

ESSAYS IN INTERNATIONAL FINANCE

No. 74, April 1969

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PRIVATE AND OFFICIAL  
INTERNATIONAL MONEY:  
THE CASE FOR THE DOLLAR

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INTERNATIONAL FINANCE SECTION

DEPARTMENT OF ECONOMICS

PRINCETON UNIVERSITY

Princeton, New Jersey

*This is the seventy-fourth number in the series* ESSAYS IN INTERNATIONAL FINANCE *published from time to time by the International Finance Section of the Department of Economics of Princeton University.*

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*International Finance Section*

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Department of Economics  
Princeton University  
L.C. Card 70-81843

Printed in the United States of America by Princeton University Press  
at Princeton, New Jersey

# PRIVATE AND OFFICIAL INTERNATIONAL MONEY: THE CASE FOR THE DOLLAR

International money has no supernational legal framework to which analysts can refer in order to establish its properties. Its natural domain is divided among autonomous national jurisdictions. Yet the classical need for a numeraire, medium of exchange, and store of value is felt at the international level just as it is felt within nation-states. Indeed, international money does now exist, with its use continually expanding according to certain conventions. But these conventions are elusive, as are the mechanisms underlying the creation of international money. Both are prone to different interpretations by national authorities, leading to crises and possible disruption of world commerce. The basis of much economic growth in the postwar period is thereby threatened.

It is worth much to the world to have an established and fully coherent monetary mechanism that is both understood and adhered to by national authorities because they believe it to be mutually beneficial. This essay favorably interprets the American dollar as international money, based on what have become virtual conventions of international exchange, requiring very little alteration in our existing political and economic institutions. The implications of an international dollar standard for economic policy and welfare are then drawn.

## I. INTRODUCTION

The demand for international money has two important components: (1) reserve assets held by official institutions such as central banks and treasuries, and (2) private holdings of internationally liquid assets by individuals and by financial and nonfinancial corporations. Official reserves have dominated academic and governmental thinking on international "liquidity," as evidenced by the prolonged negotiations within the Group of Ten resulting in the Special Drawing Rights (SDR's) facility of the International Monetary Fund. SDR's would be used exclusively by governmental institutions.

In his most recent book, *Our International Monetary System: Yesterday, Today, and Tomorrow*, Robert Triffin reiterates the need for deliberate expansions in world liquidity, but confines his attention to official institutions (pages 88-102) and does not discuss the problem of private

international money. He envisages that SDR's, or a somewhat broader facility, will eventually replace gold and national currencies in official reserves. Indeed, one of the points of unanimous agreement among the conferees in the Group of Ten deliberations was that the use of the dollar—and the concomitant deficits in the balance of payments of the United States—should cease or greatly diminish once the new international facility is ratified.

However, the dollar is, internationally, much more than an official reserve asset. Besides being the vehicle currency which governments use to enter the foreign-exchange market to peg their own exchange rates, there are enormous private holdings by foreigners of short-term dollar claims on American banks and additional pyramided claims on Euro-dollar banks. Indeed, the spectacular growth of the Euro-dollar market—and more recently of dollar-denominated Euro-bonds—has consolidated the dollar's role as *the* dominant international money. It is used as a numeraire and as a means of finance for both trade in goods and trade in securities. It is the center of the world's international capital market where both official and private institutions borrow and lend.

Given this second “nonofficial” role of the dollar, this essay analyzes a number of issues related to the dichotomization of our thinking on official and private international liquidity. We shall investigate the determinants of private and official demand for international money in Section II. There it is demonstrated, among other things, that floating exchange rates are not a solution to the general liquidity problem, as is commonly thought. The demand for international money would continue to exist and possibly be augmented under floating rates. Moreover, there is a need to establish a single financial instrument, most conveniently dollars, as international money.

Having established the international demand for money, the mechanism for supplying dollars to the rest of the world is developed in Section III. What ensures that the foreign demand for international money in real terms—after price-level deflation—can be satisfied by the apparently “random” balance-of-payments deficits of the United States? It is demonstrated that a systematic and probably adequate mechanism for supplying international money does in fact exist. However, the workings of this mechanism are not recognized by American authorities in their policies for international payments, particularly in their restrictions on outflows of capital.

Knowing that the dollar standard can function well but does function haphazardly, the attendant welfare implications are investigated in Section IV. It is frequently said that a dollar-based monetary system is exploitive because of the ability of the United States to create credit

“costlessly” and to obtain real goods and services in exchange. Numerous alternative plans have been made for channelling the “proceeds” of, or “seignorage” from, the issue of international money to underdeveloped economies. The capture of this surplus would be accomplished by centralizing money creation in an international agency rather than having it accrue to a single national economy. However, it is contended in this essay that such seignorage need not accrue to the issuer of international money. Indeed, it will be shown that the presence of unrequited seignorage would mean the international monetary mechanism was functioning suboptimally. Under the correct policies, the dollar standard can function efficiently on a quid pro quo basis.

In Section V, a more “collectivist” approach to the issue of international money is investigated. Is it possible for an international agency to establish an independent monetary standard? The properties of Special Drawing Rights or similar facilities are explored in this connection, as is the whole relationship between them and international holdings of dollars. It turns out that SDR’s will necessarily have a secondary although possibly supporting role *within* the dollar system.

Finally, after establishing that a dollar standard can be nonexploitive and a most efficient practical instrument for providing badly needed international money, we shall investigate the implications for American monetary, fiscal, and exchange-rate policy in Section VI. Peripherally, economic policy in other countries, particularly regarding exchange rates, will also be examined. It seems at first glance that many complications would arise in domestic monetary and fiscal policy if American authorities finally recognized that they are responsible for the health of the international monetary mechanism. This essay contends that such is not the case. Full recognition of international obligations would, on net balance, simplify American economic policy. In the recent past, foreign-exchange and internal-policy mistakes have been compounded by continual failure to recognize the true strength and international status of the dollar, to the detriment of all concerned.

## II. THE DEMAND FOR INTERNATIONAL MONEY

The demand for official reserves is usually associated with the pegging of exchange rates at preassigned levels and the free convertibility of external transactions. With these commitments, a national authority must buy back its own currency by selling foreign exchange if the price of foreign exchange rises; and it must buy foreign exchange with its own currency if the price of foreign exchange falls. Exchange rates can then be kept within the narrow range prescribed by the International Mone-

tary Fund without resorting to controls on imports or other direct interventions. To be able to buy and sell freely, national authorities hold reserves of convertible foreign exchange.

### *Dollar Reserves and Exchange Stabilization*

In the postwar period, outside of the Sterling Area and outside of the now defunct European Payments Union, the vehicle currency commonly used as foreign exchange has been the American dollar. There is a legal reason for this which in turn reflects underlying economic forces. Legally, under the Articles of Agreement of the International Monetary Fund, member countries are obligated to peg their currencies either to gold or to the currency of a country which is pegged to gold. Among major countries, only the United States has opted to peg its currency directly to gold. Other noncommunist industrial countries have pegged their currencies to the American dollar within a margin of 1 per cent on either side of parity. Thus, all countries—other than the United States—are obligated to buy and sell dollars in the foreign-exchange market to maintain the international value of their currency. The United States retains the residual obligation to buy and sell gold within  $\frac{1}{4}$  of 1 per cent of \$35 per ounce. Since the gold crisis of March 1968, the Government of the United States has restricted its buying and selling of gold to foreign central banks.

This asymmetrical relationship of the United States to the rest of the world has distinct administrative advantages. The Fund's mandate to maintain stable exchange margins is made easier by having one anchor or reference currency to which all the others are pegged. Each government directly maintains the range of 2 per cent (1 per cent on either side of parity) for the rate of exchange between its currency and dollars; and the resulting private arbitrage maintains a range of 4 per cent for the exchange rate between any pair of nondollar currencies (2 per cent on either side of parity). The obligations of national authorities in the foreign-exchange market are, therefore, simply and unambiguously defined. For example, no decisions have to be made as to whether France or Germany is responsible for the rate of exchange between francs and marks, as long as both maintain their official parity with the dollar.

Under the current system of pegging within 1 per cent of dollar parities, it is perhaps instructive to illustrate with a numerical example the maximum variation of 4 per cent possible between nondollar currencies. Suppose the parity dollar-price of pounds is \$2.40 and the parity dollar-price of francs is \$.20. Therefore, at parity, 12 francs exchange for 1 pound. Suppose now that pounds move to their minimum dollar price



of \$2.376 and francs to their maximum dollar price of \$.202. Triangular arbitrage by private speculators in pounds, dollars, and francs will then drive the franc-pound rate to 11.76, which is just 2 per cent *below* the parity rate of 12.

In contrast, if pounds move to their maximum dollar price of \$2.424 and francs to their minimum dollar price of \$.198, then private arbitrage will drive the franc-pound rate to 12.24, which is just 2 per cent *above* parity. Thus, a complete range of variation of 4 per cent of parity is possible between francs and pounds. Of course, only a maximum 2-per-cent variation is possible between pounds and dollars or between francs and dollars.

However, with more than one reference currency, the 4-per-cent variation would *not* be automatically maintained if the reference currencies varied with respect to each other. Indeed, increased but not complete exchange flexibility—as advocated by many economists—would still require the use of a single reference currency for maintaining unambiguous, if increased, exchange margins. In the pre-1914 gold standard, gold provided this point of reference. However, in the absence of any desire to perpetuate the gold standard, it is convenient to settle on one major national currency as the reference point. Thus, the United States is left without an exchange-rate policy of its own with respect to other national currencies, since they are all responsible for maintaining parity with the dollar.

This singular position of the United States is of great convenience to all concerned and is the proximate cause for other countries holding “working” dollar balances for intervening in the market for foreign exchange. Nevertheless, the legal mechanism should not obscure the underlying real strength of the dollar. After World War II, the dollar was the only major currency which was freely convertible and had the best reputation for maintaining its value in terms of a representative bundle of internationally traded goods. It became the most convenient numeraire for official settlements among currencies of limited convertibility. Since major European currencies returned to a higher degree of convertibility in 1958, foreign private corporations and individuals have exercised this increased leeway to acquire and hold dollar balances. The dollar is used increasingly to denominate international economic transactions, even those not directly associated with the United States. Thus, the international use of the dollar is not dependent on the rules of the International Monetary Fund, which themselves represent underlying economic forces. Nevertheless, these rules do conveniently formalize the central role of the dollar in exchange stabilization.

## *Flexible Exchange Rates*

Pegged exchange rates and the desire to maintain external convertibility contribute to the demand for official reserves. Nevertheless, it would be naive to suppose that freely flexible or floating exchange rates would eliminate this demand. Nations would still find it desirable to maintain contingency reserves even with no official parity in their exchange rates.

Authorities in Korea find it convenient to hold foreign exchange against the possibility of failure of the national rice crop. The French Government finds it convenient to hold gold and foreign exchange, which is usable to support the flow of domestic expenditures (absorption) in case of events like those of May 1968. Both countries have a positive demand for liquid reserves for contingencies seen in a broader sense than that of simply maintaining parity in the rate of exchange. Thus, increased exchange-rate flexibility, going so far as to eliminate formal parities altogether, would reduce but not eliminate official demands for international liquidity.

Although floating exchange rates might ease official demands for international money, they would *increase* private demand. This is an important point to establish. The usual debate on the merits or demerits of floating exchange rates omits consideration of private demands for international money and focuses on the reduction of official demand—the latter being indeed likely to occur. A most interesting exception is the discussion by Fritz Machlup in *International Payments, Debts and Gold*. He develops several arguments, based on optimal-inventory considerations (pages 267-276), for increased private holding of foreign exchange to substitute for official holdings if floating exchange rates were introduced. These arguments can be extended in a multi-country world to show how private traders would concentrate their transactions in the most suitable major currency in order to economize on inventory-carrying costs and to minimize the informational uncertainty arising from floating rates.

Even in a world where exchange rates change infrequently, the development of the Euro-dollar and Euro-bond markets and the international use of the New York money market are evidence of the convenience of having a single numeraire, store of value, and medium of exchange for international transactions. As long as confidence is maintained in the dollar value of other national currencies, they remain good but not perfect substitutes for international money (dollars). That is, mark, sterling, or franc balances—whether held by domestic nationals or foreigners—are near-money as far as international transactions are concerned. How-

ever, floating exchange rates, leading to wider short-term variations in dollar values, would make other national currencies less good substitutes for holding dollars to finance the international flow of commerce. Correspondingly, the foreign private demand for holding dollars would increase under floating exchange rates.

These are not arguments against flexible exchange rates. Once one carefully defines the optimal size of a currency area, then an exchange rate with no fixed parity may be the preferred method of solving the adjustment problem in external payments. Then, too, in the case of domestic monetary instability associated with chronic inflation, it is folly for even small nations to maintain an official parity. What is suggested is that floating exchange rates will not eliminate the foreign demand for American dollars. Consequently, floating rates will not eliminate "deficits" in the international payments of the United States as currently measured.

The "liquidity" definition of the American deficit roughly measures the annual increase in short-term dollar claims held by both private and official foreigners, plus losses of monetary gold. If the world moved toward a regime of floating exchange rates, increases in the demand for privately held dollars may offset decreases in the demand for officially held dollars or gold. Thus, the net impact on the liquidity measure of the deficit could go in either direction. If there were significant economies of scale in national holdings of exchange stabilization funds as compared to individual private holdings, one could conceive of the "deficit" under the liquidity definition actually increasing. That is, additions to private holdings of dollars as the world economy grows would be greater than reductions in official holdings under a system of flexible exchange rates.

The "official-settlements" definition of the deficit is confined to measuring annual increases in dollar holdings of official foreigners plus annual gold losses. Under this definition, the introduction of a regime of floating exchange rates would, in the long run, reduce the American deficit without eliminating it. In the short run, the elimination of official intervention to maintain parities may lead some foreign authorities to liquidate "excessive" existing dollar holdings, thereby leading to a temporary surplus in American payments under the official-settlements definition. This short-run effect is a matter of conjecture, given the apparent instability of official portfolio preferences. Nevertheless, in the absence of official parities, official institutions would have some demand for dollar holdings which would eventually grow with world income and lead to deficits in American payments under the official-settlements definition. Indeed, for certain classes of foreign banking institutions, it might be difficult to distinguish official from private holdings.

The important point is that floating exchange rates are not a solution to the international liquidity problem in the sense of eliminating or even reducing the demand for international money. That is, there still would be the "problem" of providing international money even if it is largely privately held. Academic debate on flexible exchange rates has generally not distinguished the "adjustment" problem from the "liquidity" problem. The debate is relevant for the former but only peripherally so for the latter. Flexible exchange rates, then, are not an alternative to the development of institutions that provide international money. Since the American "deficit" is the vehicle by which international money is created, it would not, in the long run, be ended by generally floating exchange rates.

### *Gold and the Confidence Problem*

Although dollars are widely held officially and privately as working balances, some governments and a few individuals have elected to hold their longer-term "precautionary" balances in the form of gold. If in fact the dollar is basically a superior monetary asset, as is claimed here, why is there any significant demand for gold by both governments and individuals? (One must remember that, unlike national monetary systems where coins and hand-to-hand currency are a significant proportion of outstanding money, foreign holdings of dollars are generally held in large quantities in interest-bearing form—as facilitated by the presence of the Euro-dollar market.)

There is, of course, the long history of gold's serving both a national and international monetary function. Internationally, the use of money is still a matter of convention, so history remains psychologically important. But international monetary history of the last century and a half is one of shifting from the direct use of gold—sometimes supplemented by silver—to the use of fiat money, first with gold backing and then without. Robert Triffin (*op.cit.*, page 26) provides some interesting statistics on the extent to which this substitution has taken place. In the great era of the gold standard, 1815-1913, commodity money—gold or silver—was 67 per cent of total national money outstanding in 1815 but had been reduced to 13 per cent of the total by 1913. It was replaced by fiat paper money and deposits. In the international sphere, holdings of fiat money relative to gold have varied more sporadically, with international holdings of sterling being important prior to 1931 and dollars beginning in 1945.

Because of the formal American commitment to buy and sell gold at a fixed price, and the long international history of gold, one naturally thinks of gold as the "ultimate" monetary asset. It is easy to concede

that the dollar has superior short-run liquidity properties as a vehicle currency both privately and publicly, and also to concede that it pays an attractive rate of interest which gold does not. Even with such concessions, most bankers and civil servants, and some eminent and influential academicians like Robert Roosa and Arthur Burns, hold to the thesis that the demand for dollars as international money requires the tie to gold. But is this really so, and what are the implications of the gold tie?

In congressional testimony in 1959, Triffin pointed out the consequences. If international supplies of gold are fixed and increments to international liquidity are largely satisfied by a build-up in foreign holdings of dollars, the underlying system is unstable. As foreign holdings of dollars increase with a monetary gold supply which is relatively stationary, doubts arise about the American ability to convert gold into dollars at the fixed price. Speculative attempts to convert dollars into gold, in anticipation of a sharp rise in the price of gold, multiply. The overall convertibility of the dollar-based system becomes threatened, as it was by the gold rush of March 1968. From Triffin's now very familiar argument, American policymakers face an impossible dilemma. If they try to reduce the deficit as defined by the Department of Commerce, the growth of international liquidity would be halted and convertibility threatened. If they let the deficit run, the system becomes increasingly unstable and convertibility is threatened anyway.

There are two nonexclusive schools of thought for solving the dilemma. One is to replace the dollar/gold-exchange standard with an international money whose issue is controlled by an international institution. The prolonged negotiations over the development of Special Drawing Rights are the result of this influential view. However, as mentioned in the Introduction, SDR's are envisaged (even under their widest conception) to be official instruments only. The rapidly growing demand for private international liquidity and an official vehicle currency has been completely outside of the negotiations. Possible relationships between SDR's and dollars will be explored in Section V of this essay. Here, it suffices to note that SDR's are not sufficient to replace dollars as international money.

The other school of thought suggests that the demand for international liquidity in the form of dollars can be satisfied and stabilized by demonetizing gold in the sense that central banks will no longer enter the private gold market as either buyers or sellers. This view is subscribed to in this essay and rests on two premises: (1) the provision of international money is a "natural" monopoly associated with one independent financial instrument, and (2) the dollar is preferred to gold

as an international monetary asset. The first premise rests on Gresham's Law. Any system with more than one money linked together by a nominally fixed price is unstable, as exemplified by the gold-dollar standard. This line of thought, again mainly in terms of official reserve preferences, is more fully developed by Robert Z. Aliber in "Gresham's Law, Asset Preferences, and the Demand for International Reserves" (*Quarterly Journal of Economics*, November 1967). Incidentally, the fact that a single national currency is used as a natural monopoly does not mean the banks of that country are given monopolistic advantages (see Section IV).

The second premise of the superiority of the dollar bears some examination. International transactions in commodities and securities are largely denominated in dollars, without effective gold clauses. The dollar has superior liquidity value in its use as a vehicle currency on both private and official account, whereas gold is not used at all. It is a superior store of value in the sense that dollar holdings bear a substantial rate of interest even for sight obligations in the Euro-dollar market. Longer-term obligations bear higher rates. So for all the textbook properties of money—as a numeraire, as medium of exchange, and as a store of value—the dollar dominates gold. It is now incorrect to think in historical terms of gold being the ultimate asset.

As pointed out by many writers, the speculative demand for gold now is similar to the demand for any easily storable metal whose floor price is fixed but whose ceiling price is not. By assessing the limited size of the American gold stock, speculators believe there is some significant probability that the official price of gold can be forced upward by buying-pressure. One cannot lose by taking a long position in gold with these ground rules. One can lose, however, if the ground rules are changed so that the price of gold can dip below \$35 per ounce as well as rise above it. This change in the rules would greatly reduce the monetary attractiveness of gold and would cause some substantial private dishoarding and probably a significant fall in its free-market price. More importantly, this demonetization of gold would stabilize the demand for international money in the form of dollars.

The current two-price system for gold is a partial but not complete movement toward demonetization. It is partial because the official communiqué (March 17, 1968) is ambiguous as to whether a floor price for gold of \$35 per ounce in the free market will be supported. It is too early to tell what the ultimate effect will be. Nevertheless, even this limited step has the effect of establishing the dollar as the unit of account in official reserve holdings, which are now effectively denominated in dollars irrespective of what happens to the price of gold on the free