FINANCIAL INTERRELATIONS, THE BALANCE OF PAYMENTS, AND THE CRISIS OF THE DOLLAR
By Hyman P. Minsky

It is the duty of every bank and most of all of a central bank to be rich.

R.S. Sayers

I. Introduction

Professor Sayers' proposition that it is the duty of a bank and especially a central bank to be rich helps us understand the disarray of the world monetary system since first the demonitization of gold in 1968 and then the final abandonment of the Bretton Woods system of fixed exchange rates in 1977. What does it mean for a bank, a central bank, or the "country" whose money serves as the international currency "to be rich?" and "what happens when a bank, a central bank, or the key currency country is no longer rich?" are the questions which need to be addressed in the light of the insight by Sayers: We want to look beyond the obvious implications of being rich, which is having power, and examine the mechanisms by which the richness and therefore power of a bank are exercised. To do this we will look at the financial relations that make banks powerful and then extend the argument to cover the effect of the structure of the balance of payments upon the richness or power of a country whose currency serves as an international money.

In essence the current crisis exists because the structure of the balance of payments of the banking center of the Bretton Woods system, the United States, became that of an impoverished economy in the late 1960s, and with this impoverishment demand liabilities denominated in dollars lost some of their attractiveness. This impoverishment is not due to any fundamental decline of the United States as a producing entity. The impoverishment is largely due to
inept policies that reflect the dominant economic theory, which missspecifies the nature of the economy. The United States and other capitalist economies are now intensely financial, and standard economic theory which the advisors to United States policy makers use ignores the financial aspects of these economies. Only after we fully integrate financial interrelations into our analysis of the international economy will we have the understanding that will enable us to develop policies which can reverse the impoverization of the United States and establish an international monetary system conducive to sustained economic progress. The United States in the late 1970s must be seen as an "ailing bank" whose management wither does not understand its problems or is not able to take the steps necessary to resolve the difficulties. The United States policy establishment and political leadership dithers, while like Macawber, they hope "something will turn up."²

In the autumn and winter of 1977-1978 the world witnessed the queer spectacle of the chief United States financial officer, Secretary of the Treasury Blumenthal, cheering on the decline of the dollar on the international exchanges. Aside from welcoming developments that were planting the seeds for a subsequent accelerating inflation -- which duly occurred in the spring and summer of 1978 -- it is evident that Secretary Blumenthal and his house economists deemed the existence of a vast amount of dollar denominated, offshore financial instruments unimportant. Official reasoning seemed to disregard the need to keep the owners of offshore and domestic dollars happy withholding dollar assets; they seemingly did not understand that if dissatisfaction with holding dollars became widespread, the terms of trade would so turn against the dollar that rapid impoverishment and banana republic rates of inflation would surely occur. Secretary Blumenthal and his advisors were applying the price-specie-flow analysis, which sees no flaws in currency devaluation. This theory is fully relevant only for economies
without financial interrelations; it is of limited relevance for economies in which debts denominated in dollars are abundant. The normal functioning of a world economy characterized by a maze of financial instruments denominated in dollars depends upon the willingness of governments, business, banks, and individuals to hold monetary instruments denominated in dollars. This is so because such dollars largely arise in the process of financing activity and any attempt to change the currency of denomination will reduce the amount of activity that can be financed.

A fundamental proposition of the argument that follows is that although currencies which are not used to denominate transactions and debts may depreciate without destabilizing the world economy, when the key world money depreciates, a "flight" of liabilities from the banks and money markets which denominate in the center's currency is likely to occur. At worst this leads to financial crisis and crash, as the flight makes the refinancing of positions by banks and other financial units impossible, at best it leads to a world recession as the volume of economic activity that is financed contracts.

II. Defining "Being Rich"

The liabilities of a rich person or institution are scarce and valuable, not because they are few in number but because the assets controlled generate a large cash flow to the rich. A.T. and T. bonds are valuable because the U.S. telephone network generates a cash flow to the company that is much larger than the cash payments that are required for current telephone network operations. New York City bonds are not now marketable because the assets New York City controls, the New York tax base, does not set up reliable cash flows that exceed by a substantial margin, the current operating costs of New York City. The key determinant of the value of liabilities of any organization is the cash flow its assets are expected to generate.
The world in which we live acts out its events and determines its asset values in calendar time. This means that there is an inherent uncertainty to events. The time dimension and thus uncertainty is an essential factor in the valuation of assets. This is especially true in international financial relations, where political uncertainty must be added to the uncertainty inherent in a capitalist economy with capital assets that are technically and institutionally dynamic. The time dimensions of an economy are of special significance for banks, be they commercial banks, central banks, or a country whose currency serves as the international money, for banks are organizations whose liabilities are of a shorter term to expected cash payments than its assets are to expected cash receipts. This means that banking institutions must always be refinancing their "position"; they must be issuing new liabilities in order to fulfill obligations as outstanding liabilities fall due.

Banks issue their liabilities in exchange for assets. The assets acquired may be gold, government debt, private debt, private debt, or liabilities of other banks. Gold, and the liabilities of other banks, are valuable because they enable the acquiring bank to fulfill financial obligations, and, if put at the service of bank customers, enable customers to fulfill financial commitments and to acquire goods, services, or assets. A bank acquires government and private debt in the expectation that the "borrowing" unit will supply it with cash or the bank's own liabilities on an agreed upon schedule. These debtors to banks generate the basic demand for money and in particular bank money so as to be able to fulfill financial commitments. This demand for bank deposits due to the existence of debts payable in bank deposits makes bank deposits valuable.

In any money using economy every unit can be characterized by its cash receipts and cash payments. In a capitalist economy debts are used to finance
control over capital-assets as well as to finance the production of investment output. Part of the debt used by business to finance investment and control over capital-assets is owed to banks and other financial institutions. Bank and other financial institutions use their own debt to finance their financing of business. In our type of economy demand deposits which are part of the money supply emerge from the financing process at commercial banks. Financing activity also leads to the central bank acquiring assets and issuing liabilities. In the same way bank debts denominated in the "currency" that is used as the international money emerges as international trade and investment are financed.

A special characteristic of an organization that acquires debts which are used to finance activity, by issuing its own debts that are used as money or as near money, is that the amount of activity it can finance and the amount of its own debts that can be outstanding are flexible. The amount of financing that a bank can engage in is limited only by the amount of its own liabilities it is willing and able to sell or emit.

When banking and the process by which money is created are analyzed, it is usually assumed that the amount of their own liabilities banking institutions sell or emit is determined by the value of high powered (or reserve) money outstanding and the legal reserve requirements against these liabilities. In today's complex and convoluted banking system this view is patently false. In today's world banking system dollar denominated demand deposits and certificates of deposit are created and exist as debts of institutions that are not chartered by United States authorities. Furthermore, demand and passbook savings deposits are of decreasing importance in the liability structure of all banks, both in the United States and in other countries. As a result, Federal Reserve control of bank reserves does not, except under very short run and exceptional conditions, determine the acquisition of assets by banks and the volume of bank liabilities outstanding.
III. Financing Relations and Central Bank Power

The liabilities that banks are willing and able to omit and the assets they acquire are determined by market usages and prevailing views as to admissible financing relations rather than by any mechanical linkages among reserves and deposits. Among the determinants of the admissible financing relations are the conditions under which maturing debt structures can be refinanced. In particular, commercial banks depend upon the refinancing available through direct borrowing through the facilities of their national central bank. This refinancing takes the form of direct borrowing from their national bank or borrowing from or selling to a market that is rigged by the central bank. The power that a central bank has over commercial banks largely stems from this dependency. In a smoothly functioning banking system, assets owned by the central bank yield a cash flow to the central bank from the economy. The cash flow reduces the commercial banks' cash or reserve position and their direct or indirect debt to the central bank.

Either directly or indirectly, commercial banks finance part of their asset holdings by debts owned by the central bank. By acquiring assets even as its assets are maturing the central bank makes it possible for commercial banks to sustain their total asset holdings. Whereas payments to the central bank being considered here are due to terms on contracts owned by the central bank, asset acquisition by the central bank is at the initiative of the central bank or at terms it sets.

The normal functioning of our economy depends upon the continued viability of the banking system, which, in turn, depends upon the central bank's discounting and open market operations. However, the dependency we have described is not that which is emphasized in the standard reserves and reserve requirement analysis of the money creating process. The serious dependency, which makes
central banks potent, is that central banks finance a significant portion of the positions of commercial banks.

This relation between the central bank and commercial banks is very clear when the central bank acquires assets by a discounting process. Discounting is equivalent to a collateralized loan to the "borrowing" bank. Some of the activity financed by commercial banks and a part of the position of commercial banks is financed by "loans" from the central bank. When the central bank acquires assets by open market operations in government debt, the ability of commercial banks to acquire private debt depends upon their being able to sell some of their government paper. The ability to acquire cash by selling assets is a vital influence upon commercial bank behavior, and is equivalent to financing part of a "total" position by selling participations to the central bank.

Commercial banks can finance activity by acquiring debts in exchange for demand deposits if a demand for commercial bank liabilities exists. This demand exists when a wide array of liabilities exist which can be satisfied by the payment of demand deposits. Specifically, this demand depends upon the existence of numerous debtors to banks who have to pay sizable sums to banks over a relatively short period. If the business of banking is visualized as a two phase process, in which banks first acquire debts (contracts) in exchange for their own liabilities and then collect a "premium" on their own liabilities as the debts (contracts) become due, it becomes clear that the assets of banks determine the value of bank money. It is the cash flow to banks from the rest of the world because of the contracts owned by banks that make bankers rich and powerful. If the assets of banks are well structured which means that banks, if they need to, can force a cash flow in their favor, then the bank money is valuable. The units with debts due to banks exchange their labor and their produce for bank deposits so they can meet their commitments. It is this offer of goods and
services in exchange for bank money by depositors to banks that makes bank money valuable.

In his great rebuttal to Jacob Viner's review of the General Theory, John Maynard Keynes asked, "Why should anyone outside a lunatic asylum wish to use money as a store of wealth?" Keynes replies to his question was that "The possession of actual money dulls our disquietude..." We can ask a second question "Why should anyone outside a lunatic asylum accept demand deposits in exchange for useful goods and services?" Our answer is that there are debts which can be satisfied by the payment of demand deposits to banks and the depositors are willing, may be eager, to exchange goods and services for bank money.

IV. Exchange Rates

Foreign currencies are valuable to economic units in various countries because these units have financial obligations denominated in the foreign currency, the foreign currency yields command over desired goods and services, or the foreign currency dulls the disquietude of which Keynes wrote. A distinction has to be made between a financial, a production and trade, and a precautionary or speculative demand for money. Whereas the demand for a non-central currency in the international monetary system is almost entirely determined by the place in international market of the country's output, a large portion of the demand for the international monetary system's key currency is determined by financial flows due to outstanding financial instruments, the buying and selling of financial instruments, and precautionary and speculative considerations.

If a bank's or a central bank's liabilities are to be valuable, then its assets must generate a large favorable cash flow. These cash flows can result from contractual commitments to pay principal and interest (as stated in depts), the sale of assets, or issuing debts which do not function as money. Note that if your liability is used as money then selling assets or issuing non-monetary debts decreases the amount of your "money" liability outstanding. If this
occurs without a concomitant decrease in the cash flow towards you because of the Bank’s assets your money liabilities will become scarcer and therefore more valuable. This explains why, when the Bank of England was the linchpin of the successful international monetary system based upon the relatively fixed exchange rates of a gold standard, a loss of gold by the Bank of England had a powerful effect upon the course of exchange rates. By decreasing the liabilities of the Bank of England without changing the sterling-denominated cash payment commitments or the values of transactions denominated in sterling an outflow of gold made the pound more valuable. The increasing value of the pound made holders of financial assets eager to hold assets denominated in pounds; pounds were valuable as precautionary and speculative balance exactly as any turn against sterling was sure to be transitory.

In April 1978, Henry Kaufman remarked that "In order (for the dollar) to be a valid international currency, there must be a strategy which resists efforts of others to switch from dollar to other currency-denominated obligations if we are to prevent a depreciation in value of the massive assets denominated in dollars. This obviously would create a serious financial danger." Before there can be a strategy which resists switching from dollar to other currencies there has to be a structure of financial relations or a financial environment in which the strategic operations can be effective. The financial environment hospitable to operations designed to resist efforts to switch is one which makes the reserve currency scarcer and thus more valuable whenever switches are attempts.

The "rules" of the sensitive international gold standard, when "Britain ruled the roost" were well designed to make pounds more valuable whenever substantial switches out of pounds were attempted. Any shift in seeing English holdings of gold led to a rise in British interest rates even from a decline in the value of foreign borrowing in London in the form of long term loans to "developing nations." This London lending was critical in supplying the funds needed to fulfill debt commitments denominated in sterling and for precautionary and speculative sterling balances. The Bank of England could make the rest of the world scarcer for pounds by turning off the international spigot that supplied foreign.
V. Balance of Payments

Inasmuch as dollars are made available to the rest of the world by a variety of means and used by the rest of the world for a variety of purposes, we need to develop a way of looking at the balance of payments that focuses on these means and purposes. A country's balance of payments can be broken down into four tiers: (1) current imports and exports of goods and services (including remittances and other invisibles); (2) receipts and expenditures due to income from capital assets owned abroad; (3) long-term private investments; and (4) short-term debts or the movements of international reserves (gold) among countries. This last item is strictly a balancing item. In addition to the four tiers, in the contemporary balance of payments there is a "policy intrusion" in the form of military expenditures and government investment abroad. This policy intrusion is now of rather minor importance.

In Table 1 the United States balance of payments in 1960, 1964, 1971, and 1977 are shown in this four tier plus policy intrusion format. Results for 1960 and 1964 are consistent with the dollar serving as an international currency. Those for 1971 and, more dramatically, 1977 are inconsistent with the survival of the dollar as an international currency.

In each of the four years the United States had a balance of payments deficit as measured by the net acquisition of United States short-term balances and gold by the rest of the world. However, in 1960 the foreigners' acquisition, net of backing relations, of $3.3 billion of dollar assets was offset by a $2.3 billion private investment abroad; in 1964 the foreign acquisition of dollars was $2.6 billion and U.S. private investment abroad was $6.6 billion. In the absence of the private long-term investment abroad the United States basic balance of payments, even after allowing for policy intrusions, would have been in surplus: $0.6 billion in 1960 and $4.0 billion in 1964. Furthermore, if policy
Table 1
United States Balance of Payments

<table>
<thead>
<tr>
<th></th>
<th>1960</th>
<th>1964</th>
<th>1971</th>
<th>1977</th>
</tr>
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<tbody>
<tr>
<td><strong>TIER I</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Merchandise</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Receipts</td>
<td>19.7</td>
<td>25.5</td>
<td>43.3</td>
<td>120.5</td>
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<tr>
<td>Expenditures</td>
<td>14.8</td>
<td>18.7</td>
<td>45.6</td>
<td>151.7</td>
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<tr>
<td>Balance</td>
<td>+4.9</td>
<td>+6.8</td>
<td>-2.3</td>
<td>-31.2</td>
</tr>
<tr>
<td>Net Travel, Transportation, and Services</td>
<td>-0.4</td>
<td>-0.1</td>
<td>+0.2</td>
<td>+2.5</td>
</tr>
<tr>
<td>Remittance, Pension, and Other Unilateral Transactions</td>
<td>-2.3</td>
<td>-2.8</td>
<td>-3.7</td>
<td>-2.0</td>
</tr>
<tr>
<td><strong>Current Balance</strong></td>
<td>+2.2</td>
<td>+3.9</td>
<td>-5.8</td>
<td>-30.7</td>
</tr>
<tr>
<td><strong>TIER II</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment Income</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Receipts</td>
<td>3.4</td>
<td>5.4</td>
<td>9.5</td>
<td>n.a.</td>
</tr>
<tr>
<td>Expenditure</td>
<td>-1.1</td>
<td>-1.5</td>
<td>4.9</td>
<td>n.a.</td>
</tr>
<tr>
<td>Balance</td>
<td>+2.3</td>
<td>+3.9</td>
<td>+4.6</td>
<td>+11.9</td>
</tr>
<tr>
<td><strong>Basic Balance: Trade and Investment Income</strong></td>
<td>+4.5</td>
<td>+7.8</td>
<td>-1.2</td>
<td>-18.8</td>
</tr>
<tr>
<td><strong>Policy Intrusion</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. Military Transactions</td>
<td>-2.8</td>
<td>-2.1</td>
<td>-2.9</td>
<td>+1.4</td>
</tr>
<tr>
<td>U.S. Government Investment</td>
<td>-1.1</td>
<td>-1.7</td>
<td>-1.9</td>
<td>-2.7</td>
</tr>
<tr>
<td><strong>Basic Balance plus &quot;Policy&quot;</strong></td>
<td>+0.6</td>
<td>+4.0</td>
<td>-6.0</td>
<td>-20.1</td>
</tr>
<tr>
<td><strong>TIER III</strong></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Private Investment Abroad Net</td>
<td>-3.9</td>
<td>-6.6</td>
<td>-9.8</td>
<td>-10.3</td>
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<tr>
<td><strong>TIER IV</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign Acquisition of Short Term Dollar Balance and Gold from United States</td>
<td>+3.3</td>
<td>+2.6</td>
<td>+15.8</td>
<td>+30.4</td>
</tr>
</tbody>
</table>

Source: Economic Report of the President and Later Release
intrusions were excluded the balance of payments due to the current transaction balance and investment income was a hefty (for those days) surplus of $4.5 and $7.8 billions; if the United States had not had military and civilian spending and gifts abroad the net acquisition of dollars and gold from the United States would have been negative. In the 1960s it was said that if the United States caught a cold, Europe caught pneumonia; the ability of the rest of the world to fulfill their commitments on outstanding financial instruments and purchase inputs from abroad at the level they did depended upon the flow of dollars from United States investments abroad and United States foreign military and civilian aid.

The 1971 data reflect a transition year from a strong dollar position to the current weak position. The balance of trade was in deficit, as was the current trade balance, but the deficit in the deficit in the current trade balance was almost offset by investment income: the basic balance was a mere $1.2 billion in deficit. However, a $4.8 billion policy intrusion item and a $9.8 billion private investment bill made the total foreign acquisition of short term assets and gold $15.8 billions.

The 1977 balance of payments is strongly and fundamentally inconsistent with the United States dollar retaining its status as the international currency. The high current account deficit shows that there is no way, except by measures that seriously deface the economy in order to reduce imports that the Federal Reserve can make dollars scarce. Without the Federal Reserve being able to make dollars scarce relative to foreigners' payment commitments by "controlling" offshore investments the continued use of the dollar as an international currency is in jeopardy.

The big difference in the United States balance of payments between 1977 and the earlier years is the size of the current deficit (Tier I) and in par-
ticular the merchandise deficit. The only item of the balance of payments that the Federal Reserve can affect is merchandise expenditures and it can only affect this item by lowering United States domestic income (by inducing a recession/depression in the United States). Secretary Blumenthal's "cheering on" of the dollar's deterioration is grounded in the belief that by changing the exchange rate the "balance" on the merchandise account can be reversed. The evidence to date is that the relative price effect that Blumenthal and his colleagues rely upon is ineffective in our world except when it is pushed so far that it also leads to financial market disruption. Blumenthal's strategy will work only as it leads to recession, if not depression.

Secretary Blumenthal's position rests upon the price-specie-flow theory of the balance of payments which assumes that merchandise transactions take place in markets and that within quite narrow limits buyers and sellers take prices as parameters. In truth, we live in a world of cartels, monopoly power, and transnational enterprises. Not only is the assumption that "prices are parameters" violated, but as Victoria Chick has pointed out, the very concept of price becomes amorphous when dealing with "transnational transactions among units of "transnational" enterprises. For a transnational enterprise price is a device for determining in which country it shows profit and in which currency it holds cash assets. The effect of transnational enterprise's upon a country's balance of payments depends upon which currency they wish to denominate debts and hold financial assets. 10

Whereas the Federal Reserve cannot bring the merchandise balance into a posture that is consistent with the continued functioning of the dollar as an international currency without forcing a serious recession, the government could. The government may use tariffs, excise taxes and direct controls to raise the price or restrict the availability of particular merchandise imports.
In particular, the government could act to cut back the huge United States use of foreign oil and gas, although in truth the reduction of any dimension of the import bill of goods through taxes or controls would do. The only reasons for emphasizing the dependency on the foreign oil are the size of the bill for imported oil and gas, the recent explosive growth of this bill, and the fact that oil and gas prices are set by a cartel (i.e. are the result of an exercise of power).

In the world economy international dollars are created by the banking process and by the U.S. balance of payments deficit. If dollars created in the banking process are the result of well-structured bank loans and investments, then a "reflux" of dollars from the markets of the world to the creating banks will occur. For example, if all international dollars are the result of 90 day discounts and if the annual interest rate is 6 percent, then over a 90 day period borrowers are committed to pay the banks 102 percent of the amount of dollars outstanding. If the supply of international dollars is depleted by banks allowing their positions to decrease, then the amount of activity that is financed decreases, and debtors will be hard pressed to meet their commitments. The result of banks not lending as much as they receive in repayment on outstanding loans is financial stringency followed by a decline in economic activity.

Bank loans are well structured if they generate cash flows as stated in the loan agreement. This in turn means that there are economic transactions financed by the loans which will generate the needed funds. The "commercial loan doctrine" of banking is not so much a theory of the determination of the "apt" amount of money as it is a rule of prudent banking.

Whenever bankers deviate from the financing of well structured business transactions they must continue to focus on the capacity of borrowers to generate the cash to fulfill commitments. If they are financing government deficits,
bankers need be concerned about the ability of the borrowing government to execute tax and spending policies. If bankers are financing balance of payments deficits, they must be concerned about the ability of the borrowing countries to generate a sufficiently favorable merchandise balance to at least service the outstanding debts. When bank money is created to finance a New York City or a Zaire, then the reflux to banks of funds which originate in cash flows from operations earned by "New York City" through taxes or Zaire through its trade balance may not be forthcoming. If New York City or Zaire are engaged in "Fazzi" finance, in which they are borrowing in order to pay their interest on their debts, then the liabilities of the banks that are financing these operations will depreciate in value when the increase in bank liabilities without an offsetting increase in bank receipts are felt in commodity and financial markets. Until the come-upance of a financial crisis, financing by bank loans that do not yield a reflux leads to inflation, if domestic money creation is involved, and to a depreciation of the exchange, if international money is involved.

Restricting ourselves to current international monetary connections, any large excess bank of creation of dollar liabilities over the dollar reflux to banks to repay outstanding loans will lead to (1) a decline of the exchange value of the dollar under flexible exchange rates or (2) an outflow of gold from the United States under fixed exchange rates. Inasmuch as an extrapolation of a depreciation of the dollar would lead to a run on the dollar, the depreciation must set in motion processes that lead to a quick appreciation for the dollar to continue as the international money. The reaction may be the result of normal functioning market processes or central bank (or government) actions to "correct" the depreciation or the gold outflow under fixed exchange rates.

Assume that the balance of payments consists only of Tier I items or, only of the items in the merchandise balance, and that these items are normally close
being balanced. Then if a country ran a deficit, the depreciation of its currency would lead to a rise in the price of its imports and a fall in import prices in the surplus country. Assuming that demands are sufficiently elastic, small exchange rate variations would eliminate the imbalance. Under fixed exchange rates the end result is the same except that the mechanism involves movements in the price levels of the trading partners.

The addition of investment income adds a fixed amount of payments in the currency of denomination. In the post World War II world the currency of denomination has usually been dollars. The "rest of the world" has a fixed "net" of mainly dollars that it must earn. In this sense a depreciation of the debtor's currency increases the domestic currency sales that must be made if the financial commitments on debts are to be met.

However, in the world in which we live, and that of the classical 19th and early 20th century there are a full four tiers to the balance of payments, furthermore in both epochs the currency of denomination of both financial instruments and many international transactions is a particular currency (pounds when the Bank of England ran an international gold standard and dollars since World War II).

The story that Professor Sayers tells in Bank of England Operations 1890-1914 shows that the primary equilibrating variable between the "center" and the rest of the world in the years he studied was in the net private investment abroad by the "center". Whenever the Bank of England felt it was losing specie on the exchanges it would raise the bank rate -- the discount it took in acquiring money market paper. Because the Bank of England had demonstrated that it was willing and able to make the bank rate effective, the various bank interest, money market, and capital market rates moved with the bank rate. The higher long-term (capital market) rates signalled a transitory, unfavorable time for London capi-
tal market placements. Potential borrowers in the London Capital Market cut
down on their borrowings. This was sufficient to turn the exchanges around.

For this technique to work, the sum of Tier I and Tier II had to be posi-
tive -- as it was for the U.S. in 1950 and 1954 and as it almost as in 1971.
This technique of managing the net foreign acquisition of international money
by influencing private investment abroad requires that the Basic Balance -- the
sum of Tier I and Tier II -- be in surplus. Note that managing the exchanges
is feasible even if the trade balance is in deficit: the effective constraint
is that the current trade deficit must be substantially smaller than net invest-
ment income. In 1977 a foreign trade deficit of some $5 to $8 billion would
have been compatible with the maintenance of a strong international posture by
the United States.

VI. A "Run" in International Banking

A basic concern of any bank is that a "run" can occur if one of its basic
liabilities becomes unacceptable. Historically a run meant that customers
tried to exchange bank deposits for specie or notes of the central bank. In
the 1974 Franklin National Bank failure the run took the form of an inability
of Franklin National to purchase Eurodollar "deposits" by selling its dollar
denominated Certificates of Deposit. For the central bank of a country that
supplies the key currency for the world's monetary system, a run occurs when
holders of monetary assets denominated in the key currency try to decrease their
holdings of this asset. Within a country a flight from money leads to a sharp
rise in the price of other assets and in the nominal demand for output. One
aspect of the inflationary process is a rise in velocity as units decrease their
holdings of cash relative to transactions. Between countries, an attempt to
decrease holding of the key currency leads to either a drain of gold from the
"key" central bank, under a regime of fixed exchange rates, or to a sharp drop
in the exchange rate of the "key" currency in a world of flexible exchange rates.

For the international banks that acquired dollar denominated assets as they
emitted dollar denominated liabilities, a run on the dollar means that they can-
not sell new dollar liabilities as such liabilities mature. Thus they have to
"cut" their asset acquisition. Even if their national central bank refines
their position, so that they fulfill their obligations to deliver dollars to
depositors, the run will lead to pressure to cut commitments. Either a panic
and a deep and long recession or financing constraints and a recession will take
place. In either case the exchange rate of the key currency which is being
challenged will fall far below what any purchasing power parity or relative
inflation rates indicate. As in Britain, the route from being a key currency
to being just another national currency is by way of a rapid decline in the
exchange rate and a burst of inflation.

VII. Conclusion: Requisites of a Viable International System

The continued viability of any particular international monetary system
and the longer term prosperity of the various countries requires that the "key"
or "international" money not decline relative to the community of other curren-
cies. A particularly strong currency can and should appreciate relative to the
key currency, but even as this happens other currencies need depreciate. Fur-
thermore, the expected trend of the intertemporal purchasing power of the key
currency must be such that sizeable groups will willingly hold the currency. A
long run trend of slightly falling prices in the key currency makes for finan-
cing terms that require only minimal cash flow commitments and a strong willing-
ness to hold the currency. Thus one essential element of a successful key cur-
rency is a strong commitment to stable or slowly falling prices in the "home"
country.

Another necessary element is a positive Basic Balance, so that the growth in
offshore holdings of short-term debts in the key currency that are liabilities of the banks domiciled in the country is less than the country's investment abroad. The key country, envisaged as a bank, must borrow short to finance the acquisition of long-term assets. The short borrowing by the banks of the country becomes the net increase in offshore monetary liabilities, which are analogous to the growth in commercial bank reserves through central bank open market operations in the standard story of bank behavior.

It follows that the country whose currency is functioning as a "key" or "reserve" currency in international monetary relations, and therefore as the currency of denomination in international transactions, must act as if it is on a gold standard. However, in today's non-gold standard world, there is no obvious substitute for a "protection of gold" policy for the central bank. There is an obvious trading position relation that must be maintained: the Basic Balance must be solidly positive. Thus in today's world the central bank and the government of the key currency country must work together.

The key element threatening the current international monetary structure is the huge current trade deficit of the United States. An improvement of at least $20 and perhaps $25 billion is necessary. This could be accomplished in a variety of ways: one way is to force the currency of the country with a huge non-oil export based surplus in current account to appreciate. However the Japanese economy is inherently fragile, so that this dimension cannot be squeezed too far: furthermore, every appreciation of the Japanese yen lowers the yen price of oil imports and debt servicing.

The key item is, of course, oil imports. The basic change that is necessary if a dollar-based international system is to survive is to cut the United States oil import bill by a major portion of the $30.7 billion current trade balance deficit.
The dollar's decline in the international markets has been cushioned by the demand for dollar assets and assets in the territory of the United States as protection against political instability. The "very rich", regardless of nationality, want to hold assets, be it real estate, agricultural land, companies, and common shares, in the United States. The political situation in much of the world is a "prop" behind the dollar. Furthermore, a vast amount of politically insecure money that would seek, but is not now seeking, haven in the United States is being held back by the downward pressure on the dollar (not by the U.S. inflation rate). Once the conviction grows that the dollar has hit bottom, there will be a flood of funds to the United States. Undoubtedly, a stabilized dollar would soon be transformed into an appreciating dollar. This would spark a stock market boom.

There are two areas needing policy intervention. One is to reduce the balance of payments deficit in the United States so that basic balance is positive, the other is to fund a major portion of the excess supply of short-term dollars. The details of getting the U.S. balance of payments into line is beyond the scope of this paper. The problem of how to fund the excess supply of dollars is within its scope; funding short-term dollars into long-term foreign currency debt reduces the supply but not the demand for short-term dollars.

As mentioned before, there is a strong demand by the world's rich for the political security and commitment to capitalism that characterizes the United States, even as there is a reluctance to purchase dollar-denominated financial instruments. The U.S. government should offer to any and all holders long-term Treasury securities denominated in the principal foreign currencies. Simultaneously, the U.S. should make a commitment to the establishment of a dollar that either appreciates or does not depreciate relative to the currencies of trading partners.
By transforming some of the short run dollar holdings into long run holdings of United States obligations denominated in other currencies, the funding operation decreases the threat of a run on the dollar. A desire to get out of these other currency securities and into other assets would not lead to a decline in the exchange value of the dollar, but to a decline in the market price of those long assets relative to other assets denominated in these currencies. Instead of a deficit pushing a dollar denominated short term asset into the hands of reluctant holders, the substantial but not overwhelming volume of offshore currency denominated U.S. Treasury securities needed to fund a substantial portion of the current deficit would find eager buyers. In fact, such an instrument, issued in sufficient quantity to fund a major portion, but not necessarily all of the trade deficit will become a superior object of portfolio diversification for the world's rich, for it will provide them with a substitute, in a currency whose short run strength they trust, for holding physical assets in the United States.

Over the longer run the U.S. Basic Balance must be in surplus if the dollar is to be the world's key currency. In the shorter run -- as the dollar moves to a current account posture that makes dollar holdings if not scarce then verging on scarce a major portion of the accruing short-term assets generated by the deficit need be funded into long-term debt denominated in currencies other than dollars. Such an offshore currency debt will not only generate a U.S. "national interest" in an appreciating currency, but it will also create a financial instrument that is well suited to soothe the fears and apprehensions of many of the world's rich.

However, even funding the merchandise deficit in offshore currencies is but a transitory step unless the Basic Balance can be brought into surplus. The "center" must not only be a currency of denomination but it must also be increasing its net asset position abroad. The world's net holdings of short-term dollars
must increase because the United States is generating a dollar surplus that finances a part of the United States' investment abroad; i.e. the United States must act as banker. International progress requires a rich, effective banker. The United States, in spite of its current difficulties, remains the strongest candidate for that assignment.
Footnotes


3. The fact of dollar denominated is not of critical importance, what is critical is the existence of a dominant center for international financial transactions and a dominant currency for denoting debts and transactions.

4. Henry Kaufman estimates that "The U.S. dollar external liabilities of U.S. banks and foreign banks to non-bank creditors ..." was $130 billion and the U.S. dollar external interbank liabilities was $345 billion in 1977. This is just a fraction of the assets whose holders have to be willing to keep in dollars because dollar holdings are good assets for their portfolios, Henry Kaufman, "The Future of the Dollar," A talk delivered in New York, April 10, 1978, Salomon Brothers, mimeo.


10. See Victoria Chick, Transnational Enterprises and the Evolution of the International Monetary System, Faculty of Economics, University of Sydney. Information and Research Project on Transnational Corporations Research, No. 5, 1975, mimeo.