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RECENT TRENDS IN U.S. TRADE AND INVESTMENT

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Abstract

This paper reviews some of the main recent developments in U.S. trade and overseas investment against the background of long-term trends.

The United States, and particularly the agricultural sector, has become more linked with the rest of the world. The commodity distribution of trade has moved toward being in large part an exchange of U.S. manufactured goods for other countries' manufactures even though the share of developed countries in U.S. trade has declined. The fall in the U.S. share of world trade which began around 1950 has slowed down or even stopped, as has the fall in the terms of trade of the United States and other developed countries.

The U.S. share of new direct investment outflows has fallen while that of Japan and Germany have increased, but the United States has become one of the major recipients of direct investment from other countries. U.S. firms have increasingly accepted less than 100 per cent or even majority ownership, but majority ownership is still the usual form, by a large margin, in industries in which technology is important. U.S.-owned affiliates in foreign countries, particularly those in the smaller Asian countries, have shifted their activities towards exporting. In most areas U.S. affiliates increased their exports more in recent years than did other firms in their host countries, thus increasing their share of exports from these countries.

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Trade and the U.S. Economy

U.S. Trade and Output

For much of its history the United States has been a relatively isolated economy, in the sense that its trade with the rest of the world has been small relative to total output. During most of the 19th Century and up until World War I merchandise exports were around 6 to 7 per cent of GNP. The Great Depression of the 1930's disrupted and reduced international trade, and after World War II U.S. involvement was at an even lower level--only about 4 per cent in the 1950's and 1960's (Lipsey, 1971, p. 554). Starting in 1970, the trade links began to become stronger, until by the early 1980's the ratio had doubled, with merchandise exports at about 8 per cent of GNP (Table 1).

The comparison of merchandise exports with GNP understates the U.S. links with the rest of the world since much of GNP consists of the production of services, omitted from merchandise exports, and that part of GNP has been growing steadily. Exports of goods and services are now 12-13 per cent of GNP, as compared with 6 per cent in the 1960's, and merchandise exports are close to 20 per cent of goods production alone, as compared to 8 per cent of total GNP. The trade links with the rest of the world are much stronger for U.S. goods production than for service production: exports of services are about 10 per cent of service industry output if factor incomes (mainly profits on direct investment abroad) are included in services, and only 3-1/2 per cent if factor incomes are

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TABLE 1

Relation of Merchandise Exports to Production
1960-1981

	Exports of Goods and Services as Per Cent of GNP	Exports of Merchandise as Per Cent of		Exports of Services as Per Cent of Services Production	
		GNP	Goods Production	Total	Nonfactor
1960-64	5.8	3.8	7.8	4.9	2.4
1965-69	6.0	3.8	7.9	5.2	2.6
1970-74	7.6	4.9	10.9	6.1	2.8
1975-79	10.2	6.7	15.1	7.8	3.4
1980-81	12.7	8.1	18.6	9.8	3.6

Source: Table A-1.

excluded. Furthermore, the export ratio for services has been growing much less rapidly than that for goods. Thus the rise in the share of services in GNP has tended to hold back the increase in exporting.

All of these statements about exporting apply equally or even more strongly to imports, since U.S. imports were rising more rapidly than exports. Thus the rise in exports does not represent a gain in the competitiveness of the United States in the world economy but rather an increasing degree of integration: closer ties with the rest of the world.

The rise in U.S. trade/output ratios reflects two developments. One is a very long-run trend in the world economy, discussed below. The other is the change in the relation of U.S. growth to world economic growth. At least from the 1870's through the 1930's or even the early 1950's the ratios of exports and imports to commodity output declined in the United States (Lipsey, 1971, p. 554). One reason was that the United States was growing rapidly relative to its trading partners; both its markets and sources of supply were growing comparatively slowly. Since the 1950's the reverse has been true. The United States has been growing more slowly than its major trading partners; it is therefore selling to more rapidly growing markets and buying from more rapidly growing producers.

The rise in the importance of trade in the national economy is not particularly a U.S. phenomenon. It is evident in the data for the major European countries, Canada, and Japan as well. In every case the ratios of both exports and imports to goods production rose during the 1970's, as did the ratios of trade to GNP (Table 2). However, the move towards a greater importance of trade was larger in the United States than in any of the other countries, on both the export side and the import side.

TABLE 2

Change in Ratios of Merchandise Exports and Imports to Goods Output, Seven Countries

1970 to 1980

	Ratios of Trade to Goods Production			
	Exports		Imports	
	1980/1970	1979/1970	1980/1970	1979/1970
U.S.	2.0	1.7	2.3	2.2
France	1.8		2.0	
Germany, F.R.	1.5		1.7	
Italy		1.4		1.4
U.K.	1.6		1.4	
Japan		1.3		1.5
Canada	1.2		1.4	

Source: International Economic Indicators, U.S. Department of Commerce, International Trade Administration, June 1982.

The increase in the proportion of output traded has been a characteristic of the years sinde World War II, but it is also part of a much larger and longer trend for the world as a whole. Simon Kuznets calculated that over the century from 1800 to the beginning of World War I the world ratio of trade (exports plus imports) to output rose from approximately 3 per cent to about one third (Kuznets, 1964 and 1967). This enormous growth of trade was presumably due to the great decline in the cost of transportation and communication and the improvement in its quality. World War I, the depression of the 1930's, and World War II all tended to reduce this ratio somewhat, but the upward trend has resumed since the 1950's and continued with few interruptions.

The sector of the U.S. economy perhaps shifting most strongly toward dependence on the rest of the world in recent years has been agriculture. Agriculture had always been more export-oriented than the rest of the U.S. economy, exports being 10-15 per cent of agricultural gross product even before the Civil War, when the ratio for all products was only 6 or 7 per cent. The ratio rose to over 20 per cent at the end of the 19th Century and during the 1920's. In the Great Depression of the 1930's, agricultural dependence on trade declined, but since World War II, more and more of U.S. agricultural production has gone into exports (Lipsey, 1971, p. 556). In the 1960's agricultural exports were more than a quarter of gross farm output and, by a better measure of trade dependence, agricultural exports were about 15 per cent of farm marketings (Table 3).[1]

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[1] The comparison with marketings is a better measure since both exports and marketings are measures of sales, not net of intermediate inputs, while gross farm output nets out a large amount of such inputs.

TABLE 3

Relation of Agricultural Exports to Farm Output

1960-1981

	Exports of Agricultural Products as Per Cent of	
	Receipts from Farm Marketings	Gross Farm Product
1960-64	14.8	26.6
1965-69	14.7	28.1
1970-74	17.9	33.9
1975-79	25.8	49.5
1980-81	30.5	61.4

Source: Table A-2.

By the 1980's the ratio of exports to gross farm income was over 60 per cent and the share of farm sales made abroad was over 30 per cent.

The Commodity Composition of U.S. Merchandise Trade

Large changes have been taking place in the commodity composition of U.S. merchandise trade. As the economy of the United States developed, its export trade steadily shifted toward finished manufactures, from less than ten per cent in the early 19th Century to 60 per cent in the 1960's (Lipsey, 1971, p. 568), and that proportion has remained relatively constant since then. On the import side, on the other hand, manufactures started out as the main item--more than half the total in the first half of the 1800's--and then declined in importance as U.S. manufacturing capacity grew. By the 1920's, and still in the first decade after World War II, finished manufactures were less than 20 per cent of U.S. imports. Then, beginning in the 1950's, there was a shift in the composition of imports back toward finished manufactures, their share rising to over half at the beginning of the 1970's (Table 4). After that time, of course, the enormous rise in oil prices shifted the composition of imports toward crude materials, but most of that growth was at the expense of food imports; the share of finished manufactures remains close to half. Thus with respect to the share of finished manufactures in imports, the United States has returned to its pattern of the early 19th Century, although the export distribution is very different. Instead of exchanging foods and raw materials for finished manufactures, the United States is now to a large extent exchanging finished manufactures for other finished manufactures.

Within the rising trade in manufactures, the most rapidly growing segments have been machinery, transport equipment, and instruments.

TABLE 4

Share of Finished Manufactures in Exports and Imports of Merchandise

1960-1979

	Finished Manufactures as Per Cent of Total	
	Exports	Imports
1960-64	56.1	36.6
1965-69	60.6	48.4
1970-74	61.4	55.5
1975-79	61.8	48.0

Source: Table A-3.

These rose from 35 to about 45 per cent of total exports and from 57 to about 67 per cent of manufactured exports between 1960 and 1980 (U.S. Bureau of the Census, Statistical Abstract of the United States, various issues). Within this fast-growing group the leading commodities were electronic computers, parts and accessories, telecommunications equipment, air conditioning equipment, and instruments, which more than doubled their shares of total and manufacturing exports over these 20 years.

The comparative advantage of the United States has been thought of for many years as being concentrated in machinery and transport equipment, particularly capital goods. These and automotive vehicles and parts accounted for over a third of U.S. exports in the early 1960's and over 40 per cent in the 1970's (Table 5). What has changed markedly is the position of these same two groups of commodities on the import side, growing from less than 10 per cent to almost a quarter of imports. The automobile case is best known, involving both the greatly increased share of Japanese cars in the U.S. market and the operation of the Canada-U.S. Auto Agreement, which promotes both exports and imports of automotive products. The rise in imports of capital goods is equally impressive, particularly in view of the fact that it has taken place in the presumed area of U.S. comparative advantage. There are, however, several important differences between the capital goods and automotive groups. For one thing, in the latter group the value of U.S. exports has been below that of imports since the late 1960's, while in capital goods there is still a large surplus, running at over $50 billion per year in the early 1980's. Secondly, there has been a marked slackening in the rate of growth of capital goods imports relative to that of exports of capital goods,

TABLE 5

Relation of Exports and Imports of Capital Goods and Automotive Vehicles to Total Merchandise Trade

	Per Cent of Total Merchandise Exports		Per Cent of Total Merchandise Imports	
	Capital Goods exc. Automotive	Automotive Vehicles and Parts	Capital Goods exc. Automotive	Automotive Vehicles and Parts
1960-64	28.1	6.1	4.7	3.5
1965-69	31.6	9.0	8.5	9.4
1970-74	33.3	9.9	10.3	14.3
1975-79	33.5	10.6	10.5	12.7
1980-81	34.4	8.0	12.8	11.2

Source: Table A-4.

although the import growth rate may still be a bit higher. Rapidly as imports have grown, however, the export surplus on capital goods was far larger relative to GNP in the late 1970's and early 1980's than in the 1960's (Table 6). There were wide swings in the surplus with large increases in 1974 and 1975, followed by a gradual decline, and then another large increase in 1980. The increases seemed to have roughly coincided with both the two major oil price increases and U.S. recessions. Most of the sharp changes in the surplus were in U.S. exports rather than imports.

The items contributing to the growth of both surpluses and deficits in the machinery trade account can be identified more precisely. Items on which the trade deficit increased more rapidly than the GNP, and for which we may therefore infer erosion of American comparative advantage included telecommunications equipment, even though, as mentioned earlier, it was one of the fastest-growing items of U.S. exports (Table A-6). Items producing increasing trade surpluses, relative to GNP, included office machines, because of the contribution of electronic computers and acces-ories, aircraft and parts, n.e.c., and professional, scientific, and controlling instruments. All were products for which not only exports but also imports were rising very rapidly. In all three products imports were growing more rapidly than exports for the first period calculated, 1965 to 1970, but in only one product, office machines, did the higher rate of growth persist over 15 years. Even in this case, the rate of growth of imports declined over the period, until in the last 5 years it was barely larger than that of exports. Thus it would be inadvisable to project into the future a more rapid rate of growth on one side of the trade account

TABLE 6

Export Surplus on Capital Goods except Automotive as Per Cent of GNP

1960-1981

	Per Cent
1960-64	.99
1965-69	.94
1970-74	1.11
1975-79	1.46
1980-81	1.64

Source: Table A-5.

relative to the other, particularly if the more rapid growth is associated with low initial values.

The Geographical Distribution of U.S. Merchandise Trade

There has been a major shift of merchandise exports away from developed market economies since 1965, particularly in foods and related products and in chemicals (Table 7). For total trade, the increases in exports were mainly to the OPEC countries and the centrally planned economies, but there was also an increase in the share of other developing countries. In food products, the major shift was from developed market economies especially to centrally planned economies, but there was also a substantial shift to OPEC countries. In chemicals, most of the fall in the share of developed market economies went to developing countries other than OPEC, mainly in Latin America and Asia. The decline in the developed countries' share of U.S. exports was smaller in machinery and transport equipment than in the other two groups we discuss (partly as a consequence of the Canada-U.S. Auto Agreement) and the main gain was in exports to OPEC countries. While the gains in shares of the OPEC countries were not very large in terms of percentages of total exports, because their original shares were so low, it should be mentioned that they were large relative to the original levels. There were increases in OPEC shares of exports ranging from about 50 per cent to more than double.

On the whole, it appears that U.S. merchandise exports shifted to a substantial degree away from other industrial countries and towards developing countries and the centrally planned economies. The shift to OPEC, among the

TABLE 7

Change in the Geographical Distribution of U.S. Merchandise Trade, 1965-1980

	Developed Market Economies	Developing Market Economies		Centrally Planned Economies
		OPEC	Other	
	Per Cent of Total Trade			
Total Exports				
1965	67.2	5.1	27.1	0.5
1980	59.8	8.1	28.5	3.6
1980-1965	-7.4	+3.0	+1.4	+3.1
Foods, Beverages, and Tobacco				
1965	63.7	3.3	32.0	1.0
1980	48.5	8.1	30.5	12.9
1980-1965	-15.2	+4.8	-1.5	+11.9
Chemicals				
1965	63.9	4.2	31.5	0.4
1980	51.4	6.3	40.2	2.1
1980-1965	-12.5	+2.1	+8.7	+1.7
Machinery and Transport Equipment				
1965	66.2	7.3	26.4	0.1
1980	60.1	10.6	28.2	1.1
1980-1965	-6.1	+3.3	+1.8	+1.0
Total Imports				
1965	66.8	7.6	24.8	0.7
1980	50.7	23.1	25.2	1.0
1980-1965	-16.1	+15.5	+0.4	+0.3
Foods, Beverages, and Tobacco				
1965	36.9	4.2	57.8	1.1
1980	40.7	4.5	52.8	1.9
1980-1965	+3.8	+0.3	-5.0	+0.8

(cont.)

TABLE 7 (concl.)

	Developed Market Economies	Developing Market Economies		Centrally Planned Economies
		OPEC	Other	
		Per Cent of Total Trade		
Mineral Fuels and Related Materials				
1965	19.8	55.7	24.3	0.0
1980	11.8	62.7	25.2	0.3
1980-1965	-8.0	+7.0	+0.9	+0.3
Chemicals				
1965	84.2	1.7	13.6	0.6
1980	84.6	0.7	11.5	3.2
1980-1965	+0.4	-1.0	-2.1	+2.6
Machinery and Transport Equipment				
1965	98.0	0.2	1.6	0.2
1980	87.1	0.1	12.4	0.4
1980-1965	-10.9	-0.1	+10.8	+0.2

Source: Table A-7.

developing countries, presumably was in large measure a consequence of the increase in OPEC countries' income from the rise in oil prices. The United States was able to offset about a third of the rise in its oil import bill between 1965 and 1975 directly by this increase in exports to OPEC countries. The 1979-80 jump in oil prices reduced the offset to only about 20 per cent, but that is because the expansion of U.S. exports to the oil exporting countries takes some time to develop.

As Branson (1981) has pointed out, the reallocation of U.S. resources stemming from the oil price increases and the income gains of oil producers is not confined to this direct route. Much of the income of the oil producers is channeled into international financial markets and borrowed by the rapidly growing developing countries. Part of their borrowings are then used to finance purchases of capital goods from the United States, so that some of the gain we describe in U.S. exports to non-oil developing countries may be an indirect consequence of the oil boom and an indirect way of financing U.S. oil imports.

Another way of describing the direct shift in U.S. exports is to say that in 1965 U.S. exports went 2/3 to developed countries and 1/3 to developing countries, overall and in food products, chemicals, and machinery and transport equipment. By 1980, all the developed country shares were 60 per cent or less, and for food products and chemicals, about half or less. Still, it is worth pointing out that developed countries accounted for half or more of increases in exports overall and in the two groups other than foods. The developed countries, despite the major geographical shifts in trade, remain the main markets for U.S. exports.

On the import side the geographical shifts have been larger. The most notable in the aggregate are the rise in the OPEC countries' share of U.S. imports and the corresponding decline in the proportion coming from developed countries, both much greater than the reorientation on the export side. While part of this shift was a rise in the OPEC share within the fuels category, a large part in addition reflected the great increase in the importance of the fuels category resulting from the OPEC price increases.

Within the broad categories shown here, the major change, outside of that in fuels, and perhaps the most important for the future, was in U.S. imports of machinery and transport equipment. There was a decline in the developed countries' share, which had been almost 100 per cent, and a rise in that of the non-OPEC developing countries--mainly Asian. In 1965 they accounted for less than 2 per cent of U.S. imports of machinery and equipment and by 1980 their share had risen to 12 per cent.

The shift in aggregate imports can be summarized by saying that in 1965 two-thirds of U.S. imports came from developed countries, a quarter from non-OPEC developing countries, and less than a tenth from OPEC. By 1980, the developed country share had fallen to one-half, about equal to that of all developing countries. The latter share was almost evenly split between OPEC and non-OPEC countries. The non-OPEC developing country share changed little, although its commodity composition was altered.

The U.S. Role in World Merchandise Trade

The United States has accounted for a declining share of world merchandise trade for some years, but that is a comparatively recent phenomenon. The share of the United States approximately doubled during the 19th Century and again during the first half of the 20th Century. Until the 1880's most of the U.S. gains were at the expense of the largely agricultural exporters of Eastern and Southern Europe. For the next 70 years or so they were largely at the expense of the countries of industrial Europe, which bore the heaviest burden of two devastating World Wars. The difference between the two periods reflects the change in the character of the United States from a largely agricultural exporter in the 19th Century to a heavily industrialized country in the 20th Century.

Since the 1950's the U.S. share in world trade has fallen steadily. To some extent this has reflected the recovery from World War II of the economies of Western Europe and Japan. However, the 1950's were a turning point in a broader sense, being the end of a period of 150 years in which U.S. population and income were growing relative to the rest of the world. Since then, the U.S. shares of world population and income have fallen. Thus the norm against which to measure changes in the U.S. share of trade should probably be something other than a constant share. For example, the U.S. share of world population fell by 16 per cent between 1950 and 1980 and the U.S. share of world industrial production and industrial production in manufacturing fell by 22 per cent between 1960 and 1980 (UN Statistical Yearbook and Monthly Bulletin of Statistics, various issues). Most of the declines in the U.S. share of output came before 1975. Whatever the reasons for these declines in population and production growth rates, they presumably reflect causes outside the trade area.

The U.S. share in world merchandise exports declined almost continuously from 1950 through the end of the 1970's (Table 8). Between 1960 and 1979 that share fell by a third, considerably more than the decline in the U.S. share of world income or population, and the loss in U.S. shares seemed to accelerate during the 1970's instead of slowing down. Among the major areas of U.S. comparative advantage, there was an increase of the U.S. share in exports of foods, beverages, and tobacco in the 1970's but large declines in shares in chemicals and machinery and transport equipment. The pattern of changes in U.S. shares of developed market economy exports was similar, with one exception: in the early 1970's the U.S. share of world exports fell much more rapidly than its share of developed-country exports. The reason for the difference is in the developed market economy share of world exports. Despite the rapid growth of some developing countries, the share of developed market economies in world exports steadily increased through the early 1970's. Then, in 1973 and 1974 the enormous rise in the price of oil, largely a developing country export, sharply increased the share of these countries in world exports, reducing the shares of the United States and other developed countries. After 1974 the developed country share crept up again until the second large oil price increase in 1979 again reversed the trend, at least temporarily.

1979 and 1980 showed some reversal of the long decline in U.S. shares of developed country merchandise exports. That reversal was observable in each of the three groups shown here as well as in the total. To judge by the U.S. share in exports of developed market economies, the U.S. share in world exports may have stopped declining in 1977 and may even have risen a bit since then, despite the rise in oil prices in 1979-80.

TABLE 8

Shares in World and Developed Market Economy Merchandise Exports 1950-1980

	Total Merchandise Trade a/	Total Merchandise Trade b/	Foods Beverages, and Tobacco	Chemicals	Machinery and Transportation Equipment
U.S. Exports as Per Cent of World Exports					
1950		18.3			
1955		16.5			
1960		16.0			
1965		14.5			
1966		14.8			
1970	15.4	13.7	12.3	17.5	19.9
1975	13.6	12.2	16.1	14.3	18.7
1976	12.8				
1977	11.8				
1978	12.1	10.9	14.0	14.5	15.9
1979	12.1				
1980	12.0				
1981	13.0				
U.S. Exports as Per Cent of Developed Market Economy Exports					
1955		25.5			
1960		23.9			
1965		21.1	26.1	22.6	25.5
1970		19.0	20.8	19.7	22.7
1975		18.4	25.5	16.4	21.5
1978		16.1	22.8	16.0	18.4
1980		16.9	23.3	17.7	19.6
Developed Market Economy Exports as Per Cent of World Exports					
1955		64.7			
1960		66.8			
1965		68.7			
1966		69.9	58.2	88.5	86.8
1970		71.9	59.0	88.9	87.6
1975		66.1	63.2	87.4	87.0
1978		67.6	61.4	90.7	86.5
1979		65.9			

[a] Per cent of merchandise exports of market economies.

[b] Per cent of world merchandise exports.

Source: Table A-8 and International Economic Indicators, June 1982, U.S. Department of Commerce, International Trade Administration.

However, it is not yet clear how much of the U.S. increase is the result of cyclical factors.

The Terms of Trade

The developed countries in general, and the United States as a part of that group, have in the last decade suffered sharp declines in their terms of trade. This is particularly true for the terms of trade for their exports of manufactures to developing countries relative to their imports from those countries. Our best estimate of this decline, which includes some correction for improvements in the quality of capital goods, is something like 50 per cent between the 1960's and the late 1970's (Table 9). Much of this decline stems from the rise in the price of oil, of course, but even if oil is omitted from primary products one finds a large fall--perhaps about 25 per cent. Thus there was an important rise in the relative prices of primary products compared with manufactured goods.

A longer view of the terms of trade shows little net change over the whole span of years from the 1870's or 1890's to the early 1950's before the recent fall. However, the real lesson of the long perspective is that there is no clear trend. Instead, there are large fluctuations that eventually reverse themselves. Thus we would not expect a continuation of the deteriorating terms of trade for developed countries of the last two decades. In fact, the last few years have been more favorable, in this sense, to the developed countries.

TABLE 9

Terms of Trade Between Manufactures Exports of Developed Countries to Developing Countries and Primary Products

1963=100

<table>
<tr><th></th><th colspan="2">Index of Terms of Trade</th></tr>
<tr><th></th><th>a/</th><th>b/</th></tr>
<tr><td>1872</td><td>91</td><td></td></tr>
<tr><td>1899-1900</td><td>86</td><td>93</td></tr>
<tr><td>1913</td><td>68</td><td>87</td></tr>
<tr><td>1928-29</td><td>70</td><td>86</td></tr>
<tr><td>1937-38</td><td>113</td><td>117</td></tr>
<tr><td>1950</td><td colspan="2">87</td></tr>
<tr><td>1953</td><td colspan="2">91</td></tr>
<tr><td>1963</td><td colspan="2">100</td></tr>
<tr><td>1967</td><td colspan="2">103</td></tr>
<tr><td>1973</td><td colspan="2">70</td></tr>
<tr><td>1977</td><td colspan="2">48</td></tr>
</table>

[a] Based on manufactures and primary products price indexes from Kindleberger.

[b] Based on manufactures price index from Maizels and primary products price index from Kindleberger.

Source: Kravis and Lipsey (1981).

U.S. Direct Investment Abroad

Sources and Direction of Investment

The chief vehicle for the transmission of new products and new technologies in the 19th century and earlier were migration and trade. The fact that Great Britain attempted to restrict the emigration of skilled textile workers showed that the notion of technological leads and their value in giving a country advantages in trading with others is a very old one. The establishment of many American industries in the 19th century was associated with the immigration of particular nationalities. For example, Germans founded most American breweries, and the names of the companies today still show their origin.

With the growth of large enterprises, and especially large manufacturing enterprises, at the end of the 19th and the beginning of the 20th century, a new form of technology transfer came into existence. That was direct investment: the ownership of a factory or a sales or service establishment in one country by a company from another country. There had been international banking partnerships earlier, and companies formed in one country for the exploitation of mines or other resources abroad, but direct investment in foreign manufacturing came to be the characteristically American form of foreign investment. Two of the earliest American investors, carrying American inventions abroad, were the Singer Sewing Machine Company and the International Harvester Company.

American direct investment expanded rapidly after World War II and particularly in the 1960's but the flow showed somewhat in the 1970's, not in nominal terms, but in real terms, using any reasonable deflator.[2]

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[2] These general descriptions of recent developments in direct investment are drawn mainly from OECD (1981) and Christelow (1982).

Almost all direct investment--close to 95 per cent--comes from the developed industrial countries. The two major sources, the U.S. and the U.K., accounted for about 70 per cent of the stock of all direct investment in 1967 but less than 60 per cent in 1976, with Germany, Japan, and to a smaller extent, Switzerland, replacing them (Table 10). Changes in the sources of direct investment flows have been more startling: the United States down from 61 per cent in 1961-67 to 29 per cent in 1974-79, and Germany and Japan up from 14 per cent to 40 per cent.[3] On the other hand, the United States became a major destination of direct investment from other countries during the same period. Of direct investment flows to developed countries, the United States received only 3 per cent in 1961-67 and 27 per cent in 1974-78. At the same time, some traditionally heavy recipients of direct investment had their shares reduced sharply. Canada and Australia, for example, received 32 per cent of the flow to developed countries in 1961-67 and only 13 per cent in the later period.

To some extent the shift in direct investment flows probably reflected changes in currency values. The overvaluation of the dollar in the 1960's added to the incentives for the export of funds while the possible undervaluation of the dollar in the 1970's was an attraction for investment. The relatively high valuation of U.S. equities during 1961-67 ($1.15 per dollar of market value of net worth) and the much lower valuation in the

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3 Since these figures omit retained earnings they exaggerate the decline in supply of U.S.-owned equity funds.

TABLE 10

Shares of Developed Country Direct Investment Stocks and Flows

	U.S.	U.K.	Germany	Japan	Switzerland	Canada	Australia
Share in Stock of Direct Investment Owned by Developed Countries							
1967	53.8	16.6	2.8	1.4	4.8	3.5	NA
1971	52.3	15.0	4.6	2.8	6.0	4.1	NA
1976	47.6	11.2	6.9	6.7	6.5	3.9	NA
Share in Outflow of Direct Investment from Developed Countries							
1961-67	61.1	8.7	7.2	2.4	NA	2.3	0.7
1968-73	45.8	9.1	12.5	6.7	NA	4.5	1.4
1974-79	29.3	9.2	17.0	13.0	NA	6.2	1.6[a]
Share in Inflow of Direct Investment to Developed Countries							
1961-67	2.6	9.7	21.3	8.2	NA	16.2	15.6
1968-73	11.4	7.4	16.4	8.2	NA	12.1	12.9
1974-79	26.7	6.1	14.7	15.2	NA	3.2	9.5[a]

[a] 1974-76.

Source: OECD, 1981.

last period ($.52 per dollar of market value of net worth)[4] may also have had some influence on the direction of these flows.

Aside from these very large shifts in resource flows among developed countries there was also a modest gain in the share of developing countries, from 30 per cent in 1965-69 to 33 per cent in 1975-79. However, the newly industrializing countries, or NIC's (Brazil, Greece, Israel, Hong Kong, Korea, Singapore, Spain, and Taiwan), increased their share of direct investment) inflows from 10 to 15½ per cent, partly at the expense of OPEC and other developing countries.

Bearing in mind the minor role of developing countries in U.S. direct investment in general it is of interest to mention one other trend. U.S. parent companies have always been reluctant to share ownership in affiliates, despite the pressure in this direction from host country governments. Of the multinationals' affiliates surveyed in the Harvard program that were established before 1951, 58 per cent of the U.S.-owned affiliates, 39 per cent of European affiliates, and 27 per cent of affiliates of firms in other countries were wholly-owned.[5] All these proportions had decreased by the late 1960's, to 46, 19, and 6 per cent, but the preference of U.S. firms for 100 per cent ownership remains clear.

While there has been some shift by U.S. parents towards sharing of ownership most of U.S.-owned production abroad is in majority-owned affiliates: about 3/4 in developed countries and 85 per cent in developing countries (Table 11). The ratio for the latter group, however,

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4 Cagan and Lipsey (1978), Table 2-3.

5 OECD (1981), p. 50.

TABLE 11

Sales by Majority-Owned Affiliates as Per Cent of Sales by All Affiliates 1977

	Developed Countries	Developing Countries
Total Manufacturing	80.5	71.0
Drugs	93.8	86.0
Office and computing machines	94.7	97.5
Radio, TV, and communications equipment	94.1	77.6
Electronic components and accessories	80.5	95.3
Instruments and related products	89.2	76.8
Food and kindred products	85.5	83.0
Soaps, cleansers, etc.	96.6	88.6

Source: U.S. Department of Commerce (1981).

reflects mainly the high proportion of production by majority-owned firms in the petroleum industry in developing countries and the great importance of petroleum--well over half of total affiliate sales--in these countries. Within manufacturing the relation is reversed; 80 per cent of affiliate sales in developed countries and only 70 per cent in developing countries are by majority-owned affiliates. Thus the efforts by developing countries to gain substantial shares in the equity of foreign-owned affiliates seem to have had some success.

One would expect that the more technologically oriented an industry was or the more that it relied on proprietary information, the smaller the willingness of the parent company to share information and the greater the insistence on control or total ownership. It is thus not surprising that in the more technologically-oriented industries the shares of sales by majority-owned affiliates are higher than average. The two industries relying heavily on advertising, foods and soaps and cleansers, also tend to be dominated by majority-owned affiliates.

We have to modify our earlier statement, then, about the success in forcing host-country partnership: it tends not to succeed very well in technologically-oriented industries. A corollary is that if it does succeed, it may only be at the cost of reducing investment.

U.S.-Owned Affiliates and Host-Country Exports

The effects of direct investment on trade, particularly those of direct investment in manufacturing, are usually analyzed in terms that suggest that it is a substitute for exports from the home country. That may be because capital movements in general, whether direct or portfolio, are thought of as substitutes for trade, along the lines of the Mundell (1957) analysis. Or it may be because, as in the more recent analyses specifically of direct investment, such investment is thought of as involving a decision by the parent company as to whether to serve an essentially fixed host-country market by exporting from the home country or by host-country production.[6] However, the empirical examinations of the relation of home-country exports to direct investment have almost all searched in vain for any evidence of such substitution.[7]

Another side of the concern with trade effects of direct investment has been the fear among host countries that foreign-controlled subsidiaries are prevented by their parent companies from competing with them outside the host-country market, and that foreign ownership therefore impedes the development of export industries. That issue has been discussed and studied extensively in Canada in particular[8] although the advantage of such a policy to a parent maximizing its worldwide income is not obvious. On the other hand, countries welcoming direct investment from abroad often look on it as an aid to establishing or increasing exports because the foreign owners bring previously unavailable technology, established marketing facilities, or entree to the parents' home markets. In the United States, at present, one of the chief concerns of trade policymakers is that host countries are squeezing U.S. exports out of third-country markets by forcing U.S.-owned affiliates to export as the price for host-country permission to invest or to take over existing firms. Again, Canada is a par-

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[6] For example, Bergsten, Horst, and Moran (1978), Swedenborg (1979), and U.S. Tariff Commission (1973).

[7] In addition to the studies in footnote 1, see Lipsey and Weiss (1981).

[8] An early example is the study by Safarian (1966).

ticular focus of this concern although export requirements are increasingly applied in developing countries.

Production for Export and for Local Sale

U.S.-owned manufacturing affiliates have always had as their main markets the host countries within which they operate. In 1966, over 80 per cent of sales were within the host countries, and the proportion of local sales was over 90 per cent for affiliates in developing countries.

U.S.-Owned Manufacturing Affiliates
Local sales as % of total sales

1957	84
1966	81
1977	69

Although U.S. foreign production is heavily concentrated in developed countries (about 85 per cent of sales in both 1966 and 1977) the number of manufacturing affiliates in developing countries was almost 30 per cent of the total in 1966. Thus, the proportion of affiliates engaged almost entirely in host-country sales must have been very large.

Although host-country sales remained the predominant business of manufacturing affiliates in 1977, there had clearly been a major shift in their activity. The share of exports in total sales rose from 16 per cent in 1957 to 19 per cent in 1966 and to 31 per cent in 1977, and this shift took place in both developed and developing countries (Table 12). Among the developing countries the overall rise in the export ratio was very large: from 8 to 18 per cent (Table 12). There was a very large increase in the export ratio for the group of countries called "Other Asia and Pacific, except India, Indonesia and the Philippines," principally Hong Kong, Singapore, Malaysia, Taiwan, and South Korea, as well as a rise in the importance of that group among the developing countries. Affiliates in these countries had been comparatively export-oriented even in 1957 and 1966 (42 per cent of

TABLE 12

U.S. Majority-Owned Manufacturing Affiliates[a]
Relations Among Sales, Exports, and Exports to the U.S.
1957, 1966, and 1977

	Exports as Per Cent of Total Sales			Exports to the U.S. as Per Cent of Total Sales			Exports to the U.S. as Per Cent of Total Exports		
	1957	1966	1977	1957	1966	1977	1957	1966	1977
All Countries	15.9	18.6	30.8	6.0	5.6	9.1	37.5	30.4	29.4
Developing countries	17.7	20.4	33.1	6.6	6.1	9.1	36.9	29.9	27.3
Canada	16.0	16.1	29.9	10.5	13.2	26.1	65.7	81.7	87.2
Europe	21.6	25.8	37.7	3.0	2.1	2.3	13.9	8.3	6.1
Developing countries	5.3	8.4	18.1	2.6	3.2	9.1	49.0	37.9	50.2
Latin America	4.2	6.2	9.7	1.7	2.2	3.6	40.2	35.6	37.3
Other Asia[b]	20.7	23.2	>55.2	6.3	9.8	33.5	30.2	42.5	60.8
Other Asia, n.e.c.	18.2[c]	42.3[d]	>73.3[d]	11.4[c]	<25.9[d]	>47.1[d]	62.5[c]	<25.9[d]	64.3[d]

[a]Except 25 per cent-owned and over in 1957.
[b]Excluding Japan and Middle East.
[c]Excluding India and the Philippines.
[d]Excluding India, Indonesia, and the Philippines.

Source: U.S. Department of Commerce (1960), (1975), and (1981).

sales) and by 1977, almost three quarters of their sales were for export.

For U.S. affiliates in developed countries, exports to the United States were only about 30 per cent of total exports in both 1966 and 1977, and even in the later year remained less than 10 per cent of their sales. Only for affiliates in Canada was the U.S. market of major importance (a quarter of sales) and this high ratio was partly attributable to the trade in automobiles and parts resulting from the U.S.-Canadian auto agreement. U.S. affiliates in developing countries did shift their exports to the United States to some degree (38 to 50 per cent of exports) but the U.S. market still accounted for less than 10 per cent of sales in 1977. Even that was a large rise from 1957. The chief exceptions once again were the small Asian countries, for whom exports to the U.S. reached well over half of exports in 1977 and probably about 50 per cent of their total sales, four or five times the 1957 share.

In general, then, exporting to the United States has been a relatively minor activity of U.S. manufacturing affiliates in foreign countries for the last twenty years. The major exceptions to this generalization are the affiliates in the small Asian countries, for which the United States is a major market, accounting for roughly half of their sales, and those in Canada. The chief trends in affiliate activity over the twenty years have been the rise in export orientation of affiliates in most parts of the world, but particularly in the small Southeast Asian countries, the shift away from exporting to the United States by European affiliates, and the shift towards the United States as a market by those in Canada and in Asian developing countries.

To some extent, the differences between affiliates in developed countries and those in developing areas may have reflected the industry composition of activities in the two types of host countries. Affiliates in developed countries were more heavily involved with sales of machinery and transportation equipment and those in developing countries with sales of food products and chemicals (Table 13). However, there was considerable convergence in the industry composition of the two groups of countries: in particular from the large fall in importance of food products and rise in machinery sales among affiliates in the developing countries.

In data for the major investing industries we find several common characteristics and developments. Affiliates in all industries worldwide became more export-orient ed, and the same was true for affiliates in the great majority of regions, including those in Europe for all the industries. However, even in the most export-oriented industries, the affiliates in the aggregate sold mainly in their own countries--the great bulk of U.S.-owned foreign production was still for local sale in 1977. The exceptions were machinery in Southeast Asia and in some of the smaller European countries, as well as motor vehicles in Canada.

Exports to the United States were a small part of total sales in almost all industries and regions: the exceptions were affiliates in Canada in two industries and machinery producing affiliates in the developing countries of Asia. In other words exporting to the United States was not a major reason for the establishment or development of U.S. production abroad in most cases.

The Role of U.S. Affiliates in Exports

The rapid growth in exports of manufactured goods by foreign affiliates of U.S. companies reflects, to some extent, the growth of the economies in which they are located and the worldwide rise in trade relative to output. To try to learn what role the U.S. affiliates played in the trade of their

TABLE 13

Industry Distribution of Sales of U.S. Majority-Owned Manufacturing Affiliates 1966 and 1977

	Total Sales			Per Cent Distribution		
	1957	1966	1977	1957	1966	1977
All Countries						
Total Manufacturing	18,331	47,375	194,200	100.0	100.0	100.0
Food products	2,487	5,644	21,756	13.6	11.9	11.2
Chemicals	2,411	7,421	32,396	13.2	15.7	16.7
Primary and fabricated metals	1,548	3,904	11,560	8.4	8.2	6.0
Machinery	3,950	10,902	47,059	21.5	23.0	24.2
Transportation equipment	4,228	11,156	48,685	23.1	23.5	25.1
Other	3,707	8,348	32,744	20.1	17.6	16.9
Developed Countries						
Total Manufacturing	15,617	40,486	163,922	100.0	100.0	100.0
Food products	1,811	4,169	17,148	11.6	10.3	10.5
Chemicals	1,835	5,897	25,930	11.8	14.6	15.8
Primary and fabricated metals	1,399	3,407	9,893	9.0	8.4	6.0
Machinery	3,660	10,009	40,450	23.4	24.7	24.7
Transportation equipment	3,685	10,112	43,205	23.6	25.0	26.4
Other	3,227	6,892	27,296	20.7	17.0	16.7
Developing Countries						
Total Manufacturing	2,714	6,889	30,278	100.0	100.0	100.0
Food products	676	1,475	4,607	24.9	21.4	15.2
Chemicals	576	1,523	6,466	21.2	22.1	21.4
Primary and fabricated metals	149	498	1,667	5.5	7.2	5.5
Machinery	290	892	6,612	10.7	12.9	21.8
Transportation equipment	543	1,044	5,461	20.0	15.2	18.0
Other	480	1,457	5,465	17.7	21.1	18.0

Source: U.S. Department of Commerce (1960), (1975), and (1981).

host countries we compare their exports and export growth with those of their countries.

U.S. manufacturing affiliates accounted for about 10 per cent of exports of manufactures by "market economies," which we shall henceforth refer to as world exports, in 1977 (Table 14). The move towards greater export orientation, referred to earlier, is reflected here in the fact that exports by U.S. affiliates grew faster than host-country exports in every one of the regions in Table 14 or, in other words, that the share of affiliates in exports increased in each one. A somewhat surprising aspect of the table is that U.S. affiliates were considerably more important in the exports of developed countries, even aside from Canada, where they accounted for a majority of exports, than in the developing countries. U.S. affiliates had the largest share of exports in Singapore -- over a fifth -- and possibly in a couple of other Southeast Asian countries, although in those cases we may have failed to adjust the SITC export data sufficiently. The U.S. shares were also large -- 15 per cent or so, in the U.K., Belgium, the Netherlands, Brazil, and Mexico, and even larger in Ireland.

In no area, aside from Canada, were U.S. affiliates responsible for a large part of the growth in exports, the shares in growth being 10 per cent or less. In individual countries, however, the ratio reached the range of 15-20 per cent and even higher in Indonesia and the Philippines. In many, but not all cases, the major export success stories were also associated with relatively high shares of U.S. firms in both exports and export growth. This was the case, for example, for Belgium-Luxembourg, the Netherlands, Ireland, Spain, Brazil, and Mexico. Several of

TABLE 14

All Manufacturing Industries
Relation of Exports by U.S. Majority-Owned Affiliates to Total Host-Country Exports
1966 and 1977

	Exports: 1977/1966		Exports by U.S. Affiliates as % of Total Exports			Change in Exports: U.S. Affiliates as % of Total 1966 to 1977[b]
	U.S. Affiliates	All Firms[a]	Comparable Data 1966[b]	Comparable Data 1977[b]	Corrected Data 1977	
All Countries	6.8	5.7	8.0	9.5	9.9	9.9
Developed countries	6.6	5.6	8.8	10.3	10.3	10.6
Canada	5.9	4.6	45.2	57.6	57.6	61.0
Europe	7.0	5.4	7.4	9.6	9.7	10.1
Developing countries	9.5	6.0	3.5	5.5	7.2	6.0
Latin America	6.5	5.1	5.6	7.2	10.4	7.6
Other Asia[c]	13.1-14.9	9.2	3.9	5.5-6.3	6.3-7.2	5.7-6.6

[a]Not fully adjusted to coverage of affiliate data.
[b]Denominator not fully adjusted to coverage of affiliate data.
[c]Excluding Japan and Middle East.

Source: U.S. Department of Commerce (1975) and (1981) and United Nations, Yearbook of International Trade Statistics.

these, it may be recalled, were also the countries in which U.S. affiliates were particularly export-oriented.

The exporting of machinery, the most important industry group for U.S. direct investment abroad, has traditionally been the preserve of producers in developed countries. Between 1966 and 1977, however, there was an enormous increase in exports by developing countries--to perhaps about thirty times the earlier level (Table 15). The exports of U.S. affiliates reflected these trends, those from developed countries rising to a little under six times the earlier level while those from developing countries reached almost 60 times the 1966 level. Another way of describing the change is that the share of exports by U.S. firms (other than from the U.S.) supplied from developing countries rose from less than 2 per cent to about 17 per cent.

Another contrast between the developed and developing countries in machinery exports was that while U.S. affiliates' exports from developing countries increased about twice as fast as exports in general, those in developed countries rose a little less quickly than exports of the industry as a whole (Table 15). However, in the European countries, affiliate exports rose faster than those of the average firm; what brought down the share of affiliates for developed countries in the aggregate was mainly the large growth of Japanese machinery exports, in which U.S. firms played a very small role. U.S. affiliates accounted for a little over 10 per cent of the increase in developed country exports but for almost a third of the rise in developing countries, and around half or more for such countries as Mexico, Malaysia, and Singapore.

TABLE 15

Machinery
Relation of Exports by U.S. Majority-Owned Manufacturing Affiliates to Total Host-Country Exports
1966 and 1977

	Exports: 1977/1966		Exports by U.S. Affiliates as % of Total Exports			Change in Exports: U.S. Affiliates as % of Total
	U.S. Affil-iates	All Firms[a]	Comparable Data 1966[b]	Comparable Data 1977[b]	Corrected Data 1977	1977
All Countries	5.9	NA	NA	12.7	NA	NA
Developed countries	5.7	6.1[d]	12.5	11.8	11.3	11.6[d]
Canada	4.1	4.2	3.6	35.2	35.2	34.9
Europe	6.0	5.5[d]	12.4	13.5	12.6	13.7[d]
Developing countries	57.1	<29.9	<16.3	31.1	NA	31.7
Latin America	34.8	NA	NA	40.7	NA	NA
Other Asia[c]	61.1-65.4	<29.0	<13.6	28.6-30.6	NA	29.2-31.2

[a]Not fully adjusted to coverage of affiliate data.
[b]Denominator not fully adjusted to coverage of affiliate data.
[c]Excluding Japan and Middle East.
[d]Incomplete data for host-country exports.

Source: U.S. Department of Commerce (1975) and (1981) and United Nations, Yearbook of International Trade Statistics.

Summary

The main recent developments we find in U.S. trade and investment are the following:

1. There has been a steady increase in the strength of the links, via trade, between the U.S. economy and that of the rest of the world, much more in goods than in services. U.S. agriculture, in particular, has increased its dependence on world markets.
2. The pattern of U.S. trade has shifted toward the exchange of U.S. finished manufactures for foreign finished manufactures. While imports of machinery and transport equipment have grown more rapidly than exports, the United States has retained its comparative advantage in non-automotive capital goods. That is, the export surplus on these products has continued to increase relative to total U.S. output.
3. The geographical composition of U.S. exports has shifted away from developed market economies toward OPEC, the centrally planned economies, and, to a smaller extent, other developing countries. However, the developed countries remain the main markets for U.S. exports.

   The shift toward OPEC countries was stronger on the import side, as a result of both the rise in importance of fuels and the rise of the OPEC countries within that category. Another shift, perhaps more important for the future, was the rise of developing Asian countries as suppliers of machinery and equipment.
4. The U.S. share of world trade has continued to fall, even more than the U.S. shares of population and aggregate production, but recent years have shown a slowing, or even a reversal, of this trend. There

has been a persistent tendency for the share of developed countries in world exports to rise, the increase interrupted for a time but not stopped by the oil price rises.

5. The terms of trade have shifted against manufactured exports of developed countries in the last two decades. Even primary products other than petroleum have risen in relative price. However, the cycle seems to have turned again in the last few years in favor of manufactured goods prices. If that continues it will represent one more example of the lack of any long-term trend in the relation between manufactured and primary product prices.

6. There has been a large shift in the sources of new direct investment flows, excluding reinvested earnings, from the United States to Germany and Japan. At the same time the United States has become an important recipient of direct investment from abroad while traditional absorbers of direct investment, such as Canada and Australia, have declined in importance. The rising share of the United States probably reflects the low price of the dollar during much of the 1970's and the low stock market valuation of U.S. equities.

   U.S. firms, under pressure from host countries, have accepted more sharing of ownership. However, most of U.S. manufacturing activity still takes place in majority-owned affiliates, especially in industries with a large technology element in their activities.

7. Foreign manufacturing affiliates of U.S. firms are still basically concerned mainly with selling in their host countries. However, they have shifted substantially in the direction of exporting. The United States has never been an important market for most U.S.-owned affiliates

abroad, with the exception of those in Canada and in the small Asian countries, and the latter have not only become more export-oriented but have also shifted towards the United States as a market.

8. The shift toward an export orientation of U.S. affiliates was reflected in a rise in their shares of host-country exports in most areas of the world. In the machinery industries the export increases were more rapid in the developing countries and their share of all exports by foreign affiliates of U.S. firms rose steeply. In these countries, and in Europe as well, exports of machinery by U.S.-owned affiliates increased more rapidly than those of other companies.

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TABLE A-1

U.S. Merchandise Exports, Imports and GNP
1960-1981

	Exports ($ million)				Imports ($ million)				GNP ($ billion)		
			Services				Services				
	Goods and Services	Merchan-dise	Total	Non-factor	Goods and Services	Merchan-dise	Total	Non factor	Total	Goods	Services
1960	28,861	19,650	9,211	4,436	23,397	14,758	8,639	7,433	506.5	254.2	193.8
1961	29,936	20,108	9,828	4,663	23,313	14,537	8,776	7,512	524.6	257.4	207.0
1962	31,804	20,781	11,023	5,231	25,439	16,260	9,179	7,941	565.0	278.5	222.0
1963	34,214	22,272	11,942	5,607	26,646	17,048	9,598	8,212	596.7	290.3	237.1
1964	38,825	25,501	13,324	6,314	28,769	18,700	10,069	8,512	637.7	309.8	255.0
1965	41,086	26,461	14,625	6,993	32,312	21,510	10,802	9,030	691.1	338.4	273.3
1966	44,560	29,310	15,250	7,519	38,050	25,493	12,557	10,467	756.0	375.0	299.0
1967	47,310	30,662	16,648	8,415	41,001	26,859	14,142	11,837	799.6	389.4	326.5
1968	52,355	33,618	18,737	9,146	48,098	32,991	15,107	12,250	873.4	421.3	358.2
1969	57,519	36,411	21,108	9,959	53,349	35,804	17,545	13,271	944.0	450.2	391.9
1970	65,670	42,465	23,205	11,307	59,013	39,853	19,160	14,471	992.7	459.9	429.9
1971	68,813	43,294	25,519	12,544	64,710	45,564	19,146	15,334	1,077.6	485.3	472.0
1972	77,467	49,353	28,114	13,069	76,728	55,774	20,954	16,810	1,185.9	529.6	519.0
1973	109,593	71,360	38,233	16,130	95,383	70,499	24,884	18,791	1,326.4	604.1	571.5
1974	146,195	98,217	47,978	20,062	132,807	103,361	29,446	21,309	1,434.2	646.7	636.1
1975	154,930	106,629	48,301	22,593	128,148	97,895	30,253	21,859	1,549.2	694.0	705.2
1976	170,876	114,391	56,485	26,814	157,096	123,419	33,677	24,486	1,718.0	771.1	779.3
1977	182,744	119,723	63,021	30,440	186,730	150,173	36,557	27,440	1,918.3	855.0	867.2
1978	218,718	140,891	77,827	34,784	219,834	174,485	45,349	31,909	2,163.9	958.6	972.2
1979	281,358	179,180	102,178	37,359	268,145	209,427	58,718	36,471	2,417.8	1,065.6	1,089.7
1980	339,219	220,061	119,158	43,961	314,025	243,988	70,037	40,913	2,633.1	1,141.9	1,225.5
1981	367,332	231,856	135,476	49,386	341,272	260,144	81,128	44,218	2,937.7	1,289.2	1,364.3

Source: U.S. National Income and Product Accounts.

TABLE A-2

U.S. Agricultural Exports, Farm Marketings, and Gross Farm Product 1960-1981

	Exports of Agricultural Products	Receipts from Farm Marketings etc.	Gross Farm Product	Exports of Agricultural Products as Per Cent of: Receipts from Farm Marketings	Gross Farm Product
	($ million)				
1960	4,800	34,337	20,178	14.0	23.8
1961	5,000	35,228	20,180	14.1	24.8
1962	5,000	36,349	20,405	13.8	24.5
1963	5,600	37,315	20,467	15.0	27.4
1964	6,300	37,099	19,260	17.0	32.7
1965	6,200	39,386	21,892	15.7	28.3
1966	6,900	43,512	22,824	15.9	30.2
1967	6,453	42,739	22,064	15.1	29.2
1968	6,297	44,203	22,552	14.2	27.9
1969	6,095	48,141	25,052	12.7	25.1
1970	7,374	50,436	25,774	14.6	28.6
1971	7,831	52,975	27,589	14.8	28.4
1972	9,513	61,441	31,907	15.5	29.8
1973	17,978	87,226	49,885	20.6	36.0
1974	22,412	92,676	47,738	24.2	46.9
1975	22,242	88,067	48,860	25.3	45.5
1976	23,381	94,463	45,905	24.8	50.9
1977	24,331	96,035	48,405	25.3	50.3
1978	29,902	112,494	58,743	26.6	50.9
1979	35,594	131,655	71,578	27.0	49.7
1980	42,156	139,521	65,365	30.2	64.5
1981	44,264	143,508	75,790	30.8	58.4

Source: U.S. National Income and Product Accounts.

TABLE A-3

U.S. Exports and Imports: Total and Finished Manufactures
1960-1979

	Exports			Imports		
	Total	Finished Manufactures	Finished Manufactures as Per Cent of Total	Total	Finished Manufactures	Finished Manufactures as Per Cent of Total
	- - ($ million) - -			- - ($ million) - -		
1960	19,459	10,574	54.3	15,068	5,276	35.0
1961	19,981	11,102	55.6	14,703	5,094	34.6
1962	20,717	12,065	58.3	16,326	5,995	36.7
1963	22,183	12,488	56.3	17,068	6,393	37.5
1964	25,479	14,265	56.0	18,749	7,377	39.3
1965	26,399	15,220	57.7	21,427	8,876	41.4
1966	29,054	16,763	57.7	25,618	11,710	45.7
1967	30,646	18,673	60.9	26,889	13,091	48.7
1968	33,626	21,036	62.6	33,226	16,897	50.9
1969	36,788	23,671	64.3	36,043	19,967	55.4
1970	42,029	26,001	61.9	39,963	22,463	56.2
1971	42,949	27,934	65.0	45,637	26,403	57.9
1972	48,436	30,929	63.9	55,561	32,752	58.9
1973	69,742	40,317	57.8	69,492	39,441	56.8
1974	96,512	56,536	58.6	101,043	48,400	47.9
1975	105,612	65,822	62.3	96,954	46,435	47.9
1976	113,087	71,099	62.9	121,838	57,805	47.4
1977	117,867	74,921	63.6	145,780	66,149	45.4
1978	140,828	87,035	61.8	173,215	88,679	51.2
1979	178,178	103,808	58.3	207,104	99,551	48.1

Source: U.S. Bureau of the Census, Historical Statistics of the U.S., Colonial Times to 1970 and Statistical Abstract of the U.S.

TABLE A-4

U.S. Merchandise Exports and Imports: Total and by End-Use Classes
1960-1981

	Merchandise Exports					Merchandise Imports				
	Total	Capital Goods exc. Automotive	Automotive Vehicles and Parts	Per Cent of Total: Capital Goods	Per Cent of Total: Auto	Total	Capital Goods exc. Automotive	Automotive Vehicles and Parts	Per Cent of Total: Capital Goods	Per Cent of Total: Auto
	- - - - - ($ million) - - - - -					- - - - - ($ million) - - - - -				
1960	20,600	5,511	1,266	26.8	6.1	15,072	562	633	3.7	4.2
1961	21,037	5,910	1,188	28.1	5.6	14,759	693	383	4.7	2.6
1962	21,714	6,443	1,301	29.7	6.0	16,453	758	521	4.6	3.2
1963	23,387	6,604	1,468	28.2	6.3	17,205	823	586	4.8	3.4
1964	26,950	7,463	1,729	27.7	6.4	18,749	1,039	767	5.5	4.1
1965	27,521	8,039	1,929	29.2	7.0	21,520	1,458	939	6.8	4.4
1966	30,430	8,892	2,354	29.2	7.7	25,618	2,136	1,910	8.3	7.5
1967	30,662	9,934	2,784	32.4	9.1	26,859	2,454	2,442	9.1	9.1
1968	33,618	11,111	3,453	33.1	10.3	32,991	2,840	3,956	8.6	12.0
1969	36,411	12,423	3,888	34.1	10.7	35,804	3,422	4,934	9.6	13.8
1970	42,465	14,659	3,870	34.5	9.1	39,853	3,978	5,515	10.0	13.8
1971	43,294	15,372	4,698	35.5	10.9	45,564	4,334	7,358	9.5	16.1
1972	49,353	16,914	5,485	34.3	11.1	55,774	5,919	8,685	10.6	15.6
1973	71,360	21,999	6,878	30.8	9.6	70,499	8,263	10,257	11.7	14.5
1974	98,217	30,878	8,625	31.4	8.8	103,361	9,819	12,028	9.5	11.6
1975	106,629	36,639	10,631	34.4	10.0	97,895	10,166	11,693	10.4	11.9
1976	114,391	39,112	12,100	34.2	10.6	123,419	12,282	16,169	10.0	13.1
1977	119,723	39,767	13,364	33.2	11.2	150,173	13,985	18,641	9.3	12.4
1978	140,891	46,470	15,584	33.0	11.1	174,485	19,243	24,214	11.0	13.9
1979	179,180	58,842	18,200	32.8	10.2	209,427	24,575	25,503	11.7	12.2
1980	220,061	74,178	17,229	33.7	7.8	243,988	30,322	26,987	12.4	11.1
1981	231,856	81,666	19,097	35.2	8.2	260,144	34,576	29,737	13.3	11.4

Source: U.S. National Income and Product Accounts.

TABLE A-5

U.S. Export Surplus on Capital Goods except Automotive: Amount and Relation to GNP

1960-1981

	Export Surplus on Capital Goods exc. Automotive	GNP	Export Surplus on Capital Goods exc. Automotive as Per Cent of GNP
	---- ($ million) ----		
1960	4,949	506,512	.98
1961	5,217	524,554	.99
1962	5,685	565,039	1.01
1963	5,781	596,714	.97
1964	6,424	637,719	1.01
1965	6,581	691,051	.95
1966	6,756	755,981	.89
1967	7,480	799,585	.94
1968	8,271	873,392	.95
1969	9,001	943,996	.95
1970	10,681	992,734	1.08
1971	11,038	1,077,619	1.02
1972	10,995	1,185,923	.93
1973	13,736	1,326,396	1.04
1974	21,059	1,434,220	1.47
1975	26,473	1,549,212	1.73
1976	26,830	1,718,018	1.56
1977	25,782	1,918,324	1.34
1978	27,227	2,163,863	1.26
1979	34,267	2,417,759	1.42
1980	43,856	2,633,108	1.67
1981	47,090	2,937,716	1.60

Source: U.S. National Income and Product Accounts.

TABLE A-6

U.S. Exports, Imports, and Trade Surplus or Deficit, Amount and Relation to GNP
($ million)

	1965	1970	1973	1974	1975	1976	1977	1978	1979
Petroleum and products									
Exports	418	488	518	792	908	998	1,280	1,564	1,914
Imports	2,082	2,764	7,614	24,293	24,814	31,794	41,756	39,104	56,046
Exports - Imports	-1,664	-2,276	-7,096	-23,501	-23,905	-30,796	-40,476	-37,540	-54,132
% of GNP, x 1000	-241	-229	-535	-1,639	-1,543	-1,793	-2,110	-1,741	-2,243
Agricultural machinery									
Exports	219	182	346	544	704	707	717	844	1,086
Imports	156	173	313	394	474	496	499	489	698
Exports - Imports	63	9	33	150	230	211	218	355	388
% of GNP, x 1000	9.1	.9	2.5	10	15	12	11	16	16
Tractors and parts									
Exports	646	750	1,098	1,484	2,126	2,223	2,064	2,316	2,720
Imports	93	175	359	498	571	554	630	848	1,197
Exports - Imports	553	575	739	986	1,555	1,669	1,434	1,468	1,523
% of GNP, x 1000	80	58	56	69	100	97	75	68	63
Office machines									
Exports	471	1,547	2,085	2,699	2,639	2,932	3,885	5,006	6,475
Imports	136	505	915	1,007	1,052	1,341	1,568	2,254	2,500
Exports - Imports	335	1,042	1,170	1,692	1,587	1,591	2,317	2,752	3,975
% of GNP, x 1000	48	105	88	118	102	93	121	128	165
Power machines, switch gear									
Exports	472	611	1,066	1,482	1,709	2,139	2,301	2,690	3,140
Imports	67	247	461	567	550	758	970	1,291	1,708
Exports - Imports	405	364	605	915	1,159	1,381	1,331	1,399	1,432
% of GNP, x 1000	59	37	46	64	75	80	69	65	59
Telecommunications appliances									
Exports	345	660	1,040	1,361	1,574	1,997	2,360	2,689	2,957
Imports	314	1,102	2,070	2,281	2,077	3,655	4,954	6,136	6,175
Exports - Imports	31	-442	-1,030	-920	-503	-1,658	-2,594	-3,447	-3,218
% of GNP, x 1000	4.5	-45	-78	64	32	-97	-135	-160	-133

(cont.)

TABLE A-6 (concl.)

	1965	1970	1973	1974	1975	1976	1977	1978	1979
Transportation equipment									
Exports	3,204	6,197	10,281	13,871	16,452	17,388	17,619	21,163	24,577
Imports	1,148	5,798	10,926	12,251	11,487	14,378	17,571	22,538	25,148
Exports - Imports	2,056	399	-645	-1,620	4,965	3,010	48	-1,375	-571
% of GNP, x 1000	297	40	-49	-113	320	175	2.5	64	-24
Aircraft, parts and accessories									
Exports	1,130	2,656	4,119	5,766	6,136	6,104	5,874	8,204	8,719
Imports	140	274	563	508	519	434	603	602	1,078
Exports - Imports	990	2,382	3,556	5,258	5,617	5,670	5,271	7,602	7,641
% of GNP, x 1000	143	240	268	367	363	330	275	353	317
Professional, scientific, and controlling instruments									
Exports	480	857	1,214	1,662	1,792	1,951	3,241	3,904	4,289
Imports	178	356	674	750	726	969	1,292	981	1,159
Exports - Imports	302	501	540	912	1,066	982	1,949	2,923	3,130
% of GNP, x 1000	44	50	41	64	69	57	102	136	130

Source: U.S. Bureau of the Census, Statistical Abstract of the United States, 1980.

TABLE A-7, Part A

Geographical Distribution of U.S. Merchandise Exports
1965-1980

	U.S. Exports, by Destination ($ million)					Per Cent Distribution[a]				
			Developing Market Economies				Developing Market Economies			
	Total	Developed Market Economies	Total	OPEC	Centrally Planned Economies	Developed Market Economies	Total	OPEC	Other	Centrally Planned Economies
Total Trade										
1965	27,003	17,412	8,353	1,328	139	67.2	32.2	5.1	27.1	0.5
1970	42,590	29,617	12,610	2,049	352	69.5	29.6	4.8	24.8	0.8
1975	106,157	64,598	37,971	10,709	3,084	61.2	36.0	10.1	25.9	2.9
1980	212,887	124,584	76,324	16,917	7,600	59.8	36.6	8.1	28.5	3.6
Foods, Beverages, and Tobacco										
1965	4,516	2,878	1,594	150	43	63.7	35.3	3.3	32.0	1.0
1970	5,058	3,214	1,767	301	76	63.5	34.9	6.0	28.9	1.5
1975	16,796	8,658	6,141	1,250	1,580	52.9	37.5	7.6	29.9	9.6
1980	30,318	14,251	11,346	2,372	3,779	48.5	38.6	8.1	30.5	12.9
Chemicals										
1965	2,402	1,535	858	101	10	63.9	35.7	4.2	31.5	0.4
1970	3,826	2,506	1,282	156	37	65.5	33.5	4.1	29.4	1.0
1975	8,705	4,875	3,741	634	89	56.0	43.0	7.3	35.7	1.0
1980	22,778	11,718	10,587	1,427	473	51.4	46.5	6.3	40.2	2.1
Machinery and Transportation Equipment										
1965	10,016	6,363	3,239	700	11	66.2	33.7	7.3	26.4	0.1
1970	17,882	12,248	4,939	971	69	71.0	28.6	5.6	23.0	0.4
1975	45,710	26,641	16,579	5,700	886	60.4	37.6	12.9	24.7	2.0
1980	85,637	50,807	32,751	8,924	905	60.1	38.8	10.6	28.2	1.1

[a] Per cent of exports classified by destination.

Source: UN Monthly Bulletin of Statistics, May 1981, May 1982.

TABLE A-7, Part B

Geographical Distribution of U.S. Merchandise Imports
1965-1980

	U.S. Imports, by Destination ($ million)					Per Cent Distribution[a]				
			Developing Market Economies				Developing Market Economies			
	Total	Developed Market Economies	Total	OPEC	Centrally Planned Economies	Developed Market Economies	Total	OPEC	Other	Centrally Planned Economies
Total Trade										
1965	20,906	13,965	6,778	1,594	143	66.8	32.4	7.6	24.8	0.7
1970	39,024	28,694	10,112	1,739	217	73.5	25.9	4.5	21.4	0.6
1975	92,560	54,964	36,821	14,836	776	59.4	39.8	16.0	23.8	0.8
1980	240,040	121,668	115,942	55,333	2,430	50.7	48.3	23.1	25.2	1.0
Foods, Beverages, and Tobacco										
1965	3,827	1,413	2,373	160	41	36.9	62.0	4.2	57.8	1.1
1970	5,795	2,460	3,270	189	65	42.5	56.4	3.3	53.1	1.1
1975	9,433	3,859	5,394	309	180	40.9	57.2	3.3	53.9	1.9
1980	17,288	7,038	9,914	776	336	40.7	57.3	4.5	52.8	1.9
Mineral Foods and Related Materials										
1965	2,095	416	1,678	1,169	1	19.8	80.0	55.7	24.3	0.0
1970	3,318	1,092	2,220	1,343	6	32.9	66.9	40.5	26.4	0.2
1975	26,231	5,249	20,871	14,033	111	20.0	79.6	53.4	26.2	0.4
1980	85,714	10,112	75,376	53,726	226	11.8	87.9	62.7	25.2	0.3
Chemicals										
1965	695	585	106	12	4	84.2	15.3	1.7	13.6	0.6
1970	1,251	1,095	148	3	8	87.5	11.8	0.2	11.6	0.6
1975	3,560	3,004	475	38	81	84.4	13.3	1.1	12.2	2.3
1980	8,584	7,263	1,049	64	272	84.6	12.2	0.7	11.5	3.2

(cont.)

TABLE A-7, Part B (concl.)

	U.S. Imports, by Destination ($ million)					Per Cent Distribution[a]				
			Developing Market Economies				Developing Market Economies			
	Total	Developed Market Economies	Total	OPEC	Centrally Planned Economies	Developed Market Economies	Total	OPEC	Other	Centrally Planned Economies
Machinery and Transport Equipment										
1965	3,298	3,232	59	5	7	98.0	1.8	0.2	1.6	0.2
1970	11,610	11,080	518	6	12	95.4	4.5	0.1	4.4	0.1
1975	24,191	22,380	1,757	13	54	92.5	7.2	0.1	7.1	0.2
1980	61,083	53,206	7,629	NA	249	87.1	12.5	0.1[b]	12.4	0.4

[a]Per cent of imports classified by destination.

[b]1979 per cent.

Source: UN Monthly Bulletin of Statistics, May 1981, May 1982.

TABLE A-8

U.S. Share in Exports of the World and of Developed Market Economies
($ million)

	World	Developed Market Economies	U.S.	DME as % of World	U.S. as % of World	U.S. as % of DME	World	Developed Market Economies	U.S.	DME as % of World	U.S. as % of World	U.S. as % of DME
	TOTAL TRADE						FOOD, BEVERAGES, AND TOBACCO					
1950	55,400		10,149		18.3							
1955	93,540	60,480	15,430	64.7	16.5	25.5						
1960	127,870	85,440	20,410	66.8	16.0	23.9						
1965	186,390	127,957	27,003	68.7	14.5	21.1		17,563	4,576			26.1
1966	202,260	141,300	29,998	69.9	14.8		32,510	18,920		58.2		
1970	311,990	224,236	42,590	71.9	13.7	19.0	41,190	24,308	5,058	59.0	12.3	20.8
1974	838,268	541,660	97,144	64.6	11.6	17.9	94,931	58,809	15,233	61.9	16.0	25.9
1975	872,978	577,192	106,157	66.1	12.2	18.4	104,218	65,838	16,796	63.2	16.1	25.5
1976	990,163	642,078	113,323	64.8	11.4	17.6	112,421	69,090	17,233	61.5	15.3	24.9
1977	1,123,202	721,709	117,926	64.3	10.5	16.3	126,960	73,867	15,930	58.0	12.5	21.6
1978	1,290,258	871,987	139,999	67.6	10.9	16.1	146,778	90,064	20,547	61.4	14.0	22.8
1979	1,625,500	1,071,791	173,645	65.9	10.7	16.2		109,234	24,499			22.4
1980		1,261,074	212,887			16.9		130,043	30,318			23.3
	CHEMICALS						MACHINERY AND TRANSPORTATION EQUIPMENT					
1965		10,644	2,402			22.6		39,269	10,016			25.5
1966	13,570	12,010		88.5			51,630	44,790		86.8		
1970	21,850	19,426	3,826	88.9	17.5	19.7	89,720	78,623	17,882	87.6	19.9	22.7
1974	64,424	56,559	8,819	87.8	13.7	15.6	205,642	179,339	38,188	87.2	18.6	21.3
1975	60,898	53,205	8,705	87.4	14.3	16.4	244,430	212,665	45,710	87.0	18.7	21.5
1976	68,414	60,371	9,958	88.2	14.6	16.5	278,390	240,547	49,510	86.4	17.8	20.6
1977	77,886	68,561	10,816	88.0	13.9	15.8	317,401	274,343	51,027	86.4	16.1	18.6
1978	94,053	85,312	13,612	90.7	14.5	16.0	377,284	326,470	60,156	86.5	15.9	18.4
1979		111,725	18,665			16.7		376,759	71,507			19.0
1980		128,844	22,778			17.7		437,005	85,637			19.6

Sources: Yearbook of International Trade Statistics, 1966, 1974, 1953, United Nations.
Monthly Bulletin of Statistics, Feb. 1982, May 1981, May 1980, July 1972, United Nations.

TABLE A-9

Share of Majority-Owned U.S. Affiliates in Total Sales by U.S. Affiliates
1977

	Developed Countries			Developing Countries		
	All Affiliates	Majority-Owned	Majority-Owned as % of Total	All Affiliates	Majority-Owned	Majority-Owned as % of Total
	- - ($ million) - -			- - ($ million) - -		
All Industries	449,015	338,336	75.4	183,219	154,260	84.2
Mining	7,043	3,844	54.6	2,569	1,241	48.3
Petroleum	112,257	81,721	72.8	111,098	103,759	93.4
Manufacturing	203,689	163,922	80.5	42,636	30,278	71.0
Food & kindred products	20,050	17,143	85.5	5,554	4,608	83.0
Chemicals & allied products	33,332	25,930	77.8	9,994	6,466	64.7
Industrial chemicals & synthetics	15,858	11,689	73.7	4,244	2,027	47.8
Drugs	5,840	5,480	93.8	2,090	1,797	86.0
Soaps, cleansers, etc.	5,521	5,331	96.6	1,844	1,634	88.6
Agricultural chemicals	1,121	690	61.6	1,117	610	54.6
Other chemicals	4,992	2,740	54.9	698	398	57.0
Primary & fabricated metals	16,364	9,893	60.5	3,671	1,667	45.4
Machinery, exc. electrical	30,172	26,215	86.9	2,874	2,191	76.2
Farm & garden machinery	3,075	2,714	88.3	370	257	69.5
Construction & related machinery	6,368	5,081	79.8	801	708	88.4
Office & computing machinery	13,355	12,647	94.7	761	742	97.5
Other	7,373	5,773	78.3	941	483	51.3
Electric & electronic equipment	16,701	14,235	85.2	5,625	4,421	78.6
Household appliances	3,423	3,046	89.0	538	274	50.9
Radio, TV, & communications	6,177	5,813	94.1	1,417	1,099	77.6
Electronic components & accessories	3,093	2,491	80.5	2,022	1,927	95.3
Other	4,008	2,886	72.0	1,648	1,120	68.0
Transportation equipment	50,739	43,225	85.2	7,049	5,461	77.5
Motor vehicles & equipment	47,932	42,499	88.7	6,952	5,399	77.7
Other	2,807	726	25.9	96	61	63.5

(cont.)

TABLE A-9 (concl.)

	Developed Countries			Developing Countries		
	All Affiliates	Majority-Owned	Majority-Owned as % of Total	All Affiliates	Majority-Owned	Majority-Owned as % of Total
	- - ($ million) - -			- - ($ million) - -		
Other manufacturing	36,330	27,276	75.1	7,870	5,465	69.4
Tobacco manufacturing	1,683	(D)		431	(D)	
Textile products & apparel	3,120	2,545	81.6	885	554	62.6
Lumber, wood, furniture	1,973	1,559	79.0	322	170	52.8
Paper & allied products	6,582	4,064	61.7	1,519	1,027	67.6
Printing & publishing	1,388	1,187	85.5	138	81	58.7
Rubber products	5,456	4,012	73.5	2,002	1,752	87.5
Miscellaneous plastic products	1,231	994	80.7	354	201	56.8
Glass products	2,485	(D)		343	(D)	
Stone, clay, cement, glass products	2,483	2,044	82.3	700	369	52.7
Instruments & related products	6,675	5,953	89.2	517	397	76.8
Other	3,254	2,134	65.6	659	510	77.4

(D) = Suppressed by source for reasons of confidentiality.

Source: U.S. Department of Commerce (1981).