United States international service transactions: Their structure and growth

Public awareness and discussion of the United States merchandise trade deficit, which exceeded $30 billion in 1977, has been widespread However, little attention has focused on the record $16 billion *surplus* the United States achieved last year on international service, or so-called invisible, transactions. This comparative lack of interest is understandable. Until recently, the balance on invisible transactions was relatively stable and of minor importance in this country's balance of payments. Moreover, the heterogeneous character of invisible transactions discouraged simple analysis. A variety of items fall within the category of services: income on foreign investments, royalties and fees, tourist expenses, and military transfers, as well as transportation, construction, and financial services performed for or by foreigners No single set of factors explains all of them.

Yet the relative importance of the balance on service transactions has increased markedly in the past five years. Characterized first by modest deficits and later by small surpluses during the 1960's, this balance has moved into substantial and growing surplus during the 1970's (chart).

Service transactions in the balance of payments

International invisible transactions vary in nature. Some types, such as transportation, construction services, or foreign travel expenditures, tend to respond to the same factors that affect merchandise trade among countries. Others, such as goods purchased and taken home by travelers abroad, supplies purchased by transport companies in foreign ports, or military transfers, actually involve commodity transactions but are treated as invisibles in the United States balance of payments for reasons of analysis and expedience.

Other important invisible transactions, such as investment income or royalties and fees, are different. Investment income represents a link between the current and capital accounts of the balance of payments. It reflects the flow of earnings on assets accumulated abroad through international capital movements in the past. Royalties and fees primarily represent earnings on such things as patents or licenses transferred abroad. Neither of these types of invisibles tends to respond to the same factors that affect international trade in manufactured goods or primary commodities.

Despite the differences among types of services, there is a common denominator. All invisible transactions involve buying or selling a portion of *current* output of the United States and its trading partners. When the United States exports an airplane, it provides to foreigners a portion of the current product of its own resources. Similarly, when it provides a service to the residents of another country, say, in the form of hotel accommodations, transportation of goods, or the use of capital, it also supplies a portion of its current output. Thus, while service flows normally do not include physical goods that can be seen crossing international borders, their effects on the current account of the balance of payments are the same as those for merchandise trade flows.

The simplest type of invisible transaction involves the international purchase or sale of the output of a service industry. Foreign goods and travelers may be transported by a United States airline. A bank or law firm may perform financial or legal services for foreign clients. An American company may construct a road in a foreign country. Conversely, United States residents may fly on foreign airlines or use foreign banks and law firms. Foreign construction companies may build a bridge or a pipeline in the United States. Invisible transactions such as these comprise about one third of receipts and one half of payments in the United States service account.

Another type of invisible transaction involves purchases of goods by Americans traveling abroad or foreigners traveling in the United States. Since travel expenses are estimated rather than measured directly, the Commerce Department prefers not to distinguish between expenditures on goods or gifts (which, in principle, could be added to the merchandise trade account) and expenditures on services, such as hotel accommodations. Thus, all tourist expenses are treated as invisibles for purposes of balance-of-payments accounting.[1] Paradoxically, this treatment means that wine imported by a United States resident is a merchandise trade transaction, while the same wine purchased abroad on a vacation shows up as a tourist expenditure within the service account.

Treating particular military transactions as services is another example of expedience in balance-of-payments accounting. Reporting problems and difficulties in distinguishing between payments for equipment deliveries and training services makes it desirable to exclude these transactions from merchandise trade data. Since they still involve purchases of currently produced output, they are included in the current account in the service category.

The remaining items, investment income and royalties and fees, make up about one half of receipts and one third of payments in the United States service account. These flows include payments by foreigners for the use of capital—financial, physical, or technological—that was put in place abroad in an earlier period. Conversely, they include payments by United States residents for the use of foreign capital which was invested in this country.

[1] Payments to foreign air or ocean carriers are reported as a separate item in the United States service account

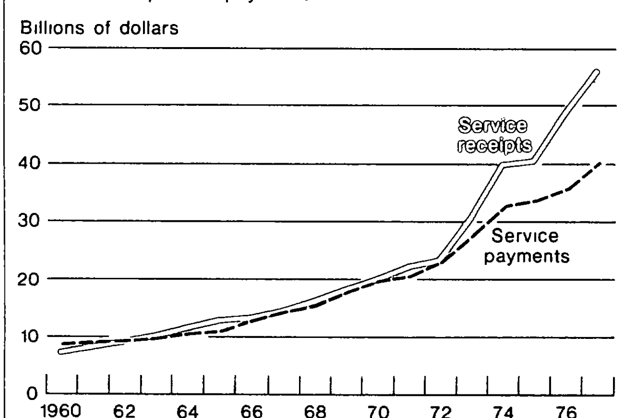
The capital movements are generally reflected in the capital account of the balance of payments. For example, when a United States resident purchases foreign bonds or an American firm acquires a company abroad, there is no trade involving currently produced goods and services. Rather, there is an exchange of money for a claim on foreign assets (portfolio investment, in the first case, direct investment, in the second) which is recorded in the capital account.

However, when an existing foreign subsidiary expands its operations by reinvesting earnings, the reinvestment is not included in the capital account under present accounting practice, although it will lead to investment income flows later on. Moreover, some investment income flows may have their roots in previous sales of capital equipment that showed up as merchandise trade transactions. If an American firm sells a capital good, such as a drill press, to an affiliate abroad, the transaction is recorded as a merchandise export. The drill press will contribute to the earnings of the foreign affiliate. These earnings are in turn repatriated as investment income in the service account If an American company licenses the use of a patented technique to a foreign subsidiary, the transaction does not enter the balance of payments. But the license fees subsequently received by the parent firm are regarded as payment for the use of technological capital abroad.

The United States balance of payments distinguishes between income earned by overseas branches and by

United States International Service Transactions

Total receipts and payments



Source United States Department of Commerce

Glossary of International Service Transactions

The service account is a composite of many dissimilar types of transactions. The broad categories are: investment income, travel and transportation expenditure, military transfers, and royalties and fees. The published balance-of-payments statistics provide further disaggregation.

Investment income payments and receipts consist of income received from direct investments and other internationally held private and government assets, including securities and bank and commercial loans. Direct investment income is defined as the repatriated earnings of subsidiaries and the total earnings of unincorporated affiliates. Income payments on government liabilities include the interest on advance payments by foreign countries for military equipment.

Royalties and fees measure the payment by firms and individuals for the use of technological capital, other intangible property, and managerial services

Travel and transportation includes all expenditures connected with the international movement of people and goods, such as passenger fares and the costs of freight. In addition, expenditures on goods and services by travelers outside their country of residence are included as transactions in this category.

Military transfer receipts result from the transfers of goods and services to foreign governments under United States military sales contracts. These transfers are recorded at the time of change in title or performance of service. Direct United States defense expenditures abroad, including the personal expenditures of all military personnel on foreign goods and services, constitute the payments side of the military transfer account. Transfers of goods and services under United States military *grant* programs are listed as a separate line in the balance of payments, with the grant value listed as another, completely offsetting, separate item.

A *residual* category includes income and expenditure on private services such as construction, finance, and insurance. Government services not covered elsewhere, such as the expenditures abroad of nonmilitary agencies and personnel, are also entered.

Private remittances, government grants, and other transfers are included in the current account but not in the United States definition of services. The International Monetary Fund does include them in its definition of invisibles.

subsidiaries of American firms.[2] The profits of branches are recorded as investment income when earned. However, since under present law United States taxes on the earnings of overseas subsidiaries are not due until income is repatriated, only the repatriated income from subsidiaries abroad is reported as a direct investment receipt. Similarly, only the income remitted by subsidiaries of foreign firms in the United States is reported as a direct investment payment. This treatment of direct investment income creates an inconsistency. It runs counter to the basic concept of income as a payment by foreigners for the current use of capital owned by domestic residents. The portion of affiliate earnings that is not repatriated but is reinvested abroad also represents a return for capital services

For this reason, the Commerce Department is revising the definitions of direct investment income and payments to include all reinvested earnings, which will bring United States practices in line with standard accounting procedures of the International Monetary Fund. The change in the accounts will have a significant effect on the recorded composition of the United States balance of payments, but not on the total current and capital accounts. Earnings of subsidiaries that are not repatriated will show up as a large positive item in the service account. At the same time, recorded net capital outflows will be increased by an equal amount to reflect the capital reinvested abroad. These revisions are expected to be published at midyear.

Service transactions in income and product accounts

Invisible transactions are a component of the balance on goods and services included in national income and product accounts. They reflect part of the influence of foreign activity on United States production, employment, and national income. However, the extent of this influence depends upon the particular concept of economic activity referred to—gross national product or gross domestic product.

Gross national product (GNP) is the more familiar measure in the United States. The GNP of this country is defined as the market value of goods and services produced by American-owned factors of production—labor and capital—regardless of the geographic location of production or consumption. It can be measured on a product basis by totaling the value of output added in production by these factors. It also

[2] Branches are defined as unincorporated affiliates which have no legal identity apart from the parent firm Subsidiaries are incorporated affiliates

can be measured on an income basis by totaling all incomes received by these factors.[3]

According to this concept of product accounting, all receipts from the sale of United States goods or services to foreigners net of payments to foreigners are properly included in GNP.[4] A rise in receipts from the sale of services, either by a service industry or for the use of American capital, increases GNP in the same way as a rise in merchandise exports.

In another sense, however, the effects of items in the balance on goods and services on domestic economic activity and employment do depend upon the geographic location in which the goods are produced or the services are provided. Exporting a good produced in the United States or providing a service to foreign travelers employs factors of production domestically. Receipts in the form of investment income or wages earned by domestic residents abroad do not. They represent income derived from employing factors in foreign production activity. GNP does not distinguish between these two kinds of effects.

To make that distinction, the analyst can turn to an alternative measure of national income called gross domestic product (GDP). It is defined as the market value of goods and services produced by all factors of production within the United States, whether owned by United States or foreign residents. Thus, investment income and wages earned by Americans abroad are excluded from this measure of economic activity. Conversely, investment income or wages earned by foreigners within the United States are included. In 1977, United States GDP was some $17 billion less than GNP—a difference of about 1 percent[5] That result primarily reflects the fact that the United States has substantial earnings on capital owned abroad by its residents. The percentage difference between GNP and GDP is larger for many countries, and several of them prefer to measure economic activity by GDP rather than GNP.

[3] These two measures are equivalent in theory However, in practice they are not, and a balancing item, called "statistical discrepancy", is included to make them equal

[4] One definitional distinction is that interest payments by the United States Government to foreign residents—an item in the service account of the balance of payments—are *not* included in GNP The rationale is that United States Government interest paid to foreigners is not generally for services used in current production An analogous adjustment to the export of goods and services is not made since foreign official interest payments to United States private residents are unknown Another minor definitional difference is that certain military sales to Israel are treated as grants in the product account rather than service exports It should be noted that the balance on goods and services included in GNP is generally measured on a product basis, *i e*, on the basis of value added by producers However, in the case of United States capital employed abroad (and similarly for foreign capital in the United States), there is no direct measure of value added in foreign production by American-owned capital inputs Consequently, the income derived from the investment of these assets abroad is used as an alternative measure

[5] The numbers for recent years (in billions of dollars) are

Year	*GNP*	*GDP*
1977	1,890	1,873
1976	1,706	1,692
1975	1,529	1,518

Trends within the overall service account

Invisible transactions always have been significant items in the United States balance of payments, and they continue to be. In 1977, service receipts ($56 billion) and payments ($40 billion) constituted 32 and 21 percent of total goods and service receipts and payments, respectively. For receipts this proportion has remained relatively constant over the last twenty years, since service exports have grown on average at much the same rate as merchandise exports. Over the period 1960-70, service earnings grew 10 percent annually; this growth has accelerated to a 17 percent annual rate since 1971 (chart).

By contrast, the ratio of service imports to total imports of goods and services has fallen since 1960, when services represented almost 40 percent of total imports. Between 1960 and 1970, service imports rose 9 percent annually, compared with an 11 percent growth rate of merchandise imports. Thereafter, service imports rose an average of 12 percent per year, less than half the growth rate of goods imports.

Reflecting these trends, the balance on the overall service account shifted from small deficits to surpluses by 1962 It showed consistent, though modest, surpluses of less than $1 billion until the beginning of the present decade, when the relatively rapid rise in receipts accounted for a surge in the service balance surplus. Between 1971 and 1977 the annual net surplus on invisibles has averaged $6.9 billion, larger than the average annual deficit on merchandise trade of $6 4 billion over this period. In 1977 alone, the surplus from international services was $15.8 billion.

Trends of service account components

The various categories of invisible transactions reflect disparate types of economic behavior. No single group of factors can explain the service account as a whole. Each major category deserves separate treatment, and in that spirit the following discussion highlights the recent trends (Table 1).

Investment income.

Net investment income dominates the United States balance on international services Of last year's $15 8 billion surplus, $12 billion resulted from net investment receipts. Movements in the overall service balance and in net investment income always have been closely linked. Investment income behavior can be analyzed best by distinguishing between income derived from direct investment and income from other private and official assets (Table 2).

The United States has been in a net creditor position on direct investments throughout the postwar period, reflecting the worldwide expansion of United States multinational firms. Direct investments currently amount to over $140 billion and make up 40 percent of total United States assets abroad. Despite a speedup in recent years, foreign direct investment in the United States totals only $30 billion, less than 12 percent of total foreign assets in this country. Given the disparity of investment holdings, it is not surprising that income on direct investments has far exceeded payments. The balance on these flows has increased steadily and in recent years has averaged about $9 billion. In 1977, net inflows amounted to $11.5 billion

Year-to-year changes in direct investment income generally have reflected the effects on earnings of changes in business activity abroad In addition, specific developments affecting United States petroleum affiliates have been especially important since the steep increase in oil prices late in 1973. The relative importance of these factors is illustrated by the pattern of direct investment receipts from 1974 to 1977. Income increased particularly sharply to over $11 billion in 1974 This gain reflected higher earnings of United States petroleum affiliates abroad and buoyant earnings of other affiliates. Higher tax and royalty payments to oil-producing countries and depressed earnings among manufacturing affiliates in the developed economies reduced income inflows in 1975. But direct investment receipts rose in the next two years, as general business conditions improved from the recessionary trough and oil demand increased somewhat. Since foreigners' earnings on their direct investments in the United States were small in comparison, these developments dominated the trend in the balance on direct investment income.

Direct investment income is also influenced by the rate at which overseas earnings are repatriated. Important factors include the tax policies or restrictions on profit remittances of host countries. Another influence is the expected exchange rate at which foreign currency earnings would be converted at the time of repatriation. For example, a German affiliate of an American company may delay repatriating its mark earnings if it expects the German currency to appreciate against the dollar.

In contrast to the large net inflows of direct investment income, both receipts and payments on portfolio investments are high. The United States continues to show a net debtor position on official holdings of financial assets. This position has worsened as foreign

Table 1

Balances on Goods and Services

In billions of dollars

Balances on goods and services	1960-70*	1971-73*	1974	1975	1976	1977
Total	4.6	−1.0	2.1	16.2	3.6	−15.4
Net merchandise trade	3.9	−2.6	−5.4	9.0	−9.3	−31.2
Net services	0.6	1.6	7.5	7.1	12.9	15.8
Investment income	3.5	4.5	8.7	5.9	9.8	11.9
Direct investment	3.3	6.3	11.1	7.5	9.8	11.5
Petroleum	*1.6*	*2.9*	*5.1*	*2.5*	*4.1*	*4.5†*
Manufacturing	*0.7*	*1.8*	*2.5*	*2.3*	*2.7*	*3.2†*
Other industry	*1.0*	*1.6*	*3.6*	*2.7*	*3.0*	*3.4†*
Private portfolio investment	0.1	0.2	0.9	1.9	3.3	4.6
Official portfolio investment	0.1	−1.9	−3.2	−3.4	−3.2	−4.2
Royalties and fees	1.3	2.5	3.5	3.8	3.9	4.2
Travel and transportation	−1.4	−2.8	−3.1	−2.5	−2.1	−3.1
Military transfers	−2.7	−2.9	−2.1	−0.9	0.4	1.4
Other services	−0.1	0.3	0.5	0.8	1.0	1.4

Because of rounding, components may not add to totals

* Annual average

† First three quarters at annual rate, not seasonally adjusted

Source United States Department of Commerce.

authorities have acquired increasing amounts of United States financial assets, primarily Treasury securities, largely as a result of foreign exchange market operations and the investment of surplus earnings by OPEC. Consequently, investment income payments to foreign officials have risen sharply.

The increased outflows on official investments have been offset by higher receipts from private portfolio assets. In recent years, United States residents have greatly increased their financial claims on nonresidents. These increases were triggered by the removal of capital outflow controls in early 1974 and the subsequent demands on United States banks to finance the deficits of petroleum-importing countries. Correspondingly, portfolio receipts have risen with the growth of American financial assets abroad. In addition, the rates of return on these investments normally have been well above the rates on shorter term assets accumulated by foreign authorities in the United States. As a result, the balance on private and official portfolio investment income is now in surplus.

Table 2

The International Investment Position of the United States*

In billions of dollars

Asset holdings	1973	1974	1975	1976
United States assets abroad	222.8	256.2	295.6	347.4
Official portfolio	53 2	54.2	58.0	64.7
Direct investment	101.3	110.2	124.2	137.2
Private portfolio	68.3	91.8	113.4	145.4
Foreign assets in the United States	174.9	197.4	221 0	264 8
Official portfolio	69.6	80.3	87.5	106.3
Direct investment	20.5	25.1	27.7	30.2
Private portfolio	84.7	92.0	105.9	128.3
Net international investment position of the United States	47.9	58.8	74.6	82.6
Official portfolio	−16.4	−26.1	−29.5	−41.6
Direct investment	80.8	85.1	96.5	107.0
Private portfolio	−16.4	− 0.2	7.5	17.1

Because of rounding, components may not add to totals.

* Investment position is defined as the year-end value of assets adjusted for valuation effects of price changes.

Source: United States Department of Commerce.

Royalties and fees.

Royalties and fees have shown a strong trend of increasing surpluses for the past fifteen years. The surplus on these transactions now amounts to $4.2 billion. In large part, this trend can be explained by the activities of multinational firms which are involved in 80 percent of such transactions. Royalties and fees received from the foreign affiliates of multinational firms have risen at an annual rate of more than 13 percent since 1960. This is due in part to the continued position of the United States as a source of technology and managerial expertise. It also reflects the use of royalty and fee payments as a means of remitting income from affiliates.

Travel and transportation.

Historically, the United States has recorded large deficits in the travel and transportation balance. In recent years, this deficit has exceeded $2 billion a year. Foreign travel and passenger fares are components of the service account that behave most like merchandise trade flows. Like other consumption expenditures, they show some response to cyclical movements of relative income and to changes in prices and exchange rates. For example, in 1973, receipts from these items jumped over 20 percent, partly in response to the cumulative effects of dollar depreciation on the relative costs of travel to the United States.

Nevertheless, the United States travel account deficit has tended to increase over time. Preference for travel is strongly related to income, and income levels in the United States have risen considerably. Differences between countries in the structure of the passenger transport industry may also be significant. American airlines operate internationally at a competitive disadvantage, since most foreign carriers receive preferential treatment and substantial subsidies from their governments. Consequently, the United States share in the international air passenger market, particularly with third countries, has been eroded.

The balance on other transportation items, primarily freight, is closely linked to merchandise trade levels. When the volume of United States imports is high relative to exports, the balance has tended to be negative. In addition, higher ship construction and operating costs in this country have contributed to a declining role for United States ships in third-country trade. A long-term program of maritime transportation subsidies was enacted in 1970 to offset these costs.

Military transfers.

The United States has run deficits in the past on military transactions. Over the period 1960-72, these deficits ranged between $2 billion and $3½ billion. However, a sharp rise in military exports since 1973 helped reverse this pattern and produced a surplus of $1.4 billion in 1977.

In the early 1960's, military expenditures abroad constituted more than 30 percent of service imports. These expenditures rose during the Vietnam war period, although other service outflows rose even faster. The end of United States involvement in Vietnam helped to dampen further growth. However, increased costs stemming from dollar depreciation and inflation kept these defense-related expenditures at a high level in the mid-1970's.

Receipts from United States military sales grew only modestly during the 1960's. They have more than doubled in the last few years, primarily reflecting foreign government demand for sophisticated American military hardware. These new sales have been concentrated in Middle Eastern countries, which currently account for approximately 70 percent of military service exports.

The service accounts of other countries

The importance of international service transactions is not unique to the United States. Services also represent significant items in the balance of payments of other countries. In aggregate, invisible receipts and payments of OECD countries constitute 30 percent of their total goods and service receipts and payments.

Most developed countries abroad, like the United States, have a favorable balance on invisible transactions. For instance, the United Kingdom, which has accumulated large holdings of foreign assets, has a substantial service surplus. Some of the less industrialized nations in Europe, such as Spain, Greece, and Yugoslavia, have surpluses as well. But these are due in large part to travel receipts, reflecting the role of these countries as vacation centers.

Canada, Germany, Japan, and Australia are exceptions to the pattern for developed countries. They have sizable service deficits. The first three countries have large travel deficits. Canada and Australia show huge income outflows on foreign investment, while Japan and Australia both bear significant transportation costs in international trade.

The developing countries as a group tend to have deficits on invisibles. Countries that have attempted to industrialize the fastest and expanded their demand for foreign capital, expertise, and specialized services have the largest deficits. The oil-producing countries also have relatively large outflows in the form of investment income and other expenses paid to multinational firms which operate the oil wells. These outflows have largely offset the income receipts from their own foreign investments. Brazil, Saudi Arabia, Iran, and Nigeria all have service deficits of over $3 billion; Mexico, Libya, Venezuela, Iraq, Algeria, and Indonesia, over $1 billion. South Korea is an exception and has a small surplus, primarily due to receipts on construction and other miscellaneous activities.

Reuven Glick