

THE WORLD DIRECTORY OF **MULTINATIONAL ENTERPRISES**

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John M. Stopford, John H. Dunning & Klaus O. Haberich

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PREFACE

The World Directory of Multinational Enterprises is the first directory of its type dealing exclusively with firms that control important foreign investments. As such, the *Directory* focuses attention on an increasingly important, and as yet imperfectly understood, phenomenon in the world's international economic relationships. Profiles on 430 major multinational enterprises, accounting for over 80% of the world's stock of foreign direct investment, are presented. The Editors have concentrated on providing an easy-to-read text that identifies the salient factors contributing to each firm's strategy both at home and abroad.

The company profiles have been designed as a starting point for review, not as a full and detailed assessment for all the companies' many and complex activities. The *Directory* should not, therefore, be regarded as a substitute for the full documentation provided by each company under the various national disclosure requirements. Instead, the *Directory* constitutes a readily accessible document that will point the way for those who wish to undertake more detailed study. A standard format of presentation has been developed by the Editors to provide consistency of approach.

The data presented have been drawn directly from information made public by each company in their annual reports to shareholders, in their reports to such bodies as the Securities and Exchange Commission in the USA, and in their general publicity. Because the companies included in the *Directory* have their headquarters in many different countries, each with its own reporting practice, the nature and comprehensiveness of such reporting varies widely. Such variation has inevitably meant that data on some items is absent from some profiles. Furthermore, reporting practice has been changing rapidly. Much more information is now publicly made available than was the case five years ago. Thus, there are many blanks in the earlier years in the five-year summaries of financial and operating statistics.

The Editors wish to acknowledge the assistance received from officers of many of the companies included in the *Directory*. Though it was not possible in all instances, the majority of the profiles have been checked, amended and amplified by company personnel. The Editors have exercised their judgement in some matters of interpretation, but not of fact. Any errors and omissions remain their responsibility.

Production of a directory of this nature is necessarily a team effort. Based on initial work by the Economist Advisory Group, most of the project has been carried out at the London and Wharton Business Schools and at the University of Reading. Nicola Copplestone has been responsible for coordinating the data flows. Bob Pearce helped prepare the tables in the introduction and at the end of the book. Azar Jammine, Jose Charles, Richard Poulden, Birge Watkins and Veronica Kennard have made notable contributions in preparing drafts, as have Wendy Adams and Melinda Smallwood in turning drafts into readable texts. Lysa Schwartz of Macmillan Reference Books provided editorial and other support far beyond the normal call of duty. Their help and enthusiasm in turning an idea into a reality is most gratefully acknowledged.

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INTRODUCTION

PART 1

The Scope and Pattern of Multinational Enterprise Activity in the Late 1970s

While there are no officially published estimates of the number of corporations which have direct investments outside the countries in which their headquarters are based, data collated by the UN Centre on Transnational Corporations and extracted from *Who Owns Whom*,¹ suggest the figure in 1977 was over 10,000. These multinational enterprises (MNEs) had an equity interest, sufficient to give them some *de facto* control over decision taking² in at least 82,266 foreign affiliates engaged in resource based (extractive and agricultural) manufacturing and service activities. Of these, as Table 1 illustrates, 74.4% were located in developed countries and the rest in developing countries.

Table 1 Distribution of Parent Companies Based in Developed Market Economies and Their Foreign Affiliates, by Country and Country Groups, 1977

Home country	Parent companies		Foreign affiliates of developed market economy-based firms in:					
	Number	%	Total affiliates		Developed market economies		Developing countries	
			Number	% of total	Number	% of total	Number	% of total
United States	2,826	26.3	26,884	32.6	19,255	31.4	7,629	36.3
United Kingdom	1,706	15.9	21,803	26.5	16,277	26.6	5,526	26.3
Germany, Federal								
Republic of	1,450	13.5	6,812	8.3	5,582	9.1	1,230	5.8
Switzerland	871	8.1	3,698	4.5	3,168	5.2	530	2.5
Netherlands	622	5.8	3,951	4.8	3,111	5.1	840	4.0
France	599	5.6	4,103	5.0	2,736	4.5	1,367	6.5
Canada	452	4.2	2,450	3.0	1,966	3.2	484	2.3
Japan	382	3.6	2,407	3.0	1,161	1.9	1,246	5.9
Others	1,819	17.0	10,158	12.5	7,969	13.0	2,189	10.4
Total	10,727	100.0	82,266	100.0	61,225	100.0	21,041	100.0

Source: United Nations Centre on Multinational Corporations, based on data contained in *Who Owns Whom*, 1978 edition.

This *Directory* is concerned with detailing the activities of some 430 of the world's largest industrial MNEs in 1978; in 21 of these the State has an equity interest. It is estimated that these corporations—less than 5% of all MNEs—account for, at least, three-quarters of all foreign affiliates and about the same percentage of foreign investment. Most of them own assets in a large number of host countries, and are very different in kind and scope to the great majority of MNEs which operate in one or two host countries.³ They are all among the largest 500 US industrial and 500 non-US industrial companies⁴ listed in the 7 May and 13 August 1979 editions of *Fortune*, and their degree of foreign involvement (the percentage of sales of foreign affiliates to third parties as a percentage of the worldwide sales) is set out in Table A at the end of Volume 2. Here, it can be seen that about 40% of the MNEs derived 25% or more of their sales from their foreign activities in 1978 and the balance between 5% and 25%.⁵

Other calculations by the UN Centre on Transnational Corporations set out in Table 2 suggest that the value of the stock of direct investment by MNEs of developed market economies in 1978 was \$369.3 billion. By the end of 1980, this figure is likely to have risen to well over \$400 billion. In 1978, the US was the leading country of origin accounting for 45.5% of the total direct investment stake—although its share has been falling since the early 1960s. Over the last decade and a half, Continental European MNEs, followed by Japanese and, most recently of all, those from some developing countries (not included in Table 2) have become relatively much more important. By the end of 1978, the UK was still the second largest direct overseas investor, but its position was being strongly challenged by Japan and West Germany, whose combined share of world investment was

Table 2 Stock of Direct Investment Abroad of Developed Market Economies, by Major Country of Origin, 1967-1978

Country of origin	Billions of dollars, end of						
	1967	1971	1973	1975	1976	1977	1978
United States	56.6	82.8	101.3	124.1	136.8	149.8	168.1
United Kingdom	17.5	23.7	26.9	30.4	31.8	36.8	41.1
Germany, Federal Republic of	3.0	7.3	11.9	16.0	19.9	24.8	31.8
Japan	1.5	4.4	10.3	15.9	19.4	22.2	26.8
Switzerland	5.0	9.5	11.3	17.6	25.4	25.4	24.6
Netherlands	11.0	13.8	15.4	19.0	20.3	21.9	23.7
France	6.0	7.3	8.8	11.1	11.9	13.1	14.9
Canada	3.7	6.5	7.8	10.4	11.4	12.1	13.6
Sweden	1.7	2.4	3.0	4.4	5.0	5.6	6.0
Belgium-Luxembourg	2.0	2.4	2.9	3.6	3.9	4.8	5.4
Italy	2.1	3.0	3.2	3.3	2.9	3.1	3.3
Total above	110.1	163.1	202.6	255.8	288.7	319.6	359.3
All other (estimate)	4.0	5.0	6.0	7.2	7.8	9.5	10.0
Grand total	114.1	168.1	208.6	263.0	296.5	329.1	369.3

Country of origin	Percentage distribution						
	1967	1971	1973	1975	1976	1977	1978
United States	49.6	49.3	48.6	47.2	46.1	45.5	45.5
United Kingdom	15.3	14.1	12.9	11.6	10.7	11.2	11.1
Germany, Federal Republic of	2.6	4.3	5.7	6.1	6.7	7.5	8.6
Japan	1.3	2.6	4.9	6.0	6.5	6.7	7.3
Switzerland	4.4	5.7	5.3	6.7	8.6	7.7	6.7
Netherlands	9.6	8.2	7.4	7.2	6.8	6.7	6.4
France	5.3	4.3	4.2	4.2	4.0	4.0	4.0
Canada	3.2	3.9	3.7	4.0	3.8	3.7	3.7
Sweden	1.5	1.4	1.4	1.7	1.7	1.7	1.6
Belgium-Luxembourg	1.8	1.4	1.4	1.4	1.3	1.5	1.5
Italy	1.8	1.8	1.5	1.3	1.0	0.9	0.9
Total above	96.5	97.0	97.1	97.3	97.4	97.1	97.3
All other (estimate)	3.5	3.0	2.9	2.7	2.6	2.9	2.7
Grand total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: United Nations Centre on Transnational Corporations, based on data provided by national government and by private sources.

15.9% compared with 3.9% eleven years earlier. In the late 1970s, MNEs began to emerge from some of the more advanced industrialized developing countries. One private estimate⁴ put the number of these at 1,100 in June 1969. Brazil, India, South Korea, Hong Kong and Argentina are among the developing countries which have sizeable outward direct investment, and, in the 1980s, their stake and that of other developing countries may well rise faster than that of MNEs from developed countries. In our directory, we have not included any MNEs from developing countries.

There have been no statistics published comparable to those set out in Table 2 for the geographical distribution of the foreign investment stake, but Tables 3 and 4 present figures for the main recipient developed countries and developing countries in 1971 and 1975 (or nearest year). These suggest that, in 1975, the developed economies were host to more than three-quarters of the capital invested by foreign based MNEs and the developing countries to a little less than one-quarter. Other sources reveal that the share of foreign capital received by the developing countries has steadily fallen from a peak of around 30% in 1967; this mainly reflects the expropriation of assets of foreign based MNEs, especially in the oil and other extractive industries, and the increasing attractiveness of developed countries as manufacturing investment outlets.

Of the developed countries, Canada, the United States, Great Britain, and West Germany are the leading host countries to the affiliates of foreign MNEs; in the late 1970s, they accounted for nearly two-thirds of foreign direct investment in developed countries and nearly one-half of all foreign direct investment. In the 1970s, the growth of inward direct foreign investment was fastest in the United States and West Germany, and slowest in Canada. The activities of MNEs in the developing countries are somewhat less concentrated. Nevertheless, in

1975, seven countries were responsible for 41.8% of the total foreign direct investment stake in developing countries, while the top 14 countries accounted for 54.9% of the stake. Table 4 shows that the OPEC group of countries attracted 22.9% of the inward capital stake in 1975, compared with 26.8% in 1971. Among these countries, however, Indonesia and Nigeria increased their share of capital imports, mainly because of the rapid growth of their manufacturing sectors.

Table 3 Stock of Direct Investment in Selected Developed Host Economies; Classified by Main Economic Sector, 1971-1974

	Total				Change in percentage
	1971		1974		
	Millions of dollars	%	Millions of dollars	%	
<i>United States (1971 and 1975)¹</i>					
Total industry	13,914	100.0	26,740	100.0	
Extractive	3,139 ¹	22.6	8,194 ¹	30.6	+8.0
Manufacturing	6,722	48.3	11,952	44.7	-3.6
Services	4,053	29.1	6,594	24.7	-4.4
Insurance and other finance	2,553	18.6	3,173	11.9	-6.7
<i>United Kingdom</i>					
Total industry	13,827	100.0	22,277	100.0	
Extractive	4,084 ¹	29.5	6,811 ¹	30.6	+1.1
Manufacturing	8,118	58.7	11,040	49.5	-9.2
Services	1,625	11.8	4,426	19.9	+8.1
Banking and insurance	n.s.a.	n.s.a.	n.s.a.	n.s.a.	n.s.a.
<i>Canada</i>					
Total industry	27,857	100.0	36,559	100.0	
Extractive	10,601 ²	38.1	9,816 ²	26.9	-11.2
Manufacturing	11,044	39.6	14,928	40.8	+1.2
Services	6,212	22.3	11,815	32.3	+10.0
Financial	3,120	11.2	4,347	12.0	+0.8
<i>Federal Republic of Germany (1972 and 1976)</i>					
Total industry	9,155	100.0	19,627	100.0	
Extractive	1,676 ³	18.3	2,607 ³	13.5	-4.8
Manufacturing	5,792	63.3	11,952	62.0	-1.3
Services	1,687	18.4	4,708	24.5	+6.1
Finance and insurance	506	5.5	1,483	7.7	2.2
<i>Japan⁴ (1972, 1975)</i>					
Total industry	1,012	100.0	1,499	100.0	
Extractive	—	—	—	—	—
Manufacturing	883	87.3	1,223	81.6	-5.7
Services	129	12.7	276	18.4	+5.7
Finance and insurance	n.s.a.	n.s.a.	n.s.a.	n.s.a.	n.s.a.
<i>Italy (1972, 1976)</i>					
Total industry	6,155	100.0	5,764	100.0	
Extractive ⁵	955	15.5	708	12.3	-3.2
Manufacturing	3,337	54.2	3,315	57.5	+3.3
Services	1,863	30.3	1,741	30.2	-0.1
Banking and insurance	62	1.0	130	2.3	+1.3

Source: As for Table 2.

1 Refers to petroleum only; mining and agriculture, if any, are included under services.

2 Figures refer to petroleum and mining only.

3 Refers to agriculture and petroleum; mining and quarrying is classified under manufacturing.

4 Figures for Japan are on a gross basis.

5 Refers to agriculture, mining and petroleum.

n.s.a. = not separately available.

Table 5 presents some details about the sectoral distribution of foreign direct investment in some leading recipient countries. It can be seen that this varies widely both between and within developed and developing countries. In the developed countries, apart from Canada and Australia, most foreign investment in the extractive industries is in petroleum exploration and/or refining. In the developing countries as a group, oil production accounts for the bulk of resource-based investment, but in some of them, agriculture or mining attracts substantial amounts of foreign capital, e.g. tea production in Sri Lanka, wood-pulp production in Swaziland, sugar production in Belize, bauxite mining in Jamaica, copper mining in Zambia and tin mining in Bolivia.

In the mid 1970s, manufacturing has become more attractive to foreign investors in developing countries. Partly this is due to the programmes for rapid industrialization in some of the larger and more prosperous

Table 4 Direct Investment Stock in Developing Countries, Classified by Host Country Characteristics, 1967-1973

	1967		1971		1975	
	Billions of dollars	%	Billions of dollars	%	Billions of dollars	%
Total stock	33.1	100.0	43.8	100.0	69.5	100.0
OPEC countries ¹	9.1	27.4	11.6	26.6	15.6	22.4
of which:						
Venezuela	3.5	10.6	3.7	8.4	4.0	5.8
Indonesia	0.2	0.6	1.0	2.3	3.5	5.0
Nigeria	1.1	3.3	1.7	3.9	2.9	4.2
Iran	0.7	2.1	0.9	2.1	1.2	1.7
Tax haven countries ²	2.3	7.0	3.9	8.9	8.9	12.8
All other developing countries ³	21.7	65.6	28.3	64.5	45.0	64.8
of which:						
Brazil	3.7	11.3	5.1	11.6	9.1	13.1
Mexico	1.8	5.4	2.4	5.6	4.8	6.9
India	1.3	4.0	1.6	3.8	2.4	3.5
Malaysia	0.7	2.0	0.9	2.0	2.3	3.5
Argentina	1.8	5.5	2.2	5.1	2.0	2.9
Singapore	0.2	0.6	0.4	0.9	1.7	2.4
Peru	0.8	2.4	0.9	1.9	1.7	2.4
Hong Kong	0.3	0.9	0.6	1.3	1.3	1.9
Philippines	0.7	2.2	0.9	2.0	1.2	1.8
Trinidad and Tobago	0.7	2.1	1.0	2.3	1.2	1.7
Total above ten countries	12.0	36.2	16.0	36.5	27.7	39.9

Source: United Nations Centre on Transnational Corporations, based on *Development Co-operation* (various years), *Organization for Economic Co-operation and Development*, Paris.

1 Algeria, Libya, Gabon, Nigeria, Indonesia, Iraq, Iran, Kuwait, Qatar, Saudi Arabia, United Arab Emirates, Ecuador, Venezuela.

2 Bahamas, Barbados, Bermuda, Cayman Islands, Netherlands Antilles, Panama.

3 The distribution of this direct investment stock among countries grouped by estimated per capita income in 1967, 1971 and 1975 was as follows:

	1967		1971		1975	
	Billions of dollars	Percentage	Billions of dollars	Percentage	Billions of dollars	Percentage
\$1,000 or more	9.4	43.3	13.1	46.2	22.3	49.5
\$500 to \$999	5.2	23.7	6.3	22.4	10.4	23.2
\$200 to \$499	3.5	15.2	4.2	14.8	5.8	12.9
Less than \$200	3.6	16.8	4.7	16.6	6.5	14.4
Total	21.7	100.0	28.3	100.0	45.0	100.0

Table 5 Stock of Foreign Direct Investment by Economic Activity in Selected Host Countries

Host Country	Year	Value in millions of dollars	Percentage distribution		
			Extractive industries	Manufacturing services	
<i>Developed Countries</i>					
United States	1975	27,662.0	22.5	41.2	36.4
Great Britain	1974	22,277.0	30.6	49.5	19.9
Canada	1974	36,421.0	35.6	40.9	23.5
West Germany	1976	19,267.9	13.5	62.0	24.5
Japan	1975	1,499.0	—	81.6	18.4
Italy	1976	5,764.0	12.3	57.5	30.2
<i>Developing Countries</i>					
Argentina	1973	2,275.2	5.6	65.0	24.5
Brazil	1976	9,005.0	2.5	76.5	18.6
Colombia	1975	965.0	36.0	44.2	18.3
Mexico	1975	4,735.8	4.1	77.5	18.1
Panama	1974	353.5	16.1	37.4	46.4
Hong Kong	1976	1,952.4	—	100.0	—
India	1974	1,682.8	4.2	92.0	3.7
Indonesia	1976	7,077.0	37.5	57.0	10.3
Philippines	1976	513.0	12.6	48.7	34.0
Republic of Korea	1975	926.9	1.4	80.1	18.5
Singapore	1976	3,739.0	40.6	59.3	—
Thailand	1975	174.7	—	93.1	6.8
Nigeria	1974	2,737.7	52.4	33.2	14.4

Source: As for Table 2.

developing countries, among which Brazil and Indonesia are examples. Partly it is due to the developing of resource processing industries, e.g. petrochemical production in the Middle East, aluminum smelting in Jamaica, etc. And partly it is due to the growth of low-wage manufacturing activities producing goods for export, e.g. textiles, leather goods, TV sets, and domestic electrical appliances in South Korea, Hong Kong, Taiwan and Singapore. Of no less significance is the growth of foreign investment in services, notably tourism, banking and insurance, in both developed and developing countries.

The industrial pattern of the activity of MNEs reflects the comparative resource endowments and markets of the investing and recipient countries. Within the extractive sector, it is concentrated in oil refining, copper, tin, zinc and bauxite mining, and the production of such cash crops as bananas, pineapples, sugar, coffee, and tea, each of which requires resources, especially technology and capital, or access to markets, or both, that foreign MNEs are often better equipped to supply than indigenous firms.

In manufacturing activity, MNEs are most active in the technologically more advanced sectors: e.g. the pharmaceutical, computer, instruments, electronics (including the micro-chip) and man-made fiber industries; in large-volume medium-technology consumer goods industries, e.g. those making cars, tires, television sets and refrigerators; and in mass production consumer goods industries supplying branded products, e.g. cigarettes, soft drinks, toilet preparations and breakfast cereals. Until the late 1960s, there was little direct investment in basic industries such as the manufacture of iron and steel, forestry products, and natural textiles. This has changed with the emergence of Japan as a leading international investor and with the growing differential in wage costs between developed and developing countries. Because of the lack or rising cost of indigenous resources, Japanese firms engage in more resource-oriented investments than their American counterparts. However, both groups of firms, along with European MNEs, have found it increasingly profitable to locate labour-intensive industries outside their national boundaries. More than one-half of the cotton textiles and all of the black-and-white TV sets sold in the United States are produced by US affiliates in Mexico and South East Asia; and the Japanese government is actively encouraging offshore production in developing countries by its own firms in those sectors in which it believes its comparative trading advantage is declining.

The Growth of Multinational Enterprises

Since World War II, there has been a dramatic increase in the activities of national corporations outside their national boundaries. But the lineage of the MNE dates back at least to the trading and colonizing companies of the sixteenth and seventeenth centuries; while the territorial expansion of the modern business enterprise followed quite quickly the emergence of the joint stock company in the mid nineteenth century. The late nineteenth century and early twentieth century saw many of today's leading MNEs establishing foreign affiliates,⁷

although most capital, technology, and organizational and managerial skills during this period were transferred across national boundaries between independent buyers and sellers at arm's length prices. Direct investment, which incorporates a package of resources, transferred *within the same firm*, rather than externally through the market, only became a significant mode of resource transference in the mid twentieth century.

Analysts suggest there were two main reasons for this. First, the tremendous improvements in transport and communications technology made it as easy for a New York business to successfully run a branch operation in Frankfurt or Lagos as in Washington or Los Angeles; the jet aircraft, the computer and telecommunication by satellite were the culmination of the trend. Second, the twentieth-century markets in capital, technology, information and management failed to provide an adequate mechanism for the efficient transfer of resources, as their equivalents of the nineteenth century had done. In particular, market imperfections, brought about, *inter alia*, by the specialized needs of modern technology, and the increasing advantages of large-scale production, led to an increasing concentration of both capital and knowledge. The more complex the technology, the larger and more diversified the firm, the more protection given by governments to innovations and trade marks, and the greater the obstacles to trade in goods, the more firms found that the best way to capture the proprietary rights of the technology, capital, management skills and organizational capacity they possessed was by engaging in international production.

The 1960s saw a very rapid expansion in the direct investment route of resource transmission, and with it a changing strategy and organizational structure of MNEs, which resulted in more, rather than less, centralized control over key areas of decision taking. Bretton Woods and Havana provided the economic underpinnings for the pattern of post-war international commerce and resource allocation; yet tariffs and quotas, a shortage of foreign currency in host countries, and a desire of many countries to build up indigenous manufacturing capabilities, forced firms (particularly American ones) to service their foreign markets through local production rather than through exports.

At the same time, policies of many host governments—particularly those of developing countries—were becoming more nationalistic. As part of their search for economic independence and self-reliance they became aware of the need to ensure that the way resources, whether domestic or imported, were used was consistent with their developmental and other goals. Frequently, it appeared that the type of control exercised by MNEs over their affiliates, especially when they operated a regional or global strategy, clashed with these objectives.

For these and other reasons documented elsewhere⁸ the tension between MNEs and governments grew throughout the 1960s and early 1970s. Some issues attracted particular attention. Among these were the control of technology transmission by MNEs, the failure of them to adapt the technology to the needs of recipient countries, and the continued centralization by them of technology-creating (i.e. R&D) activities in the home countries; the direction exerted over export markets and the sourcing of inputs, which sometimes had both adverse balance of payments consequences and lessened the integration of MNEs with the local economies (this criticism was particularly directed to resource based MNEs that undertook downstream processing operations in developed countries); the reluctance, by some MNEs, to employ local labour in senior, managerial and technical positions, and their transfer pricing policies (which sometimes reduced the value added of their affiliates retained in the host country). Added to these concerns were others more to do with the political and cultural impact of MNEs.

In the 1970s, partly due to the action of host governments and partly to the maturation of much of the technology which gave rise to international investment in the 1950s and 1960s, enterprises have tended to transfer resources—particularly between developed and developing countries, by licensing, turnkey operations, management contracts, technical service agreements and the like. The rate of increase in foreign direct investment (taken as a whole) began to slow down in the early 1970s as the conditions for internalizing resource flows became less attractive. This led some commentators to suggest that MNEs were in retreat,⁹ and that the earlier prediction by Professor Howard Perlmutter and others that the largest 300 MNEs would dominate the world economy by the 1980s was no longer a realistic one. An alternative view is that the *form* of international involvement by the MNEs in the 1960s was a phase in the evolution of their activities, and the future will see them successfully adapted to the changing institutional technological and environmental needs of the 1980s.¹⁰ According to writers such as Peter Gabriel¹¹ their role as suppliers of equity capital will be less important than previously, but that as suppliers of technology and management organizational skills, they still have a unique contribution to make to world development. At the same time, there are signs that joint venture activity by MNEs in Eastern Europe and China may be expected to intensify, as may that of MNEs from developing countries.

Fields of Activity by Multinational Enterprises

To illustrate and to expand upon the points made in the previous section, let us look more closely at the three main types of activity by MNEs. These are:

- A. *import substituting* activities, designed to produce goods or services for the market in which their affiliates are located;
- B. *natural resource exploitation* activities, e.g. mining, raw material and food production, largely for export to industrialized countries;
- C. *rationalized product or process* activities, the output of which is also normally supplied to industrialized countries.

A. *Import Substituting Investment*

This type of investment arises because of certain advantages MNEs have over indigenous producers and the host country has over other countries as a location for production. There are three kinds of advantages that might enable foreign-based MNEs to compete successfully with local firms in their own territory. First, there are those, such as exclusive access to essential raw materials (e.g. in petrochemicals, bauxite), patent protection (e.g. in pharmaceuticals), economies of scale (e.g. in motor vehicles), or possession of trademarks (e.g. cigarettes and toilet preparations), that some foreign firms may enjoy over local ones because of the superior factor endowments or industrial structure of the home country. Second, there are competitive advantages, particularly in high technology or advertising intensive activities, which arise because the branch plant is able to share certain overhead costs with the parent firm. Third, there are benefits that arise simply from an MNE being better placed to gain from different sources of information, factor endowments, and market situations than purely domestic firms.

But why should an MNE exploit these advantages from a foreign rather than a domestic location? First, there may be an advantage in the saving of transfer costs, including transport costs and tariffs and other controls on imports, from the site of production to the place of marketing. These are especially important in the case of bulky or perishable products (e.g. cement and ice cream) or goods that the governments of importing countries wish to have produced locally. Second, production costs may be lower abroad than at home, because *inter alia* of cheaper labour, energy, or materials, lower taxes or subsidies. Third, there may be general environmental advantages, such as a favorable government attitude toward foreign direct investment; and fourth, there may be better opportunities for on-the-spot marketing, after-sales servicing, and product adaptation to the behavior of local consumers and competitors. By far the most important determinants of direct import substituting investments by the United States in Western Europe have been in the size and rate of growth of local markets and tariff or non-tariff barriers, coupled with government attitudes toward foreign investment and political stability. To the extent that the output is exported, then domestic market size has been less important and comparative production and transport costs and government inducements more important.

B. *Natural Resource-based Investment*

Many of the characteristics identified to explain import substituting investment also influence the resource-based investment of MNEs. However, clearly the geographical distribution of the resources and the cost of exploiting them are the key locational variables. Firms originally engaged in resource investments to promote or guarantee the supply of energy, raw materials, or foodstuffs for consumers or manufacturing activities of the home country. This was the origin of British investments in the production of rubber, tin, cocoa, tea, and sugar in the nineteenth century. In the late twentieth century, an adequate supply of energy and raw materials at reasonable prices has become even more vital; hence the large foreign investments in resource development by resource-poor countries like Japan.

C. *Rationalized Product or Process Investment*

In recent years, there has been an increase in the tendency of MNEs to rationalize their foreign activities and/or their foreign and domestic activities in the sense that they engage in international process or product specialization to take advantage of differential resource endowments and markets between countries. Such MNEs inevitably practice a more strongly centralized production and marketing strategy than those engaged in import substituting manufacturing activities, and since they operate with global interests in mind and engage in a good deal of intra-group trade they are often the center of much of the controversy surrounding the impact of MNEs on host nation states.

There are two kinds of rationalized production promoted by MNEs. The first is where the specialization is between products which may be traded across national boundaries. The specialization within the EEC or on particular electrical appliances by Phillips or motor vehicles by Ford or agricultural equipment by International Harvester is of this kind. It arises chiefly because of economies of scale necessary for efficient production and is a natural extension of the expansion of MNEs, originally set up to replicate (part of) the output of the parent company. To engage in this kind of specialization the MNE needs reasonably free access to a large and standardized market. Hence advances in regional economic integration have provided opportunities for this kind of activity, which tends to be practiced by large and diversified MNEs.

The second kind of rationalized investment is where MNEs practice vertical or process specialization. Here the motive is less to take advantage of the economies of large-scale production and more to benefit from differential factor endowments (and particularly the capital/labour ratios) in different parts of the world. This kind of investment is mainly directed to developing countries to manufacture goods for export to high-income markets in advanced industrial countries. It is prompted mainly by the growing differences in labour costs between the advanced industrial and the developing countries, and tends therefore to be concentrated in labour intensive industries, such as the manufacture of textiles, clothing, and some consumer electronic goods. North America and Western Europe have lost large parts of their textile and clothing industries and those of their consumer electronics industries that depend on a large supply of unskilled or semiskilled labour to Mexico, some Southern European countries, especially Portugal and South East Asia. Some countries, such as Taiwan, South Korea, Hong Kong and Singapore, have offered generous tax and investment inducements to attract foreign investment in these 'export platform' industries. Home countries—notably the United States and Japan—have also facilitated these investments by reducing or even abolishing tariffs on goods manufactured by the foreign affiliates of their own firms.

At the end of 1979, about 40% of the stock of foreign direct investment in extractive and manufacturing was in import substituting activities, another 40% in resource-based investments and 20% in rationalized investment. In addition MNEs are actively engaged in several branches of the service sector, e.g. insurance, tourism, banking, land development, managerial consultancy and distribution, but this is not the concern of this directory. The above ratios have changed over the years. For most of the period prior to World War II, resource-based investment accounted for the bulk of activities of MNEs. In the period 1965–1970 import substituting manufacturing investment became more important, stimulated by barriers to exports and the wish of many economies to industrialize. Since 1970 rationalized investment has grown the fastest with resource investment becoming less important, partly because of the policy of host governments to expropriate foreign investment in many of these sectors, notably ore.

Differences in the Structure of MNE Activity by Home Countries

The pattern of activities by MNEs varies between the leading home countries. Table 6 shows that, within manufacturing industry, US and West German MNEs tend to invest in more technologically advanced industries (for import substituting and rationalized production) than do Japanese and UK investors. This pattern reflects different endowments and markets of home countries and different needs. It has been asserted, for example,¹² that Japanese investment tends to be trade oriented and directed to resource-based activities in which Japan has a comparative disadvantage whereas US investments tend to be industries competitive to domestic industries in which the US has a comparative advantage. It is also argued that more of US investments are of a defensive kind prompted by the oligopolistic strategy of the leading firms.

Although there is some truth in these contentions, they are too simplistic as an explanation of the differences in home country investment patterns. The timing of the initial thrust of the two kinds of investment and the greater propensity of Japanese companies to exploit their foreign markets by exports rather by local production. This may well change in the 1980s as the Japanese understanding of foreign cultures grows and while rising domestic labour costs may make exports less competitive. Japanese investment in the 1980s may be more oriented by import substitution. As far as rationalized production is concerned, both Japanese and US investors are actively involved in the Far East in labour intensive activities, but the size and pattern of Japanese investment abroad¹⁴ has not yet advanced to a scale which makes rationalized product investment worthwhile.

One aspect of rationalized production, which has been increasingly discussed by writers on MNEs in recent years has been the growth of intra-firm transactions. Again data are only fragmentary, but they all confirm the

Table 6 Outward Direct Investment Stake of Five Industrialized Countries by Main Manufacturing Sectors, 1975

	US		Japan		United Kingdom		Sweden		West Germany	
	\$m	%	\$m	%	\$m	%	\$m	%	\$m	%
<i>More Technology Intensive Sectors</i>										
Chemicals and Allied Products	37,620	67	1,630	39	6,437	44	4,504	69	8,206	69
Mechanical and Instrument Engineering	11,172	20	634	15	3,108	21	522	8	3,818	32
Electrical Engineering	11,646	21	307	7	1,210	8	2,089	32	1,377	12
Transportation Equipment	6,384	11	426	10	1,630	11	1,436	22	1,797	15
	8,418	15	263	6	489	3	457	7	1,214	10
<i>Less Technology Intensive Sectors</i>										
Food, Drink and Tobacco	18,417	33	2,507	61	8,253	56	2,023	31	3,742	31
Textiles, Leather, Clothing and Footwear	4,716	8	231	6	3,947	27	65	1	716	6
Paper, Printing and Publishing	1,099	2	918	22	1,038	7	65	1	469	4
Primary and Fabricated Metals	3,774	7	423	10	1,073	7	653	10	567	5
Other Manufacturing Industries	3,649	7	635	15	602	4	848	13	1,737	15
	5,179	9	300	7	1,593	11	392	6	253	2
All Manufacturing	56,037	100	4,137	100	14,690	100	6,527	100	11,948	100

Source: Data compiled by Jeremy Clegg at University of Reading from a variety of Government publications and from information supplied to him from various Ministries and/or Government Departments. Although definitions of the investment stake vary slightly between countries it basically represents the book value of the fixed assets (net of depreciation) plus current assets (net of amounts owing by the investing company less current liabilities) (net of amounts owing to investing companies) less long-term liabilities (other than to the investing company of overseas subsidiaries and branches).

Table 7 Percentage of Total Exports by Parent MNEs Despatched to Their Own Affiliates, 1977^{1,2}

	USA	Europe (Total)	EEC (Total)	Germany	France	UK	Other Europe (Total)	Sweden	Japan	Other Countries	Canada	TOTAL
High Research Intensity												
Aerospace	1.6	2.2	2.2	0	0	NAS						1.8
Office Equipment (incl. computers)	91.3											91.3
Petroleum	58.8	4.3	5.7	NAS		36.0	0					51.0
Measurements, Scientific and Photographic Equipment	58.2											58.2
Electronics and Electrical Appliances	12.5	49.4	48.5	68.5	0	15.1	54.6	61.5	20.0	33.0	NAS	36.5
Chemicals and Pharmaceuticals (incl. soaps and cosmetics)	62.2	26.3	25.5	25.4	20.0	44.9	32.4		8.2	NAS		35.0
TOTAL	37.2	33.7	32.4	51.2	6.2	33.6	43.0	61.5	13.5	23.9	NAS	34.5
Medium Research Intensity												
Industrial and Farm Equipment	64.6	25.3	12.5	28.0		12.7	57.5	57.5	80.0			52.6
Shipbuilding, Railroad and Transportation Equipment	0	0.2	NAS		NAS		0.3	NAS				0.1
Rubber										NAS		NAS
Motor Vehicles (incl. components)	78.7	63.6	64.3	50.0	71.6	73.0	60.0	60.0	31.0			62.4
Metal Manufacturing and Products	8.2	11.1	11.5	13.6	0.2	12.8	9.4	7.3	1.5	33.2	74.0	12.8
TOTAL	67.0	30.9	31.4	24.9	53.9	35.3	28.8	34.1	18.4	33.3	74.8	36.9
Low Research Intensity												
Building Materials	25.3	5.5	4.4		0	12.5	NAS	NAS	10.0			8.7
Tobacco	0.3	0.9	0.9			0.9						0.5
Beverages	0	0	0			0						
Food	2.8	17.3	14.7			15.9	NAS		NAS	100.0	100.0	20.3
Paper and Wood Products	3.7	5.0	21.9			10.4	1.6	0	19.0	1.3	0	9.2
Textiles, Apparel and Leather Goods	8.5	17.2	17.2		NAS	17.9			1.0	14.9	14.9	9.5
Publishing and Printing	NAS	10.0	10.0			10.0	NAS	NAS		NAS	NAS	12.8
TOTAL	5.1	10.7	12.3	3.6	3.6	13.2	5.5	3.5	9.4	11.1	15.0	9.5
Other Manufacturing	25.5	0	0	0	NAS	NAS						5.9
TOTAL	45.5	29.7	29.6	34.6	32.2	29.6	29.8	36.1	17.0	22.8	39.3	32.8

NAS Results not given for reasons of confidentiality and disclosure. The information is, however, included in the appropriate aggregates.

1 Proportion of parents total expenses accounted for by exports of parts and components etc to overseas affiliates.

2 Covers the 329 firms for which information on 'internal exports' was available.

importance of this phenomenon. In the mid 1970s around one-half of all the imports into and exports from the US were with transnational corporation systems; in 1975, some 29% of Swedish exports were intra-group, while the corresponding figures for the UK (for 1973) and Canada (for 1971) were 31% and 59%.¹⁴

Some results of a recently published survey, update and elaborate on these data.¹⁵ The information was gathered from 329 of the largest industrial companies in 1977, which between them accounted for 49% of the sales of the largest 500 US and 500 non-US enterprises in that year. Table 7 sets out the percentage of the total exports of MNEs from their home countries, which were despatched to their own affiliates in other countries. The overall figure is seen to work out at 32.8%, but there are big differences both between countries (cf. the US with Japan) and between industries (cf. motor vehicles with textiles). Broadly speaking, the high and medium research intensity industries engage in more intra-group trade than less research intensity industries, while, at least up to a point, the more multinational a firm is—in terms of the proportion of its total sales accounted for by its foreign production—the higher the internalized exports from the parent company are likely to be. Table 8 sets out these data, both by country of origin of MNEs and their industry. It would seem that once an enterprise produces more than one-eighth of its output outside its home country, it starts to engage in a considerable amount of intra-group trade; the ratio fluctuates as the degree of multinationality increases, but overall, at least, reaches its peak where foreign production accounts for more than 52½% of all production.

Table 8 Percentage of Total Exports by Parent MNEs Despatched to Their Own Affiliates, 1977,^{1,2,3} Classified by Degree of Multinationality of Production

	Degree of Multinationality of Production ⁴						
	0 – 2½%	2½% – 12½%	12½% – 22½%	22½% – 32½%	32½% – 42½%	42½% – 52½%	Over 52½%
[A] By Area and Country							
USA	0.3	11.7	56.6	47.0	58.2	62.0	86.9
Europe (Total)	0.7	10.8	33.9	52.0	39.4	19.7	41.0
EEC (Total)	1.0	10.9	33.4	53.4	39.6	3.2	24.8
Germany	3.1	17.2	26.4	57.3		0	
France	0	0	50.2	64.4	19.0	0	
UK	0	9.5	65.4	14.6	38.2	7.0	11.3
Other Europe (Total)	0.1	9.4	36.5	15.0	39.0	55.0	58.4
Sweden	0	16.0	60.0	15.0	60.0	55.0	63.6
Japan	2.7	8.5	85.0	20.0		75.1	
Other countries	0.6	3.8	6.5	26.1		0	86.1
Canada	1.4	4.4	6.5	26.1		0	86.1
TOTAL	0.8	10.1	45.4	46.0	46.7	41.1	60.6
[B] By Industry							
Petroleum	0	36.6	0	0	0	0	94.8
Electronics and Electrical Appliances		14.9	20.3	86.9	41.5	37.1	54.3
Chemicals and Pharmaceuticals	3.4	8.0	29.9	29.5	62.2	18.0	37.1
Total High Research Intensity	0.4	13.3	23.0	53.1	58.2	45.7	62.4
Industrial and Farm Equipment		23.1	82.7	27.7	44.4	10.6	57.5
Motor Vehicles (incl. components)	3.0	28.2	79.3	51.0	48.9	75.0	100.0
Metal Manufacturing and Products	1.1	7.6	17.2	14.2	24.6		78.0
Total Medium Research Intensity	0.9	9.8	64.8	46.0	37.8	59.3	73.8
Building Materials		15.2	12.3	15.0	12.8	4.0	
Food	0	5.4	0.3	17.8	26.6		38.1
Textiles	4.6	2.5	14.2	18.7	19.0	0	21.0
Total Low Research Intensity	1.7	4.8	4.7	19.9	20.7	3.8	11.8
TOTAL	0.8	10.1	45.4	45.0	46.7	41.1	60.6

1 Proportion of parents total exports accounted for by exports of parts and components etc to overseas affiliates.

2 Covers the 329 firms for which information on 'internal exports' was available.

3 'Overseas production ratio' for individual firms.

4 Each firm is classified to one of the groups below according to its individual degree of multinationality of production.

The Dunning and Pearce study also attempted to gain an insight into trends in the multinationality of companies over the quinquennium 1972–77 and expectation about the trend over the period 1977–1982. In the former period, some 257 (or 63.8%) of 403 of the world's leading industrial companies which provided the editors with data said that the percentage of their total sales derived from foreign production had increased and another 103 (or 24.6%) that it had remained constant. Of the 47 Japanese firms providing data, 70.2% claimed that their foreign to domestic production ratio had risen and the rest that it had remained the same. The most marked increase in the extent of multinationality appears to have occurred in the motor vehicles, electronics and electrical appliances industries, whereas in the petroleum and metal manufacturing sectors more firms indicated a stable or declining ratio not an increasing one.

Of a rather smaller number of enterprises providing data (219) 138 (or 63.0%) expect their foreign to domestic production ratio will increase between 1977 and 1982 and 62 (28.3%) that it will remain about the same. It is clear then that among the leading MNEs there is little suggestion of any general retrenchment in foreign operations in the foreseeable future.

Notes to Part 1

- 1 *Who Owns Whom*, Vol. 1, 1976/77, 1978 London.
- 2 As a rule of thumb, this control is assumed to be exercised where at least 25% of the voting stock of a company is owned by a closely organized group of non-residents. In practice, in the mid 1970s at least four-fifths of the foreign direct investment stake by companies was in affiliates in which they had a majority equity stake.
- 3 According to the Commission of the European Communities, 60.7% of 9,481 MNEs in 1973 had affiliates in 1 or 2 countries, and 79.7% in five or fewer countries. Only 324 MNEs had affiliates in more than twenty countries.
- 4 Measured by total sales.
- 5 With some exceptions, a corporation had to have at least 5% of its sales derived from its foreign affiliates to be included in this *Directory*. See Preface, page vii.
- 6 Of the Harvard Business School.
- 7 For further details see a special issue of *Business History Review* in 1974 in which the early history of US, UK, Continental European and Japanese MNEs is reviewed.
- 8 See, for example, *Transnational Corporations in World Developments: A Re-examination*, UN Economic and Social Council, E.78, II, A.5, 1978.
- 9 See e.g. Sanford Rose, 'Multinationals in Retreat', *Fortune*, August, 1978.
- 10 J. H. Dunning, 'Multinational Firms in the 80s', *Multinational Business*, No. 1, 1979.
- 11 P. P. Gabriel, 'Management of Public Interests by the Multinational Corporation', *Journal of World Trade Law*, Vol. II, No. 1, Jan–Feb. 1977.
- 12 K. Kojima, *Japanese Investment Abroad*, London, Croom Helm, 1978.
- 13 Due *inter alia* to the greater psychic distance between Japan and her foreign markets; cf. the US and her foreign markets.
- 14 United Nations, *Transnational Corporations in World Development*, op. cit., p. 43.
- 15 J. H. Dunning and R. D. Pearce, *The World's Largest Industrial Enterprises*, Gower Press, 1980.

INTRODUCTION

PART 2

Summary

The following Tables attempt to summarize and classify some of the more important statistics about the international activities of the 430 enterprises embraced by this *Directory*. The figures presented contained in these Tables have been largely derived from the individual entries which form the main body of this *Directory*; in some cases, however, where information was supplied in confidence by companies, it has been included in these Tables but not in the individual entries; and, in a few instances, the authors have had to make estimates based upon other sources of data.

All the information has been processed and classified by country (or geographical area), industrial sector or size of reporting enterprise, and is presented in aggregated form. At the end of volume 2, i.e. after the individual entries, further statistics are produced on groups of individual companies, so that the reader can make some comparisons *inter alia* between the extent and form of foreign involvement of enterprises and the growth of this involvement between 1974 and 1978.

Before turning to discuss the eight Tables which appear on pages xxix–xli of the Introduction, it might be helpful to highlight the main points which emerge from them. These are as follows:

- 1 Of the total sales of the *Directory* MNEs in 1978, 44.2% were derived from exports or from the sales of their foreign subsidiaries. This percentage represents a small increase over the 1974 figure. Some 33.6% of these same sales represented those of foreign subsidiaries; a figure scarcely different from that in 1974. This is our best estimate of the degree of multinationality of the world's largest MNEs in 1978.
- 2 In 1978, US MNEs accounted for 41.9% of the value of the foreign content of the *Directory* enterprises and 50.0% of the sales of foreign subsidiaries. UK and German firms accounted for the second and third largest shares, although, in terms of numbers of MNEs, Japan had risen to second place by 1978. Between 1974 and 1978, Japan substantially increased her share of the international activities of the world's largest MNEs, while that of the US and most European countries, outside Germany, dwindled slightly.
- 3 Measured in terms of the proportion of worldwide sales accounted for by their foreign subsidiaries in 1978, MNEs from the smaller European countries, notably Switzerland, Netherlands, Belgium and Sweden, all recorded figures exceeding 50%. By contrast, only 8.2% of sales of Japanese MNEs were so derived; this, however, was a substantial increase over the 1974 figure of 4.9%.
- 4 Industries differ considerably in their degree of multinationality. More technology intensive industries derive a larger proportion of their sales from their foreign direct investments than do less technology intensive industries. No clear pattern emerges about changes in the degree of multinationality between 1974 and 1978, except that the aerospace industry has very considerably increased its degree of foreign investment.
- 5 Both the degree of internationalization of companies and the extent to which they service markets from their foreign subsidiaries, rather than by exports, appear to be positively correlated with size of enterprise—particularly once a worldwide sales of \$5 billion has been reached. Enterprises with sales of above this value derived 47.9% of their incomes from foreign sales in 1978 compared with 39.2% in the case of enterprises with sales under \$1½ billion;² the corresponding percentages of sales of foreign subsidiaries to worldwide sales are 37.9% and 27.1%; and for direct exports as a percentage of sales of foreign subsidiaries 26.4% and 44.9%. Thus, as a firm moves into the league of giants it appears both to become more international, and to service its world markets increasingly by foreign production rather than exports.
- 6 Some 22% of the worldwide sales of the 430 directory firms consist of products classified to industries outside the fourteen sectors in which the firms' main activities are concentrated. This diversification ratio is remarkably consistent across countries, apart from in Belgium and Switzerland where it is much lower. Across industries, there is no discernible pattern, although the diversification ratio varies between 49.0% in the case of aerospace firms to 14.4% in the case of motor vehicles.
- 7 On average, the 430 directory firms listed 2.7 diversifications. Firms from any one main sector usually tend to diversify into a wide range of industries; the exceptions include petroleum firms which tend to limit their diversification mainly to the chemicals sector. Similarly, sectors into which firms diversify tend to attract firms from a wide range of industries.

A Classification of the *Directory* Multinationals by Size, Industry and Geographical Origin

The total foreign sales (comprising exports from the parent company and sales of foreign subsidiaries) of the 430 directory firms in 1978 were \$833 billion, 44.1% of their worldwide sales of \$1,886 billion. Table 9 shows that

the foreign content ratio of the world's leading MNEs has marginally increased since 1974 with the largest proportional increase being recorded by the smallest of the size groups set out in Table 9¹ (page xxix).

Of the foreign sales of the directory MNEs in 1978, direct exports from the parent companies amounted to \$199 billion or 31.4%; the balance, i.e. more than two-thirds, was accounted for by the sales of foreign subsidiaries. However, the direct export/overseas subsidiary sales ratio rose between 1974 and 1978; *inter alia*, this reflected the dramatic increase in oil prices and the devaluation of the US dollar which increased the attractiveness of exporting from the US relative to foreign production.¹

Table 10 (page xxx) sets out a country and industrial classification of the degree of internationalization of the directory firms. Around an average of 44.2% in 1978, firms with their headquarters in the smaller countries in Western Europe and Canada had the highest ratios, while those based in the countries with the largest home markets, viz. the United States and Japan, had the smallest ratios. Between 1974 and 1978, while the growth of domestic sales of US firms kept pace with that of their foreign sales and those of Swiss firms rose even faster, the degree of internationalization of firms from all other countries increased, with the most marked rise being recorded by Japanese, French and UK firms.

Industries vary considerably in their degree of internationalization. In the resource based e.g. petroleum and the more technology intensive sectors e.g. office equipment, electronics and electrical equipment and chemicals, the foreign content ratio is above average (the major exception being aerospace); in the less technology intensive sectors it is below average. Again, however, as earlier set out in Table 6, there are major differences between industrial patterns of the foreign involvement of countries, with the degree of internationalization in the more technology intensive industries being considerably less than average in the case of Japanese firms and considerably more in the case of US and German firms; while Japanese and UK firms tend to be more heavily involved in the less technology intensive sectors.

Of the industries which have become more internationalized in recent years, the aerospace industry—particularly the US aerospace industry—stands out. Because of the huge increases in retail prices of petroleum and the growth of domestic interests by oil companies, particularly of the US companies, in other sources of energy and mining, the foreign content ratio of oil multinational enterprises has fallen slightly. Two noticeable exceptions are the growing international interests of French and UK oil companies. The rapid growth of the internationalization of Japanese firms in some high technology sectors, e.g. office equipment and electronics and electrical equipment, and European firms in the building materials sectors, is also worth noting.

Table 11 (page xxxii) gives some details about the way in which the directory MNEs exploit their worldwide markets. Around an average export/sales of overseas subsidiary percentage of 31.4% in 1978, the variations range from 9.1% in the case of Sweden and 9.3% in the case of the United States to 99.4% in the case of Germany and 311.0% in the case of Japan. This means that for every \$ worth of exports from the US and Switzerland, in 1978, US and Swiss foreign affiliates sold \$11 of goods. On the other hand, in Japan, and in Germany until the mid 1970s, exporting was the main vehicle of penetrating foreign markets. As an earlier table (Table 2) has shown, these two countries have only recently entered the post-war scene as significant international producers and in line with the product cycle theory of foreign investment, their propensity to export rather than engage in foreign direct investment reflects this fact. But the sales of foreign affiliates of both countries are rising much faster than exports, which, over the period 1974–8 has been further stimulated by the revaluation of the yen and the mark.

The differences in the export/sales of overseas subsidiary percentages are even more marked between industries. In 1974, MNEs in the aerospace, textiles and clothing and metal manufacturing⁵ industries all exported more than their foreign subsidiaries sold; though, since 1974, the proportion of exports in the first two sectors has fallen substantially. In the case of textiles and clothing, this reflects the growing competitive advantage of third world countries as producers. Japanese companies, often assisted by the Japanese Government, have been particularly active in gaining a stake in developing countries in South East Asia; US companies, in spite of opposition from several interest groups in the US, have also increasingly replaced domestic by foreign production.

In other sectors, for a variety of economic and political reasons, foreign production is the dominant way of serving foreign markets. This particularly applies in the case of resource based industries, e.g. petroleum, and in those manufacturing sectors supplying goods which are costly to transport and/or subject to tariffs or other import controls. Office equipment, pharmaceuticals, rubber products, building materials, food, drink and tobacco are examples. In most of these sectors there has been a slight increase in the export/sales of overseas subsidiary percentages since 1974. Again, Table 11 indicates some very large differences between the percentages recorded by particular industries between countries, e.g. Germany for rubber products, Netherlands for food, drink and tobacco, Sweden for paper and wood products; and data on individual companies reveal that there are many firm-specific factors which also have to be taken into account.

The next three tables, Tables 12–14 (pages xxxiv–xxxix), set out some more details on the foreign content of the Directory MNEs, the sales of foreign subsidiaries and their growth between 1974 and 1978. The final columns of Table 12 show that, in 1978, of the 430 directory firms, 216 (or almost exactly one-half) are of US origin, and they accounted for 41.9% of exports plus sales of foreign subsidiaries. Japanese firms are the next most numerous, though, because of their below average international involvement, their share of the foreign content by value in 1978 was only 0.6%. By foreign content, the UK comes second to the United States with a share of 11.0%; Germany is close behind with a share of 10.4%. Between 1974 and 1978, Japanese firms more than doubled their foreign content; French and German firms also increased theirs by more than the average. Most other European countries, the US and Canada increased their international sales by rather less than average.

Reading across the bottom line of Table 12 reveals that three industries—petroleum, chemicals and motor vehicles—each recorded a foreign content of more than \$100 billion in 1978; of the less technology intensive sector, food, drink and tobacco recorded a foreign content of more than \$80 billion. There appears to be no clear growth patterns among industrial sectors; two more technology intensive sectors, viz. aerospace and electronics and electrical equipment and motor vehicles, and one less technology intensive sector, viz. building materials, record substantially above average growth; while the below average growth sectors include paper and wood products, textiles, petroleum and chemicals.

In Table 13, we present some data on the degree of multinationality of the *Directory* firms, as measured by the proportion of their worldwide sales accounted for by their foreign subsidiaries. This has remained around the one-third mark since 1974, a very slight fall in the ratio of US and Swiss firms being more counteracted by rises in the ratios of MNEs from other countries. Japanese firms show the largest increase in degree of multinationality though, in 1978, this was still way below the average for all countries. As with the internationalization index (see Table 10) it is the firms originating from the smaller nations that seem to generate the most multinational activity, with Swiss, Belgian, Swedish and Dutch firms all recording ratios well above the average. Of the industrial sectors, firms in the petroleum, office equipment, food, drink and tobacco appear to be most dependent on their foreign subsidiaries for sales; while in the textiles and clothing, other manufacturing, metal manufacturing and aerospace sectors, the sales of overseas subsidiaries accounted for less than one-fifth of worldwide sales. Apart from aerospace firms, there appears to have been little marked change in the degree of multinationality of industries between 1974 and 1978, though the involvement of particular countries in particular industries has exhibited a less stable pattern.⁶

Table 14 is the parallel table to Table 12, but gives details of the value of sales of foreign subsidiaries of the *Directory* firms. Here the share of US firms is somewhat higher than its share of all international sales—50.3% compared with 41.9%—and also slightly higher than the US's share of foreign investment stake set out in Table 2. UK firms account for 11.5% of the total subsidiary sales; and (apart from Anglo-Dutch firms) German MNEs take third place with a share of 6.9%. The Japanese have still a long way to go to reach the foreign activities of their industrial rivals, but they recorded by far the most impressive growth in these activities between 1974 and 1978. Among the industries with an above average growth performance over this period are aerospace, motor vehicles and industrial and farm equipment building materials. Though most of the less technology intensive industries recorded less than average rates of growth, it was the petroleum sector with the second to lowest growth rate that kept the overall rate of expansion lower than it would otherwise have been and had been prior to 1974. Of all the countries and industries set out in Table 14, Japanese foreign subsidiaries in the building materials, motor vehicles and office equipment industries increased their sales the most; while Italian and UK textile subsidiaries, Belgian metal manufacturing subsidiaries and Italian chemical subsidiaries recorded the least increase.

The final two tables give some details about the industrial diversification of the 430 directory firms in 1978. Table 15 (page xi) sets out a distribution, by industrial and country of origin, of diversification ratios—as measured by the percentage of worldwide sales of the firms which is derived from other than the main industry to which the firms have been classified. Although the ratios will be influenced by the fineness of the industrial classification—in most national studies, three or four digit industrial classifications are used—some useful general pointers—particularly of a cross-country kind—can be derived from the data presented in the table.

Around an average of 22%, the diversification ratio varies from 49% in the case of MNEs in the aerospace industry to 14.4% to those in the motor vehicles and 15.8% in the petroleum sectors. Across countries, there is a remarkable similarity in the average diversification ratio, apart from the case of Belgium where it is as low as 8.3% and Switzerland where it is 8.3%. Within particular industries, the diversification ratios differ rather more. German and Japanese petroleum firms are much more diversified than their counterparts from other countries as are US rubber companies, Italian motor vehicles and textile and clothing enterprises and Swedish firms producing paper and wood products. On the other hand, Belgian petroleum companies, Swiss chemical and food firms and German motor vehicle manufacturers all record diversification ratios much less than the average. Details on individual enterprises presented at the end of the volume suggest that, besides industry and country of origin, there are many firm-specific factors, e.g. to do with size, history and recent product and marketing strategy, which are likely to account for these differences.

Table 16 (page xli) gives some details of the industries into which directory firms diversify. In all, 1,168 diversifications are recorded—an average of 2.7 for each firm. The aerospace sector appears to be the most diversified and the office equipment sector the least diversified. Firms from some main industry sectors tend to concentrate their diversified interests in one or two industries, e.g. petroleum firms in the chemicals sector, food etc. and textile and clothing firms into chemicals; but MNEs from the majority of main sectors tend to spread their interests fairly widely. Reading the data in the table vertically rather than horizontally, one has a picture of the spread of the main industry firms diversifying into a particular sector. *Inter alia*, this shows that 25 of the 37 firms with major interests in office equipment originated from the electronics and electrical appliances industry and that 14 of the 23 firms with major interests in the food, drink and tobacco industry originate from the chemicals industry. But apart from these and the rubber sectors, the origin of firms diversifying into a particular line of activity is a very mixed one. This suggests that in some industries apart from the normal economies of vertical and horizontal integration, there is a considerable degree of conglomerate diversification. Such diversification also seems especially pronounced among the very largest of companies contained within this volume.

There are no recently published data on the foreign diversifying activities of large industrial companies. It has been estimated that in 1968, 22.3% of the foreign direct investment stake of UK companies was directed to