	0.0001	0.0000	0.0001	0.0038
ISIC 38	0.0216	0.0154	0.0388	0.0076	0.0180	0.0344	0.0116	0.4582	0.1523	0.0110	0.0267	0.0585
DS	0.1135	0.1370	0.1622	0.1012	0.0663	0.2064	0.0510	0.1103	0.2883	0.0982	0.2002	0.1871
RS	0.0165	0.0758	0.0319	0.0595	0.0492	0.0610	0.0282	0.0485	0.1933	0.2947	0.0901	0.1578
ES	0.0146	0.0132	0.0164	0.0333	0.0190	0.0123	0.0040	0.0258	0.0613	0.1012	0.1254	0.0655
SS	0.0024	0.0031	0.0012	0.0029	0.0127	0.0065	0.0027	0.0159	0.0070	0.0051	0.0069	0.0048

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 SOURCE: UNIDO DATA BASE

KENYA (1976) BACKWARD DEPENDENCY RATIO					
OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)
COMPOSITION OF INPUTS					
MANUFACTURING	0.5051	0.3332	0.1511	0.7727	0.4128
DISTRIBUTIVE SERVICES (DS)	0.0712	0.3675	0.0891	0.0199	0.1489
PRODUCER SERVICES (RS)	0.0416	0.2312	0.6440	0.0757	0.1316
PERSONAL SERVICES (ES)	0.0010	0.0262	0.0614	0.0006	0.0419
SOCIAL SERVICES (SS)	0.0010	0.0003	0.0000	0.0000	0.0029
BACKWARD LINKAGE (BL)	0.5380	0.4735	0.2108	0.3649	0.3064
TOTAL LINKAGE (TL)	4.5195	2.4047	1.2112	1.2837	1.6048

KENYA (1976) DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)							
OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS
COMPOSITION OF INPUTS							
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.3350	0.0595	0.0149	0.0223	0.0048	0.7349	0.2173
ENERGY AND BASIC INDUSTRIES (EB)	0.1267	0.2592	0.1598	0.1802	0.0714	0.0303	0.1465
CAPITAL GOOD INDUSTRIES (CG)	0.0501	0.0328	0.6214	0.1307	0.0749	0.0075	0.0490
DISTRIBUTIVE SERVICES (DS)	0.0819	0.0476	0.0870	0.3675	0.0891	0.0199	0.1489
PRODUCER SERVICES (RS)	0.0401	0.0296	0.0706	0.2312	0.6440	0.0757	0.1316
PERSONAL SERVICES (ES)	0.0007	0.0005	0.0028	0.0262	0.0614	0.0006	0.0419
SOCIAL SERVICES (SS)	0.0010	0.0014	0.0000	0.0003	0.0000	0.0000	0.0029
BACKWARD LINKAGE (BL)	0.6420	0.6000	0.3178	0.4735	0.2108	0.3649	0.3064

KENYA (1976) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)												
OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.3157	0.0525	0.0000	0.0000	0.0736	0.0000	0.0000	0.0052	0.0100	0.0000	0.7275	0.2080
ISIC 32	0.0036	0.3875	0.0413	0.0045	0.0021	0.0019	0.0000	0.0056	0.0081	0.0000	0.0020	0.0087
ISIC 33	0.0004	0.0002	0.2485	0.0004	0.0013	0.0021	0.0000	0.0042	0.0043	0.0048	0.0053	0.0007
ISIC 34	0.0446	0.0482	0.0087	0.6635	0.0117	0.0452	0.0000	0.0202	0.0237	0.0389	0.0040	0.0559
ISIC 35	0.0636	0.1254	0.2208	0.0793	0.1271	0.2494	0.0000	0.1251	0.1556	0.0325	0.0237	0.0099
ISIC 36	0.0025	0.0005	0.0036	0.0001	0.0038	0.1079	0.0000	0.0145	0.0009	0.0000	0.0026	0.0006
ISIC 37	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ISIC 38	0.0404	0.0512	0.1831	0.0456	0.0200	0.1233	0.0000	0.6214	0.1307	0.0749	0.0075	0.0490
DS	0.0768	0.0959	0.1197	0.0900	0.0296	0.1300	0.0000	0.0870	0.3675	0.0891	0.0199	0.1489
RS	0.0265	0.0960	0.0912	0.0698	0.0206	0.0355	0.0000	0.0706	0.2312	0.6440	0.0757	0.1316
ES	0.0006	0.0015	0.0003	0.0013	0.0002	0.0016	0.0000	0.0028	0.0262	0.0614	0.0006	0.0419
SS	0.0012	0.0000	0.0000	0.0000	0.0019	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000	0.0029

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 SOURCE: UNIDO DATA BASE

KOREA (1975) BACKWARD DEPENDENCY RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)
COMPOSITION OF INPUTS					
MANUFACTURING	0.6110	0.4617	0.3728	0.3131	0.4573
DISTRIBUTIVE SERVICES (DS)	0.0894	0.2473	0.1370	0.1912	0.1496
PRODUCER SERVICES (RS)	0.0322	0.2124	0.0696	0.2296	0.1425
PERSONAL SERVICES (ES)	0.0000	0.0000	0.1906	0.0000	0.0000
SOCIAL SERVICES (SS)	0.0013	0.0073	0.0163	0.0107	0.0120
BACKWARD LINKAGE (BL)	0.7367	0.2980	0.4669	0.2299	0.1752
TOTAL LINKAGE (TL)	5.6701	1.6574	1.6045	1.0710	1.1420

KOREA (1975) DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS
COMPOSITION OF INPUTS							
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.4005	0.0284	0.0098	0.0224	0.2909	0.0236	0.0258
ENERGY AND BASIC INDUSTRIES (EB)	0.1602	0.4632	0.2262	0.3608	0.0571	0.2696	0.3525
CAPITAL GOOD INDUSTRIES (CG)	0.0155	0.0193	0.5920	0.0776	0.0081	0.0160	0.0669
DISTRIBUTIVE SERVICES (DS)	0.0878	0.0887	0.0892	0.2473	0.1370	0.1912	0.1496
PRODUCER SERVICES (RS)	0.0300	0.0312	0.0355	0.2124	0.0696	0.2296	0.1425
PERSONAL SERVICES (ES)	0.0000	0.0000	0.0000	0.0000	0.1906	0.0000	0.0000
SOCIAL SERVICES (SS)	0.0014	0.0012	0.0010	0.0073	0.0163	0.0107	0.0120
BACKWARD LINKAGE (BL)	0.7218	0.7566	0.7426	0.2980	0.4669	0.2299	0.1752

KOREA (1975) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.2688	0.0159	0.0080	0.0056	0.0105	0.0000	0.0000	0.0001	0.0010	0.2803	0.0012	0.0025
ISIC 32	0.0036	0.5064	0.0023	0.0234	0.0221	0.0033	0.0003	0.0032	0.0173	0.0101	0.0180	0.0166
ISIC 33	0.0035	0.0011	0.0808	0.0007	0.0014	0.0028	0.0003	0.0066	0.0041	0.0005	0.0043	0.0067
ISIC 34	0.0218	0.0071	0.0068	0.5945	0.0104	0.0624	0.0005	0.0069	0.0238	0.0377	0.0195	0.0827
ISIC 35	0.0497	0.2094	0.0880	0.0890	0.4038	0.2793	0.0553	0.0689	0.3338	0.0163	0.2325	0.2590
ISIC 36	0.0167	0.0006	0.0060	0.0044	0.0038	0.0837	0.0369	0.0109	0.0032	0.0031	0.0177	0.0108
ISIC 37	0.0000	0.0000	0.0000	0.0000	0.0000	0.0009	0.5559	0.1395	0.0000	0.0000	0.0000	0.0000
ISIC 38	0.0183	0.0140	0.0121	0.0196	0.0145	0.0468	0.0325	0.0568	0.0776	0.0081	0.0160	0.0669
DS	0.0962	0.0788	0.1147	0.1185	0.0797	0.1500	0.0753	0.0892	0.2473	0.1370	0.1912	0.1496
RS	0.0256	0.0309	0.0483	0.0501	0.0278	0.0562	0.0173	0.0355	0.2124	0.0696	0.2296	0.1425
ES	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1906	0.0000	0.0000
SS	0.0016	0.0014	0.0009	0.0013	0.0011	0.0031	0.0004	0.0010	0.0073	0.0163	0.0107	0.0120

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 SOURCE: UNIDO DATA BASE

MADAGASCAR (1973) BACKWARD DEPENDENCY RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)
COMPOSITION OF INPUTS					
MANUFACTURING	0.2681	0.2257	0.1679	0.4826	0.4110
DISTRIBUTIVE SERVICES (DS)	0.0078	0.1583	0.1121	0.0569	0.0896
PRODUCER SERVICES (RS)	0.0211	0.1599	0.4476	0.0703	0.0263
PERSONAL SERVICES (ES)	0.0000	0.0100	0.0085	0.1659	0.0169
SOCIAL SERVICES (SS)	0.0000	0.0356	0.0070	0.0000	0.0390
BACKWARD LINKAGE (BL)	0.3849	1.0151	0.2385	0.1505	0.2521
TOTAL LINKAGE (TL)	2.1510	2.5456	1.1765	1.0524	1.4497

MADAGASCAR (1973) DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS
COMPOSITION OF INPUTS							
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.1458	0.0350	0.0135	0.0157	0.0060	0.0395	0.1224
ENERGY AND BASIC INDUSTRIES (EB)	0.0299	0.5720	0.0663	0.1116	0.0982	0.2709	0.1925
CAPITAL GOOD INDUSTRIES (CG)	0.0181	0.0926	0.8667	0.0845	0.0338	0.1406	0.0790
DISTRIBUTIVE SERVICES (DS)	0.0054	0.0288	0.0282	0.1583	0.1121	0.0569	0.0896
PRODUCER SERVICES (RS)	0.0165	0.0761	0.0518	0.1599	0.4476	0.0703	0.0263
PERSONAL SERVICES (ES)	0.0000	0.0000	0.0000	0.0100	0.0085	0.1659	0.0169
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0356	0.0000	0.0000	0.0390
BACKWARD LINKAGE (BL)	0.5187	0.1076	0.1318	1.0151	0.2385	0.1505	0.2521

MADAGASCAR (1973) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.0524	0.0294	0.0000	0.0000	0.0880	0.0000	0.0000	0.0000	0.0042	0.0000	0.0316	0.0781
ISIC 32	0.0071	0.8188	0.0655	0.0023	0.0073	0.0000	0.0000	0.0000	0.0074	0.0060	0.0079	0.0412
ISIC 33	0.0007	0.0000	0.0982	0.0000	0.0000	0.0000	0.0000	0.0135	0.0041	0.0000	0.0000	0.0031
ISIC 34	0.0084	0.0083	0.0000	0.4764	0.1016	0.0737	0.0000	0.0079	0.0417	0.0922	0.0600	0.1497
ISIC 35	0.0062	0.1349	0.1097	0.3073	0.4610	0.0202	0.0000	0.0577	0.0673	0.0060	0.2109	0.0292
ISIC 36	0.0000	0.0000	0.0000	0.0000	0.0000	0.0968	0.0000	0.0008	0.0026	0.0000	0.0000	0.0136
ISIC 37	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ISIC 38	0.0098	0.0685	0.1350	0.0942	0.0662	0.1315	0.0000	0.8667	0.0845	0.0338	0.1406	0.0790
DS	0.0034	0.0188	0.0245	0.0317	0.0336	0.0159	0.0000	0.0282	0.1583	0.1121	0.0569	0.0896
RS	0.0129	0.0431	0.0344	0.0880	0.0771	0.0520	0.0000	0.0518	0.1599	0.4476	0.0703	0.0263
ES	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0100	0.0085	0.1659	0.0169
SS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0356	0.0000	0.0000	0.0390

NOTE: A = ISIC 31, 32, 33
 B = ISIC 34, 35, 36, 37
 C = ISIC 38
 UNIDO DATA SOURCE

MEXICO (1970) BACKWARD DEPENDENCY RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)
COMPOSITION OF INPUTS					
MANUFACTURING	0.4866	0.3743	0.1511	0.3834	0.5732
DISTRIBUTIVE SERVICES (DS)	0.1577	0.1825	0.1472	0.1585	0.1497
PRODUCER SERVICES (RS)	0.0284	0.2745	0.1471	0.2235	0.1080
PERSONAL SERVICES (ES)	0.0223	0.1152	0.4963	0.1984	0.0864
SOCIAL SERVICES (SS)	0.0006	0.0103	0.0000	0.0002	0.0219
BACKWARD LINKAGE (BL)	0.6162	0.1697	0.1078	0.2816	0.2135
TOTAL LINKAGE (TL)	4.5201	1.5365	1.1453	1.3051	1.1096

MEXICO (1970) DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS
COMPOSITION OF INPUTS							
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.2859	0.0264	0.0213	0.0181	0.0018	0.0302	0.0765
ENERGY AND BASIC INDUSTRIES (EB)	0.0867	0.4758	0.2818	0.2606	0.1138	0.1489	0.4129
CAPITAL GOOD INDUSTRIES (CG)	0.0205	0.0315	0.4135	0.0908	0.0178	0.1898	0.0402
DISTRIBUTIVE SERVICES (DS)	0.1390	0.1685	0.1991	0.1825	0.1472	0.1585	0.1497
PRODUCER SERVICES (RS)	0.0239	0.0338	0.0319	0.2745	0.1471	0.2235	0.1080
PERSONAL SERVICES (ES)	0.0190	0.0310	0.0168	0.1152	0.4963	0.1984	0.0864
SOCIAL SERVICES (SS)	0.0000	0.0019	0.0000	0.0103	0.0000	0.0002	0.0219
BACKWARD LINKAGE (BL)	0.6485	0.5899	0.5742	0.1697	0.1078	0.2816	0.2135

MEXICO (1970) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.2136	0.0190	0.0060	0.0071	0.0199	0.0000	0.0000	0.0000	0.0001	0.0000	0.0007	0.0508
ISIC 32	0.0127	0.4310	0.0641	0.0173	0.0120	0.0023	0.0015	0.0056	0.0147	0.0015	0.0280	0.0206
ISIC 33	0.0008	0.0007	0.2650	0.0267	0.0017	0.0074	0.0018	0.0157	0.0033	0.0002	0.0015	0.0051
ISIC 34	0.0216	0.0227	0.0030	0.5981	0.0511	0.0885	0.0146	0.0185	0.0443	0.0722	0.0263	0.0486
ISIC 35	0.0240	0.1471	0.0654	0.0693	0.3487	0.1122	0.0254	0.0494	0.2017	0.0359	0.1018	0.3452
ISIC 36	0.0104	0.0000	0.0058	0.0004	0.0098	0.0996	0.0001	0.0127	0.0019	0.0040	0.0168	0.0168
ISIC 37	0.0013	0.0020	0.0123	0.0066	0.0093	0.0132	0.4985	0.2013	0.0126	0.0017	0.0041	0.0024
ISIC 38	0.0220	0.0115	0.0444	0.0101	0.0268	0.0298	0.0545	0.4135	0.0906	0.0178	0.1898	0.0402
DS	0.1180	0.1836	0.2314	0.1592	0.1786	0.1986	0.1417	0.1991	0.1825	0.1472	0.1585	0.1497
RS	0.0205	0.0322	0.0334	0.0318	0.0393	0.0702	0.0102	0.0319	0.2745	0.1471	0.2235	0.1080
ES	0.0190	0.0186	0.0205	0.0247	0.0295	0.0495	0.0309	0.0168	0.1152	0.4963	0.1984	0.0864
SS	0.0000	0.0000	0.0000	0.0000	0.0037	0.0000	0.0000	0.0000	0.0103	0.0000	0.0002	0.0219

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 SOURCE: UNIDO DATA BASE

MOROCCO (1975) BACKWARD DEPENDENCY RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)
COMPOSITION OF INPUTS					
MANUFACTURING	0.3899	0.2940	0.1110	0.5523	0.5338
DISTRIBUTIVE SERVICES (DS)	0.2661	0.2135	0.0937	0.0781	0.1264
PRODUCER SERVICES (RS)	0.0092	0.0617	0.3239	0.0399	0.0687
PERSONAL SERVICES (ES)	0.0266	0.3862	0.3840	0.2399	0.1079
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0000
BACKWARD LINKAGE (BL)	0.5522	0.2774	0.1812	0.2813	0.2889
TOTAL LINKAGE (TL)	4.2929	1.7581	1.0921	1.5087	1.4311

MOROCCO (1975) DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS
COMPOSITION OF INPUTS							
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.2879	0.0152	0.0152	0.0262	0.0017	0.2364	0.0914
ENERGY AND BASIC INDUSTRIES (EB)	0.0476	0.2924	0.2353	0.1878	0.0844	0.1685	0.1975
CAPITAL GOOD INDUSTRIES (CG)	0.0293	0.0224	0.3247	0.0793	0.0069	0.1435	0.2265
DISTRIBUTIVE SERVICES (DS)	0.2124	0.3394	0.3833	0.2135	0.0937	0.0781	0.1264
PRODUCER SERVICES (RS)	0.0095	0.0081	0.0097	0.0617	0.3239	0.0399	0.0687
PERSONAL SERVICES (ES)	0.0259	0.0336	0.0211	0.3862	0.3840	0.2399	0.1079
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
BACKWARD LINKAGE (BL)	0.6686	0.4761	0.3583	0.2774	0.1812	0.2813	0.2889

MOROCCO (1975) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	RS	ES	SS	
COMPOSITION OF INPUTS												
ISIC 31	0.2091	0.0163	0.0003	0.0031	0.0046	0.0000	0.0000	0.0001	0.0033	0.0000	0.1852	0.0518
ISIC 32	0.0058	0.4602	0.0437	0.0056	0.0109	0.0000	0.0004	0.0060	0.0071	0.0017	0.0067	0.0381
ISIC 33	0.0022	0.0017	0.2745	0.0000	0.0018	0.0000	0.0000	0.0092	0.0158	0.0000	0.0445	0.0015
ISIC 34	0.0151	0.0120	0.0097	0.4044	0.0196	0.0000	0.0111	0.0103	0.0315	0.0729	0.0192	0.0469
ISIC 35	0.0195	0.0578	0.0750	0.0597	0.2374	0.0000	0.0115	0.0521	0.1540	0.0116	0.1342	0.1506
ISIC 36	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ISIC 37	0.0007	0.0007	0.0190	0.0033	0.0007	0.0000	0.3728	0.1729	0.0023	0.0000	0.0151	0.0000
ISIC 38	0.0304	0.0201	0.0575	0.0229	0.0219	0.0000	0.0284	0.3247	0.0793	0.0069	0.1435	0.2265
DS	0.1655	0.3230	0.3144	0.3224	0.3349	0.0000	0.4309	0.3833	0.2135	0.0937	0.0781	0.1264
RS	0.0068	0.0159	0.0162	0.0151	0.0068	0.0000	0.0115	0.0097	0.0617	0.3239	0.0399	0.0687
ES	0.0252	0.0300	0.0159	0.1139	0.0223	0.0000	0.0198	0.0211	0.3862	0.3840	0.2399	0.1079
SS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 SOURCE: UNIDO DATA BASE

NIGERIA (1973) BACKWARD DEPENDENCY RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)
COMPOSITION OF INPUTS					
MANUFACTURING	0.3164	0.1191	0.2513	0.1700	0.0000
DISTRIBUTIVE SERVICES (DS)	0.2729	0.6064	0.3323	0.3336	0.0000
PRODUCER SERVICES (RS)	0.0263	0.0582	0.2508	0.0464	0.0000
PERSONAL SERVICES (ES)	0.0000	0.0030	0.0004	0.0000	0.0000
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0000
BACKWARD LINKAGE (BL)	0.4766	0.1726	0.2149	0.3726	0.0000
TOTAL LINKAGE (TL)	2.1304	1.7536	1.1256	1.0228	1.0000

NIGERIA (1973) DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS
COMPOSITION OF INPUTS							
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.1550	0.0329	0.1167	0.0217	0.0241	0.1600	0.0000
ENERGY AND BASIC INDUSTRIES (EB)	0.0922	0.3366	0.2071	0.0974	0.2272	0.0100	0.0000
CAPITAL GOOD INDUSTRIES (CG)	0.0000	0.0000	0.1880	0.0000	0.0000	0.0000	0.0000
DISTRIBUTIVE SERVICES (DS)	0.2022	0.4174	0.2918	0.6064	0.3323	0.3336	0.0000
PRODUCER SERVICES (RS)	0.0216	0.0344	0.0547	0.0582	0.2508	0.0464	0.0000
PERSONAL SERVICES (ES)	0.0000	0.0000	0.0000	0.0030	0.0004	0.0000	0.0000
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
BACKWARD LINKAGE (BL)	0.5557	0.4398	0.1980	0.1726	0.2149	0.3726	0.0000

NIGERIA (1973) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.2028	0.0000	0.0000	0.0000	0.0005	0.0000	0.0000	0.0000	0.0003	0.0164	0.1600	0.0000
ISIC 32	0.0107	0.0921	0.0138	0.0837	0.0193	0.0000	0.0005	0.0056	0.0119	0.0065	0.0000	0.0000
ISIC 33	0.0001	0.0003	0.0343	0.0326	0.0081	0.0000	0.0012	0.1111	0.0095	0.0012	0.0000	0.0000
ISIC 34	0.0635	0.0056	0.0111	0.3154	0.0819	0.0000	0.0147	0.0999	0.0176	0.1949	0.0100	0.0000
ISIC 35	0.0047	0.1187	0.0355	0.0252	0.2822	0.0000	0.0117	0.1072	0.0798	0.0323	0.0000	0.0000
ISIC 36	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ISIC 37	0.0000	0.0008	0.0088	0.0000	0.0196	0.0000	0.2608	0.0000	0.0000	0.0000	0.0000	0.0000
ISIC 38	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1880	0.0000	0.0000	0.0000	0.0000
DS	0.1252	0.2909	0.2747	0.4027	0.3790	0.0000	0.4627	0.2918	0.6064	0.3323	0.3336	0.0000
RS	0.0153	0.0273	0.0456	0.0301	0.0421	0.0000	0.0284	0.0547	0.0582	0.2508	0.0464	0.0000
ES	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0030	0.0004	0.0000	0.0000
SS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 SOURCE: UNIDO DATA BASE

PHILIPPINES (1974) BACKWARD DEPENDENCY RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)
COMPOSITION OF INPUTS					
MANUFACTURING	0.3370	0.3880	0.0889	0.4251	0.0000
DISTRIBUTIVE SERVICES (DS)	0.1369	0.1586	0.0295	0.1226	0.0000
PRODUCER SERVICES (RS)	0.0137	0.1941	0.7504	0.0754	0.0000
PERSONAL SERVICES (ES)	0.0239	0.1339	0.0868	0.1775	0.0000
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0000
BACKWARD LINKAGE (BL)	0.6350	0.2064	0.4618	0.3302	0.0000
TOTAL LINKAGE (TL)	4.6907	1.7656	1.7631	1.4110	1.0000

PHILIPPINES (1974) DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS
COMPOSITION OF INPUTS							
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.1777	0.0452	0.0115	0.0316	0.0281	0.2183	0.0000
ENERGY AND BASIC INDUSTRIES (EB)	0.0714	0.3587	0.5282	0.3242	0.0553	0.1793	0.0000
CAPITAL GOOD INDUSTRIES (CG)	0.0087	0.0049	0.1814	0.0304	0.0033	0.0117	0.0000
DISTRIBUTIVE SERVICES (DS)	0.1339	0.1375	0.1693	0.1586	0.0295	0.1226	0.0000
PRODUCER SERVICES (RS)	0.0105	0.0176	0.0284	0.1941	0.7504	0.0754	0.0000
PERSONAL SERVICES (ES)	0.0140	0.0414	0.0492	0.1339	0.0868	0.1775	0.0000
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
BACKWARD LINKAGE (BL)	0.6642	0.6124	0.4885	0.2064	0.4618	0.3302	0.0000

PHILIPPINES (1974) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.1351	0.0137	0.0043	0.0037	0.0544	0.0000	0.0000	0.0000	0.0243	0.0000	0.2111	0.0000
ISIC 32	0.0017	0.4560	0.0090	0.0057	0.0064	0.0012	0.0000	0.0026	0.0033	0.0008	0.0064	0.0000
ISIC 33	0.0017	0.0014	0.1193	0.0043	0.0004	0.0067	0.0002	0.0089	0.0040	0.0273	0.0008	0.0000
ISIC 34	0.0113	0.0134	0.0061	0.5819	0.0165	0.0406	0.0018	0.0139	0.0766	0.0225	0.0518	0.0000
ISIC 35	0.0318	0.1725	0.1351	0.1746	0.1771	0.4442	0.0965	0.1218	0.2430	0.0187	0.1253	0.0000
ISIC 36	0.0060	0.0001	0.0018	0.0007	0.0061	0.0940	0.0017	0.0089	0.0016	0.0134	0.0021	0.0000
ISIC 37	0.0006	0.0001	0.0118	0.0030	0.0007	0.0061	0.7170	0.3836	0.0030	0.0007	0.0000	0.0000
ISIC 38	0.0098	0.0022	0.0066	0.0076	0.0050	0.0054	0.0020	0.1814	0.0304	0.0033	0.0117	0.0000
DS	0.1329	0.1491	0.1154	0.1107	0.1420	0.1381	0.1323	0.1693	0.1586	0.0295	0.1226	0.0000
RS	0.0088	0.0213	0.0126	0.0265	0.0169	0.0204	0.0129	0.0284	0.1941	0.7504	0.0754	0.0000
ES	0.0118	0.0277	0.0169	0.0392	0.0444	0.0592	0.0145	0.0492	0.1339	0.0868	0.1775	0.0000
SS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 SOURCE: UNIDO DATA BASE

SRI LANKA (1970) BACKWARD DEPENDENCY RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)
COMPOSITION OF INPUTS					
MANUFACTURING	0.2953	0.4663	0.4359	0.3355	0.1132
DISTRIBUTIVE SERVICES (DS)	0.1459	0.4047	0.5128	0.0839	0.5472
PRODUCER SERVICES (RS)	0.0000	0.0029	0.0256	0.0000	0.2264
PERSONAL SERVICES (ES)	0.0000	0.0000	0.0000	0.0000	0.0000
SOCIAL SERVICES (SS)	0.0020	0.0469	0.0256	0.0000	0.0000
BACKWARD LINKAGE (BL)	0.5148	0.1146	0.1653	0.1718	0.1041
TOTAL LINKAGE (TL)	2.4180	1.3387	1.0238	1.0977	1.0821

SRI LANKA (1970) DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS
COMPOSITION OF INPUTS							
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.1732	0.1099	0.0497	0.0440	0.0000	0.3097	0.0377
ENERGY AND BASIC INDUSTRIES (EB)	0.0110	0.5550	0.2609	0.1935	0.3077	0.0194	0.0189
CAPITAL GOOD INDUSTRIES (CG)	0.0115	0.0590	0.2112	0.2258	0.0000	0.0065	0.0189
DISTRIBUTIVE SERVICES (DS)	0.1168	0.1582	0.4596	0.4047	0.5128	0.0839	0.5472
PRODUCER SERVICES (RS)	0.0000	0.0000	0.0000	0.0029	0.0256	0.0000	0.2264
PERSONAL SERVICES (ES)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SOCIAL SERVICES (SS)	0.0020	0.0027	0.0000	0.0469	0.0256	0.0000	0.0000
BACKWARD LINKAGE (BL)	0.5799	0.4327	0.2692	0.1146	0.1653	0.1718	0.1041

SRI LANKA (1970) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.1375	0.0000	0.0000	0.0000	0.0655	0.0000	0.0000	0.0000	0.0000	0.0000	0.2839	0.0000
ISIC 32	0.0034	0.3930	0.0000	0.0000	0.0690	0.0270	0.0000	0.0497	0.0440	0.0000	0.0258	0.0377
ISIC 33	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ISIC 34	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ISIC 35	0.0040	0.0506	0.0000	0.0000	0.6379	0.0405	0.1111	0.0435	0.1935	0.2821	0.0129	0.0189
ISIC 36	0.0006	0.0039	0.0000	0.0000	0.0000	0.2432	0.0000	0.0000	0.0000	0.0256	0.0065	0.0000
ISIC 37	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.2174	0.0000	0.0000	0.0000	0.0000
ISIC 38	0.0074	0.0389	0.0000	0.0000	0.0276	0.1216	0.5556	0.2112	0.2258	0.0000	0.0065	0.0189
DS	0.0865	0.3230	0.0000	0.0000	0.1483	0.1892	0.2222	0.4596	0.4047	0.5128	0.0839	0.5472
RS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0029	0.0256	0.0000	0.2264
ES	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SS	0.0023	0.0000	0.0000	0.0000	0.0034	0.0000	0.0000	0.0000	0.0469	0.0256	0.0000	0.0000

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 SOURCE: UNIDO DATA BASE

TANZANIA (1970) BACKWARD DEPENDENCY RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)
COMPOSITION OF INPUTS					
MANUFACTURING	0.1961	0.2908	0.0641	0.3150	0.1984
DISTRIBUTIVE SERVICES (DS)	0.3347	0.4698	0.1361	0.2898	0.3087
PRODUCER SERVICES (RS)	0.0185	0.1095	0.0378	0.0286	0.0394
PERSONAL SERVICES (ES)	0.0080	0.0372	0.0255	0.0802	0.0940
SOCIAL SERVICES (SS)	0.0000	0.0104	0.0088	0.0023	0.0000
BACKWARD LINKAGE (BL)	0.4716	0.1958	0.1287	0.3152	0.3249
TOTAL LINKAGE (TL)	2.0807	1.5785	1.1591	1.1487	1.5818

TANZANIA (1970) DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS
COMPOSITION OF INPUTS							
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.1526	0.0233	0.0051	0.0460	0.0018	0.2085	0.0827
ENERGY AND BASIC INDUSTRIES (EB)	0.0281	0.0688	0.1421	0.0887	0.0430	0.0802	0.0710
CAPITAL GOOD INDUSTRIES (CG)	0.0032	0.0055	0.2318	0.1242	0.0114	0.0263	0.0431
DISTRIBUTIVE SERVICES (DS)	0.2675	0.6673	0.5059	0.4898	0.1361	0.2898	0.3087
PRODUCER SERVICES (RS)	0.0165	0.0325	0.0271	0.1095	0.0378	0.0286	0.0394
PERSONAL SERVICES (ES)	0.0067	0.0160	0.0135	0.0372	0.0255	0.0802	0.0940
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0104	0.0088	0.0023	0.0000
BACKWARD LINKAGE (BL)	0.5446	0.3010	0.3371	0.1958	0.1287	0.3152	0.3249

TANZANIA (1970) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.0635	0.0000	0.0000	0.0000	0.0207	0.0000	0.0000	0.0000	0.0000	0.0000	0.1901	0.0424
ISIC 32	0.0766	0.1678	0.0201	0.0058	0.0033	0.0019	0.0000	0.0000	0.0288	0.0018	0.0034	0.0312
ISIC 33	0.0078	0.0000	0.0000	0.0175	0.0076	0.0074	0.0000	0.0051	0.0172	0.0000	0.0149	0.0092
ISIC 34	0.0023	0.0029	0.0075	0.0234	0.0076	0.0037	0.0000	0.0068	0.0090	0.0342	0.0447	0.0456
ISIC 35	0.0048	0.0059	0.0852	0.0117	0.0109	0.0371	0.0000	0.0897	0.0445	0.0088	0.0355	0.0165
ISIC 36	0.0166	0.0076	0.1378	0.0292	0.0196	0.0816	0.0000	0.0457	0.0353	0.0000	0.0000	0.0089
ISIC 37	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ISIC 38	0.0039	0.0013	0.0175	0.0058	0.0033	0.0093	0.0000	0.2318	0.1242	0.0114	0.0263	0.0431
DS	0.2942	0.2171	0.5489	0.7602	0.7062	0.5714	0.0000	0.5059	0.4698	0.1361	0.2898	0.3087
RS	0.0220	0.0099	0.0251	0.0409	0.0239	0.0445	0.0000	0.0271	0.1095	0.0378	0.0286	0.0394
ES	0.0079	0.0052	0.0100	0.0117	0.0087	0.0297	0.0000	0.0135	0.0372	0.0255	0.0802	0.0940
SS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0104	0.0088	0.0023	0.0000

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 SOURCE: UNIDO DATA BASE

THAILAND (1975) BACKWARD DEPENDENCY RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)
COMPOSITION OF INPUTS					
MANUFACTURING	0.3922	0.5037	0.2516	0.5530	0.4736
DISTRIBUTIVE SERVICES (DS)	0.1102	0.1708	0.1349	0.2079	0.2248
PRODUCER SERVICES (RS)	0.0119	0.1174	0.1154	0.0389	0.0359
PERSONAL SERVICES (ES)	0.0102	0.1221	0.2179	0.0527	0.0434
SOCIAL SERVICES (SS)	0.0003	0.0010	0.0040	0.0015	0.0440
BACKWARD LINKAGE (BL)	0.6715	0.2533	0.1634	0.4544	0.0982
TOTAL LINKAGE (TL)	4.2540	1.5895	1.1518	1.3426	1.0816

THAILAND (1975) DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS
COMPOSITION OF INPUTS							
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.2372	0.0265	0.0184	0.0662	0.0364	0.4446	0.0913
ENERGY AND BASIC INDUSTRIES (EB)	0.0477	0.3569	0.3550	0.3192	0.1659	0.0592	0.3144
CAPITAL GOOD INDUSTRIES (CG)	0.0128	0.0235	0.4165	0.1142	0.0338	0.0438	0.0370
DISTRIBUTIVE SERVICES (DS)	0.1065	0.0897	0.1592	0.1708	0.1349	0.2079	0.2248
PRODUCER SERVICES (RS)	0.0099	0.0196	0.0075	0.1174	0.1154	0.0389	0.0359
PERSONAL SERVICES (ES)	0.0080	0.0152	0.0106	0.1221	0.2179	0.0527	0.0434
SOCIAL SERVICES (SS)	0.0000	0.0011	0.0001	0.0010	0.0040	0.0015	0.0440
BACKWARD LINKAGE (BL)	0.6755	0.6708	0.6937	0.2533	0.1634	0.4544	0.0982

THAILAND (1975) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.1092	0.0081	0.0000	0.0131	0.0080	0.0006	0.0000	0.0000	0.0105	0.0015	0.4164	0.0348
ISIC 32	0.0067	0.6041	0.0122	0.0129	0.0234	0.0184	0.0004	0.0079	0.0409	0.0126	0.0239	0.0466
ISIC 33	0.0005	0.0014	0.1540	0.0080	0.0016	0.0066	0.0021	0.0105	0.0148	0.0223	0.0043	0.0098
ISIC 34	0.0036	0.0050	0.0025	0.4829	0.0103	0.0257	0.0033	0.0030	0.0434	0.1162	0.0070	0.0677
ISIC 35	0.0161	0.1066	0.0815	0.1516	0.2302	0.2507	0.0524	0.1422	0.2721	0.0464	0.0432	0.2133
ISIC 36	0.0036	0.0000	0.0025	0.0000	0.0062	0.0757	0.0000	0.0127	0.0035	0.0029	0.0069	0.0299
ISIC 37	0.0003	0.0000	0.0007	0.0005	0.0010	0.0327	0.4882	0.1971	0.0001	0.0004	0.0021	0.0035
ISIC 38	0.0113	0.0135	0.0311	0.0386	0.0158	0.0594	0.0235	0.4165	0.1142	0.0338	0.0438	0.0370
DS	0.1069	0.0963	0.1488	0.1556	0.0725	0.1939	0.0630	0.1592	0.1708	0.1349	0.2079	0.2248
RS	0.0074	0.0161	0.0164	0.0151	0.0214	0.0388	0.0078	0.0075	0.1174	0.1154	0.0389	0.0359
ES	0.0070	0.0109	0.0088	0.0165	0.0167	0.0190	0.0084	0.0106	0.1221	0.2179	0.0527	0.0434
SS	0.0000	0.0000	0.0000	0.0004	0.0016	0.0000	0.0000	0.0001	0.0010	0.0040	0.0015	0.0440

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 SOURCE: UNIDO DATA BASE

TURKEY (1973) BACKWARD DEPENDENCY RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)
COMPOSITION OF INPUTS					
MANUFACTURING	0.4590	0.6008	0.1473	0.4829	0.0000
DISTRIBUTIVE SERVICES (DS)	0.1476	0.1367	0.2498	0.2012	0.0000
PRODUCER SERVICES (RS)	0.0337	0.1440	0.1644	0.0466	0.0000
PERSONAL SERVICES (ES)	0.0131	0.0672	0.3775	0.1546	0.0000
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0000
BACKWARD LINKAGE (BL)	0.6222	0.2353	0.1160	0.2402	0.0000
TOTAL LINKAGE (TL)	5.8531	1.9033	1.0663	1.4064	1.0000

TURKEY (1973) DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS
COMPOSITION OF INPUTS							
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.2691	0.0197	0.0177	0.0222	0.0016	0.3383	0.0000
ENERGY AND BASIC INDUSTRIES (EB)	0.0634	0.4635	0.4229	0.4420	0.1180	0.1034	0.0000
CAPITAL GOOD INDUSTRIES (CG)	0.0061	0.0098	0.3424	0.1355	0.0008	0.0267	0.0000
DISTRIBUTIVE SERVICES (DS)	0.1334	0.1738	0.1497	0.1367	0.2498	0.2012	0.0000
PRODUCER SERVICES (RS)	0.0246	0.0465	0.0342	0.1440	0.1644	0.0466	0.0000
PERSONAL SERVICES (ES)	0.0102	0.0171	0.0153	0.0672	0.3775	0.1546	0.0000
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
BACKWARD LINKAGE (BL)	0.7037	0.5474	0.5380	0.2353	0.1160	0.2402	0.0000

TURKEY (1973) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.1611	0.0213	0.0004	0.0013	0.0148	0.0000	0.0000	0.0000	0.0037	0.0000	0.3216	0.0000
ISIC 32	0.0348	0.3523	0.0108	0.0036	0.0210	0.0009	0.0005	0.0048	0.0097	0.0016	0.0149	0.0000
ISIC 33	0.0013	0.0006	0.2688	0.0006	0.0026	0.0051	0.0015	0.0128	0.0088	0.0000	0.0018	0.0000
ISIC 34	0.0187	0.0039	0.0059	0.3941	0.0274	0.0609	0.0003	0.0029	0.0164	0.0610	0.0242	0.0000
ISIC 35	0.0120	0.0913	0.0412	0.1150	0.3095	0.1925	0.0243	0.0404	0.4252	0.0570	0.0494	0.0000
ISIC 36	0.0058	0.0001	0.0002	0.0006	0.0051	0.0998	0.0029	0.0063	0.0003	0.0000	0.0254	0.0000
ISIC 37	0.0069	0.0011	0.0007	0.0149	0.0041	0.0193	0.6194	0.3733	0.0001	0.0000	0.0044	0.0000
ISIC 38	0.0073	0.0039	0.0079	0.0016	0.0143	0.0085	0.0064	0.3424	0.1355	0.0008	0.0267	0.0000
DS	0.1278	0.1342	0.1706	0.2151	0.1514	0.2868	0.1533	0.1497	0.1367	0.2498	0.2012	0.0000
RS	0.0205	0.0321	0.0174	0.0598	0.0504	0.0680	0.0291	0.0342	0.1440	0.1644	0.0466	0.0000
ES	0.0086	0.0134	0.0066	0.0517	0.0194	0.0096	0.0057	0.0153	0.0672	0.3775	0.1546	0.0000
SS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 SOURCE: UNIDO DATA BASE

USA (1972) BACKWARD DEPENDENCY RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)
COMPOSITION OF INPUTS					
MANUFACTURING	0.6140	0.1425	0.0834	0.4876	0.1653
DISTRIBUTIVE SERVICES (DS)	0.1099	0.2439	0.0805	0.1261	0.0886
PRODUCER SERVICES (RS)	0.0774	0.3688	0.5732	0.2004	0.2053
PERSONAL SERVICES (ES)	0.0200	0.1037	0.0626	0.1019	0.0529
SOCIAL SERVICES (SS)	0.0265	0.0725	0.0610	0.0379	0.2761
BACKWARD LINKAGE (BL)	0.6146	0.2658	0.2768	0.5119	0.3894
TOTAL LINKAGE (TL)	5.5414	1.5648	1.5851	1.4666	1.7058

USA (1972) DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS
COMPOSITION OF INPUTS							
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.3718	0.0341	0.0279	0.0079	0.0034	0.2676	0.0295
ENERGY AND BASIC INDUSTRIES (EB)	0.1242	0.4419	0.3109	0.0933	0.0521	0.0586	0.1025
CAPITAL GOOD INDUSTRIES (CG)	0.0482	0.0468	0.4273	0.0395	0.0239	0.1510	0.0286
DISTRIBUTIVE SERVICES (DS)	0.0976	0.1291	0.1028	0.2439	0.0805	0.1261	0.0886
PRODUCER SERVICES (RS)	0.0561	0.1011	0.0727	0.3688	0.5732	0.2004	0.2053
PERSONAL SERVICES (ES)	0.0122	0.0195	0.0282	0.1037	0.0626	0.1019	0.0529
SOCIAL SERVICES (SS)	0.0156	0.0466	0.0180	0.0725	0.0610	0.0379	0.2761
BACKWARD LINKAGE (BL)	0.6765	0.6099	0.5665	0.2658	0.2768	0.5119	0.3894

USA (1972) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (BACKWARD DEPENDENCY RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.2534	0.0019	0.0021	0.0058	0.0156	0.0012	0.0003	0.0011	0.0038	0.0018	0.2510	0.0211
ISIC 32	0.0013	0.5905	0.0399	0.0110	0.0164	0.0064	0.0016	0.0129	0.0036	0.0013	0.0161	0.0082
ISIC 33	0.0015	0.0031	0.3940	0.0500	0.0020	0.0189	0.0075	0.0140	0.0005	0.0003	0.0005	0.0002
ISIC 34	0.0462	0.0190	0.0150	0.4452	0.0290	0.0578	0.0041	0.0137	0.0267	0.0281	0.0157	0.0219
ISIC 35	0.0254	0.1509	0.0756	0.0793	0.3241	0.1072	0.0440	0.0542	0.0622	0.0229	0.0347	0.0780
ISIC 36	0.0188	0.0027	0.0192	0.0023	0.0090	0.2117	0.0082	0.0164	0.0012	0.0009	0.0077	0.0020
ISIC 37	0.0076	0.0009	0.0319	0.0042	0.0096	0.0141	0.4455	0.2266	0.0031	0.0002	0.0004	0.0005
ISIC 38	0.0549	0.0120	0.0933	0.0220	0.0402	0.0403	0.0800	0.4273	0.0395	0.0239	0.1510	0.0286
DS	0.0948	0.0981	0.1305	0.1433	0.1084	0.2176	0.1291	0.1028	0.2439	0.0805	0.1261	0.0886
RS	0.0568	0.0523	0.0610	0.1314	0.1225	0.0929	0.0422	0.0727	0.3688	0.5732	0.2004	0.2053
ES	0.0110	0.0115	0.0193	0.0318	0.0192	0.0236	0.0089	0.0282	0.1037	0.0626	0.1019	0.0529
SS	0.0131	0.0188	0.0206	0.0432	0.0419	0.0739	0.0503	0.0180	0.0725	0.0610	0.0379	0.2761

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 SOURCE: UNIDO DATA BASE

ALGERIA (1974) SECTORIAL SALES RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)	FORWARD LINKAGE (FL)	AVERAGE PROPENSITY TO CONSUME C/GDP
COMPOSITION OF INPUTS							
MANUFACTURING	0.2008	0.0123	0.0030	0.0048	0.0000	0.3467	0.2610
DISTRIBUTIVE SERVICES (DS)	0.0994	0.3937	0.0045	0.0051	0.0000	0.6094	0.0217
PRODUCER SERVICES (RS)	0.1208	0.1224	0.0155	0.0006	0.0000	0.4380	0.0285
PERSONAL SERVICES (ES)	0.0219	0.0177	0.0017	0.0035	0.0000	0.0581	0.0399
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

ALGERIA (1974) DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS	FL
COMPOSITION OF INPUTS								
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.2213	0.0036	0.0012	0.0053	0.0011	0.0106	0.0000	0.2743
ENERGY AND BASIC INDUSTRIES (EB)	0.1050	0.1617	0.0115	0.0142	0.0003	0.0021	0.0000	0.5752
CAPITAL GOOD INDUSTRIES (CG)	0.0115	0.0300	0.0800	0.0178	0.0066	0.0007	0.0000	0.2670
DISTRIBUTIVE SERVICES (DS)	0.0314	0.0404	0.0272	0.3937	0.0045	0.0051	0.0000	0.6094
PRODUCER SERVICES (RS)	0.0413	0.0575	0.0217	0.1224	0.0155	0.0006	0.0000	0.4380
PERSONAL SERVICES (ES)	0.0085	0.0051	0.0082	0.0177	0.0017	0.0035	0.0000	0.0581
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

ALGERIA (1974) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.2018	0.0000	0.0000	0.0000	0.0008	0.0000	0.0000	0.0000	0.0000	0.0000	0.0208	0.0000
ISIC 32	0.0005	0.2532	0.0046	0.0000	0.0017	0.0000	0.0000	0.0012	0.0020	0.0000	0.0002	0.0000
ISIC 33	0.0408	0.0130	0.1521	0.0000	0.0106	0.0043	0.0000	0.0046	0.0264	0.0062	0.0015	0.0000
ISIC 34	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ISIC 35	0.0103	0.0995	0.0067	0.0000	0.1741	0.0016	0.0000	0.0103	0.0102	0.0002	0.0011	0.0000
ISIC 36	0.0123	0.0000	0.0030	0.0000	0.0250	0.0285	0.0000	0.0202	0.0449	0.0017	0.0099	0.0000
ISIC 37	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ISIC 38	0.0051	0.0023	0.0041	0.0000	0.0287	0.0013	0.0000	0.0800	0.0173	0.0066	0.0007	0.0000
DS	0.0133	0.0116	0.0065	0.0000	0.0380	0.0024	0.0000	0.0272	0.3937	0.0045	0.0051	0.0000
RS	0.0118	0.0202	0.0093	0.0000	0.0536	0.0039	0.0000	0.0217	0.1224	0.0155	0.0006	0.0000
ES	0.0032	0.0028	0.0025	0.0000	0.0039	0.0012	0.0000	0.0082	0.0177	0.0017	0.0035	0.0000
SS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 FL = FORWARD LINKAGE
 SOURCE: UNIDO DATA BASE

BRAZIL (1970) SECTORIAL SALES RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)	FORWARD LINKAGE (FL)	AVERAGE PROPENSITY TO CONSUME C/GDP
COMPOSITION OF INPUTS							
MANUFACTURING	0.2999	0.0278	0.0017	0.0076	0.0020	0.4430	0.2611
DISTRIBUTIVE SERVICES (DS)	0.1329	0.0276	0.0013	0.0089	0.0016	0.2395	0.1902
PRODUCER SERVICES (RS)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PERSONAL SERVICES (ES)	0.0000	0.2039	0.0249	0.0095	0.0000	0.2384	0.0093
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0053

BRAZIL (1970) DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS	FL
COMPOSITION OF INPUTS								
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.1988	0.0126	0.0034	0.0062	0.0000	0.0128	0.0015	0.2744
ENERGY AND BASIC INDUSTRIES (EB)	0.0695	0.2307	0.1252	0.0514	0.0052	0.0018	0.0032	0.6972
CAPITAL GOOD INDUSTRIES (CG)	0.0182	0.0070	0.1692	0.0374	0.0000	0.0059	0.0002	0.3227
DISTRIBUTIVE SERVICES (DS)	0.0638	0.0469	0.0205	0.0276	0.0013	0.0089	0.0016	0.2395
PRODUCER SERVICES (RS)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PERSONAL SERVICES (ES)	0.0000	0.0000	0.0000	0.2039	0.0249	0.0095	0.0000	0.2384
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

BRAZIL (1970) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.1702	0.0075	0.0002	0.0007	0.0139	0.0000	0.0000	0.0000	0.0038	0.0000	0.0189	0.0023
ISIC 32	0.0329	0.2284	0.0055	0.0009	0.0072	0.0007	0.0000	0.0031	0.0065	0.0000	0.0030	0.0002
ISIC 33	0.0057	0.0038	0.1148	0.0042	0.0036	0.0011	0.0013	0.0276	0.0213	0.0000	0.0017	0.0000
ISIC 34	0.0527	0.0132	0.0012	0.2018	0.0325	0.0139	0.0003	0.0106	0.0868	0.0344	0.0000	0.0000
ISIC 35	0.0197	0.0748	0.0148	0.0119	0.1397	0.0166	0.0260	0.0577	0.0752	0.0001	0.0035	0.0062
ISIC 36	0.0222	0.0004	0.0043	0.0008	0.0243	0.0557	0.0021	0.0319	0.0080	0.0000	0.0000	0.0008
ISIC 37	0.0006	0.0009	0.0076	0.0035	0.0033	0.0062	0.3652	0.3960	0.0011	0.0000	0.0004	0.0000
ISIC 38	0.0121	0.0011	0.0050	0.0002	0.0039	0.0007	0.0022	0.1692	0.0374	0.0000	0.0059	0.0002
DS	0.0396	0.0186	0.0056	0.0058	0.0200	0.0076	0.0136	0.0205	0.0276	0.0013	0.0089	0.0016
RS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ES	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.2039	0.0249	0.0095	0.0000
SS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 FL = FORWARD LINKAGE
 SOURCE: UNIDO DATA BASE

CANADA (1975) SECTORIAL SALES RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)	FORWARD LINKAGE (FL)	AVERAGE PROPENSITY TO CONSUME C/GDP
COMPOSITION OF INPUTS							
MANUFACTURING	0.3566	0.0264	0.0613	0.0361	0.0017	0.6172	0.2441
DISTRIBUTIVE SERVICES (DS)	0.0972	0.1854	0.0513	0.0453	0.0029	0.4534	0.1457
PRODUCER SERVICES (RS)	0.1403	0.1128	0.1204	0.0477	0.0110	0.6089	0.0787
PERSONAL SERVICES (ES)	0.0769	0.0700	0.0911	0.0594	0.0031	0.3310	0.1500
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0030	0.0000	0.0002	0.0032	0.0147

CANADA (1975) DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS	FL
COMPOSITION OF INPUTS								
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.2249	0.0236	0.0066	0.0032	0.0179	0.0514	0.0005	0.4244
ENERGY AND BASIC INDUSTRIES (EB)	0.0532	0.2283	0.1416	0.0486	0.0631	0.0454	0.0021	0.7463
CAPITAL GOOD INDUSTRIES (CG)	0.0191	0.0171	0.3225	0.0232	0.1050	0.0040	0.0020	0.6596
DISTRIBUTIVE SERVICES (DS)	0.0307	0.0411	0.0235	0.1854	0.0513	0.0453	0.0029	0.4534
PRODUCER SERVICES (RS)	0.0339	0.0575	0.0447	0.1128	0.1204	0.0477	0.0110	0.6089
PERSONAL SERVICES (ES)	0.0279	0.0277	0.0176	0.0700	0.0911	0.0594	0.0031	0.3310
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0030	0.0000	0.0002	0.0032

D.29

CANADA (1975) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.1946	0.0000	0.0000	0.0009	0.0048	0.0001	0.0000	0.0000	0.0005	0.0230	0.0775	0.0000
ISIC 32	0.0237	0.3539	0.0203	0.0070	0.0201	0.0009	0.0001	0.0092	0.0086	0.0172	0.0142	0.0024
ISIC 33	0.0016	0.0002	0.1335	0.0735	0.0012	0.0014	0.0016	0.0258	0.0065	0.0017	0.0060	0.0000
ISIC 34	0.0591	0.0077	0.0057	0.1921	0.0181	0.0065	0.0006	0.0120	0.0402	0.1190	0.1218	0.0012
ISIC 35	0.0326	0.0169	0.0118	0.0502	0.1895	0.0012	0.0145	0.0552	0.0903	0.0661	0.0244	0.0044
ISIC 36	0.0627	0.0002	0.0131	0.0088	0.0011	0.0003	0.0330	0.0765	0.0059	0.0178	0.0041	0.0002
ISIC 37	0.0007	0.0004	0.0079	0.0051	0.0000	0.0000	0.1811	0.4636	0.0032	0.0044	0.0007	0.0000
ISIC 38	0.0114	0.0011	0.0066	0.0019	0.0000	0.0017	0.0078	0.3225	0.0232	0.1050	0.0040	0.0020
DS	0.0190	0.0052	0.0064	0.0110	0.0000	0.0035	0.1129	0.2235	0.1854	0.0513	0.0453	0.0029
RS	0.0164	0.0070	0.0105	0.0182	0.0100	0.0066	0.1132	0.0447	0.1128	0.1204	0.0477	0.0110
ES	0.0210	0.0039	0.0030	0.0080	0.0156	0.0021	0.0020	0.0176	0.0700	0.0911	0.0594	0.0031
SS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0030	0.0000	0.0002

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 FL = FORWARD LINKAGE
 SOURCE: UNIDO DATA BASE

CHILE (1970) SECTORIAL SALES RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)	FORWARD LINKAGE (FL)	AVERAGE PROPENSITY TO CONSUME C/GDP
COMPOSITION OF INPUTS							
MANUFACTURING	0.1995	0.0766	0.0087	0.0219	0.0331	0.4565	0.3486
DISTRIBUTIVE SERVICES (DS)	0.3882	0.0656	0.0077	0.0022	0.0106	0.6119	0.0379
PRODUCER SERVICES (RS)	0.1410	0.1582	0.0635	0.0326	0.0555	0.9045	0.0054
PERSONAL SERVICES (ES)	0.0155	0.0273	0.0047	0.0018	0.0256	0.0872	0.1159
SOCIAL SERVICES (SS)	0.0110	0.0079	0.0025	0.0000	0.0116	0.0350	0.0566

CHILE (1970) DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS	FL
COMPOSITION OF INPUTS								
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.1623	0.0058	0.0021	0.0117	0.0018	0.0307	0.0200	0.2737
ENERGY AND BASIC INDUSTRIES (EB)	0.0646	0.1438	0.0550	0.1445	0.0146	0.0124	0.0473	0.7081
CAPITAL GOOD INDUSTRIES (CG)	0.0553	0.0289	0.0400	0.1882	0.0103	0.0089	0.0487	0.5622
DISTRIBUTIVE SERVICES (DS)	0.2012	0.1474	0.0355	0.0656	0.0077	0.0022	0.0106	0.6119
PRODUCER SERVICES (RS)	0.0610	0.0514	0.0268	0.1582	0.0635	0.0326	0.0555	0.9045
PERSONAL SERVICES (ES)	0.0073	0.0058	0.0021	0.0273	0.0047	0.0018	0.0256	0.0872
SOCIAL SERVICES (SS)	0.0064	0.0039	0.0006	0.0079	0.0025	0.0000	0.0116	0.0350

CHILE (1970) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.1366	0.0067	0.0000	0.0000	0.0013	0.0001	0.0003	0.0004	0.0081	0.0014	0.0441	0.0246
ISIC 32	0.0063	0.1902	0.0044	0.0006	0.0130	0.0002	0.0003	0.0038	0.0157	0.0012	0.0044	0.0112
ISIC 33	0.0355	0.0040	0.1562	0.0027	0.0056	0.0028	0.0012	0.0127	0.0321	0.0087	0.0039	0.0101
ISIC 34	0.0642	0.0191	0.0012	0.2166	0.0338	0.0116	0.0013	0.0135	0.1128	0.0494	0.0077	0.0902
ISIC 35	0.0390	0.0240	0.0077	0.0240	0.0735	0.0067	0.0078	0.0231	0.1957	0.0070	0.0165	0.0435
ISIC 36	0.0339	0.0019	0.0031	0.0029	0.0317	0.0454	0.0092	0.0233	0.0110	0.0042	0.0088	0.0242
ISIC 37	0.0023	0.0059	0.0051	0.0009	0.0099	0.0038	0.1215	0.3197	0.0120	0.0001	0.0011	0.0055
ISIC 38	0.0380	0.0108	0.0065	0.0026	0.0166	0.0047	0.0049	0.0400	0.1882	0.0103	0.0089	0.0487
DS	0.1163	0.0714	0.0135	0.0175	0.1123	0.0095	0.0080	0.0355	0.0656	0.0077	0.0022	0.0106
RS	0.0318	0.0218	0.0074	0.0096	0.0277	0.0081	0.0059	0.0268	0.1582	0.0635	0.0326	0.0555
ES	0.0046	0.0022	0.0005	0.0012	0.0036	0.0006	0.0004	0.0021	0.0273	0.0047	0.0018	0.0256
SS	0.0048	0.0016	0.0001	0.0005	0.0032	0.0000	0.0002	0.0006	0.0079	0.0025	0.0000	0.0116

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 CG = ISIC 38
 FL = FORWARD LINKAGE
 SOURCE: UNIDO DATA BASE

COLOMBIA (1977) SECTORIAL SALES RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)	FORWARD LINKAGE (FL)	AVERAGE PROPENSITY TO CONSUME C/GDP
COMPOSITION OF INPUTS							
MANUFACTURING	0.2712	0.0373	0.0060	0.0458	0.0237	0.4851	0.4560
DISTRIBUTIVE SERVICES (DS)	0.1630	0.1691	0.0102	0.0168	0.0105	0.4239	0.5305
PRODUCER SERVICES (RS)	0.0967	0.1019	0.2414	0.0105	0.0133	0.5258	0.4958
PERSONAL SERVICES (ES)	0.0046	0.0227	0.0048	0.0053	0.0132	0.0522	0.9531
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0404

COLOMBIA (1977) DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS	FL
COMPOSITION OF INPUTS								
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.1559	0.0182	0.0018	0.0012	0.0002	0.0615	0.0124	0.2877
ENERGY AND BASIC INDUSTRIES (EB)	0.0965	0.2912	0.0613	0.0928	0.0195	0.0210	0.0251	0.8841
CAPITAL GOOD INDUSTRIES (CG)	0.0826	0.0904	0.2412	0.1476	0.0043	0.0078	0.1124	0.7683
DISTRIBUTIVE SERVICES (DS)	0.0833	0.0642	0.0134	0.1691	0.0102	0.0166	0.0105	0.4239
PRODUCER SERVICES (RS)	0.0369	0.0424	0.0140	0.1019	0.2414	0.0105	0.0133	0.5258
PERSONAL SERVICES (ES)	0.0023	0.0015	0.0008	0.0227	0.0048	0.0053	0.0132	0.0522
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

D.31

COLOMBIA (1977) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.0902	0.0115	0.0001	0.0014	0.0140	0.0000	0.0000	0.0000	0.0000	0.0000	0.0824	0.0115
ISIC 32	0.0081	0.3179	0.0035	0.0008	0.0211	0.0003	0.0015	0.0012	0.0040	0.0008	0.0028	0.0156
ISIC 33	0.0079	0.0031	0.1363	0.0018	0.0104	0.0018	0.0275	0.0458	0.0073	0.0000	0.0037	0.0104
ISIC 34	0.1022	0.0125	0.0006	0.2474	0.1504	0.0198	0.0067	0.0125	0.0680	0.1156	0.0476	0.0558
ISIC 35	0.0298	0.0756	0.0076	0.0221	0.2258	0.0171	0.0149	0.0263	0.1574	0.0025	0.0237	0.0264
ISIC 36	0.0477	0.0007	0.0018	0.0018	0.0305	0.0664	0.0039	0.0140	0.0014	0.0014	0.0039	0.0104
ISIC 37	0.0611	0.0035	0.0085	0.0046	0.0269	0.0125	0.2927	0.2062	0.0169	0.0009	0.0059	0.0090
ISIC 38	0.0469	0.0316	0.0041	0.0164	0.0256	0.0190	0.0294	0.2412	0.1476	0.0043	0.0078	0.1124
DS	0.0622	0.0180	0.0031	0.0167	0.0241	0.0050	0.0184	0.0134	0.1691	0.0102	0.0166	0.0105
RS	0.0206	0.0140	0.0023	0.0055	0.0253	0.0037	0.0079	0.0140	0.1019	0.2414	0.0105	0.0133
ES	0.0018	0.0004	0.0001	0.0001	0.0010	0.0001	0.0003	0.0008	0.0227	0.0048	0.0053	0.0132
SS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 FL = FORWARD LINKAGE
 SOURCE: UNIDO DATA BASE

FRANCE (1975) SECTORIAL SALES RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)	FORWARD LINKAGE (FL)	AVERAGE PROPENSITY TO CONSUME C/GDP
COMPOSITION OF INPUTS							
MANUFACTURING	0.2315	0.0149	0.0118	0.0369	0.0370	0.4186	0.2231
DISTRIBUTIVE SERVICES (DS)	0.0953	0.1193	0.0236	0.0276	0.0283	0.3522	0.1540
PRODUCER SERVICES (RS)	0.1190	0.0498	0.2562	0.0177	0.0374	0.5750	0.0790
PERSONAL SERVICES (ES)	0.0497	0.0635	0.0390	0.0407	0.0385	0.2990	0.0785
SOCIAL SERVICES (SS)	0.0055	0.0012	0.0013	0.0002	0.0168	0.0287	0.0711

FRANCE (1975) DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS	FL
COMPOSITION OF INPUTS								
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.1534	0.0082	0.0091	0.0045	0.0000	0.0532	0.0223	0.3191
ENERGY AND BASIC INDUSTRIES (EB)	0.0586	0.2502	0.0631	0.0263	0.0384	0.0203	0.0444	0.6833
CAPITAL GOOD INDUSTRIES (CG)	0.0131	0.0086	0.1801	0.0173	0.0057	0.0324	0.0443	0.3548
DISTRIBUTIVE SERVICES (DS)	0.0277	0.0331	0.0327	0.1193	0.0236	0.0276	0.0283	0.3522
PRODUCER SERVICES (RS)	0.0337	0.0362	0.0469	0.0498	0.2562	0.0177	0.0374	0.5750
PERSONAL SERVICES (ES)	0.0135	0.0172	0.0195	0.0635	0.0390	0.0407	0.0385	0.2990
SOCIAL SERVICES (SS)	0.0003	0.0012	0.0041	0.0012	0.0013	0.0002	0.0168	0.0287

FRANCE (1975) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.1047	0.0039	0.0000	0.0002	0.0086	0.0000	0.0000	0.0000	0.0000	0.0000	0.0812	0.0233
ISIC 32	0.0005	0.2500	0.0077	0.0011	0.0074	0.0007	0.0000	0.0175	0.0672	0.0000	0.0116	0.0100
ISIC 33	0.0234	0.0002	0.0970	0.0000	0.0004	0.0013	0.0000	0.0404	0.0212	0.0000	0.0034	0.0520
ISIC 34	0.0528	0.0186	0.0004	0.2864	0.0387	0.0107	0.0000	0.0156	0.0573	0.446	0.0148	0.1072
ISIC 35	0.0176	0.0353	0.0120	0.0107	0.2164	0.0098	0.0000	0.0085	0.0147	0.0016	0.0286	0.0283
ISIC 36	0.0172	0.0000	0.0037	0.0019	0.0643	0.1029	0.0000	0.0029	0.0177	0.0000	0.0026	0.0042
ISIC 37	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ISIC 38	0.0047	0.0042	0.0041	0.0009	0.0057	0.0021	0.0000	0.1801	0.0173	0.0057	0.0324	0.0443
DS	0.0164	0.0062	0.0051	0.0154	0.0093	0.0085	0.0000	0.0327	0.1193	0.0236	0.0276	0.0283
RS	0.0201	0.0102	0.0034	0.0056	0.0268	0.0038	0.0000	0.0469	0.0498	0.2562	0.0177	0.0374
ES	0.0038	0.0080	0.0017	0.0047	0.0048	0.0077	0.0000	0.0185	0.0635	0.0390	0.0407	0.0385
SS	0.0002	0.0001	0.0000	0.0001	0.0010	0.0001	0.0000	0.0041	0.0012	0.0013	0.0002	0.0168

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 FL = FORWARD LINKAGE
 SOURCE: UNIDO DATA BASE

GERMANY (1975) SECTORIAL SALES RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)	FORWARD LINKAGE (FL)	AVERAGE PROPENSITY TO CONSUME C/GDP
COMPOSITION OF INPUTS							
MANUFACTURING	0.3117	0.0235	0.0129	0.0247	0.0432	0.5008	0.2237
DISTRIBUTIVE SERVICES (DS)	0.1948	0.0581	0.0210	0.0223	0.0470	0.4330	0.1119
PRODUCER SERVICES (RS)	0.0969	0.1060	0.2475	0.0114	0.0409	0.5808	0.1057
PERSONAL SERVICES (ES)	0.1179	0.1098	0.0587	0.0081	0.0880	0.4614	0.0467
SOCIAL SERVICES (SS)	0.0105	0.0041	0.0093	0.0007	0.1575	0.1873	0.0174

GERMANY (1975) DISAGGREGATION OF THE MANUFACTURING SECTOR(SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS	FL
COMPOSITION OF INPUTS								
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.1902	0.0181	0.0124	0.0102	0.0086	0.0534	0.0292	0.3809
ENERGY AND BASIC INDUSTRIES (EB)	0.0598	0.3125	0.0900	0.0396	0.0242	0.0100	0.0754	0.7429
CAPITAL GOOD INDUSTRIES (CG)	0.0126	0.0184	0.2541	0.0224	0.0089	0.0142	0.0330	0.4380
DISTRIBUTIVE SERVICES (DS)	0.0703	0.0579	0.0655	0.0581	0.0210	0.0223	0.0470	0.4330
PRODUCER SERVICES (RS)	0.0169	0.0329	0.0470	0.1060	0.2475	0.0114	0.0409	0.5608
PERSONAL SERVICES (ES)	0.0203	0.0358	0.0615	0.1098	0.0587	0.0081	0.0880	0.4614
SOCIAL SERVICES (SS)	0.0030	0.0026	0.0048	0.0041	0.0093	0.0007	0.1575	0.1873

GERMANY (1975) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.1614	0.0034	0.0002	0.0010	0.0103	0.0003	0.0000	0.0022	0.0109	0.0091	0.0846	0.0288
ISIC 32	0.0012	0.2293	0.0084	0.0034	0.0169	0.0008	0.0000	0.0122	0.0116	0.0107	0.0093	0.0411
ISIC 33	0.0027	0.0059	0.1839	0.0154	0.0108	0.0127	0.0000	0.0552	0.0045	0.0021	0.0164	0.0061
ISIC 34	0.0470	0.0106	0.0067	0.2692	0.0470	0.0260	0.0000	0.0665	0.1058	0.0451	0.0115	0.0870
ISIC 35	0.0131	0.0373	0.0151	0.0167	0.3074	0.0086	0.0000	0.1067	0.0248	0.0233	0.0095	0.0106
ISIC 36	0.0292	0.0003	0.0062	0.0019	0.0431	0.1638	0.0000	0.0666	0.0020	0.0004	0.0100	0.0306
ISIC 37	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ISIC 38	0.0052	0.0030	0.0044	0.0028	0.0116	0.0020	0.0000	0.2541	0.0224	0.0089	0.0142	0.0330
DS	0.0410	0.0139	0.0153	0.0146	0.0287	0.0146	0.0000	0.0655	0.0581	0.0210	0.0223	0.0470
RS	0.0073	0.0062	0.0034	0.0144	0.0132	0.0054	0.0000	0.0470	0.1060	0.2475	0.0114	0.0409
ES	0.0115	0.0045	0.0043	0.0188	0.0097	0.0073	0.0000	0.0615	0.1098	0.0587	0.0081	0.0880
SS	0.0017	0.0009	0.0004	0.0007	0.0015	0.0005	0.0000	0.0048	0.0041	0.0093	0.0007	0.1575

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 FL = FORWARD LINKAGE
 SOURCE: UNIDO DATA BASE

GHANA (1968) SECTORIAL SALES RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)	FORWARD LINKAGE (FL)	AVERAGE PROPENSITY TO CONSUME C/GDP
COMPOSITION OF INPUTS							
MANUFACTURING	0.2398	0.0957	0.0051	0.0172	0.0000	0.5422	0.1398
DISTRIBUTIVE SERVICES (DS)	0.0506	0.1517	0.0016	0.0183	0.0000	0.3008	0.1705
PRODUCER SERVICES (RS)	0.0127	0.1146	0.1114	0.0000	0.0000	0.2462	0.0658
PERSONAL SERVICES (ES)	0.0000	0.0573	0.0024	0.0000	0.0000	0.0597	0.0225
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

GHANA (1968) DISAGGREGATION OF THE MANUFACTURING SECTOR(SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS	FL
COMPOSITION OF INPUTS								
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.1268	0.0004	0.0004	0.0089	0.0008	0.0309	0.0000	0.2634
ENERGY AND BASIC INDUSTRIES (EB)	0.0848	0.2941	0.0037	0.1708	0.0110	0.0006	0.0000	0.8810
CAPITAL GOOD INDUSTRIES (CG)	0.0159	0.0080	0.2869	0.4343	0.0080	0.0000	0.0000	0.9641
DISTRIBUTIVE SERVICES (DS)	0.0329	0.0140	0.0018	0.1517	0.0016	0.0183	0.0000	0.3008
PRODUCER SERVICES (RS)	0.0051	0.0070	0.0006	0.1146	0.1114	0.0000	0.0000	0.2462
PERSONAL SERVICES (ES)	0.0000	0.0000	0.0000	0.0573	0.0024	0.0000	0.0000	0.0597
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

GHANA (1968) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.0575	0.0008	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0080	0.0000	0.0583	0.0000
ISIC 32	0.0000	0.2795	0.0042	0.0000	0.0000	0.0000	0.0000	0.0000	0.0070	0.0000	0.0000	0.0000
ISIC 33	0.0100	0.0000	0.0524	0.0000	0.0025	0.0000	0.0000	0.0025	0.0150	0.0050	0.0000	0.0000
ISIC 34	0.0574	0.0000	0.0048	0.2632	0.0574	0.0239	0.0096	0.0000	0.1053	0.0766	0.0048	0.0000
ISIC 35	0.0268	0.0521	0.0238	0.0104	0.1503	0.0045	0.3616	0.0045	0.3393	0.0030	0.0000	0.0000
ISIC 36	0.1321	0.0000	0.0000	0.0000	0.0283	0.0680	0.0189	0.0000	0.0000	0.0000	0.0000	0.0000
ISIC 37	0.0092	0.0291	0.0276	0.0031	0.0046	0.0031	0.0537	0.0046	0.0460	0.0000	0.0000	0.0000
ISIC 38	0.0000	0.0000	0.0159	0.0000	0.0000	0.0000	0.0080	0.2869	0.4343	0.0080	0.0000	0.0000
DS	0.0133	0.0119	0.0078	0.0027	0.0057	0.0032	0.0023	0.0018	0.1517	0.0016	0.0183	0.0000
RS	0.0006	0.0006	0.0038	0.0013	0.0032	0.0013	0.0013	0.0006	0.1146	0.1114	0.0000	0.0000
ES	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0573	0.0024	0.0000	0.0000
SS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

NOTE: AL = ISIC 31,32,33
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 CG = ISIC 38
 FL = FORWARD LINKAGE
 SOURCE: UNIDO DATA BASE

GREECE (1970) SECTORIAL SALES RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)	FORWARD LINKAGE (FL)	AVERAGE PROPENSITY TO CONSUME C/GDP
COMPOSITION OF INPUTS							
MANUFACTURING	0.2612	0.0525	0.0009	0.0088	0.0033	0.4541	0.2874
DISTRIBUTIVE SERVICES (DS)	0.1086	0.0474	0.0032	0.0084	0.0023	0.2322	0.1912
PRODUCER SERVICES (RS)	0.4234	0.1052	0.0991	0.0040	0.0000	0.8203	0.0030
PERSONAL SERVICES (ES)	0.0373	0.0334	0.0037	0.0151	0.0082	0.1026	0.1738
SOCIAL SERVICES (SS)	0.0000	0.0007	0.0006	0.0000	0.0057	0.0152	0.0172

GREECE (1970) DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS	FL
COMPOSITION OF INPUTS								
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.2614	0.0052	0.0024	0.0059	0.0000	0.0015	0.0003	0.3144
ENERGY AND BASIC INDUSTRIES (EB)	0.0573	0.1631	0.1194	0.1178	0.0026	0.0243	0.0108	0.7573
CAPITAL GOOD INDUSTRIES (CG)	0.0180	0.0220	0.1101	0.0832	0.0003	0.0045	0.0001	0.4178
DISTRIBUTIVE SERVICES (DS)	0.0605	0.0295	0.0179	0.0474	0.0032	0.0084	0.0023	0.2322
PRODUCER SERVICES (RS)	0.1840	0.1597	0.0790	0.1052	0.0991	0.0040	0.0000	0.8203
PERSONAL SERVICES (ES)	0.0181	0.0113	0.0077	0.0334	0.0037	0.0151	0.0082	0.1026
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0007	0.0006	0.0000	0.0057	0.0152

GREECE (1970) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.1442	0.0081	0.0000	0.0001	0.0047	0.0001	0.0006	0.0001	0.0012	0.0000	0.0006	0.0000
ISIC 32	0.0108	0.4148	0.0014	0.0002	0.0043	0.0000	0.0003	0.0007	0.0047	0.0000	0.0011	0.0008
ISIC 33	0.0020	0.0013	0.1983	0.0000	0.0011	0.0018	0.0023	0.0304	0.0486	0.0006	0.0105	0.0000
ISIC 34	0.0902	0.0262	0.0058	0.2946	0.0484	0.0264	0.0037	0.0224	0.1368	0.0155	0.0648	0.0186
ISIC 35	0.0231	0.0419	0.0055	0.0089	0.0997	0.0211	0.0073	0.0242	0.1949	0.0012	0.0302	0.0164
ISIC 36	0.0195	0.0000	0.0013	0.0001	0.0104	0.0565	0.0061	0.0086	0.0015	0.0000	0.0025	0.0002
ISIC 37	0.0000	0.0002	0.0104	0.0004	0.0131	0.0011	0.1411	0.4757	0.0013	0.0000	0.0003	0.0000
ISIC 38	0.0105	0.0050	0.0025	0.0023	0.0063	0.0045	0.0090	0.1101	0.0832	0.0003	0.0045	0.0001
DS	0.0306	0.0251	0.0049	0.0054	0.0128	0.0067	0.0047	0.0179	0.0474	0.0032	0.0084	0.0023
RS	0.0872	0.0853	0.0116	0.0202	0.0617	0.0182	0.0597	0.0790	0.1052	0.0991	0.0040	0.0000
ES	0.0108	0.0063	0.0011	0.0019	0.0055	0.0021	0.0019	0.0077	0.0334	0.0037	0.0151	0.0082
SS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0007	0.0006	0.0000	0.0057

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 FL = FORWARD LINKAGE
 SOURCE: UNIDO DATA BASE

INDIA (1973) SECTORIAL SALES RATIO							
OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)	FORWARD LINKAGE (FL)	AVERAGE PROPENSITY TO CONSUME C/GDP
COMPOSITION OF INPUTS							
MANUFACTURING	0.2797	0.0398	0.0010	0.0043	0.0399	0.4916	0.1515
DISTRIBUTIVE SERVICES (DS)	0.2201	0.1033	0.0042	0.0122	0.0254	0.4801	0.0830
PRODUCER SERVICES (RS)	0.1139	0.0515	0.0202	0.0242	0.0000	0.2490	0.0440
PERSONAL SERVICES (ES)	0.1589	0.0221	0.0082	0.0101	0.0101	0.2202	0.0373
SOCIAL SERVICES (SS)	0.0000	0.0003	0.0004	0.0000	0.0004	0.0011	0.0336

INDIA (1973) DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)									
OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS	FL	
COMPOSITION OF INPUTS									
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.1355	0.0233	0.0082	0.0090	0.0001	0.0067	0.0012	0.2505	
ENERGY AND BASIC INDUSTRIES (EB)	0.0586	0.2350	0.1699	0.0559	0.0028	0.0026	0.1104	0.9323	
CAPITAL GOOD INDUSTRIES (CG)	0.0255	0.0354	0.1753	0.0823	0.0002	0.0011	0.0041	0.4159	
DISTRIBUTIVE SERVICES (DS)	0.0820	0.0733	0.0560	0.1033	0.0042	0.0122	0.0254	0.4801	
PRODUCER SERVICES (RS)	0.0295	0.0502	0.0331	0.0515	0.0202	0.0242	0.0000	0.2490	
PERSONAL SERVICES (ES)	0.0607	0.0631	0.0331	0.0221	0.0082	0.0101	0.0101	0.2202	
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0003	0.0004	0.0000	0.0004	0.0011	

INDIA (1973) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)												
OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.0887	0.0036	0.0001	0.0005	0.0142	0.0000	0.0000	0.0001	0.0045	0.0000	0.0142	0.0011
ISIC 32	0.0177	0.1575	0.0004	0.0019	0.0148	0.0058	0.0015	0.0060	0.0090	0.0000	0.0000	0.0011
ISIC 33	0.0461	0.0263	0.0794	0.0074	0.0383	0.0149	0.0438	0.1137	0.0539	0.0021	0.0005	0.0029
ISIC 34	0.0361	0.0317	0.0040	0.2149	0.0699	0.0068	0.0135	0.0290	0.0777	0.0265	0.0014	0.3647
ISIC 35	0.0177	0.0732	0.0026	0.0120	0.2073	0.0075	0.0200	0.0497	0.0949	0.0003	0.0033	0.1455
ISIC 36	0.0101	0.0010	0.0005	0.0040	0.0207	0.0364	0.0163	0.0159	0.0000	0.0000	0.0053	0.0007
ISIC 37	0.0020	0.0066	0.0008	0.0013	0.0218	0.0053	0.2414	0.5473	0.0003	0.0000	0.0000	0.0000
ISIC 38	0.0116	0.0123	0.0015	0.0027	0.0153	0.0042	0.0132	0.1753	0.0823	0.0002	0.0011	0.0041
DS	0.0436	0.0344	0.0041	0.0068	0.0281	0.0097	0.0288	0.0560	0.1033	0.0042	0.0122	0.0254
RS	0.0115	0.0174	0.0006	0.0043	0.0220	0.0046	0.0194	0.0331	0.0515	0.0202	0.0242	0.0000
ES	0.0239	0.0349	0.0019	0.0093	0.0282	0.0114	0.0143	0.0331	0.0221	0.0082	0.0101	0.0101
SS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0004	0.0000	0.0004

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 FL = FORWARD LINKAGE
 SOURCE: UNIDO DATA BASE

INDONESIA (1975) SECTORIAL SALES RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)	FORWARD LINKAGE (FL)	AVERAGE PROPENSITY TO CONSUME C/GDP
COMPOSITION OF INPUTS							
MANUFACTURING	0.2423	0.0711	0.0028	0.0351	0.0202	0.5641	0.2205
DISTRIBUTIVE SERVICES (DS)	0.1180	0.0454	0.0048	0.0163	0.0093	0.3471	0.1167
PRODUCER SERVICES (RS)	0.0873	0.2203	0.0235	0.0177	0.0252	0.4970	0.0267
PERSONAL SERVICES (ES)	0.0204	0.0759	0.0134	0.0035	0.0055	0.1681	0.0305
SOCIAL SERVICES (SS)	0.0056	0.0097	0.0115	0.0018	0.0251	0.0607	0.0494

INDONESIA (1975) DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS	FL
COMPOSITION OF INPUTS								
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.1281	0.0082	0.0046	0.0059	0.0001	0.0502	0.0087	0.2317
ENERGY AND BASIC INDUSTRIES (EB)	0.0844	0.1877	0.1746	0.1611	0.0095	0.0215	0.0616	1.2775
CAPITAL GOOD INDUSTRIES (CG)	0.0313	0.0173	0.2929	0.1743	0.0042	0.0062	0.0144	0.8815
DISTRIBUTIVE SERVICES (DS)	0.0659	0.0174	0.0329	0.0454	0.0048	0.0163	0.0093	0.3471
PRODUCER SERVICES (RS)	0.0323	0.0261	0.0265	0.2203	0.0235	0.0177	0.0252	0.4970
PERSONAL SERVICES (ES)	0.0113	0.0043	0.0047	0.0759	0.0134	0.0035	0.0055	0.1681
SOCIAL SERVICES (SS)	0.0033	0.0014	0.0010	0.0097	0.0115	0.0018	0.0251	0.0607

INDONESIA (1975) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.0486	0.0001	0.0000	0.0000	0.0051	0.0003	0.0000	0.0000	0.0029	0.0001	0.0652	0.0025
ISIC 32	0.0049	0.4190	0.0006	0.0013	0.0114	0.0013	0.0000	0.0017	0.0148	0.0001	0.0052	0.0292
ISIC 33	0.0091	0.0041	0.0642	0.0065	0.0201	0.0029	0.0000	0.1071	0.0150	0.0003	0.0014	0.0186
ISIC 34	0.0858	0.0163	0.0013	0.2036	0.0392	0.0114	0.0001	0.0125	0.1046	0.0497	0.0204	0.1024
ISIC 35	0.0336	0.0503	0.0082	0.0193	0.1679	0.0107	0.0004	0.1292	0.2083	0.0038	0.0236	0.0653
ISIC 36	0.0260	0.0000	0.0020	0.0013	0.0229	0.0316	0.0000	0.0107	0.0053	0.0002	0.0145	0.0131
ISIC 37	0.0000	0.0000	0.0987	0.0004	0.0004	0.0005	0.3492	4.7128	0.0002	0.0002	0.0000	0.0000
ISIC 38	0.0245	0.0055	0.0014	0.0021	0.0128	0.0014	0.0011	0.2929	0.1743	0.0042	0.0062	0.0144
DS	0.0495	0.0100	0.0065	0.0039	0.0079	0.0050	0.0006	0.0329	0.0454	0.0048	0.0163	0.0093
RS	0.0204	0.0072	0.0046	0.0032	0.0214	0.0025	0.0009	0.0265	0.2203	0.0235	0.0177	0.0252
ES	0.0082	0.0026	0.0004	0.0007	0.0028	0.0007	0.0001	0.0047	0.0759	0.0134	0.0035	0.0055
SS	0.0024	0.0008	0.0001	0.0003	0.0008	0.0003	0.0000	0.0010	0.0097	0.0115	0.0018	0.0251

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 FL = FORWARD LINKAGE
 SOURCE: UNIDO DATA BASE

ITALY (1970) SECTORIAL SALES RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)	FORWARD LINKAGE (FL)	AVERAGE PROPENSITY TO CONSUME C/GDP
COMPOSITION OF INPUTS							
MANUFACTURING	0.2583	0.0177	0.0044	0.0345	0.0165	0.4135	0.2427
DISTRIBUTIVE SERVICES (DS)	0.1173	0.0879	0.0091	0.0154	0.0127	0.2999	0.1530
PRODUCER SERVICES (RS)	0.0968	0.0788	0.2448	0.0292	0.0619	0.5529	0.0682
PERSONAL SERVICES (ES)	0.0842	0.0648	0.0238	0.0175	0.0222	0.2872	0.0775
SOCIAL SERVICES (SS)	0.0106	0.0001	0.0000	0.0001	0.0000	0.0140	0.0384

ITALY (1970) DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS	FL
COMPOSITION OF INPUTS								
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.2067	0.0109	0.0049	0.0086	0.0025	0.0385	0.0064	0.3200
ENERGY AND BASIC INDUSTRIES (EB)	0.0812	0.2746	0.0604	0.0411	0.0115	0.0225	0.0280	0.7141
CAPITAL GOOD INDUSTRIES (CG)	0.0092	0.0066	0.1718	0.0124	0.0014	0.0396	0.0214	0.3186
DISTRIBUTIVE SERVICES (DS)	0.0513	0.0309	0.0342	0.0879	0.0091	0.0154	0.0127	0.2999
PRODUCER SERVICES (RS)	0.0377	0.0259	0.0320	0.0788	0.2448	0.0292	0.0619	0.5529
PERSONAL SERVICES (ES)	0.0272	0.0300	0.0263	0.0648	0.0238	0.0175	0.0222	0.2872
SOCIAL SERVICES (SS)	0.0001	0.0072	0.0032	0.0001	0.0000	0.0001	0.0000	0.0140

ITALY (1970) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.1111	0.0136	0.0004	0.0000	0.0105	0.0000	0.0000	0.0000	0.0029	0.0000	0.0659	0.0075
ISIC 32	0.0012	0.3194	0.0052	0.0018	0.0067	0.0001	0.0000	0.0028	0.0080	0.0003	0.0045	0.0039
ISIC 33	0.0075	0.0069	0.2163	0.0029	0.0081	0.0110	0.0000	0.0395	0.0425	0.0241	0.0081	0.0091
ISIC 34	0.0469	0.0296	0.0026	0.3054	0.0483	0.0161	0.0000	0.0450	0.1076	0.0366	0.0249	0.0436
ISIC 35	0.0248	0.0676	0.0133	0.0204	0.2491	0.0107	0.0000	0.0778	0.0297	0.0058	0.0289	0.0308
ISIC 36	0.0138	0.0015	0.0049	0.0002	0.0441	0.1189	0.0000	0.0312	0.0026	0.0007	0.0039	0.0046
ISIC 37	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ISIC 38	0.0049	0.0020	0.0023	0.0012	0.0026	0.0028	0.0000	0.1718	0.0124	0.0014	0.0396	0.0214
DS	0.0250	0.0236	0.0027	0.0070	0.0166	0.0073	0.0000	0.0342	0.0879	0.0091	0.0154	0.0127
RS	0.0133	0.0175	0.0069	0.0076	0.0134	0.0050	0.0000	0.0320	0.0788	0.2448	0.0292	0.0619
ES	0.0155	0.0109	0.0008	0.0098	0.0135	0.0067	0.0000	0.0263	0.0648	0.0238	0.0175	0.0222
SS	0.0001	0.0000	0.0000	0.0004	0.0067	0.0001	0.0000	0.0032	0.0001	0.0000	0.0001	0.0000

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 FL = FORWARD LINKAGE
 SOURCE: UNIDO DATA BASE

IVORY COST (1976) SECTORIAL SALES RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)	FORWARD LINKAGE (FL)	AVERAGE PROPENSITY TO CONSUME C/GDP
COMPOSITION OF INPUTS							
MANUFACTURING	0.1496	0.0646	0.0017	0.0042	0.0430	0.3904	0.3429
DISTRIBUTIVE SERVICES (DS)	0.0291	0.2823	0.0027	0.0107	0.0671	0.4992	0.0558
PRODUCER SERVICES (RS)	0.0727	0.1208	0.6519	0.0070	0.0290	0.9346	0.0017
PERSONAL SERVICES (ES)	0.1478	0.2806	0.0443	0.0880	0.0901	0.8188	0.0148
SOCIAL SERVICES (SS)	0.0059	0.0481	0.0036	0.0085	0.0488	0.1195	0.0208

IVORY COST (1976) DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS	FL
COMPOSITION OF INPUTS								
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.0996	0.0063	0.0007	0.0083	0.0001	0.0003	0.0195	0.1751
ENERGY AND BASIC INDUSTRIES (EB)	0.0533	0.0956	0.0536	0.1260	0.0002	0.0062	0.0313	0.6174
CAPITAL GOOD INDUSTRIES (CG)	0.0426	0.0110	0.0792	0.0796	0.0009	0.0052	0.0568	0.4280
DISTRIBUTIVE SERVICES (DS)	0.0201	0.0034	0.0048	0.2823	0.0027	0.0107	0.0671	0.4992
PRODUCER SERVICES (RS)	0.0537	0.0095	0.0080	0.1208	0.6519	0.0070	0.0290	0.9346
PERSONAL SERVICES (ES)	0.0818	0.0261	0.0323	0.2806	0.0443	0.0880	0.0901	0.8188
SOCIAL SERVICES (SS)	0.0030	0.0004	0.0019	0.0481	0.0036	0.0085	0.0488	0.1195

IVORY COST (1976) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.0757	0.0008	0.0000	0.0000	0.0097	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0105
ISIC 32	0.0045	0.1270	0.0005	0.0000	0.0006	0.0000	0.0000	0.0006	0.0271	0.0001	0.0011	0.0220
ISIC 33	0.0145	0.0009	0.1362	0.0000	0.0020	0.0000	0.0000	0.0054	0.0041	0.0007	0.0000	0.0715
ISIC 34	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ISIC 35	0.0219	0.0264	0.0157	0.0000	0.0843	0.0011	0.0001	0.0141	0.1634	0.0002	0.0080	0.0381
ISIC 36	0.0373	0.0005	0.0000	0.0000	0.0160	0.1917	0.0001	0.0105	0.0050	0.0000	0.0012	0.0180
ISIC 37	0.0000	0.0006	0.0000	0.0000	0.0015	0.0117	0.0418	0.3440	0.0016	0.0000	0.0000	0.0000
ISIC 38	0.0294	0.0069	0.0064	0.0000	0.0096	0.0014	0.0001	0.0792	0.0796	0.0006	0.0052	0.0568
DS	0.0118	0.0052	0.0030	0.0000	0.0027	0.0004	0.0003	0.0048	0.2823	0.0027	0.0107	0.0671
RS	0.0337	0.0139	0.0062	0.0000	0.0077	0.0015	0.0003	0.0080	0.1208	0.6519	0.0070	0.0290
ES	0.0514	0.0221	0.0083	0.0000	0.0215	0.0040	0.0005	0.0323	0.2806	0.0443	0.0880	0.0901
SS	0.0021	0.0006	0.0003	0.0000	0.0004	0.0001	0.0000	0.0019	0.0481	0.0036	0.0085	0.0488

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 FL = FORWARD LINKAGE
 SOURCE: UNIDO DATA BASE

JAPAN (1975) SECTORIAL SALES RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)	FORWARD LINKAGE (FL)	AVERAGE PROPENSITY TO CONSUME C/GDP
COMPOSITION OF INPUTS							
MANUFACTURING	0.3953	0.0579	0.0049	0.0221	0.0220	0.6240	0.1756
DISTRIBUTIVE SERVICES (DS)	0.1837	0.1142	0.0115	0.0313	0.0264	0.4951	0.1376
PRODUCER SERVICES (RS)	0.1522	0.1530	0.0690	0.0281	0.0445	0.5090	0.0866
PERSONAL SERVICES (ES)	0.0839	0.0631	0.0308	0.0510	0.0240	0.3005	0.0946
SOCIAL SERVICES (SS)	0.0314	0.0058	0.0012	0.0023	0.0014	0.0517	0.0681

JAPAN (1975) DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS	FL
COMPOSITION OF INPUTS								
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.1915	0.0181	0.0099	0.0112	0.0011	0.0490	0.0106	0.4191
ENERGY AND BASIC INDUSTRIES (EB)	0.0291	0.4023	0.1290	0.0793	0.0082	0.0195	0.0394	0.8620
CAPITAL GOOD INDUSTRIES (CG)	0.0116	0.0134	0.2741	0.0681	0.0015	0.0047	0.0093	0.4846
DISTRIBUTIVE SERVICES (DS)	0.0579	0.0582	0.0584	0.1142	0.0115	0.0313	0.0264	0.4951
PRODUCER SERVICES (RS)	0.0318	0.0667	0.0514	0.1530	0.0690	0.0281	0.0445	0.5090
PERSONAL SERVICES (ES)	0.0171	0.0288	0.0355	0.0631	0.0308	0.0510	0.0240	0.3005
SOCIAL SERVICES (SS)	0.0023	0.0112	0.0176	0.0058	0.0012	0.0023	0.0014	0.0517

JAPAN (1975) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.1305	0.0038	0.0001	0.0002	0.0067	0.0001	0.0000	0.0000	0.0009	0.0000	0.0802	0.0085
ISIC 32	0.0016	0.3201	0.0051	0.0023	0.0099	0.0014	0.0012	0.0121	0.0178	0.0013	0.0040	0.0083
ISIC 33	0.0090	0.0022	0.1415	0.0529	0.0022	0.0039	0.0055	0.0419	0.0363	0.0045	0.0181	0.0224
ISIC 34	0.0225	0.0060	0.0073	0.3817	0.0343	0.0109	0.0026	0.0252	0.1057	0.0501	0.0982	0.0651
ISIC 35	0.0121	0.0309	0.0054	0.0104	0.2280	0.0154	0.0808	0.0527	0.1621	0.0023	0.0106	0.0739
ISIC 36	0.0407	0.0000	0.0034	0.0007	0.0171	0.1355	0.0350	0.0657	0.0056	0.0001	0.0131	0.0061
ISIC 37	0.0007	0.0002	0.0027	0.0006	0.0026	0.0040	0.5064	0.2601	0.0001	0.0000	0.0000	0.0013
ISIC 38	0.0064	0.0022	0.0030	0.0009	0.0061	0.0021	0.2043	0.2741	0.0681	0.0015	0.0047	0.0093
DS	0.0298	0.0170	0.0110	0.0101	0.0200	0.0114	0.0167	0.0584	0.1142	0.0115	0.0313	0.0264
RS	0.0087	0.0188	0.0043	0.0116	0.0297	0.0067	0.0185	0.0514	0.1530	0.0690	0.0281	0.0445
ES	0.0099	0.0043	0.0029	0.0086	0.0149	0.0018	0.0034	0.0355	0.0631	0.0308	0.0510	0.0240
SS	0.0013	0.0008	0.0002	0.0006	0.0080	0.0007	0.0019	0.0176	0.0058	0.0012	0.0023	0.0014

NOTE: AL = ISIC 31,32,33
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 CG = ISIC 38
 FL = FORWARD LINKAGE
 SOURCE: UNIDO DATA BASE

KENYA (1976) SECTORIAL SALES RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)	FORWARD LINKAGE (FL)	AVERAGE PROPENSITY TO CONSUME C/GDP
COMPOSITION OF INPUTS							
MANUFACTURING	0.2718	0.0524	0.0025	0.0321	0.0279	0.4845	0.2639
DISTRIBUTIVE SERVICES (DS)	0.1154	0.1740	0.0044	0.0025	0.0304	0.3924	0.0859
PRODUCER SERVICES (RS)	0.2859	0.4636	0.1358	0.0401	0.1137	1.1824	0.0072
PERSONAL SERVICES (ES)	0.0047	0.0362	0.0089	0.0002	0.0249	0.0922	0.0765
SOCIAL SERVICES (SS)	0.0023	0.0002	0.0000	0.0000	0.0009	0.0047	0.0142

KENYA (1976) DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS	FL
COMPOSITION OF INPUTS								
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.2151	0.0259	0.0032	0.0084	0.0002	0.0733	0.0353	0.3958
ENERGY AND BASIC INDUSTRIES (EB)	0.1121	0.1555	0.0474	0.0938	0.0039	0.0042	0.0328	0.6343
CAPITAL GOOD INDUSTRIES (CG)	0.0476	0.0211	0.1975	0.0730	0.0044	0.0011	0.0118	0.4550
DISTRIBUTIVE SERVICES (DS)	0.0660	0.0260	0.0235	0.1740	0.0044	0.0025	0.0304	0.3924
PRODUCER SERVICES (RS)	0.1368	0.0685	0.0806	0.1636	0.1358	0.0401	0.1137	1.1824
PERSONAL SERVICES (ES)	0.0017	0.0008	0.0022	0.0032	0.0089	0.0002	0.0249	0.0922
SOCIAL SERVICES (SS)	0.0012	0.0012	0.0000	0.0002	0.0000	0.0000	0.0009	0.0047

KENYA (1976) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.2199	0.0065	0.0000	0.0000	0.0329	0.0000	0.0000	0.0015	0.0051	0.0000	0.0984	0.0458
ISIC 32	0.0088	0.1703	0.0073	0.0015	0.0033	0.0003	0.0000	0.0058	0.0146	0.0000	0.0010	0.0068
ISIC 33	0.0035	0.0004	0.1680	0.0005	0.0080	0.0014	0.0000	0.0164	0.0297	0.0035	0.0098	0.0020
ISIC 34	0.1834	0.0352	0.0026	0.3645	0.0309	0.0133	0.0000	0.0348	0.0715	0.0124	0.0032	0.0728
ISIC 35	0.0614	0.0215	0.0153	0.0102	0.0788	0.0172	0.0000	0.0505	0.1103	0.0024	0.0044	0.0275
ISIC 36	0.0186	0.0006	0.0019	0.0001	0.0185	0.0581	0.0000	0.0459	0.0050	0.0000	0.0038	0.0014
ISIC 37	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ISIC 38	0.0307	0.0069	0.0100	0.0046	0.0098	0.0067	0.0000	0.1975	0.0730	0.0044	0.0011	0.0118
DS	0.0495	0.0110	0.0055	0.0078	0.0122	0.0060	0.0000	0.0235	0.1740	0.0044	0.0025	0.0304
RS	0.0724	0.0465	0.0178	0.0255	0.0361	0.0069	0.0000	0.0806	0.4636	0.1358	0.0401	0.1137
ES	0.0011	0.0005	0.0000	0.0003	0.0003	0.0002	0.0000	0.0022	0.0362	0.0089	0.0002	0.0249
SS	0.0012	0.0000	0.0000	0.0000	0.0012	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000	0.0009

NOTE: AL = ISIC 31,32,33
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 CG = ISIC 38
 FL = FORWARD LINKAGE
 SOURCE: UNIDO DATA BASE

KOREA (1975) SECTORIAL SALES RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)	FORWARD LINKAGE (FL)	AVERAGE PROPENSITY TO CONSUME C/GDP
COMPOSITION OF INPUTS							
MANUFACTURING	0.3617	0.0338	0.0148	0.0016	0.0068	0.5295	0.2429
DISTRIBUTIVE SERVICES (DS)	0.2121	0.0726	0.0218	0.0040	0.0089	0.4039	0.1264
PRODUCER SERVICES (RS)	0.2193	0.1789	0.0318	0.0137	0.0245	0.5820	0.0360
PERSONAL SERVICES (ES)	0.0000	0.0000	0.3316	0.0000	0.0000	0.3407	0.0171
SOCIAL SERVICES (SS)	0.0088	0.0063	0.0076	0.0007	0.0021	0.0296	0.0367

KOREA (1975) DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS	FL
COMPOSITION OF INPUTS								
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.2681	0.0152	0.0032	0.0043	0.0303	0.0003	0.0010	0.3854
ENERGY AND BASIC INDUSTRIES (EB)	0.1227	0.2844	0.0833	0.0792	0.0068	0.0042	0.0158	0.7874
CAPITAL GOOD INDUSTRIES (CG)	0.0147	0.0146	0.2692	0.0210	0.0012	0.0003	0.0037	0.4336
DISTRIBUTIVE SERVICES (DS)	0.0898	0.0728	0.0439	0.0726	0.0218	0.0040	0.0089	0.4039
PRODUCER SERVICES (RS)	0.0882	0.0736	0.0502	0.1789	0.0318	0.0137	0.0245	0.5820
PERSONAL SERVICES (ES)	0.0000	0.0000	0.0000	0.0000	0.3316	0.0000	0.0000	0.3407
SOCIAL SERVICES (SS)	0.0043	0.0029	0.0014	0.0063	0.0076	0.0007	0.0021	0.0296

KOREA (1975) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.1620	0.0139	0.0008	0.0006	0.0098	0.0000	0.0000	0.0001	0.0005	0.0689	0.0000	0.0002
ISIC 32	0.0017	0.3596	0.0002	0.0022	0.0168	0.0003	0.0000	0.0020	0.0064	0.0020	0.0005	0.0012
ISIC 33	0.0161	0.0072	0.0643	0.0006	0.0099	0.0023	0.0003	0.0381	0.0141	0.0009	0.0011	0.0047
ISIC 34	0.0665	0.0313	0.0036	0.3435	0.0491	0.0337	0.0003	0.0267	0.0549	0.0470	0.0032	0.0387
ISIC 35	0.0197	0.1205	0.0060	0.0067	0.2486	0.0196	0.0041	0.0345	0.0996	0.0026	0.0049	0.0157
ISIC 36	0.0560	0.0027	0.0035	0.0028	0.0196	0.0497	0.0230	0.0463	0.0081	0.0042	0.0032	0.0056
ISIC 37	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.3682	0.6271	0.0000	0.0000	0.0000	0.0000
ISIC 38	0.0066	0.0073	0.0008	0.0013	0.0081	0.0030	0.0022	0.2691	0.0210	0.0012	0.0003	0.0037
DS	0.0375	0.0446	0.0077	0.0087	0.0483	0.0103	0.0055	0.0439	0.0726	0.0218	0.0040	0.0089
RS	0.0287	0.0501	0.0093	0.0106	0.0483	0.0111	0.0036	0.0502	0.1789	0.0318	0.0137	0.0245
ES	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.3316	0.0000	0.0000
SS	0.0018	0.0023	0.0002	0.0003	0.0019	0.0006	0.0001	0.0014	0.0063	0.0076	0.0007	0.0021

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 FL = FORWARD LINKAGE
 SOURCE: UNIDO DATA BASE

MADAGASCAR (1973) SECTORIAL SALES RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)	FORWARD LINKAGE (FL)	AVERAGE PROPENSITY TO CONSUME C/GDP
COMPOSITION OF INPUTS							
MANUFACTURING	0.1032	0.0372	0.0025	0.0028	0.0260	0.2418	0.4641
DISTRIBUTIVE SERVICES (DS)	0.0186	0.1607	0.0101	0.0020	0.0349	0.2469	0.0735
PRODUCER SERVICES (RS)	0.1322	0.4295	0.1067	0.0067	0.0271	0.8992	0.0019
PERSONAL SERVICES (ES)	0.0000	0.0424	0.0032	0.0249	0.0275	0.0971	0.0267
SOCIAL SERVICES (SS)	0.0000	0.0234	0.0000	0.0000	0.0098	0.0278	0.0049

MADAGASCAR (1973) DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS	FL
COMPOSITION OF INPUTS								
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.0757	0.0008	0.0005	0.0039	0.0001	0.0003	0.0117	0.0832
ENERGY AND BASIC INDUSTRIES (EB)	0.0774	0.0615	0.0123	0.1387	0.0108	0.0119	0.0919	0.6929
CAPITAL GOOD INDUSTRIES (CG)	0.0332	0.0071	0.1141	0.0746	0.0026	0.0044	0.0267	0.4652
DISTRIBUTIVE SERVICES (DS)	0.0115	0.0025	0.0043	0.1607	0.0101	0.0020	0.0349	0.2469
PRODUCER SERVICES (RS)	0.0922	0.0177	0.0208	0.4295	0.1067	0.0067	0.0271	0.8992
PERSONAL SERVICES (ES)	0.0000	0.0000	0.0000	0.0424	0.0032	0.0249	0.0275	0.0971
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0234	0.0000	0.0000	0.0098	0.0278

MADAGASCAR (1973) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.0316	0.0022	0.0000	0.0000	0.0009	0.0000	0.0000	0.0000	0.0014	0.0000	0.0004	0.0099
ISIC 32	0.0144	0.2004	0.0025	0.0001	0.0002	0.0000	0.0000	0.0000	0.0081	0.0006	0.0003	0.0174
ISIC 33	0.0163	0.0000	0.0434	0.0000	0.0000	0.0000	0.0000	0.0261	0.0536	0.0000	0.0000	0.0156
ISIC 34	0.0767	0.0092	0.0000	0.0864	0.0157	0.0071	0.0000	0.0059	0.2085	0.0409	0.0106	0.2873
ISIC 35	0.0285	0.0753	0.0094	0.0280	0.0358	0.0010	0.0000	0.0216	0.1692	0.0013	0.0188	0.0282
ISIC 36	0.0000	0.0000	0.0000	0.0000	0.0000	0.0091	0.0000	0.0005	0.0125	0.0000	0.0000	0.0252
ISIC 37	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ISIC 38	0.0157	0.0134	0.0041	0.0030	0.0018	0.0022	0.0000	0.1141	0.0746	0.0026	0.0044	0.0267
DS	0.0064	0.0042	0.0009	0.0012	0.0011	0.0003	0.0000	0.0043	0.1607	0.0101	0.0020	0.0349
RS	0.0634	0.0257	0.0032	0.0086	0.0064	0.0027	0.0000	0.0208	0.4295	0.1067	0.0067	0.0271
ES	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0424	0.0032	0.0249	0.0275
SS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0234	0.0000	0.0000	0.0098

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 FL = FORWARD LINKAGE
 SOURCE: UNIDO DATA BASE

D.43

MEXICO (1970) SECTORIAL SALES RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)	FORWARD LINKAGE (FL)	AVERAGE PROPENSITY TO CONSUME C/GDP
COMPOSITION OF INPUTS							
MANUFACTURING	0.2719	0.0311	0.0034	0.0199	0.0100	0.4352	0.2885
DISTRIBUTIVE SERVICES (DS)	0.1802	0.0310	0.0067	0.0168	0.0054	0.3014	0.2019
PRODUCER SERVICES (RS)	0.0771	0.1105	0.0159	0.0563	0.0092	0.3771	0.0881
PERSONAL SERVICES (ES)	0.0674	0.0518	0.0598	0.0558	0.0082	0.2646	0.0933
SOCIAL SERVICES (SS)	0.0039	0.0104	0.0000	0.0002	0.0047	0.0275	0.0199

MEXICO (1970) DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS	FL
COMPOSITION OF INPUTS								
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.1821	0.0098	0.0039	0.0032	0.0001	0.0034	0.0029	0.2578
ENERGY AND BASIC INDUSTRIES (EB)	0.0809	0.2574	0.0747	0.0682	0.0080	0.0244	0.0228	0.7319
CAPITAL GOOD INDUSTRIES (CG)	0.0302	0.0269	0.1729	0.0374	0.0020	0.0490	0.0035	0.3956
DISTRIBUTIVE SERVICES (DS)	0.0841	0.0591	0.0342	0.0310	0.0067	0.0168	0.0054	0.3014
PRODUCER SERVICES (RS)	0.0344	0.0282	0.0130	0.1105	0.0159	0.0563	0.0092	0.3771
PERSONAL SERVICES (ES)	0.0305	0.0289	0.0076	0.0518	0.0598	0.0558	0.0082	0.2646
SOCIAL SERVICES (SS)	0.0000	0.0039	0.0000	0.0104	0.0000	0.0002	0.0047	0.0275

MEXICO (1970) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.1446	0.0043	0.0003	0.0006	0.0056	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0029
ISIC 32	0.0212	0.2428	0.0069	0.0034	0.0084	0.0003	0.0005	0.0037	0.0097	0.0003	0.0115	0.0029
ISIC 33	0.0066	0.0019	0.1368	0.0251	0.0058	0.0045	0.0028	0.0499	0.0104	0.0002	0.0029	0.0034
ISIC 34	0.0939	0.0332	0.0008	0.3062	0.0929	0.0291	0.0128	0.0320	0.0758	0.0331	0.0281	0.0175
ISIC 35	0.0306	0.0639	0.0054	0.0104	0.1859	0.0108	0.0065	0.0250	0.1011	0.0048	0.0319	0.0365
ISIC 36	0.0595	0.0006	0.0021	0.0003	0.0235	0.0430	0.0001	0.0289	0.0043	0.0024	0.0236	0.0080
ISIC 37	0.0743	0.0021	0.0025	0.0025	0.0125	0.0032	0.3206	0.2560	0.0159	0.0006	0.0032	0.0006
ISIC 38	0.0231	0.0041	0.0030	0.0013	0.0118	0.0024	0.0115	0.1729	0.0374	0.0020	0.0490	0.0035
DS	0.0509	0.0267	0.0064	0.0081	0.0322	0.0065	0.0123	0.0342	0.0310	0.0067	0.0168	0.0054
RS	0.0210	0.0111	0.0022	0.0038	0.0168	0.0054	0.0021	0.0130	0.1105	0.0159	0.0563	0.0092
ES	0.0218	0.0072	0.0015	0.0033	0.0141	0.0043	0.0071	0.0076	0.0518	0.0598	0.0558	0.0082
SS	0.0000	0.0000	0.0000	0.0000	0.0039	0.0000	0.0000	0.0000	0.0104	0.0000	0.0002	0.0047

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 FL = FORWARD LINKAGE
 SOURCE: UNIDO DATA BASE

MOROCCO (1975) SECTORIAL SALES RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)	FORWARD LINKAGE (FL)	AVERAGE PROPENSITY TO CONSUME C/GDP
COMPOSITION OF INPUTS							
MANUFACTURING	0.2153	0.0238	0.0006	0.0323	0.0239	0.3818	0.4274
DISTRIBUTIVE SERVICES (DS)	0.5025	0.0592	0.0016	0.0156	0.0194	0.8914	0.0101
PRODUCER SERVICES (RS)	0.1803	0.1778	0.0587	0.0830	0.1096	0.9547	0.0009
PERSONAL SERVICES (ES)	0.0706	0.1506	0.0094	0.0675	0.0233	0.4231	0.0962
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

MOROCCO (1975) DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS	FL
COMPOSITION OF INPUTS								
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.1925	0.0033	0.0023	0.0040	0.0000	0.0263	0.0078	0.2615
ENERGY AND BASIC INDUSTRIES (EB)	0.0695	0.1392	0.0788	0.0632	0.0018	0.0409	0.0368	0.8425
CAPITAL GOOD INDUSTRIES (CG)	0.0458	0.0114	0.1164	0.0286	0.0002	0.0373	0.0451	0.3915
DISTRIBUTIVE SERVICES (DS)	0.2555	0.1331	0.1057	0.0592	0.0016	0.0156	0.0194	0.8914
PRODUCER SERVICES (RS)	0.1189	0.0332	0.0278	0.1778	0.0587	0.0830	0.1096	0.9547
PERSONAL SERVICES (ES)	0.0438	0.0185	0.0082	0.1506	0.0094	0.0675	0.0233	0.4231
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

MOROCCO (1975) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.1484	0.0041	0.0000	0.0001	0.0012	0.0000	0.0000	0.0000	0.0008	0.0000	0.0313	0.0067
ISIC 32	0.0114	0.2731	0.0056	0.0005	0.0069	0.0000	0.0000	0.0033	0.0039	0.0001	0.0027	0.0116
ISIC 33	0.0166	0.0044	0.1559	0.0000	0.0052	0.0000	0.0000	0.0225	0.0388	0.0000	0.0789	0.0021
ISIC 34	0.1218	0.0343	0.0060	0.1897	0.0602	0.0000	0.0026	0.0273	0.0840	0.0122	0.0370	0.0692
ISIC 35	0.0274	0.0289	0.0081	0.0049	0.1269	0.0000	0.0005	0.0241	0.0716	0.0003	0.0450	0.0387
ISIC 36	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ISIC 37	0.0045	0.0018	0.0101	0.0013	0.0018	0.0000	0.0741	0.3869	0.0051	0.0000	0.0245	0.0000
ISIC 38	0.0332	0.0078	0.0048	0.0015	0.0091	0.0000	0.0009	0.1164	0.0286	0.0002	0.0373	0.0451
DS	0.1391	0.0962	0.0202	0.0157	0.1068	0.0000	0.0106	0.1057	0.0592	0.0016	0.0156	0.0194
RS	0.0590	0.0491	0.0108	0.0076	0.0226	0.0000	0.0029	0.0278	0.1778	0.0587	0.0830	0.1096
ES	0.0298	0.0126	0.0014	0.0078	0.0100	0.0000	0.0007	0.0082	0.1506	0.0094	0.0675	0.0233
SS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

NOTE: AL = ISIC 31,32,33
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 CG = ISIC 38
 FL = FORWARD LINKAGE
 SOURCE: UNIDO DATA BASE

NIGERIA (1973) SECTORIAL SALES RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)	FORWARD LINKAGE (FL)	AVERAGE PROPENSITY TO CONSUME C/GDP
COMPOSITION OF INPUTS							
MANUFACTURING	0.1508	0.0368	0.0073	0.0017	0.0000	0.2844	0.1138
DISTRIBUTIVE SERVICES (DS)	0.0726	0.1046	0.0054	0.0019	0.0000	0.2966	0.2008
PRODUCER SERVICES (RS)	0.0927	0.1332	0.0539	0.0035	0.0000	0.5465	0.0285
PERSONAL SERVICES (ES)	0.0000	0.0340	0.0005	0.0000	0.0000	0.0477	0.0043
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0017

NIGERIA (1973) DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS	FL
COMPOSITION OF INPUTS								
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.0861	0.0112	0.0036	0.0137	0.0014	0.0033	0.0000	0.1704
ENERGY AND BASIC INDUSTRIES (EB)	0.0662	0.1480	0.0083	0.0794	0.0174	0.0003	0.0000	0.5005
CAPITAL GOOD INDUSTRIES (CG)	0.0000	0.0000	0.0372	0.0000	0.0000	0.0000	0.0000	0.0373
DISTRIBUTIVE SERVICES (DS)	0.0308	0.0389	0.0025	0.1046	0.0054	0.0019	0.0000	0.2966
PRODUCER SERVICES (RS)	0.0436	0.0424	0.0062	0.1332	0.0539	0.0035	0.0000	0.5465
PERSONAL SERVICES (ES)	0.0000	0.0000	0.0000	0.0340	0.0005	0.0000	0.0000	0.0477
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

NIGERIA (1973) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.0993	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0003	0.0016	0.0055	0.0000
ISIC 32	0.0089	0.0618	0.0009	0.0142	0.0077	0.0000	0.0002	0.0005	0.0211	0.0011	0.0000	0.0000
ISIC 33	0.0008	0.0019	0.0182	0.0466	0.0270	0.0000	0.0041	0.0816	0.1420	0.0017	0.0000	0.0000
ISIC 34	0.1665	0.0119	0.0022	0.1690	0.1024	0.0000	0.0181	0.0275	0.0987	0.1025	0.0019	0.0000
ISIC 35	0.0033	0.0675	0.0019	0.0036	0.0948	0.0000	0.0039	0.0079	0.1200	0.0046	0.0000	0.0000
ISIC 36	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ISIC 37	0.0000	0.0008	0.0008	0.0000	0.0114	0.0000	0.1500	0.0000	0.0000	0.0000	0.0000	0.0000
ISIC 38	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0372	0.0000	0.0000	0.0000	0.0000
DS	0.0101	0.0190	0.0017	0.0067	0.0146	0.0000	0.0176	0.0025	0.1046	0.0054	0.0019	0.0000
RS	0.0163	0.0236	0.0037	0.0066	0.0215	0.0000	0.0143	0.0062	0.1332	0.0539	0.0035	0.0000
ES	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0340	0.0005	0.0000	0.0000
SS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
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 FL = FORWARD LINKAGE
 SOURCE: UNIDO DATA BASE

PHILIPPINES(1974) SECTORIAL SALES RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)	FORWARD LINKAGE (FL)	AVERAGE PROPENSITY TO CONSUME C/GDP
COMPOSITION OF INPUTS							
MANUFACTURING	0.2140	0.0286	0.0060	0.0206	0.0000	0.3656	0.3589
DISTRIBUTIVE SERVICES (DS)	0.2353	0.0327	0.0053	0.0160	0.0000	0.3446	0.1014
PRODUCER SERVICES (RS)	0.0600	0.1021	0.3465	0.0251	0.0000	0.5525	0.0321
PERSONAL SERVICES (ES)	0.1036	0.0698	0.0397	0.0586	0.0000	0.3320	0.0632
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

PHILIPPINES(1974) DISAGGREGATION OF THE MANUFACTURING SECTOR(SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS	FL
COMPOSITION OF INPUTS								
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.1180	0.0128	0.0006	0.0038	0.0030	0.0169	0.0000	0.1850
ENERGY AND BASIC INDUSTRIES (EB)	0.1023	0.2197	0.0641	0.0853	0.0128	0.0299	0.0000	0.7584
CAPITAL GOOD INDUSTRIES (CG)	0.0501	0.0122	0.0886	0.0321	0.0030	0.0079	0.0000	0.3352
DISTRIBUTIVE SERVICES (DS)	0.1506	0.0661	0.0161	0.0327	0.0053	0.0160	0.0000	0.3446
PRODUCER SERVICES (RS)	0.0300	0.0216	0.0069	0.1021	0.3465	0.0251	0.0000	0.5525
PERSONAL SERVICES (ES)	0.0397	0.0503	0.0118	0.0698	0.0397	0.0586	0.0000	0.3320
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

PHILIPPINES(1974) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.0895	0.0913	0.0002	0.0001	0.0131	0.0000	0.0000	0.0000	0.0036	0.0000	0.0196	0.0000
ISIC 32	0.0081	0.3078	0.0027	0.0014	0.0109	0.0003	0.0000	0.0012	0.0035	0.0008	0.0042	0.0000
ISIC 33	0.0176	0.0021	0.0799	0.0023	0.0015	0.0028	0.0002	0.0098	0.0093	0.0561	0.0013	0.0000
ISIC 34	0.1033	0.0176	0.0036	0.2706	0.0550	0.0147	0.0010	0.0130	0.1553	0.0401	0.0666	0.0000
ISIC 35	0.0551	0.0429	0.0148	0.0154	0.1117	0.0306	0.0103	0.0216	0.0933	0.0063	0.0305	0.0000
ISIC 36	0.0891	0.0003	0.0017	0.0005	0.0328	0.0555	0.0015	0.0135	0.0053	0.0388	0.0045	0.0000
ISIC 37	0.0065	0.0001	0.0084	0.0017	0.0030	0.0027	0.4954	0.4403	0.0076	0.0016	0.0000	0.0000
ISIC 38	0.0466	0.0015	0.0020	0.0018	0.0087	0.0010	0.0006	0.0886	0.0321	0.0030	0.0079	0.0000
DS	0.1238	0.0199	0.0068	0.0052	0.0481	0.0051	0.0078	0.0161	0.0327	0.0053	0.0160	0.0000
RS	0.0208	0.0073	0.0019	0.0032	0.0146	0.0019	0.0019	0.0069	0.1021	0.3465	0.0251	0.0000
ES	0.0278	0.0093	0.0025	0.0047	0.0380	0.0055	0.0021	0.0118	0.0698	0.0397	0.0586	0.0000
SS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 FL = FORWARD LINKAGE
 SOURCE: UNIDO DATA BASE

SRI LANKA (1970) SECTORIAL SALES RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)	FORWARD LINKAGE (FL)	AVERAGE PROPENSITY TO CONSUME C/GDP
COMPOSITION OF INPUTS							
MANUFACTURING	0.1520	0.0321	0.0034	0.0105	0.0012	0.3230	0.2728
DISTRIBUTIVE SERVICES (DS)	0.1250	0.0464	0.0067	0.0044	0.0097	0.3025	0.1576
PRODUCER SERVICES (RS)	0.0000	0.0042	0.0042	0.0000	0.0508	0.0720	0.0202
PERSONAL SERVICES (ES)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0863
SOCIAL SERVICES (SS)	0.0098	0.0314	0.0020	0.0000	0.0000	0.0963	0.0192

SRI LANKA (1970) DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS	FL
COMPOSITION OF INPUTS								
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.1005	0.0119	0.0023	0.0043	0.0000	0.0139	0.0006	0.1786
ENERGY AND BASIC INDUSTRIES (EB)	0.0255	0.2401	0.0487	0.0766	0.0139	0.0035	0.0012	0.7703
CAPITAL GOOD INDUSTRIES (CG)	0.0385	0.0368	0.0569	0.1288	0.0000	0.0017	0.0017	0.5201
DISTRIBUTIVE SERVICES (DS)	0.0787	0.0198	0.0249	0.0464	0.0067	0.0044	0.0097	0.3025
PRODUCER SERVICES (RS)	0.0000	0.0000	0.0000	0.0042	0.0042	0.0000	0.0508	0.0720
PERSONAL SERVICES (ES)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SOCIAL SERVICES (SS)	0.0079	0.0020	0.0000	0.0314	0.0020	0.0000	0.0000	0.0963

SRI LANKA (1970) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.0922	0.0000	0.0000	0.0000	0.0073	0.0000	0.0000	0.0000	0.0000	0.0000	0.0169	0.0000
ISIC 32	0.0070	0.1185	0.0000	0.0000	0.0235	0.0023	0.0000	0.0094	0.0178	0.0000	0.0047	0.0023
ISIC 33	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ISIC 34	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ISIC 35	0.0114	0.0212	0.0000	0.0000	0.3013	0.0049	0.0016	0.0114	0.1075	0.0179	0.0033	0.0016
ISIC 36	0.0053	0.0053	0.0000	0.0000	0.0000	0.0952	0.0000	0.0000	0.0000	0.0053	0.0053	0.0000
ISIC 37	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.5932	0.0000	0.0000	0.0000	0.0000
ISIC 38	0.0217	0.0167	0.0000	0.0000	0.0134	0.0151	0.0084	0.0569	0.1288	0.0000	0.0017	0.0017
DS	0.0508	0.0279	0.0000	0.0000	0.0145	0.0047	0.0007	0.0249	0.0464	0.0067	0.0044	0.0097
RS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0042	0.0042	0.0000	0.0508
ES	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SS	0.0079	0.0000	0.0000	0.0000	0.0020	0.0000	0.0000	0.0000	0.0314	0.0020	0.0000	0.0000

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 FL = FORWARD LINKAGE
 SOURCE: UNIDO DATA BASE

TANZANIA (1970) SECTORIAL SALES RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)	FORWARD LINKAGE (FL)	AVERAGE PROPENSITY TO CONSUME C/GDP
COMPOSITION OF INPUTS							
MANUFACTURING	0.0925	0.0485	0.0024	0.0090	0.0283	0.2625	0.1768
DISTRIBUTIVE SERVICES (DS)	0.1854	0.0920	0.0059	0.0097	0.0517	0.6212	0.0501
PRODUCER SERVICES (RS)	0.0302	0.0631	0.0049	0.0028	0.0194	0.1387	0.0876
PERSONAL SERVICES (ES)	0.0415	0.0686	0.0105	0.0253	0.1480	0.3408	0.0155
SOCIAL SERVICES (SS)	0.0000	0.0039	0.0007	0.0001	0.0000	0.0118	0.0101

TANZANIA (1970) DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS	FL
COMPOSITION OF INPUTS								
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.0831	0.0018	0.0001	0.0113	0.0001	0.0088	0.0174	0.1569
ENERGY AND BASIC INDUSTRIES (EB)	0.0586	0.0207	0.0155	0.0837	0.0091	0.0129	0.0573	0.4915
CAPITAL GOOD INDUSTRIES (CG)	0.0205	0.0051	0.0782	0.3617	0.0074	0.0131	0.1072	0.7034
DISTRIBUTIVE SERVICES (DS)	0.1159	0.0417	0.0115	0.0920	0.0059	0.0097	0.0517	0.6212
PRODUCER SERVICES (RS)	0.0211	0.0060	0.0018	0.0631	0.0049	0.0028	0.0194	0.1387
PERSONAL SERVICES (ES)	0.0274	0.0094	0.0029	0.0686	0.0105	0.0253	0.1480	0.3408
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0039	0.0007	0.0001	0.0000	0.0118

TANZANIA (1970) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.0318	0.0000	0.0000	0.0000	0.0017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0147	0.0163
ISIC 32	0.0507	0.1026	0.0009	0.0001	0.0004	0.0001	0.0000	0.0000	0.0172	0.0002	0.0004	0.0159
ISIC 33	0.0506	0.0000	0.0000	0.0035	0.0081	0.0046	0.0000	0.0035	0.1013	0.0000	0.0150	0.0460
ISIC 34	0.0191	0.0221	0.0044	0.0059	0.0103	0.0029	0.0000	0.0059	0.0677	0.0574	0.0574	0.2931
ISIC 35	0.0093	0.0124	0.0117	0.0007	0.0034	0.0069	0.0000	0.0182	0.0780	0.0034	0.0107	0.0248
ISIC 36	0.0515	0.0219	0.0302	0.0027	0.0099	0.0241	0.0000	0.0148	0.0987	0.0000	0.0000	0.0214
ISIC 37	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ISIC 38	0.0125	0.0040	0.0040	0.0006	0.0017	0.0029	0.0000	0.0782	0.3617	0.0074	0.0131	0.1072
DS	0.0640	0.0436	0.0084	0.0050	0.0249	0.0118	0.0000	0.0115	0.0920	0.0059	0.0097	0.0517
RS	0.0141	0.0059	0.0011	0.0008	0.0025	0.0027	0.0000	0.0018	0.0631	0.0049	0.0028	0.0194
ES	0.0162	0.0097	0.0014	0.0007	0.0029	0.0058	0.0000	0.0029	0.0686	0.0105	0.0253	0.1480
SS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0039	0.0007	0.0001	0.0000

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 FL = FORWARD LINKAGE
 SOURCE: UNIDO DATA BASE

THAILAND (1975) SECTORIAL SALES RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)	FORWARD LINKAGE (FL)	AVERAGE PROPENSITY TO CONSUME C/GDP
COMPOSITION OF INPUTS							
MANUFACTURING	0.2108	0.0471	0.0043	0.0320	0.0053	0.4139	0.3038
DISTRIBUTIVE SERVICES (DS)	0.1592	0.0430	0.0062	0.0324	0.0068	0.3385	0.1540
PRODUCER SERVICES (RS)	0.0601	0.1029	0.0186	0.0211	0.0038	0.2696	0.0612
PERSONAL SERVICES (ES)	0.0409	0.0852	0.0279	0.0227	0.0036	0.2037	0.0802
SOCIAL SERVICES (SS)	0.0014	0.0008	0.0006	0.0008	0.0043	0.0079	0.0242

THAILAND (1975) DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS	FL
COMPOSITION OF INPUTS								
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.1536	0.0066	0.0024	0.0121	0.0012	0.0501	0.0020	0.2980
ENERGY AND BASIC INDUSTRIES (EB)	0.0595	0.1728	0.0894	0.1120	0.0107	0.0128	0.0132	0.7061
CAPITAL GOOD INDUSTRIES (CG)	0.0220	0.0156	0.1439	0.0550	0.0030	0.0130	0.0021	0.3569
DISTRIBUTIVE SERVICES (DS)	0.0953	0.0311	0.0287	0.0430	0.0062	0.0324	0.0068	0.3385
PRODUCER SERVICES (RS)	0.0309	0.0237	0.0047	0.1029	0.0186	0.0211	0.0038	0.2696
PERSONAL SERVICES (ES)	0.0199	0.0147	0.0053	0.0852	0.0279	0.0227	0.0036	0.2037
SOCIAL SERVICES (SS)	0.0001	0.0012	0.0001	0.0008	0.0006	0.0008	0.0043	0.0079

THAILAND (1975) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.0727	0.0018	0.0000	0.0005	0.0018	0.0000	0.0000	0.0000	0.0028	0.0001	0.0678	0.0011
ISIC 32	0.0122	0.3698	0.0016	0.0013	0.0144	0.0016	0.0001	0.0041	0.0296	0.0017	0.0107	0.0040
ISIC 33	0.0042	0.0038	0.0897	0.0036	0.0043	0.0026	0.0018	0.0243	0.0475	0.0132	0.0085	0.0038
ISIC 34	0.0317	0.0149	0.0016	0.2372	0.0308	0.0110	0.0032	0.0076	0.1531	0.0752	0.0153	0.0285
ISIC 35	0.0233	0.0518	0.0085	0.0121	0.1122	0.0175	0.0081	0.0586	0.1564	0.0049	0.0153	0.0146
ISIC 36	0.0387	0.0001	0.0019	0.0000	0.0222	0.0390	0.0000	0.0388	0.0149	0.0023	0.0180	0.0152
ISIC 37	0.0012	0.0000	0.0002	0.0001	0.0015	0.0067	0.2238	0.2395	0.0002	0.0001	0.0022	0.0007
ISIC 38	0.0138	0.0055	0.0027	0.0026	0.0065	0.0035	0.0031	0.1439	0.0550	0.0030	0.0130	0.0021
DS	0.0680	0.0205	0.0068	0.0055	0.0155	0.0059	0.0043	0.0287	0.0430	0.0062	0.0324	0.0068
RS	0.0163	0.0120	0.0026	0.0018	0.0159	0.0041	0.0019	0.0047	0.1029	0.0186	0.0211	0.0038
ES	0.0124	0.0064	0.0011	0.0016	0.0099	0.0016	0.0016	0.0053	0.0852	0.0279	0.0227	0.0036
SS	0.0001	0.0000	0.0000	0.0000	0.0011	0.0000	0.0000	0.0001	0.0008	0.0006	0.0008	0.0043

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 FL = FORWARD LINKAGE
 SOURCE: UNIDO DATA BASE

TURKEY (1973) SECTORIAL SALES RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)	FORWARD LINKAGE (FL)	AVERAGE PROPENSITY TO CONSUME C/GDP
COMPOSITION OF INPUTS							
MANUFACTURING	0.2856	0.0648	0.0010	0.0244	0.0000	0.4762	0.2673
DISTRIBUTIVE SERVICES (DS)	0.2002	0.0322	0.0038	0.0222	0.0000	0.3202	0.1419
PRODUCER SERVICES (RS)	0.3505	0.2597	0.0191	0.0394	0.0000	0.9990	0.0000
PERSONAL SERVICES (ES)	0.0386	0.0344	0.0124	0.0371	0.0000	0.1554	0.0970
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

TURKEY (1973) DISAGGREGATION OF THE MANUFACTURING SECTOR(SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS	FL
COMPOSITION OF INPUTS								
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.1894	0.0071	0.0037	0.0050	0.0000	0.0356	0.0000	0.2831
ENERGY AND BASIC INDUSTRIES (EB)	0.0674	0.2537	0.1354	0.1497	0.0026	0.0164	0.0000	0.8480
CAPITAL GOOD INDUSTRIES (CG)	0.0109	0.0090	0.1842	0.0771	0.0000	0.0071	0.0000	0.3558
DISTRIBUTIVE SERVICES (DS)	0.0985	0.0661	0.0333	0.0322	0.0038	0.0222	0.0000	0.3202
PRODUCER SERVICES (RS)	0.1391	0.1356	0.0583	0.2597	0.0191	0.0394	0.0000	0.9990
PERSONAL SERVICES (ES)	0.0164	0.0142	0.0074	0.0344	0.0124	0.0371	0.0000	0.1554
SOCIAL SERVICES (SS)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

TURKEY (1973) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.1184	0.0105	0.0000	0.0001	0.0047	0.0000	0.0000	0.0000	0.0015	0.0000	0.0638	0.0000
ISIC 32	0.0346	0.2340	0.0015	0.0003	0.0090	0.0001	0.0001	0.0026	0.0056	0.0001	0.0040	0.0000
ISIC 33	0.0067	0.0021	0.1853	0.0003	0.0056	0.0027	0.0023	0.0352	0.0255	0.0000	0.0024	0.0000
ISIC 34	0.1172	0.0162	0.0051	0.2287	0.0741	0.0405	0.0006	0.0100	0.0590	0.0141	0.0409	0.0000
ISIC 35	0.0136	0.0690	0.0064	0.0120	0.1511	0.0231	0.0082	0.0248	0.2763	0.0024	0.0151	0.0000
ISIC 36	0.0290	0.0003	0.0002	0.0003	0.0111	0.0534	0.0044	0.0173	0.0008	0.0000	0.0346	0.0000
ISIC 37	0.0152	0.0017	0.0002	0.0030	0.0039	0.0045	0.4066	0.4465	0.0001	0.0000	0.0026	0.0000
ISIC 38	0.0073	0.0026	0.0011	0.0001	0.0061	0.0009	0.0019	0.1842	0.0771	0.0000	0.0071	0.0000
DS	0.0522	0.0367	0.0095	0.0081	0.0268	0.0125	0.0187	0.0333	0.0322	0.0038	0.0222	0.0000
RS	0.0643	0.0673	0.0075	0.0174	0.0683	0.0226	0.0273	0.0583	0.2597	0.0191	0.0394	0.0000
ES	0.0076	0.0080	0.0008	0.0043	0.0075	0.0009	0.0015	0.0074	0.0344	0.0124	0.0371	0.0000
SS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 FL = FORWARD LINKAGE

SOURCE: UNIDO DATA BASE

USA (1972) SECTORIAL SALES RATIO

OUTPUT OF INDUSTRIES	MANUFACTURING	DISTRIBUTIVE SERVICES (DS)	PRODUCER SERVICES (RS)	PERSONAL SERVICES (ES)	SOCIAL SERVICES (SS)	FORWARD LINKAGE (FL)	AVERAGE PROPENSITY TO CONSUME C/GDP
COMPOSITION OF INPUTS							
MANUFACTURING	0.3830	0.0163	0.0099	0.0402	0.0137	0.5605	0.2859
DISTRIBUTIVE SERVICES (DS)	0.1580	0.0643	0.0220	0.0239	0.0189	0.3555	0.5340
PRODUCER SERVICES (RS)	0.1063	0.0929	0.1496	0.0363	0.0375	0.4860	0.4553
PERSONAL SERVICES (ES)	0.0806	0.0765	0.0478	0.0541	0.0283	0.3047	0.6907
SOCIAL SERVICES (SS)	0.0797	0.0399	0.0348	0.0150	0.1103	0.2927	0.6218

USA (1972) DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	AL	EB	CG	DS	RS	ES	SS	FL
COMPOSITION OF INPUTS								
AGROFOOD PROCESSING & LIGHT INDUSTRIES (AL)	0.2435	0.0220	0.0184	0.0029	0.0013	0.0707	0.0079	0.4470
ENERGY AND BASIC INDUSTRIES (EB)	0.0833	0.2858	0.2054	0.0344	0.0199	0.0155	0.0274	0.8105
CAPITAL GOOD INDUSTRIES (CG)	0.0277	0.0259	0.2415	0.0125	0.0078	0.0343	0.0065	0.4543
DISTRIBUTIVE SERVICES (DS)	0.0465	0.0597	0.0486	0.0643	0.0220	0.0239	0.0189	0.3555
PRODUCER SERVICES (RS)	0.0257	0.0447	0.0328	0.0929	0.1496	0.0363	0.0375	0.4860
PERSONAL SERVICES (ES)	0.0164	0.0253	0.0373	0.0765	0.0478	0.0541	0.0283	0.3047
SOCIAL SERVICES (SS)	0.0157	0.0451	0.0177	0.0399	0.0348	0.0150	0.1103	0.2927

USA (1972) FURTHER DISAGGREGATION OF THE MANUFACTURING SECTOR (SECTORIAL SALES RATIO)

OUTPUT OF INDUSTRIES	ISIC 31	ISIC 32	ISIC 33	ISIC 34	ISIC 35	ISIC 36	ISIC 37	ISIC 38	DS	RS	ES	SS
COMPOSITION OF INPUTS												
ISIC 31	0.1733	0.0006	0.0003	0.0014	0.0077	0.0001	0.0001	0.0012	0.0024	0.0012	0.1133	0.0096
ISIC 32	0.0019	0.3946	0.0125	0.0056	0.0174	0.0011	0.0010	0.0310	0.0049	0.0018	0.0156	0.0079
ISIC 33	0.0043	0.0040	0.2384	0.0491	0.0042	0.0060	0.0090	0.0650	0.0013	0.0008	0.0010	0.0004
ISIC 34	0.0980	0.0184	0.0068	0.3291	0.0445	0.0138	0.0037	0.0478	0.0519	0.0566	0.0220	0.0309
ISIC 35	0.0218	0.0590	0.0139	0.0237	0.2012	0.0104	0.0161	0.0765	0.0490	0.0187	0.0197	0.0445
ISIC 36	0.0836	0.0055	0.0183	0.0036	0.0288	0.1064	0.0156	0.1202	0.0051	0.0039	0.0227	0.0060
ISIC 37	0.0121	0.0006	0.0109	0.0023	0.0110	0.0025	0.3019	0.5932	0.0045	0.0003	0.0004	0.0006
ISIC 38	0.0189	0.0019	0.0069	0.0026	0.0100	0.0016	0.0117	0.2415	0.0125	0.0078	0.0343	0.0065
DS	0.0272	0.0115	0.0080	0.0143	0.0225	0.0071	0.0158	0.0486	0.0643	0.0220	0.0239	0.0189
RS	0.0156	0.0066	0.0036	0.0126	0.0243	0.0029	0.0049	0.0328	0.0929	0.1496	0.0363	0.0375
ES	0.0088	0.0042	0.0033	0.0089	0.0112	0.0021	0.0031	0.0373	0.0765	0.0478	0.0541	0.0283
SS	0.0079	0.0051	0.0027	0.0090	0.0182	0.0050	0.0129	0.0177	0.0399	0.0348	0.0150	0.1103

NOTE: AL = ISIC 31,32,33
 EB = ISIC 34,35,36,37
 CG = ISIC 38
 FL = FORWARD LINKAGE
 SOURCE: UNIDO DATA BASE