

Measuring the United States Balance of Payments

By PATRICIA HAGAN KUWAYAMA*

The balance of payments is an important concept, one which significantly influences our understanding of international developments in the United States economy. Each time a new balance-of-payments statistic is released, it is widely interpreted as an indication of how things have become "better" or "worse" in the foreign sector of our economy and as a measure of "strength" or "weakness" of the dollar. Frequently, the figures are reported in more popular media as "the" balance of payments, without recognition of the fact that at least seven different measures are currently in standard use, each designed to illuminate specific aspects of these broad qualitative issues. Indeed, the number is larger than seven if all balance-of-payments measures which are commonly used by professional economists for various types of analysis are included.

The existence of so many international payments "balances", while in some ways inconvenient, should be welcomed as a reminder that there is no single answer to the question whether our international transactions have become better or worse in a given period—nor is there any simple way of determining from any of these balances the prospective strength or weakness of the dollar.

The meaning of several balance-of-payments measures has also changed over the years, along with developments in the international economy and institutions. In the post-World War II period, the liberalization of international trade and capital flows has led to an enormous growth in the scale and sophistication of transactions engaged in by both private and official parties and has blurred many of the distinctions that were once useful. More recently, the shift by industrial countries to a system of greatly increased variability in exchange rates has provided new reasons for

a revised approach to analyzing international flows. Another recent change that has added to the difficulty of using the balances stems from the huge accumulations of dollar reserves by the Organization of Petroleum Exporting Countries (OPEC).

The United States Department of Commerce has responded to the changing needs over the years, carrying out two major revisions (as well as many smaller ones) of its official balance-of-payments presentation in the last decade. One of these revisions followed an intensive review of the statistics, commonly known as the "Bernstein Report" [10],¹ in 1965. The second was introduced with the June 1971 issue of the *Survey of Current Business* [12], along with a detailed explanation which is still a standard reference on official United States balance-of-payments statistics and their interpretation. Currently, another review committee of academic, Government, and business economists is considering the questions of whether the official tables should be revised again and even whether publication of traditional balance-of-payments measures should be continued at all.

This article proposes to clarify the analytical differences among major balance-of-payments measures and to explain the usefulness of each in application to present-day policy questions. No attempt is made to identify a single statistic which can be regarded as "the" appropriate balance-of-payments measure for the United States; nor is there any consideration of what should, or should not, be published as an "official" measure. Some recommendations are made to the users of balance-of-payments numbers as to how they can (or cannot) use the statistics in answering specific questions, and major problems of con-

* Mrs. Kuwayama is chief of the Foreign Research Division.

¹ The numbers in brackets refer to the references cited at the end of this article.

cept and measurement are explored with reference to these applications. Particular attention is devoted to changes in the use of the balances that have been dictated by recent developments in the international economy, including the shift to more flexible exchange rates. In this latter respect, the most important conclusion to be drawn is that the problems of measuring the United States balance of payments in a contemporary setting do not stem mainly from the new exchange rate regime. Most of the problems have existed for some time and reflect the complexity of international capital movements at least as much as the flexibility of exchange rates.

Finally, the discussion which follows emphasizes that, while a proper use of balance-of-payments concepts is a helpful starting point for understanding developments in the international sector of the economy, these measures can never provide answers to important questions by themselves. Even if balance-of-payments statistics were gathered in much more detail than they are now, and even if they are interpreted with a maximum of sophistication, they still only summarize the net flow of transactions between domestic residents and residents of foreign countries. For the United States particularly, this is but part of the story. The widespread use of United States dollars by foreigners in transactions which do not directly involve the United States at all means that American businessmen and policy makers must consider the potential impact on the United States not only of this country's balance-of-payments flows, but also of a variety of other factors affecting the supply of and demand for dollars in international use. Thus, while this article is intended to promote the best possible use of the balance-of-payments statistics, it is not necessarily intended to advocate more attention to these measures; if anything, balance-of-payments measures are probably overused as an approach to international policy analysis and should be supplemented as much as possible by other kinds of information.

DEFINITIONS OF THE BALANCE OF PAYMENTS

The balance-of-payments statistical statement is designed to summarize all economic transactions between residents of the United States and those of foreign countries. It is based on the principle of double-entry book-keeping: every payment creates a claim or extinguishes a liability, and the corresponding receipt provides an offsetting entry somewhere else within the accounting statement. Thus, the broadest balance—involving all transactions by both private and official parties—should always equal zero by definition.

However, not all transactions between Americans and

foreigners are captured in the statistics. Furthermore, because in some cases one side of a transaction fails to be reported, or the two sides may be reported with inconsistent values, the sum of all recorded transactions is never zero. Therefore, there is always one item called "errors and omissions", which is derived as the statistical discrepancy that is found when all recorded transactions are added together. This residual item is usually thought to be composed largely of unrecorded capital items. A review of past statistics will show that it has been large and negative (i.e., representing unrecorded outflows) in periods when the United States dollar was under speculative attack. However, there can be large errors in the reporting of transactions other than capital as well.

The payments balances which are used for analytic purposes all result from separating out one or another subset of international transactions which are thought to have a particular type of significance. A line is drawn below these items, and they are then summed up to obtain a balance of payments which may or may not equal zero. Each definition involves its own division into "above-the-line" and "below-the-line" flows, and the latter of course exactly offset (in some contexts we would say "finance" or "settle") the former. Where the line is drawn depends on the purpose of the analysis. Some balances are intended to measure stable as opposed to ephemeral elements in the current payments picture. Others result from an attempt to separate autonomous flows from the accommodating transactions which authorities undertake in order to defend a given exchange rate. Alternatively, a balance may be drawn to show the net absorption by foreigners of United States domestic product, or the net balance of United States residents' lending to (or borrowing from) residents of other countries. Table I shows some—though by no means all—of the balances that are frequently used to analyze United States international payments: seven different partial balances are encountered as one reads down the table, each one including a broader set of items above the line than the balances preceding it. The following reviews the definitions and measurement of all of these standard balances, starting with merchandise trade and ending with official reserve transactions. Some less standard balances with particular relevance to current circumstances are also mentioned in the course of this article, and statistical illustration of these is provided in Table II.

MERCHANDISE TRADE BALANCE. The balance of merchandise trade is probably the most familiar and well-defined of all payments concepts. The data in Table I give an idea of the shift which the United States trade balance has undergone in the last several years as the result of dollar

Table I
UNITED STATES BALANCE OF PAYMENTS, 1971-74

In millions of dollars; + denotes increase in claims on, or reduction in liabilities to, foreigners

Type of balance	1971	1972	1973	1974
Exports of goods	+43,311	+49,388	+71,379	+ 98,268
Imports of goods	-45,579	-55,797	-70,424	-103,796
Merchandise trade balance	- 2,268	- 6,409	+ 955	- 5,528
Services, net	+ 2,031	+ 479	+ 3,222	+ 9,102
Balance of goods and services	- 237	- 5,930	+ 4,177	+ 3,574
Unilateral transfers, net	- 3,642	- 3,780	- 3,842	- 7,182
Balance on current account	- 3,879	- 9,710	+ 335	- 3,608
United States Government capital flows, net (excluding reserve transactions)	- 2,376	- 1,335	- 1,490	+ 1,118
United States direct investment abroad	- 4,738	- 3,530	- 4,968	- 7,268
Foreign direct investment in the United States	- 175	+ 380	+ 2,656	+ 2,224
United States purchases of foreign securities, net	- 1,113	- 618	- 759	- 1,990
Foreign purchases of United States securities (excluding Treasury issues), net	+ 2,289	+ 4,507	+ 4,055	+ 672
Net change in long-term claims on foreigners	- 780	- 1,550	- 1,366	- 1,560
Net change in long-term liabilities to foreigners	+ 134	+ 743	+ 559	- 515
Balance on current account and long-term capital (basic balance)	-10,637	-11,113	- 977	-10,927
Net change in nonliquid short-term claims on foreigners	- 2,332	- 1,763	- 5,069	-14,789
Net change in nonliquid short-term liabilities to foreigners	- 15	+ 221	+ 831	+ 1,840
Errors and omissions	- 9,698	- 1,884	- 2,436	+ 4,834
Net liquidity balance (excluding allocations of SDRs)*	-22,682	-14,539	- 7,651	-19,043
Net change in liquid claims on foreigners	- 1,097	- 1,247	- 1,951	- 6,113
Gross liquidity balance (excluding allocations of SDRs)*	-23,779	-15,786	- 9,602	-25,156
Net change in liquid liabilities to private foreign accounts	- 6,691	+ 4,722	+ 4,294	+16,782
Allocation of SDRs*	+ 717	+ 710	0	0
Official reserve transactions balance	-29,753	-10,354	- 5,308	- 8,374
Net change in primary reserve assets†	+ 998	- 121	+ 242	- 169
Net change in reserve position in the IMF (secondary reserve assets)†	+ 1,350	+ 153	- 33	- 1,265
Net change in liabilities to official foreign accounts	+27,405	+10,322	+ 5,099	+ 9,808
Balance on all accounts	0	0	0	0

Note: Because of rounding, figures do not necessarily add to totals.

* SDRs = Special drawing rights.

† Excludes revaluations of assets to reflect changes in the par value of the dollar or in market exchange rates.

Source: United States Department of Commerce, *Survey of Current Business* (June 1975).

depreciation and other factors (most notably, worldwide agricultural shortages and the quadrupling of crude oil prices in late 1973 and early 1974). The deficit in trade was largest in 1972, the year following the Smithsonian exchange rate realignment, reflecting what has become known as the "J-curve" effect, in which the initial, adverse impact of devaluation in raising dollar import prices for a time outweighs the slower, desired responses of higher export and lower import volumes. The volume effects, of course, eventually dominated, resulting in a net improvement of the trade balance, at least until the enormous boost in the oil import bill supervened in 1974.

Some analysts have used a special computation of the balance of United States trade, which includes all merchandise except petroleum, to summarize trade developments over this recent period. When this is done, as in Table II, the improvement in "nonoil trade" is seen to continue through 1974. This case provides a convenient example of how a special balance-of-payments definition sometimes comes into temporary use, because events in a particular period make it an analytically useful complement to the standard measure. Another *ad hoc* measure that has been widely used lately, also shown in Table II, is the balance of United States trade excluding not only petroleum imports but also agricultural exports. Adjustments of this kind represent an attempt to abstract two major disturbances of recent years, both of which have affected the United States balance of trade in ways that are largely unrelated to the other adjustments that it has been undergoing.

One reason for the attention that is paid to the trade balance is that it is available more promptly than any other balance-of-payments data: it is published monthly, within about a month of the end of the covered period.² Analysis

² The trade figures which are published monthly are on a "census basis", which means that they reflect only clearances through Customs. These are not quite the same as the trade statistics which eventually appear in the United States balance-of-payments accounts, as the latter reflect a number of adjustments to the Customs data. The most important differences are: the exclusion from the balance-of-payments data of exports under United States military agency sales contracts (which are included elsewhere in the international accounts), the inclusion in them of imports into the Virgin Islands from foreign countries, and adjustments for various items that are not captured in Customs statistics (e.g., the export or import of ships, of nonmonetary gold, and of gift parcels sent through the mails) or which are considered to be inaccurately valued in Customs statistics. For details of these adjustments for recent years, see the June 1975 *Survey of Current Business*, page 22, Table B1, "U.S. Merchandise Trade, by Principal End-Use Categories—Reconciled to Balance of Payments Basis".

of the trade balance in a short-term framework, however, involves some problems different from long-term analysis. Trade flows are measured by clearances through Customs and therefore reflect the timing of shipments rather than of actual payments. To assess the impact of short-run changes in the trade balance on exchange markets, it is necessary to know how the purchases are financed. Some countries collect trade information on a "cash", or "payments", basis as well as on the basis of shipments, thus providing a useful insight into the trade financing pattern and the changes it undergoes when there is relative interest rate movement and/or currency speculation. In the United States, however, this information is buried within the data on other capital flows.

BALANCE OF GOODS AND SERVICES. The goods and services balance includes net payments for services—such as investment earnings,³ shipping receipts, fees and royalties related to technological transfers, and so on—as well as trade. This balance corresponds to the "net exports" item in the gross national product (GNP) accounts, thus representing the foreign component of total expenditure for goods and services produced in the United States.⁴ The measurement of this balance is fairly straightforward, although some of the items (such as interest payments and receipts) must be estimated by indirect methods, and others are subject to large errors. An important example is the overreporting of United States petroleum companies' overseas earnings in the 1966-73 balance-of-payments statistics; these were later revised on the basis of a special survey conducted in January 1974, with revisions coming to as much as \$1.7 billion for 1973.⁵ It may be worth noting that many goods and services that are sent overseas are excluded from net exports in both sets of accounts. For instance, shipments under military

³ Reinvested earnings of foreign affiliates other than branches of United States firms (and similarly for foreign investors in the United States) are excluded from the measurement, although in principle they should be included as service receipts. This omission also affects the capital accounts of the balance of payments in that the reinvested earnings are omitted from measured direct investment.

⁴ There frequently have been large discrepancies between net exports data appearing in the published United States GNP and balance-of-payments statistics for recent quarters. These reflect the procedures used for approximating items on which information is still missing or preliminary, and differences in the timing of revisions of the two sets of data.

⁵ See the June 1974 *Survey of Current Business* [12] for a complete explanation of the changes.

Table II

SELECTED NONSTANDARD UNITED STATES PAYMENTS BALANCES

In millions of dollars; + denotes increase in claims on, or reduction in liabilities to, foreigners

Payments balances	1971	1972	1973	1974
Balance of trade, excluding petroleum imports	+ 1,348	- 1,783	+9,096	+20,534
Balance of trade, excluding petroleum imports and agricultural exports	- 6,438	-11,288	-8,766	- 1,723
Balance on current account, excluding net United States Government transfers	- 1,294	- 6,965	+2,966	+ 2,545
Balance on current account, plus net United States Government capital	- 6,255	-11,045	-1,155	- 2,490
Balance of monetary movements*	-20,683	-12,442	-4,715	- 6,837
Official reserve transactions balance, excluding United States liabilities to OPEC†	-29,300	- 9,500	-4,800	+ 100

* The balance of monetary movements equals the official reserve transactions balance minus changes in United States banks' net short-term international position.

† The liabilities to the Organization of Petroleum Exporting Countries (OPEC) include all recorded short-term liabilities to banks and official institutions in OPEC, plus long-term liabilities to those OPEC countries for which such data are available. These figures represent rough estimates of the required adjustments since they may include some liabilities to nonofficial OPEC residents and may exclude some long-term liabilities to official accounts.

Sources: United States Department of Commerce, *Survey of Current Business* (June 1975). United States Treasury Department, *Treasury Bulletin* (February 1971 to June 1975).

grants are included within Government expenditures in the GNP statistics and are treated as a special transfer item in the balance-of-payments accounts. This is because these goods and services are regarded as an economic demand by the United States Government rather than as one coming from the foreign sector.

BALANCE ON CURRENT ACCOUNT. The current-account balance includes unilateral transfers to and from foreigners along with the trade in goods and services. These transfers are composed of payments under grants by the United States Government and also pensions and remittances by private citizens to relatives or other persons residing in foreign countries. The balance thus includes all transactions which are "current", in the sense that they are not acquisitions of claims or liabilities *vis-à-vis* foreign residents. The current-account balance has as its below-the-line counterpart the overall "capital account" of the whole economy, and thus one of the contributions of the current-account balance is that it measures the net lending or borrowing position of the entire United States

economy, i.e., of all private citizens and corporations together with the Government.

In 1974, the United States current-account balance was seriously distorted by some very large, nonrepetitive special transactions between the United States and India, Israel, and Vietnam. These enlarged the size of the recorded outflows of United States Government transfers overseas by \$3.1 billion for that year. Because of this, many economists have at least temporarily preferred to use a nonstandard current-account measure which excludes all Government transfers. As Table II shows, this provides a more realistic (and smaller) assessment of current-account deterioration in 1974.

In more normal years, one of the most criticized faults of the current-account concept in the United States case is the artificiality of the distinction between Government grants and loans. Insofar as some of the latter are more like unilateral transfers than like private loans—in motivation as well as in implication for United States total wealth—current-account surpluses are overstated (or deficits understated) by the conventional measure. For this reason, some analysts prefer to utilize a broadened current-account measure that includes all current transactions plus flows of United States Government capital (see Table II). This balance, it may be noted, is also unaffected by the exceptional Government transfers to India, Israel, and Vietnam in 1974, since all of these transfers were offset by corresponding inflows in the United States Government capital account. Other economists consider this same measure as the narrowest—and most “basic”—definition of the basic balance, one that avoids some of the complicated measurement problems, discussed below, which arise in the attempt to separate basic from other private capital flows in the statistics.

BALANCE ON CURRENT ACCOUNT AND LONG-TERM CAPITAL (BASIC BALANCE). The idea of the “basic balance” is to separate the underlying structural developments in international payments from distorting short-term movements. Included above the line are all current transactions, plus those capital flows which are thought to be mainly responsive to long-term changes in fundamental economic conditions rather than to short-run influences like changes in interest rates or exchange rate expectations. Specifically, the basic capital items are (1) United States Government capital, (2) direct investments by United States corporations abroad and by foreign corporations in the United States, (3) private portfolio investments, and (4) all long-term private loans, defined as those whose original maturity from time of issuance to maturity exceeds one year.

Great difficulties arise in this attempt to identify private capital flows which are motivated by long-term, as opposed to short-term, considerations. More than one motivation may sometimes be involved in a single transaction, and borrowers and lenders may not even know themselves which ones are dominant. This makes the attempt at statistical separation extremely difficult, if not impossible. As an example, one of the most important long-term trends in the United States balance of payments has been the growth of direct investment overseas. However, in any given quarter this trend may be swamped by unrelated short-term movements in the direct investment flows measured by our statistics. If the measurement of direct foreign investment included only permanent additions to capital in overseas affiliates, regardless of sources of financing, this might not be true. But direct investment is measured in part by the flow of funds between parent and overseas affiliates within a multinational firm, and it therefore reflects all kinds of short-run changes in financing patterns. These intracorporate transactions are as interest sensitive as any liquid capital flows, and they may also be distorted by tax considerations and various accounting practices of the multinational firms. An examination of the behavior of the United States direct investment account during periods of exchange market speculation easily reveals how important this distortion of the basic balance can be.

In addition to these problems in the direct investment account, international portfolio flows can also be seriously distorted by short-term fluctuations. In fact, investment in foreign securities has sometimes been an important vehicle for currency speculation. And, finally, the formal maturity of loans cannot be identified with the actual motivation of transactions. For instance, a long-term bond purchased one day before maturity may serve as a short-term asset for the buyer, while long-term financing can sometimes be secured by negotiating short-term loans with an advance understanding that they will be renewed at maturity. Because of this, statistically recorded portfolio flows and so-called long-term private loans are demonstrably sensitive, in aggregate, to short-run changes in interest rates and changes in expectations about relative inflation rates, monetary policies, and ultimately exchange rate relationships.

NET LIQUIDITY BALANCE. The net liquidity balance includes what are termed nonliquid short-term capital flows, along with long-term capital transactions, as above-the-line items. It also includes errors and omissions, as if this item represented only nonliquid capital flows. Tables III and IV summarize the distinction between nonliquid

and liquid private capital transactions as they are currently embodied in reporting practice. As can be seen, the net liquidity balance contains many arbitrary elements. All loans by United States banks, except those to their own branches, are treated as nonliquid, even overdrafts, which must by definition be quickly reversed. On the other hand, all transactions between United States banks and their branches (but not subsidiaries) and between United States agencies, branches, or subsidiaries of foreign banks and their head offices or parent organizations and/or branches overseas are considered liquid, although they may be directly connected to nonliquid (and even long-term) lending by the foreign affiliate. All deposits are liquid, even those that are held as compensating balances against nonliquid borrowings.

GROSS LIQUIDITY BALANCE. Changes in liquid claims on foreigners are included in the gross liquidity balance with above-the-line items, leaving changes in liquid liabilities to private foreigners as the only settlement items aside from official reserve transactions. As Table IV shows, liquid liabilities to private foreigners means, simply, short-term bank-reported liabilities to private foreigners and all private long-term foreign holdings of United States Treasury securities. The asymmetry in treatment of liquid claims as opposed to liabilities has been justified on the ground that the balance measures additions to the potential drain on the United States monetary reserves. United States residents' liquid claims on foreigners, it has been argued, could not necessarily be mobilized for this purpose, while the liabilities did represent a potential "call" on our official reserves. In recent years, however, the total stock of liquid liabilities to foreigners has so much exceeded the stock of our reserves that this idea has lost all

possible relevance. Therefore, the symmetric treatment of the net liquidity balance has generally been preferred by users of the liquidity concept.

The liquidity balance definitions above have been designed specifically for analyzing United States payments and are not used in other countries. A somewhat similar measure which does have wide international usage is the balance of monetary movements. In this balance, all bank-reported short-term capital movements⁶ are treated as financing items along with official reserve transactions, and all other flows are placed above the line. The assumption underlying this treatment is that, in some countries at least, central banks through various regulations exert a major influence on the net short-term international position of commercial banks. Table II includes a computation of this balance for the United States in the last four years.

OFFICIAL RESERVE TRANSACTIONS BALANCE. The most comprehensive of the standard balances is the balance of official settlements. Here, all international transactions except for changes in the net official reserve position of the United States are above the line. This measure is intended to reflect the amounts of foreign exchange which monetary authorities have supplied to the markets to balance private supply and demand at current exchange rates. All private and nonreserve Government transactions are

⁶ Bank-reported capital, it should be noted, includes some assets and liabilities which are not part of the banks' own balance sheets: for example, items held for the account of the banks' customers and securities issued by the United States Treasury or United States Government agencies.

Table III
NONLIQUID VERSUS LIQUID UNITED STATES SHORT-TERM CLAIMS ON PRIVATE FOREIGNERS

Claims	Nonliquid	Liquid
Reported by United States banks:		
Payable in dollars	Loans (including overdrafts); collections; acceptances	"Other" dollar claims, including deposits, money market paper, and all claims (except acceptances) of United States banks on their own foreign branches and of United States agencies and branches of foreign banks on their own head offices and/or foreign branches
Payable in foreign currencies	"Other" foreign currency claims	Deposits; foreign government obligations; commercial and finance paper.
Reported by United States nonbanking concerns	Credits to finance exports or other transactions; claims of United States brokers on foreigners, mainly to finance securities transactions	Deposits held abroad; negotiable and transferable foreign obligations; loans repayable on demand

Table IV
NONLIQUID VERSUS LIQUID UNITED STATES SHORT-TERM LIABILITIES TO PRIVATE FOREIGNERS*

Liabilities	Nonliquid	Liquid
Reported by United States banks	None	All short-term bank-reported liabilities
Reported by United States nonbanking concerns	All short-term liabilities	None

* In addition to these short-term liabilities, liquid liabilities to private foreigners also include net purchases by the latter of long-term United States Treasury securities reported by both banks and nonbanking concerns.

thus interpreted in this balance as autonomous phenomena, which are accommodated by official reserve transactions.

Most foreign countries measure their official settlements balances simply as the net change in external assets and liabilities of the monetary authorities. In the United States, the matter is more complicated because foreign countries hold United States dollars as an international reserve asset. Recognizing this international reserve currency role of the dollar, the United States includes, in its official reserves measurement, information which it collects from private United States residents about their liabilities to official foreigners. In recent years, changes in these liabilities—primarily foreign official holdings with United States commercial banks and bank-reported official holdings of United States Treasury securities—have accounted for most of the movements in the official settlements balance, since reserve assets (primarily gold) held by the United States monetary authorities have been relatively stable.

In the last year and a half, United States liabilities to the monetary authorities of OPEC have undergone a very large increase, as OPEC countries have invested part of their huge reserve accumulations in various types of assets in the United States. All of these are counted as deficit items in the United States official reserve transactions balance, which has deteriorated as a result. Some analysts believe that these investments should be regarded as largely autonomous rather than as accommodating flows, and the reasons for this are discussed in some detail in the next main section. It has therefore been suggested that official reserve transactions *vis-à-vis* OPEC and those *vis-à-vis* non-OPEC countries should be looked at separately, with only the latter being taken as a measure of exchange market disequilibrium in the traditional sense. Published balance-of-payments statistics do not allow a precise separation of OPEC reserve transactions from the others; however, the last item in Table II roughly approximates this adjustment by using published data on liabilities to residents of these countries. As the reader can see, con-

structing the balance in this way transforms into approximate balance what appears by the usual definition as a very large official deficit for 1974. In contrast to the impression that might be created by casual interpretation of the 1974 official settlements deficit, this adjustment shows that the dollar was not artificially supported by massive net official intervention over the year as a whole.

Some foreign countries, for which changes in official (i.e., monetary authorities') liabilities are relatively insignificant, use gross changes in reserve assets alone as their measure of official settlements. Because of the fact that foreign monetary authorities accept dollar liabilities of the United States as a means of settlement, this has not usually been considered a useful balance-of-payments measure for the United States. However, in the United States as in all countries, these assets do comprise a source of the domestic monetary base. As a result, their changes play an important role in monetary theories of balance-of-payments adjustment, which is discussed in the next section.

PROBLEMS IN INTERPRETING THE BALANCE-OF-PAYMENTS MEASURES

One of the principal uses of balance-of-payments measures is to evaluate changes in underlying conditions which may alter the equilibrium value of a country's exchange rate. In the Bretton Woods system of fixed but adjustable par values, this meant an attempt to identify cases of "fundamental disequilibrium". Under International Monetary Fund (IMF) rules, the existence of such a disequilibrium, depending on its source and other circumstances, could lead to the changing of the value of the national currency relative to gold or foreign currencies, or to other adjustment measures. In the present exchange rate regime of managed floating, balance-of-payments measures are still used to identify disequilibria which may occur when official intervention is large enough to influence

market exchange rates. However, a more important current concern is to anticipate sources of future exchange rate change and the potential impact of international developments on domestic economies. Some of the balance-of-payments concepts that were previously used to identify fundamental disequilibria are now applied in assessing underlying trends that may help in making such predictions.

When analyzing trends evidenced by the balance of payments over a fairly lengthy period—i.e., a few years or more—economists have generally focused on comprehensive measures such as the *official reserve transactions balance*. Its treatment of all transactions by persons other than official reserve agencies as autonomous phenomena, while regarding all official reserve transactions as accommodating,⁷ means that developments in all types of private financial relationships are considered to play a role in determining the equilibrium value of national currencies. This recognition of all private financial flows as ultimately market determined is particularly important in the case of the United States, which as a world financial center provides such a wide variety of banking services to foreign residents. It would be a mistake to exclude any of these services when considering trends that affect the value of the dollar over the long run.

The treatment of all official reserve transactions as below-the-line, or accommodating, items is subject to important exceptions. The assumption behind the official settlements concept is that central banks gain or lose reserves only through direct exchange market intervention undertaken to defend established parities. However, even under the fixed exchange rate system the decision of monetary authorities to intervene in exchange markets (as opposed to changing the national parity) could be influenced by an official desire to accumulate or decumulate reserves, rather than being only a passive accommodation of market conditions. This qualification is all the more important now, when the major countries are no longer committed to defending specific, established parities. Hence, the differentiation between private and official foreign holders of dollars is not always an adequate basis for measuring disequilibrium, because central banks are motivated by some of the same considerations as, and handle their exchange portfolios similarly to, private participants in the market.

Part of the problem with the official settlements concept is that official reserve positions are also affected by other transactions besides intervention. For instance, monetary authorities may borrow foreign exchange from private holders or lend it to them, and this will add to or reduce their reserve holdings. Another important measurement problem arises from the fact that foreign central banks place some of their dollar exchange holdings with commercial banks outside the United States—usually with banks in their own countries (Japan being a well-known instance of this) or in Euro-dollar centers elsewhere. In such cases, a part of the dollar balances that are owned by foreign monetary authorities is reported as liquid liabilities to private foreigners in the United States balance-of-payments statistics. As a result, while in principle the official settlements of each country with all other countries should be symmetric and the official settlements of all countries when added together should total zero,⁸ there are in fact very large discrepancies between the official balance that is recorded for the United States in any recent period and the total reported official settlements of all other countries.

The acquisition of large amounts of new reserves by oil-exporting countries is currently providing a spectacular example of all of these problems. On the one hand, OPEC governments have placed many of their dollar reserves with Euro-banks, and the principal reflection in the United States balance-of-payments statistics of this part of the OPEC reserve accumulations is likely to be increased liquid liabilities to private foreigners, primarily to foreign banks or the foreign branches of United States banks that are located in Euro-dollar centers. At the same time, it may be incorrect to regard all of OPEC's direct claims on the United States as deficit items, since many such placements are investments motivated in part by ordinary economic considerations rather than being simply a passive accommodation to outflows from the United States. In other words, these increased United States liabilities to official foreigners reflect a conscious portfolio choice by those officials to hold a certain portion of their large reserve gains in a variety of dollar-denominated instruments. This is the reason why some analysts currently prefer to look at a narrower official settlements measure, like the one in Table II which excludes changes in liabilities to OPEC, for an indication of the

⁷ For the history of these concepts of autonomous and accommodating transactions, and their use in identifying fundamental disequilibrium, see particularly Meade [9], Gardner [2], and Machlup, "Three Concepts of the Balance of Payments" in [8].

⁸ More precisely, they should total zero aside from any net changes in total world reserves, such as increases in monetary gold, in SDR allocations, or in other liabilities of the IMF.

amount of official intervention that has been affecting the dollar's value in any given period.

The *liquidity balance* is an alternative overall balance-of-payments measure which has been used for a long time in the United States. This balance recognizes that official reserve movements are sometimes motivated by market considerations and thus are similar to private capital flows. Moreover, it separates out changes in private holdings of liquid claims on the United States as a potentially disequilibrating phenomenon that may eventually be translated into market pressure on currency rates and reserve movements. Proponents of the liquidity measures argue that the latter show the ability of the United States to defend the dollar, and the possibility of needing to do so in the future, whereas the official settlements balance concentrates on the amount of intervention required in the past.

The artificialities in the official-private distinction have been recognized by most users of the official settlements measure, which admittedly can be seriously distorted, particularly in the short run. However, very few economists have been able to accept the alternative distinction between liquid and nonliquid capital as a useful basis for balance-of-payments analysis. First, the notion that liquid claims portray a "potentially disequilibrating" situation cannot be applied indiscriminately to all such claims by residents of one country on those of another, but only to those amounts over and above the monetary balances needed for transactions purposes. No theoretically sound method has been advanced for making this separation in the balance-of-payments statistics. Second, many assets which are classified as nonliquid are in fact readily convertible into liquid form. Thus, the exchange market implications of growth in these other claims are not necessarily different, in any clear and simple way, from those of a growth in foreign-held bank deposits. These are the principal reasons why the liquidity balance has fallen increasingly into disuse by economists in the United States.⁹

As described above, *monetary movements* is commonly used in other countries as an overall measure much like the liquidity balance of the United States. The difference is that balance of monetary movements includes as settle-

ment items all bank-reported short-term capital transactions, but not liquid nonbank flows. Drawing the line at short-term bank capital has the advantage of being conceptually simpler than the liquidity distinction, but for analytic purposes it is almost as arbitrary, at least for a country with highly developed financial markets like the United States. Because the monetary movements balance is used by other countries, it is sometimes useful to compute it for the United States also. However, this is a concept that is asymmetric in definition. Consequently, it cannot be added up for different countries to total zero. For example, a transaction which is short-term bank capital on the United States side frequently involves a nonbank resident on the foreign side, and vice versa.

Under fixed exchange rates, and so long as United States dollars held by foreign monetary authorities were effectively convertible into gold, changes in United States *official reserve assets* alone provided one type of measure of overall balance-of-payments disequilibrium for the United States, as foreign official dollar acquisitions could then reasonably be viewed as voluntary. Without convertibility there is no sense in which the disequilibrium measures for the United States can be realistically confined to reserve assets, and most official intervention to support the dollar's value in exchange markets has in fact reflected itself in increased United States liabilities to foreign monetary authorities rather than in reduced assets.

In all countries, *primary international reserve assets* constitute part of the domestic monetary base, and therefore changes in these assets have an influence on money supply. As a source of change in the domestic monetary base, changes in primary reserve assets play a central role in monetary models of the balance of payments. These models treat the international balance as part of the mechanism that equilibrates portfolio choices of both residents and nonresidents—including, in particular, their choices to hold money denominated in various currencies. When a balance-of-payments surplus results in an increase in international reserve assets of a country, this adds to the domestic monetary base. So long as this increase is not offset by actions of the domestic monetary authorities, it will affect the domestic money supply, and thereby national income and the price level. In the case of a balance-of-payments deficit resulting in a reserve loss, the opposite sequence occurs. So long as payments imbalances are in fact reflected in changes in reserve assets, this constitutes an adjustment mechanism by which external disequilibria tend to be eliminated automatically. This monetary mechanism of balance-of-payments adjustment was first outlined by David Hume in the eighteenth century, and the theory is now being further developed in

⁹ This brief discussion does not pretend to do justice to the questions raised, since they have been extensively argued over the years in many other places. The reader is referred particularly to Lederer [7] and to the Bernstein Report [10]. Some additional references are given following this paper, and more can be found in Kindleberger [5] and in Stern [11], particularly Chapter I, "Balance of Payments Concepts and Measures".

contemporary literature.¹⁰

This monetary adjustment mechanism does not necessarily work the same way for a reserve-currency country like the United States, because deficits in United States external payments are not usually reflected in changes in United States reserve assets but rather in liabilities. Changes in United States liabilities to official foreigners do not normally affect the monetary base of the United States except when they lead to a change in the level of foreign deposits with the Federal Reserve Banks. The great bulk of foreign central banks' dollar holdings is invested in nonmonetary assets (such as United States Treasury securities) which are purchased from private domestic holders, and in this case there is no net impact on the monetary base in this country.¹¹ This causes an asymmetry in the international adjustment mechanism described by the monetary models because, when the monetary authorities in a foreign surplus country acquire dollars through exchange market intervention, these dollars are included in the international reserve assets of that country and thus add to its monetary base. However, the increase in United States liabilities causes no corresponding reduction in the monetary base here, so that the inflationary impact in the foreign country is not matched by any automatic deflationary tendency in the United States. Even in foreign countries, the practical usefulness of this primary reserve assets measure of balance-of-payments disequilibrium can be exaggerated. The automatic nature of the international adjustment is in any case limited by the fact that domestic monetary impacts of external disturbances are frequently swamped by actions of the domestic monetary authorities. Monetary authorities in all countries consider domestic as well as international factors in making policy, and by open market operations or other actions they may—whether intentionally or not—cancel the effect which official reserve changes might otherwise have had on the monetary base, at least for a time. Thus, so long as the monetary authorities in each country exercise independent control over their own money supplies, the price-specie-flow mechanism described by Hume does not work.

The overall balances, such as those discussed above, may be considered an accurate guide to payments trends

that continue for a fairly long period. However, the inclusion of some capital flows which can vary widely in the short run, even though their movements tend to cancel out over a long period, makes these balances unreliable for analyzing changes over only a few months or quarters. Additional balance-of-payments measures are therefore needed for current analysis. This is the motivation for computing a *basic balance*, which attempts to isolate stable, underlying patterns and separate them from movements of volatile, short-term capital. The latter are taken to respond much more quickly to changes in relative interest rates and/or exchange rate expectations, which means that they are also more amenable to the influence of short-run changes in monetary policy. Another way of regarding basic transactions, therefore, is that they are those transactions which can, in principle, be considered as exogenous influences in short-run models used to formulate monetary policy.¹² In practical terms, this means that an imbalance in overall payments over a short period—as measured, for example, by official settlements—is more likely to be taken as indicating fundamental disequilibrium if the imbalance is due to basic transactions than if it is due to short-term capital movements. Moreover, trends in basic payments may sometimes signal an emerging disequilibrium situation before it materializes in official reserve movements or exchange rate changes.

While the theoretical distinction underlying the basic balance is one on which there is wide agreement, it is perhaps the most difficult balance of all to translate into measurement. The conceptual distinction outlined above simply cannot be identified with the categories found in the available statistics. For this reason as much as any other, balance-of-payments analysts often focus particular attention on changes in *merchandise trade*, and perhaps on trade in services. These flows are seen as depending on relatively stable and well-understood relationships among those classified as basic transactions. As a result, economists feel somewhat more confident about trying to predict trade developments in the short run than they do about predicting capital flows, even so-called long-term capital flows.

All of the international payments balances discussed so far are intended to indicate fundamental patterns in United States external payments, in part to evaluate ex-

¹⁰ For a brief introduction to the monetary approach to the balance of payments and references to the important literature, see Kemp [3, 4].

¹¹ For details, see Auerbach [1].

¹² This view of the problem is not new. In particular, the analysis by Hal B. Lary in 1963 [6] employed essentially this approach to the issue.

change rate developments. Aside from this concern, however, economic policy makers, in the United States as well as in other countries, sometimes display preferences as to the current-versus-capital-account structure of the balance of payments. For this, they look at the overall *balance on current account*, which includes trade and service transactions as well as unilateral transfers to foreigners by the United States Government and private residents and which appears in the national income accounts as "net foreign investment".¹³ Since the current-account balance measures the extent to which the United States is a net borrower from, or net lender to, foreign countries, it may sometimes be a target of national economic policy even aside from the question of maintaining a specific exchange rate. (Another way of looking at the same number, of course, is as net saving or borrowing by the foreign sector in the national flow-of-funds accounts.) The slightly narrower *balance of goods and services* carries significance also, within a Keynesian framework of domestic employment analysis, as a component of the GNP accounts which measures the contribution of foreigners to aggregate demand for United States output. The goods and services and current-account balances are both internationally symmetrical in definition. These balances for the United States can thus be usefully compared with the corresponding statistics for foreign countries, and the balances for all countries taken together must in principle total zero.

The current regime of fluctuating exchange rates has led to some changes in the way economists use the balance-of-payments statistics. Rather than asking whether and how existing parities can be defended, analysts are now trying to interpret the movements that occur simultaneously in exchange rates and payments flows. Assessing the permanence of short-run changes in exchange rates and predicting changes that may be indicated beforehand are activities in which balance-of-payments information will always be used. Of course, one should remember that the resident-versus-nonresident distinction made by balance-of-payments statistics may not accurately reflect all the exchange market pressures for an international currency like the United States dollar. Therefore, any such analysis, while it may begin with balance-of-payments numbers, cannot stop there.

The official settlements balance would presumably be insignificant in size if the monetary authorities did not intervene in the exchange markets and did not take other measures to influence national currency rates and reserve positions, such as official Euro-currency borrowings or deposits of foreign exchange with commercial banks. In reality, however, we have a mixed situation, in which national authorities undertake some intervention in the exchange markets to influence currency values, even though they may not be committed to defending a fixed set of parities. Thus, the official settlements balance is still very much a fact of life, and it still measures market disequilibrium at current exchange rates. The main difference is that simultaneous changes occur both in the official settlements balance and in the exchange rate, and the two must be interpreted as mutually determined.

In attempting to assess the permanence of changes in exchange rates (and/or official settlements balances), the same characteristics—short-run sensitivity to interest rates and exchange rate expectations—are as important in the case of floating exchange rates as in the Bretton Woods framework. It is still desirable to separate payments according to how stable or volatile they are, and how responsive to short-run changes in monetary policy, in much the same way as the basic transactions concept was used under fixed rates to analyze short-run fluctuations in the overall payments balance alone. In theory, therefore, the basic balance, as well as other variants of this concept, is just as natural a basis for analysis in the world of floating exchange rates as it was under fixed exchange rates. At the same time, however, the shift to more flexible exchange rates has done nothing to mitigate the problems of measuring these balances.

SUMMARY OF CONCLUSIONS

The United States balance-of-payments accounts contain a great deal of useful information about transactions between residents of this country and foreigners. But it is misleading to focus attention on any one balance of part of these transactions and attempt to conclude from that balance whether the external sector of the economy has become better or worse in a given period. A surplus or deficit on any of the balances is not necessarily a sign of what is good or bad for the United States economy. And there is no single balance of payments that can always be taken as a measure of the pressure on dollar exchange rates. Therefore, the most important conclusion to be drawn is that we should not expect too much from payments balances as a guide to policy.

The official reserves transactions balance is still a useful

¹³ For the years in which new SDR allocations have been made (1970 through 1972) "net foreign investment" corresponds to the current-account balance plus the United States portion of these SDR allocations.

statistic, but only if used with great care. Its contribution is to give some indication of the extent to which exchange rate movements, in any period, are influenced by direct central bank intervention. Without such a measure of short-run market disequilibrium, it is almost impossible to evaluate the significance of observed exchange rate changes. Supplementary information which central banks publish about their intervention and/or nonmarket foreign exchange transactions will sometimes be helpful in this evaluation. In using the official balance, we must also consider factors that might lead to changes in foreign official demand for dollar reserves and look at shifts among official holders who are thought to have sharply different preferences. For example, because the potential distortion due to investment in the United States of official oil earnings is now so large, it is useful to supplement the overall official settlements balance with bilateral information indicating how much of this balance is with the OPEC members and how much is with others.

The goods and services and current-account balances continue to be relevant to domestic and international policy questions. The value of both these balances is enhanced by the fact that they are internationally symmetrical in definition and correspond to the usage followed by other countries.

In applications whose object is to separate "stable" from "volatile" payments, or to distinguish flows that are exogenous to short-run policy decisions from those that are not, the basic balance concept still represents the ideal that is sought. The available statistics are so flawed by measurement problems, however, that none of the usual approximations of this balance can be recommended with any enthusiasm. Perhaps all that should be attempted is to add the current-account and United States Government capital items together, since they are the only measured flow categories that can be regarded as largely interest insensitive. The information gained from examining this balance by itself will be slight, though. Some estimate (or guess) about underlying trends in private direct investment must certainly be added by the user in order to interpret the basic payments situation. The

empirical basis for such an estimate must be a careful examination of past and current trends in a number of the gross private capital flows, and probably of other information as well. The search in our present statistics for a reliable net basic balance that will consistently illuminate the underlying balance-of-payments situation of the United States is doomed to disappointment.

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