Foreign Activity in United States Treasury Securities in Fiscal Years 1971-1973

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U.S. Treasury debt management is concerned with refunding maturing obligations and raising needed cash in ways which minimize interest costs and contribute, insofar as possible, to the attainment of national economic objectives.

For fiscal years 1971 through 1973 deficits in the Federal unified budget will total about $66 billion. If, in early 1970, the debt managers had foreseen, in the years then just ahead, consecutive deficits of $23 billion, $23 billion, and $20 billion, their dismay at the prospects for meeting their financing requirements, to say nothing of their business and economic objectives, would have been considerable. While the atmosphere in financial markets in early 1970 was very adverse, the Treasury was at least comforted by the fact that the budget for fiscal year 1971 was projected to be in surplus by $1.3 billion. Little did the debt managers know then that $23 billion would have to be raised in 1971 and an additional $43 billion in the following two years.

As events unfolded during these years the Treasury was continually forced to anticipate and plan for domestic market borrowing requirements which were much larger than those which actually materialized. One memorable debt management crisis occurred in early 1972 when revised budget estimates for fiscal 1972 projected a $38.9 billion deficit for a year which was then more than half completed, but with over half of that projected enormous deficit remaining to be financed. As is now known, this budget projection was grossly in error due largely to an underestimate of Treasury receipts, and the actual deficit turned out to be $23 billion.

However, even without the variations in budget estimates which confronted the debt managers periodically, actual developments required the Treasury to anticipate very large cash financings, in addition to refunding maturing debt which was also heavy. The

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Treasury was concerned about the size of the deficits in terms of basic economic stabilization policy and, more immediately, because of the anticipated difficulty in meeting financing needs without placing unwanted strains on markets and/or witnessing a further inflationary shortening of the maturity structure of the debt.

Fortunately, the Treasury's domestic financing job turned out to be much less formidable than was implied by the size of the budget deficits of these years. The principal reason for this was the fact that foreigners added continuously, and at times massively, to their holdings of U.S. Treasury obligations. Table 1 summarizes the pattern of these foreign purchases:

TABLE I

FOREIGN AND INTERNATIONAL HOLDINGS OF FEDERAL DEBT (excluding Agencies) ($ billions)

	End of Month	Bills	Notes & Bonds	Total Marketables	Non-Marketables	Total
FY 1971:	June 1970	7.4	1.0	8.4	6.4	14.8
	Dec. 1970	12.3	.9	13.2	7.3	20.6
	June 1971	18.8	1.1	19.9	10.8	30.7
	Change	+11.4	+ .1	+11.5	+ 4.4	+15.9
FY 1972:	June 1971	18.8	1.1	19.7	10.8	30.5
	Dec. 1971	26.1	2.6	28.7	18.2	46.9
	June 1972	25.7	3.8	29.5	20.5	50.0
	Change	+ 6.9	+2.7	+ 9.6	+ 9.7	+19.3
FY 1973:	June 1972	25.7	3.8	29.5	20.5	50.0
	Dec. 1972	27.3	5.9	33.2	22.1	55.3
	May 1973	24.0	7.5	31.5	29.8	61.3
	Change	– 1.7	+3.7	+ 2.0	+ 9.3	+11.3
Total Change FY 1971-73 (May)		+16.6	+6.5	+23.1	+23.4	+46.5

Over $46 billion of U.S. Treasury obligations were acquired by foreigners during the fiscal years 1971-73 (through May 1973). Virtually all of these securities were bought by foreign official institutions (largely central banks) which were accumulating dollar reserves almost constantly during this period of instability and change in international monetary relationships. Although a number of countries have been net buyers of Treasury obligations, the dominant roles have been played by Germany and Japan which have acquired about two-thirds of the net purchases in the past three years and now account for well over half of the foreign ownership. The overall effect of these developments on U.S. Treasury finance is shown in Tables II-V.

TABLE II

FINANCING FEDERAL DEFICITS
($ billions)

	Fiscal Years			
	1971	1972	1973[a]	Total[a]
Budget Deficit	23.0	23.2	20.0	66.2
Changes in Cash and Misc. A/Cs	3.6	3.8	–	7.4
Borrowing From the Public	19.4	19.4	20.0	58.8
Federal Reserve	7.7	5.8	2.7	16.2
Private Investors	11.7	13.6	17.3	42.6
Foreign	15.9	19.3	11.3	46.5
Domestic	– 4.2	– 5.7	+ 6.0	– 3.9
Savings Bonds	1.7	2.9	3.4	8.0
U.S. Private Holdings of Treasury Debt	– 5.9	– 8.6	+ 2.6	–11.9

[a]Estimated

TABLE III

HOLDINGS OF MARKETABLE TREASURY DEBT 1971-73
($ billions)

		To 6/30/73[a]
Increase in Marketable Debt		30.4
Held by Foreign and International Accounts	23.1	
Held by Government Investment Accounts	3.0	
Held by Federal Reserve System	16.2	42.3
Held by U. S. Private Investors		–11.9

[a]Estimated

TABLE IV

OWNERSHIP OF U.S. TREASURY BILLS
($ billions)

	6-30-70	6-30-71	6-30-72	5-31-73	Total Change
Bills Outstanding	76.2	86.7	94.6	103.0	
Change in Holdings		+10.5	+ 7.9	+ 8.4	+26.8
Federal Reserve		+ 5.5	+ 3.4	+ 2.1	+11.0
Govt. Inv. Accts.		– .1	+ .8	– 1.1	– .4
Private Total		+ 5.1	+ 3.7	+ 7.4	+16.2
Foreign		+11.4	+ 6.9	– 1.7	+16.6
Domestic		– 6.3	– 3.2	+ 9.1	– .4

TABLE V

OWNERSHIP OF U.S. NOTES AND BONDS
($ billions)

	6-30-70	6-30-71	6-30-72	5-31-73	Total
Notes and Bonds Outstanding	156.4	158.8	162.6	163.0	
Change in Holdings		+ 2.4	+ 3.8	+ .4	+6.6
Federal Reserve		+ 2.3	+ 2.5	+ .4	+5.2
Govt. Inv. Accts.		+ 1.2	+ 1.0	+ 1.0	+3.2
Private Total		− 1.1	+ .3	− 1.0	−1.8
Foreign		+ .1	+ 2.7	+ 3.7	+6.5
Domestic		− 1.2	− 2.4	− 4.7	−8.3

As shown in Table I, the Treasury securities acquired by foreigners were about evenly split between marketable issues ($23.1 billion) and nonmarketable special issues ($23.4 billion). The major foreign central banks generally seem to prefer to invest their dollar reserves in marketable issues. This preference is also favored by the Treasury in most circumstances because of the cash management problems and interest costs resulting from borrowings where the Treasury has no control as to timing. The Federal Reserve, at most times during this period, found it possible to accommodate foreigners in marketable Treasuries either by purchasing for them in the open market or by selling securities from its own account and making necessary reserve adjustments in other ways.

Impact of Monetary Crises

However, during the years covered here there have been three acute international monetary crises which resulted in massive accumulations of dollars by leading foreign central banks within very short time spans. These periods were: (1) July-August 1971, just prior to the announcement of the administration's new economic policy which included devaluation; (2) July-August 1972, as the continued adverse external position of the United States severely strained the currency relationships established by the Smithsonian agreement the previous December; and, (3) February-March 1973 when the dollar was weakened by resurging inflation in the United States, by the easing of economic controls and by continued adverse U.S. balance of payments figures. This last episode, of course, culminated in a further official devaluation of the U.S. dollar.

In these three crisis periods dollar flows into foreign central banks reached such large proportions that the investment of these reserves in U.S. Treasury securities could not be handled in the open market or through sales from the Federal Reserve's portfolio. Thus, it was necessary for the Treasury to issue special nonmarketable obligations directly to foreign central banks. Of the $23.4 billion in foreign specials that has occurred since June 30, 1970, $17.6 billion, or 75 percent, were issued during the three monetary crises. There were nine days during these periods of stress in which foreigners acquired $1 billion or more of specials, and on one day the total reached $3.5 billion. During the rest of the fiscal 1971-73 period the increase in foreign holdings took place in the form of fairly steady buying of both marketables and specials.

In marketables, during the early part of this three-year period, which was also the early stage of the international monetary turmoil, foreigners purchased mainly Treasury bills. In fiscal 1971 foreigners bought $11.4 billion bills, $4.4 billion of special nonmarketables and only $.1 billion of marketable notes and bonds. As the upheaval in the foreign exchange markets persisted and intensified, foreigners came to believe that some of their accumulated dollar reserves could safely be placed in longer-term securities at higher rates. Between June 30, 1971 and April 30 of this year foreign holdings of marketable Treasury notes and bonds increased by $6.4 billion. In addition, foreigners have bought about $500 million of Federal agency debt. In no month since June 30, 1971 have foreign purchases of marketables exceeded $2.5 billion (this is in sharp contrast to the large daily swings in acquisitions of nonmarketables during crisis periods, as noted above).

Importance of Foreign Purchases

Clearly, foreign purchases of U.S. securities over the past three years have been of profound importance in financing the Federal deficits of this period. As is shown in Tables II and III, $46.5 billion, or 70 percent of the estimated $66 billion total deficit for 1971-73 was financed by foreigners. Of the estimated $30.4 billion increase in marketable debt outstanding during this period, over $2.3 billion, or 76 percent was acquired by foreign holders. This, together with Federal Reserve purchases of $16.2 billion and government account purchases of $3 billion, meant that U.S. private investors' holdings of marketable Treasuries will have been reduced by $11.9 billion by the end of June 1973. It is interesting to note, however, that in this fiscal year through May domestic holdings of marketable securities have

risen by $4.4 billion following total reductions of $13 billion in FY 1971-72. Smaller purchases by the Federal Reserve in this year of firming monetary policy and smaller acquisitions of marketable by foreign accounts have accounted for this turnaround in domestic holdings.

In summary, the massive U.S. Treasury financing requirements of the early '70s have been accomplished with relatively little pressure on the domestic market as a result of huge foreign purchases of U.S. issues. The problems of the United States in its external financial position have unexpectedly been of benefit to the Treasury.

Some Implications for Debt Management

There have been some problems for the markets and for the Treasury associated with the heavy foreign acquisitions of U.S. securities during the past three years.

1. Foreigners now own 19 percent of the privately held marketable Treasury debt. Foreign absorption of 76 percent of the net supply of new marketables over the past three years has been a contributing factor in the emergence of a thin, highly volatile U.S. government securities market in which relatively light trading volume produces substantial change in price. From the debt managers' viewpoint, it has sometimes been difficult to price new issues against current markets dominated by foreign activity. This has not been a particularly serious problem since the Treasury has moved toward competitive auctions in the sale of most of its securities.

On balance, it seems safe to say that if the Treasury had had to meet its 1971-73 financing requirements entirely in the U.S. money and capital markets, it could have done so only at significantly higher interest costs than those actually incurred. Foreign purchases or sales of U.S. securities do not necessarily affect the overall level of interest rates in the United States since the dollars involved remain available for investment in one or another of our financial markets. This activity does, however, affect the Treasury securities market in relation to other markets. As long as the foreigners are on the buy side of the market, the Treasury benefits in terms of relatively strong markets for its issues.

Treasury debt managers are aware of the possibility of large quick reversals of the money flows which, so far, have been all their way.

This is not regarded by Treasury as a very likely development, however. It is believed that such reflows will occur gradually in proportion to the improvement which is expected to take place over time in the U.S. balance of payments as a result of our devaluations, anticipated success in curbing domestic inflation, and positive results from the continuing negotiations on international monetary and trade reform.

Nevertheless, potential problems may exist in the area of foreign reflows. It may be true that with the exchange rates of major currencies floating against the dollar, speculative movements into or out of the dollar could not occur with the same force and speed as the dollar raids of the recent past. In a floating rate environment, movement into dollars from other currencies would tend to be the result of an actual fundamental improvement in our basic balance of payments. Such an improvement could, under some possible circumstances, occur quite rapidly. The U.S. dollar is now devalued by about 17-18 percent against the major currencies, and is probably in reasonable alignment with those currencies. The effects of these devaluations are now showing up in an improvement in our trade figures and our overall balance of payments in recent months, and this is occurring in a period of economic boom in the United States. As the economy in the months to come slows from its present heady pace and inflation subsides, the U.S. balance of payments and the dollar's position in world markets should improve. The debt management problem during a period of slower domestic growth (or recession) might be that of financing a substantial repayment of foreign officially-held debt at the same time as a deficit in the Federal budget necessitates further U.S. market borrowing. It is difficult to know what to do about such a confluence of events since, if the reflows were occurring as a result of basic changes in the reserve positions of various countries, central banks would not be in a position to defer or schedule their redemptions or sales to the convenience of the Treasury. The major source of instability in international money markets lies in the foreign private holdings of dollars which amount to $50 billion or more. It might be desirable for the United States to offer these dollar holders a longer-term Treasury security in order to absorb some of this overhang. However, as long as foreign owners of dollars believe that it will be more profitable to use their holdings as a vehicle for currency trading and speculation, they are not likely to be much interested in a U.S. Treasury security, except at rates quite out of line with U.S. rates.

The long-run answer to the problem of unstable international markets clearly lies in a fundamental and permanent improvement in the U.S. balance of payments, and we may be on the threshold of just such an improvement.

2. Some Treasury cash management problems have arisen from time to time during this period of international monetary tension. Massive investments in special nonmarketables by foreigners during a crisis period have resulted in a generally high level of Treasury cash balances. The Treasury has been sensitive to the costs of maintaining these balances which resulted from borrowings over which it has had no control as to timing. In order to minimize these costs, it has carried large cash balances – as high as $5.0 billion recently – with the Federal Reserve. Thus, some of the additional interest cost is recovered by the Treasury in the form of increased Fed earnings from its larger portfolio of securities acquired to offset the reserve impact of the higher Treasury balances. Nevertheless, the Treasury has found it necessary to maintain larger Tax and Loan account balances than it would have liked.

3. It might be argued that the increase in Treasury special issues to foreigners has added to the problem of the maturity structure of the Federal debt. Most of the foreign specials outstanding are issued as 90-day obligations with a two-day redemption privilege. There have been some longer-term specials issued but, even here, there are early redemption features which could make the nominal maturities irrelevant. Since mid-1965 the Treasury has been confronted with an ever shortening average maturity on its privately-held marketable debt which has declined from five years nine months to three years. If the foreign specials were included in this calculation, the maturity structure would be shortened even further.

However, it does not seem necessary to make too much of this issue since the foreign specials are not marketable and their sales, redemptions, or retirements do not have a direct market impact. In addition, it seems clear that if the Treasury had had to finance its massive deficits to a greater extent in the U.S. open market, it could have done so only by issuing a very large volume of short-term securities, thereby aggravating its maturity-structure problem with perhaps more inflationary consequences than was actually the case. As a matter of fact, the heavy foreign acquisition of U.S. securities in recent years has actually helped in permitting the Treasury to sell more intermediate- and longer-term securities than it otherwise might have been able to do.

DISCUSSION

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As has been amply documented in Dick Adams' paper, in the last few years there has been a substantial increase in foreign central bank holdings of U. S. Treasury bills. The real question here is to what extent is this a problem? I tend to be in agreement with Dick's view that it has not been a major problem and, in fact, probably over the last few years has been a net benefit to the United States in terms of lower interest cost on the Federal debt.

I am in basic agreement with Dick's conclusion that during the early 1970s foreign central banks have probably on net made life easier for debt managers, certainly in terms of the interest costs on Federal debt. As he notes, this result has depended largely on the happy coincidence, from the point of view of debt management, of large deficits in both their Federal budget and in their international payments accounts. As Dick noted, during a period of balance of payments surplus, we would expect that you would get the opposite result, that borrowing rates for the Treasury would be somewhat higher than they would have been otherwise. On net, if we look toward the future, if we do not expect any systematic tendency over the long run for the United States to run payments surpluses or deficits, then we would expect over the long run there probably would not be a great net effect on borrowing costs for the Treasury.

If the past international monetary system were continued, then because of the reserve currency role of the dollar, we would expect to find systematic deficits in the U. S. balance of payments. Under this type of system, you probably would expect over time some net reduction in Treasury borrowing costs. But one of the major thrusts of international monetary reform is to establish a more symmetrical international monetary system in which there would be a much smaller, if any, reserve-currency role for the dollar. So I think the long-term expectation of a zero net balance of payments position is much more tenable for the future than you would think just on the basis of experience of the last 10 or 15 years. Thus over the long term, I doubt that there will be any substantial net effect from this source on Treasury borrowing costs.

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There remains, however, the shorter-term question of the problems for debt management which may be caused by the variability of foreign central bank activity in the Treasury bill market. My general feeling is that this is not too serious a problem. For one thing, while variability in an international payments position may be expected to exert greater volatility on the demands in the bill market, the present institutional arrangements under which U. S. payments imbalances generally result in similar fluctuations in holdings of Treasury bills by foreign central banks tends to insulate the overall domestic financial conditions in the United States from the effects of our international payments position.

For non-reserve countries under fixed exchange rates, an international payments imbalance, unless it is offset by deliberate policy of sterilization, will cause a multiple expansion or contraction in the domestic money supply. Indeed, it was upon this mechanism that the classical adjustment process relied. However, it has recently been emphasized by a number of writers, particularly Ron McKinnon, for a reserve-currency country like the United States, payments imbalances tend to be automatically sterilized.

During periods of payments deficit, foreign central bank purchases of Treasury bills will tend to offset the contractionary effects of the payments deficit that would otherwise occur. Likewise during periods of payments surplus, sales of Treasury bills by foreign central banks tend to counter the otherwise expansionary effect of the payments surplus.[1]

I don't believe this point was sufficiently recognized during 1969 when there was considerable concern expressed in a number of quarters that the Euro-dollar borrowings by the New York banks

[1]For more detailed discussion of this point, see Anatol Balbach, "Will Capital Reflows Induce Domestic Interest Rate Changes?" *Federal Reserve Bank of St. Louis Review*, July 1972, pp 2-5; A. E. Berger and Anatol Balbach, "Measurement of the Domestic Money Stock," *Federal Reserve Bank of St. Louis Review*, May 1972, pp 10-23; and Ronald I. McKinnon, "Sterilization in Three Dimensions," Stanford University Research Center in Economic Growth Memorandum No. 132, July 1972.

The tendency for international payments imbalances to be matched by changes in foreign holdings of Treasury bills under a reserve-currency system has much the same type of the insulating effect on U. S. domestic financial conditions as would be given by freely-floating exchange rates.

The effects on other countries are quite different, however. While a system of floating rates would offer similar insulation to other countries, under fixed rates non-reserve currencies – unless they take discretionary sterilization policies – are subject to multiple monetary expansion or contraction as the result of international payments imbalances.

If we move to a system of asset settlement for the United States under a reformed international monetary system, then on grounds of domestic financial stability, the United States should have an even greater interest than it does at present that there be a substantial degree of flexibility of exchange rates under the new international monetary system.

were undercutting the effectiveness of domestic monetary policy. To a large extent the net private borrowing from abroad was offset by a decline in foreign official capital placed in the United States.

Now, of course, these adverse changes in our payments position and our foreign official dollar holdings will not in general exactly cancel each other out so that you are left with an exactly zero impact on domestic financial conditions. Indeed this type of full cancellation would only be expected to occur when the payments imbalance was caused by a change in private foreign holdings of Treasury bills. Then you would be getting a direct switch between private and official holdings of Treasury bills. The net difference would be the greatest in cases where a payments imbalance was caused by a change in the current account. Here you would be getting, in effect, a general change in the money supply offset by equal amounts of money going directly into the bill market, and given any degree of segmentation of the financial markets, the two effects of these on the bill market would not be expected to exactly cancel. Shifts in the international capital flows would fall in between these two categories with the net effects being smaller, the more closely integrated are the various credit markets and the more closely akin to Treasury bills is the type of capital flow in question. In other words, where the variability in the balance of payments is caused by capital movements that are in markets which are very closely interdependent with the Treasury bill market, we would expect little net impact.

It is comforting to note in this regard that in general we would expect the financial markets most closely akin to the Treasury bill market to be the cause of the largest short-term variability in international payments. And that the markets for real goods and services which would be less closely linked to the Treasury bill market we would expect would be less volatile. Thus we would tend to have the more variable components of the balance of payments being closer substitutes for the Treasury bill market. Such a tendency would reduce the overall amount of net impact on the domestic financial markets caused by variability in our international accounts.

In fact, we do find, looking at this empirically, that over the past decade changes in foreign central bank holdings of Treasury bills have been associated on average with only small and apparently short-term effects on Treasury bill rates. I do not know of any published econometric work available on this, but there have been two recent, as yet unpublished studies by John Makin from the University of Wisconsin at Milwaukee and by Mike Keran who has

recently moved from St. Louis to the San Francisco Fed.[2] They found quite similar results, that a one billion dollar change in foreign official holdings of Treasury bills would tend to lower the three-month bill rate by roughly 4 to 10 basis points during the month in question. And Makin, who investigated longer-term effects, was not able to find any significant effects past the first month. I think this does indicate that there is enough substitution among financial instruments going on in that the short-term variability in the foreign central bank holdings have not been terribly unsettling to the financial markets.[3]

In closing, I would like to turn to another topic that's a little more closely in line with traditional public finance, one which was alluded to in Henry Kaufman's paper yesterday. There has been a long-held view in the literature on public finance that we do not need to worry about the burden of the public debt because after all we owe it to ourselves. As Kaufman and Adams have both amply illustrated, this statement is no longer tenable. A high proportion of the increase in short-term public debt in recent years has gone abroad.

What implications does this have for concern over the burden of the public debt? I would argue that the recent emergence of a considerable amount of foreign holdings of U. S. government debt is not of itself a reason for changing one's attitude toward the use of deficit financing for government expenditures. On the one hand there is the view put forth by James Buchanan that there is a burden from domestically held government debt as well as foreign held debt;[4] and on the other, there is not in my view any reason to consider there to be different types of burdens imposed by private or by public borrowing from abroad.

[2]Michael Keran, "A Model of the U. S. Treasury Bill Market: with Special Reference to Foreign Influences" and John Makin, "The Impact of Control Programs on the Independence of U. S. Monetary Policy" prepared for the U. S. Treasury Research Conference on the Capital Control Programs, December 7-8, 1972.

[3]Further, where there is an extremely large foreign demand which develops over a short period of time (due to a large U. S. payments deficit) the Treasury frequently issues special, non-marketable securities, hence reducing the direct impact on the Treasury securities market. However, to the extent that the issuance of such specials leads to higher Treasury holdings of cash balances, the domestic money supply will be reduced (see Berger and Balback, *op. cit.*). Thus in such instances the impact of the payments imbalance which gave rise to this issuance of the specials is not sterilized.

[4]See James M. Buchanan, *Public Principles of Public Debt* (Homewood, Ill.: Irwin, 1958). A collection of articles stimulated by Buchanan's controversial book is available in J. M. Ferguson, *Public Debt and Future Generations* (Chapel Hill, N. C.: University of North Carolina Press, 1964).

If you are worried about a burden that current economic operations are placing on future generations, the relevant concept with respect to the international sector is what is happening to net borrowing, both private and public. The basic phenomenon was that our current account deteriorated substantially during this period. Hence, our net international investment position had reversed its very strong upward trend.

To maintain balance of payments equilibrium over the long run, this implies that in the future our current-account surplus will have to be greater than it otherwise would have been. It is this requirement for a higher future current-account surplus which will place an economic burden on U. S. citizens in the future. The balance of payments always balances in a double-entry bookkeeping sense and in terms of the burden "on future generations" it makes little difference whether it is public or private borrowing which has balanced the current-account decline (or for that matter, whether it is a decline in gross U. S. lending abroad). The only difference would be if there were different interest costs on the types of borrowing or lending involved and on this score the costs of public borrowing are probably less.

We are not in a satisfactory position to make a very emphatic judgment as to whether this presumably short-term deterioration in the U. S. current account was desirable or undesirable from the standpoint of U. S. economic welfare, however. The economic analysis of the intertemporal welfare effects of trade imbalances is still in its infancy. There have been several interesting theoretical papers written on this subject in the last few years, but you get a number of arguments running in opposite directions and we do not have an adequate general synthesis at this point.[5] Thus I would be hard put to conclude whether the net effects of the recent deterioration in the current account have been desirable or undesirable for the United States in terms of the combined criteria of domestic macroeconomic stability and efficient consumption patterns over time.

I am afraid I shall have to close on this rather agnostic note. My general message is that I think that the substantial increase in the foreign official holdings of U. S. Treasury bills is a quite interesting phenomenon, but I do not see that it has major implications for U. S. economic policy.

[5] For a discussion of some of this literature see Thomas D. Willett and Edward Tower, "The Welfare Economics of International Adjustment," *Journal of Finance*, May 1971.