Multinational Corporate Speculation During the Exchange Crises of 1971 and 1973

By Benjamin Klein *, Los Angeles

I. Introduction

The international monetary world is now a very different place from what it was just a few years ago. The fixed exchange rate system established under the Bretton Woods agreement of 1943 was shattered by the exchange crises of 1971 and early 1973. It has been frequently claimed that these crises, and therefore the breakdown of the established monetary order, were produced to a large extent by the large multinational corporations. It is these corporations that have replaced in the popular mind and in the press the legendary "gnomes of Zurich" as the villains to be blamed for our international financial instability and as the ultimate controllers of our destiny. These corporations it is claimed can and do shift enormous sums of money across national borders and thereby precipitate exchange crises. No nation, nor even the entire international monetary system, can withstand these massive flows of funds and therefore these corporations can and do force unwanted changes in the values of individual currencies and in the entire structure of international monetary arrangements. The vast financial power of these firms, alleged to be largely beyond the control of governments, has therefore severly weakened our international monetary independence. The nations of the world, it is maintained, can no longer make policy decisions without considering the possible actions that will be taken by the managers of the large quantities of highly mobile money controlled by the large multinational corporations.

This increasingly common view has been reinforced by the publication of a major study of the U.S. Tariff Commission on multinational firms [1]. The relevant portion of the study (Chapter V, "Multinational Firms in International Finance," pp. 453–549) has been reported upon and quoted extensively in the press and excerpts have already been reprinted in undergraduate college texts [2]. The primary

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[1] Printed as a Report to the Committee on Finance of the United States Senate, "Implications of Multinational Firms for World Trade and Investment for U.S. Trade and Labor," 93rd Congress, First Session (Washington, D.C., 1973).

[2] *P. Brenner, R. Borosage* and *B. Weidner* (ed.), *Exploring Contradictions: Political Economy in the Corporate State*, New York: David McKay Co., Inc., 1974, Chapter 4 "Money Crises and the Operation of Multinational Firms," (pp. 75–95).

"fact" emphasized by these reports is the vast sum of short-term liquid assets that the Tariff Commission estimates is controlled by multinational corporations – $268 billion at the end of 1971 – and therefore the obvious capability of the multinationals of generating disruptive short-term capital flows that are the proximate causes of exchange crises. The enormity of this figure is emphasized by noting that it is more than three times as large as the total international reserves of all the industrialized countries at the end of 1971. Clearly the movement of only a small fraction of the sums under their control could overwhelm an individual country.

The purpose of this paper is to more closely examine both the Tariff Commission study and the actual behavior of large multinational corporations during the exchange crises of 1971 and 1973. In addition, implications of private speculative behavior for the international monetary system are discussed. In Section II, the Tariff Commission's $268 billion estimate of short-term funds at the immediate disposal of MNCs for speculative purposes is analyzed. It is found to be a serious overestimate of the true magnitude under consideration, which I estimate to be near $14 billion. This more realistic estimate is then shown to be insignificant when compared to the funds available to the general public for speculative purposes and when compared to the funds available to Central Banks for speculative (or "intervention") purposes. In Section III, a detailed examination of the actual financial flows of MNCs during the two exchange crises is undertaken. Data on the shifting of MNC direct investments, remittances of earnings and foreign lending and borrowing are analyzed and the evidence clearly indicates that a very small proportion of the large speculative flows before the dollar devaluations of 1971 and early 1973 can be attributed to MNCs. The maximum likely contribution of "speculative" MNC flows to the increased U.S. balance of payments deficit on an official reserve basis during 1971 and 1973 is about 11 percent. Most of the speculative capital flows are made by other private enterprises and individuals (which shows up in the errors and omissions category of the balance of payments statistics) and by U.S. banks. Speculative transactions appear to have been extremely widespread and certainly not concentrated in a few large corporations. Finally, in Section IV we show that these speculative flows were not the cause of the exchange rate changes but merely a symptom of fundamental disequilibrium in the foreign exchange market. This disequilibrium was built up over the years by the Central Bank policy of fixing improper prices for particular currencies. The speculative flows did not produce an arbitrary exchange rate change, but merely speeded up a necessary change that had to eventually occur. The flows, therefore, were socially beneficial. In addition, these speculative flows have helped to create the desirable institutional change of exchange rates determined more fully by basic market forces rather than by Central Bank administrative price fixing.

II. The Tariff Commission Study Analyzed

Although the figure of $268 billion is not purported to be an extremely accurate estimate of the total amount of short-term funds at the disposal of MNCs, the great amount of attention this figure has attracted implies the necessity of closer examination. And when we take a closer look at the data, $268 billion seems to be a serious overestimate of the magnitude the Commission is attempting to measure. Using any reasonable definition of an MNC and limiting short-term assets to cash or near cash items, the total amount of short-term assets of U.S. MNCs at the end of 1971 is near $14 billion – or only about 5 percent of the Tariff Commission's estimate.

First of all, if we use a definition of MNC which only includes U.S. nonbanking corporations and their foreign affiliates (a definition of MNC which is consistent with the use of MNC in the rest of the Tariff Commission's report), the total is reduced from $267.8 billion to $115.2 billion[3]. This excludes from consideration U.S. and foreign banks and their branches, foreign nonbanking firms, and foreign governments, central banks and other international organizations[4]. But even $115.2 billion is a serious overestimate of the magnitude under investigation. In a footnote to Table 7, $110.0 billion of this figure is said to represent "current assets" of the nonfinancial foreign affiliates of U.S. firms, which conventionally includes inventories, receivables and cash assets. In the text, however, this category becomes "short-term, liquid items that could and would move across international boundaries in times of crisis" (p. 536). But surely, inventories and receivables do not move so easily.

Moreover, $110.0 billion seems to be an overestimate of the current assets of the foreign affiliates of U.S. nonbanks. Using the data collected by the U.S. Department of Commerce, Office of Foreign Direct Investments, in their FDI-105 reports (which represents 80 percent of all U.S. direct investors, and therefore, the figures are expanded to total universal size by multiplying by 1.25) we derive an estimate for total current assets at the end of 1971 of only $68.4 billion, of which only $11.9 billion is in cash and other current assets (as opposed to inventories and current receivables). The Tariff Commission Report should therefore have used $68.4

[3] See Tariff Commission Report, *op. cit.*, Table 7, p. 537.

[4] We will discuss the movement of funds by the large U.S. international banks in Section IV, but we should note here that the Commission estimate of $61.4 billion at the end of 1971 as the available short-term assets of foreign branches of U.S. international banks is certainly an overestimate of the relevant magnitude under consideration. Much of these funds are likely to be tied up in relatively illiquid investments, such as loans to bank customers and not instantaneously available for short-term speculative capital flows. The banks operate with relatively small basic reserves which are generally held in New York. In addition, it is not correct to assume that depositors could suddenly make massive withdrawals of their Eurodollar deposits in these banks to speculate in the exchange market. Only about 10 percent of the Eurodollar deposits in the foreign branches of U.S. banks are overnight or call deposits. The rest are time deposits with maturities of one month to one year.

billion, rather than $110.0 billion, as an estimate of gross current assets [5], and $11.9 billion as an estimate of short-term liquid assets.

To this figure of $11.9 billion must be added the liquid foreign assets held abroad by the parent companies of these direct investors. The Office of Foreign Direct Investment estimates this magnitude (the liquid foreign balances subject to 203 (c) at $1.9 billion at the end of 1971 and not $5.2 billion as estimated by the Commission. Therefore, only $13.8 billion ($11.9 plus $1.9) can be described as short-term liquid assets of direct investors and their foreign affiliates, certainly not $115.2 billion or $267.8 billion.

How should one measure the significance of this magnitude? Surely $13.8 billion still seems quite large. To what other financial magnitude should it be compared to give it economic meaning? On one hand, the figure is insignificant when compared to total private U.S. short-term liquid assets. For example just the assets held by the public in currency, demand and time deposits, mutual savings deposits and savings and loan shares totaled $730.9 billion at the end of 1971 – or more than fifty times the broader aggregate of "short-term liquid funds" available to MNCs. $13.8 billion appears in this context to be trivial. But if we compare this magnitude to the international reserves of an individual country, it may seem to be quite significant. If the MNCs decide to move these short-term funds under their control, it seems that they can certainly disrupt foreign exchange markets and produce unwanted changes in exchange rates.

An individual country can, however, insulate itself from exchange rate appreciation – independent of the magnitude of its foreign reserve holdings. In fact, because central banks can merely print money it makes no sense to say, as the Tariff Commission Report does, that the total quantity of Central Bank reserves is insufficient when compared to short-term MNC assets. Central bankers need not now fear that an artificially created crisis by MNCs cannot be resisted because the capital flows are greater than their reserves. If, in fact, speculative flows are not based on an underlying economic disequilibrium which necessitates an exchange rate change, the particular central bank and currency rate can always withstand the speculative pressure to appreciate. A country, for example, experiencing speculative capital inflows (or, analytically, an increase in the demand for its currency) under these circumstances of fundamental equilibrium can absorb unlimited short-term capital without altering the exchange rate, without increasing the domestic inflation rate and, in fact, while earning a profit at the expense of the speculators [6].

[5] The Commission's estimate is derived from unpublished Bureau of Economic Analysis data.

[6] The situation is, of course, different with regard to speculative outflows and pressure to depreciate. What can be said about such a situation is that any central bank can preserve an exchange rate, independent of the level of its reserves, as long as someone is willing to lend them the money. But then a central bank's international credit rating should theoretically be considered as one of its reserve assets. A central bank can only maintain a "weak" currency's exchange rate to the limit of its reserves and hence an essential asymmetry exists under this system.

If the German central bank, for example, believed it was in fundamental equilibrium during the summer of 1971 when it experienced massive inflows of dollars, it certainly did not have to feel "forced" to revalue upward – independent of its reserve position. They could always have satisfied the demand for marks by issuing more of them. This would not necessarily be inflationary since an increased demand for marks accompanied the increase in supply; although some partial sterilization by the central bank would have to be undertaken [7]. Meanwhile, since it is costless to print the additional marks and the central bank can earn interest on these increased foreign holdings of marks (e.g., by using the dollars that flow in to purchase U.S. Treasury bills) the entire operation can yield a profit. Clearly in this case the German international reserve position is not a constraint on their behavior and there is no need for the German central bank to feel intimidated by these speculative flows.

A crisis and long-term exchange rate changes cannot be artificially "created" by MNCs. If the central bank does not adopt such a strategy and mistakenly alters the exchange rate when basic market forces do not dictate such a change, we should expect to see the exchange rate change reversed sometime in the future. Only if a condition of fundamental disequilibrium existed, where basic economic forces implied that a change in the exchange rate would eventually be necessary anyway, could these short-term capital flows produce a permanent "involuntary" exchange rate change. But then the crisis merely speeds up the basic adjustment process. The issue then becomes one of private speculation versus central bank speculation regarding what the correct underlying basic equilibrium is. This issue will be discussed more completely in Section IV below.

III. Examination of MNC Financial Flows [8]

In a more general sense, however, estimates of funds available to MNCs for speculative purposes are somewhat meaningless. It is essentially impossible to estimate the potential magnitude of capital flows by looking at the balance sheets of

[7] Some offsetting open market sales will have to be made since foreigners have increased their demand for marks, (not "high-powered" marks) and the additional issue of marks by the Central Bank will expand the total supply of marks by some multiple of the issue. In addition, some of the increased demand for assets denominated in marks may not be an increased demand for DM deposits in German banks. The exact amount of the necessary offset will therefore depend upon the total quantity and form in which speculators wish to hold their increased DM assets. The necessary monetary contraction can be aimed specifically at foreign deposits (e.g., via differential reserve requirements) as was done during the 1973 crisis.

[8] This section is based in part upon the statement of Edward M. Bernstein in his testimony before the United Nations' Group of Eminent Persons to study the Impact of Multinational Corporations on the Development Process and On International Relations, on September 13, 1973, "Multinational Corporations and the Exchange Crisis."

MNCs at an instant of time. There is no reason to concentrate exclusively on particular items – for example, on funds now held with foreigners or on short-term liquid items. MNCs can initiate flows of capital across borders without making outright wealth transfers by a process familiarly called "leads and lags," i.e., delaying some and speeding up other international payments plans. From a theoretical point of view the question is not what the balance sheet looks like at an instant of time, but what are the costs of *changing* particular items in a balance sheet? What is the ability of MNCs to *change* their net position in a particular currency in a short period of time? From an empirical point of view, it is important to concentrate on *actual financial flows* of MNCs. We must look not at particular assets in the MNCs aggregate balance sheet and conjure up possible or potential scenarios, but must examine the actual changes in the assets of MNCs that occurred in times of crisis.

The evidence concerning the actual behavior of MNCs indicates that a very small proportion of the large speculative capital flows before the devaluations of the dollar in 1971 and 1973 can be attributed to the MNCs. The total sums involved are enormous. During 1971, the outflow of short-term funds from the United States was $20.9 billion and during the first quarter of 1973, the outflow was $9.6 billion[9]. About half of these flows, however, were included in the category of "errors and omissions" ($10.8 billion in 1971 and $3.9 billion in 1973-I) and therefore cannot be related to the international financial transactions of MNCs which are fully reported in the U.S. balance of payments. In fact, the total universe of U.S. based MNCs is quite concentrated, with about 250–300 MNCs accounting for over 70 percent of all foreign direct investments and almost the entire universe included in the Fortune 500 list of the largest U.S. companies[10]. It is therefore quite unlikely that these very large experienced corporations failed to report or made incomplete reports of their transfers because of lack of knowledge of the law. To confirm the accuracy of the reports, a team of experts from the Commerce Department, the Federal Reserve and the Treasury was sent to a number of representative companies in 1973 to review reporting procedures in detail. Although some minor discrepancies were turned up by the review, the Treasury stated that: "We are led to the conclusion that the bulk of the unreported transactions revealed by the errors and omissions of $3,650 million in the first quarter (of 1973) were undertaken by U.S. residents other than major U.S. business corporations, which are well covered by the present statistical reporting system[11]."

[9] This and the following data is from the U.S. Department of Commerce, *Survey of Current Business*, March 1974.

[10] U.S. Department of Commerce, Bureau of International Commerce, Office of International Investment Staff Study, "Trends in Direct Investments Abroad by U.S. Multinational Corporations, 1960–1970," Washington, D.C., February 1972, p. 3.

[11] Unpublished, July 20, 1973 letter from *Jack F. Bennett*, Deputy Undersecretary of the Treasury for Monetary Affairs, to Senator Harry F. Byrd, Chairman of the Senate Subcommittee on International Finances and Resources.

It may be difficult for some to accept the fact that a large portion of the speculative flows immediately preceding an exchange crisis cannot be attributed to the large multinational corporations or banks (for their own account), but that is exactly what the evidence indicates. It is unlikely that the extremely large unreported "errors and omissions" transactions are made by persons and firms not required to report international transfers of funds from the United States. Since a 1971 change in the law, it is legally required that all private transactions of over $10,000 be reported. But U.S. individuals not customarily engaged in banking and business operations with foreigners and smaller U.S. corporations, unless their transactions are large enough, do not generally report their foreign transactions. (If their transactions are only occasionally large enough to report, the corporation may be unaware of the reporting obligation.) As Edward Bernstein[12] has concluded:

> The unpalatable truth is that speculation in anticipation of changes in exchange rates is much more common in the United States than has been assumed. It is not foreigners, it is not U.S. banks acting on their own account, it is not a few multinational corporations seeking windfall gains that are responsible for the greater part of the vast transfer of funds during an exchange crisis. These transfers are mainly made by ordinary U.S. business firms and wealthy Americans. With exports and imports of tens of billions of dollars, every foreign trading firm can easily alter the timing of its payments and receipts sufficiently to transfer billions of dollars abroad. And in a country where the public holds hundreds of billions of dollars in liquid assets, with no legal restrictions on their transfer abroad, there will be no shortage of funds to acquire other currencies in anticipation of changes in exchange rates.

How much shifting of funds did the large MNCs actually engage in before the dollar devaluations of 1971 and 1973? An estimate of this magnitude can be obtained by analyzing the data reported by the MNCs on direct investment and remittances of earnings and the data reported by corporations on foreign lending and borrowing.

A. MNC Direct Investment

The direct investment of U.S. MNCs is reported in the balance of payments as an increase in assets from the transfer of funds to their foreign affiliates (a relatively large part of which is financed by the borrowing of the parent company abroad and shown in the issue of Eurobonds by MNCs and in an increase in their other liabilities to foreigners). Table 1 shows U.S. direct investment for the period 1960–73, where negative figures indicate outflows of funds from the United States.

As we can see, although foreign direct investment abroad by MNCs was quite large in 1971 and 1973, the general magnitudes are consistent with the upward trend in these figures over the preceding decade. Using a linear regression estimate

[12] *Op. cit.*, p. 10.

of the annual growth rate over the 1960–70 period to project values for direct investment in 1971 and 1973 indicates that there was not an extraordinary amount of direct investment during these periods. In fact, the implied estimated values are $4.77 billion in 1971, not very different from the observed values of $4.94 billion, and $5.83 billion in 1973, about one billion dollars *more* than what actually took place.

To get a more precise picture of MNC behaviour during the periods of exchange crisis, in Table 2 the aggregate direct investment figures are broken down into quarterly estimates of its components: capital stock and other equity accounts with foreign incorporated affiliates, intercompany accounts with incorporated affiliates and branch accounts [13].

In 1971 total U.S. foreign direct investment was only about $500 million more than in 1970. But 1971 intercompany and branch accounts, claims that are mainly related to accounts receivable and payable between the parent companies and their foreign affiliates and more easily manipulated [14], was a significant $1.1 billion greater than in 1970. In the first quarter of 1973, direct investment was about $750 million more than in the first quarter of 1972, with an increase in intercompany and branch accounts of about $700 million. These are quite large increases for only one quarter, but direct investments were particularly low in 1972. In addition, we must consider the "normal" (or nonspeculative) growth rate of these magnitudes over time and the impact of an accelerating inflation in distorting these nominal figures. So these annual changes in intercompany and branch accounts would suggest a *maximum* estimate of speculative direct investment flows. But even if the entire $1.1 billion and $700 million did represent MNC speculative capital flows during the exchange crises of 1971 and 1973-I, it is still a very small part of the total magnitude of such flows that did occur during those periods. The total balance of payments deficit was $29.8 billion in 1971 and $10.5 billion in 1973-I on an official reserve basis [15].

[13] Because of data limitations, quarterly observations are the smallest time unit used in this and the following analysis. Reliance on such data will therefore not pick up speculative movements that occur within a quarter. But if speculators did successfully shift their financial positions into and then out of a particular currency during a quarter, we would expect to see exchange crises to be short-lived and reversible.

[14] "Although direct investment outflows are classified among the long-term capital accounts, specific transactions may actually be short-term. Such is the case with short-term, intercompany account transactions between U.S. parent companies and their foreign affiliates. In order to avoid losses or effect gains in periods of exchange market uncertainties, such short-term direct investment accounts may be used as a conduit for transfers of funds from the United States for acquiring assets or reducing liabilities in currencies expected to appreciate against the dollar." U.S. Department of Commerce, *Survey of Current Business*, June 1973, p. 23.

[15] Throughout this paper the official reserve basis for measuring the deficit is used as an indication of the extent of central bank intervention in the exchange market and therefore of pressure on the exchange rate in a regime of fixed rates.

B. Remittances of Earnings by MNCs

All of the earnings of unicorporated affiliates of MNCs are treated in the U.S. balance of payments as if they were remitted. If the earnings are retained by the foreign branch they become direct investment shown in the branch accounts. Interest and dividends from incorporated foreign affiliates are shown in the balance of payments only if they are actually transferred. The fees and royalties from direct investment enterprises are also recorded in the balance of payments statistics. Table 3 shows the trend of these magnitudes for the period 1960–73.

As we can see, these receipts of income from U.S. MNC investments abroad did not decrease to any considerable degree in 1971 and 1973, but in fact, continued their secular upward trend. Once again, using a linear regression estimate of the annual growth rate over the 1960–70 period to project values for 1971 and 1973 certainly does not indicate an extraordinary increase during these periods. In fact, the implied estimated values are only $ 7.93 billion in 1971 and $ 9.41 billion in 1973 – or $ 620 million and $ 2.85 billion *less* than actually occurred. The MNCs do *not* seem to have slowed down their return to the U.S. of investment income during these periods of exchange crisis [16].

A closer look at these periods can be obtained by considering the quarterly data presented in Table 4. As can be seen, there are no indications of any significant changes in the remittance of foreign earnings of U.S. MNCs during the periods of exchange crisis. The only somewhat unusual movement appears to be a possible delay by the NMCs in remitting a couple of hundred million dollars in 1971-III, at the time of the crisis, until 1971-IV.

C. U.S. Corporate Foreign Borrowing and Lending

One element of total private capital transactions in the balance of payments includes the net change in U.S. corporate (including MNCs as well as other corporations, but excluding U.S. banks and brokerages) foreign borrowing and claims. Foreign corporate borrowing includes the proceeds from new issues of securities (stocks as well as bonds) sold abroad by U.S. corporations, other long-term liabilities and short-term liabilities. Foreign corporate claims include long-term and short-term liquid and nonliquid claims. The quarterly movement of these variables over the 1969-I to 1973-I period is presented in Table 5, where negative figures once again indicate outflows of funds from the United States (i.e., an increase in foreign assets is recorded as a negative number, an increase in foreign liabilities as a positive number).

[16] Throughout this discussion I do not consider any possible effects of OFDI capital controls on the size and stability of repatriations.

These figures indicate that the exchange crisis of 1971 did have some effect on corporate foreign transfers. Corporate foreign claims increased by $1.2 billion in 1971 compared with about $300 million in 1969 and 1970; while their liabilities increased by less than $1.6 billion in 1971 compared to $2.9 billion in 1970 and $2.0 billion in 1969. This represents a net adverse shift in net claims and liabilities between 1969–70 and 1971 of about $1.7 billion which may be due at least in part to the anticipation by corporations of changes in exchange rates. Similarly, a shift in net liabilities of $230 million occurred between 1973-I and 1972-I. Some undetectable part of these claims and liabilities, and therefore of the $1.7 billion and $230 million, is the result of the transactions of MNCs with unaffiliated foreigners. A reasonable assumption is that approximately 50 percent or $0.9 billion and $0.1 billion can be so attributed to MNCs[17].

The three elements of the balance of payments statistics we have examined: MNC direct investment, MNC remittance of earnings and corporate capital transfers clearly indicate that the transactions of U.S. MNCs were certainly not an important factor in increasing the U.S. deficit during the exchange crises of 1971 and 1973-I. Table 6 summarizes what the likely maximum impact these forces were on the U.S. balance of payments during these periods and indicates a total contribution of about 11 percent to the increase in the balance of payments deficit during 1971 compared to 1970 and during 1973-I compared to 1972-I.

This evidence is consistent with the study of W.A.P. Manser of the behavior of foreign affiliates of MNCs during the 1960's[18]. Manser studies three sets of data. First, a sample of 115 subsidiaries of large international companies located in England[19] is examined and no evidence to suggest a pattern of financial reactions to exchange risks (especially during 1964 and 1967) is discovered. This conclusion is then supported by official British data collected by the United Kingdom Department of Trade and Industry. Finally, he examines German Bundesbank data for the period 1969–71[20], when the German mark was generally considered to be

[17] There is no commonly accepted definition of which corporations should be considered MNCs, but Robbins and Stobaugh in one of the most comprehensive studies yet of multinational corporations use a definition of MNC which only includes 187 firms. These large corporations account for about three-fourths of all U.S. foreign direct investment and should be considered approximately the universe of firms we are discussing in this paper. These corporations account for only about 50 percent of U.S. manufactured exports and many more corporations have some sort of foreign tie. For example, there are about 4,000 firms that own at least 50 percent of the stock in a foreign subsidiary and who could therefore easily make foreign capital transfers. (Dr. *Sidney M. Robbins* and *Robert B. Stobaugh, Money in the Multinational Enterprise: A Study in Financial Policy*, Basic Books, New York, 1973, pp. 10–11.) Hence 50 percent does not seem to be an unreasonable estimate.

[18] *W.A.P. Manser*, The Financial Role of Multinational Enterprises, New York, John Wiley and Sons, Chapter 6, "Exchange Considerations," esp. pp. 127–136.

[19] This data was collected by *Michael Z. Brookland, H. Lee Remmers* in their study *The Strategy of Multinational Enterprise*, American Elsevier Publishing Company, New York, 1970.

[20] "German Entreprises Foreign Debt," Monthly Report of the Deutsche Bundesbank, November 1971.

undervalued. He finds that a very small fraction (about 3 percent) of the movement of funds to Germany during this period was due to speculative actions of international companies.

The evidence is also consistent with the reported effects of exchange rate changes on the balance sheets of MNCs. The Office of Foreign Direct Investments annual FDI-105 reports indicates that assets of MNC affiliates (including cash and other short-term assets, inventories and receivables) rose by $ 721.8 million in 1971 due to exchange rate changes while liabilities (short-term and long-term) rose by $ 688.8 million – i.e., that the MNCs were almost perfectly hedged. For 1972, the figures are a decrease of $771.3 million for the change in the dollar value of assets and an increase of $ 3,506.8 million for the change in liabilities – or an increase in net liabilities of nearly $ 4.3 billion[21]. This does not seem to be what would be expected from shrewd manipulating financiers.

These figures must be quite perplexing to those individuals who hold the common stereotype of large MNCs shifting great sums of money around and thereby producing exchange crises. The facts indicate, however, that the MNCs are not a primary source of the capital movements that have preceded the major changes in exchange rates during 1971 and 1973, but rather that they provided a relatively small part of the enormous sums that moved out of the U.S. One possible explanation is that the MNCs were much more aware of the overvaluation of the dollar and the likely possibility of devaluation for a much longer period of time and therefore that they made gradual adjustments in the currency composition of their assets and liabilities long before any exchange crisis materialized.

If the large outflows of dollars during the two recent exchange crises cannot be attributed to the MNCs, who then transfers the funds? As I already noted, a major portion of the flow is caught in the errors and omissions category of the balance of payments. Most of these transfers cannot be identified but are probably made by U.S. business firms and individuals who have no reporting obligation (or who failed to meet it); not by the MNCs who operate under very stringent reporting requirements.

In addition, the transactions of U.S. banks were a major contribution to these two recent deficits. An examination of the changes in liquid liabilities to foreigners of U.S. banks indicates that in 1971 there was an outflow of nearly $ 5 billion from U.S. banks to their foreign branches, that other foreign commercial banks withdrew

[21] These numbers, of course, depend upon the particular accounting method chosen to translate foreign assets and liabilities into dollars. The Accounting Principles Board of the American Institute of Certified Public Accountants recommends, and I assume most MNCs follow, the "current account" method in which current assets (including inventories) and current liabilities are translated at the rate of exchange prevailing on the date of the balance sheet ("current exchange rates") while fixed assets and long-term liabilities are translated at the rate existing at the time the asset was acquired or the liability incurred ("historical exchange rates").

almost $0.5 billion of liquid funds, producing a total outflow of nearly $7.5 billion. These large outflows actually began in 1970, when U.S. banks transferred more than $6.3 billion to their foreign branches. In 1973-I there was an outflow of nearly $600 million from U.S. banks to their foreign branches and an enormous withdrawal by foreign commercial banks of $1.3 billion.

These large changes in the foreign liabilities of U.S. banks during exchange crises may have been the result of transactions initiated by their customers rather than an independent speculative move undertaken by the banks themselves. For example, one reason why U.S. banks transferred funds from the U.S. during 1971 and 1973-I was to meet the extremely large demand for forward foreign exchange. Therefore MNCs, for example, could have been large sellers of forward dollars for foreign currencies during these periods and, although these transactions would not show up in the balance of payments items discussed above, these transactions could cause a movement of funds through banks and appears in the balance of payments statistics reported by banks that I have here analyzed.

Finally, there is an important source of dollar capital flows that, although it does not enter into the U.S. balance of payments deficit, has had a considerable depressing effect on the value of the dollar in the foreign exchange markets. That is the sale of dollars by foreign central banks for other currencies, especially the Deutsche mark. During this period foreign official holdings of marks increased to the equivalent of over $10 billion. This accumulation of official mark holdings occurred in the face of a large German surplus, indicating that the marks were bought by the sale of dollars in anticipation of exchange rate changes. These speculative dollar transfers by some central banks were on a much larger scale than the transfers of funds by MNCs we have discussed above. As we shall see, they are an important factor in understanding the recent "unexplained" weakness of the dollar relative to the mark.

IV. A symptom not the Cause

The data we have surveyed indicates that the MNCs may have engaged in some transfers of funds during 1971 and during the first quarter of 1973 in anticipation of changes in exchange rates, but that these transfers were a very small part of the total outflow of funds from the United States.

"Speculative" transactions seem to have been extremely widespread during these periods before dollar devaluation. These large speculative flows, however, were not the primary cause of the exchange rate changes, but merely a symptom of fundamental disequilibrium in the foreign exchange market. The MNCs, like everyone else who transferred funds, were reacting to the basic economic disequilibrium caused by central banks fixing improper prices for foreign exchange. The

speculators did not "produce" an arbitrary exchange rate change, but merely speeded up a necessary change that would have eventually occurred anyway. Their actions were, therefore, socially useful.

Under the pre-1971 international monetary arrangements of "fixed" exchange rates, private individuals and corporations often discovered essentially oneway speculative opportunities. Whenever conditions existed where a particular currency's exchange rate would likely be changed in the near future, there was never any doubt regarding the direction of change. For example, if a particular currency was "strong," buying the currency did not entail much risk. Either the central bank would continue to hold the exchange rate fixed and the individual would lose commissions and some foregone interest or the currency would be revalued and the individual would earn a substantial short-term profit. With asymmetrical opportunities like this it should be expected that enormous speculative flows between currencies would occur from time to time.

Under this system of temporarily fixed exchange rates, private speculators were merely betting against central bank speculators regarding the "true" equilibrium exchange rate. Private speculators could, for example, believe that the mark was undervalued relative to the dollar and sell dollars for marks while the German central bank believed the exchange rate was "correct" and continued to peg it by purchasing dollars for marks. As we noted in Section II, in such a situation a fixed rate could be maintained against any sized speculative attack. Germany could postpone revaluation indefinitely and, if basic international equilibrium existed, merely print marks and earn interest on its increasing dollar reserves. But if, for example, Germany inflated at a lower rate than the United States, thereby producing a balance of trade surplus, part of the "involuntary" accumulation of dollars by the German central bank represents a forced export of goods and services or a forced "loan" to the United States. This involves a real cost to Germany which they are unlikely to continue forever.

If, on the other hand, long-term fundamental international trade and capital equilibrium existed and central banks were mistakenly "forced" to make unneeded exchange rate changes by private speculative movements, we would expect the exchange rates to eventually return back to their original position. If, for example, speculation by U.S. corporations was the sole cause of the deficits in the U.S. balance of payments and fall in the value of the dollar, when these speculators moved back out of their holdings of foreign currencies and attempted to collect their profit in dollars, U.S. surpluses would have been created and the dollar immediately appreciated back to its original value. Certainly this did not occur. The generally lower value of the dollar was in some sense "permanent." What explains this change in exchange rates?

To a first approximation over the long-run, equilibrium values of exchange rates can be expected to be determined by the relative purchasing power of different

moneys. This is the purchasing-power-parity theory first expounded operationally by Gustav Cassel[22]. What I have done, therefore, is to see how much of recent exchange rate changes can be explained on the basis of relative price movements between the U.S. and various countries, recognizing that the theory should only be considered as a crude long-term hypothesis.

I consider three countries: Japan, United Kingdom, and Germany. For each country I arbitrarily assume exchange rate equilibrium in 1953 and then compare the relative degree of inflation and exchange rate change over the period compared to the United States. Prices are measured by the wholesale price index in each country[23].

Table 7 presents the results for Japan. Column 1 presents the relative inflation that has occurred in Japan over this period, where the relative inflation in country i at time j, $I_{i,j}$, equals

$$I_{i,j} = \frac{WPI_{i,j}}{WPI_{U.S.,j}} \Big/ \frac{WPI_{i,1953}}{WPI_{U.S.,1953}} \tag{1}$$

that is, the wholesale price index of country i at time j divided by the wholesale price index of the United States at time j, deflated by the same ratio in 1953. In the second column the foreign exchange rate, ER, is presented expressed in terms of dollars per unit of foreign currency. And finally in the last column a purchasing power index is calculated, where the purchasing power index for country i at time j, $P_{i,j}$, equals

$$P_{i,j} = \left(\frac{ER_{i,j}}{ER_{i,1953}}\right) \cdot I_{i,j} . \tag{2}$$

[22] See *James M. Holms*, "The Purchasing Power Parity Theory: In Defense of Gustav Cassel as a Modern Theorist," *Journal of Political Economy* (October 1967, p. 68). *Henry J. Gailliot*, "Purchasing Power Parity as an Explanation of Long-Term Changes in Exchange Rates," *Journal of Money, Credit and Banking* (August 1970) successfully tests this theory over the period 1900–67 for the U.S. and seven other industrialized countries.

[23] In 1967 the European countries began to adopt value-added taxation, and by 1973 Germany and the United Kingdom had standard VAT rates of at least 10 percent. This may have produced some slight increase in some European consumer price indices (see *Eric Schiff, Value Added Taxation in Europe*, American Entreprise Institute for Public Policy Research, Foreign Affairs Study 8, October 1973). One of the reasons wholesale price indices were chosen was to minimize this effect. In addition, the CPI is generally biased upward in countries experiencing very rapid real growth such as Japan and Germany. Very large productivity and hence quality increases (especially in services) are not completely captuered in the indices. Considering the movement in the Japanese CPI, rather than WPI, one would have incorrectly predicted the yen to depreciate rather than appreciate in the 1970's. On the other hand, limiting ourselves to the largely tradeable set of commodities upon which the WPI is based,narrows the purchasing power parity hypothesis into a statement about international arbitrage rather than about the monetary determinants of the exchange rate.

All the data is from International Monetary Fund, *International Financial Statistics*, Washington, D.C. Prices are averaged over the period, exchange rates are end-of-period observations.

If this index equals one it means the exchange rate at that point in time is exactly what would be implied by the relative inflation that has occurred since 1953, if it is greater than one, it implies that the currency is overvalued judging solely by relative price movements since 1953 and if it is less than one, it implies that the currency is undervalued in terms of relative price movements since 1953[24]. The Japanese purchasing power index and exchange rate are plotted in Chart 1.

As we can see from Table 7, column 1, over this period, Japan inflated relatively more slowly than the United States. Meanwhile, until the 1971 crisis, the exchange rate was pegged, implying a purchasing power index less than one (and essentially equal to the relative inflation index). Hence using a price level criteria, over most of this period the yen was undervalued. During 1971 the extent of the undervaluation started to increase and from this point of view revaluation of the yen in 1971 was entirely consistent with basic economic forces. The attempt by the Japanese central bank to maintain the old exchange rate by buying dollars at the undervalued rate was doomed to failure – a revaluation or a large increase in the inflation rate was certainly necessary. Such mistaken central bank intervention (or rather speculation) and the accompanying capital losses cost Japanese taxpayers enormous sums of money, just for the "benefit" of briefly delaying the inevitable exchange rate change. (See footnote 30 below.)

By 1972-IV the yen had appreciated about 18 percent to \$.00331 and had reached purchasing power parity. From this point of view, the further appreciation in 1973-I of an additional 14 percent to \$.00376 seems to have been uncalled for. By the end of 1973, however, the yen began to depreciate back to its "equilibrium" value[25].

Similar calculations for the United Kingdom are presented in Table 8 and plotted in Chart 2. As we can see, since the early 1950's, the United Kingdom has inflated at a more rapid rate than the United States and by the early 1960's the pound was significantly overvalued relative to the dollar. Although England weathered a severe exchange crisis in 1964 and did postpone devaluation, the necessary devaluation eventually came in 1967. The change in the exchange rate from \$2.80 to \$2.40 was exactly what was necessary to restore purchasing power parity. But due to the continued rapid British inflation, by 1971 the pound was once again overvalued. The appreciation of the pound during 1971 and 1972-I to \$2.62, produced by the general movement out of dollars, therefore appears to be unrelated to the basic underlying economic forces. The pound depreciated in value

[24] Given the differences between the coverage of commodities in the measured wholesale price indices across countries and the overall lack of inclusiveness, our purchasing power index should, of course, be considered approximate.

[25] Since this paper was originally written, the yen has further depreciated back to its .0033 level, which is entirely consistent with these calculations. By 1975-IV the Japanese purchasing power index had fallen to 1.03.

throughout 1972, as we would have expected on the basis of market forces, reaching a level of $2.35 in 1972-IV. But it then once again appreciated in value during the dollar crisis of early 1973, reaching a price of $2.58 in 1973-II. This increase, of course, made no economic sense – the pound should have continued to depreciate, certainly not appreciate – and the foreign exchange market once again quickly adjusted to this "mistake." The pound depreciated in value and reached "equilibrium" by the end of 1973. These episodes in 1971 and 1973 convincingly demonstrate that with an essentially freely determined exchange rate, any purely speculative flows that do not correspond to basic underlying disequilibria will be quickly adjusted to and reversed in the foreign exchange market. In the absence of massive central bank speculation, much of it to no avail in avoiding exchange rate changes, private speculators operate in such a way as to reach a "rational" equilibrium price[26].

The movements of the exchange rate I have thus far considered are broadly consistent with what one would expect solely on relative price level grounds. Speculative movements into and out of particular currencies were not the ultimate "causes" of exchange rate changes, but often merely precipitated adjustment to the basic underlying problem of an undervalued or overvalued currency in terms of relative price levels. When this was not the case, the exchange rate change was rather quickly reversed. Germany, however, is a somewhat special case. Speculative flows into and appreciation of the mark during some of the recent crises appear to be due in large part to a reduced role of the dollar relative to the mark as an international reserve currency.

Our purchasing power calculations for Germany are presented in Table 9 and plotted in Chart 3. As we can see, using 1953 as a benchmark, the mark was generally close to purchasing power parity throughout the 1950's and 1960's until 1968. At that point Germany refused to follow the rapid U.S. inflation and instead deflated, producing an undervalued mark. This condition was corrected with the 8 percent mark revaluation of 1969, and by the start of 1971 the mark was slightly overvalued on purchasing power grounds. From this point of view, the further 11 percent mark appreciation in 1971 made no economic sense. But, unlike the market reversal and readjustment that took place with the pound, the mark held its new higher level throughout 1972, and during the exchange crisis of 1973 appreciated nearly an additional 33 percent to $.41 (from an original level of $.25 in 1968). Some of this rise has since been eaten away by the market, but only relatively little of the enormous "disequilibrium" based on purchasing power

[26] The continued depreciation of the pound since 1973 has remained consistent with these calculations. The exchange rate of $2.02 in 1975-IV implied a purchasing power index of 1.06, which suggests that if anything the pound was overvalued.

considerations has been eliminated. Solely on relative price level grounds, the "equilibrium" exchange rate should be no more than about $.30[27].

But a $.30 exchange rate for the mark appears to make little sense in the present context. There seems to have been an increase in the growth of international demand for marks at the expense of dollars brought about by the worldwide decrease in the confidence attached to the dollar as an international currency. This decrease in the international demand for dollars has been encouraged both explicitly and implicitly by the U.S. government. On the one hand, the U.S. government has explicitly advocated decreased reliance on the dollar as the primary reserve currency and underpinning of the world monetary system and the dismantling of the de facto dollar standard that was rapidly developing. And, more importantly, they adopted an irresponsible inflationary policy in the late 1960's which eventually led foreign holders of dollars, including foreign central banks, to move into marks – the currency with the lowest inflation rate and the country with the greatest political will to keep the inflation rate down in the future. This continued international shift in the demand for marks relative to dollars seems to have altered the equilibrium level of the exchange rate[28]. In any event, such shifts between monies should not be considered "speculative" since they represent permanent substitutions rather than short-run movements into and then out of particular currencies[29].

The important thing to recognize in this context is that equilibrium exchange rates, based on the basic underlying forces of relative inflation rates and relative shifts in demand, can only ultimately be determined by the demand and supply of currencies in the foreign exchange markets. If one country inflates at a lower rate than another or if "tastes" shift for one currency relative to another, only freely functioning market participants (speculators) can determine the final new equilibrium. By a process of trial and error, where some may gain and others may lose financially, we ultimately arrive at a price that represents economic reality. This is very different from central bankers administratively deciding what a "fair" or

[27] This, of course, assumes exchange rate equilibrium in 1953. If instead, the mark was significantly undervalued in 1953, the recent exchange rate changes would merely represent a movement towards equilibrium. Although possible, it is difficult to believe that a fundamental (30 percent) disequilibrium persisted in the exchange markets for twenty years. The lower German inflation rate relative to the United States since this paper was originally written has made the price of the mark somewhat more reasonable on purchasing power grounds, but by 1975-IV the German purchasing power index was still 1.20.

[28] This hypothesis must remain merely suggestive since there has been little empirical work on the question of international substitutions between competing monies. See *Benjamin Klein*, "The Competitive Supply of Money," *Journal of Money, Credit and Banking*, vol. 6, no. 4 (November 1974) and *Benjamin Klein*, "Competing Monies: A Comment," *Journal of Money, Credit and Banking*, vol. 8, no. 4 (November 1976) for a discussion of some of the issues involved.

[29] Also see *Harry G. Johnson*, "Destabilizing Speculation: A General Equilibrium Approach," *Journal of Political Economy*, vol. 84, no. 1 (February 1976) on the difficulty of defining "speculative" behavior.

"correct" exchange rate happens to be. The bureaucratic decision rules may even be "objective" (e.g., related to the balance of payments deficit), but they still must remain essentially arbitrary.

In practice, central banks have been extremely rigid in adjusting exchange rates. They have been quite determined to "defend" particular, historically given, parities – even if they did not correspond to fundamental economic (market) forces. Unfortunately, up until 1973 a crisis and large speculative flows were a necessary part of the process of adjusting exchange rates. That was the only force that led to central bank reevaluation of artificial parties.

When corporations observe central banks pegging an incorrect price they certainly have an obligation to their stockholders to protect against such risks and to conduct corporate operations in the most profitable way consistent with the laws of their home and host countries. But here private profit maximization coincides with increased social welfare. If speculation forces governments to face market realities and prevents them from retaining unrealistic exchange rates, a socially useful purpose is served. Although realistic exchange rates would eventually be reached, speculation produces a quicker adjustment and thereby reduces the harm done by artificial exchange rates. If corporations act passively and permit the government to temporarily preserve artificial exchange rates and postpone the recognition of reality, they would merely be compounding the government error and the economic distortions of an improper exchange rate while creating the conditions for an even larger crisis in the future.

These private speculators are operating at their own risk with essentially their own money, while the central banks speculate not with their own money but with the taxpayers' money. This may explain why the private speculators, although certainly not omniscient, have almost always been right over the past five years. If a corporate treasurer takes a speculative position in a currency, he will certainly bear some personal costs if he is mistaken and receive some personal benefits if he is correct. A central banker, however, need not generally answer to anyone for the losses incurred in mistakenly attempting to resist an exchange rate change [30].

From an historical perspective, however, the interesting question is why there was an increase in the quantity of speculative activity during the late 1960's and early 1970's. And why were a relatively larger number of these attacks on particular currency exchange rates successful? The institutional difference between the costs and gains associated with private and official speculation has always been present.

[30] To get some idea of the magnitude of losses involved, during 1973-I the Bank of Japan purchased about $10 billion at about 300 yen/dollar in an unsuccessful attempt to keep the yen from appreciating. As I noted above, the revaluation of the yen appears to have gone too far. But when market forces began pushing the value of the yen down, the Bank of Japan also resisted this move and tried to keep the yen from depreciating, selling in the process during late 1973 and early 1974 about $10 billion at about 265 yen/dollar – implying a total speculative loss in less than one and a half years of about $1.5 billion.

Something additional must therefore be introduced to explain the time series evidence. The answer lies, I think, in the shift during the late 1960's to what I have called our "new monetary standard," under which public confidence in the belief that governments would follow macroeconomic policies necessary to maintain given fixed exchange rates substantially decreased [31]. The ability of private individuals and enterprises to move large sums of money internationally is certainly not new. The new aspect of the situation beginning in the late 1960's was a general recognition on the part of market participants of a more profitable opportunity for speculative gain created by the "new standard."

As I noted above, the old system of temporarily fixed exchange rates often produced situations in which asymmetrical speculative bets on the movement of a particular exchange rate could be placed. Sometimes, however, these bets were "lost," i.e., the central bank held the rate unchanged while adopting the correct internal monetary policy, with the cost to the speculator of his transaction commissions and foregone interest. By 1970, however, the one-way nature of these speculative bets had substantially increased. The public gradually came to realize during the 1960's that the governmental authorities would no longer attempt to reverse large price increases and exchange rate disequilibria by adopting deflationary policies. This recognition of the lack of determination of governments created more asymmetrical speculative conditions and therefore greatly exaggerated the extent of the speculative flows against weak currencies.

The larger speculative flows made it more difficult for central banks to maintain a fixed rate and therefore had the beneficial social effect of producing a quicker adjustment in the exchange rate. But, more importantly, these large "hot money" flows have produced a very desirable basic change in the international monetary system. The market now gets a much bigger role in determining exchange rates and we have moved much closer to a system of freely floating exchange rates. Under such a system, exchange crises are essentially eliminated. Speculative transactions are greatly reduced because "sure things" no longer exist – the exchange rate at any point in time can just as likely go up or down. And it becomes impossible for pressures to cumulate over a period of years until a currency becomes substantially under- or overvalued. Businessmen operate under a system of rates determined by continuous market forces without having to predict large and infrequent government actions and speculators exist only to perform the useful service of maintaining an effective futures market for currencies. And without the necessity of defending unrealistic fixed rates and the existence of large speculative flows, governments find it less necessary to rely on capital and exchange controls. Multinational corporations can therefore more fully concentrate on their essential task and comparative

[31] *Benjamin Klein*, "Our New Monetary Standard: The Measurement and Effects of Price Uncertainty, 1880–1973," *Economic Inquiry*, vol. 13, no. 4 (December 1975).

advantage – the production and distribution of economic goods, resulting in a continued expansion of real world trade and increase in world-wide consumer welfare.

Table 1

Direct Investments of Multinational Corporations, Annually 1960–73

Year	Billions of Dollars
1960	−1.67
1961	−1.60
1962	−1.65
1963	−1.98
1964	−2.33
1965	−3.47
1966	−3.66
1967	−3.14
1968	−3.21
1969	−3.27
1970	−4.41
1971	−4.94
1972	−3.40
1973	−4.86

Source: U.S. Department of Commerce, Survey of Current Business, Table 2, line 39.
Note: While this table only reflects outflows, if offsetting inflows of repatriated funds plus royalties and fees were credited, the net situation would be an overall inflow for the U.S. balance of payments.

Table 2

Direct Investments of Multinational Corporations
Quarterly 1970-I to 1973-II
(Billions of Dollars, not Seasonally Adjusted)

	Total	Capital Accounts	Intercompany Accounts	Branch Accounts
1970-I	−1.56	−0.58	−0.80	−0.18
1970-II	−1.64	−0.63	−0.35	−0.66
1970-III	−0.77	−0.43	−0.23	−0.11
1970-IV	−0.44	−0.93	+0.42	+0.07
1971-I	−1.59	−0.25	−1.15	−0.19
1971-II	−1.70	−0.30	−0.83	−0.58
1971-III	−1.34	−0.52	−0.69	−0.13
1971-IV	−0.32	−0.99	+0.83	−0.16
1972-I	−1.69	−0.31	−1.13	−0.26
1972-II	−0.40	−0.33	+0.44	−0.51
1972-III	−1.06	−0.64	−0.34	−0.28
1972-IV	−0.26	−0.85	+0.80	−0.20
1973-I	−2.45	−0.43	−1.43	−0.59
1973-II	−0.94	−0.41	+0.09	−0.62

Source: U.S. Department of Commerce, Survey of Current Business, Table 6, lines 1, 3–5, 9.

Table 3

Remittance of Direct Investment Earnings of Multinational Corporations, Annually, 1960–1973
(Billions of Dollars)

	Total	Fees and Royalties	Interest, Dividends, and Branch Earnings
1960	2.95	0.59	2.36
1961	3.43	0.66	2.77
1962	3.84	0.80	3.04
1963	4.02	0.89	3.13
1964	4.08	1.01	3.67
1965	5.16	1.20	3.96
1966	5.04	1.33	3.71
1967	5.57	1.44	4.13
1968	6.04	1.55	4.49
1969	6.75	1.68	5.07
1970	7.25	1.92	5.33
1971	8.55	2.16	6.39
1972	9.35	2.42	6.93
1973	12.26	2.84	9.42

Source: U.S. Department of Commerce, Survey of Current Business, Table 2.

Table 4

Remittance of Direct Investment Earnings of Multinational Corporations, Quarterly 1970-I to 1973-II (Billions of Dollars, Seasonally Adjusted)

	Total	Fees and Royalties	Interest, Dividends, and Branch Earnings
1970-I	1.90	0.46	1.44
1970-II	1.74	0.48	1.26
1970-III	1.80	0.48	1.32
1970-IV	1.82	0.50	1.32
1971-I	1.92	0.52	1.40
1971-II	2.26	0.55	1.71
1971-III	1.94	0.52	1.42
1971-IV	2.43	0.58	1.85
1972-I	2.09	0.58	1.51
1972-II	2.20	0.59	1.61
1972-III	2.41	0.61	1.80
1972-IV	2.64	0.63	2.01
1973-I	2.87	0.68	2.19
1973-II	2.85	0.64	2.21

Source: U.S. Department of Commerce, Survey of Current Business, Table 2.

Table 5
Net Change in U.S. Corporate Foreign Borrowing and Lending
Quarterly 1969-I to 1973-I
(Billions of Dollars, Seasonally Adjusted)

	Corporate Foreign Borrowing (Liabilities)	Corporate Foreign Claims (Assets)	Corporate Net Foreign Liabilities
	(1)	(2)	(1) + (2)
1969-I	0.71	−0.25	0.46
1969-II	0.28	−0.02	0.26
1969-III	0.58	0.05	0.53
1969-IV	0.46	−0.13	0.33
			[1.98]
1970-I	0.55	−0.14	0.41
1970-II	0.81	−0.05	0.76
1970-III	0.67	−0.13	0.54
1970-IV	0.86	0.06	0.92
			[2.63]
1971-I	0.09	−0.32	−0.23
1971-II	0.32	−0.15	0.17
1971-III	0.39	−0.32	0.07
1971-IV	0.78	−0.41	0.37
			[0.38]
1972-I	0.27	−0.18	0.09
1972-II	1.03	−0.23	0.80
1972-III	0.61	−0.25	0.36
1972-IV	0.87	−0.32	0.55
			[1.80]
1973-I	0.78	−0.92	−0.14

Source: U.S. Department of Commerce, Survey of Current Business, June 73, Table C, Lines 2, 7.

Table 6

The Maximum "Speculative" Contribution of Multinational Corporations to U.S. Balance of Payments Deficits (Billions of Dollars)

	1971	1973-I
MNC direct investments	– 1.1	– 0.7
MNC remittance of earnings	– 0.2	0
MNC capital transfers	– 0.9	– 0.1
Total MNC contribution	– 2.2	– 0.8
Total balance of payments deficit (official reserve basis)	–29.8	–10.5
Change in balance of payments deficit (official reserve basis) from previous year period.	–19.9	– 7.0

Table 7

Purchasing Power Parity Calculation, Japan 1953–73

	I (Relative Inflation Index)	ER (Exchange Rate X 10^2)	P (Purchasing Power Index)
1953	1.00	.277	1.00
1954	0.98	.277	.98
1955	.96	.277	.96
1956	.98	.277	.98
1957	.98	.277	.98
1958	.90	.277	.90
1959	.91	.278	.91
1960	.92	.279	.93
1961	.93	.276	.93
1962	.91	.279	.92
1963	.93	.276	.93
1964	.93	.279	.94
1965	.92	.277	.92
1966	.91	.276	.91
1967	.93	.276	.92
1968	.91	.280	.92
1969	.89	.279	.90
1970-I	.90	.280	.91
1970-II	.90	.279	.91
1970-III	.89	.279	.90
1970-IV	.89	.280	.90
1971-I	.87	.280	.88
1971-II	.86	.280	.87
1971-III	.86	.299	.93
1971-IV	.85	.318	.97
1972-I	.88	.329	1.05
1972-II	.87	.332	1.05
1972-III	.82	.332	.99
1972-IV	.84	.331	1.00
1973-I	.84	.376	1.14
1973-II	.82	.377	1.12
1973-III	.83	.376	1.13
1973-IV	.88	.357	1.14

Table 8

Purchasing Power Parity Calculation, U. K. 1953–73

	I (Relative Inflation Index)	ER (Exchange Rate)	P (Purchasing Power Index)
1953	1.00	2.81	1.00
1954	.99	2.79	.98
1955	1.01	2.80	1.01
1956	1.02	2.79	1.01
1957	1.02	2.81	1.02
1958	1.02	2.80	1.02
1959	1.02	2.80	1.02
1960	1.04	2.80	1.04
1961	1.08	2.81	1.08
1962	1.10	2.80	1.09
1963	1.11	2.80	1.10
1964	1.14	2.79	1.13
1965	1.16	2.80	1.15
1966	1.15	2.79	1.14
1967	1.15	2.40	.98
1968	1.18	2.38	1.00
1969	1.18	2.40	1.01
1970-I	1.19	2.41	1.02
1970-II	1.20	2.40	1.03
1970-III	1.22	2.39	1.04
1970-IV	1.24	2.39	1.05
1971-I	1.25	2.42	1.08
1971-II	1.26	2.42	1.09
1971-III	1.27	2.49	1.13
1971-IV	1.28	2.55	1.16
1972-I	1.28	2.62	1.20
1972-II	1.28	2.44	1.12
1972-III	1.29	2.42	1.11
1972-IV	1.30	2.35	1.09
1973-I	1.26	2.48	1.11
1973-II	1.20	2.58	1.10
1973-III	1.19	2.41	1.02
1973-IV	1.21	2.32	1.00

Table 9

Purchasing Power Parity Calculation, Germany, 1953–73

	I (Relative Inflation Index)	ER (Exchange Rate)	P (Purchasing Power Index)
1953	1.00	.238	1.00
1954	.98	.238	.98
1955	.99	.237	.98
1956	.98	.238	.98
1957	.95	.238	.95
1958	.95	.239	.95
1959	.94	.240	.95
1960	.95	.240	.95
1961	.96	.250	1.01
1962	.98	.250	1.03
1963	.98	.251	1.03
1964	.99	.251	1.04
1965	.99	.250	1.04
1966	.98	.251	1.03
1967	.97	.250	1.01
1968	.89	.250	.94
1969	.88	.271	1.00
1970-I	.89	.273	1.02
1970-II	.89	.275	1.03
1970-III	.90	.275	1.04
1970-IV	.90	.274	1.04
1971-I	.91	.275	1.06
1971-II	.91	.286	1.09
1971-III	.91	.301	1.15
1971-IV	.91	.306	1.16
1972-I	.90	.315	1.19
1972-II	.90	.316	1.19
1972-III	.89	.313	1.17
1972-IV	.89	.313	1.17
1973-I	.87	.352	1.29
1973-II	.85	.412	1.46
1973-III	.82	.413	1.43
1973-IV	.82	.370	1.28

Benjamin Klein
University of California
Los Angeles
U.S.A.

Chart I.

Exchange Rate and Purchasing Power Index, Japan, 1953–73

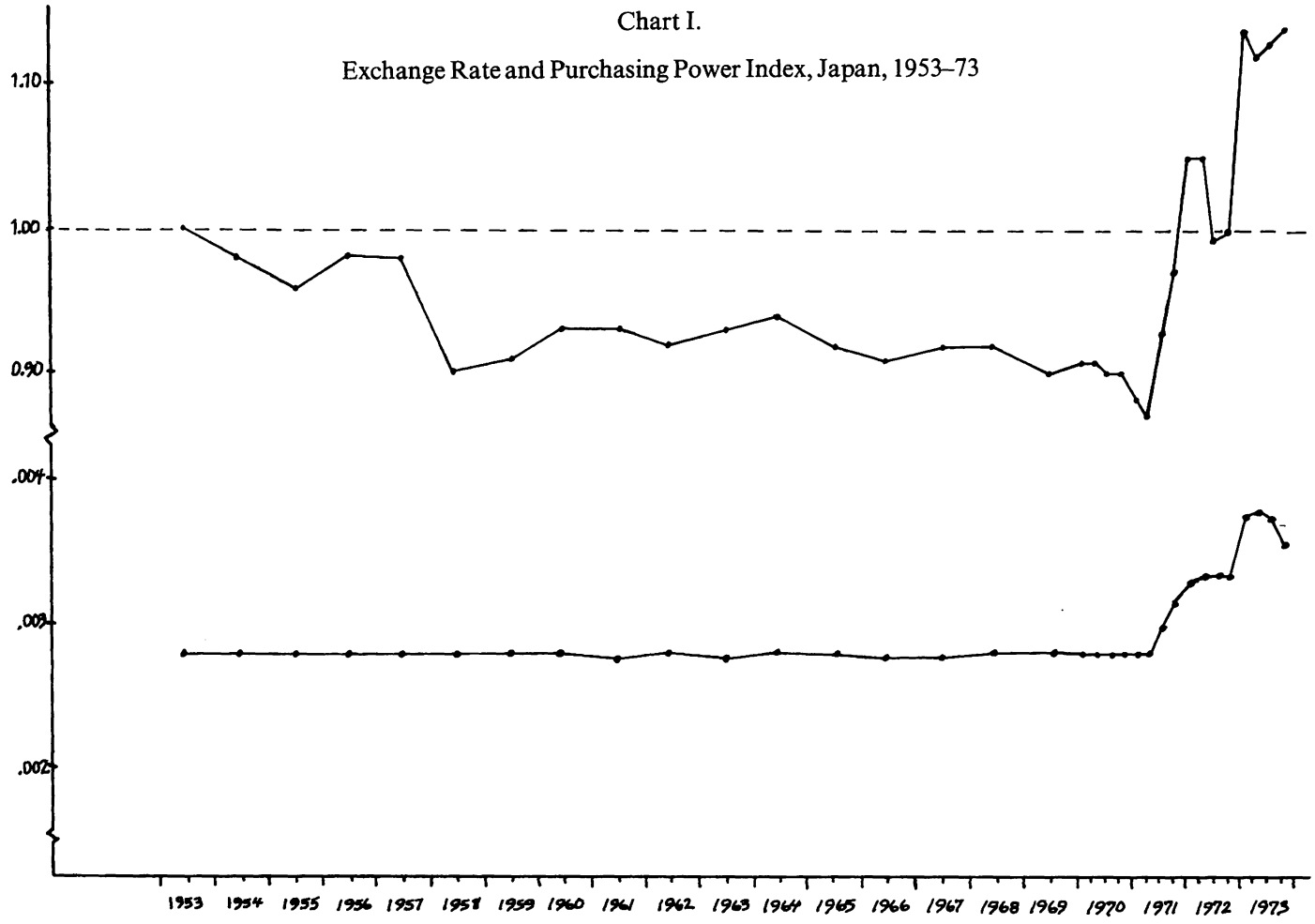


Chart 2.

Exchange Rate and Purchasing Power Index, United Kingdom, 1953–73

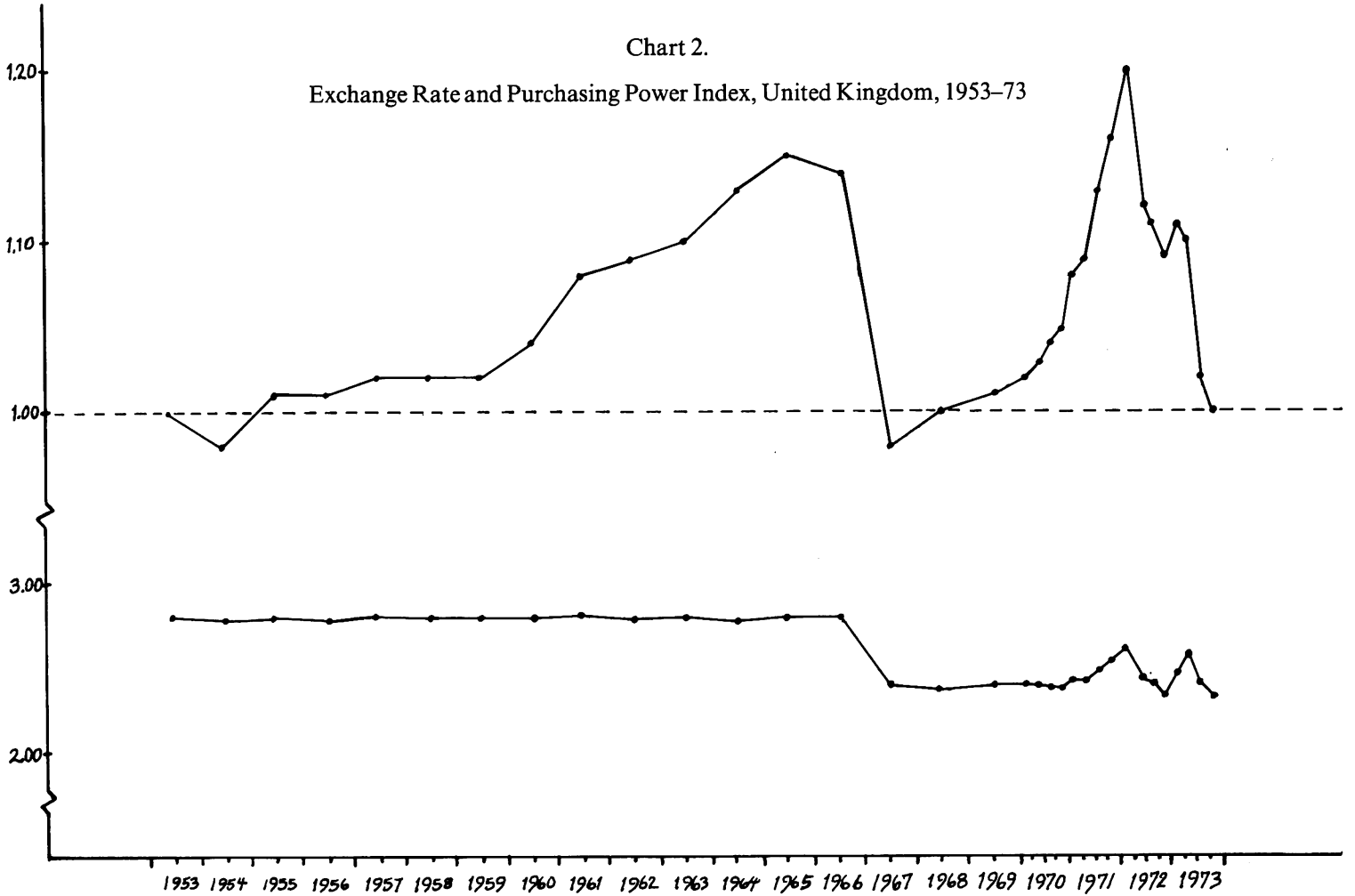
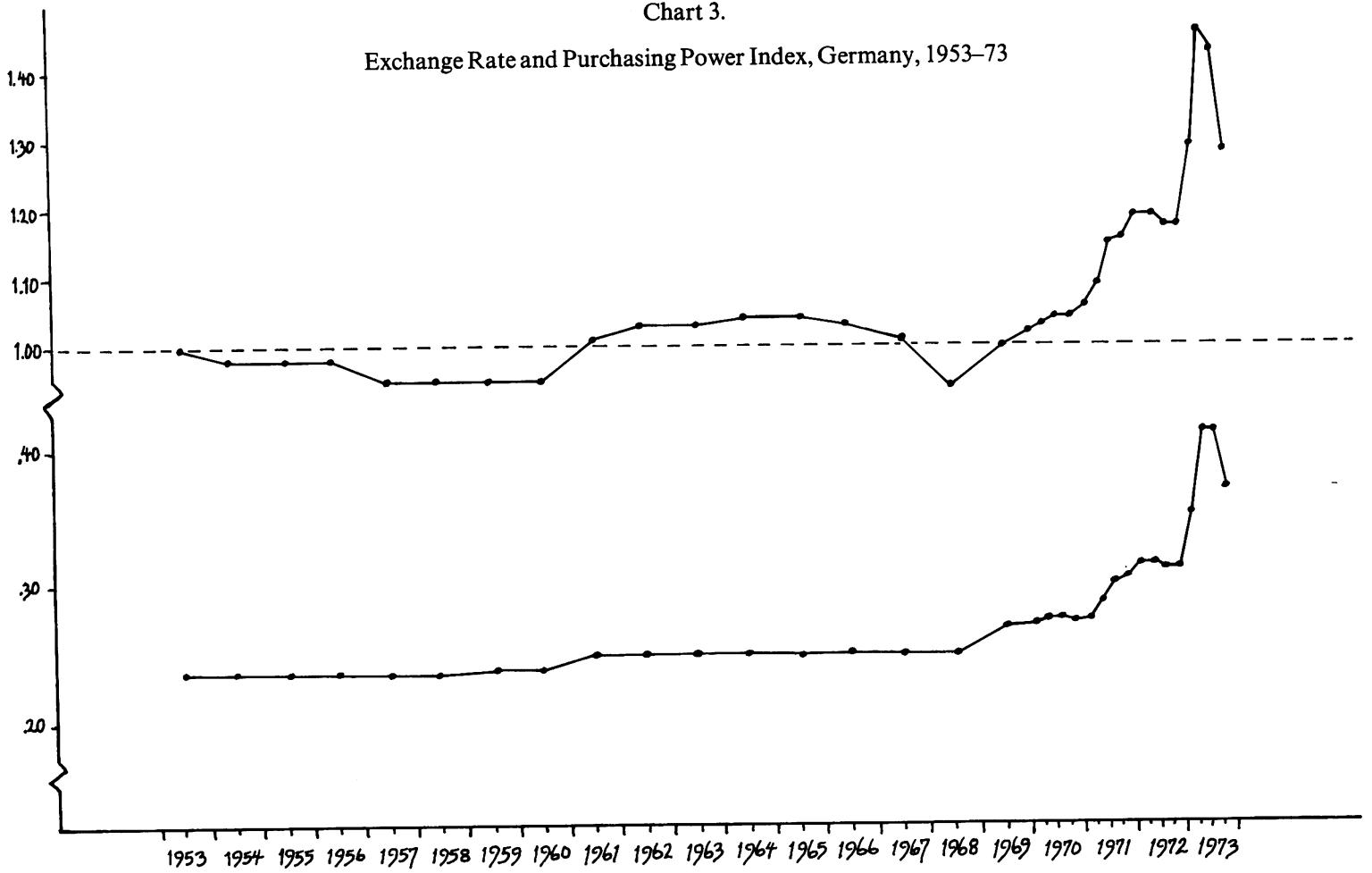


Chart 3.

Exchange Rate and Purchasing Power Index, Germany, 1953–73



Zusammenfassung

Die Spekulation der multinationalen Gesellschaften während den Währungskrisen von 1971 und 1973

Diese Abhandlung analysiert eine kürzlich von der Tarifkommission der Vereinigten Staaten durchgeführte Studie, welche die grosse Anzahl der durch die Multinationalen der Vereinigten Staaten kontrollierten kurzfristigen liquiden Aktiven hervorhebt, die sich leicht über nationale Grenzen schieben liessen und dabei Währungskrisen herbeiführen könnten. Die Beurteilung der Tarifkommission erweist sich als bedeutende Überschätzung des wahren Ausmasses, und die Zeichen weisen darauf hin, dass nur ein sehr kleiner Anteil der grossen spekulativen Strömungen, die während der Währungskrisen von 1971 und 1973 erfolgt sind, direkt den multinationalen Gesellschaften zugeschrieben werden können. Kaufkraftparitäts-Berechnungen werden vorgelegt, die aufzeigen, dass die Strömungen von Zentralbanken bei deren Versuch erzeugt wurden, unangemessene Wechselkurse aufrechtzuerhalten.

Résumé

Spéculation des sociétés multinationales durant les crises des changes des années 1971 et 1973

Cet article analyse la récente étude de la Commission américaine des tarifs (U.S. Tariff Commission), laquelle met en relief les sommes considérables que représentent les actifs disponibles à court terme contrôlés par les Multinationales américaines (U.S. Multinational Corporations – MNCs); masses de liquidités qui ont pu être aisément transférées au-delà des frontières nationales avec, pour effet, de précipiter les crises des changes. Il est démontré que l'évaluation élaborée par la Commission des tarifs constitue une surestimation considérable de l'ampleur réelle du phénomène, et il est fait la preuve que seule une très faible proportion des grands flux spéculatifs qui furent enregistrés au cours des crises des changes de 1971 et 1973 pourrait être imputable aux transactions des Multinationales. Les calculs de la parité du pouvoir d'achat, tels qu'ils sont présentés, indiquent que les mouvements spéculatifs ont été provoqués par les banques centrales, dans leurs tentatives visant à maintenir des taux de change que ne reflétaient pas les données de la réalité.

Summary

Multinational Corporate Speculation During the Exchange Crises of 1971 and 1973

This paper analyzes a recent U.S. Tariff Commission study which emphasized the vast sum of short-term liquid assets controlled by U.S. multinational corporations (MNCs) that could easily be shifted across national borders and thereby precipitate exchange crises. The Tariff Commission estimate is shown to be a serious overestimate of the true magnitude and the evidence indicates that only a very small proportion of the large speculative flows that occured during the exchange crises of 1971 and 1973 could be directly attributed to MNCs. Purchasing-power-parity calculations are presented which indicate that the flows were produced by the attempt of central banks to maintain improper exchange rates.