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1985

Do manufacturing imports from the South lead to losses

in employment in the North?

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Abstract

This paper uses input-output matrices in order to examine the impact of North-South trade flows on manufacturing employment in six industrialised countries (namely France, Federal Republic of Germany, Italy, Japan, the United Kingdom and the USA). Both direct and indirect employment effects are considered. Some policy implications of the results are discussed. The results show that North-South trade is beneficial, in general, to employment in the North but that some sectors are hurt more than others.

1. Brief review of previous studies

One of the first studies of trade and employment using input-output analysis was performed by Lydall for the ILO in 1975.¹ The main purpose of his study was to estimate the likely effects on employment in developed and developing countries, respectively, of an increase in exports of selected products from developing to developed countries. He found, for 12 selected groups of manufactured products, that the total effects in a very poor country of an increase in its exports to Western Europe or the USA could amount to as many as 20 extra workers finding employment for every worker displaced in the developed countries. Further, he found that the spending in developed countries of the additional foreign exchange earned by the developing

¹ H.F. Lydall: Trade and Employment (ILO, Geneva, 1975).

countries will create new jobs in the developed countries, which will partly offset, or even more than offset, the reduction in employment in the industries affected by the original imports from developing countries.

In 1979, Balassa,¹ using a multiplier analysis that unlike Lydall did not consider indirect employment effects, found a net gain in employment for the developed countries' manufacturing trade with the developing countries. He estimated the gain to be 701,000 jobs in 1973; 1,439,000 in 1978; and that it would be 1,474,000 in 1981. In 1981, net employment gains were estimated to be by far the largest in the EEC (710,000), followed by Japan (523,000) and then the USA (142,000). In 1981, net losses in employment for the developed countries were shown in only one commodity group, clothing, due to trade with the developing countries. The losses were estimated to be 163,000 in 1973; 279,000 in 1978 and 283,000 in 1981.

Using Balassa's coefficients, Renshaw for the ILO in 1981² examined the employment implications for the OECD countries of two scenarios over a 10-year period. One scenario, termed a "protectionist" scenario, gave a positive balance of 364,000 jobs due ^{to} ~~of~~ manufacturing trade with the developing countries. A second scenario was termed a "liberalisation" scenario and gave a positive balance of 387,000 jobs. He noted, however, that for the purpose of adjustment policy the number of workers who would have to change jobs is of great significance. This is because the expansion of North-South trade necessitates a redeployment of workers both within and

¹ B. Balassa: "Trends in International Trade in Manufactured Goods and Structural Change in the Industrial Countries" (World Bank Staff Working Paper, No. 611, 1984).

² G. Renshaw (ed.): Employment, trade and North-South co-operation (ILO, Geneva, 1981).

between sectors. He warned that the adjustment costs of the liberalisation scenario would be somewhat higher than those of the protectionist scenario.

In 1984, Driver et al.¹ performed an input-output study of both the direct and indirect employment effects in the UK of trade expansion with the newly industrialising countries (and the EEC). The principal conclusion of the study was that a balanced expansion of trade with both the NICs and the EEC results in small reductions in UK employment. Only the mechanical engineering industry has a large positive total employment effect, while the employment loss is narrowly concentrated, particularly in the textiles and clothing industries. These results are similar to the input-output studies performed by UNIDO for the UK.

2. UNIDO study of six developed countries²

(i) Methodology

In this study the gains and losses of employment due to the imports and exports of six developed countries (Federal Republic of Germany, France, Italy, Japan, United Kingdom and United States of America) have been traced. The study used the methodology of input-output analysis in order to examine both the contribution of employment in the direct production of exports and the indirect contribution of employment in industries that indirectly

¹ C. Driver, B. Naisbitt and A. Kilpatrick: "The UK Employment Effects of Trade Expansion with EEC and the NICs" (NEDO Working Paper No. 17, December 1984, London).

² This section relies on unpublished work for UNIDO by D. Fischer and C. Lager.

contribute to the production of exports. Similarly, the loss in both direct and indirect employment caused by replacing potential domestic production by imports was examined.

Briefly, the methodology is as follows.¹ Input-output tables for the six developed countries for 1980 were used. Then the vector of manufacturing commodity exports was multiplied by a vector of employment/output coefficients to obtain the direct employment effects of exports. The indirect employment effects for each country were obtained by multiplying the vector of commodity exports by the vector of employment/output coefficients and then multiplying by the inverse of the technical coefficient matrix of the input-output table. The vector of exports was further disaggregated into exports to countries in the North, in the South and to a subset of countries in the South (often known as NICs). Similarly the direct and indirect employment effects of imports were calculated under the assumption that imports would replace domestic production proportionately, e.g. it was assumed that one million dollars of textile imports directly replaced one million dollars of domestic textile production. This is somewhat of a sweeping assumption, because it assumes that imports are competitive rather than complementary to domestic production.

The same analysis was repeated for 1975 and 1983. In each year the 1980 input-output table of each country was used, with prices deflated to 1975 values, i.e. constant prices of 1975 were used. Using the same (1980)

¹ A full description is given in UNIDO, Global Report 1986, Background Paper No. 1 (to be prepared).

input-output analysis for the three different years assumes that the technology of production has remained the same over the timespan of eight years.¹

(ii) Aggregate results

Tables 1 to 6 show, for each of the six countries under study, the imports and exports of manufactured goods in 1975, 1980 and 1983. On the export side, the employment figures show how many domestic jobs were created by exports, directly and indirectly.² On the import side, the employment figures show how many domestic worker years would have been required (directly and indirectly) to produce the goods imported - assuming, of course, that these goods could actually have been produced domestically. The figures do not show how many jobs were created in the country of origin of these imports.³

¹ Given the rapid changes in technology over 1975-83 this is, again, a sweeping assumption. However, experiments with one country (the Federal Republic of Germany) using a 1975 I/O table in 1975 and a 1980 I/O table in 1975 showed no major differences over using the 1980 table for 1975. Hence the broad conclusion of the analysis that we present later, in this chapter, are not greatly affected by this assumption. Work is ongoing in UNIDO to calculate 1975 tables for all countries concerned, and to make a projection of technological changes in order to produce 1983 tables.

² Employment data for the four European countries come from EUROSTAT and cover the occupied population; Japan employment data come from the 1980 Japanese input-output table and cover number of employees, self-employed and unpaid family workers; USA data come from US Bureau of Labor Statistics and exclude proprietors, the self-employed, unpaid volunteer and family workers, and domestic staff. Note too that 1980 coefficients of employment are also used for 1975 and 1983.

³ UNIDO is presently conducting a similar input/output analysis of the impact of trade on employment on selected countries in the South.

Table 1: Federal Republic of Germany: Total domestic employment gains and losses in manufacturing trade (1975-83), between the Federal Republic of Germany and the regions cited

REGION	Variable ¹	IMPORTS			EXPORTS		
		1975	1980	1983	1975	1980	1983
North	Value	46 876	70 539	70 603	69 622	94 304	98 259
	Labour ²	2 128	3 177	3 169	3 043	4 102	4 269
	Value added/worker	16 351	16 529	16 593	17 392	17 413	17 399
Total	Value	4 842	7 787	8 263	15 364	17 331	18 546
	Labour	234	384	408	663	750	795
	Value added/worker	14 778	14 523	14 451	17 839	17 654	17 723
Group of selected southern countries ³	Value	2 315	4 215	4 447	2 963	4 040	3 248
	Labour	118	216	229	125	171	136
	Value added/worker	14 033	14 074	14 026	18 392	18 234	18 250

Notes

¹ Value and value added are measured in constant 1975 \$million. Labour is in 1,000 worker years.

² Total labour = $L (1 + (I-A)^{-1})$ (EX)
(or) where, L is a vector giving sectoral labour/output coefficients, (IM)
A is the I-O technical coefficient matrix and EX(IM) is a vector of exports (imports) from (to) the Federal Republic of Germany.

³ These countries are: Mexico, Brazil, Malaysia, Hong Kong, Singapore, Taiwan.

Table 2: France: Total employment gains and losses in manufacturing trade

REGION		IMPORTS			EXPORTS		
		1975	1980	1983	1975	1980	1983
North	Value	34 361	58 078	56 194	33 654	48 019	47 815
	Total domestic labour	1 297	2 184	2 149	1 273	1 769	1 756
	Domestic value added per worker	20 596	20 715	20 519	20 581	21 042	20 918
Total South	Value	3 261	5 757	5 412	12 595	17 165	18 092
	Total domestic labour	128	234	231	462	635	677
	Domestic value added per worker	19 199	18 852	18 864	21 294	21 169	20 918
Group of selected countries in South	Value	690	2 159	2 087	1 286	1 850	2 178
	Total domestic labour	28	91	87	46	66	80
	Domestic value added per worker	18 765	18 560	19 029	21 991	21 799	21 466

(Value and value added are measured in constant 1975 \$ million, labour in 1,000 worker years, labour intensity in worker years per \$ million, value added per worker in constant 1975 \$ per worker year.)

Table 3: Italy: Total domestic employment gains and losses in manufacturing trade

REGION		IMPORTS			EXPORTS		
		1975	1980	1983	1975	1980	1983
North	Value	21 475	27 441	33 787	23 765	32 671	38 058
	Total domestic labour	1 448	1 823	2 265	1 768	2 442	2 871
	Domestic value added per worker	10 997	11 137	11 021	9 864	9 771	9 666
Total South	Value	1 964	2 632	3 372	7 343	10 214	12 341
	Total domestic labour	142	197	252	452	646	805
	Domestic value added per worker	9 678	9 435	9 473	12 072	11 593	11 206
Group of selected countries in South	Value	494	919	1 225	1 110	1 299	1 360
	Total domestic labour	38	72	91	66	79	88
	Domestic value added per worker	9 060	8 963	9 549	12 737	12 256	11 566

(Value and value added are measured in constant 1975 \$ million, labour in 1,000 worker years, labour intensity in worker years per \$ million, value added per worker in constant 1975 \$ per worker year.)

Table 4: Japan: Total employment gains and losses in manufacturing trade

REGION		IMPORTS			EXPORTS		
		1975	1980	1983	1975	1980	1983
North	Value	12 801	23 561	24 350	25 625	43 184	51 461
	Total domestic labour	802	1 387	1 401	1 413	2 387	2 849
	Domestic value added per worker	12 521	13 264	13 384	15 371	15 635	15 711
Total South	Value	6 889	11 207	12 177	29 173	42 219	42 767
	Total domestic labour	435	626	720	1 587	2 278	2 304
	Domestic value added per worker	9 615	11 383	10 940	15 193	15 596	15 583
Group of selected countries in South	Value	3 452	5 925	6 438	9 288	16 071	16 819
	Total domestic labour	265	373	398	502	855	914
	Domestic value added per worker	9 093	11 510	11 238	15 018	15 664	15 333

(Value and value added are measured in constant 1975 \$ million, labour in 1,000 worker years, labour intensity in worker years per \$ million, value added per worker in constant 1975 \$ per worker year.)

Table 5: United Kingdom: Total employment gains and losses in manufacturing trade

REGION		IMPORTS			EXPORTS		
		1975	1980	1983	1975	1980	1983
North	Value	32 814	51 092	54 496	29 026	36 174	33 738
	Total domestic labour	2 687	4 188	4 454	2 379	2 896	2 709
	Domestic value added per worker	8 389	8 312	8 415	8 429	8 452	8 555
Total South	Value	4 835	6 253	6 273	11 095	11 159	11 199
	Total domestic labour	385	514	529	929	918	902
	Domestic value added per worker	8 029	7 763	7 788	8 575	8 628	8 713
Group of selected countries in South	Value	1 891	3 097	3 083	2 075	2 196	1 909
	Total domestic labour	162	266	275	175	182	152
	Domestic value added per worker	7 409	7 407	7 451	8 569	8 567	8 733

(Value and value added are measured in constant 1975 \$ million, labour in 1,000 worker years, labour intensity in worker years per \$ million, value added per worker in constant 1975 \$ per worker year.)

Table 6: United States: Total employment gains and losses in manufacturing trade

REGION		IMPORTS			EXPORTS		
		1975	1980	1983	1975	1980	1983
North	Value	33 931	33 329	39 973	27 636	33 489	48 473
	Total domestic labour	1 896	1 849	2 222	1 534	1 854	2 703
	Domestic value added per worker	16 719	16 871	16 844	16 834	16 951	16 805
Total South	Value	11 692	16 104	24 228	17 474	28 316	39 516
	Total domestic labour	663	949	1 449	952	1 550	2 194
	Domestic value added per worker	16 246	15 813	15 624	17 139	17 146	16 869
Group of selected countries in South	Value	7 208	11 172	16 667	8 274	12 727	16 982
	Total domestic labour	434	680	1 022	453	695	946
	Domestic value added per worker	15 550	15 412	15 323	17 067	17 158	16 806

(Value and value added are measured in constant 1975 \$ million, labour in 1,000 worker years, labour intensity in worker years per \$ million, value added per worker in constant 1975 \$ per worker year.)

The tables have been presented as a precursor to a summary table, table 7, which shows the net effect of trade on manufacturing employment in the six industrialised countries. Other than this, the main interest in the table is the figure of value added per worker. This gives an idea of labour productivity per worker in both exporting and importing sectors (the picture is a little more difficult since both direct and indirect effects are included).

In all six countries, the labour productivity (value added per worker) of exporting sectors exceeds that of the importing sectors for trade between them and the countries of the South. This is true for Germany, Japan and Italy for trade with other countries in the North; and is also so for all the six countries for trade with the NICs. This suggests that exports from the developed countries occur, on average, in higher productivity sectors than those they import into. This is not generally true, however, as the exceptions show. The highest level of labour productivity for exports occurs in France, followed by Germany, the USA and then Japan. Italy and the United Kingdom lag a long way behind these few countries.

Table 7 summarises the previous six tables by giving the employment gains and losses of trade for each of the six industrialised countries with each of the three regions considered (the North, the South, and the NICs, which are themselves part of the figures given for the South as a whole).

From table 7 it can be seen that, in manufacturing trade with the North, Germany, Italy and Japan gained more jobs than were lost through imports whereas France and the United Kingdom lost jobs. The United States lost jobs in 1975, but had slight gains in 1980 and 1983. The most remarkable result is that all six countries recorded substantial job gains through manufacturing trade with the South. For France, Italy, Japan and the United States these

Table 7: Net gains or losses of employment in six industrialised countries from trade in manufactures (in '000s)¹

	WITHIN THE NORTH			WITHIN THE SOUTH <u>Total South</u>			<u>Subset of newly industrialising countries</u>		
	1975	1980	1983	1975	1980	1983	1975	1980	1983
W. Germany ²	915	925	1 100	430	366	387	7	-45	-93
France	-24	-415	-392	334	401	456	18	-25	-7
Italy	320	619	606	310	450	553	28	7	-3
Japan	612	1 000	1 448	1 152	1 652	1 584	237	482	516
UK	-309	-1 292	-1 745	544	404	372	13	-85	-123
USA	-269	5	481	298	601	744	12	15	-76

¹ Source: Tables 1 to 6.

² Using a 1975 I/O table instead of the 1980 I/O table for the Federal Republic of Germany gave figures for 1975 of 1,108, 524 and 20, compared to those presented of 915, 430 and 7 respectively.

employment gains were increasing over the period under study, while they declined slightly for Germany and the United Kingdom, but nevertheless remained positive. For manufacturing trade with the selected group of newly industrialising countries in the South, all countries gained jobs in 1975.

With the exception of Japan, all countries began on balance to lose jobs because of trade with this subset of newly industrialising countries. This helps to explain the concern in the industrialised countries with import penetration from the NICs. However, the concern should not be over-exaggerated since the largest number of jobs lost occurred in the UK in 1983, but these 123,000 jobs lost were compensated with the other developing countries who enabled the UK to gain 495,000 jobs.¹ One could note, too, that the figures do not take account of agricultural trade nor trade in services. One could imagine that the net balance in trade in services (e.g. financial service, computer software, insurance, etc.) between the North and the South provides large gains in employment in the North. More research is needed to establish this. Further, trade with the Eastern Bloc and with China² has been ignored in the analysis. The types of manufacturing jobs being lost or created between the North and the South, i.e. the sectoral breakdown, are given in the next section.

¹ 495,000 = 372,000 + 123,000, since total South already includes trade with the NICs.

² Trade with China has been growing rapidly, so rapidly in fact that the Chinese authorities have recently announced some trade restrictions on consumer imports because of large foreign exchange losses.

(iii) Sectoral breakdown of results

A disaggregated breakdown of employment by sector for trade between the South and the six industrialised countries is given in table 8 for 1983. For each country the four sectors having the largest losses in employment have been highlighted (with a ⊖), similarly the largest gains have been highlighted (with a ⊕).

In general, the same pattern repeats itself across all the six countries. The largest gains in employment with trade to the South are in machinery, electrical machinery, transport goods and chemicals, while the largest losses are in agriculture, oil, textiles and leather goods.

West Germany follows the general pattern, it gains 193,000 jobs in machinery and 127,000 in the export of cars to the South. The net job losses in agriculture of 150,000 are admirably compensated for by other exports to the South and, in 1983, West Germany had a net gain of 387,000 jobs because of trade in manufactures with the South.

Similarly, France had a net gain of 456,000 jobs because of trade in manufactured goods with the South. Because of its large agriculture sector France had a net gain of 340,000 jobs when agricultural products are included with manufacturing goods.

The pattern of job gains for Italy was slightly different from the other countries. It had a net gain of 553,000 jobs because of trade with the South, the largest surplus being for machinery and the largest deficit being in agricultural goods.

Table 8: Net gains/losses in labour through foreign trade between four European countries and the South by sector in 1983 ('000 work-years)

Sector	West Germany		France		Italy		United Kingdom	
Agriculture	-150 ⊖	(28)	-52 ⊖	(29)	-189 ⊖	(28)	-86 ⊖	(52)
Coal	3	(66)	0	(66)	0	(64)	1	(-)
Oil	-55 ⊖	(76)	-60 ⊖	(48)	-25 ⊖	(56)	-7	(71)
Utilities	0	(40)	-4	(50)	0	(40)	0	(-)
Base metal	16	(75)	21	(52)	22	(59)	8	(75)
Minerals	7	(43)	7	(43)	40	(40)	9	(56)
Chemicals	83 +	(60)	51	(49)	54 +	(61)	91 ⊕	(64)
Metal products	17	(41)	34	(26)	58 +	(41)	38	(50)
Machinery	193 +	(43)	98 +	(37)	156 +	(51)	170	(48)
Office mach.	16	(38)	12	(42)	4	(50)	16	(44)
Elec. mach.	66 +	(33)	68 +	(34)	59 +	(42)	71 +	(42)
Cars	127 +	(55)	53 +	(45)	31	(58)	53 +	(55)
Boats	30	(47)	59 +	(49)	23	(43)	13	(38)
Meat	-7	(71)	20	(90)	-7 ⊖	(86)	-12	(83)
Milk	18	(83)	20	(80)	0	(87)	10	(90)
Food	-59 ⊖	(68)	-5	(80)	1	(78)	-54 ⊖	(69)
Beverages	1	(50)	13	(54)	1	(58)	11	(73)
Tobacco	0	(50)	1	(70)	0	(66)	4	(50)
Textiles	-116 ⊖	(35)	-12 ⊖	(33)	12	(41)	-42 ⊖	(40)
Leather	-15 ⊖	(33)	-7 ⊖	(29)	-12 ⊖	(42)	-21	(33)
Wood	-6	(50)	-1	(39)	29	(41)	-22 ⊖	(45)
Paper	6	(50)	9	(56)	3	(33)	9	(56)
Rubber	7	(43)	15	(33)	10	(30)	7	(43)
Residual inds.	1	(68)	0	(27)	68	(29)	13	(38)
Total (inc. agr.)	185	(61)	340	(47)	339	(54)	280	(51)
Total manufac.	387	(50)	456	(45)	553	(46)	372	(52)

(continued)

Table 8 (concl.)

<u>Sector</u>	<u>Japan</u>		<u>Sector</u>	<u>USA</u>	
Agriculture	-420 -	(17)	Agriculture	131	(55)
Coal	-13	(38)	Metal mining	-12	(58)
Metal mining	-73	(36)	Coal mining	12	(42)
Cr. petrol.	-523 -	(51)	Oil/gas	-163 -	(40)
Non-metal	-10	(50)	Stone	-6	(50)
Dairy products	-33	(94)	Food	-79	(81)
Seafood	-84 -	(69)	Tobacco	6	(83)
Grain products	6	(80)	Textiles	-68	(68)
Other food	-122 -	(69)	Apparel	-220 -	(60)
Beverages	4	(75)	Wood products	-93 -	(60)
Tobacco	0	(75)	Furniture	2	(50)
Fibre yarn	17	(53)	Paper	-5	(60)
Fabrics	122	(52)	Printing	22	(55)
Apparel	-67	(49)	Chemicals	155 +	(77)
Wood products	-15	(53)	Oil ref.	-42	(88)
Furniture	-4	(50)	Plastics	4	(50)
Paper	17	(65)	Leather	-138 -	(49)
Print. & publ.	5	(40)	Min. prod.	14	(50)
Leather	-9	(33)	Bas. metal	-84	(70)
Rubber	59	(46)	Met. prod.	86	(59)
Basic ch.	20	(75)	Machinery	559 +	(58)
Art. fibr.	43	(77)	Elec. mach.	313 +	(58)
Oth. chem.	13	(62)	Transqu.	346 +	(71)
Petr. ref.	-16	(88)	Instrum.	35	(49)
Coal prod.	1	(80)	Res. man.	-66	(59)
Min. prod.	49	(53)			
I + S met.	3	(80)			
I + S prod.	222 +	(72)	Total	706	(66)
Nonferr.	-26	(69)	Total manufac.	744	(62)
Metal prod.	88	(41)			
Machinery	406 +	(63)			
Elec. mach.	378 +	(61)			
Transp. E.	452 +	(65)			
Prec. ins.	69	(49)			
Other ind.	-14	(50)			
Total	544	(100)			
Total manufac.	1,584	(61)			

Note: Per cent indirect employment in brackets.

Source: UNIDO Input-Output analysis.

Of the six countries considered, the United Kingdom gained the least number of jobs through manufacturing trade with the South, namely 280,000. It compared well, however, with the other industrialised countries in terms of job gains (170,000) in machinery and because of its own oil holdings, it had only a small loss in jobs in the oil sector (7,000); it was more seriously affected in textiles, leather and wood products (loss of 83,000 jobs) than its European neighbours.

Japan had the largest net gain in jobs of the six with a gain of 1,584,000 manufacturing jobs. It also had the largest variations, "losing" 523,000 jobs in the petroleum sector and "losing" 1.04 million jobs in agriculture and processed food products.¹ But gaining 1.24 million jobs from exports to the South for mechanical and electrical machinery and transport goods (mainly cars).

The USA had a net gain of 744,000 jobs in manufacturing trade with the South. The structure of gains and losses of jobs was very similar to the other industrialised countries in the sample with the exception that the large agricultural exports of the USA lead to a net gain of 131,000 agricultural jobs.

¹ "Losing" is, perhaps, not the best term, since Japan cannot produce, domestically, the oil and agricultural products it imports.

(iv) Indirect employment

Through the input-output technique the indirect employment effect of trade can be distinguished from the direct effects. In table 3.8 the indirect employment effect of trade between the six industrialised countries and the South are given. The indirect employment generated by this trade as a proportion of total manufacturing jobs gained is roughly the same (around 50 per cent) for the European countries but much higher for the USA and Japan (at around 61 per cent). The difference between the European countries and the latter two countries is due, in general, to a different composition of technology. What this means is that Japan and the USA generate more indirect employment in manufacturing trade with the South than the European countries selected. Why this should be so is not immediately clear. For the USA this could be attributed to data problems, since the USA employment figures exclude self-employment.

In conclusion, the analysis shows that manufacturing trade with the South contributes to increasing aggregate employment levels in the industrialised countries. However, individual sectors such as textiles, clothing, leather goods and footwear suffer through the loss of employment. The problem, therefore, reduces to what can be done for workers in the seriously affected sectors. This is what we discuss next when we explore whether the problem is merely one of adjustment or whether more serious structural consequences are involved.

3. Is competition from manufacturing exports from the South a structural or an adjustment problem?¹

We have seen from the foregoing analysis that trade in manufacturing can be a positive sum game, i.e. the North has a net gain in employment through its trade with the South and the South is able to penetrate Northern markets and, consequently, generate domestic employment and foreign exchange. The mutual benefits from North-South trade come about because a gain in real income, according to text book theory, occurs when a country avails itself of the opportunity to buy goods abroad at a lower real cost than it can produce them at home. This leads to an increase in purchasing power and, consequently, a rise in real income; but if the expansion of imports leads to unemployment, domestic production falls, resulting in a loss of real income which has to be deduced from the gain from trade. In the long-term, because of increases in aggregate demand, an overall employment expands. Whether, on balance, free trade is beneficial to nations is therefore a subjective question which hinges on the magnitude and duration of the unemployment that may result in the short term. The question is subjective because short-term losses in employment may not be preferred to (perhaps hypothetical) long-term gains in employment.

Concern has developed in both the countries of the North and the South because high levels of unemployment, except in a few countries, have appeared to be more of a long-term phenomenon than a short-term one. Even though these high levels of unemployment have probably resulted more from domestic inflationary policies than trade, it is this concern that has alarmed countries whenever a further liberalisation of trade, than exists hitherto,

¹ The discussion, in the following sections, draws heavily on G. Renshaw, 1981, op. cit.

has been advocated. The perceptions of the South and the North, as we shall see next, are slightly different.

(ii) The view from the South

A lack of comprehensive data base on self-employment and unemployment in countries of the South prevents a full analysis of the effects of a liberalisation of trade on employment diversions in the South, as was done earlier in this paper for the North. What is evident, is that unemployment and underemployment levels have remained high.¹ Further, in order to reimburse mounting debts in many countries of the South, the IMF and commercial banks have consistently argued for less domestic consumption in the South coupled with an export drive. The net result with one or two exceptions, to date, has been serious underemployment and unemployment in the South because of falling domestic demand. Whether an export drive can eventually turn these economies around is, indeed, a moot point; in particular, in the light of growing protectionist pressure in countries of the North. The Southern countries may themselves become more protectionist minded in order both to preserve balance of payments equilibrium and to their own increase internal effective demand in order to stimulate employment.

¹ See, for example, M. Hopkins, "Employment trends in developing countries, 1960-80 and beyond", International Labour Review, Vol. 122, No. 4, July-Aug. 1983 (Geneva).

The Southern countries find themselves in a prisoner dilemma situation. This is illustrated in figure 1.

Figure 1: Prisoner's dilemma of North-South trade

		South	
		L + C	P + NC
North	L + C	++	--
	P + NC	--	+

where L + C = liberalise and co-operate
P + NC = Protect and non-cooperation
++ = positive effect on employment, etc.

In the figure the choice of the South are simplified to two main strategies i.e. liberalise trade and co-operate with the Northern countries or protect their internal markets and hence not co-operate with the North. Similarly, one can envisage the Northern countries having the same choice of strategy with respect to the South. As the figure illustrates, if the South put up protectionist barriers themselves at the same time as the North they might end up in a more favourable employment situation than if they geared their industry to producing export goods only to find Northern protectionist barriers against them. The best solution to the prisoner's dilemma was co-operation between the prisoners; and as, we have shown quantitatively earlier in this chapter, the same is true for North-South trade. This trade is an even more complicated game with many more "prisoners", hence any sign of non-cooperation could force the players in the South into a protectionist stance.¹

¹ When a sequence of decisions are required from either partner in the prisoner's dilemma, Axelrod has shown that a "tit for tat" strategy is optimum when either partner is not wholly co-operative. In this strategy whatever the North (or South) does is copied by the South (North) with similar measures. These measures can either be more or less protectionist in nature. See R. Axelrod, "The evolution of co-operation in prisoner's dilemma", Institute of Public Policy Studies, University of Michigan, Discussion Paper No. 143, 1981.

The signs for increased co-operation between North and South are not optimistic. This is unfortunate since the progressive dismantling of tariff barriers achieved within GATT in the post-war period was undoubtedly a major achievement in international economic co-operation; but it has been a long-standing grievance of the South that the benefits of trade liberalisation have accrued disproportionately to the North. One reason for this was the GATT principle of reciprocity in tariff negotiations. The South had few reciprocal concessions to offer particularly since they regarded their own trade barriers as essential to protect "infant industries". A second reason is that certain products - principally textiles and clothing, leather and footwear - are particularly "sensitive" for Northern countries and have led to more stringent tariff and quota regulations than for other products. The South will require clear indications of liberalization for these products to enhance the South's co-operation in increased North-South trade.

(iii) The view from the North

That it can be shown, under certain conditions, that trade in manufactures has a net gain in employment for the countries of the North does not, understandably, prevent workers and managers in certain industries being afraid for their own jobs. For these workers (again largely in the textiles, clothing, leather and footwear industries) the nature of the problem is of great importance. Broadly, the problem is either a structural or an adjustment one. In the former case the fear is that an expansion of imports from the South to the North extinguishes job and profit opportunities in import competing sectors¹ and that it may be difficult to create

¹ Indirect effects are also of importance but little known. It would be of interest to examine in more detail the (indirect) sectors most affected in the North if the textile, clothing, leather, footwear, furniture, etc. industries collapse - this is not something that UNCTAD, for example, has ever looked at.

sufficient new products and hence new employment and profit opportunities. In the adjustment case the problem is one of moving and/or retraining workers and managers from declining to expanding sectors. Let us look at each of these characterizations in a little more detail.

A whole family of explanations exist which result in various kinds of structural imbalance in the economies of the North. These "structural" explanations tell us why high inflation and high unemployment can co-exist - something that Keynesian orthodoxy could not explain. There are two broad types of structural explanation, one concerning the supply side of labour and its occupational structure, and the other the structure of industry.

On the supply side it is difficult, if not impossible, either to geographically re-locate workers and managers because of strong historical and cultural ties or to re-train workers and managers because they are too old or unwilling to learn "new" techniques. In the hurly-burly of the highly competitive fast moving world of today it is often forgotten that a truly civilised country finds work for its workers and not the other way round, after all most of us wish to work to live and not to live to work. This phenomenon is often known as "mismatching" and it is hard to know how prevalent this problem is in industrialised countries.¹

¹ One would have to disaggregate both the supply and demand of labour by sex, age, skill, occupation in order to see how important this problem is - the OECD is doing something on this for industrialised countries and the ILO for developing countries.

The second type of structural explanation relates to industrial structure rather than to occupational structure. In a technological upswing, when many new industries are being generated, one finds that the labour requirements of these new industries will not be immediately found in the existing labour pool. On the other hand, at a time of rapid import expansion from the developing countries and at a time of technological consolidation, a major fear is that new industries are not being created to replace the declining ones. It is difficult to know what period one is in. Juan Rada¹ believes that there have been three main industrial revolutions where new technology has rapidly been introduced. The first being when man developed tools to allow himself to survive, the second when man multiplied his own muscle power, e.g. through the use of steam to drive machines. The third breakthrough, which is occurring today, is the micro-electronic revolution. This concerns the extension of the possibilities of applying human intelligence by the use of a more efficient substitute for some of the functions of the brain. If Rada is correct, then the fear of a lack of new industries to replace old ones seems to be unwarranted and the problem then becomes more one of adjustment than the search for new industries. This we consider next.

The adjustment problem is one of moving workers from declining into expanding sectors. The competitive system is a mechanism that conveys complex information about social and technological preferences to economic agents in factor and product markets through wages, profits and losses. In this system the adjustment falls to the individual who has to bear the costs of change. At a time of rapid change, there are a number of reasons why markets may fail to fulfil their social functions.² In the case of

¹ J. Rada, The impact of micro-electronics (ILO, Geneva, 1980).

² See, for example, OECD, Positive Adjustment Policies, Paris, 1983.

market failure, governments must be the instrumental force in ensuring that the social burden is minimised. They can do this through attempting to forecast new demands for jobs and then ensuring that the education and training system is adequate to ensure that the labour force has the required flexibility. Programmes designed to do this come under the heading of adjustment policy. There are no general rules for this policy and one would have to look at country case studies to see the successes and failures of individual adjustment policies. In general, however, these policies are designed to retrain workers to cope with the rise of new or expanding industries. Quite often, so that the adjustment shock and the costs of adjustment may be minimised, governments are tempted to protect sensitive industries. The merits of this are briefly discussed next.

(iv) Protection

It is possible to envisage two types of situation in which a temporary restriction of imports may be justified in order to avoid unreasonably high adjustment costs. The first is a situation in which imports in a very narrow product line expand very rapidly over a short period. Such a situation imposes an unacceptable burden on domestic producers who cannot be expected almost overnight to meet this competition, or find an alternative product.

The second type of situation is that in which a fairly large sector of the North economy finds itself uncompetitive against imports over a wide range of its activities, and therefore is faced with the necessity of a major structural adaptation. This has been the situation of the "sensitive" sectors - textiles, clothing, leather and footwear - in the past two decades.

If it is accepted that some decline of the domestic industry is inevitable, the argument in favour of protection (or subsidisation) on a strictly temporary basis is that these policies reduce the costs of adjustment by permitting the adjustment process to be spread over a longer period. Slowing down structural decline increases the extent to which the required reduction in employment can be achieved by normal turnover or "natural wastage". Involuntary redundancies are thereby reduced and the pressure on the labour market is eased by spreading the remaining redundancies over a longer period. Similarly, a slower rate of decline permits the industry's stock of capital to be run down over a longer period, reducing the premature scrapping of equipment, and therefore the capital losses suffered by the shareholders or entrepreneurs.

A second argument used in favour of protection is that a "breathing space" is necessary during which the industry's competitiveness can be restored. The elimination of the least efficient productive capacity and the modernization of what remains is typically seen as the means of achieving this, and the process is often referred to as "rationalisation". Governments frequently become involved in this process.

Both these arguments may, in the right circumstances, justify protection on a strictly temporary basis. The length of time for which protection will be necessary depends partly on the scale of the adjustment problem and partly on the extent to which adjustment is facilitated by complementary adjustment policies. The orderly contraction of the industry can be assisted by measures to increase the occupational and geographical mobility of labour and by generous redundancy payments, and so on. Financial assistance to firms should be aimed at scrapping excess capacity and subsidising the purchase of modern plant and at improving managerial and technical efficiency. As the

benefits of this adaptation begin to be felt, protection can be progressively eliminated.

In principle there is a good case for temporary protection, in conjunction with appropriate adjustment policies, as a means of facilitating adjustment to foreign competition. In practice, profound conflicts emerge. Protection discourages the necessary contraction of the industry. The extent to which the competitiveness of the industry can be restored by new investment is frequently exaggerated. There is a direct conflict between restoring competitiveness and maintaining employment, and in quantitative terms the importance of competition from imports and as a source of job losses is, as we have seen, usually over-estimated. Further, the way is then smoothed for retaliatory action to take place in one's own export markets.

A public subsidy is greatly to be preferred to protection. A subsidy adds to the citizen's tax burden, while protection increases the prices of the products he/she buys, so that on the face of it there would appear to be little justification for preferring one to the other. The burden of a subsidy, however, is more obvious than the burden of protection, which helps to limit a subsidy's size and duration. More important, perhaps, a subsidy can be directed selectively to those companies most likely to be able to recover their competitiveness; such selectivity may well be crucial to eliminating the underlying problem.

4. Is there a need for policy intervention?

In a recession which, arguably, with high levels of unemployment, the countries of the North are still experiencing; a vicious circle develops with investment low because expected demand is low, and actual demand is low

because investment, which is also part of actual demand, is low. As argued in the UNIDO 1985 Global Development Report, concerted action by the major industrialized countries to reflate their economies could provide a major stimulus to the reduction of unemployment in the North, increased world trade and development in the South. The action has to be concerted because, as happened in France in 1981, reflation by one country alone can lead to increased exports from its trading partners and a high balance of payments deficit. In France, this was followed by a run on the franc and increased (largely imported) inflation. In the United States over the past two to three years the stimulus given to the economy through large public deficits caused by lower public income and higher defence spending has benefited the rest of the world's exports but has led to a mounting USA balance of payments deficit. This, in turn, has led to protectionist thinking in the US Congress with the future prospect of substantially reduced imports into the US and a consequent deflationary spiral on the world's economies. Such a deflationary prospect could be avoided by reflation in the major Northern economies. If this is such an obvious thing to do, why has this not been done so far?

There are a number of reasons why this "pump-priming", i.e. government response to incipient recession due to a prospective fall in private investment (or other component of demand), to borrow in order to reduce taxation or increase its own expenditure (or both), has not been tried so far in the 1980s. First, the governments of the major industrialised countries (except France for a while and Japan) all proclaimed the virtues of free markets and the "invisible" hand of market forces. Hence co-ordinated pump-priming was not attractive as it smacked of government interference in markets.

Second, and related to the first point, demand management is seen to be inappropriate because of supply side constraints. In this view unemployment is high because of rigidities in the economic system. These rigidities stem from both governments and trade unions. Governments are considered to be a major source of rigidity because through their own civil service employment and publicly-owned companies and services, they attenuate market forces. Further, government assistance to companies in difficulty reduces the pressure of market forces; while job security legislation and related measures allow the effects of market forces to be ignored. Trade unions are considered to be a source of rigidity because their strength overrides market forces in wage negotiations and thereby brings about inflation or unemployment or both. On the other hand, rigidities in corporate behaviour that come about because of their mere size and/or monopolistic or oligopolistic behaviour are not usually considered to be as important as the other above-mentioned sources.

Third, it is believed that public pump-priming would not lead to increased private investment because profits would not increase due to the aforementioned rigidities in the labour market, i.e. the strength of the trade unions would lead either to overmanning or real wage increases or both. Hence the injection of public funds through deficit spending would lead, eventually, to inflation. With inflation, private companies would be unwilling to invest in productive activities because their real return on investment would be eaten away by inflation.

Fourth, pump-priming would require additional financial resources that may not necessarily be available. If all industrialised countries reflatd at the same time either the price of money would increase or there would be additional inflation or a combination of both.

Fifth, because of the recession, existing capacity levels would be stretched with additional demand and this would lead to a higher balance-of-payments deficit or, again, more inflation or a combination of both.

In sum, therefore, the main reason for the lack of concerted pump-pricing by all major industrialised countries has been the fear of inflation. Unless it can be shown that reflation by the major countries will lead to more or less inflation-free growth, the fear of renewed inflation will continue to outweigh the fear of unemployment.

Geneva, September 1985.

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