NBER WORKING PAPER SERIES

CHANGING PATTERNS OF INTERNATIONAL INVESTMENT IN AND BY THE UNITED STATES

Robert E. Lipsey

Working Paper No. 2240

NATIONAL BUREAU OF ECONOMIC RESEARCH
1050 Massachusetts Avenue
Cambridge, MA 02138
May 1987

The research reported here is part of the NBER's research program in International Studies. Any opinions expressed are those of the author and not those of the National Bureau of Economic Research.

NBER Working Paper #2240
May 1987

Changing Patterns of International Investment In and By the United States

ABSTRACT

The international investment account of the United States has gone through several cycles. Before World War I, the U.S. was a borrower most of the time and an international debtor. Between the two World Wars, it was first a lender and then a refuge for foreign capital. After World War II, the U.S. became the world's major lender and creditor and in the last few years it has become the world's largest borrower, and, according to the official accounts, even a net debtor.

U.S. direct investment abroad began while the U.S. was still an overall borrower and debtor. The technological leaders among U.S. manufacturing firms pioneered in this technique for exploiting their particular knowledge and skills by producing in other countries. The peak in the importance of foreign assets relative to the domestic assets of U.S. companies was probably reached during the early 1970s.

While the flow of direct investment from the U.S. has slowed, there has recently been a large inflow of foreign direct investment into the U.S.. That inflow has roughly tripled the share of foreign-owned companies in the U.S. since 1950.

While foreign-owned firms accounted for only about 3½ per cent of total U.S. employment after all the recent growth in foreign direct investment in the U.S., the shares in manufacturing and wholesale trade were considerably higher. Foreign firms accounted for almost 40 per cent of chemical industry employment, but for less than 10 per cent in all the other industries. The foreign shares in service industries, aside from wholesale trade, increased, but remained below 3 per cent.

Robert E. Lipsey
NBER
269 Mercer Street
New York, NY 10003

CHANGING PATTERNS OF INTERNATIONAL INVESTMENT IN AND BY THE UNITED STATES

Robert E. Lipsey

1. Introduction

After World War II, the United States became the major supplier of capital in world markets, and that role appeared for many years to be a permanent one. The recent swing to being the world's largest borrower is a reminder that the U.S. history in this respect has been a cyclical one since the late nineteenth century, alternating between periods of capital exporting and capital importing. These swings were mainly based on economic circumstances, but at times wars and threats of wars, revolutions, and other types of government instability made investment flow uphill, against the pull of purely economic forces.

A more constant feature than the direction of the capital flow has been the association of U.S. capital exports with the export of technology and management. Americans were the innovators in exporting the package of management, technology, and capital, sometimes even without the capital, that is known as foreign direct investment: the ownership of production facilities in one country by firms based in another country.

This paper was prepared for an NBER conference on The Changing Role of the United States in the World Economy, held in Palm Beach, Florida, March 5-8, 1987. The paper is part of the NBER's program in International Studies and draws on research carried on under grants from the National Science Foundation and the Ford Foundation and a PSC-CUNY research award. I am indebted to J. David Richardson and Richard Levich for very helpful comments on an earlier draft and to James Hayes, Linda Molinari, and Rosa Schupbach for help in checking my work and in preparing the manuscript. The views expressed are my own and do not necessarily represent those of the National Bureau or of any of the sponsors of the research cited.

The development of this type of multinational enterprise and the changes that have taken place within it reflect the evolution of the competitiveness and comparative advantage of American firms and their responses to changes in political and economic circumstances. The innovation represented by these U.S. enterprises has been increasingly copied by firms based in other countries, with the result that many foreign firms have entered the U.S. market, and multinational activity has become a feature even of firms from developing countries.

Against the relatively steady growth of direct investment, first out of the U.S. and then into it, there have been large swings in other forms of investment. Most of foreign investment in the U.S. has been portfolio rather than direct investment; that is, it has not included foreign control of U.S. enterprises. The U.S. too has engaged in brief, but very large, spurts in portfolio investing in foreign countries. These are important, despite their infrequency, because they have been so large, at times outrunning the steadier trends in direct investment.

2. Historical Background

Foreign Investment in the U.S. Before World War I.

The recent metamorphosis of the U.S. into a large international borrower has been unsettling. It is an unfamiliar role and has been for many decades, but it is not a totally new one. It is a return to the pattern of the first century of the existence of the U.S. Most of the time from George Washington's inauguration until an abrupt turn to capital exporting at the end of the 19th century, the U.S. had been a net borrower in foreign financial markets.

	Net Inflow of Capital to U.S. ($ million, current prices)
1790-1799	21
1800-1809	11
1810-1819	97
1820-1829	-6
1830-1839	209
1840-1849	-80
1850-1859	196
1860-1869	768
1870-1879	402
1880-1889	1,146
1890-1899	97
1900-1909	-600
1910-1914	341

Source: U.S. Bureau of the Census 1975, Series U 18 - U 23

The cumulation of borrowing year after year until the end of the 19th century meant that the U.S. was a net debtor throughout these years, and it was still a net debtor at the beginning of World War I, despite 15 or 20 years in which the U.S. was a net foreign lender most of the time.

Net Liabilities (-) of the U.S. 1789-1914

($ million, current prices)

	From Cumulation of Net Capital Flows	From Compilation of Assets and Liabilities	
		Net	Gross
1789	-60		
1800	-83		
1815	-80		
1820	-88[a]		
1830	-75		
1840	-261		
1850	-217[b]		
1860	-377		
1870	-1,252		
1880	-1,584		
1890	-2,894		
1900	-2,501		
1897	-3,305	-2,710	-3,395
1908		-3,875	-6,400
1914		-3,686	-7,200

[a]After defaults of $50 million in 1816-1819

[b]After defaults of $12 million in 1841 and 1842

Source: Cumulation of net capital flows from U.S. Bureau of the Census 1975, Series U 40. Compilation of assets and liabilities from Lewis 1938, p. 445.

An indication of the size of the debt relative to the U.S. economy is that the net indebtedness was about 3 per cent of U.S. national wealth or tangible assets (land, structures, equipment, and inventories) in 1900, and the indebtedness of 1914 was a little over 2 per cent of national wealth in 1912. U.S. gross indebtedness in 1914, including foreign holdings of direct investment, was about 2½ per cent of total tangible and financial assets in the U.S. in 1912 (U.S. Bureau of the Census 1975, Series F 377 and F 378).

There are several ways to view the role of these flows of financial capi-

tal in American development. One is as a source of financing for aggregate capital formation, permitting faster accumulation of capital than would have taken place if only domestic financing had been available. On this basis, it is hard to suppose that imports of capital had a great influence on the rate of development, at least during most of the 19th century. The capital inflows never reached more than 1½ per cent of total output in any decade from the 1830's through the first 10 years of the twentieth century and were probably never more than 6 or possibly 7 per cent of gross capital formation.

	Net Inflow of Capital as Per Cent of, in 1860 Prices	
	Gross National Product	Gross Domestic Capital Formation
1834-43	0.6	6.2
1839-48	-0.3	-2.8
1844-53	0.4	3.1
1849-58	0.5	3.4
1854-63	0.5	NA
1859-68	0.9	NA
1864-73	1.5	NA
1869-78	1.1	4.9
1874-83	-0.1	-0.5
1879-88	0.8	3.5
1884-93	1.5	5.6
1889-98	0.5	1.8
1894-03	-0.8	-3.1
1899-1908	-0.5	-1.8

Source: Edelstein 1982, Table 10.1, p. 234, Columns 1 and 3

In general, U.S. borrowing from foreign countries rose when U.S. capital formation surged, and tapered off as U.S. saving, rising more gradually and steadily, caught up with capital formation. Thus, investment from abroad accommodated the large spurts in the demand for capital that characterized the

rapidly growing economy.

There may have been other roles for borrowing from abroad. One might have been to supply funds for particularly risky forms of capital formation at a lower interest rate than would have been required by domestic lenders. Another may have been to supply funds when, in the face of heavy demands by rapidly growing sectors, U.S. domestic lenders' needs for diversification of risks made them reluctant to offer sufficient financing to these sectors. A somewhat different interpretation is that U.S. railway and government securities, relatively safe and requiring less local knowledge than investment in smaller scale enterprises in agriculture, mining and manufacturing, tended to be sold overseas, while domestic suppliers of capital invested in the riskier, but more profitable sectors (Edelstein 1982, 237-238).

The bulk of foreign investment in the U.S. was portfolio investment rather than direct investment. That is, it consisted of purchases of bonds or, to a small extent, equities that did not involve control over the enterprise receiving the capital. Just before World War I, about 80 per cent of the stock of long-term foreign investment in the U.S. was portfolio investment, and the same had been true for the flow over a long period (Edelstein 1982, 36 and 37).

Composition of U.S. Liabilities

1869-1914

($ million, current prices)

	1869	1897	1908	1914
Direct Investment	1,390	3,145	6,000	1,310
Securities				5,440
Short-term Credits	150	250	400	450
Total	1,540	3,395	6,400	7,200

Source: Lewis 1938, 442 and 445

Governments and railways were the chief borrowers and most of the financing was in the form of bonds rather than equities. Most of the foreign investment, whether for governments or private companies, went to large, lumpy, social overhead capital projects, such as canals, railways, electrical utilities, and telephone and telegraph systems (Edelstein 1982, pp. 39-41). Manufacturing enterprises were probably almost all too small to seek foreign financing or even, in most cases, public financing from domestic sources.

There were instances of manufacturing enterprises set up by foreign craftsmen or entrepreneurs with special knowledge or skill. However, in an era in which transportation and communication were slow by modern standards, these often involved the migration of the owners and eventual conversion of their enterprises into domestic entities. Thus, these enterprises involved mainly a flow of human capital to the U.S.

We do not deal with the flow of human capital here, but it may have been more important to U.S. development than the flows of financial capital. In terms of numbers, immigration into the U.S. in each decade from the 1830s

through the beginning of World War I ranged from about 5 to 10 per cent of the number already in the country (U.S. Bureau of the Census, 1975, Series A 6 and C 89). Furthermore, most of the immigrants (a 50 per cent larger proportion than in the population as a whole) were between 15 and 44 years of age (U.S. Bureau of the Census, 1975, Series C 119, C 122-27, C 138, and C 141). They came to the U.S., therefore, with most of their rearing costs already incurred and with a large part of their working lives still ahead of them.

The Beginnings of U.S. Direct Investment Abroad

The U.S. has been unique among the major investing countries in that the principal form of its investment has been, from the earliest times recorded, direct rather than portfolio investment. That is, it has typically involved control of foreign operations rather than simply the lending of capital to foreign-controlled firms or to governments. The earliest estimates, for 1897, show over 90 per cent of U.S. investment to have been of this type.

The earliest examples of U.S. direct investment took place while the U.S. was still, on net balance, an importer of capital. They illustrate the key role of the export of technology, or other firm-specific assets, as contrasted to the pure export of capital, as is the case with portfolio investment.

Stock of U.S. Investment Abroad, by Type

($ million, current prices)

	Direct	Portfolio[a]
1897	634.5	50.0
1908	1,638.5	886.3
1914	2,652.3	861.5

[a]Net of repatriations and repudiations

Source: Lewis 1938, 605.

U.S. direct investment abroad, in the sense of production abroad by subsidiaries or branches of U.S. companies, began soon after the Civil War and involved companies "... with national sales plans and unique products ..." (Wilkins 1970, p. 35). Wilkins describes Singer, the manufacturer of sewing machines, as "... the first American international business ..." (p. 37), with salaried sales representatives abroad in the early 1860s and its first foreign factory by the late 1860s (p. 42). Other early American production abroad during the period when the U.S. was still a capital importer was by Hoe (printing presses), Babcock and Wilcox (boilers), International Bell Telephone and Western Electric, Edison Electric, Thomson-Houston Electric, a component of General Electric when it was formed later, Westinghouse Air Brake, Kodak, McCormick, Worthington Pump, Chicago Pneumatic Tool, Otis Elevator, National Cash Register, and Libbey-Owens (Southard 1931; Wilkins 1970, Chapter III). These companies were typically early technological leaders in their fields. Another indication of the importance of technology rather than capital is the number of instances in which the parent's investment consisted entirely or largely of patent-rights, as in the case of Ford in Canada, Libbey-Owens Glass in various European countries, and Westinghouse Electric in the U.K. (Lewis 1938, 300-301).

The Transformation of the U.S. International Balance Sheet, 1914-1919

The beginning of World War I found the U.S. still a substantial international net debtor, but the events of the next few years transformed the country's international balance sheet. As a result of wartime lending by the U.S. and especially the liquidation of foreign claims against the U.S. in the form of holdings of U.S. securities, this country ended the period as a net creditor in international markets.

The International Balance Sheet of the U.S.

($ million, current prices)

	July 1, 1914	Dec. 31, 1919
Assets (private account)		
Securities	862	2,576
Direct investments	2,652	3,880
Short-term credits	-	500
Total	3,514	6,956
Liabilities		
Securities	5,440	1,623
Direct investments	1,310	900
Sequestrated property & securities	-	662
Short-term credits	450	800
Total	7,200	3,985
Net privately held	-3,686	2,971
Net government	-	9,591
Private and government	-3,686	12,562

Source: Lewis 1938, 447

The U.S. became a net creditor even on private account, aside from the inter-government debt of almost $10 billion that was to bedevil international negotiations on reparations and other topics through the interwar years.

The U.S. as an International Investor, 1919-1929

The period of the 1920s, and particularly the late 1920s, was exceptional in the history of U.S. investing abroad in two respects. One was that the growth of portfolio investment was far greater than that of direct investment, to the extent that the stock of portfolio investment exceeded that of direct investment for the first and only time at the end of that period.

Value of Stock of Private Foreign Assets of the U.S.

($ million, current prices)

Type of Investment	1919	1924	1929	1924 minus 1919	1929 minus 1924
Direct	3,880	5,389	7,553	1,509	2,164
Portfolio, incl. short term	3,076	5,365	9,456	2,289	4,091
Total	6,957	10,754	17,010	3,797	6,256

Source: Lewis 1938, 450 and 605.

The other was that, in the late 1920s, direct investment in foreign public utilities, which represented only 4 per cent of the stock of direct investment in 1924, accounted for over a third of the increase during the next five years.

Percentage Distribution by Industry of the Value and the Growth in Value of the Stock of U.S. U.S. Direct Investment

	1924	1929	1929 minus 1924
Primary Production[a]	45.6	40.6	28.2
Manufacturing	23.2	24.1	26.3
Public Utilities	4.2	13.6	37.0
Distribution, incl. Petr.[b]	13.1	11.5	7.2
Other	13.9	10.3	1.3
Total	100.0	100.0	100.0

[a]Agriculture, mining, and petroleum production

[b]Sales and purchasing including petroleum distribution

Source: Lewis 1938, 450 and 605.

Almost the whole history of U.S. direct investment in foreign public utilities is concentrated in the few years between 1924 and 1929. The increase in the stock of public utility investment in these years was almost 80 per cent of the 1929 total as compared with less than 30 per cent for all industries combined.

Growth in Value of the Stock of U.S. Direct Investment, 1924 to 1929, as Per Cent of the 1929 Stock, by Industry

	1929 minus 1924 as Per Cent of 1929
Primary Production, excl. petroleum distrib.	19.9
Manufacturing	31.2
Public Utilities	78.2
Distribution incl. petroleum distrib.	18.1
Other	3.5
Total	28.7

Source: Lewis 1938, 450 and 605.

The direct investment in foreign public utilities was very concentrated, both geographically and by company. The most detailed geographical breakdown, available only for 1940, probably reflects the distribution in 1929.

Percentage Distribution (%) of U.S. Direct Investment in Public Utilities

	1940
Canada and Newfoundland	26.9
Latin America	63.6
Other	9.5
Total	100.0

Source: U.S. Department of Commerce 1942, 21.

Over 60 per cent of the public utility investment was in Latin America, mainly South America, far above that area's share in total direct investment.

Portfolio investment, as well as direct investment, was concentrated in South America during the 1920s.

Percentage Distribution by Geographical Area of the Value and the Growth in Value of U.S. Direct Investment

	1924	1929	1929 minus 1924
DIRECT INVESTMENT			
Europe	17.5	18.0	19.4
Canada & Newfoundland	20.5	22.3	26.7
Cuba & Other West Indies	18.9	13.8	1.5
Mexico & Central America	16.7	12.9	3.8
South America	18.0	23.2	35.7
Africa, Asia, & Oceania	8.4	9.8	13.1
Total excl. Banking	100.0	100.0	100.0
PORTFOLIO INVESTMENT			
Europe	37.9	41.7	46.9
Canada & Newfoundland	34.0	25.6	13.9
Cuba & Other West Indies	2.4	1.6	.6
Mexico & Central America	6.2	3.9	.6
South America	10.2	16.5	25.5
Africa, Asia, & Oceania	9.4	10.7	12.5
Total excl. International	100.0	100.0	100.0

Source: Lewis 1938, 606.

More than a third of the growth in direct investment between 1924 and 1929 was in South America, the location of less than fifth of such investment in 1924, and over a quarter of the growth in portfolio investment was directed there in these years, although the initial share was only 10 per cent. Another way of describing the temporal concentration of investment in South America is that almost half of the stock of direct investment and almost two thirds of the stock of portfolio investment in South America in 1929 were accounted for by the growth between 1924 and 1929.

Growth in Value of the Stock of U.S. Direct and Portfolio Investment from 1924 to 1929, as Per Cent of the 1929 Stock, by Area

	DIRECT
Europe	31.3
Canada & Newfoundland	34.8
Cuba and Other West Indies	3.1
Mexico & Central America	8.5
South America	44.9
Africa, Asia, & Oceania	39.0
Total excl. Banking	29.1
	PORTFOLIO
Europe	46.9
Canada & Newfoundland	22.5
Cuba & Other West Indies	15.8
Mexico & Central America	6.6
South America	64.1
Africa, Asia, & Oceania	48.8
Total excl. International	41.7

Source: Lewis 1938, 606.

The changes in value, especially for portfolio investment, reflect some price changes as well as new investment. However, these data do not reflect the price changes on individual issues but only changes in exchange rates. In any case, very little of the investment was in common stock (about 5 per cent), and almost all the loans were dollar loans (about 95 per cent), so that neither possible source of price change, stock prices or exchange rates, could have been of much importance. Thus, the changes in portfolio investment must represent a tremendous flurry of new financing during this period.

The reasons for this concentrated burst of portfolio investment were probably different from those behind the direct investment in utilities. The two U.S. companies that were the ultimate parents of most of the utility affi-

liates were major manufacturers of the capital goods purchased by the utilities. Neither one was a domestic company in the industries in which these affiliates operated. The ownership of foreign utilities was, in effect, a way of exploiting the parents' advantages in technology and marketing in the telephone and electric power equipment manufacturing industries. The concentration of these investments in Latin America and their decline were at least partly the result of government monopolization and regulation, earlier in Europe and later in Latin America and Asia as well.

The burst of portfolio investment in the late 1920s was fueled by some of the same speculative spirit that propelled the U.S. stock market in those years. The concentration in South American investment represented, according to one very thorough study (Mintz 1951) and many contemporary accounts, a large decline in the quality of credit extended, as the boom of the late 1920s progressed. The fall in quality is summarized by the fact that of the loans extended in the first half of the 1920s, only 18 per cent went into default later, while the share of defaults was 50 per cent for loans extended in 1925-29 (Mintz 1951, 6).

Defaults and Liquidations, 1929-1935

After the large build-up of portfolio assets and liabilities in the last few years of the 1920's, the depression of the 1930s led to a wave of liquidations of security holdings and of defaults on foreign bonds among U.S. investments abroad as well. In addition, asset and liability values decreased as a result of declines in prices, but much of this decline is concealed by the use of book values for bonds. We do have a rough estimate of U.S. international assets with defaulted bonds valued at market, but we do not have a similar estimate for market values of other securities or direct investment.

The International Balance Sheet of the U.S., 1929 and 1935

($ million, current prices)

	1929	1935	
		All Bonds at Par	Defaulted Bonds at Market
U.S. Private Investments Abroad			
Direct Investment	7,553	7,219	7,219
Securities	7,839	5,622	4,222
Short-term Credits	1,617	853	853
TOTAL PRIVATE	17,009	13,694	12,294
U.S. Liabilities			
Direct Investment	1,400	1,580	
Securities	4,304	3,529	
Sequestrated Properties	150	--	
Short-term Credits	3,077	1,220	
TOTAL PRIVATE LIABILITIES	8,931	6,329	

Source: Lewis 1938, 454

Even without any allowance for default or price depreciation on bonds, we can observe a decline of more than a quarter in securities assets, a reduction of short-term assets by almost half, and a decline of about 20 per cent in securities liabilities. The market value of U.S. security holdings, taking account of depreciation on defaulted bonds but not on other securities, declined almost 50 per cent.

By 1935, the primacy of direct investment among U.S. assets had reap-

peared. Some of the direct investment values may be inflated by the use of book values. Still, mismeasurement of capital stock is not responsible for the main story, as can be seen from the capital flow data. The U.S. continued to invest in controlled companies abroad, at least for the first couple of years, and the decline in value of these investments must therefore have stemmed largely from exchange rate changes, and from declines before sale in the value of assets sold during the period.

	Capital Flows (- = outflow), 1930-35 ($ million, current prices
U.S. Private Investment	
Direct Investment	-483
Other Long-term	751
Short-term	1,237
TOTAL PRIVATE	1,505
Government	106
Total U.S.	1,611
Foreign Investment in U.S.	
Long-term	566
Short-term	-1,906
TOTAL	-1,340

Source: U.S. Bureau of the Census 1975, Series U18 through U23

The data for long-term portfolio and short-term investment reveal a repatriation to the U.S. of about $2 billion. The rest of the $3 billion decline in U.S. portfolio assets may reflect some losses from declines in the

value of foreign currencies relative to the U.S. dollar. On the other side, the decline in foreign portfolio and short-term assets in the U.S. of almost $3 billion was less than half accounted for by capital flows during the period.

The U.S. ran a surplus on goods and services during this period of more than $3 billion. The deficits of the U.S. partner countries were financed not by private capital flows but by an absorption of gold by the U.S. of about $3 billion in the last two years of the period.

The U.S. as a Destination of Flight Capital, 1935-1940

Despite the low level of economic activity in the U.S. in the second half of the 1930s, foreign private investment in the U.S. more than doubled. The fastest growth was in short-term investment, which more than quadrupled, but every category of foreign investment grew.

The International Balance Sheet of the U.S., 1935 and 1940

($ billion, current prices)

	1935	1940
U.S. Private Investment Abroad		
Direct	7.8	7.3
Other private long-term	4.8	4.0
Total private long-term	12.6	11.3
Private short-term	.9	.9
TOTAL PRIVATE	13.5	12.2
Foreign Investment in the U.S.		
Direct	1.6	2.9
Other private long-term	3.5	5.2
Total private long-term	5.1	8.1
Private short-term	1.2	5.1
Total private	6.3	13.2
U.S. Government	-	.3
TOTAL	6.4	13.5

Source: U.S. Bureau of the Census 1975, Series U26 through U39.

In contrast, both U.S. direct and U.S. portfolio investment abroad declined, especially the latter. The $7 billion increase in foreign investment in the U.S. in combination with a cumulative U.S. surplus on goods and services of almost $5 billion, were financed largely by a $12 billion flow of reserve assets into the U.S. government's account.

An indication of the size of this capital flow is that over the five years it was almost 20 per cent of gross capital formation and greater than

net capital formation. In effect, the capital inflow was financing all net capital formation in the U.S. during this period.

With this large inflow of capital, the U.S., after 20 or so years as a net creditor on private account, slipped back into the position of a net debtor, aside from U.S. government holdings of official reserve assets.

Effects of World War II and the Reconstruction Period on the U.S. International Capital Position

In contrast to World War I, when foreigners liquidated well over half their long-term investments in the U.S., foreign holdings of private U.S. assets were unchanged between the beginning and end of World War II.

The International Balance Sheet of the U.S. Before and After WWII
($ billion, current prices)

	1940	1945	1950
U.S. Investment Abroad			
Direct	7.3	8.4	11.8
Other private long-term	4.0	5.3	5.7
Total private long-term	11.3	13.7	17.5
Private short-term	.9	1.0	1.5
TOTAL PRIVATE	12.2	14.7	19.0
Foreign Investment in the U.S.			
Direct	2.9	2.5	3.4
Other private long-term	5.2	5.5	4.6
Total private long-term	8.1	8.0	8.0
Private short-term	5.1	5.3	6.6
Total private	13.2	13.3	14.6
U.S. Govt.	.3	3.7	3.1
TOTAL	13.5	17.0	17.6
U.S. Govt.	22.1	22.2	35.4

Source: U.S. Bureau of the Census 1975, Series U26 through U39.

Foreign holdings of U.S. government securities grew substantially, while the U.S. private sector raised its foreign assets by about 20 per cent. The U.S. remained a net debtor outside of its official reserve assets.

After 1945, the U.S. resumed its acquisition of private foreign assets, mainly direct investments, and by 1950 the U.S. was once again a net creditor even outside its official reserve assets. A $35 billion cumulative surplus in net exports of goods and services in the late 1940's was financed partly by

the growth of U.S. assets and by transfers, but a large fraction--more than a third--was financed by an accumulation of official reserve in the hands of the U.S.

3. The Internationalization of U.S. Companies

The Growth of U.S. Direct Investment Abroad After World War II

After 1950, the growth of U.S. direct investment abroad, slowed by the Great Depression and World War II, resumed its rise. One measure of the spread of U.S. firms, the number of new affiliates established, rose rapidly to a peak until the late 1960s, and then slowed down.

	No. of New Foreign Affiliates Established per Year by 180 Parent Firms
1946-52[a]	55
1951-55	84
1956-60	192
1961-65	322
1966-67	390
1968-69	508
1970-71	431
1972-73	378
1974-75	236

[a]For 187 parent firms

Source: Hood and Young 1979, 22

These data are confined to a fixed group of corporations that had become multinational by the time the sample was selected, and the decline in the rate

of establishment may have represented only the exhaustion of profitable locations for new affiliates by this particular group of parents. Furthermore, the data take no account of the size of the newly established affiliates or of their growth after establishment.

Another measure of foreign direct investment is the value of such investment, measured as the book value of parent investment in affiliates as reported on the books of affiliates. Since these values are, of course, affected by inflation and by the growth of the economy in general, we compare the value of direct investment in foreign countries with the total assets of U.S. corporations.

Value of U.S. Direct Investment Abroad as Per Cent of Assets of U.S. Corporations

	All Corporations	Nonfinancial Corporations
1950	2.08	4.21
1957	2.76	5.59
1966	3.06	6.72
1967	3.05	NA
1968	3.03	NA
1969	3.11	NA
1970	3.19	NA
1971	3.13	NA
1972	3.02	NA
1973	3.08	NA
1974	3.06	NA
1975	3.11	NA
1976	3.10	NA
1977	2.97	5.82
1982	2.45	5.07
1983	2.24	4.83
1984	2.10	4.67
1985	2.07	4.74

Source: Value of U.S. direct investment abroad from Appendix Table 1 and U.S. Department of Commerce 1982; assets of U.S. Corporations from Federal Reserve Board 1979 and 1986 and Musgrave 1986a and 1986b.

These ratios suggest that the peak importance of foreign investment relative to all U.S. corporate assets was in the early or mid-1970s, although the year-to-year fluctuations make it difficult to identify a precise peak.

Foreign investment was always less important in finance than in other industries, and the ratio for all industries is greatly affected by the inclusion of financial corporations. Overseas investment was a much higher proportion of the assets of nonfinancial corporations than of those of financial corporations or all corporations, but the time pattern appears to have been

similar: a peak at some point between 1966 and 1977 (comparable data for intervening years are not available) and then a decline to the levels of the 1950s.

The amount of investment relative to assets is only one of several possible measures of the international activities of U.S. firms. It is the one that can be carried back the furthest, but it has several drawbacks. At best it measures the financial stake in overseas affilitates, but it does not reflect the level of activity carried on there. U.S. firms could be increasing the share of production they carry on abroad or the share of their employment abroad while reducing their investment in foreign affiliates and still retaining control of them. More serious problems of measurement arise from the fact that the investment in foreign affiliates is measured in book values rather than current values and that these are subject to the vagaries of currency translation. The tangible assets of all U.S. firms, in the denominator of the ratio, are estimated current values. The high inflation rates of the late 1970s and early 1980s must have raised the totals for U.S. firms' assets relative to the values on the books of affiliates, and the rise in the value of the dollar from 1982 to 1985 must have had a similar effect. We must therefore be somewhat skeptical about this evidence for a decline in the importance of overseas activities.

A measure free of problems of valuation is provided by data on employment, although this measure is also subject to question.

Employment in Foreign Affiliates as Per Cent of U.S. Private Sector Non-Agricultural Employment

	All Affiliates		Majority-Owned Affiliates	
	Total	Nonbank	Total	Nonbank
1966			7.3	7.2
1977	10.9	10.7	8.2[a]	8.0
1982	9.2	9.0	7.0[a]	6.8
1983		8.6		6.5
1984		8.1		6.2

[a]Including minority-owned bank affiliates

Source: U.S. private non-agricultural employment from U.S. Department of Commerce 1985g. Employment in affiliates from Brereton 1986 and U.S. Department of Commerce 1975, 1981, and 1985a.

Relative to private non-agricultural employment in the U.S. (U.S. Department of Commerce 1985g), employment in majority-owned affiliates (the only figures available for 1966) rose between 1966 and 1977 (U.S. Department of Commerce 1975 and 1981). Between that date and 1982, all measures of employment declined relative to U.S. employment, and nonbank affiliate employment continued to decline relatively through 1984 (U.S. Department of Commerce 1985a, and Brereton 1986).

The main question about this measure is whether employment is a good measure for comparing domestic and overseas labor input. For one thing, there was a shift toward female and part-time employment in the U.S. that may not have been matched overseas. Aside from the measurement problem, it is hard to know whether the relative drop in affiliate employment from 1977 to 1982 reflects mainly the effect of the 1982 recession or is part of a declining

trend.

One indication in the opposite direction, discussed later, is that exports from overseas affiliates have, within manufacturing, increased relative to exports from the United States by the affiliates' parents and by the U.S. as a whole. This measure also has defects. It has the advantage that all measures are in current values, but it also reflects the changing degree of export orientation of affiliates, parents, and U.S. firms in general.

The main changes in the composition of U.S. investment abroad are described in Table 1. The major shifts over the thirty years have been the declines in importance of investment in the production of goods, especially primary products, and in public utilities and transportation, and the rise in importance of investment in trade and services. The fall in investment in primary production all took place before 1977, prior to the oil crises. Investment in public utilities and transportation, accounting for 13 per cent of investment in 1957, had been reduced to under 2 per cent by 1982. Within the trade and services group, it was finance that was responsible for the great increase in importance of the sector. There was some growth in the importance of trade, but other services, especially outside of oil-field services, remained of small importance throughout, although they probably did grow.

The Competitiveness and Comparative Advantage of U.S. Multinational Firms

It is customary to discuss the competitiveness of countries and of industries in them in terms of their shares in world markets or of particular markets. A country's competitiveness depends in the short-run on the effects of its monetary and fiscal policies on prices and exchange rates and over longer periods on the rate and direction of its advances in productivity.

To some extent, companies that become multinational in their operations loosen their dependence on these home-country determinants of competitiveness. If home-country production becomes more expensive relative to foreign production because of rapid inflation at home or because the exchange value of the home country's currency has risen, or because labor has risen in price or decreased in efficiency, the multinational firm has some opportunity to shift its production to locations in other countries.

The competitiveness of the multinational firm depends on the firm's characteristics rather than on those of its home country. It may rest on the possession of patents or other technological assets based on the firm's R & D. It may rest on the ability to manage or control certain types of production or distribution operations. It may originate in access to raw materials on favorable terms or in access to home-country markets. All these factors have in common that they can be exploited wherever the firm operates. That is, they are mobile geographically within the firm but relatively immobile between firms (Lipsey and Kravis 1985).

One could imagine a number of possible indicators of the competitiveness of a firm or a group of firms. One would be its shares in world production or world consumption of some set of products. Another would be the share in world trade or in world exports of products or groups of products. Still others would be shares in value added, employment, or capital. All the indicators have drawbacks. The use of employment or capital shares relies on a single factor of production when others may be equally important or may behave differently. Value added may be affected by the shifting of profits to minimize taxes or for other reasons. Production or consumption are difficult to use because world and area aggregates are difficult to assemble. They may also

be subject to manipulation by host-country governments controlling access to their home markets.

Shares in export trade, used here as a competitiveness measure, have drawbacks also--for one, they slight firms and industries making products that, because of weight or bulk, or for other reasons, tend to be supplied from within the countries where they are consumed. Despite the drawbacks, export shares have a number of advantages as measures of competitiveness. One is that there are reasonably comprehensive world and regional aggregates against which to measure a firm's share. The main advantage of using exports rather than production for this purpose is that exports are more footloose. A country has more power to determine which producers supply its home market than which supply export markets. Shares in export markets may, therefore, represent the underlying economic advantages of firms and countries to a greater degree than do shares in production.

That is not to say that export markets are unaffected by government interventions or other non-economic factors. The imposition of export requirements on U.S. affiliates by some governments as the price for acquisition of a local firm in the host country or even for continued operation in the country has been a source of much friction between the United States and these countries. However, these export-promoting policies are circumscribed by the ability of companies to leave markets where the costs imposed on them are too high. They are also limited by the watchfulness of other countries over their own home and export markets.

The competitiveness of U.S. multinationals, measured by their export shares, can be described and compared to that of the U.S. as a country by the following figures:

	Share (%) of World Exports of Manufactures	
	U.S. Multinationals	U.S.
1966	17.7	17.5
1977	17.6	13.3
1982	17.7	14.3
1983	17.7	13.9

Source: Lipsey and Kravis 1986

The shares of the U.S. and its multinationals were about equal in 1966, but the multinationals kept their share remarkably constant while that of the U.S. declined, particularly in the earlier years.

The parent firms of the U.S. multinationals did not escape the forces that led to the fall in the U.S. export share, but the fall in the parents' share was a little smaller than that of the U.S.:

Share (%) of U.S. Parent Firms in World Exports of Manufactures			
1966	1977	1982	1983
11.0	9.2	9.5	9.1

Source: Lipsey and Kravis 1986

The multinationals were more successful than non-multinational U.S. firms in world markets for manufactured goods.

What kept the multinationals' share in world exports up was the success of their exports from their foreign affiliates, a record that can be traced back 25 years:

	Share (%) in World Exports of Manufactures of U.S. Majority-Owned Foreign Affiliates in		
	All Countries	Developed Countries	LDC's
1957	4.5	4.1	0.5
1966	6.8 (6.6)[a]	6.3 (6.2)[a]	0.5
1977	8.4	7.6	0.8
1982	8.3	7.3	1.0
1983	8.6	7.6	1.1

[a]Comparable to 1957

Source: Lipsey and Kravis 1986, Appendix Table U-1a.

In the first 20 years, the shares of U.S. multinationals' affiliates in both developed countries and LDC's grew rapidly, but after that, only the shares of the LDC affiliates grew, while affiliates in the developed countries more or less held their shares steady.

This growth in exports from foreign affiliates implies that larger and larger portions of world market shares outside the U.S. held by U.S. multinationals and by all U.S. firms were being supplied from production outside the U.S., as can be seen from the following:

	Share (%) of U.S. Majority-Owned Affiliates in Exports of Manufactures by	
	U.S. Multinationals	All U.S. Firms
1957	NA	17.6
1966	38.1	27.8 (28.9)[a]
1977	47.7	40.0
1982	46.7	38.7
1983	48.7	40.2

[a]Comparable to 1957

Source: Lipsey and Kravis 1986

By 1983, almost half of all manufactured exports by U.S. multinationals and over 40 per cent of manufactured exports by all U.S. firms were supplied by foreign affiliates of the multinationals.

We can identify the comparative advantage of U.S. multinationals by the industry distribution of their exports relative to that of the U.S. as a country or of the world. Another way of putting this measure is saying that we take the multinationals' share of exports in each industry relative to their share in all industries combined. This measure is sometimes referred to as "revealed comparative advantage" and has the drawbacks of such measures. For example, it is not based on the presumed determinants of comparative advantage and incorporates the effects of trade barriers, subsidies, and many other factors that can affect trade flows.

If we take these distributions for 1966, the first year for which we have the data, we find that the U.S. as a country enjoyed comparative advantages relative to the world as a whole in chemicals, machinery, and transport equipment, and comparative disadvantages in food products, metals, and miscella-

neous manufacturing industries.

The comparative advantages of U.S. multinationals were in the same industries, but to a larger degree, and the same was true for the comparative disadvantages of the multinationals. Thus, if we compare U.S. multinationals with the U.S. as a country, the multinationals had comparative advantages over other U.S. firms in chemicals, machinery, and especially transport equipment, and disadvantages relative to the U.S. in foods, metals, and miscellaneous manufacturing industries.

Industry Share in Manufactured Exports Relative to Share in World Exports

	1966	
	U.S	U.S. Multinationals
Foods	66.7	44.1
Chemicals	123.8	128.6
Metals	76.6	47.1
Machinery	138.3	142.2
Transport Equipment	142.4	202.0
Other Manufacturing	68.8	61.4

Source: Lipsey and Kravis 1986, Appendix Table U-9

In other words, where the U.S. was strong, U.S. multinationals, taken as a group, were stronger. And where the U.S. was weak, U.S. multinationals as a group were weaker. That is not to say that there were no individual U.S. multinationals with comparative advantages in foods or metals that permitted them to operate in many countries. The data show that such firms were less common in these industries than in chemicals or machinery.

Sixteen years later, the main outlines of the story were similar. There was a slight weakening of the U.S. position in chemicals and transport equipment, as well as in the already weak metals area, and a stronger comparative advantage in machinery.

Industry Share in Exports by the U.S. and by U.S. Multinationals Relative to Share in World Exports, 1982

	U.S	U.S. Multinationals
Foods	67.3	45.8
Chemicals	112.9	143.1
Metals	64.0	44.6
Machinery	142.3	131.9
Non-electrical	163.8	127.7
Electrical	110.8	138.0
Transport Equipment	116.8	158.8
Other Manufacturing	73.0	58.3

Source: Lipsey and Kravis 1986, Appendix Table U-9

Within machinery, the U.S. comparative advantage in nonelectrical machinery increased and that in electrical machinery declined.

U.S. multinationals increased their comparative advantage in chemicals relative to the world and to the U.S. as a country, but their previously very large comparative advantage relative to the world in transport equipment was substantially reduced. Their comparative disadvantages in foods and metals were also reduced, but remained large. In 1982, U.S. multinationals still showed a large comparative advantage relative to the world in chemicals, non-

electrical and electrical machinery, and transport equipment, but there was one exception to the rule that their comparative advantages were an accentuated version of U.S. comparative advantage. That exception was in non-electrical machinery, in which the comparative advantage of the U.S. as a country exceeded that of the U.S. multinationals.

For 1977 and 1982 it is possible to examine the comparative advantage of U.S. multinationals for a much finer breakdown of industry groups into 30 or more industries. The industries in which U.S. multinationals exhibited the largest comparative advantage relative to the world were, in order:

1. Tobacco products
2. Office and computing machinery
3. Electronic components
4. Soaps, cleansers, etc.
5. Drugs
6. Construction machinery

Source: Appendix Table 3

Of the six, four were also among the industries of greatest comparative advantage for the U.S. as a country, exceptions being the two chemicals groups. These industries are characterized by high expenditures on R & D (office and computing machinery, drugs, and electronic components) and on advertising (tobacco products, drugs, soaps, cleansers, etc.)

The 1977-82 period was one in which the shift by multinationals from the U.S. to their overseas affiliates as their export base, which was strong in the previous decade, was interrupted and even reversed to a small extent. As might be expected, there was wide variation among industries in this respect.

Most of the industries in which U.S. multinationals' exports rose rapidly saw a continuation of the shift to overseas production for export. That category included drugs, industrial chemicals, other chemicals, other transport equipment, plastic products, and instruments. Two major exceptions were office and computing machinery and electronic components. There was not a major shift back to the U.S. (in percentage terms) in these two industries, but there was clearly no move away from U.S. operations.

By comparing the distributions of exports of U.S. multinationals for 1977 and 1982 with those of the U.S. for the same year, we can get some notion of the distinctive comparative advantages of these firms, as compared with the U.S. as a geographical entity (Appendix Table 5). Among the major groups, the multinationals showed comparative advantages in chemicals, electrical machinery, and transport equipment, but not in foods, metals, non-electrical machinery, and "other manufacturing."

The ratios for more detailed industries are suggestive. Within foods, the multinationals held a large advantage over other U.S. firms in beverages, probably an advertising-intensive industry. In chemicals, the largest advantage was in soaps, cleaners, etc., also an advertising-intensive field, followed by drugs and, by a small margin, industrial chemicals, the former extremely R & D-intensive, the latter a little above average. In non-electrical machinery, the largest advantage of multinationals over other U.S. firms was in office and computing machinery, by far the most R & D-intensive group. In the electrical machinery group, the multinationals' advantages were large relative to the U.S. in electronic components and, in 1982, also in communications equipment, both R & D-intensive industries, but not in "other electrical machinery," the most R & D-intensive. However, in electrical machinery, the

lines are quite blurry among the detailed industries. Many parents seem to cross these detailed industry lines.

There are a number of indications here that both R & D intensity and advertising intensity are major factors in the comparative advantage of U.S. multinationals, and both have been associated with U.S. firms' shares in foreign markets (for example, in Caves 1974). R & D intensity is a variable that has been associated in many studies with the comparative advantage of the U.S. as a country (for example, Baldwin 1979, and Stern and Maskus 1981). Our data confirm that association. If we relate the share of an industry in U.S. exports relative to its share in world exports (U.S./W) to the R & D intensity of industries, as measured by the ratio of R & D expenditures to sales (RD/S), we find we can explain a substantial part (40%) of the inter-industry differences in U.S. export shares in 1977 with that factor alone:

$$(1)\quad US/W = \underset{(5.96)}{.089} + \underset{(4.40)}{.022}\ RD/S \qquad \bar{R}^2 = .40$$

t-statistics in parentheses

However, the same R & D intensities are even more strongly related to the comparative advantage of U.S. multinationals in the same year, measured in the same way (share of industry in multinationals' exports relative to its share in world exports (USMNC/W):

$$(2)\quad USMNC/W = \underset{(3.39)}{.098} + \underset{(5.26)}{.052}\ RD/S \qquad \bar{R}^2 = .49$$

The foreign investment survey does not include data on advertising intensity, the other characteristic associated with U.S. multinationals' comparative

advantage, but R & D intensity at least is one attribute explaining the comparative advantages of the U.S. and of U.S. multinationals, especially that of the multinationals.

Changing Characteristics of U.S-owned Foreign Operations

U.S. affiliates in foreign countries exist mainly to serve local markets. About two thirds of their sales have been in their host countries in the last few years.

Affiliate Exports as Per cent of Sales, Majority-Owned Affiliates, by Industry

	1957	1966	1977	1982	1983	1984
All industries	27.4	24.9	38.2	34.5	35.2	36.5
Agriculture, forestry, and fishing	63.0	NA	58.2	72.6	73.5	74.6
Mining	84.0	75.2	77.5	82.4	79.5	80.7
Petroleum	34.3	29.9	49.5	35.4	37.0	36.4
Extraction	NA	NA	54.1	61.4	61.0	61.0
Other, incl. oil field services	NA	NA	48.8	30.1	31.7	29.6
Manufacturing	15.9	18.6	30.8	33.9	35.1	37.5
Construction	NA	NA	13.5	9.5	10.6	11.1
Public utilities and transport	24.4	11.1	1.7	9.2	6.3	8.3
Trade	NA	29.1	34.6	36.9	34.6	35.2
Wholesale	NA	NA	41.1	41.7	39.8	40.3
Retail	NA	NA	2.0	2.2	2.1	1.5
Finance (excl. banking), ins., RE	NA	NA	12.0	37.8	41.2	46.2
Services	NA	14.8	22.0	19.8	20.3	20.3

Source: Appendix Table 7

Exporting is most important for affiliates in primary production--agriculture, mining, and the extraction of petroleum--in all of which a majority of sales were outside the host country. The reason for the export-orientation of affiliates in these industries is that they were drawn to their locations not by the prospect of breaking into or enlarging their shares of the host country's market but by the presence of relatively cheap resources.

At the other end of the scale, affiliates in some non-commodity industries--public utilities, retail trade, and business and personal services--concentrated heavily in their host-country markets.

Over the last quarter-century, the trend has been for affiliates to become more export oriented. The share of exports in total sales more than doubled for manufacturing affiliates. That is a substantial shift in orientation, but it was not as large as the rise in the share of exports in GNP or in output of goods in the U.S. and in other countries.

The export-orientation of affiliates varies by location as well as by industry.

Exports as Per Cent of Sales, Majority-Owned Affiliates, by Location, 1982

	All Industries	Mfg. Industries
All countries	34.5	33.9
Developed	31.2	36.6
Canada	23.3	34.5
Europe	37.3	41.2
Japan	8.7	11.0[b]
Australia, New Zealand, S. Africa	10.9	12.7[b]
Developing	45.8	22.0
Latin America	40.4	11.9
Middle East	25.0	31.9
Asia & Pacific	58.7	41.1[a]

[a]Including Sub-Saharan Africa

[b]Suppressed observations estimated by the author.

Source: U.S. Department of Commerce 1985a, Tables III.D3, III.E1, and III.E3.

Affiliates in all industries combined were more export-oriented in developing than in developed countries, partly because those in natural-resource industries were large exporters, and partly because of the high ratios for the Asia and Pacific countries. In manufacturing, the affiliates in Asia and Pacific countries exported over 40 per cent of their sales. Affiliates in Japan and in Oceania were very inward-looking, perhaps because these countries had comparatively protected markets.

For the most part, overseas affiliates have relied little on the U.S. as a market, a little over 10 per cent of their sales in the two most recent years for which we have data and a similar proportion twenty-five years earlier. The unusually low share in 1966 and the exceptionally high U.S. share in 1977 both reflected mainly the fluctuations of the petroleum industry.

Exports to the U.S. as Per Cent of Sales, Majority-Owned Affiliates, by Industry

	1957	1966	1977	1982	1983	1984
All Industries	9.9[a]	6.4	18.5	10.5	10.9	12.4
Agriculture, Forestry, Fishing	38.2	NA	30.1	40.7	39.7	39.1
Mining	44.2	37.9	28.1	28.5	30.9	32.3
Petroleum	9.9	5.4	35.7	13.7	12.4	13.5
Extraction	NA	NA	36.0	40.1	35.7	31.4
Other, incl. oil field services	NA	NA	35.7	8.3	7.3	8.5
Manufacturing	6.0	5.6	9.1	9.7	11.6	14.0
Construction	NA	NA	.7	.3	.3	.4
Public Utilities and Transport.	NA	7.4	.6	6.4	3.2	4.2
Trade	NA	3.6	2.9	4.3	5.0	5.3
Wholesale	NA	NA	3.4	4.8	5.7	6.1
Retail	NA	NA	.2	.2	.5	.2
Finance, Insurance, & Real Estate (excl. Banking)	NA	NA	5.9	23.0	25.3	25.5
Services	NA	NA	4.2	5.4	5.3	6.0

[a]Excluding trade and finance

Source: Appendix Table 7

Affiliates in primary production--agriculture, mining, and petroleum extraction--have, in general, been the most dependent on the U.S. market,

although the finance (except banking), insurance, and real estate group entered that category in 1982. In the other broad industry groups, manufacturing, construction, public utilities and transportation, wholesale and retail trade, and services, sales to the U.S. have ranged from less than one per cent of affiliate sales to a little over 10 per cent.

If there has been any trend in some of the groups, it seems to be toward an increasing dependence on the U.S. market. The largest jump was in the finance group, as mentioned above, but there have been persistent increases in manufacturing (more than a doubling of the share of sales to the U.S.) and, over the last few years, a substantial one in wholesale trade. The rise of almost 50 per cent in the dependence of manufacturing affiliates on the U.S. market suggests the influence of the increasing exchange value of the dollar in those years. It remains to be seen whether the reversal in exchange rates will undo this shift in orientation.

A widely discussed trend in the character of direct investment by the U.S. and by other countries has been the move toward shared ownership, and particularly toward minority ownership, with majority shares in the hands of citizens of the host country. The less developed countries, particularly in Latin America, have promoted this trend. Restrictions on majority ownership were written into the Andean Pact and into Mexican law.

Despite the pressure from host country governments, U.S. parent companies have been more reluctant to share ownership in affiliates than companies from other countries. 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. 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 (OECD 1981, p. 50).

There has been some move by U.S. multinationals toward sharing ownership. The proportion of total affiliate sales made by majority-owned affiliates fell from 88 per cent in 1966 to 77 per cent in 1982. The decline took place in the first ten years of that period, however, and there was actually a small rise between 1977 and 1982.

There are large differences among industries in the shares of majority-owned affiliates, and the reduced share in the aggregate could represent shifts among, as well as within, industries. It is clear, however (see Appendix Table 8) that in all the major industry groups, the proportion of sales by affiliates less than majority owned grew between 1966 and 1982 in both developed countries and LDCs. The rise of these affiliates was important in mining, retail trade, and public utilities and transportation, and in LDCs they accounted for half or more of affiliate sales in these industries by 1982. Thus, if the growth of these firms has been a response to host-countries' efforts to gain substantial shares in the equity of foreign owned affiliates, the efforts have met with some success.

One might expect that, given that technological or proprietary information is the basis for the competitive advantage of multinational firms, the more important these factors were in an industry, the greater would be the reluctance of parent companies to share these advantages and the stronger the insistence on control or, preferably, total ownership of affiliates. It is indeed the case that among manufacturing industries, those that rank high with respect to spending on R & D are also among the ones with the highest shares of majority ownership.

Sales of Majority-Owned Affiliates as % of Affiliate Sales

	1977		1982	
	Developed Countries	LDCs	Developed Countries	LDCs
All Manufacturing	80.5	71.0	76.5	71.1
Drugs	93.8	86.0	96.2	93.8
Office and computer mach.	94.7	97.5	94.0	99.5
Electronic comp. & access.	80.5	95.3	78.9	96.0

Source: Appendix Table 8

The only exception was electronic components and accessories in developed countries, largely in Japan (a country in which less than 20 per cent of manufacturing affiliate sales are from majority-owned affiliates). In fact, in these industries, the share of majority-owned affiliates actually increased between 1977 and 1982, despite the decline in the majority-owned share in manufacturing as a whole.

It is clear, then, that the policy of forcing shared ownership has not been very successful for the LDCs in R & D intensive industries. The cost of enforcing the policy may have been too great: a reduction in foreign investment in these industries and in the consequent transfer of technology.

4. The U.S. as a Recipient of Foreign Direct Investment

The Recent Growth of Foreign Direct Investment in the U.S.

During the 1960's, as U.S. direct investment in foreign countries was reaching its peak rate of growth, hardly any of the world's flow of new direct investment was coming to the United States.

Direct Investment Inflows to the U.S. as Per Cent of Inflows to

	World	Developed Countries
1961-67		2.6
1968-73		11.4
1970	15.0	18.5
1971	3.4	4.6
1972	7.4	9.3
1973	17.5	23.2
1974	25.8	26.6
1975	13.4	22.1
1976	30.9	38.6
1977	14.6	23.6
1978	26.4	35.2
1979	30.0	40.5
1980	35.6	46.0
1981	47.5	66.0
1982	36.9	55.0
1983	29.0	39.0

Source: United Nations 1983, Annex Table II.2, and 1985, Table II.1; OECO 1981.

From 1961 through 1967, less than 3 per cent of the flow to developed countries came to the U.S., and in 1967 the U.S. was the location of less than 10 per cent of the world stock of direct investment (Hood and Young 1979, 18, and U.S. Bureau of the Census 1975, Series U-35). The U.S. share of inflows of direct investment to developed countries rose to over 10 per cent in 1968-73, and since then has been over 20 per cent in every year through 1983. It has stayed over a third since 1978 and reached as high as two-thirds in 1981. The U.S. share of inflows to all countries has been over a quarter since the late 1970s and reached a peak close to 50 per cent in 1981. The U.S. has absorbed more than all developing countries together since 1978 and usually more than all the European countries combined.

With this large inflow of direct investment, the stock of foreign direct investment in the U.S. has been growing very rapidly. One indication of the growth is the comparison with assets of all U.S. corporations.

	Stock (Book Value) of Foreign Direct Investment in the U.S. as Per Cent of Assets of All U.S. Corporations
1950	.6
1960	.6
1966	.5
1974	.7
1977	.7
1980	1.2
1982	1.5
1985	1.6

Source: Appendix Table 9, Federal Reserve Board 1979 and 1986, and Musgrave 1986a and 1986b.

After staying around ½ per cent from 1950 through 1966, the ratio tripled in the next 20 years, and more than doubled in the eight years from 1977 to 1985.

Another way of describing the growth of foreign direct investment in the U.S. is by comparing it with U.S. investment abroad.

	Stock (Book Value) of Foreign Direct Investment in the U.S. as Per Cent of U.S. Direct Investment Abroad
1950	28.8
1966	17.5
1977	23.7
1982	60.0
1983	66.1
1984	77.3
1985	78.6

Source: Appendix Tables 1 and 9

The greatest leap in foreign investment in the U.S. relative to U.S. investment abroad took place in the five years from 1977 to 1982 when foreign direct investment grew from less than a quarter of U.S. direct investment abroad to 60 per cent of it, and the ratio has continued to increase rapidly since 1982.

Since these are book values, they are subject to the familiar doubts about their meaning and comparability. The U.S. direct investments abroad are much older, on average, than the foreign direct investments in the U.S. and were made in periods of much lower asset prices. It is therefore likely that the use of book values understates the value of U.S. investments relative to market values much more than it does the foreign investments. Thus, the extent and growth of foreign investment in the U.S. relative to U.S. investment abroad is probably considerably exaggerated in these figures.

Another fact that points to such a bias is the difference in income. Despite the relatively small ostensible difference in the value of the stocks, income on U.S. direct investment abroad was more than four times as large as

income on foreign direct investment in the U.S. in 1985 (U.S. Department of Commerce 1986a and 1986b).

For the most recent decade or so, data on employment provide a measure of foreign firms' participation in the U.S. economy that is free of the effects of exchange rate changes and conversion methods. This measure too demonstrates the rapid growth of foreign-owned operations, but also indicates that their role in the U.S. economy as a whole remains small.

Employment in Nonbank U.S. Affiliates of Foreign Companies as Per Cent of U.S. Private Sector Non-agricultural Employment

1974	1.6
1977	1.8
1980	2.7
1982	3.3
1984	3.4

Source: Appendix Table 10 and U.S. Department of Commerce 1985g, 46-48.

A point to keep in mind in comparing inward and outward direct investment is that U.S. firms became multinational earlier than did most foreign firms and probably reached something like an equilibrium stock of foreign assets by the end of the 1960's. After that, there was not a large net movement of U.S. firms into multinational status. Foreign firms, in contrast, have, for the most part, become multinational fairly recently and are adding to their overseas operations rapidly because they have not reached the goals they have set. One indication of the relative maturity in this sense of U.S. direct investment is that all (and more) of its growth came from reinvested earnings in

1984 and 1985, while most of the growth of other countries' direct investment in the U.S. is from flows of new equity and debt.

	Shares (%) in Changes in the Value of Direct Investment, 1984 and 1985	
	U.S. in Foreign Countries	Foreign Countries In U.S.
Equity and Intercompany Debt	-28.2	85.4
Reinvested Earnings	117.0	8.7
Valuation Adjustment	11.2	5.8
Total	100.0	100.0

Source: U.S. Dept. of Commerce 1986a and 1986b.

U.S. parents were bringing some of their foreign assets back to the U.S. by reducing equity and intercompany debt, while foreign companies were increasing their holdings of U.S. assets far beyond their accumulation of reinvested earnings.

Characteristics of Foreign-Owned Affiliates in the U.S.

The fact that the share of foreign-owned firms in U.S. employment was still only about 3 1/2 per cent in 1985 might appear to deflate the anxieties that have been aroused by the inflow of direct investment. However, the explanation for that concern lies in the concentration of the investment; half of the employment in foreign-owned firms is in manufacturing, which accounted for only about 15 per cent of total nonagricultural employment in the U.S. in 1984 (Appendix Table 10).

Aside from mining, the ratios for which are affected seriously by

incomparabilities between numerator and denominator, the greatest foreign share in U.S. employment--7 per cent--is in manufacturing. That share almost tripled in ten years.

Employment in U.S. Affiliates of Foreign Corporations as Per Cent of Total U.S. Private Sector Employment, by Broad Industry Groups

	1974	1977	1980	1982	1984
Mining[a]	16.8	13.0	12.4	14.5	16.1
Manufacturing	2.7	3.5	5.4	6.6	7.1
Construction	.2	.3	1.0	1.3	1.0
GOODS PRODUCTION	2.8	3.3	5.0	6.2	6.4
Transportation & Public Utilities	1.0	.5	.7	1.1	1.2
GOODS, TRANSP., & PUB. UTIL.	2.5	2.9	4.3	5.3	5.5
Wholesale Trade	2.8	3.2	4.1	5.3	5.3
Retail Trade	1.0	1.0	2.0	2.6	2.7
Finance, Ins. & Real Estate[b]	1.1[c]	1.1	2.1	2.3	2.2
Services	.3	.2	.5	.6	.9
TRADE & SERVICES	1.0	1.0	1.6	2.1	2.2

[a]Including petroleum

[b]Banking included in denominator but not in numerator

[c]Including banking would be 1.8 per cent

Source: Appendix Table 10 and U.S. Department of Commerce 1985g, 46-48.

Employment in foreign-owned manufacturing operations more than doubled while total U.S. employment in manufacturing stayed about constant or even declined a little.

Employment in foreign service affiliates rose at an even faster rate than in goods production. However, in these industries U.S. total employment was also rising, by about 50 per cent over 10 years. As a result, although the foreign share increased, it did not grow as rapidly as in manufacturing.

At the end of the period, among trade, finance, and services, it was only in wholesale trade, probably closely tied to the distribution of imported goods, that the share of employment in foreign-owned firms reached 5 per cent. In other groups the foreign share was under 3 per cent. However, the ratios for finance, insurance, and real estate are understated, because the data for foreign-owned firms omit banks. It does seem clear, however, that foreign penetration of the service sectors was relatively small.

Within manufacturing also, there were wide differences among industries in the degree of foreign penetration. In 1984, almost 40 per cent of manufacturing employment in the chemical industry was in foreign-owned firms, while the proportions in other industries were all under 10 per cent.

Employment in U.S. Affiliates of Foreign Corporations as Per Cent of Employment in All U.S. Firms, by Industry Within Manufacturing

	1974	1984
All Manufacturing	2.7	7.1
Food & kindred products	4.4	9.0
Chemicals	10.8	38.7
Metals	3.0	7.1
Machinery, exc. electrical	1.9	5.8
Elect. mach. & equip.	2.8	8.2
Transp. equip.	1.7	3.2
Other manuf.		3.6

Source: Appendix Table 10 and U.S. Department of Commerce 1985g, 46-48.

The foreign share increased substantially in every group, at least doubling within each industry. However, the ranking of the industries

hardly changed at all. The greatest degree of foreign penetration was in chemicals at the beginning and at the end of the period, followed by food manufacturing industries, and there was a relatively small foreign employment share in nonelectrical machinery in both periods. Thus the comparative advantages of foreign firms relative to U.S. firms seemed to remain in the same industries.

The industry distribution of employment in foreign firms in 1984 was much more concentrated in manufacturing and petroleum, and in goods producing industries as a group, than was U.S. employment in general, as can be seen below.

Distribution by Industry of Employment in Foreign-Owned Firms[a] in the U.S.

	Employment in Foreign-Owned Firms					Empl. in All Priv. Sector U.S.Firms
	1974	1977	1980	1982	1984	1984
All Non-agricultural	100.0	100.0	100.0	100.0	100.0	100.0
Mining	2.2	1.3	1.2	1.7	1.2	} 1.2
Petroleum	9.0	7.4	5.0	5.0	4.6	
Manufacturing	52.5	56.7	54.6	51.0	50.9	24.7
Construction	.8	1.1	2.1	2.1	1.6	5.5
GOODS PRODUCTION	64.4	66.5	63.0	59.8	58.3	31.5
Transportation & Public Utilities	4.3	1.9	1.8	2.3	2.3	6.6
GOODS, TRANSP., & PUBL UTIL.	68.7	68.4	64.8	62.1	60.6	38.1
Wholesale Trade	11.6	12.6	10.7	11.5	10.8	7.1
Retail Trade	11.5	11.7	15.0	16.3	16.8	21.1
Finance, Insur., & R.E.	4.5[c]	4.2	5.3	5.0	4.7	7.2[b]
Services	3.9	3.1	4.2	5.0	7.1	26.5
TRADE & SERVICES	31.6	31.7	35.2	37.9	39.4	61.9[b]

[a]U.S. nonbank affiliates of foreign corporations.

[b]Including banking

[c]Including banking, 6.6 per cent

Source: Appendix Table 10 and U.S. Department of Commerce 1985g, 46-48.

The shares in trade and finance did not diverge as much from those of the U.S. as a whole, especially if one takes account of the omission of banks from the total of foreign holdings. However, the share of employment in foreign-owned companies that was in service industries was less than a third of that for U.S. firms.

The differences in the distributions reflect two influences. Foreign firms may have had a comparative advantage in goods production and U.S.

firms in service production. However, the results may also reflect differences in the difficulty of carrying across national boundaries the comparative advantages of firms. Whatever gives firms a comparative advantage or competitiveness in manufacturing industries, whether it is ownership of patents on knowledge of production techniques or management abilities, may be easier to move across national boundaries than the characteristics that distinguish firms in trade and service industries. That might be because of inherent characteristics of the two groups of industries or because there are many more regulatory and similar obstacles placed in the path of service industry producers than in the path of goods-producing companies. Since entry into the U.S. market is relatively unrestricted and the share of foreign firms in services is small, the suspicion that there are inherent obstacles to service industry direct investment is reinforced.

The main trends in the industry distribution of foreign firms' employment appear to move it toward the U.S. pattern. That is, the share of mining and petroleum was declining, as was that; of manufacturing after 1977. The main increase in importance within foreign-owned companies was in the service industries.

Sources of Foreign Direct Investment in the U.S.

As foreign direct investment has flowed into the U.S. in the last few years there have been periodic alarms about increasing control of U.S. industry by companies from the Middle East or Japan. Despite the publicized incidents of investments from these countries, the great bulk - 2/3 of the total - of foreign direct investment in the U.S. continues to be controlled by European firms. Over 40 per cent of the foreign investment is concentrated in two countries, the Netherlands and the U.K.

Share (%) in Foreign Direct Investment Position in the U.S.

	1985
Canada	9
Europe	66
France	3
Germany	8
Netherlands	20
UK	24
Switzerland	6
Japan	10
Latin America	9
Neth. Antilles	6
Middle East	3
Kuwait	2

Source: Appendix Table 11

It should be mentioned that the identification of firms by nationality is often uncertain. These ratios may well understate the ultimate Japanese and Middle Eastern stake that is partly held through firms incorporated in Europe. Data on U.S. direct investment abroad include investments by U.S. firms controlled by foreigners and data on foreign direct investment in the U.S. include investment by foreign firms controlled by U.S. parents. In the latter case, however, the surveys include a classification by ultimate beneficial ownership.

The shares of the different countries and areas vary from industry to industry. Investment in the petroleum industry, for example is overwhelmingly

from Europe, over 80 per cent of the total from the Netherlands and the U.K. (Appendix Table 11). Investment in manufacturing, the area that receives most public attention, is also largely from Europe - about 3/4 - but several countries participate, 9 per cent from France, 10 per cent from Germany, and 12 per cent form Switzerland, aside from the usual high proportion, over 40 per cent, from the Netherlands and the U.K. Japan accounts for less than 5 per cent of this investment.

Japan's investment is concentrated in wholesale trade. That investment is more than half of Japan's total investment position in the U.S. and is more than 40 per cent of total foreign direct investment in the industry. Japan also plays a larger role in investment in U.S. banking--almost a fifth--than in the other industries.

Investment from Latin America, largely the Netherlands Antilles, is more concentrated in the U.S. real estate industry that that from any other source. More than a quarter of Latin America direct investment and that from the Netherlands Antilles is in that industry and over a quarter of total foreign direct investment in real estate is from Latin America, most from the Netherlands Antilles.

The sources of the most recent growth in the foreign investment position in the U.S. do not suggest revolutionary changes in the pattern.

Share (%) in Changes in Foreign Direct Investment Position in the U.S., 1980-85

Canada	4
Europe	66
France	3
Germany	7
Netherlands	17
UK	30
Switzerland	6
Japan	14
Latin America	7
Middle East	4

Source: Appendix Table 11

Europe accounted for 2/3 of the additions over the last five years, as it did for the stock. The major change was that Japan was the source of 14 per cent of the additions, as compared to only 6 per cent of the 1980 stock and the Netherlands and the U.K. less than 50 per cent of additions as compared with a share in the 1980 stock of almost 60 per cent. Within manufacturing, increases in investment from France were small relative to the initial stock and those from Switzerland and Japan were relatively large, the latter from a very small base of only 3 per cent of total foreign investment in manufacturing.

5. Portfolio Investment and Aggregate Investment Flows and Stocks

The capital account of the United States has gone through wide swings, representing what appears to be an underlying evolution of the U.S. from

steady capital exporter in the 1960s to the world's major capital importer in the mid-1980s. The major element of the U.S. capital outflow in the first decade was the steadily growing direct investment flow to foreign countries, averaging about $4½ billion per year.

Net U.S. Capital Outflow (-)
or Inflow (+)
Annual Averages
($ billion, current prices)

1960-70	-2.8
1971-72	+8.7
1973-82	-13.3
1983-85	+69.8

Source: Appendix Table 12

That trend of direct investment was not interrupted in the next few years, but it was outweighed in 1971 and 1972 by the monetary troubles of the United States, reflected in the additions to foreign official holdings in the U.S. of over $18½ billion a year and, until the devaluation of the dollar, by the running down of foreign deposits in U.S. banks.

The next ten years were turbulent, including the two oil price shocks and two U.S. recessions that were severe by post-World War II standards. U.S. direct investment abroad continued to grow and accounted for capital export averaging about $12½ billion a year, but it was reduced severely by the 1982 recession and did not recover to earlier levels until 1985. However, a new element entered the picture in this decade: foreign lending by U.S. banks at the rate of over $37 billion a year, dwarfing the direct

investment that had been dominant in the 1960s. As U.S. banks lent abroad, they also absorbed deposits from abroad that were far larger than in earlier years, averaging over $20 billion a year. While the two series were not perfectly synchronized, the bank lending and bank borrowing did move more or less in step, as U.S. banks acted as intermediaries between the countries accumulating assets and those absorbing them. The inflow of capital to the U.S. also included large additions to foreign holdings of U.S. Treasury securities and, beginning in the late 1970s, large direct investment flows to the U.S.

The next few years were to see a spectacular reversal of the U.S. position. U.S. bank lending, which had averaged over $37 billion a year in the 1973-82 decade and over $80 billion a year in 1980-82 dropped to under a billion dollars in 1985. At the same time, U.S. bank borrowing from abroad, which had averaged a little over $20 billion a year during 1973-82 and almost $40 billion in 1980-82, continued to average over $40 billion in 1983-85. Thus, the U.S. was absorbing foreign capital through U.S. banks, through foreign purchases of Treasury securities, and through foreign purchases of other U.S. securities.

Additions to Foreign Holdings
of U.S. Assets, Annual Averages
($ billion, current prices)

	1973-82	1983-85
U.S. Treasury Securities	+2.6	+17.4
Other U.S. Securities	+3.3	+24.1

Source: Appendix Table 12

Most of the foreign purchases of U.S. securities other than Treasury securities in the last couple of years have been of bonds rather than stocks, although stocks predominated earlier:

Additions to Foreign Holdings
of U.S. Corporate Stocks and Bonds
other than Treasury Securities
($ million, current prices)

	1981-83	1984-85
Stocks	15,017	3,949
Bonds	7,182	59,670

Source: Appendix Table 13

Foreign Purchases of U.S. Bonds
Other than Treasury Securities
1983-85 Annual Average, by Country
($ billion, current prices)

Total	20.6
Germany	1.4
Switzerland	1.7
U.K.	13.8
Japan	2.5

Source: Appendix Table 13

The main sources of these funds were western European countries and especially the U.K.

The sources of other U.S. borrowing, including purchases of U.S. Treasury securities and additions to U.S. bank liabilities other than foreign official assets, were more widely dispersed.

Purchases of U.S. Treasury Securities and Additions to Foreign Liabilities of U.S. Banks, 1983-85 Annual Averages, by Country

($ billion, current prices)

Total	59.0
Industrial Countries	32.8
Western Europe	17.9
Canada	2.7
Other	12.3
Caribbean Banking Centers	13.3
Other Countries	12.8
of which OPEC	1.7
by area, incl. OPEC	
Latin America	5.6
Asia	4.5
Other	2.7

Source: Appendix Table 14

In this case too, the industrial countries have been the main sources of funds, but among them, Japan, included in the other industrial countries, played a larger role than in purchases of corporate bonds. The Caribbean centers are intermediaries, the origins of whose funds are not reported. The rest of the U.S. borrowing, about a fifth, came mainly from the developing countries of Latin America and Asia.

Changes in foreign official assets in the U.S. were relatively small on net balance in 1983-85 but there were significant shifts among countries.

Changes in Foreign Official Assets
in the U.S., Annual Averages
($ billion, current prices)

	1974-78	1979-82	1983-85
Total	21.1	2.6	2.5
Industrial Countries	13.0	-9.6	4.0
OPEC Members	6.5	9.8	-6.4
Other Countries	1.5	2.4	4.9

Source: Appendix Table 14

Since the collapse of oil prices OPEC countries have been drawing down reserves in the U.S. while the industrial countries and the developing countries have been increasing them. In contrast, in the four years before, OPEC countries had been increasing their official reserve holdings in the U.S. by almost $10 billion a year and the industrial countries had been reducing theirs just about as fast. In the years after the first oil shock all three groups of countries were adding to the official reserves held in the U.S.

The collapse of U.S. bank lending during the last three years includes very different behavior toward industrial and developing countries.

Changes in Claims on Foreigners

Reported by U.S. Banks, by Area

($ billion, current prices)

	1983	1984	1985
Total	-29.9	-11.1	-.7
Industrial Countries	-8.8	-8.4	-7.3
Caribbean Banking Centers	-6.7	-.7	-.2
Other Areas	-14.4	-2.0	+6.8
of which Latin America	-9.3	-1.1	+4.7
Asia	-4.6	-.8	+1.7

(-) = Increase in U.S. Assets

Source: Appendix Table 15

Lending to developed countries changed little, but with respect to the developing countries of Latin America and Asia the U.S. turned from net lending to net repayment of debt.

Over longer periods, the concentration of the growth of debt in a very few years becomes evident. Almost two thirds of the total since the first oil shock was extended during 1981 and 1982, and that pattern was repeated in almost all the borrowing countries.

Changes in Claims on Foreigners Reported by U.S. Banks, by Areas, Annual Averages

($ billion, current prices)

	1976-80	1981-82	1983-85
Total	-27.9	-97.6	-13.9
Industrial Countries	-10.8	-41.3	-8.2
Western Europe	NA	-33.6	-4.9
UK	-4.2	-21.6	-3.3
Other	NA	-12.0	-1.6
Canada	NA	-3.8	-1.0
Japan	NA	-2.8	-1.7
Caribbean Banking Centers	-6.8	-23.5	-2.5
Other Areas	-10.4	-32.8	-3.2
OPEC	-1.5	-4.0	-.6
Latin America	-6.2	-24.6[a]	-1.9[a]
Asia	-2.3	-7.4[a]	-1.2[a]
Other	-.4	-.9	-.1

[a]Including OPEC

(-) = Increase in U.S. Assets

Source: Appendix Table 15

Then the next period, 1983-85, saw reductions of 80-85 per cent in the rate at which U.S. banks were extending credit, and that pattern too was repeated in each of the individual countries.

6. Summary

The United States has gone through several cycles in the state of its foreign investment account. It was a borrower and international debtor before World War I, first a lender and then a refuge for foreign capital between the wars, the world's major lender and creditor after World War II, and, in the last few years, a borrower again, and, according to the official accounts, even a net debtor. Most foreign investment in the U.S. has

always been portfolio investment, although direct investment has been growing rapidly in recent years, while most U.S. investment abroad has typically been direct investment. The major episodes of foreign portfolio investment by the U.S. have not been happy ones. One was the intergovernment lending during World War I, eventually written off. A second was the burst of lending to Latin America in the late 1920s, a good part of which ended in default. And the third was the large international lending of the period after the first oil crisis, much of which is of questionable standing now.

The long period of U.S. borrowing before 1900 does not seem to have brought enough foreign capital into the U.S. for the transfer of resources involved to have made a great difference in the long run growth of the country. The role of the foreign capital appears to have been that of accommodating capital needs for sharp bursts in U.S. growth or in the growth of particular sectors, especially capital-intensive ones, until domestic saving caught up with capital formation. If the irregularity of capital requirements was an intrinsic feature of rapid growth, the inflow of foreign capital was more important than its size would indicate.

U.S. direct investment abroad began while the U.S. was still an overall borrower and debtor, as the technological leaders among U.S. manufacturing firms pioneered in the technique of exploiting their firm advantages by producing in other countries. The major expansion in U.S. direct investment took place in the 1950s and 1960s, as U.S. firms took advantage of the great advances in communication and transportation to spread their production activities around the world. The peak in the stock of foreign assets relative to domestic assets was probably reached during the early

1970s, although the share of their exports that multinational U.S. manufacturing firms produced abroad continued to increase after that.

The bulk of U.S. direct investment abroad has always been in goods production. However, there was a brief period in the 1920s in which almost all of U.S. investment in public utilities was concentrated, presumably a reflection of the U.S. lead in telephone systems and electric power production and distribution. Within the production of goods there has been a shift away from primary production, between a third and a half of the total in the 1950s, to manufacturing, which reached its peak share in the late 1960s or early 1970s. Since then there has been growth in the trade and services sector, the share of which roughly doubled between the mid-1950s and the mid-1980s and reached almost a third of total direct investment. Most of this is in wholesale trade and finance, with other services, even including oil-field services, still less than 5 per cent of U.S. direct investment abroad in 1985.

Using foreign production to retain their competitiveness in world markets, U.S. multinational manufacturing firms have been able to retain a constant share of world exports of manufactures over the last 15 or 20 years, while the share of the U.S. as a country has fallen sharply. What sustained the share of U.S. multinationals was the growth in their exports from locations outside the U.S., to the point that almost half of their exports now originate from their foreign production.

The comparative advantage of both the U.S. and its multinational firms is concentrated in chemicals, machinery, and transport equipment, to judge by export performance. The multinationals' share is large relative to that of the U.S. in chemicals, electrical machinery, and transport equipment, but the share of the U.S as a country is greater in non-electrical

machinery. Among more narrowly defined industries, the multinationals' comparative advantage is strongest in industries with heavy investments in advertising and in R&D. R&D intensity, a major explanation of the comparative advantage of the U.S. as a country, explains the comparative advantage of U.S. multinationals to an even greater degree.

Over the last quarter-century U.S. affiliates in foreign countries have changed their operations in several respects. One is that they have become more oriented to exporting and another is that they have become more dependent on the U.S. market. However, they still sell mainly in their host-country markets, and what they do export goes mainly to countries other than the U.S. Exports to the U.S. market are only 14 per cent of their total sales.

There has been an increase in the proportion of affiliates in which parents own less than a majority share, although that trend has at least slowed. Affiliates in the most technologically advanced industries continue to be majority-owned in most cases, presumably because sharing of ownership would erode the very advantages that make direct investment profitable.

While the flow of direct investment from the U.S. has slowed, there has recently been a large inflow of foreign direct investment into the U.S., roughly tripling the share of foreign-owned companies in the U.S. since 1950, doubling it in the last decade, and reaching to about three quarters of the value of U.S. investment abroad if those book value figures are taken literally. They probably exaggerate the size of inward direct investment relative to outward investment because so much of the inward investment has occurred in recent years.

While foreign-owned firms accounted for only about 3½ per cent of total U.S. employment after all the recent growth in foreign investment, the shares in manufacturing and wholesale trade were considerably higher. Within manufacturing there was also considerable variation, with foreign firms accounting for almost 40 per cent of chemical industry employment, but in all the other industries for less than 10 per cent. The foreign shares in service industries, aside from wholesale trade, increased, but remained below 3 per cent. To some extent, these figures reflect U.S. comparative advantage in service industry production, but the fact that U.S. companies' direct investment in foreign service industries is not itself very large suggests that it may be difficult to carry firm advantages in these industries across national borders.

The sources of these foreign investment flows into the U.S. continue to be mainly European countries, particularly the UK and the Netherlands. However, there has been some increase in the flow from Japan, mainly into wholesale trade. Most of that is probably connected with exporting from and importing to Japan rather than with wholesale trading among U.S. companies.

Aside from the increased flow of direct investment into the U.S. in recent years, there have been major shifts in the U.S. international capital position stemming largely from changes in portfolio investment. The United States became a very large capital importer in 1983-85 as U.S. banks reduced their net lending to insignificant amounts overall and foreign countries added greatly to their holdings not only of direct investment but also of U.S. Treasury securities, other U.S. securities, and deposits in U.S. banks. Most of the flows have been from Europe, as in the case of

direct investment, but Japan has also become an important investor, particularly in U.S. Treasury securities.

The growth of U.S. bank claims on foreigners was concentrated in a very short period after the second rise in oil prices, with most being accumulated in 1981 and 1982. That concentration is unpleasantly reminiscent of the concentration of portfolio investment in the late 1920s, but there has already been a substantial reduction in those claims in 1985 alone.

List of References

Baldwin, Robert E. 1979. "Determinants of Trade and Foreign Investment: Further Evidence," Review of Economics and Statistics, Vol. LXI, No. 1, February.

Brereton, Barbara F. 1986. "U.S. Multinational Companies: Operations in 1984," Survey of Current Business, Vol. 66, No. 9, September.

Caves, Richard E. 1974. "The Causes of Direct Investment: Foreign Firms' Share in Canadian and U.K. Manufacturing Industries," Review of Economics and Statistics, Vol. 56, pp. 279-293,

Edelstein, Michael. 1982. Overseas Investment in the Age of High Imperialism: The United Kingdom, 1850-1914, New York, Columbia University Press.

Federal Reserve Board. 1979. Flow of Funds Accounts, 1949 - 1978, Annual Total Flows and Year-End Assets and Liabilities, Board of Governors of the Federal Reserve System, December.

_____. 1986. Flow of Funds Accounts: Financial Assets and Liabilities, Year-End, 1962-85, Board of Governors of the Federal Reserve System, September.

Hood, Neil and Stephen Young. 1979. The Economics of Multinational Enterprise, London and New York, Longman.

Howenstine, Ned G. 1985. "U.S. Affiliates of Foreign Companies: Operations in 1983," Survey of Current Business, Vol. 65, No. 11, November, pp. 36-50.

Krueger, Russell C. 1985. "U.S. International Transactions, First Quarter 1985," Survey of Current Business, Vol. 65, No. 6, June, pp. 34-71.

_____. 1986. "U.S. International Transactions, First Quarter 1986." Survey of Current Business, Vol. 66, No. 6, June, pp. 36-73.

Lewis, Cleona. 1938. America's Stake in International Investments, Washington, D.C., Brookings.

Lipsey, Robert E. and Irving B. Kravis. 1985. "The Competitive Position of U.S. Manufacturing Firms," Banca Nazionale del Lavoro Quarterly Review, 153, June, pp. 127-154.

Lipsey, Robert E. and Irving B. Kravis. 1986. "The Competitiveness and Comparative Advantage of U.S. Multinationals, 1957-1983," NBER Working Paper 2051, October.

Mintz, Ilse. 1951. Deterioration in the Quality of Foreign Bonds Issued in the United States, 1920-1930, New York, National Bureau of Economic Research.

Musgrave, John C. 1986a. "Fixed Reproducible Tangible Wealth in the United States: Revised Estimates," Survey of Current Business, Vol. 66, No. 1, January, pp. 51-75.

_____. 1986b. "Fixed Reproducible Tangible Wealth in the United States, 1982-85," Survey of Current Business, Vol. 66, No. 8, August, pp. 36-39.

Organization for Economic Cooperation and Development. 1981. International Investment and Multinational Enterprises: Recent International Direct Investment Trends, Paris, OECD.

Shea, Michael A. 1986. "U.S. Affiliates of Foreign Companies: Operations in 1984," Survey of Current Business, Vol. 66, No. 10, October. pp. 31-45.

Southard, Frank A. 1931. American Industry in Europe. Boston and New York, Houghton-Mifflin Co.

Stern, Robert M. and Keith E. Maskus. 1981. "Determinants of the Structure of U.S. Foreign Trade, 1958-76," Journal of International Economics, Vol. 11, No. 2, May.

United Nations. 1983. Transnational Corporations in World Development, Third Survey, UN Centre on Transnational Corporations.

_____. 1985. Trends and Issues in Foreign Direct Investment and Related Flows, UN Centre on Transnational Corporations.

U.S. Bureau of the Census. 1975. Historical Statistics of the United States, Colonial Times to 1970, Washington, D.C.

U.S. Department of Commerce. 1942. American Direct Investments in Foreign Countries - 1940, by Robert L. Sammons and Milton Abelson, Washington, D.C.

_____. 1953. Foreign Investments of the United States, Census of 1950, Office of Business Economics, Washington, D.C., U.S. Government Printing office.

_____. 1960. U.S. Business Investments in Foreign Countries, Office of Business Economics, Washington, D.C., U.S. Government Printing Office.

_____. 1975. U.S. Direct Investment Abroad, 1966, Bureau of Economic Analysis.

_____. 1976. Foreign Direct Investment in the United States, Report to the Congress, Vol. 2: Report of the Secretary of Commerce: Benchmark Survey, 1974.

_____. 1981. U.S. Direct Investment Abroad, 1977, Bureau of Economic Analysis.

_____. 1982. Selected Data on U.S. Direct Investment Abroad, 1950-76, Bureau of Economic Analysis, February.

_____. 1983. Foreign Direct Investment in the United States, 1980, October.

_____. 1984a. Selected Data on Foreign Direct Investment in the U.S., 1950-79, Bureau of Economic Analysis, December.

_____. 1984b. Foreign Direct Investment in the United States, Annual Survey Results, Revised 1981 Estimates, Bureau of Economic Analysis, December.

_____. 1985a. U.S. Direct Investment Abroad: 1982 Benchmark Survey Data, Bureau of Economic Analysis, December.

_____. 1985b. U.S. Direct Investment Abroad: Operations of U.S. Parents and their Foreign Affiliates, Preliminary 1983 Estimates, Bureau of Economic Analysis, December.

_____. 1985c. Foreign Direct Investment in the U.S.: Operations of U.S. Affiliates, 1977-80, Bureau of Economic Analysis.

_____. 1985d. Foreign Direct Investment in the U.S.: Operations of U.S. Affiliates of Foreign Companies, Revised 1982 Estimates, Bureau of Economic Analysis, December.

_____. 1985e. Foreign Direct Investment in the U.S.: Operations of U.S. Affiliates of Foreign Companies, Preliminary 1983 Estimates, Bureau of Economic Analysis, December.

_____. 1985f. "Foreign Direct Investment in the United States: Country and Industry Detail for Position and Balance of Payment Flows, 1984," Survey of Current Business, Vol. 65, No. 8, August, pp. 47-66.

_____. 1985g. Business Statistics, 1984, Supplement to the Survey of Current Business.

_____. 1986a. "U.S. Direct Investment Abroad: Detail for Position and Balance of Payments Flows, 1985," Survey of Current Business, Vol. 66, No. 8, August, pp. 40-73.

_____. 1986b. "Foreign Direct Investment in the U.S.: Detail for Position and Balance of Payments Flows, 1985," Survey of Current Business, Vol. 66, No. 8, August, pp. 74-88.

_____. 1986c. U.S. Direct Investment Abroad: Operations of U.S. Parents and their Foreign Affiliates, Preliminary 1984 Estimates, Bureau of Economic Analysis, October.

_____. 1986d. U.S. Direct Investment Abroad: Operations of U.S. Parents and their Foreign Affiliates, Revised 1983 Estimates, Bureau of Economic Analysis, October.

Wilkins, Mira. 1970. The Emergence of Multinational Enterprise, Cambridge, Harvard University Press.

Table 1

Distribution, by Type of Industry, of U.S. Direct Investment Abroad[a]

	1985	1982	1977	1966	1957
TOTAL	100.0	100.0	100.0	100.0	100.0
Primary production[b]	17.8	18.4	14.4	27.2	33.9
Manufacturing, incl. petroleum refining	44.0	43.4	49.6	44.7	35.7
GOODS PRODUCTION, INCL. CONSTRUCTION	62.3	62.4	64.6	72.6	70.0
Public utilities & transportation, incl. petroleum transportation	1.6	1.9	3.4[c]	6.8	13.2
GOODS, PUBLIC UTILITIES, & TRANSPORTATION INCL. CONSTRUCTION	63.9	64.3	68.1	79.4	83.2
Trade, incl. petroleum	15.6	17.1	16.4[d]	12.4	11.4
Finance	15.6	13.8	11.3	4.8	3.8
Other Services, incl. oil-field services	4.9	4.8	4.3	3.4[e]	1.6
TRADE, FINANCE & OTHER SERVICES	36.1	35.7	31.9[d]	20.6[e]	16.8

[a]Excluding holding companies and finance affiliates in the Netherlands Antilles

[b]Including petroleum extraction and integrated extraction and refining but not separate refining, transportation, or distribution of petroleum or oil-field services.

[c]Including gasoline service stations

[d]Excludes gasoline service stations

[e]Includes all other industries and inactive

Source: Appendix Table 1

Appendix Table 1

U.S. Direct Investment Abroad, by Industry of Affiliate
($ million, current prices)

	1985	1984	1983	1982	1977	1966	1957	1950	1943	1936	1929
Agriculture	679	739	528	504	528	322	680	589	503	482	880
Mining	4,797	5,230	5,514	5,210	5,998	3,983	2,361	1,129	973	1,032	1,185
Petroleum, total	58,347	59,089	57,574	57,817	28,030	13,893	9,055	3,390	1,393	1,074	1,117
Extract, & integ, ref. & ext.	35,967	36,501	33,003	32,693	12,987	9,136	5,518	NA	NA	NA	NA
Pet. ref. and pet. & coal prod.	6,508	6,091	7,085	7,028	5,259	1,366	1,009	NA	NA	NA	NA
Tankers, pipelines, storage	1,338	1,465	1,740	1,648	2,490[a]	1,104	1,198	NA	NA	NA	NA
Distribution & marketing	8,377	8,895	9,692	11,057		1,804	1,212	NA	NA	NA	NA
Wholesale				10,835	5,380						
Oil & gas field service	6,157	6,137	6,053	5,392	1,914	482	117	NA	NA	NA	NA
PRIMARY, INCL. ALL PET.	63,823	65,058	63,616	63,531	34,556	18,198	12,096	5,108	2,869	2,588	3,182
PRIMARY, EXCL. PET. REF., DIST. & SERV.	41,443	42,470	39,045	38,407	19,513	13,442	8,560	NA	NA	NA	NA
Manufacturing	95,586	85,253	82,907	83,452	62,019	20,740	8,009	3,831	2,276	1,710	1,813
Mfg., incl. pet. ref.	102,094	91,344	89,992	90,480	67,278	22,106	9,018	NA	NA	NA	NA
Construction	1,159	1,014	937	1,061	905	362	118	d	d	d	d
TOTAL GOODS, INCL ALL PET.	160,568	151,325	147,460	148,044	97,480	39,300	20,223	8,939	5,145	4,298	4,995
GOODS, EXCL. PET TRANSP, TRADE & SERV	144,696	134,828	129,975	129,947	87,696	35,910	17,696	NA	NA	NA	NA
Public Utilities & Transp. excl. petrol.	2,333	2,322	2,427	2,273	2,186	2,260	2,145	1,425	1,390	1,640	1,610
Public Utilities & Transp. incl. petrol. transp.	3,671	3,757	4,167	3,921	4,676[a]	3,364	3,343	NA	NA	NA	NA
GOODS & PUBL. UTIL., incl. ALL PET.	162,901	153,647	149,887	150,317	99,666	41,560	22,368	10,364	6,535	5,938	6,605
GOODS & PUBL. UTIL., excl. PET, TRADE & SERVICE	148,367	138,585	134,142	133,868	92,372	39,274	21,039	NA	NA	NA	NA

(continued)

Appendix Table 1 (concluded)

	1985	1984	1983	1982	1977	1966	1957	1950	1943	1936	1929
Trade, excl. petrol.	27,863	25,650	25,184	24,485	16,836	4,331	1,668	762	654	391	368
Wholesale, excl. petrol.	23,822	21,790	21,278	20,788	14,011	3,427	1,156	542			
Wholesale, incl. petrol.	31,921	30,408	30,712	31,623	19,391	NA	NA	NA	NA	NA	NA
Retail, excl. petrol.	4,041	3,860	3,906	3,697	2,825	905	513	221			
Retail, incl. petrol.	4,319	4,137	4,164	3,919	NA	NA	NA	NA			
Trade, incl. petrol.	36,240	34,545	34,876	35,542	22,216[b]	6,135	2,880	NA	NA	NA	NA
Finance & Other Serv., excl. pet.											
Banking	14,728	13,246	12,387	10,317	4,370	280	131	9[h]			
Finance (exc. bank), ins. & RE	21,914	15,828	15,075	18,018	21,248	4,423	934	463[h]			
of which Neth Antilles	-21,994	-25,040	-23,300	-20,089	-1,215	--	--	--	674	362	555
of which holding comp.	22,398	20,584	19,666	19,597	11,477	2,311	111	56[h]			
Insur., RE, & other finance	21,510	20,284	18,709	18,510	10,986	2,112	823	407[h]			
Insur. & RE						769[c]	400	237			
Other Services, excl. petrol.	5,260	4,625	4,670	4,615	3,870	1,199[c]	293	199			
TRADE & SERV., EXCL. PET.	69,765	59,349	57,316	57,435	46,324	10,233	3,026	1,424	1,328	753	923
TRADE & SERV., EXCL. PET., NETH., ANTILLES, & HOLDING COS.	69,361	63,805	60,950	57,927	36,062	7,922	2,915	1,368	NA	NA	NA
TRADE & SERV., INCL. PET., EXCL. NETH. ANT. & HOLD. COS.	83,895	78,837	76,695	74,376	43,336[b]	10,208	4,244	NA	NA	NA	NA
Total	232,667	212,994	207,203	207,752	145,990	51,792[e]	25,394[f]	11,788	7,862	6,691	7,528
Total, Excluding Neth. Antilles	254,661	238,034	230,503	227,841	147,205						
TOTAL, EXCL. NETH. ANTILLES AND HOLDING COMPANIES	232,263	217,450	210,837	208,244	135,728	49,481	25,283	11,732			

Notes to Appendix Table 1

[a]Includes gasoline service stations

[b]Excludes gasoline service stations

[c]Hotels, Advertising & other business services, motion pictures, and all other, including inactive

[d]Included with other services

[e]Figure comparable to 1957 is 54,799

[f]Figure comparable to 1950 is 26,278

[g]Included with other finance

[h]Includes banking

Sources:

1982-85: U.S. Department of Commerce 1986a, Table 37

1977: U.S. Dept. of Commerce 1981

1966: U.S. Dept. of Commerce 1975, Table A-15

1929-1957: U.S. Dept. of Commerce 1960, Tables 5 and 6, pp. 93, 94

Appendix Table 2

Distribution of Exports of Manufactures by the U.S. and the World
By Detailed Industry, 1966, 1977, and 1982

	1966		1977		1982	
	World	U.S.	World	U.S.	World	U.S.
All Manufacturing industries	100.00	100.00	100.00	100.00	100.00	100.00
Foods and Kindred Products	13.03	8.69	11.09	7.58	9.92	6.68
Grain-mill. & bakery prod.	1.27	2.23	.87	1.42	.91	1.41
Beverages	1.13	.08	.86	.13	.88	.12
Other food products	10.63	6.38	9.36	6.03	8.13	5.14
Chemicals & Allied Products	10.30	12.75	10.73	12.04	11.82	13.35
Drugs	1.16	1.18	1.12	1.14	1.24	1.47
Soaps, cleansers, etc.	.41	.41	.43	.35	.50	.40
Agricultural chemicals	.95	1.16	.74	1.06	.81	1.49
Industrial chemicals	6.44	8.33	7.17	7.95	7.88	8.34
Other chemicals	1.35	1.67	1.27	1.53	1.38	1.65
Metals	15.53	11.90	13.08	7.50	12.41	7.94
Primary iron and steel	5.82	2.08	5.57	1.49	5.27	1.08
Primary nonferrous	6.12	3.01	3.76	1.72	3.29	1.96
Fabricated metal prod.	3.58	6.81	3.75	4.29	3.84	4.90
Non-electrical Machinery	13.96	20.85	13.81	20.93	14.17	23.21
Farm and garden machinery	1.43	2.75	1.10	2.01	.89	1.49
Construction mach.	2.09	4.34	2.44	4.81	2.56	5.52
Office and comp. mach.	1.43	2.44	1.63	3.93	2.44	6.09
Other non-elect. mach.	9.01	11.32	8.63	10.17	8.28	10.11
Electrical Machinery	6.82	7.88	8.90	9.94	9.70	10.75
Household appliances	1.02	.80	1.01	.71	.94	.56
Communications equip.	2.18	2.05	3.14	2.51	3.29	2.42
Electronic components	.58	1.09	1.09	2.14	1.64	3.08
Other electrical mach.	3.04	3.94	3.66	4.58	3.82	4.70
Transport Equipment	13.78	19.62	17.14	23.68	16.93	19.78
Motor vehicles & equip.	9.16	12.70	12.06	15.75	11.81	10.63
Other transport equip.	4.62	6.93	5.07	7.92	5.13	9.15
Other Manufacturing	26.58	18.30	25.25	18.34	25.06	18.30
Tobacco products	.28	.57	.28	.67	.34	.81
Textiles & clothing	8.54	3.17	7.26	2.70	7.00	2.33
Paper & Pulp	3.53	2.58	2.39	2.19	2.37	2.10
Paper products	.37	.37	.41	.50	.46	.60
Printing & publishing	.84	1.17	.71	.72	.71	.86
Rubber products	.84	.78	.97	.64	.95	.63
Plastic products	.35	.36	.57	.48	.58	.41
Lumber & wood furn.	3.02	1.74	3.04	2.48	2.67	2.14
Glass products	.62	.63	.56	.54	.57	.50
Nonmetallic minerals	1.12	.65	1.23	.47	1.24	.48
Instruments	2.98	4.34	3.30	4.77	3.77	5.66
Other manufacturing	4.09	1.94	4.53	2.18	4.40	1.77

Source: UN Tapes

Appendix Table 3
Industry Distribution of Exports of Manufactures by U.S. Multinationals[a]
by Detailed Industry, 1977 and 1982

	1977	1982	1982/1977
All Manufacturing Industries	100.00	100.00	1.00
Foods and Kindred Product	4.71	4.54	.96
Grain-mill. & bakery prod.	1.37	1.12	.82
Beverages	.495	.505	1.02
Other food products	2.84	2.92	1.03
Chemicals & Allied Products	13.99	16.92	1.21
Drugs	2.39	2.89	1.21
Soaps, cleansers, etc.	1.09	1.26	1.16
Agricultural chemicals	.698	.794	1.14
Industrial chemicals	8.63	10.34	1.20
Other chemicals	1.18	1.63	1.38
Metals	5.86	5.54	.95
Primary iron and steel	1.37	1.03	.75
Primary nonferrous	1.88	1.96	1.04
Fabricated metal prod.	2.61	2.55	.98
Non-electrical Machinery	18.23	18.10	.99
Farm and garden machinery	[b]	1.27	[b]
Construction mach.	5.32	4.69	.88
Office and comp. mach.	5.91	7.92	1.34
Other non-elect. mach.	7.00[c]	4.22	.78[c]
Electrical Machinery	11.14	13.39	1.20
Household appliances	1.04	.552	.53
Communications equip.	2.98	3.75	1.26
Electronic components	3.33	4.67	1.40
Other electrical mach.	3.78	4.42	1.17
Transport Equipment	30.65	26.89	.88
Motor vehicles & equip.	24.22	19.52	.81
Other transport equip.	6.43	7.37	1.15
Other Manufacturing	15.43	14.61	.95
Tobacco products	[d]	1.58	[d]
Textiles & clothing	1.37	1.05	.77
Pulp & paper			
Paper products	2.65	2.09	.79
Printing & publishing	.418	.406	.97
Rubber products	1.59	1.09	.69
Plastic products	.305	.527	1.73
Lumber & wood furn.	1.39	.95	.68
Glass products	.582	.530	.91
Nonmetallic minerals	.837	.637	.76
Instruments	4.03	5.09	1.26
Other manufacturing	2.25[e]	.65	.99[e]

Notes to Appendix Table 3

[a]Manufacturing industry parents and majority-owned affiliates in manufacturing industries.

[b]Included in other non-electrical machinery

[c]Includes farm and garden machinery

[d]Included in other manufacturing

[e]Includes tobacco products

Sources: U.S. Department of Commerce 1981, Tables III.H2 and II.T1, and 1985a, Tables III.E2 and II.P1.

Appendix Table 4

Industry Share in Exports of Manufactures, U.S. and U.S. Multinationals Relative to the World, by Detailed Industry, 1966, 1977, and 1982

	Industry Share of Exports				
	U.S. Relative to the World			U.S. Multinationals Relative to the World	
	1966	1977	1982	1977	1982
Foods and Kindred Products	.67	.68	.67	.42	.46
Grain-mill. & bakery prod.	1.76	1.63	1.55	1.57	1.23
Beverages	.07	.16	.14	.58	.58
Other food products	.60	.64	.63	.30	.36
Chemicals & Allied Products	1.24	1.12	1.13	1.30	1.44
Drugs	1.02	1.02	1.19	2.13	2.33
Soaps, cleansers, etc.	1.00	.81	.80	2.53	2.52
Agricultural chemicals	1.22	1.43	1.84	.94	.98
Industrial chemicals	1.29	1.11	1.06	1.20	1.31
Other chemicals	1.24	1.20	1.20	.93	1.19
Metals	.77	.57	.64	.45	.45
Primary iron and steel	.36	.27	.20	.25	.20
Primary nonferrous	.49	.46	.60	.50	.60
Fabricated metal prod.	1.90	1.14	1.28	.70	.66
Non-electrical Machinery	1.49	1.52	1.64	1.32	1.28
Farm and garden machinery	1.92	1.83	1.67	[a]	1.43
Construction mach.	2.08	1.97	2.16	2.18	1.83
Office and comp. mach.	1.71	2.41	2.50	3.63	3.25
Other non-elect. mach.	1.26	1.18	1.22	.72[b]	.51
Electrical Machinery	1.16	1.12	1.11	1.25	1.38
Household appliances	.78	.70	.60	1.03	.59
Communications equip.	.94	.80	.74	.95	1.14
Electronic components	1.88	1.96	1.88	3.06	2.85
Other electrical mach.	1.30	1.25	1.23	1.03	1.16
Transport Equipment	1.42	1.38	1.17	1.79	1.59
Motor vehicles & equip.	1.39	1.31	.90	2.01	1.66
Other transport equip.	1.50	1.56	1.78	1.27	1.43
Other Manufacturing	.69	.73	.73	.61	.58
Tobacco products	2.04	2.39	2.38	[c]	4.65
Textiles & clothing	.37	.37	.33	.19	.15
Pulp & paper	.73	.92	.89	.95	.74
Paper products	1.00	1.22	1.30		
Printing & publishing	1.39	1.01	1.21	.59	.58
Rubber products	.93	.66	.66	1.64	1.15
Plastic products	1.03	.84	.71	.54	.91
Lumber & wood furn.	.58	.82	.80	.46	.36
Glass products	1.02	.96	.88	1.07	.93
Nonmetallic minerals	.58	.38	.39	.68	.51
Instruments	1.46	1.45	1.50	1.22	1.35
Other manufacturing	.47	.48	.40	.47[d]	.15

Source: Appendix Tables 2 and 3

[a]Included in other non-electrical machinery
[b]Includes farm and garden machinery
[c]Included in other manufacturing
[d]Includes tobacco products

Appendix Table 5

Industry Shares in Exports by U.S. Multinationals[a] Relative to Shares in U.S. Exports of Manufactures, by Detailed Industry, 1977 and 1982

	1977	1982
Foods and Kindred Products	.62	.68
Grain-mill. & bakery prod.	.96	.79
Beverages	3.81	4.22
Other food products	.47	.57
Chemicals & Allied Products	1.16	1.27
Drugs	2.10	1.97
Soaps, cleansers, etc.	3.11	3.15
Agricultural chemicals	.66	.53
Industrial chemicals	1.09	1.24
Other chemicals	.77	.99
Metals	.78	.70
Primary iron and steel	.92	.95
Primary nonferrous	1.09	1.00
Fabricated metal prod.	.61	.52
Non-electrical Machinery	.87	.78
Farm and garden machinery	[b]	.85
Construction mach.	1.11	.85
Office and comp. mach.	1.50	1.30
Other non-elect. mach.	.57[c]	.42
Electrical Machinery	1.12	1.25
Household appliances	1.46	.99
Communications equip.	1.19	1.55
Electronic components	1.56	1.52
Other electrical mach.	.83	.94
Transport Equipment	1.30	1.36
Motor vehicles & equip.	1.54	1.84
Other transport equip.	.81	.81
Other Manufacturing	.84	.80
Tobacco products	[d]	1.95
Textiles & clothing	.51	.45
Pulp & paper		
Paper products	.99	.77
Printing & publishing	.58	.47
Rubber products	2.48	1.73
Plastic products	.64	1.29
Lumber & wood furn.	.56	.45
Glass products	1.08	1.06
Nonmetallic minerals	1.78	1.33
Instruments	.84	.90
Other manufacturing	.79[e]	.37

Notes to Appendix Table 5

[a]Manufacturing industry parents and affiliates in manufacturing industries

[b]Included in other non-electrical machinery

[c]Includes farm and garden machinery. Comparable 1982 ratio was .47

[d]Included in other manufacturing

[e]Includes tobacco products. Comparable 1982 ratio was .86

Source: Appendix Tables 2 and 3

Appendix Table 6

R & D Expenditures by Manufacturing Parents and Relation to Parent Sales, 1977

Unit: $ million	R & D Expend.	Sales	R & D Exp. as % of Sales
Total Manufacturing	17,039	739,460	2.30
Foods and Kindred Products	395	83,422	.47
Grain-mill. & bakery prod.	94	14,497	.65
Beverages	29	9,679	.30
Other food products	273	59,245	.46
Chemicals & Allied Products	2,892	96,474	3.00
Drugs	950	16,423	5.78
Soaps, cleansers, etc.	277	14,790	1.87
Agricultural chemicals	a	3,303	a
Industrial chemicals	1,481	53,985	2.74
Other chemicals	184[b]	7,974	.74[b]
Metals	751	94,563	.79
Primary iron and steel	314	46,902	.67
Primary nonferrous	183	19,250	.95
Fabricated metal prod.	255	28,411	.90
Non-electrical Machinery	3,395	80,174	4.23
Farm and garden machinery	203	6,559	3.09
Construction mach.	356	18,211	1.95
Office and comp. mach.	2,191	23,950	9.15
Other non-elect. mach.	645	31,455	2.05
Electrical Machinery	2,284	62,631	3.65
Household appliances	102	8,436	1.21
Communications equip.	446	16,723	2.67
Electronic components	238	6,247	3.81
Other electrical mach.	1,498	31,225	4.80
Transport Equipment	5,046	165,681	3.05
Motor vehicles & equip.	3,242	115,877	2.80
Other transport equip.	1,804	49,804	3.62
Other Manufacturing	2,275	156,516	1.45
Tobacco products	52	10,845	.48
Textiles & clothing	74	25,342	.29
Pulp & paper Paper products	315	22,570	1.40
Printing & publishing	14	13,734	.10
Rubber products	312	16,401	1.90
Plastic products	30	3,251	.92
Lumber & wood furn.	84	18,218	.46
Glass products	94	6,053	1.55
Nonmetallic minerals	115	10,409	1.10
Instruments	1,058	19,087	5.54
Other manufacturing	127	10,607	1.20

[a]Included in Other chemicals [b]Includes Agricultural chemicals

Source: U.S. Department of Commerce 1981

Appendix Table 7

Sales and Exports by U.S. Majority-Owned Affiliates
($ million)

	Total Sales					
	1957	1966	1977	1982	1983	1984
All Industries	38,154[a]	97,783	507,019	730,235	705,811	716,410
Agriculture, Forestry, Fishing	856	[b]	1,195	1,286	1,353	1,490
Mining	2,032	3,321	5,086	4,336	3,220	3,260
Petroleum	14,501	27,457	198,624	266,304	245,340	235,267
Extraction	NA	NA	24,753	45,143	44,462	51,174
Other	NA	NA	173,871	221,161	200,878	184,093
Manufacturing	18,331	47,375	194,200	271,099	270,363	284,581
Construction	[b]	[b]	7,871	12,208	10,544	7,094
Public Utilities and Trans.	1,216	1,366	3,629	4,233	4,460	4,276
Trade	NA	14,066	77,362	129,333	128,584	134,545
Wholesale	NA	NA	64,463	113,622	110,929	116,796
Retail	NA	NA	12,899	15,711	17,655	17,749
Finance, Ins., & Real Estate (excl. Banking)	NA	NA[e]	10,002	23,526	23,690	28,517
Services	1,217[c]	4,181[d]	9,051	17,911	18,256	17,380

(continued)

Appendix Table 7 (cont.)

	Total Exports					
	1957	1966	1977	1982	1983	1984
All Industries	10,459[a]	24,393	193,712	252,274	248,763	261,328
Agriculture, Forestry, Fishing	539	[b]	695	934	994	1,111
Mining	1,707	2,496	3,940	3,572	2,560	2,632
Petroleum	4,980	8,206	98,254	94,205	90,882	85,748
Extraction	NA	NA	13,392	27,736	27,125	31,211
Other	NA	NA	84,862	66,469	63,757	54,537
Manufacturing	2,912	8,817	59,773	91,832	94,973	106,587
Construction	[b]	[b]	1,060	1,155	1,118	787
Public Utilities and Transp.	297	151	60	388	281	356
Trade	NA	4,100	26,737	47,754	44,482	47,395
Wholesale	NA	NA	26,483	47,410	44,118	47,125
Retail	NA	NA	254	344	364	270
Finance, Ins., & Real Estate (excl. Banking)	NA	NA[e]	1,198	8,897	9,771	13,181
Services	NA	623[d]	1,994	3,539	3,700	3,529

(continued)

Appendix Table 7 (concl.)

	Exports to the U.S.					
	1957	1966	1977	1982	1983	1984
All Industries	3,770[a]	6,300	93,573	76,780	76,814	88,956
Agriculture, Forestry, Fishing	327	[b]	360	524	537	583
Mining	898	1,260	1,429	1,234	995	1,052
Petroleum	1,441	1,491	70,916	36,567	30,514	31,780
Extraction	NA	NA	8,909	18,113	15,854	16,048
Other	NA	NA	62,007	18,454	14,660	15,732
Manufacturing	1,093	2,679	17,601	26,244	31,258	39,858
Construction	[b]	[b]	56	33	30	29
Public Utilities and Transp.	NA	101	20	273	144	179
Trade	NA	504	2,225	5,538	6,387	7,157
Wholesale	NA	NA	2,195	5,501	6,297	7,122
Retail	NA	NA	30	37	90	35
Finance, Ins., & Real Estate (excl. Banking)	NA	NA	591	5,401	5,984	7,277
Services	NA	NA	377	966	966	1,040

[a]Excluding trade and finance

[b]Included with services

[c]Including construction

[d]Including agriculture, forestry, fishing, and construction

[e]The division of sales between local sales and exports was not reported by companies in Finance, Insurance, and Real Estate

Sources: U.S. Dept. of Commerce 1960, Tables 22 and 23

U.S. Dept. of Commerce 1975, Table L-1

U.S. Dept. of Commerce 1981, Table III.H2

U.S. Dept. of Commerce 1985a, Table III.E2

U.S. Dept. of Commerce 1986d, Table 35

U.S. Dept. of Commerce 1986c, Table 35

Appendix Table 8

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

	1966		1977		1982	
	Developed Countries	LDCs	Developed Countries	LDCs	Developed Countries	LDCs
All Industries	88.0	88.7	75.4	84.2	77.3	80.3
Agriculture	[d]	[d]	58.8	87.5	68.2	86.2
Mining	92.7	74.8	54.6	48.3	61.9	42.6
Petroleum	90.2	100.0	72.8	93.4	78.2	86.4
Manufacturing	88.8	80.2	80.5	71.0	76.5	71.1
Chemicals	91.1	83.3			82.1	68.2
Drugs	NA	NA	93.8	86.0	96.2	93.8
Soaps, cleansers, etc.	NA	NA	96.6	88.6	99.3	88.8
Machinery	90.2	87.2	86.3	77.8	86.1	79.1
Office & computing mach.	NA	NA	94.7	97.5	94.0	99.5
Radio, TV, & commun. eq.	NA	NA	94.1	77.6	83.3	71.1
Electronic comp & access.	NA	NA	80.5	95.3	78.9	96.0
Instruments & related prod.	NA	NA	89.2	76.8	88.5	78.7
Transportation, Comm. & Public Util.	88.5	68.3[c]	19.5	29.4	6.3	50.3
Construction	[d]	[d]	80.8	75.3	96.5	82.7
Wholesale Trade	94.8	91.8	75.6	79.5	93.4	87.3
Retail Trade			71.6	60.5	58.9	46.4
Finance, Insur. & Real Estate	95.4[a]	91.5[a,c]	75.6[b]	53.9[b]	76.3[b]	92.6[b]
Services	[d]	[d]	73.1	76.0	90.3	81.0
Other Industries	94.4	93.3[c]				

[a]Based on income in place of sales. The sales figures for majority-owned affiliates in the source appear to be incorrect.

[b]Excluding banks.

[c]Suppressed observations estimated by the author.

[d]Included with Other Industries

Source: Dept. of Commerce 1975, Tables J-3, J-4, J-18 and L-3;

1981, Tables II.F6 and III.F6; and 1985a, Tables II.D4 and III.D4.

Appendix Table 9

Foreign Direct Investment in the U.S., by Industry of Affiliate
($ million)

	1985	1984	1983	1982	1981	1980	1977	1974	1966	1960	1950
Total	182,951	164,583	137,061	124,677	108,714	83,046	34,595	26,512	9,054	6,910	3,391
Agriculture, Forestry, & Fishing	1,110	1,150	1,148	1,049	948	773	NA	31[c]			
Mining	4,070	3,920	1,928	1,876	2,152	1,320	NA	427			
Petroleum, total	28,123	25,400	18,209	17,660	15,246	12,200	6,573	6,354	1,740	1,238	405
Extraction & integ. ref. & ext.	24,256	21,913	15,385	14,199	12,452	10,229	NA	6,174			
Pet. refin. & petrol. & coal prod.	29	28	31	44	48	39	NA				
Tankers, pipelines & storage[a]	520	538	587	457	393	368	NA	180			
Distribution & marketing[b]	2,398	1,930	1,202	1,909	1,365	962	NA				
Oil & gas field serv.	919	990	1,005	1,051	988	601	NA				
PRIMARY, INCL. ALL PETROL.	33,303	30,470	21,285	20,585	18,346	14,293	NA	6,812			
PRIMARY, EXCL. PET. TRANSP, DIST., & SERVICE	29,466	27,012	18,491	17,168	15,600	12,362	NA	6,632			
Manufacturing	60,798	51,802	47,665	44,065	40,533	33,011	14,030	8,242	3,789	2,611	1,138
Chemicals	19,502	16,631	15,766	14,377	13,701	10,439	NA	2,672			
Machinery	9,447	9,682	8,608	8,595	8,297	6,995	NA	1,093			
Transp. Equip.	2,134	1,880	1,656	1,507	994	955	NA				
Other	29,715	23,609	21,635	19,586	17,541	14,622	NA	4,477			
Construction	4,024	4,337	3,676	3,692	3,152	522	NA	36[c]			
TOTAL GOODS, INCL. ALL PETROL.	98,125	86,609	72,626	68,342	62,031	47,826	NA	15,090			
GOODS, EXCL. PET. TRANSP., DIST., & SERVICE	94,288	83,151	69,832	64,925	59,285	45,895	NA	14,910			

(concluded)

Appendix Table 9 (concluded)

	1985	1984	1983	1982	1981	1980	1977	1974	1966	1960	1950
Public Util. & Transp., excl. petrol.	1,885	1,633	1,572	1,379	1,103	774	NA	347			
Public Util. & Transp., incl. petrol.	2,405	2,171	2,159	1,836	1,496	1,142	NA	NA			
GOODS & PUB. UTIL., INCL. ALL PET.	100,010	88,242	74,198	69,721	63,134	48,600	NA	15,437			
GOODS & PUB. UTIL., EXCL. PET TRADE & SERVICE	96,693	85,322	71,991	66,761	60,781	47,037	NA	15,257			
Trade, excl. petrol.	34,212	31,219	26,513	23,604	20,537	15,210	NA	4,578			
Wholesale, excl. petrol.	27,514	24,455	21,031	18,397	16,012	11,560	7,237	4,153	739		
Wholesale, incl. petrol.	29,912	26,385	22,233	20,306	17,377	12,522	NA				
Retail	6,698	6,764	5,482	5,207	4,525	3,650	NA	425			
Trade, incl. petrol.	36,610	33,149	27,715	25,513	21,902	16,172	NA				
Finance & Other Serv., excl. petrol.											
Banking	11,503	10,326	8,697	7,846	6,553	4,617		510			
Finance (exc. bank), Insur., & Real Estate	34,334	32,316	25,570	21,607	17,159	13,530	5,398	5,686	2,072	1,810	1,065
Holding Companies	3,783	3,687	2,213	1,772	1,044	857		3,807			
Other Finance	30,551	28,629	23,357	19,835	16,115	12,673		1,879			
Other services, excl. petrol.	2,893	2,479	2,082	1,899	1,330	1,089		302			
Other industries							1,357[d]		714[d]	1,251[e]	784[e]
TRADE & SERV., EXCL. PETROL.	82,942	76,340	62,862	54,956	45,579	34,446		11,076			
TRADE & SERV., EXCL. PETROL. & HOLD COS.	79,159	72,653	60,649	53,184	44,535	33,589		7,269			
TRADE & SERV., INCL. PETROL. EXCL. HOLD. COS.	81,557	74,583	61,851	55,093	45,900	34,551		NA			

Notes to Appendix Table 9

[a]Includes gasoline service stations.

[b]Wholesale only.

[c]Investment in unincorporated affiliates in agriculture and construction is combined in the source. We assumed that half was in agriculture and half was in construction.

[d]Including Agriculture, Mining, Construction, Public Utilities and Transportation, Retail Trade, and Other Services.

[e]Same coverage as f.n. d plus wholesale trade.

Sources: 1981-85, U.S. Dept. of Commerce 1986b, Table 23.

1980, U.S. Dept. of Commerce 1985f, Table 34.

1974, U.S. Dept. of Commerce 1976, Table A-4.
These data have been revised in the source listed for 1977 and earlier years but we used this source for its superior detail.

1950, 1960, 1966, 1977, U.S. Dept. of Commerce 1984a, Tables 1 & 17.

Appendix Table 10

Employment of Nonbank U.S. Affiliates of Foreign Corporations, by Industry of Affiliate
(Thousands)

	1984	1983	1982	1981	1980	1979	1978	1977	1974
All Industries	2,715	2,547	2,448	2,417	2,034	1,753	1,430	1,219	1,057
Agriculture, Forestry, & Fishing	9	11	11	11	10	10	10	9	8
Mining	32	29	41	40	25	18	16	16	23
Petroleum	125	121	122	128	102	86	98	90	94
PRIMARY PRODUCTION	166	161	174	179	137	114	124	115	125
Manufacturing	1,378	1,321	1,242	1,300	1,105	1,006	804	686	551
Food & kindred prod.	145	139	126	128	120	111	84	72	75
Chemicals	406	398	390	414	284	261	224	198	115
Primary & fabric. metals	164	146	103	111	113	107	84	85	88
Machinery, exc. elect.	128	125	132	138	117	112	86	65	43
Elect. mach. & equip.	181	168	153	164	173	149	110	95	56
Transport. equip.	61	65	71	73	65	50	21	3	174
Other manuf.	294	281	266	273	233	217	195	167	
Construction	42	45	52	58	43	28	23	13	8
GOODS PRODUCTION	1,586	1,527	1,468	1,537	1,285	1,148	951	814	684
Public Utilities & Transportation	63	56	57	43	36	27	25	23	45
GOODS, PUBLIC UTIL. & TRANSP.	1,649	1,583	1,525	1,580	1,321	1,175	976	837	729
Wholesale Trade	293	269	280	254	217	196	172	153	122
Retail Trade	454	420	398	344	304	236	172	142	121
Finance, exc. bank. & insur.	38	37	25	18	25	13	11	10	9[a]
Insurance	62	68	71	68	62	45	38	33	33
Real Estate	27	27	26	29	20	22	11	8	5
Services	192	143	123	124	85	66	51	37	41
TRADE AND SERVICES	1,066	964	923	837	713	578	455	383	331

[a]Banking: 26 thousand

Sources: Shea 1986; Howenstine 1985; U.S. Dept. of Commerce 1984b, Table F-1; U.S. Dept. of Commerce 1985c, Table F-1; U.S. Dept. of Commerce 1976, Table L-1

Appendix Table 11

Foreign Direct Investment Position in the U.S. by Industry and Country
($ billion, current prices)

	1985	1984	1983	1982	1981	1980
All Industries	183.0	164.6	137.1	124.7	108.7	83.0
Canada	16.7	15.3	11.4	11.7	12.1	12.2
Europe	120.9	108.2	92.9	83.2	72.4	54.7
Germany	14.4	12.3	10.8	9.8	9.5	7.6
Netherlands	36.1	33.7	29.2	26.2	26.8	19.1
UK	43.8	38.4	32.2	28.4	18.6	14.1
Switzerland	11.0	8.1	7.5	6.4	5.5	5.1
Japan	19.1	16.0	11.3	9.7	7.7	4.7
Latin America	17.0	16.2	15.0	14.2	11.7	9.7
Neth. Antilles	10.6	10.9	9.9	9.2	8.2	6.7
Middle East	5.0	5.3	4.4	4.4	3.6	.9
Petroleum	28.1	25.4	18.2	17.7	15.2	12.2
Europe	25.4	23.1	16.3	15.1	12.9	NA
Netherlands & UK	23.6	21.0	14.6	13.5	11.4	NA
Manufacturing	60.8	51.8	47.7	44.1	40.5	33.0
Canada	5.1	4.1	3.3	3.5	3.4	NA
Europe	46.5	39.1	36.9	33.0	30.9	NA
France	5.5	5.4	5.5	5.0	4.9	NA
Germany	6.2	4.4	4.5	4.2	4.2	NA
Netherlands	13.0	12.5	11.2	9.9	9.0	NA
UK	11.9	9.7	9.2	8.5	7.6	NA
Switzerland	7.4	4.8	4.2	3.6	3.3	NA
Japan	2.6	2.5	1.6	1.6	1.3	NA
Latin America	5.6	5.5	5.2	5.4	4.5	NA
Neth. Antilles	3.7	4.1	3.8	3.7	4.0	NA
Wholesale Trade	27.5	24.5	21.0	18.4	16.0	11.6
Europe	12.5	11.7	10.1	9.0	8.0	NA
Japan	11.6	9.7	7.8	6.1	5.0	NA
Retail Trade	6.7	6.8	5.5	5.2	4.5	3.6
Europe	5.1	5.2	4.4	4.3	3.8	NA
Banking	11.5	10.3	8.7	7.8	6.6	4.6
Europe	6.0	5.7	5.6	4.9	4.0	NA
Finance, exc. Bank.	4.7	5.6	2.3	2.2	1.1	1.3
Europe	2.4	3.5	1.2	1.4	.6	NA
Insurance	11.1	8.9	8.7	7.9	7.1	6.1
Europe	8.9	6.7	7.2	6.3	5.5	NA
Netherlands & UK	5.7	3.9	4.2	3.9	3.5	NA
Real Estate	18.6	17.8	14.6	11.5	9.0	6.1
Europe	8.8	8.3	6.8	5.1	3.7	NA
Latin America	4.8	4.7	4.1	3.3	2.6	NA
Neth. Antilles	3.9	3.7	3.2	2.6	1.9	NA
Other	9.9	9.5	8.5	8.0	6.5	3.2

Source: U.S. Dept. of Commerce 1986b and earlier articles in the same series

Appendix Table 12

U.S. International Capital Transactions, 1960-1985
($ million, current prices)

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
U.S. AND FOREIGN ASSETS, NET	-1,805	-2,833	-2,263	-4,053	-5,917	-4,974	-3,660	-2,378	-1,049	+1,117	-2,978	+10,495	+6,964
U.S. ASSETS ABROAD, NET (increase/ capital outflow (-))	-4,099	-5.538	-4,174	-7,270	-9,560	-5,716	-7,321	-9,757	-10,977	-11,585	-9,337	-12,475	-14,497
U.S. official reserve assets, net	2,145	607	1,535	378	171	1,225	570	53	-870	-1,179	2,481	2,349	-4
U.S. Government assets, other than official reserve assets, net	-1,100	-910	-1,085	-1,662	-1,680	-1,605	-1,543	-2,423	-2,274	-2,200	-1,589	-1,884	-1,568
U.S. private assets, net	-5,144	-5,235	-4,623	-5,986	-8,050	-5,336	-6,347	-7,386	-7,833	-8,206	-10,229	-12,940	-12,925
Direct investment	-2,940	-2,653	-2,851	-3,483	-3,760	-5,011	-5,418	-4,805	-5,295	-5,960	-7,590	-7,618	-7,747
Foreign securities	-663	-762	-969	-1,105	-677	-759	-720	-1,308	-1,569	-1,549	-1,076	-1,113	-618
U.S. claims on unaffiliated foreigners reported by nonbanking concerns	-394	-558	-354	157	-1,108	341	-442	-779	-1,203	-126	-596	-1,229	-1,054
U.S. claims reported by U.S. banks, not included elsewhere	-1,148	-1,261	-450	-1,556	-2,505	93	233	-495	233	-570	-967	-2,980	-3,506
FOREIGN ASSETS IN THE UNITED STATES, NET (increase/capital inflow (+))	2,294	2,705	1,911	3,217	3,643	742	3,661	7,379	9,928	12,702	6,359	22,970	21,461
Foreign official assets in the U.S., net	1,473	765	1,270	1,986	1,660	134	-672	3,451	-774	-1,301	6,908	26,879	10,475
U.S. Government securities	655	233	1,409	816	432	-141	-1,527	2,261	-769	-2,343	9,439	26,570	8,470
U.S. Treasury securities	655	233	1,410	803	434	-134	-1,548	2,222	-798	-2,269	9,411	26,578	8,213
Other	—	—	-1	12	-2	-7	21	39	29	-74	28	-8	257
Other U.S. Government liabilities	215	25	152	429	298	65	113	83	-15	251	-456	-510	182
U.S. liabilities reported by U.S. banks, not included elsewhere	603	508	-291	742	930	210	742	1,106	10	792	-2,075	819	1,638
Other foreign official assets	—	—	—	—	—	—	—	—	—	—	—	—	185
Other foreign assets in the United States, net	821	1,939	641	1,231	1,983	607	4,333	3,928	10,703	14,002	-550	-3,909	10,986
Direct investment	315	311	346	231	322	415	425	698	807	1,263	1,464	367	949
U.S. Treasury securities	-364	151	-66	-149	-146	-131	-356	-135	136	-68	81	-24	-39
U.S. securities other than U.S. Treasury secur.	282	324	134	287	-85	-358	906	1,016	4,414	3,130	2,189	2,289	4,507
U.S. liabilities to unaffiliated foreigners reported by U.S. nonbanking concerns	-90	226	-110	-37	75	178	476	584	1,475	792	2,014	369	815
U.S. liabilities reported by U.S. banks, not included elsewhere	678	928	336	898	1,818	503	2,882	1,765	3,871	8,886	-6,298	-6,911	4,754
Allocations of special drawing rights	—	—	—	—	—	—	—	—	—	—	867	717	710
Statistical discrepancy	-1,019	-989	-1,124	-360	-907	-457	629	-205	438	-1,516	-219	-9,779	-1,879

Appendix Table 12 (concluded)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
U.S. AND FOREIGN ASSETS, NET	-4,486	-504	-24,033	-14,751	+16,534	+2,906	-25,579	-28,006	-27,709	-27,195	+35,474	+79,128	+94,670
U.S. ASSETS ABROAD, NET (increase/ capital outflow (-))	-22,874	-34,745	-39,703	-51,269	-34,785	-61,130	-64,331	-86,118	-111,031	-121,273	-50,022	-23,639	-32,436
U.S. official reserve assets, net	158	-1,467	-849	-2,558	-375	732	-1,133	-8,155	-5,175	-4,965	-1,196	-3,131	-3,858
U.S. Government assets, other than official reserve assets, net	-2,644	366	-3,474	-4,214	-3,693	-4,660	-3,746	-5,162	-5,097	-6,131	-5,005	-5,523	-2,824
U.S. private assets, net	-20,388	-33,643	-35,380	-44,498	-30,717	-57,202	-59,453	-72,802	-100,758	-110,177	-43,821	-14,986	-25,754
Direct investment	-11,353	-9,052	-14,244	-11,949	-11,890	-16,056	-25,222	-19,222	-9,624	2,369	-373	-3,858	-18,752
Foreign securities	-671	-1,854	-6,247	-8,885	-5,460	-3,626	-4,726	-3,568	-5,778	-8,102	-7,007	-5,082	-7,977
U.S. claims on unaffiliated foreigners reported by nonbaking concerns	-2,383	-3,221	-1,357	-2,296	-1,940	-3,853	-3,291	-3,174	-1,181	6,626	-6,513	5,081	1,665
U.S. claims reported by U.S. banks, not included elsewhere	-5,980	-19,516	-13,532	-21,368	-11,427	-33,667	-26,213	-46,838	-84,175	-111,070	-29,928	-11,127	-691
FOREIGN ASSETS IN THE UNITED STATES, NET (increase/capital inflow (+))	18,388	34,241	15,670	36,518	51,319	64,036	38,752	58,112	83,322	94,078	85,496	102,767	127,106
Foreign official assets in the U.S., net	6,026	10,546	7,027	17,693	36,816	33,678	-13,665	15,497	4,960	3,593	5,968	3,037	-1,324
U.S. Government securities	641	4,172	5,563	9,892	32,538	24,221	-21,972	11,895	6,322	5,085	6,496	4,703	-841
U.S. Treasury securities	59	3,270	4,658	9,319	30,230	23,555	-22,435	9,708	5,019	5,779	6,972	4,690	-546
Other	582	902	905	573	2,308	666	463	2,187	1,303	-694	-476	13	-295
Other U.S. Government liabilities	936	301	1,517	4,627	1,400	2,476	-40	615	-338	605	725	436	483
U.S. liabilities reported by U.S. banks, not included elsewhere	4,126	5,818	-2,158	969	773	5,551	7,213	-159	-3,670	-1,747	545	555	522
Other foreign official assets	323	254	2,104	2,205	2,105	1,430	1,135	3,145	2,646	-350	-1,798	-2,657	-1,488
Other foreign assets in the U.S., net	12,362	23,696	8,643	18,826	14,503	30,358	52,416	42,615	78,362	90,486	79,527	99,730	128,430
Direct investment	2,800	4,760	2,603	4,347	3,728	7,897	11,877	16,918	25,195	13,792	11,946	25,359	17,856
U.S. Treasury securities	-216	697	2,590	2,783	534	2,178	4,960	2,645	2,946	7,052	8,721	23,059	20,500
U.S. securities other than U.S. Treasury sec.	4,041	378	2,503	1,284	2,437	2,254	1,351	5,457	7,176	6,392	8,636	12,759	50,859
U.S. liabilities to unaffiliated foreigners reported by U.S. nonbanking concerns	1,035	1,844	319	-578	1,086	1,889	1,621	6,852	917	-2,383	-118	4,704	-1,172
U.S. liabilities reported by U.S. banks, not included elsewhere	4,702	16,017	628	10,990	6,719	16,141	32,607	10,743	42,128	65,633	50,342	33,849	40,387
Allocations of special drawing rights	—	—	—	—	—	—	1,139	1,152	1,093	—	—	—	—
Statistical discrepancy	-2,654	-1,458	5,917	10,544	-2,023	12,521	25,431	24,982	20,276	36,325	11,130	27,338	23,006

Source: Krueger 1986, Table 1

Appendix Table 13

Foreign Purchases of U.S. Corporate Stocks and Corporate and Other Bonds, excluding Treasury Securities and Transactions of Foreign Official Agencies[a]
($ million, current prices)

	1985	1984	1983	1982	1981
Stocks, net foreign purchases	4,855	-906	6,395	3,566	5,056
Western Europe	2,079	-3,061	3,947	2,518	3,655
Germany	730	-48	1,046	334	-22
Switzerland	-75	-1,542	1,325	-579	288
UK	1,686	-676	1,771	3,096	2,216
Other	-262	-794	-195	-333	1,173
Canada	355	1,691	1,151	223	1,046
Japan	298	-148	274	--	118
Other	2,123	612	1,023	826	237
Corporate & other bonds, net foreign purchases	46,004	13,666	2,241	2,826	2,115
Western Europe	39,424	11,192	1,204	2,678	1,713
Germany	2,001	1,727	345	2,011	848
Switzerland	3,987	639	583	158	108
UK	32,488	8,436	406	189	661
Other	948	390	-130	320	96
Canada	188	-62	123	24	-12
Japan	5,420	1,455	682	29	175
Other Countries	1,086	787	223	123	198
Intl. Financial Inst.	-114	294	9	-28	41

[a](+) = net foreign purchases; (-) = net foreign sales

Sources: 1983-85, Krueger 1986, Table 6, and earlier articles in the same series

Appendix Table 14

Foreign Purchases of U.S. Treasury Securities and Additions to Liabilities Reported by U.S. Banks[a]
($ million, current prices)

	1985	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
Changes in Foreign Official Assets in the U.S., net	-1,324	3,037	5,795	3,318	5,430	15,442	-13,757	33,293	36,656	18,073	6,336	10,981
Industrial Countries	1,178	463	10,284	-6,506	-11,544	914	-21,151	34,293	28,766	3,887	-1,040	-713
Members of OPEC	-6,599	-4,304	-8,283	7,291	13,581	12,769	5,543	-1,137	6,351	9,581	6,881	10,841
Other Countries	4,097	6,878	3,794	2,533	3,393	1,759	1,851	137	1,539	4,605	495	853
Other purchases of U.S. Treasury Securities and Additions to Liabilities Reported by U.S. Banks, not incl. elsewhere	60,887	56,908	59,063	72,974	45,074	13,388	37,567	18,456	7,253	13,773		
Industrial Countries	35,988	36,255	26,299	38,585	13,209	6,062	18,150	10,931	1,183	6,312		
Western Europe	10,964	23,343	19,296	33,975	11,029							
Canada	777	3,392	3,989	2,027	-23							
Other	24,247	9,520	3,014	2,583	2,193							
Caribbean Banking Centers	11,287	6,972	21,770	18,894	24,817	2,980	14,006	3,911	3,128	1,618		
Other Areas	13,612	13,681	10,994	15,495	7,048							
Of which members of OPEC[b]	2,464	2,023	573	4,736	90	861	1,808	1,070	989	1,161		
By area[c]						4,311	3,565	2,473	2,674	1,968		
Latin America	5,361	6,350	4,989	11,533	4,681							
Asia	5,538	3,651	4,358	2,915	1,009							
Africa	1,079	243	-57	-36	-45							
Other	1,634	3,437	1,704	1,083	1,403							
Intl. Fin. Inst.				776	1,472	-826	38	71	-721	2,714		

[a](+) = Credits, increase in foreign assets; (-) = debits, decrease in foreign assets.

[b]Previous to 1981, oil-exporting countries.

[c]OPEC members included in area totals from 1981 through 1985; oil-exporting countries excluded from area totals before 1981.

Sources: 1983-1985, Krueger 1985 and 1986, Tables B and 9; others from earlier articles in the same series.

Appendix Table 15

Changes in Claims on Foreigners Reported by U.S. Banks, by Area[a]
($ million, current prices)

	1985	1984	1983	1982	1981	1980	1979	1978	1977	1976
Total	-691	-11,127	-29,928	-111,070	-84,175	-46,838	-26,213	-33,631	-11,427	-21,368
Industrial Countries	-7,291	-8,384	-8,846	-49,183	-33,464	-14,255	-13,906	-18,107	-3,125	-4,507
Western Europe	-6,445	-6,411	-1,868	-43,053	-24,092					
UK	-4,450	-7,994	2,527	-26,076	-17,094	-2,812	-10,009	-4,610	-1,942	-1,799
Other	-1,995	1,583	-4,395	-16,977	-6,998					
Canada	1,319	-349	-3,905	-3,241	-4,352					
Japan	-2,659	-663	-1,752	-1,591	-4,019					
Other	494	-961	-1,321	-1,298	-1,001					
Caribbean Banking Centers	200	-717	-6,696	-25,462	-21,475	-16,845	2,335	-1,930	-5,825	-11,518
Other Areas	6,800	-2,026	-14,386	-36,425	-29,236	-15,738	-14,642	-13,594	-2,477	-5,343
Of which OPEC members[b]	1,321	124	-3,105	-5,698	-2,302	-1,684	241	-3,472	-906	-1,712
By area[c]						-14,054	-14,883	-10,122	-1,571	-3,631
Latin America	4,702	-1,122	-9,269	-26,344	-22,763	-8,870	-11,436	-7,045	-609	-3,095
Asia	1,713	-761	-4,567	-9,499	-5,341	-4,407	-2,795	-2,879	-928	-366
Africa	385	280	-570	-867	-511	-303	-99	-109	-111	59
Other	--	-423	20	285	-621	-474	-553	-89	77	-229

[a](+) = Credits, decrease in U.S. assets; (-) = Debits, increase in U.S. assets

[b]Previous to 1981, oil exporting countries.

[c]OPEC members included in area totals from 1981 through 1985; oil-exporting countries excluded from area totals before 1981.

Sources: 1983-85, Krueger 1986, Table 8; others from earlier articles in the same series