U.S. International Trade in Services

International trade in services has been getting a lot of attention. At last year's ministerial meeting of GATT (General Agreement on Tariffs and Trade), the United States emphasized the need to resolve the problem of protectionist policies in the services sector. The media have also played up the importance of services to the U.S. balance of payments. And many analysts are looking to the growing domestic services economy in the United States to become a dominant force internationally—one in which the United States is thought to enjoy a competitive advantage.

U.S. services trade emerged in the mid-1970s as an important positive contributor to the U.S. current account. An earlier article in this *Review* (Reuven Glick, "U.S. International Service Transactions: Their Structure and Growth", Spring 1978) described the many components of services trade and their role in U.S. economic activity and analyzed the reasons for the rapid growth of services income through 1977.

Since then, net services income continued to grow rapidly. From $21 billion in 1977, it reached $39 billion in 1981. Services were a major contributor to the annual U.S. current account surpluses recorded in 1980 and 1981.

Some analysts had presumed that net services income would follow a continued upward trend. Indeed, the services account appears to have been relatively unresponsive to the economic factors that have contributed to a widening U.S. merchandise trade deficit (chart). For example, over the last two years, as the dollar appreciation contributed for a time to an expanding deficit on merchandise trade (see Robert A. Feldman, "Dollar Appreciation, Foreign Trade, and the U.S. Economy", Summer 1982 issue of this *Review*), the surplus in services income rose.[1] However, the conditions that imparted much of the past upward momentum to net services income have changed and the surplus in services transactions turned down last year. Moreover, some of the past growth may have been illusory because of reporting inconsistencies and incomplete data.

This article highlights the main features of U.S. services trade over the past five years and focuses on two questions: (1) What economic factors help explain recent movements in U.S services income? And (2) is it likely that services income will return to sufficiently rapid growth to offset, as in the recent past, large projected merchandise trade deficits?

Highlights of U.S. trade in services

To start, there are some basic points about recent U.S. international services transactions:

- Most of the rise in the U.S. services surplus has been in investment income. Net investment income almost doubled to $33 billion between 1977 and 1981. It accounted for over 80 percent of the cumulative *net* services receipts over the period. Such frequently thought-

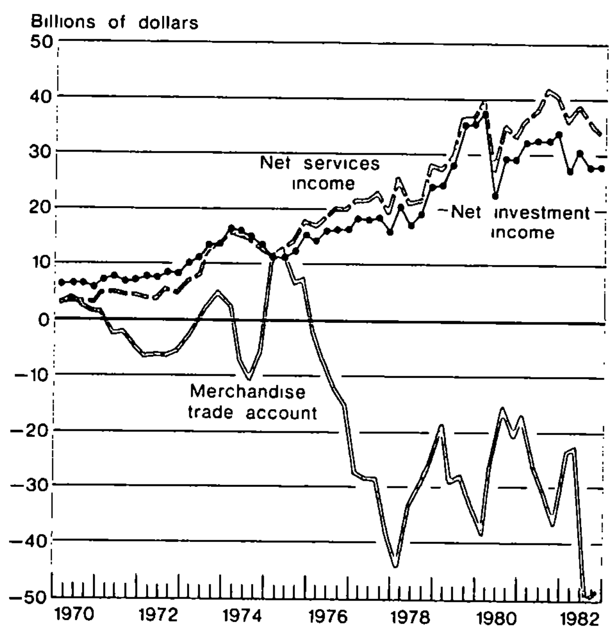
[1] Statistical tests suggest that changes in the net investment income component of services transactions induced by movements in exchange rates and U S and foreign real incomes are much smaller than the corresponding changes in the merchandise trade balance. See Allen J. Proctor, "A Forecasting Model of the Services Account of the U S Balance of Payments Preliminary Results" (Federal Reserve Bank of New York Research Paper No. 8237, December 1982).

of services trade as tourism, shipping, consulting, and construction *reduced* net services income by a small amount.

- Last year net investment income fell (by $4 billion to $29 billion) because of a substantial decline in net *direct* investment income (see box for definitions). Net direct investment income had been the major, and a steadily growing, source of services income. It reached $32 billion and accounted for almost all net services income in 1979. But, over the past three years, net income from direct investment dropped to $18 billion.
- In contrast to direct investment, net *financial* investment income has been rising sharply. It jumped from roughly zero over the 1978-80 period to $9 billion in 1981 and then rose further to $11 billion in 1982. However, problems of measurement and definition, which may affect both direct and financial investment income, are especially severe for the latter, and the published figures may overstate the growth of net financial income.

U.S. Merchandise Trade and Services Accounts

Seasonally adjusted annual rates



Source: Survey of Current Business

Since investment income accounts for most of the income earned from U.S. services trade and has shown larger movements in dollar value, it is the focus of the rest of this analysis. The next section analyzes which economic factors help explain recent movements in net investment income by examining direct investment income first, then financial investment income.

Sources of change in investment income

Direct investment income

During recent years the movements in net direct investment income have generally tracked the movements in the U.S. net foreign asset position in direct investment (Table 1). In 1979, rising net income was associated with an increase in the U.S. net asset position. Then, as the net asset position dropped off in 1981 and 1982, so did net direct investment income.

The net asset position has not, however, been the only factor influencing the size of net direct investment income flows. U.S. income payments to foreigners, after rising $4 billion in 1980 to a level of $10 billion, fell by an equal amount over the next two years. U.S. receipts from foreigners fell by $14 billion during the three years to 1982, virtually all of which took place over the last two years. World economic activity, exchange rates, and oil-price developments have all had significant effects on direct investment income receipts and payments.

The recession in the United States contributed to declining income payments over the last two years even though foreign direct investment holdings in the United States continued to rise. However, the recession abroad reduced U.S. direct investment income receipts even more. Earnings on U.S. manufacturing operations abroad, which have been declining in profitability for a number of years, weakened further during the recession. By 1981, manufacturing industries held over two fifths of direct investment assets outstanding but produced only about one fourth of direct investment income (Table 2).

By contrast, the petroleum sector has contributed over a third of income receipts since 1979 even though less than a fourth of U.S. direct investments is in this sector. This income stream has been influenced mainly by developments in international oil markets. Large oil-price increases in 1979 tended to raise direct investment income in 1979 and 1980, because they provided inventory profits and wider profit margins since contract prices lagged increases in market prices. The industry's overseas earnings rose from $6 billion in 1978 to $13 billion in each of the three following years. Then, when the market price of oil

Table 1

Direct Investment and Financial Investment: Outstanding Stocks and Income Flows

In billions of dollars

Stocks and flows	Direct investment 1978	1979	1980	1981	1982*	Financial investment 1978	1979	1980	1981	1982*
U S. net foreign asset position	120	133	148	137	126	− 44	− 38	− 26	23	60
U.S. net income receipts	21	32	28	24	18	− 1	− 1	2	9	11
U S assets	163	188	216	227	225	285	323	391	490	604
U.S. income receipts	25	38	37	32	24	17	26	36	54	62
U S liabilities	42	54	68	90	99	329	361	417	467	544
U S. income payments	4	6	10	8	6	17	27	33	45	51

Stocks are measured as of the end of the year.

* Preliminary.

Source: *Survey of Current Business* (August 1982 and March 1983).

Table 2

Contribution of Selected Industries to U.S. Direct Investment Abroad and U.S. Income Receipts

In billions of dollars

Sector	Stocks 1980	Income 1980	Stocks 1981	Income 1981	Stocks 1982	Income 1982
Total U S investment abroad	216	37	227	32	225*	24*
Petroleum	48	13	52	13	†	†
Manufacturing	89	11	92	8	†	†
Other	79	13	83	11	†	†

* Preliminary

† An industry breakdown for 1982 is not yet available.

Source: *Survey of Current Business* (August 1982 and March 1983).

fell last year, income receipts dropped to an estimated $10 billion.[2]

Another important, separate reason for the drop in direct investment receipts involves the increased use of finance subsidiaries by U.S. firms. Such transactions are made by U.S. firms *either* to raise funds abroad for their U.S. domestic operations *or* to reduce the use of U.S. source funds for their operations abroad. In particular, U.S. direct investment income receipts were reduced by an increasing volume of interest paid on borrowings by U.S. nonbank parent companies through financing subsidiaries located in the Netherlands Antilles (box). These essentially financial transactions reduced direct investment receipts by $1 billion in 1981 and by an estimated $2 billion last year.

Finally, foreign currency valuation effects also contributed to the decline in the dollar value of direct investment income receipts from nonoil industries.

[2] Losses resulted from reselling crude oil, since the contract prices that some subsidiaries paid to buy crude oil were sufficiently above the prevailing market prices In addition, margins on refining and sales operations were compressed

Because income of foreign subsidiaries is usually earned in foreign currencies, it translated into fewer dollars after the dollar appreciation of the last two years.[3]

In sum, the balance on direct investment income declined from $28 billion in 1980 to $18 billion last year. We would very roughly allocate the $10 billion decline in the net income over the two years as follows: $3 billion to the petroleum sector, $2 billion to the impact of recession in other sectors, $3 billion to valuation effects from dollar appreciation, and $2 billion to foreign financing activities of U.S. firms.

Financial investment income

U.S. net financial investment income has grown rapidly over the past five years (Table 1) Both receipts and payments have at least tripled as both asset and liability stocks and their respective rates of return have increased. Higher interest rates applicable to assets than to liabilities and an expanding net foreign asset position fueled the growth in *net* financial investment income However, as discussed below, some of this growth may be illusory as the rise in the net asset position may be erroneous

Many types of U.S. international financial transactions have raised both U.S. assets and liabilities and reflect the large role the United States plays as both a giver and a taker of funds from the rest of the world. After the major oil-price increases of the 1970s, for example, the United States incurred liabilities as it received funds from oil-producing countries drawn by the relative safety and depth of U.S. markets. At the same time, the United States acquired assets by providing funds to oil-consuming countries. In other words, the banks and financial markets provided intermediation services to the rest of the world, raising both assets and liabilities.

Assets and liabilities also have grown when U.S. nonbank residents placed funds at higher yields in the Eurodollar market and U S. corporate borrowers tapped various Euromarkets as a source of funds. Such round-trip flows could be advantageous to all parties because the Eurodollar market has been free of the reserve requirements and interest rate restrictions on deposits that have applied in the United States (see Edward J. Frydl, "The Eurodollar Conundrum", Spring 1982 issue of this *Review*).

Rising average rates of return on these growing stocks of claims and liabilities added further to financial income receipts and payments. Interest rates on the outstanding stocks of claims and liabilities (both almost entirely denominated in U.S. dollars) generally rose from 1978 to 1981 Over this period, for example, interest rates on U S. ninety-day Treasury bills increased from around 6 percent to as much as 15 percent. Other interest rates, such as Eurodollar bid rates and certificate of deposit (CD) rates, also rose. The implied average rates of return on U.S. foreign asset and liability stocks in 1981 were about 11 percent and 10 percent, respectively, or at least 4 percentage points higher than in 1978.[4] Last year, however, the average yields dropped about ½ percentage point, as interest rates remained high through the first half of the year but fell in the second half.

While both receipts and payments rose, *net* financial income grew because the differential between the average returns on assets and on liabilities widened. Since interest rates applicable to particular assets and liabilities may differ, changes in the composition of total stocks have affected average rates of return. This has been particularly important during the four years to 1981.

During those years, the composition of asset and liability stocks shifted away from international claims and liabilities of the U S Government[5] and toward those

[3] There are some more complicated accounting effects in addition to these valuation effects Because of accounting procedures determined by the Financial Accounting Standards Board, some balance-sheet items of U S subsidiaries are exposed to foreign exchange rate variation and some effects of this exposure are included in the subsidiaries' income statements Consequently, depending on the composition of an individual balance sheet, accounting gains or losses may occur when the dollar appreciates Accounting procedures have been changed (FASB-8 was supplanted by FASB-52), and U S multinationals are presently phasing in new procedures Nevertheless, the numbers reported by the Commerce Department attempt to retain the conventions of FASB-8 The total effect on U S direct investment income receipts from the translation of all subsidiaries' income statements into dollars depresses income when the dollar appreciates

[4] Most interest income receipts and payments are not reported directly to the U S Government Rather, receipts and payments are estimated by the Commerce Department by applying a range of interest rates to assets and liabilities with a range of maturities and other characteristics The implicit average rate of return, derived by dividing total income receipts by the stock of total assets, and similarly by dividing income payments by the stock of total liabilities, is one way of representing the estimated average yield of all these interest rates

[5] Reflecting the international role of the dollar as a reserve currency, most U S official liabilities, which are at market terms in the form of Treasury bills, notes, and bonds, are held by foreign governments as official reserves U S official assets consist of relatively small holdings of official reserves gold, special drawing rights, the U S reserves position in the International Monetary Fund, and foreign currency Most other U S official assets are government aid-related loans to foreign governments Since U S official assets and liabilities partly consist of the U S Government's and foreign governments' official reserves, respectively, exchange market intervention can alter U S asset and liability stocks As an example, when foreign governments intervened in 1981 to resist the decline in their currencies, the decline in their official reserves was reflected in a drop in their holdings of U S Government securities

of the private sector. U.S. private claims have earned more than official (Government) claims, an average difference of 4½ percentage points in 1978. Surprisingly, the average return paid on private-sector liabilities has actually been less than on official sector liabilities, because of the maturity structure of U.S. Government securities that foreigners hold and because earnings on equity include only the dividend component of the yield. In 1978, the difference was 1 percentage point on average. As a result, movement away from official and toward private assets and liabilities has tended to increase net financial investment income. From 1978 to 1981, private claims rose from 74 percent of total assets to 80 percent, and private liabilities rose from 54 percent of total liabilities to 66 percent. Moreover, the average interest gap between private and official assets rose to 9 percentage points in 1981, and for liabilities the gap rose to 2 percentage points, further enhancing net income growth.

Last year, however, relative movements in the average rates of return on assets and liabilities swamped the effects of a continuation of the compositional shifts toward private claims and liabilities. The average return on total assets fell by roughly 1 percentage point from the previous year as the return to private claims fell 1.3 percentage points, their first annual average drop over the five years to 1982. By comparison, the average interest on liabilities remained about the same. Thus, the spread between assets and liabilities

Investment Income: Definitions and Balance-of-Payments Conventions*

Direct investment is defined as ownership of 10 percent or more of the means of control over an enterprise abroad either through *direct* funding of foreign operations or through equity claims. To the extent that U.S. foreign operations are financed using funds raised outside the United States, they are not considered a part of the U.S. direct investment stock. The flow of U.S. direct investment income receipts from foreigners is in the form of profits and interest derived from the stock of U.S. investments abroad. Profits retained by a foreign subsidiary as well as dividends paid are included in income. The flow of U.S. direct investment income payments to foreigners represents similar earnings by foreigners on their ownership of enterprises in the United States.

Financial investment income is a composite of income from several types of international financial transactions, including principally interest and dividends on portfolio investments. Most financial income receipts and payments are earned from the claims on and liabilities to foreigners on the books of U.S. banks. Receipts and payments are also earned from other activities, including U.S. Government loans to other countries, foreign holdings of U.S. Government securities, U.S. nonbank borrowing from bank offices located abroad, U.S. purchases of foreign bonds and sales of domestic bonds abroad, and similar transactions in equity securities (ownership of less than 10 percent is treated as financial investment).

There can be a fine line between direct and financial investment income. U.S. nonbank parent companies' borrowings from financing susidiaries had a large impact on direct investment and direct investment income over the last two years and serve as a good example to highlight this point.

In 1981 and 1982, U.S. nonbank parent companies borrowed from foreigners by issuing bonds outside the United States through U.S. financing subsidiaries in the Netherlands Antilles, who, in turn, re-lent the funds to the U.S. parent. This type of "indirect" borrowing increased roughly fourfold from 1980 to 1982 and reflected efforts to raise funds from foreigners without incurring U.S. withholding taxes on interest payments to foreigners. Although they resemble "financial" transactions, loans between a parent and its subsidiary (also called intercompany accounts) are classified as direct investment in the U.S. balance of payments. More specifically, subsidiaries' loans to domestic parent companies are treated as negative U.S. direct investment abroad (a negative direct investment capital outflow) and the interest paid by the parents on the loans is recorded as a negative item in U.S. direct investment receipts. If, however, U.S. parent companies were to borrow directly from foreigners rather than through foreign subsidiaries, financial investment and income would be affected instead.

More generally, the stock of U.S. direct investment abroad changes as funds are transferred between the parent and its subsidiaries. Such transfers mean that direct investment stocks can move somewhat independently of the value of plant and equipment controlled abroad by U.S. firms. Part of what appears to be a slowing in U.S. direct investment abroad in 1981, and disinvestment in 1982, reflects movements in intercompany accounts that are somewhat independent of decisions to add to plant and equipment abroad controlled by U.S. resident firms.

* See the June 1978 issue of the *Survey of Current Business* for detailed and more technical definitions, and the Spring 1978 issue of this Review for more discussion.

in 1982 fell to roughly its 1978 level. Although net financial investment income still grew, it did so at a slower rate.

The other major factor in the rise in net financial investment income has been the sharply rising recorded U.S. net foreign asset position. Moreover, rising interest rates, even without a differential between the average rates of return on assets and liabilities, would increase net financial investment income when the U.S. net asset position is positive. In 1981, the U.S. net position in financial investment stocks turned positive for the first time in over twenty years. The rising position, however, must be viewed with caution.

In principle, the changes in net financial investment stocks that contributed to this increase in net income should mirror the current account plus net direct investment capital flows. Put another way, if U.S. exports of goods and services plus direct investment capital inflows exceed U.S. imports of goods and services plus direct investment capital outflows, the United States must be accumulating financial claims on foreigners, which is equivalent to a rise in the U.S. net financial asset position.[6]

In practice, the data do not reflect this. Errors and omissions in the balance of payments have been large at times and may result in an overstatement of the net asset position and, therefore, of net financial investment income. For the period 1979 to 1982, errors and omissions averaged about $30 billion per year. If, in a given year, all of this were attributable entirely to measurement errors from current account or direct investment transactions, there would be no effect on the U.S. net asset position, although the current account or net direct investment inflows would be larger than recorded. Alternatively, if errors and omissions were attributable to measurement errors from financial investment, the U.S. net foreign financial asset position would be lower by an additional $30 billion in net liabilities. This is especially important since reported income payments and receipts are estimated from reported stocks and interest rates applicable to various components.

While it is impossible to identify those components of the balance of payments from which errors and omissions emerge, there is some circumstantial evidence of substantial errors and omissions in measuring financial investment transactions. Increased public familiarity with international financial markets and numerous financial innovations in the past several years are increasing the number of financial transactions that occur outside the domestic offices of U.S. banks. These transactions may not be reported so completely as U.S. banking transactions. Taking the errors and omissions of $29 billion in 1980 as financial liabilities held through the following year and the 1981 average return paid on recorded liabilities of about 9.5 percent would lower 1981 net financial income about $3 billion. More striking, taking the average return on liabilities, and the errors and omissions accumulated since 1978 as financial liabilities, the 1981 U.S. net financial asset position would be roughly $100 billion lower and net financial income would move from $9 billion to less than zero. The 1981 current account surplus of $5 billion would swing to deficit. In short, continuing errors and omissions make it difficult to interpret current account behavior. While the above example presents the extreme case for the potential overstatement of net financial investment income, errors and omissions have undoubtedly had a sizable impact on its growth.

1983 and beyond

The near-term action in U.S. international services trade will remain in investment income. Domestic regulation, some overt protection on the part of both the United States and countries abroad, and natural restraints—such as insufficient familiarity with language, sovereign laws, culture, and other special factors important to providers of services—limit the potential for growth of noninvestment services income.

Recovery abroad is the key to a rebound in direct investment income receipts over the next year or so. However, most analysts expect the pace of economic activity to be weaker than in past recoveries. And, as the U.S. economy recovers, some of the gains to net direct investment income will be offset by rising income payments.

High levels of interest rates and expansion of U.S. lending to foreigners are the keys to continued growth of net financial investment income. But a moderate or even weak recovery and lower inflation, both here

[6] This is an accounting identity and is not meant to imply causation That is, a surplus on current account and net direct investment capital inflows do not *cause* U S net financial claims to rise Rather, the surplus should, in principle, coincide with net financial capital outflows, or an increase in the U S net foreign financial asset position, because of double-entry bookkeeping in the balance of payments Frequently, however, economic analysis has used the assumption that goods markets are slow to adjust while financial markets adjust rapidly If true, some causality in the short run can be argued In this case, one part of the current account, the trade balance, can be taken as largely predetermined Consequently, a trade deficit, for example, other things being equal, could force a drop in the U S net financial asset position With a floating exchange rate and no official intervention, exchange rates and interest rates would adjust to provide incentives for money managers to shift the necessary amount of funds Interbank flows (often between offices of the same banking family) appear to have been the most sensitive to small differences in the rate of return and hence are often viewed as adjusting to other balance-of-payments flows in the short run Alternatively, authorities might intervene to resist the rate movements and to absorb the required shift in net asset positions in official accounts

and abroad, reduce the likelihood of any significant increase in interest rates. Current debt problems may discourage U.S. banks from rapidly expanding lending to foreigners.

For the services balance to offset a $15 billion widening of the U.S. merchandise trade deficit this year—and many analysts are projecting a larger deterioration—net investment income growth would have to be unprecedented. The economic environment does not appear to be conducive to supporting such rapid growth. Hence, the U.S. current account deficit should be considerably larger than the $8 billion recorded in 1982.

Further ahead, however, two-way growth of both direct and financial investment is likely; asset and liability stocks will grow as will income receipts and payments. Some potentially important forces are:

- Two-way diversification of investment portfolios internationally (see articles by Edna E. Ehrlich in this issue and the Autumn 1981 issue of this *Review*).
- Financial deregulation which may make the United States more competitive as an intermediation center.
- At the same time, such deregulation provides opportunities for foreign banks and other financial institutions to develop U.S. operations.
- The rebuilding of official reserves from their current low levels and official financing of developing countries through multinational institutions.
- But a larger share of assets and liabilities may be those of the U.S. Government which could narrow interest differentials that generated net income.
- And sustained lower inflation would eventually mean lower nominal returns on assets and temper the expansion of receipts and payments.

Ultimately, the expansion of U.S. *net* investment income will rest on the expansion of the U.S. net foreign asset position in both direct and financial investment: Will the United States be a growing creditor to the rest of the world as before the dislocations of the 1970s? If U.S. current account deficits persist, the U.S. net foreign asset position should turn down, eroding the earnings potential of net investment income in the future. The recorded position, however, may not capture the turnaround if errors and omissions continue to be large. Still, we may not get back to the position of being a rapidly growing net creditor soon. A country in current account surplus is generating domestic savings in excess of that required to finance domestic investment and government budget deficits. However, U.S. Federal Government budget deficits could remain large for some time. And, even if the budget deficits are brought under control, a recovery of domestic investment could absorb the additional funds made available for a number of years. The relative political stability of the United States could continue to favor a net inflow of funds to this country. It may be some time before the stylized version of the United States as a growing creditor country reemerges, fueling long-run investment income growth.

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