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"Financial Interrelations,
the Balance of Payments and Our Crisis"

by

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

R. S. Sayers, Bank of England Operations
1890-1914, London P. S. King and Sons Ltd.
1936 p.27

Introduction

Professor Sayers proposition that it is the duty of a Bank and Central Bank to be rich helps us understand the disarray of the World Monetary situation since the abandonment of first the gold standard and then the Bretton Woods System. 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, i.e. becomes impoverished"? are the questions which need to be answered in the light of the comment by Sayers. We want to look beyond the obvious implication of being rich, which is having power. We will look at the mechanisms by which a bank's richness and therefore power are exercised. We will look at the financial interrelations that underly the balance of payments.

Fundamentally, what happened is that the "banking" center of the Bretton Woods System, the United States, became impoverished in the late 1960's - and with this impoverishment its demand liabilities lost some of their attractiveness. This impoverishment of the United States was not due to any fundamental decline of the United States as a producing entity. The impoverishment is largely due to inept policies that are based upon views as to how the United States economy works that basically misspecify the nature of the economy. The United States and the other capitalist economies are now intensely financial, and standard economic theory ignores

the financial aspects of our economy. Only by fully integrating financial interrelations into the analysis of how the international economy works can we hope to develop policies which can reverse the impoverization of the United States and establish an international monetary system that is conducive to sustained economic progress. The United States in the late 1970's must be seen as an "Ailing Bank" whose management either does not understand its problems or if it understands is not able to take the steps necessary for a resolution of the difficulties.* As a result the United States policy establishment and political leadership dithers while like Macawber it hopes "something will turn up."

In the autumn and winter of 1977/78 the world witnessed the queer spectacle of the chief financial officer of the United States - 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 - an inflation which duly came forth in the spring and summer of 1978 - it is evident that Secretary Blumenthal and his house economists were unaware of or deemed unimportant the vast amount of dollar denominated financial instruments in the world beyond the shores of the United States and the critical importance of keeping the owners of these dollars happy withholding dollar assets. For if they became dissatisfied withholding dollar the term of trade would so turn against the dollar that dire impoverishment and banana republic rates of inflation were

* Hyman P. Minsky "The Dollar: U.S. Economy Must Be Seen as an Ailing Bank", The Money Manager: April 24, 1978

sure to occur. Secretary Blumenthal and his advisors were applying the price-specie-flow analysis - which sees no flaws in currency devaluation but which is only fully relevant to a world without financial interrelation to an economy in which debts denominated in dollars were abundant. In a world economy (characterized by a maze of financial instruments denominated in dollars) the continued normal functioning of the economy depends upon the continued willingness of business, governments, banks, and individuals to hold financial instruments denominated in dollars. This is so because any attempt to change the currency of denomination would reduce the amount of activity that can be financed.

The fundamental proposition of the argument that follows is that whereby the countries whose currency is not a currency of denomination may have a depreciating currency without hurting the stability of the world economy, a depreciating currency for the country whose currency is the world money can lead to a "flight" of Liabilities from the banks and money markets which denominate in the center's currency. This would lead to a financial crisis and crash as the flight makes the refinancing of positions by banks and other financial units impossible.¹

¹Henry 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 on April 10, 1978. Mimeographed Saloman Brothers One New York Plaza.

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 by the rich generate a large cash flow to the rich. A. T. and T. bonds are valuable because the telephone network in the United States generates a cash flow to the company that is much larger than the cash payments that are required for the current operations of the telephone network. 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.

In the above example of A. T. and T. and New York City the cash flow that make financial liabilities valuable are the excess of current cash receipts over current operating expenses. However the world in which we live acts out its events and determines its asset values in calendar time, which implies that what happens is inherently uncertain. The time dimension and thus uncertainty is essential in the valuation of assets, especially in international financial relations, where political uncertainty must be added to the uncertainty inherent in an economy with capital assets that is both technically and institutionally dynamic. The time dimension characteristics of an economy is of special significance for banks, be they ordinary 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 a banking institution must always be refinancing its "position", it must be issu-

ing new liabilities in order to fulfill its obligations as outstanding liabilities fall due.

Banks issue their liabilities in exchange for assets. The assets acquired may be gold, government debt, private debt, or the "liabilities of some other bank. Gold and presumably the liabilities of some other bank are valuable to the acquiring bank 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. Government and private debt are acquired in the expectation that the "borrowing" unit will supply cash or the bank's own liabilities to the bank. It is the debtors on the government and private paper owned by banks who generate the basic demand for money to fulfill financial commitments. This is the demand for bank deposits that gives value to bank deposits.

In any money using economy every unit can be characterized by its cash flows in and cash flows out. In a capitalist economy debts are used to finance control over capital-assets as well as to finance investment as the particular items are being produced. Part of the debt used by ordinary business firms to finance investment and control over capital-assets is to banks and other financial institutions. Banks and other financial institutions use their own debt to finance their financing of business. In our type of economy demand deposits emerge from the financing process at commercial banks. Demand deposits are part of the money supply. Financing activity also leads to the central bank acquiring as-

sets and issuing liabilities - bank debts denominated in the "currency" that is used as the international money emerges as activity is 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 a 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 only limited by the amount of its own liabilities it is willing and able to sell or emit..

In the United States, when banking and the process by which money is created are analyzed, the assumption is usually made 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. This view is patently false once banking becomes as highly complex and convoluted as today's international banking system. In today's banking system dollar denominated demand deposits and certificates of deposit are created and exist in institutions that are not chartered by United States authorities. Furthermore demand deposits and passbook savings are of decreasing importance in the liability structure of all banks, both in the United States and in other countries. As a result the control of bank reserves by the Federal Reserve does not, except under very short run conditions and usually only in exceptional circumstances, determine the acquisition of assets by banks and the volume of bank liabilities outstanding.

Financing Relations and Central Bank Power

The liabilities that banks are willing and able to emit and the assets they acquire are determined by market usages and prevailing views as to admissable financing relations rather than by any mechanical linkages between reserves and deposits. Among the determinants of the admissable financing relations are the conditions under which maturing debt structures can be refinanced. In particular commercial banks depend upon the refinancing available through the facilities of their national central bank. This refinancing takes the form of direct borrowing from their national bank or borrowing from a market that is rigged by the Central Bank. The power that a Central Bank has over commercial banks stems in large part from this dependency. In a banking system that is working well, the assets owned by the Central Bank yield a cash flow to the Central Bank from the economy. This cash flow reduces the cash or reserve position of commercial banks for, either directly or indirectly, commercial banks finance part of their asset holdings by debts owned by the Central Bank. The Central Bank by acquiring assets even as its assets are being paid back makes it possible for commercial banks to sustain their total asset holdings. Whereas the payments to the central bank are due to the terms on the contract owned by the central bank the asset acquisition by the Central Bank is presumably at the ini-

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The classic exposition of the mechanical linkage between deposits and reserves is Chester Authur Phillips, Bank Credit, New York, the MacMillan Company 1931.

tiative of the Central Bank or at terms set by the Central Bank.

Quite literally the normal functioning of the economy depends upon the continued viability of the banking system which in turn depends upon the discounting and open market operations by the central bank. However, the dependency is not that which is described in the standard reserves and reserve requirement analysis of the money creating process. The serious dependency which makes central banks potent is that the central bank is financing a significant proportion of the positions of commercial banks.

The essential relation between the central bank and commercial banks is very clear when the assets that the Central Bank acquires are the result of a discounting process. Discounting by the central bank is equivalent to a collateralized loan to the member bank. Some of the activity being financed by commercial banks and some of the position of commercial banks is financed by the "loan" from the Central Bank. In the case of the acquisition of assets by open market operations by the Central Bank, the ability of commercial banks to acquire net new private paper depends upon their ability to sell some of their holdings of government paper. The ability to acquire cash by selling assets is a vital determinant of commercial bank behavior and is equivalent to financing part of a "total" position by selling participations in the position to the central bank.

The ability of commercial banks to finance activity by acquiring debts in exchange for their demand deposit liabilities depends upon the existence of a demand for commercial bank liabilities. The de-

mand for commercial bank demand liabilities is derived from the existence of a wide array of liabilities which can be satisfied by the payment of demand deposits. In particular this demand depends upon the existence of a large number of debtors to banks who have to pay a sizeable sum to banks over a relatively short period. If we consider the business of banking as a two phase process in which banks first acquire debts in exchange for their own liabilities and then collect a "premium" in their own liabilities as the debts become due, the nature of the assets of banks determine the value of bank money. It is the cash flows from the rest of the world on the basis of the assets of banks that make bankers rich and that makes bankers powerful. If the assets of banks are well structured so that the banks, if they either will it or are forced into it, can generate a cash flow in their favor then bank money is valuable. The units with debts due to banks exchange their labor and their produce for bank deposits. It is this offer of goods and services in exchange for bank money by debtors to banks that makes bank money valuable.

In his great rebuttal to Paul Jacob Viner's review of The General Theory Maynard Keynes asked "Why should anyone outside a lunatic asylum wish to use money as a store of wealth?"^{*} Keynes answer 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

* John Maynard Keynes "The General Theory of Employment" Quarterly Journal of Economics, 51, (February 1937) p. 216

** Ibid

accept demand deposits in exchange for useful goods and services?" Our answer is that there exists a structure of debts which can be satisfied by the payment of demand deposits and these debtors are the "first round" of demand for money in exchange for goods and services.

Exchange Rates

The liabilities of any country's monetary system are valuable to economic units in countries where domestic transactions are denominated in other currencies exactly as units within these countries have financial obligations denominated in the foreign currency or the possession of the foreign currency yields command over desired goods and services. A distinction has to be made between a financial and a production and trade demand for any money. Whereas the demand for a non-central currency in the international monetary system is almost entirely determined by the competitive posture in the international market places of the country's output, a large portion of the total demand for the currency that is central to the workings of the international monetary system is determined by financial flows due to outstanding financial instruments and the buying and selling of financial instruments.

If the liabilities of a bank or of a Central Bank are to be valuable then its assets must be able to generate a large cash flow in its favor. These cash flows can either result from contractual commitments to pay principal and interest (as stated in debts), the sale of assets or issuing debts which do not function as money. Note that if your liability is used by members of the economy as money then if you sell assets or issue

non-monetary debts the amount of you "money" liability outstanding decreases. A decrease in the amount of your money liability outstanding, without a concomitant decrease in the cash flows towards you because of the assets owned, will make your money liabilities scarcer and therefore more valuable. This explains why, when the Bank of England was the linch pin 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 in the hands of foreigners without changing the cash payment commitments due to the Bank of England or the London Money Market by foreigners 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.

In a talk 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 dollars 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 dollars to other currencies there has to be a structure of financial relations or a financial environment in which the operations called for

* Henry Kaufman The Future of the Dollar A talk delivered in New York on April 10, 1978. Mimeographed: Solomon Brothers One New York Plaza.

by a strategy can be effective. The financial environment that is hospitable to operations designed to resist efforts to switch is an environment which makes the reserve currency scarcer and thus more valuable whenever units attempt to switch. The rules of the sensitive gold standard game were well designed to make pounds more valuable whenever units attempted to switch out of pounds. The rise in interest rates in Britain led to a decline in the pace of foreign borrowing in Britain in the form of long term loans to "developing nations" was critical in supplying the funds needed to fulfill debt commitments and for cash balances: The Bank of England could make the rest of the world scamper for pounds by turning off the international lending spigot that supplied essential pounds.

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. The balance of payments of any country 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 movement of international reserves (gold) among countries. This last item is strictly a balancing item. It is what it is because of the items. In addition to the four tiers, there is a "policy intrusion" in the form of military expenditures and government investment abroad in the contemporary balance of payments. This policy intrusion is now of rather minor importance.

In the attached Table I the United States Balance of Payments in 1960, 1964, 1971, and 1977 are shown in this four tier plus policy intrusion format. The first two, those of 1960 and 1964, are consistent with the dollar serving as an international currency. The second pair, those of 1971 and 1977 are inconsistent with the survival of the dollar as an international currency - although the 1977 Balance of Payments is much more deleterious to the United States as the center of the international monetary system than the 1971 balance.

In each of our four years the United States had a deficit in the balance of payments as measured by the net acquisition of short term balances and gold from the United States by the rest of the world. However, in 1960 the rest of the world acquired \$3.3 billion of dollar assets but this was offset by a \$3.9 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, would have been in surplus: \$.6 billion in 1960 and \$4.0 billions in 1964. Furthermore if policy were excluded the balance of payments due to the current transaction balance and investment income was in a hefty (for those days) surplus of \$4.5 billions and \$7.8 billions. In fact in 1960 and 1964 if the United States government had not had military and civilian spending and gifts abroad the net foreign acquisition of dollars and gold from the United States would have been negative. In the 1960's it was said that if the United States had a cold, Europe had pneumonia; the ability of the rest of the world to fulfill their com-

Table I
United States Balance of Payments

Tier I	1960	1964	1971	1977
Merchandise				
Receipts	19.7	25.5	43.3	120.5
Expenditures	14.8	18.7	45.6	151.7
Balance	+4.9	+6.8	-2.3	-31.2
Net travel, Transportation, and Services	-.4	-.1	+2	+2.5
Remittance, Pension, and other Unilateral Transactions	-2.3	-2.8	-3.7	-2.0
Current Balance	2.2	+3.9	-5.8	-30.7
Tier II				
Investment Income				
Receipts	3.4	5.4	9.5	
Expenditure	-1.1	-1.5	4.9	
Balance	2.3	+3.9	+4.6	+11.9
Basic Balance: Trade And Investment Income	+4.5	+7.8	-1.2	-18.8
Policy Intrusion				
U.S. Military Transitions	-2.8	-2.1	-2.9	+1.4
U.S. Government Investment	-1.1	-1.7	-1.9	-2.7
Basic Balance plus "Policy"	+6	+4.0	-6.0	-20.1
Tier III				
Private Investment Abroad Net	-3.9	-6.6	-9.8	-10.3
Tier IV				
Foreign Acquisition of Short Term Dollar Balance and Gold from United States	+3.3	+2.6	+15.8	+30.4

Source: Economic Report of the President and Later Release

commitments on outstanding financial instrument and input 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 current trade balance was well nigh but not quite 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 1977 Balance of Payments shows that there is no way, except by measures that seriously deflate the economy, by which the Federal Reserve can make dollars scarce. Without the Federal Reserve being able to make dollars scarce relative to payment commitments, 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 size of the deficit on the current balance (Tier I) and in particular the deficit on merchandise balance. The only item in the Tier I portion of the balance of payments that the Federal Reserve can affect is the Merchandise expenditure item and the Federal Reserve can only affect this item by lowering United States domestic income - i.e. by inducing a recession/depression in the United States. The belief underlying the "cheering on" of the deterioration

of the dollar by Secretary Blumenthal is 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 et al rely upon is ineffective in our world, unless it leads to the overshoot in exchange rates that accompanies financial market disruption. Blumenthal's classical path will work only as it leads to recession, if not deep depression.

The position of Secretary Blumenthal rests upon the price-specie-flow theory of the balance of payments. This theory depends upon the assumption that merchandise transactions take place in markets and that within quite narrow limits in each market transaction the buyers and sellers take prices as parameters. In truth we live in a world of cartels, monopoly power, and transnational enterprises. As a result, not only is the assumption that "prices are parameters" which underlies the price-specie-flow mechanism 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 the enterprise shows profit. The effect of a transnational enterprise upon a country's balance of payments depends upon which currency it wishes to denominate debts and financial assets.¹

¹ See Victoria Chick Transnational Enterprises and the Evolution of the International Monetary System Faculty of Economics The University of Sydney. Information and Research Project on Transnational Cooperations Research, Mimeograph; No. 5 1976

Whereas the Federal Reserve doesn't have the ability to bring the merchandise balance into a posture that is consistent with the continued functioning of the dollar as an international currency, the government does. The government is free to use tariffs, excise taxes, and direct controls to raise the price or restrict the availability of particular merchandise imports: In particular this comes down to measures to cut back in the United States use of oil and gas although in truth the argument for an oil and gas policy could be applied to any dimension of the import bill of goods. The only valid reasons for emphasizing the foreign oil dependency are political power, the size of the oil and gas bill, the recent explosive growth of the United States import bill for oil and gas and the obvious fact that the prices of oil and gas are set by a cartel i.e. are the result of an exercise in power.

In our world economy international dollars are created by the banking process as well as by the United States balance of payments deficit. However if the dollars that are 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 8% then over a ninety day period borrowers are committed to turn over to the banks 102% of the amount of dollars outstanding. However if the supply of international dollars is depleted by the bank's allowing their positions to decrease, then the amount of activity that can be financed decreases. The end result of

banks not relending that which they receive in repayment is a decline in economic activity.

Bank loans are well structured after the fact if they generate the cash flows that are stated in the loan agreement, which in turn means that there are underlying economic transactions which will generate the funds to repay the loans. The "commercial loan doctrine" is not so much a theory of the determination of the "apt" amount of money as it is a rule for prudent banking. Whenever bankers deviate from the financing of well structured business transaction they must continue to focus on the capacity of the borrowers to generate the cash flows to fulfill commitments. If they are financing government deficits, bankers need be concerned about the adequacy of the tax base and the ability of the government to execute tax and spending policies. If bankers are financing balance of payment deficits they must be concerned about the ability of the deficit countries to generate a sufficiently favorable merchandise balance to at least service the growing outstanding debts. When bank money is created to finance a New York City or a Zaire then the reflux financed by 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 "Ponzi" finance, in which they are borrowing in order to pay interest on their debts, then the liabilities of the organizations that are financing these "Ponzi" operations will depreciate in value when the effects of the increase in liabilities without an offsetting increase in cash receipts are felt in commodity and financial markets. Until the come-uppance of a finan-

cial crisis, the financing of demand by bank loans that do not yield a reflux leads to inflation if domestic money creation is involved and to a depreciation on the exchanges if international money is involved.

If we restrict ourselves to international monetary connections any strong excess of bank creation of, say, dollar liabilities over the reflux of dollars to repay outstanding loans will lead to (1) a decline in the exchange value of the dollar if flexible exchange rates rule or (2) an outflow of gold if fixed exchange rates rule. Inasmuch as a depreciation of the dollar would lead to a run on the dollar if the depreciation is extrapolated, normal functioning requires that the depreciation set in motion processes that lead to a quick appreciation. The reaction that is set in motion may be the result of normal functioning market processes or it may be the result of actions taken by a central bank to "correct" the depreciation or the outflow.

Let us assume that all there is to the balance of payments are the items in Tier I, or even only the items in the merchandise balance and these items are normally close to being balanced. Then if a country ran a deficit, the depreciation of the deficit country's currency would lead to a rise in the price of imports in the deficit country and a fall in the price of imports in the surplus country. Assuming that demands are elastic enough, small variations in exchange rates would eliminate the imbalance. In the fixed exchange rates scenario the end result is the same except that the mechanism involves movements in the price level of the trading partners.

In addition of investment income adds a fixed amount of payments in whatever the currency of denomination may be. In the post World War II world this has usually been dollars: thus the "rest of the world" has a fixed "nut" of mainly dollars that it must earn. In this case a depreciation of the currency increases the domestic currency sales that must be made if the investment expenses are to be met.

However in the world in which we deal and the world of the classical late 19th century - early 20th century gold standard is a world in which there are a full 4 tiers and in which the currency of denomination of both financial instruments and many international transactions is a particular currency; pounds in the days when the Bank of England ran an international gold standard and dollars since World War II.

It is quite clear from the story that Sayers tells in Bank of England Operations 1890-1914 that the primary equilibrating variable in the relations between the "center" and the rest of the world in the years he studied was in the net Private Investment Abroad Tier. Whenever the Bank of England felt it was losing specie on the exchanges the Bank of England would proceed to raise the bank rate the discount the Bank of England took when it acquired money market paper. Because the Bank of England had demonstrated that it was both willing and able to make the bank rate effective, the various bank interest, money market, and capital market rates went along with the

bank rate. The higher long-term (capital market) rates signalled a transitory, favorable time for capital market placements in London. 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 positive - as it was for the United States in 1960 and 1964 and as it almost was in 1971. This technique of managing the net foreign acquisition by operating on private investment abroad is not capable of managing the balance of payments whenever the Basic Balance - the sum of Tiers I and II is as far in deficit as in 1977. Note that managing the exchanges by means of the foreign investment governor is feasible even if the current trade balance is in deficit: the effective constraint is that the current trade deficit must be smaller by some good measure than net investment income. In 1977 a foreign trade deficit of some \$5 to \$8 billions of dollars would have been compatible with the maintenance of a strong international posture by the United States.

A "run" in International Banking

A basic concern of any bank is that a "run" can occur as one of its basic liabilities becomes unacceptable. Historically a run meant that customers tried to exchange deposits for specie or notes of the Central Bank. In the Franklin National Bank failure of 1974 the run took the form of an inability to purchase Eurodollar deposits or to sell its dollar-denominated Certificates of Deposits. For a central bank in a country that acts as the central bank for the world monetary system, a

run occurs when holders of central bank liabilities or of assets denominated in the key country's currency try to decrease their holdings of this asset. Within a country this takes the form of a sharp rise in the price of other assets--or of the nominal demand for output. One aspect of the inflationary process is a rise in velocity as units eliminate their holdings of cash not quickly needed for transactions. Between countries the attempt to change the composition of asset holdings leads to either a drain of gold from the central bank under a regime of fixed exchanges or to a sharp drop in the exchange rate in a world of flexible exchanges.

However to the international banks that acquired dollar denominated assets even as they have emitted dollar denominated liabilities a run will mean that they cannot sell new liabilities as liabilities mature and thus will have to "cut" their asset acquisition. Even if their national central bank steps in and refinances 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.

Conclusion: Requisites of a Viable International System

Thus for the continued viability of any particular international monetary system and for the longer term prosperity of the various countries the "key" or "international" money cannot be permitted to decline relative to the community of other currencies. A particular strong currency can and should appreciate relative to the key currency but even as this happens other currencies need depreciate. Furthermore the intertemporal purchasing power of the key currency must have an expected trend such that sizeable groups will willingly hold the currency. A long run trend of slightly falling prices in the key currency makes for financing terms that require but minimal cash flow commitments and a strong willingness to hold the currency. Thus one essential element for a successful key currency is a strong commitment to a slowly falling price level in the "home" country.

Another element that is necessary is a Basic Balance that is positive, so that the growth in offshore holdings of short term debts and gold from the key country is less than the net private investment abroad. The key currency country, envisaged as a bank must be borrowing 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 analagous to the growth in bank reserves through open market operations in the standard story of bank behavior.

The conclusion of our argument is that the country whose currency is functioning as a "key" or "reserve" currency in international mone-

tary relations and therefore as the currency of denomination in international transactions must act as if it is in a gold standard. However it is not in fact on a gold standard in today's world, so there is no obvious substitute for the "protection of gold" policy stance for the central bank. There is an obvious trading position relation: the Basic Balance must be solidly positive.

Thus the key element threatening the current international monetary structure is the huge deficit in the United States' current trade balance. In terms of the numbers in the 1977 column an improvement of at least \$20 billion and perhaps \$25 billion is necessary. There are a variety of ways to do this: one way is to force the currency of the large non-oil export earner to appreciate. However the Japanese economy is inherently fragile, so that this dimension cannot be squeezed too hard.

The key item is of course oil imports. The basic problem is to cut the total oil import bill by some major portion of the \$30.7 billion current trade balance deficit.

One factor that has cushioned the dollar's decline in the international markets is the demand for dollar assets and assets in the territorial United States as protection against political instability. Any "very rich" regardless of the country of origin will want to hold assets be it real estate, agricultural land, companies, or common shares in the United States. The unsettled 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 not by United States inflation rate but by the downward pressure on the dollar. It is safe to venture that once the conviction grows that the dollar has hit bottom there will be a flood of funds to the United States. It is safe to say that a stabilized dollar would soon be transformed into an appreciating dollar-and that a stabilized dollar would set off a stock market boom.

There are two aspects of the situation that needs policy intervention. One is to reduce the deficit in the balance of payments so that Basic Balance is positive, the other is to fund a major portion of the excess supply of short term dollars; the problem of getting the United States' balance of payment into line is beyond the scope of this paper. The problem of how to fund the short term debt outstanding is within the scope of this paper.

As mentioned before there is a strong demand by the World's rich for the political security and the commitment to Capitalism that characterizes the United State, even as there is a reluctance to purchase dollar denominated financial instruments. The United States government should begin to offer to any and all holders long term Treasury Securities denominated in the principal foreign currencies. At the same time that these issues are offered the United States should take as a policy commitment and goal 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, it would lead to a decline in the market price of these long assets relative to other assets. Instead of the deficit pushing a dollar denominated short term asset into the hand of a reluctant holder, the existence of a substantial but not overwhelming volume of offshore currency denominated United States Treasury Securities would find eager buyers. In fact such an instrument issued in sufficient quantity to fund a major 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 basic balance of the United States must be in surplus if the dollar is to be the currency of denomination of the world economy. In the shorter run-as the dollar moves from its current massive deficit in current account to a current account posture that makes dollar holdings if not scarce then verging on being 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 not only generates a "national interest" in an appreciating currency, but it also creates a financial instrument that is well suited to soothe the fears and apprehensions of much 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 but not all of the United States' investment abroad. That is international progress requires a rich, effective banker. The United States, in spite of its difficulties, is the strongest "big scale" candidate for that assignment.