

PRINCETON STUDIES IN INTERNATIONAL FINANCE NO. 26

A Quantitative Framework
for the
Euro-Dollar System

Klaus Friedrich

INTERNATIONAL FINANCE SECTION
DEPARTMENT OF ECONOMICS
PRINCETON UNIVERSITY • 1970

PRINCETON STUDIES
IN INTERNATIONAL FINANCE

This is the twenty-sixth number in the series PRINCETON STUDIES IN INTERNATIONAL FINANCE, published from time to time by the International Finance Section of the Department of Economics at Princeton University.

Klaus Friedrich is Assistant Professor at the Pennsylvania State University. The present paper and a paper entitled "The Euro-Dollar Market and International Liquidity" (*Journal of Money, Credit, and Banking*, August 1970) are part of a broader study of the Euro-dollar system that the author hopes to complete shortly.

This series is intended to be restricted to meritorious research studies in the general field of international financial problems, which are too technical, too specialized, or too long to qualify as ESSAYS. The Section welcomes the submission of manuscripts for this series.

While the Section sponsors the studies, the writers are free to develop their topics as they will. Their ideas and treatment may or may not be shared by the editorial committee of the Section or the members of the Department.

FRITZ MACHLUP
Director

Princeton University

PRINCETON STUDIES IN INTERNATIONAL FINANCE NO. 26

A Quantitative Framework
for the
Euro-Dollar System

Klaus Friedrich

INTERNATIONAL FINANCE SECTION
DEPARTMENT OF ECONOMICS
PRINCETON UNIVERSITY
PRINCETON, NEW JERSEY
OCTOBER 1970

*Copyright © 1970, by International Finance Section
Department of Economics
Princeton University
L.C. Card No. 78-141566*

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

CONTENTS

| | <i>Page</i> |
|---|-------------|
| I. INTRODUCTION | 1 |
| II. THE EURO-DOLLAR MARKET IN LONDON | 5 |
| The Overall British Position | 5 |
| London vis-à-vis the European Group | 7 |
| London vis-à-vis the United States | 8 |
| American Banks in the United Kingdom | 10 |
| London vis-à-vis Canada | 12 |
| The Residual British Position | 12 |
| III. THE EURO-DOLLAR MARKET IN CONTINENTAL EUROPE | 14 |
| The European Group vis-à-vis the United States | 15 |
| The European Group vis-à-vis the United Kingdom | 15 |
| The European Group vis-à-vis Canada | 16 |
| The European Group vis-à-vis Others | 16 |
| The Internal Position of the European Group | 17 |
| IV. THE EURO-DOLLAR MARKET IN CANADA | 20 |
| Canada vis-à-vis the United States | 20 |
| Canadian Nonbank Residents | 21 |
| V. SUMMARY | 22 |
| APPENDIX | 25 |

TABLES

| | <i>Page</i> |
|--|-------------|
| 1. External Short-Term Dollar Claims and Liabilities of British Banks | 25 |
| 1a. Composition of the British Position vis-à-vis the European Group | 26 |
| 1b. Composition of the British Position vis-à-vis "Others" | 27 |
| 2. External Short-Term Dollar Claims and Liabilities of the European Group | 28 |
| 2a. Composition of the European Group's Internal Position | 30 |
| 2b. Composition of the European Group's Position vis-à-vis Others | 31 |
| 2c. Short-Term Dollar Claims and Liabilities of Switzerland | 32 |
| 3. Short-Term Dollar Claims and Liabilities of Canadian Banks | 33 |

CHARTS

| | |
|--|---|
| Figure 1. The Structure of the Euro-Dollar System | 4 |
| Figure 2. The British Position in Dollars and Other Currencies | 6 |
| Figure 3. The Overall British Position | 9 |

A QUANTITATIVE FRAMEWORK FOR THE EURO-DOLLAR SYSTEM

I. INTRODUCTION

One of the most striking aspects of the rapidly growing Euro-dollar literature is the fact that so much has been written on the basis of so few data.¹ The problems one faces when working with Euro-dollar data are both conceptual and institutional. Conceptual problems arise because Euro-dollar balances cannot easily be separated from conventional types of dollar balances in the statements of the reporting foreign banks and because the interbank structure of the Euro-dollar system leads to double counting.² The institutional problems are basically due to the short history of the Euro-dollar market, which has

I am indebted to Michael P. Dooley and Frank B. Arisman, both graduate students at Penn State, for their valuable suggestions and help.

¹ The early Euro-dollar literature includes Alan R. Holmes and Fred H. Klopstock, "The Market for Dollar Deposits in Europe," *Federal Reserve Bank of New York Monthly Review*, Vol. 42 (November 1960); Oscar L. Altman, "Foreign Markets for Dollars, Sterling and Other Currencies," *International Monetary Fund, Staff Papers*, Vol. VIII (December 1961); and "Recent Developments in Foreign Markets for Dollars and Other Currencies," *ibid.*, Vol. X (March 1963). More recent contributions include Alexander K. Swoboda, *The Euro-Dollar Market: An Interpretation*, Essays in International Finance No. 64 (Princeton: International Finance Section, February 1968); Fred H. Klopstock, *The Euro-Dollar Market: Some Unresolved Issues*, Essays in International Finance No. 65 (Princeton: International Finance Section, March 1968); Charles P. Kindleberger, "The Euro-Dollar and the Internationalization of United States Monetary Policy," *Banca Nazionale del Lavoro Quarterly Review*, No. 88 (March 1969); Milton Friedman, "The Euro-Dollar Market: Some First Principles," *The Morgan Guaranty Survey* (October 1969); Klaus Friedrich, "The Euro-Dollar System and International Liquidity," *Journal of Money, Credit, and Banking* (August 1970); and Helmut W. Mayer, *Some Theoretical Problems Relating to the Euro-Dollar Market*, Essays in International Finance No. 79 (Princeton: International Finance Section, February 1970). Notable exceptions, in the sense that they are specifically quantitative contributions: *Bank for International Settlements (B.I.S.), 34th-40th Annual Reports* (1964-1970); Patrick H. Hendershott, "The Structure of International Interest Rates: The U.S. Treasury Bill Rate and the Euro-Dollar Deposit Rate," *Journal of Finance*, Vol. 22 (September 1967); and Andrew F. Brimmer, "Eurodollar and the U.S. Balance of Payments," *Euromoney*, Vol. 1 (December 1969).

² See, for example, "U. K. Banks' External Liabilities and Claims in Foreign Currencies," *The Bank of England Quarterly Bulletin*, Vol. 4 (June 1964), p. 105. Also, B.I.S., *35th Annual Report* (June 1965), p. 132.

not yet provided the various central banks with sufficient time to gear their systems of data collection and publication to the requirements of the new system. Furthermore, the primary sources of detailed monetary data—the central banks—are national in orientation, while the Euro-dollar market requires internationally consistent coverage.

This study attempts to show that, while available Euro-dollar data leave much to be desired, a comprehensive framework can be constructed which may be helpful in analyzing a number of important aspects of the system.

It may be useful, at the outset, to postulate a set of data that could be considered satisfactory and then to approximate this potential set as closely as possible with actually available data.

The Euro-dollar market is an international market in which commercial banks place and take on deposit short-term U.S. dollar funds. The ultimate purpose of the market is to provide financial intermediation between nonbank depositors of dollar funds and nonbank borrowers of dollar funds. The extent to which such intermediation is being provided at any given time could conceivably be measured by the volume of short-term dollar claims on, and liabilities to, nonbanks held by the commercial banks that conduct Euro-dollar business. Even if such data were available, a number of conceptual problems would remain.

At any stage of the process of intermediation, which normally involves interbank transactions, dollar balances may be converted into other currencies and passed on in the form of balances in other currencies. If the other currency is not the domestic currency of the country in which the conversion takes place, the deposit becomes part of the broader Euro-currency market. A bank in Switzerland, for example, may convert a Euro-dollar deposit into a Euro-sterling claim on a bank in France. The terminal stage of Euro-dollar intermediation in this case is a bank rather than a nonbank borrower. The quantitative significance of this problem in the present context is reduced by the fact that about 80 per cent of all Euro-currency balances are Euro-dollar balances.³

A related problem arises, however, in case a bank converts Euro-dollar balances into its domestic currency, in order, for example, to make domestic commercial loans on the basis of funds obtained in the

³ The distribution of Euro-currency deposits at the end of 1968 was as follows: U.S. dollars, 80.1 per cent; Swiss francs, 9.0 per cent; D-Marks, 6.8 per cent; sterling, 2.4 per cent; and guilders, French francs, lire, 1.7 per cent. *The Economist*, Vol. 232 (August 30, 1969), p. 40.

Euro-dollar market. While the source of credit has been the Euro-dollar market, its use is obtained in the domestic currency. Once more the bank is the terminal stage of Euro-dollar intermediation and to consider only dollar positions vis-à-vis nonbanks would underestimate Euro-dollar activity.

Yet another reason for rejecting the volume of nonbank positions as too narrow lies in the fact that the interbank structure of the system is anything but irrelevant. Although the volume of nonbank positions remains the best, if not a perfect, approach to estimating the net size of the system, its interbank structure reflects allocative patterns which are of considerable relevance to the functioning of the market. It is, therefore, desirable to deal in the proper context with positions vis-à-vis both banks and nonbanks.⁴

Geographically, the Euro-dollar market is located in Western Europe and Canada.⁵ The United States plays a dominant role through the branches of its commercial banks in Western Europe. The United States *per se* cannot be considered a Euro-dollar center since the principal definitional requirement of a Euro-dollar deposit is that it is held in a bank outside the United States.

In Figure 1 a framework is proposed, which covers the basic structure of the Euro-dollar system. The system is divided into three centers: the United Kingdom, a group of seven Continental European countries (hereafter referred to as the European Group), and Canada. Each of the three centers has four links to the outside world—that is, to the other two centers, to the United States as the most important area which is not a center itself, and to the residual outside area. In addition, each center's position vis-à-vis its own residents is included. Data for the described positions detailed by bank and nonbank positions could be considered satisfactory for an analysis of original sources and final uses as well as the interbank structure of the Euro-dollar system. Tables 1 through 3 represent an attempt to provide data for the positions indicated by letters in Figure 1.⁶ Tables 1a, 1b, 2a, 2b, and 2c provide further detail to a number of positions in Figure 1.

The discussion of the data falls naturally into three parts: the positions of the United Kingdom, the European Group, and Canada.

⁴ For estimates of the net size of the Euro-dollar market, see *B.I.S., 36th-39th Annual Reports*.

⁵ Other areas, such as Japan, Latin America, the Middle East, and other countries of the sterling area, may be important sources and users of funds, but they are generally not intermediaries.

⁶ See Appendix.

The Structure of the Euro-Dollar System

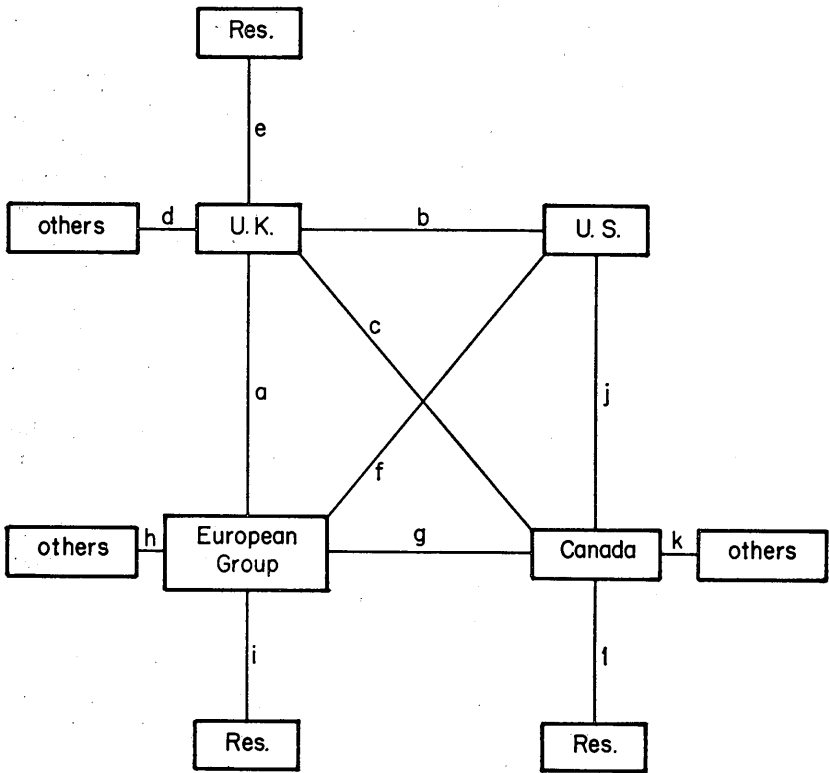


Fig. 1

II. THE EURO-DOLLAR MARKET IN LONDON

The data for Table 1, covering positions (a)-(d) in Figure 1, are taken from the *Quarterly Bulletin* of the Bank of England (B.o.E.). The reporting banks are all those banks in the United Kingdom known to have such positions, that is, domestic British banks, accepting houses, London offices of British overseas banks and branches of foreign banks in the United Kingdom, notably branches of American banks. Claims are short-term U.S. dollar claims on overseas banks and nonbanks owned by the reporting banks or held on behalf of their British customers. Liabilities include deposits and advances received from overseas banks and nonbanks and some commercial bills drawn in U.S. dollars on residents of the United Kingdom and held by the reporting banks on behalf of their overseas customers.⁷ The B.o.E. data give much more geographical detail than is shown in Table 1. Some of this additional detail will be utilized in the discussion below and in Tables 1a, 1b, and 2c.

With regard to the purpose of this study, the B.o.E. data are deficient in three respects. First, a distinction between positions vis-à-vis foreign banks and nonbanks would be desirable. Occasional estimates and comparisons between data of different sources are imperfect substitutes for this information. Secondly, double-counting occurs, to the extent, for example, that overseas funds on deposit in London are advanced to a bank abroad and subsequently redeposited in another bank in London. Thirdly, positions arising from Euro-dollar transactions are not distinguished from conventional U.S. dollar balances, such as correspondent balances, and so forth. Only on the assumption that such conventional balances are fairly constant, can the growth in U.S. dollar positions be linked to Euro-dollar transactions.

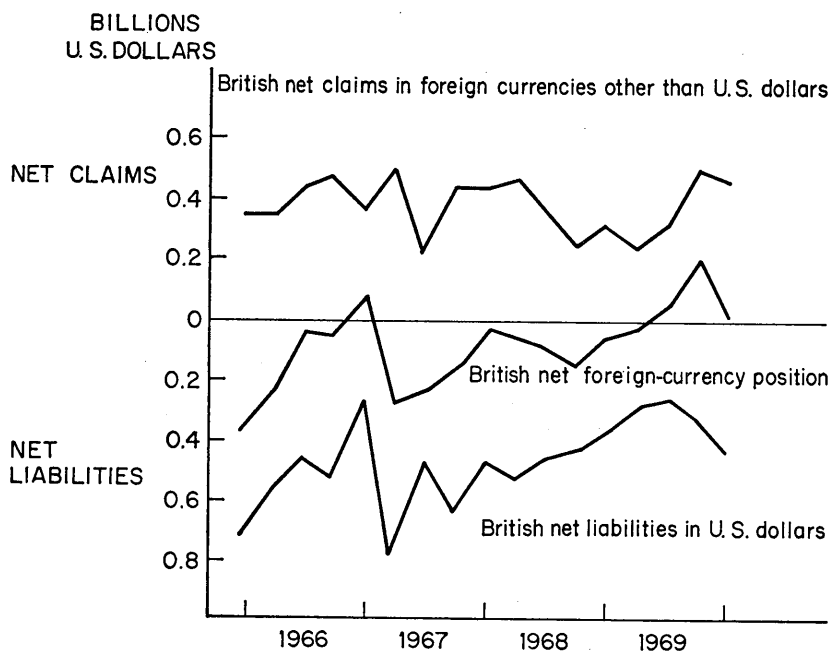
The Overall British Position

Compared with the volume of total gross claims and liabilities, the overall net position of the United Kingdom vis-à-vis nonresidents is very small and shows no apparent relationship to changes in the gross figures. This suggests that London's role in the Euro-dollar market is primarily that of an intermediary that takes funds on deposit from abroad in order to make advances abroad. The reporting banks' net liabilities to foreigners in U.S. dollars cannot be expected to be

⁷ A description of these data is given in *The Bank of England Quarterly Bulletin*, Vol. 4 (June 1964), p. 100.

balanced by net claims on nonbank British residents, because of possible conversions into other currencies. British banks, for example, could take dollar deposits from abroad and make equivalent advances to nonresidents in other foreign currencies. The British external foreign-currency position would be balanced and no transactions with residents need have taken place. Figure 2 points toward such an interpretation; it shows that London's intermediary role between non-

The British Position in Dollars and Other Currencies



SOURCE: BANK OF ENGLAND, *QUARTERLY BULLETIN*, VOL. 6, NO. 4 (DEC. 1966) table 19, pp. 384-385
 VOL. 8, NO. 1 (MARCH 1968) table 20, pp. 83-84.
 VOL. 9, NO. 1 (MARCH 1969) table 19, pp. 110-111
 VOL. 10, NO. 1 (MARCH 1970) table 19, pp. 100-101.

Fig. 2

residents includes some converting of dollar liabilities into claims in other foreign currencies.⁸ The net use of Euro-dollar funds by non-bank residents of the United Kingdom is consequently smaller than the British net external position in dollars.⁹

London vis-à-vis the European Group

Data going back to December 1962 show the United Kingdom in a net borrower position vis-à-vis the European Group.¹⁰ The growth of this net liability position from approximately \$0.3 billion in 1963 to \$7.0 billion in September 1969 can be divided into three distinct periods.

During 1963-64 the net position remained relatively constant around an average of \$0.3 billion.¹¹ In contrast to later periods, the size of the net position relative to gross claims and liabilities remained small. The structure of the European position also remained basically constant during 1963-64: Switzerland was the dominant net lender, while the other countries, notably Italy, were net borrowers, with the exception of Germany whose net position oscillated. London's role vis-à-vis the European Group thus appears to have been largely intermediary between Europeans; it accepted deposits from Switzerland and placed funds amounting to 80 per cent of these deposits in the other Continental European countries.

The second period, 1965-67, saw substantial growth in the net liability position (Table 1) as well as a number of structural changes

⁸ An example of this type of intermediation may be found in the British position vis-à-vis Western Germany in September 1969 (when speculation on revaluation of the D-Mark was strong). The United Kingdom had net claims on Germany of \$958 million in currencies other than dollars and sterling (presumably D-Marks), while her net liabilities to Germany in dollars were \$146 million. Figure 2 points to the Euro-dollar market as a source of speculative funds in this example.

⁹ One type of transaction involving residents is the swapping of Euro-dollars into sterling for loans to local British authorities and hire-purchase finance houses. Although it contributes to a net external-liability position in dollars, this type of transaction does not affect the dollar position vis-à-vis residents, since the loans are made in sterling. Another type of transaction is foreign-currency loans to non-bank residents. While the banks are free to conduct swaps, nonbank residents' borrowing of foreign-currency funds is subject to Exchange Control regulation.

¹⁰ For reasons of consistency with Table 2, the Western European Continent here includes the following seven countries: Belgium, Netherlands, France, West Germany, Italy, Sweden, and Switzerland.

¹¹ This period is not covered in Table 1. The data were taken from *Bank of England Quarterly Bulletin*, Vol. 4 (September 1964), p. 242 and Vol. 5 (September 1965), p. 200.

(Table 1a).¹² While the Swiss net creditor position in London remained approximately at its 1964 level through 1965, Italy reduced her gross liabilities to London sharply in early 1965 and increased her gross claims to an extent that by midyear her net position was that of a large lender.¹³ France, beginning in December 1964, increased her gross claims on London substantially, while leaving her gross liabilities unchanged. This added France to the group of large net lenders in London. Only Germany, the Netherlands, and Sweden remained net borrowers at the end of 1966, with combined borrowings about equal to the Italian net-creditor position of \$0.2 billion. In early 1967 Germany and Sweden became net lenders, leaving the Netherlands as the only country of the European Group with (very small) net liabilities to the United Kingdom. Swiss net claims, having grown rapidly in 1966, remained at the approximate level of \$1.5 billion during 1967.

During the third period, December 1967 to December 1969, rapid growth occurred in all positions, especially in the first two quarters of both years. There were no further structural changes, with the exception of the Netherlands, which became a net lender in 1968 and increased its position to \$0.7 billion by December 1969. By September 1969, British net liabilities to the European Group were \$7.0 billion. Switzerland accounted for almost 60 per cent, while the shares of Italy, the Netherlands, France, and Belgium were 15, 9, 7, and 6 per cent, respectively.¹⁴

London vis-à-vis the United States

In terms of the framework given in Figure 1, the United States is the major net borrower of funds in London. A look at Table 1 shows that the overall structure of the London market for Euro-dollar funds has come to be increasingly dominated by American demand. The growth of this demand, as reflected by British claims on the United States, follows a pattern very similar to that described in the previous

¹² Even though the causes of any change are beyond the scope of this study, the American guidelines of early 1965 should be mentioned here. They mark the beginning of American demand as a dominating aspect of the Euro-dollar market. "Guidelines for Banks and Non-Bank Financial Institutions," *Federal Reserve Bulletin*, Vol. 51 (March 1965), p. 371. The Guidelines under the subheading of "Foreign Branches" make specific reference to Euro-dollar deposits as an "independent" source of funds. *Ibid.*, p. 374.

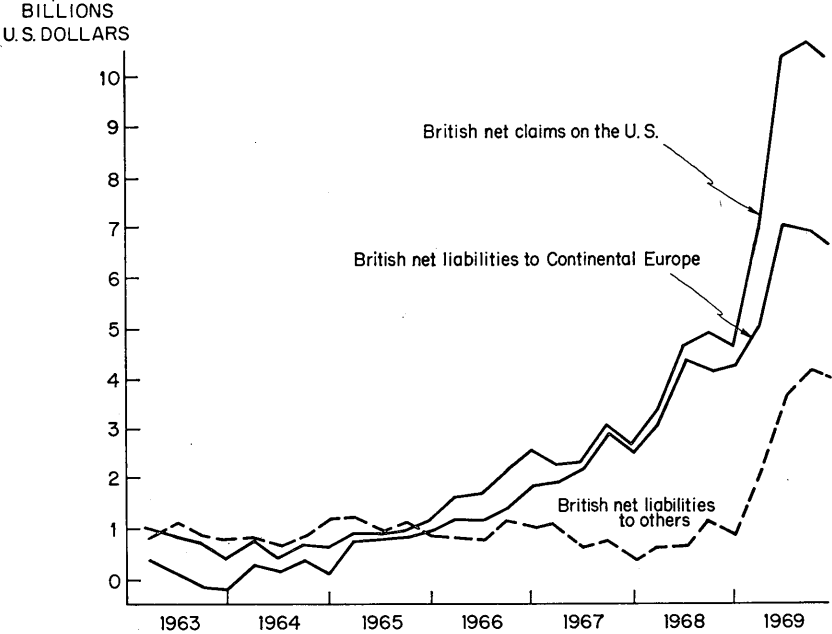
¹³ For a detailed description of the important Italian position, see F. Masera, "International Movements of Bank Funds and Monetary Policy in Italy," *Banca Nazionale del Lavoro Quarterly Review*, No. 79 (December 1966), p. 314.

¹⁴ The German position at that time is described in footnote 8 above.

section—that is, no significant growth during 1963-64, followed by considerable expansion in 1965-66; and again a period of slower growth in 1967, followed by extremely rapid increases in the first two quarters of 1968 and 1969.

Figure 3 demonstrates London's intermediation between Continental

The Overall British Position



SOURCES: TABLE 1
 BANK OF ENGLAND, *QUARTERLY BULLETIN*, VOL. 4, NO. 3 (SEPTEMBER 1964)
 TABLE 25, p. 242, VOL. 5, NO. 3 (SEPTEMBER 1965), TABLE 22, p. 200.

Fig.3

Europe and the United States. This relationship dominated the Euro-dollar market in London especially during 1966-68. Before 1966, Canada and other areas were relatively large net lenders in London. Similarly, during 1969, London had to rely heavily on non-European sources of funds.

American Banks in the United Kingdom

The B.o.E. data used up to this point are detailed by currencies and geographical distribution but not by types of banks. Another B.o.E. series gives details by types of banks but not by currencies and geographical distribution.¹⁵ It is therefore not possible to continue the preceding discussion of geographical distribution in terms of particular types of banks involved. A number of observations are nevertheless possible concerning the branch offices of American banks in the United Kingdom.

These branches have had an increasing share of total Euro-currency operations in the United Kingdom. Of all British advances to overseas residents in nonsterling currencies, for example, 37 per cent were made by American branches in December 1964. Their share of total Euro-currency liabilities was 34 per cent. By September 1969 these shares had risen to 66 and 63 per cent respectively. The balance sheet of the American banks in London, as shown by the described B.o.E. series, allows the following observations: Their operations were conducted largely in currencies other than sterling.¹⁶ The sources of their deposits and the destination of their advances were, to a large extent, outside the United Kingdom.¹⁷ These external sources and uses in nonsterling currencies were nearly balanced until the second quarter of 1968. When at that time their claims on overseas residents began to exceed their liabilities to overseas residents, their liabilities to other banks in the United Kingdom exceeded their claims on these banks by a comparable amount.¹⁸ By September 1969, their claims on overseas residents were \$18 billion, their liabilities to overseas residents were

¹⁵ This series gives a balance sheet, detailed by type of claims and liabilities, for accepting houses, overseas banks, and other banks in the United Kingdom. Their total external claims and liabilities in "other currencies" are closely correlated with total claims and liabilities in foreign currencies in the series used in Table 1. Compare, for example, *Bank of England Quarterly Bulletin*, Vol. 9 (December 1969), Table 10, p. 491 and Table 19, p. 508.

¹⁶ In December 1966, 18 per cent of their deposits and 14 per cent of their claims were in sterling. By September 1969, these percentages had declined to 6 and 5 respectively. *Ibid.*, p. 494.

¹⁷ In December 1966, 25 per cent of their nonsterling deposits came from British residents and 18 per cent of their nonsterling claims were on British residents. The respective figures for September 1969 were 39 per cent and 22 per cent. *Ibid.*

¹⁸ Net claims on overseas residents and net liabilities to British residents averaged \$0.2 billion during the nine quarters from March 1966 to March 1968. For the remaining six quarters through September 1969, the corresponding average was \$1.5 billion. *Ibid.* and *Bank of England Quarterly Bulletin*, Vol. 8 (March 1968), p. 70.

almost \$16 billion, and their net liabilities to other British banks were slightly in excess of \$2 billion.

This sharply increased borrowing by American banks in London from other banks in the United Kingdom coincided, as may be recalled from Figure 3, with an increasing gap between British net claims on the United States and British net liabilities to the European Group.¹⁹ It therefore appears that the American banks in London primarily intermediated between the European Group and the United States.²⁰ When European sources no longer sufficed to meet extremely strong American demand in the second half of 1968 and in 1969, the American banks

¹⁹ The excess of British net claims on the United States over British net liabilities to Continental Europe averaged \$0.3 billion during the nine quarters from March 1966 to March 1968. For the remaining six quarters through September 1969, the average was \$1.7 billion. Data from Table 1.

²⁰ This hypothesis can be supported by regression analysis:

A = claims on overseas residents of American banks in the United Kingdom.

B = claims on the United States of all banks in the United Kingdom.

C = claims on overseas residents of other than American banks in the United Kingdom.

Least squares regression of B on A and C yields:

$$B = 645.45 + 0.91 A - 0.30 C. \quad \text{Corrected } R^2 = 0.998.$$

(309.63) (0.045) (0.120)

The regression coefficients are significant at a 5 per cent level. The regression coefficient of A has the expected sign and indicates that a one dollar increase in A leads to an approximately equivalent increase in B. The regression coefficient of C is negative and indicates that positive changes in C are not typically correlated with changes in B. American banks in the United Kingdom are therefore strongly identified with British claims on the United States.

D = liabilities to overseas residents of American banks in the United Kingdom.

E = liabilities to Continental Europe of all banks in the United Kingdom.

F = liabilities to overseas residents of other than American banks in the United Kingdom.

Least squares regression of E on D and F yields:

$$E = -163.08 + 0.49 D + 0.41 F. \quad \text{Corrected } R^2 = 0.996.$$

(372.61) (0.074) (0.165)

The regression coefficients are significant at a 5 per cent level. Both coefficients are positive, but D accounts for a greater percentage of the observed changes in E than does F. This is indicated by the Beta coefficient of D, which is 0.72, compared with the Beta coefficient of F, which is 0.27 (0.11), (0.11).

Changes in British liabilities to Continental Europe are therefore better explained by the American banks' liabilities than by the liabilities of other banks in the United Kingdom.

The time period covered was December 1965-September 1969 (16 quarterly observations).

Sources of data: For B and E, Table 1.

For A, C, D, and F, *Bank of England Quarterly Bulletin*, Vol. 8 (March 1968), Tables 10-12, pp. 66-71, Vol. 9 (December 1969), Table 10, pp. 491-497.

in London turned to other banks in the United Kingdom which had access to funds from other areas.

London vis-à-vis Canada

Canada was a net lender of funds in London throughout the period under observation. During 1963-64 Canadian net claims on the United Kingdom were comparable in size to the net claims of the European Group on the United Kingdom. But while the European net claims resulted from large gross claims and somewhat smaller gross liabilities, Canada's net claims were nearly equal to her gross claims, with insignificant Canadian gross liabilities to the United Kingdom. The transition into the second period, 1965-67, which had brought the described changes to the European position in London, left the Canadian position relatively unaffected. In fact, Canadian net claims on the United Kingdom declined slightly, from an average of \$465 million in 1963-64 to an average of \$400 million during 1965-67. It appears that the increase in American demand for funds during this period drew on Canada directly, rather than, as in the case of Continental Europe, using London as an intermediary.²¹ Not until the end of 1968 did Canada's net claims on the United Kingdom show substantial expansion.

The Residual British Position

Table 1 shows relatively stable British net liabilities to this residual group at about \$630 million until early in 1967, followed by a more nearly balanced position until the end of 1968. In 1969, similar to the developments in the Canadian and Continental European positions, unprecedented levels of net liabilities arose. The identifiable contributors to this position are the Middle East, Latin America, Japan, and countries of the sterling area not previously covered. With the notable exception of Japan, all of these were net lenders in London.²² Table 1b, which gives the composition of the category "Others" in Table 1, shows that the rise in net British liabilities to "Others" was attributable to several areas. The largest increase occurred in the "residual" category of Table 1b, which, for reasons of consistency with Table 2b,

²¹ This observation is supported by the Canadian data in Table 3. For the Canadian position vis-à-vis the United Kingdom as reported by Canadian banks, see *Bank of Canada, Statistical Summary* (November 1965), p. 726.

²² Insofar as underdeveloped areas are identifiable in the data used, they were generally net lenders in the Euro-dollar market. This holds for all three sets of data used.

is not further detailed. Its components in the B.o.E. series are overseas-sterling countries and a residual item which includes under gross liabilities dollar certificates of deposit which are presumed to be owned by residents of nonsterling countries.²³ Other factors in the increase of British net liabilities to "Others" were a decline in claims on Japan, a rise in liabilities to other Western European countries (mainly Austria and Norway), and a rise in net liabilities to Latin America.

²³ *Bank of England Quarterly Bulletin*, Vol. 9 (December 1969), p. 509.

III. THE EURO-DOLLAR MARKET IN CONTINENTAL EUROPE

The Annual Reports of the Bank for International Settlements (B.I.S.) are the principal source of the data for Table 2. In terms of claims and liabilities and institutions holding them, these data are consistent with the B.o.E. data of Table 1.²⁴ Prior to December 1964 any geographical detail was absent from the B.I.S. data, with the exception of positions vis-à-vis the United States. Thereafter, the detail was expanded, but the Group of European countries whose combined position was given included the United Kingdom. The underlying B.I.S. concept views the European Group as defined in Table 1 plus the United Kingdom as the "inside area" of the Euro-dollar market, while all other countries constitute the "outside area."²⁵ In view of the fact that the B.I.S. is virtually the only source of Euro-dollar data designed to convey a comprehensive picture of the market, it is essential to point out a crucial weakness of its concept: The roles of Continental Europe (as a major source of funds) and the United Kingdom (as an intermediary) are basically different. To view these two areas as one Euro-dollar center therefore fails to identify what must be considered a crucial structural aspect of the Euro-dollar market, namely the role of the United Kingdom as an intermediary between Continental Europe and the United States. Table 2 presents data for the European Group, by removing the British component from the "inside area" data of the B.I.S. Table 2a elaborates on position (i) of Table 2, that is, it gives the composition of the European Group's claims and liabilities with regard to its own seven member countries. Table 2b gives further detail on position (h) in Table 2. The coverage of Tables 2a and 2b is consistent with that of Tables 1a and 1b.²⁶

The extrication of the United Kingdom from the B.I.S. "inside area" permits a number of observations which cannot be obtained from the B.I.S. presentation of the data.

²⁴ Compare, for example, the British position vis-à-vis the United States as given in Table 1 and as determined on the basis of B.I.S. data in *B.I.S. 39th Annual Report* (June 1969), pp. 155-156.

²⁵ The B.I.S. "inside area" thus consists of Belgium, Netherlands, Germany, France, Italy, Sweden, Switzerland, and the United Kingdom. *Ibid.*, p. 146.

²⁶ See notes to Table 2.

The European Group vis-à-vis the United States

During 1963-64, European net claims on the United States averaged approximately \$1.0 billion, while, as observed above, British net claims on the United States were only about \$0.6 billion.²⁷ It is interesting to observe that the European Group's net claims on the United States declined in 1965 and part of 1966. This period was characterized by rapidly increasing American demand for Euro-dollar funds and the emergence of the British role as an intermediary between Continental Europe and the United States. The Continental European response to this increased American demand, as shown by the data of Table 2, emphasizes the intermediary role of the United Kingdom, as shown in Table 1. During 1964 and 1965 direct European lending to Great Britain declined and net claims on Great Britain increased. When European net claims on the United States began to rise once more in mid-1966, they were much smaller than British net claims on the United States, and remained much smaller throughout the period under observation.

The European Group vis-à-vis the United Kingdom

This position has already been covered by the B.o.E. data in a previous section. It is discussed again at this point, because the B.I.S. data differ significantly and consistently from the B.o.E. data. Since the B.I.S. data cover the Continental banks' positions vis-à-vis British banks and nonbanks, while the B.o.E. data cover the British banks' position vis-à-vis Continental banks and nonbanks, a discrepancy between the two series is to be expected.²⁸ The nature of the discrepancy, that is, much larger claims and liabilities as reported by the B.o.E., suggests that the British banks' transactions with nonbank residents of the Continent were far more extensive than the Continental banks' transactions with nonbank residents of the United Kingdom.²⁹

²⁷ For B.I.S. data prior to December 1964, see *B.I.S. 35th Annual Report* (June 1965), pp. 134-135.

²⁸ It is important to point out here that inconsistency between B.I.S. data and B.o.E. data occurs only in the British-European Group position. The remaining positions in Table 2 were calculated using British positions as reported by the B.o.E. See notes to Table 2.

²⁹ The explanation was confirmed to the author by Dr. Milton Gilbert, B.I.S. Economic Adviser. See also p. 19 below.

The European Group vis-à-vis Canada

Net claims on Canada were relatively stable at approximately \$350 million until the second quarter of 1968, at which time they rose by about \$100 million. It is interesting to note that this net lending position stands in direct contrast to British net liabilities vis-à-vis Canada. This observation is an important result of the separation of the United Kingdom as a Euro-dollar center from the European Group.³⁰

The European Group vis-à-vis Others

The residual item (h) in Table 2, is the only external position of the European Group that shows net liabilities. At the end of 1968 these net external liabilities were only 12 per cent of all external net claims, that is, net claims on the United States, the United Kingdom, and Canada. This suggests that the principal role of the European Group was that of a source of funds rather than that of an intermediary.

Table 2b further details this position. Identifiable components are Other Western European countries, the Middle East, Latin America, and Japan, leaving a residual which is somewhat smaller than position (h) in Table 2.

A comparison between Tables 1b and 2b may be useful at this point, since these two tables show the British position (Table 1b) and the European Group's position (Table 2b) with regard to the same external areas. Separation of British data from B.I.S. data leads to a number of important observations.

Both the United Kingdom and the European Group have consistently been net borrowers from Other Western European countries. The United Kingdom's net liabilities to this area were somewhat larger.

With regard to the Middle East, a net lender of funds to both the European Group and the United Kingdom, a change took place during 1967. Before 1967, Britain's net liabilities to the Middle East had been much larger than those of the European Group. In 1967, this relationship was reversed. The United Kingdom's net liabilities declined and those of the European Group rose markedly. It appears that a large portion of Middle Eastern Euro-dollar deposits were shifted from London to the Continent.

The European Group's position vis-à-vis Latin America has been

³⁰ This observation is supported by Canadian data as well, even though there are certain discrepancies between the two series. Canada consistently reported net claims on the United Kingdom and net liabilities to Continental Europe. See, for example, *Bank of Canada, Statistical Summary* (December 1968), pp. 900-901.

remarkably stable at approximately \$200 million net liabilities since 1964. The United Kingdom's net liabilities to Latin America declined rapidly in 1967. In 1968, the British position was nearly balanced. Beginning in the second quarter of 1969 both centers' net liabilities to Latin America rose sharply.

The European Group's position vis-à-vis Japan was insignificant throughout the period under discussion. Japan's borrowing took place, almost exclusively, in the United Kingdom. The British position vis-à-vis Japan, furthermore, shows very small gross liabilities. British net claims on Japan, at \$1.5 billion (December 1968) were second only to British net claims on the United States.

The item "Residual" in Tables 1b and 2b cannot be detailed further for both the United Kingdom and the European Group, since the area coverage is not consistent. Countries of the sterling area not covered otherwise contributed heavily to the United Kingdom's large residual net liabilities. The European Group's residual position underwent a marked change in 1969, when the net position deteriorated by almost \$2 billion. This figure was the principal factor in the sharp rise of European net liabilities to "Others" (Table 2, position [h]).

In 1969 the European Group's net claims on the United Kingdom, the United States, and Canada were more nearly balanced by net liabilities to Others and to its own members than had been the case previously. It must be noted, however, that the bulk of the new liabilities were vis-à-vis unidentified sources.³¹

The Internal Position of the European Group

The internal position contains claims and liabilities of the seven Continental countries vis-à-vis each other. Each country's commercial banks report their positions vis-à-vis banks and nonbank residents of the other six countries. The sum of the seven positions reported in

³¹ The sources of these data are given in the notes to Table 2. The unallocated portion of this position is derived by subtracting British positions vis-à-vis the "Overseas sterling area" and "Others" as reported by the B.o.E., from the B.I.S. position vis-à-vis "Eastern Europe" and "Others." Since the four groups do not match, no further detail is possible. It may be noted, however, that Eastern Europe was a net borrower (\$0.3 billion) vis-à-vis the B.I.S. inside group, that is, the European Group plus the United Kingdom. It is conceivable that heavy concentration of this borrowing in Continental Europe and the heavy borrowing of the United Kingdom from the Overseas sterling area (\$0.8 billion) explains the fact that the unallocated portion of the Continental position vis-à-vis Others (Table 2) consisted of net claims (\$0.54 billion), while the unallocated portion of the British position vis-à-vis Others (Table 1) consisted of net liabilities (\$1.2 billion).

this way represents the internal position of the European Group. The most apparent deficiency of this series is the absence of the reporting banks' position vis-à-vis residents of their own countries. An Italian nonbank's Euro-dollar deposits in a German bank, for example, enter into the data, while its Euro-dollar deposits in an Italian bank do not. It may be argued, with some justification, that a country participates in the international Euro-dollar market only to the extent of its external position and that the internal position is therefore irrelevant. Without data on positions held by nonbank domestic residents, however, it is difficult to identify original sources and final users, particularly if the country in question has a large imbalance in its external position.³²

The composition of the European Group's internal position shows some significant differences between individual countries' roles on the Continent (Table 2a) and in London (Table 1a). France, for example, has been predominantly a net borrower vis-à-vis the other countries of the European Group, but a net lender in London. Italy, during 1967 and 1968, had a very small net position on the Continent, but was one of the largest net lenders in London. In 1969, it became a lender on the Continent as well, but to a relatively small extent. Germany, on the other hand, had net liabilities both to the European Group and to London through 1966 and reversed its position with respect to both centers in 1967. In December 1969 the position was once again reversed both in London and on the Continent.

The most significant aspect of this composition is the Swiss position on the Continent. The data show that Switzerland's large net claims on the United Kingdom (Table 1a) were not supported by Swiss net liabilities to the banks of Other European countries (Table 2a), as might have been expected. Rather, these banks reported large net liabilities to Switzerland.

At this point it may be useful to digress and consider the Swiss position in general rather than only in its present context. Switzerland, considering the size of its gross Euro-dollar claims and liabilities, is second only to the United Kingdom in importance as a Euro-dollar center. The availability of data concerning the structure of the Swiss position, however, falls very considerably short of the detail

³² In the case of the United Kingdom, approximate external balance makes data on the internal position less crucial. For Canada (Table 3) the internal position is available. It must be noted that for the European Group nonbank positions are included, but only to the extent that they are external to the country of which the nonbanks are residents.

provided by the British data. Some general observations are nevertheless possible on the basis of available data.

Table 2c assembles data on Swiss positions from different sources. It appears that Swiss gross claims were heavily concentrated on the United Kingdom and the other six member countries of the European Group. Table 2c gives rise to the impression that total Swiss gross claims are conservatively estimated by the Swiss commercial banks. While, for December 1969, the United Kingdom and the European Group (six countries) alone report \$7.9 billion of gross liabilities to Switzerland, Swiss total gross claims on nonresidents are given at \$5.5 billion.³³ Swiss gross liabilities, on the other hand, must have come largely from sources other than the United Kingdom and the European Group, since the combined figure for these two areas was only \$2 billion at the end of 1969, compared with \$4.5 billion total Swiss gross liabilities.^{34, 35} Available evidence points to areas designated as "Others" in Table 2, which is further detailed in Table 2b. It will be recalled that the Middle East has been a large lender since 1968 in this context. Further large deposits were received in 1969 from areas which are unidentified under "Residual" in Table 2b.

³³ The obvious excess of Swiss gross claims on the United Kingdom and the other six Continental countries as reported by their banks over these claims as reported by the Swiss banks could be explained by nonbank positions. If, for example, the liabilities of the Continental and British banks to Swiss nonbank residents exceeded the Swiss banks' claims on nonbank residents of the Continent and the United Kingdom, claims on the Continent and the United Kingdom as reported by the Swiss banks would indeed be exceeded by liabilities to Switzerland as reported by the Continental and British banks. This explanation remains highly unsatisfactory, if only on the ground that it ascribes a relative importance to Swiss nonbank owners of dollars that appears unrealistic.

³⁴ Gross liabilities to nonresidents as reported by the Swiss banks also appear surprisingly small. Swiss liabilities to the United States, for example, as reported by the Swiss banks, were \$320 million at the end of 1968. This amounts to only 11 per cent of total external liabilities. The situation regarding Swiss liabilities to the United States—that is, dollar deposits in Swiss accounts owned by residents of the United States—is well described by the following quote: "Some of the money—private American money, which is said to be flowing strongly—is not liked by the Swiss banks because they live in fear of official U.S. intervention; the American banks will not take it because it offends U.S. law; yet everyone says that it is being looked after somehow." Richard Fry, "Guardians of the World's Fortunes," *The Banker*, Vol. 120 (January 1970), p. 48.

³⁵ The preceding discussion of the Swiss overall position tends to point toward Switzerland as an intermediary to a rather larger extent than is revealed by the Swiss data. There is some reason, in other words, to discount the impression conveyed by the Swiss data that Switzerland is the single largest original source of Euro-dollars. While the destination of Swiss funds is relatively clear, their origin cannot be determined on the basis of the available data.

IV. THE EURO-DOLLAR MARKET IN CANADA

Table 3 shows those Canadian positions which have not already been covered by Tables 1 and 2. The source of this table are U.S. dollar assets and liabilities of the Canadian chartered banks as reported to the Bank of Canada. Although there are discrepancies between the Canadian positions in the Bank of Canada, B.o.E., and B.I.S. data, all three sets of data support the previous observations that Canada has been a net lender in London and a net borrower from Continental Europe. The Bank of Canada data and the B.o.E. data furthermore show the same general movements in the Canadian position vis-à-vis the United Kingdom, particularly the substantial increase in Canadian net claims in 1969.³⁶ The Continental European position is less consistently reported between the Bank of Canada and the B.I.S., since the geographical detail does not fully coincide.³⁷

Canada vis-à-vis the United States

Canadian claims on the United States are primarily on banks, while Canadian liabilities to the United States are primarily to nonbanks.³⁸ The receiving banks in the United States are believed to be largely the Canadian agencies which make the important "street" loans to brokers and securities dealers in New York.³⁹ Canadian liabilities to American nonbanks include deposits solicited by Canadian agencies in the United States in the name of their head offices in Canada. Canadian liabilities to American banks and claims on American nonbanks have been relatively small.

The gradual rise of Canadian net claims on the United States can be divided into two distinct phases. From 1965 to early 1967 the rise in net claims was to a large extent caused by a decline in Canadian liabilities to American nonbanks, particularly following the American Guidelines of early 1965. During the second phase, beginning in mid-1967, liabilities remained relatively stable and claims on banks in the United States produced the increase in Canadian net claims.

³⁶ Compare Table 1 and *Bank of Canada, Statistical Summary* (January 1970), p. 15.

³⁷ The B.I.S. figures underlying Table 2 give the position of seven Continental European countries vis-à-vis Canada, while the Canadian data contain a position vis-à-vis all Continental Europe. *Ibid.*

³⁸ *Ibid.*

³⁹ For an excellent early description of Canada's role in the Euro-dollar market, see Oscar L. Altman, "Canadian Markets for U. S. Dollars," *International Monetary Fund, Staff Papers*, Vol. IX (November 1962), pp. 297-316.

Canadian Nonbank Residents

Large Canadian net claims on the United States and the United Kingdom were partly balanced by small net liabilities to Continental Europe, other sterling area countries, and "Others."⁴⁰ The single largest source of Canadian funds, however, has been the resident non-bank sector, which includes subsidiaries of American corporations in Canada. In September 1969, Canadian net claims on the United States and on the United Kingdom were \$2.1 billion and \$1.5 billion, respectively. These net claims were balanced by \$1.8 billion net liabilities to Continental Europe, the sterling area and Others and by \$2.2 billion net liabilities to Canadian nonbank residents.

Canada's reaction to increased American demand during 1968-69 deserves notice. In 1968 Canadian net claims on the United States and the United Kingdom grew by \$0.4 billion and \$0.3 billion, respectively. The sources of these funds were largely other foreign banks. Between December 1968 and September 1969 net claims on the United States grew by \$0.3 billion, while net claims on the United Kingdom grew by \$0.7 billion, and net liabilities to residents grew by \$1.2 billion.⁴¹ Since the United States was the principal destination of funds advanced to the United Kingdom in 1969, this emphasized the importance of the United Kingdom as an intermediary at times of an extremely tight Euro-dollar market.

⁴⁰ *Bank of Canada, Statistical Summary* (January 1970), p. 15.

⁴¹ *Ibid.*

V. SUMMARY

The objective of this study has been to shed some light on the geographical distribution of Euro-dollar sources and uses as well as on the intermediary structure of the Euro-dollar market. The framework used for this purpose was shown in Figure 1. Although a set of comprehensive and consistent data fitting this framework is unavailable, enough information can be gathered from a number of sources to provide an outline of the overall picture.

The data point to the following areas as original net sources: the European Group, the Middle East, Canada, other countries of the sterling area and Latin America. The dominant net user has been the United States. The only other significant net user has been Japan.

The principal center of intermediation has been the United Kingdom, followed by Switzerland, which can be assumed to have been a very important intermediary. Canada has been an intermediary to some extent.

Although its relative share has declined recently, the quantitatively most important single aspect of the Euro-dollar market remains London's intermediation between Continental Europe and the United States.

Only part of this flow came from original Continental sources. Another part originated outside Continental Europe and reached London through Continental European—particularly Swiss—intermediation. The data point to the Middle East and Latin America as sources. Nonbank residents of the United States should probably be added here as an important source.⁴² To the extent that such an addition is realistic, part of London's intermediation between the Continent and the United States includes the much debated American "round-trip" or "return-ticket" money.⁴³

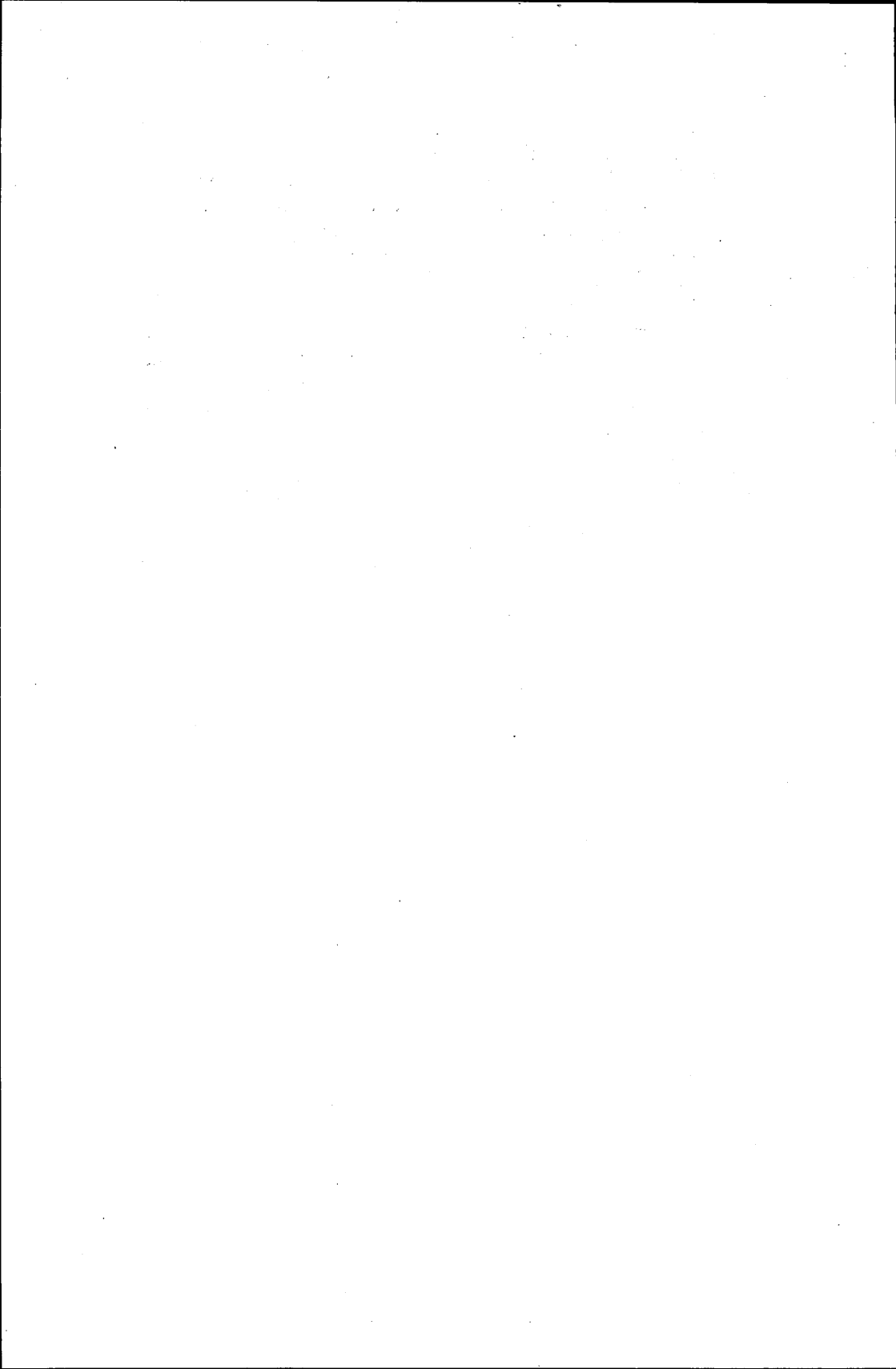
⁴² This suggestion is not supported by Swiss or American data. See page 19 above. Compare also the surprisingly low level of claims on Switzerland as reported by nonbanking concerns in the United States. In December 1968 these claims were \$39 million, *Federal Reserve Bulletin*, Vol. 55 (November 1969), A87.

⁴³ "Round-trip" money refers to American funds which move from an American nonbank resident to a bank in the United States via one or several banks abroad, thus circumventing American deposit rate ceilings. In the case at hand, an American nonbank resident would deposit dollar funds in a bank in, for example, Switzerland. This bank would not be an American branch, since such branches do not generally accept deposits directly from American residents. The bank in Switzerland would advance the funds to a bank in London, which might well be an American branch and which, in turn, would pass the funds on to its head office in

The American branches in London, having a large share in total Euro-dollar transactions of the United Kingdom, play an even more important role in London's intermediation between the European Continent and the United States. When, during the recent phase of extremely strong American demand, London's European sources no longer sufficed to meet advances to the United States, the American branches in London borrowed heavily from other banks in the United Kingdom that had sources elsewhere.

Canadian intermediation took the form of advancing funds obtained in Continental Europe, other countries of the sterling area, and from other sources to the United States and the United Kingdom. More recently, Canada's nonbank residents have become an important source of funds.

the United States. Another type of round-trip for American funds is provided by Canadian bank agencies in the United States, which take deposits on behalf of their head offices in Canada. The funds are then advanced back to the agencies in the United States. It is also conceivable that part of the Canadian liabilities to non-bank residents are American funds which have somehow reached Canadian accounts.



APPENDIX

TABLE 1

EXTERNAL SHORT-TERM DOLLAR CLAIMS AND LIABILITIES OF BRITISH BANKS
(in millions of U.S. dollars)¹

British position vis-à-vis:

| | (a) ² European Group | | | (b) United States | | | (c) Canada | | | (d) ³ Others | | |
|-----------|------------------------------------|-------|-------|----------------------|------|-------|---------------|------|-------|----------------------------|------|-------|
| | claims | liab | net | claims | liab | net | claims | liab | net | claims | liab | net |
| 1964 Dec. | 1420 | 1550 | -130 | 1210 | 540 | 670 | 40 | 740 | -700 | 990 | 1550 | -560 |
| 1965 Dec. | 1390 | 2360 | -970 | 1600 | 430 | 1170 | 110 | 470 | -360 | 1440 | 1880 | -440 |
| 1966 M | 1130 | 2440 | -1310 | 2220 | 650 | 1570 | 50 | 420 | -370 | 1440 | 1940 | -500 |
| J | 1380 | 2650 | -1270 | 2470 | 870 | 1600 | 80 | 430 | -350 | 1700 | 2120 | -420 |
| S | 1480 | 2910 | -1430 | 3130 | 1000 | 2130 | 70 | 480 | -410 | 1690 | 2490 | -800 |
| D | 1780 | 3550 | -1770 | 3470 | 950 | 2520 | 190 | 540 | -350 | 1860 | 2550 | -690 |
| 1967 M | 1570 | 3530 | -1960 | 3250 | 1030 | 2220 | 80 | 460 | -380 | 2060 | 2730 | -670 |
| J | 1560 | 3890 | -2330 | 3320 | 960 | 2360 | 180 | 630 | -450 | 2590 | 2640 | -50 |
| S | 1540 | 4500 | -2960 | 4130 | 1010 | 3120 | 200 | 610 | -410 | 2630 | 2940 | -310 |
| D | 1740 | 4320 | -2580 | 4070 | 1390 | 2680 | 280 | 770 | -490 | 3130 | 3220 | -90 |
| 1968 M | 1740 | 4790 | -3050 | 5170 | 1750 | 3420 | 290 | 870 | -580 | 3370 | 3610 | -240 |
| J | 1710 | 6090 | -4380 | 7130 | 2490 | 4640 | 300 | 920 | -620 | 3820 | 3910 | -90 |
| S | 1980 | 6150 | -4170 | 7350 | 2390 | 4960 | 310 | 940 | -630 | 3820 | 4650 | -830 |
| D | 2720 | 6980 | -4260 | 7240 | 2570 | 4670 | 350 | 1170 | -820 | 4590 | 4650 | -60 |
| 1969 M | 2530 | 7810 | -5280 | 9740 | 2710 | 7030 | 520 | 1600 | -1080 | 4810 | 5780 | -970 |
| J | 3420 | 10470 | -7050 | 13780 | 3350 | 10430 | 460 | 2150 | -1690 | 4740 | 6750 | -2010 |
| S | 4190 | 11210 | -7020 | 14140 | 3370 | 10770 | 560 | 2520 | -1960 | 5570 | 7740 | -2170 |
| D | 5300 | 12100 | -6800 | 13290 | 2890 | 10400 | 550 | 2510 | -1960 | 6060 | 8130 | -2070 |

Sources: *Bank of England, Quarterly Bulletin*, Vol. 5 (December 1965), Table 22, p. 390.
Vol. 6 (December 1966), Table 19, p. 385.
Vol. 7 (December 1967), Table 20, p. 418.
Vol. 8 (December 1968), Table 19, p. 450.
Vol. 9 (December 1969), Table 19, p. 509.
Vol. 10 (March 1970), Table 19, p. 100.

¹ Converted from pounds sterling.

² For consistency with Table 2, the European Group comprises Belgium, France, Germany, Italy, Netherlands, Sweden, and Switzerland (including the B.I.S.).

³ Other than the European Group (as defined above), the United States and Canada.

TABLE 1a

COMPOSITION OF THE BRITISH POSITION VIS-À-VIS THE EUROPEAN GROUP
(in millions of U.S. dollars)¹

British position vis-à-vis:

| | Belgium | | | France | | | Germany | | | Italy | | | Netherlands | | | Sweden | | | Switzerland | | | Total ² | | |
|--------|---------|------|------|--------|------|------|---------|------|------|--------|------|-------|-------------|------|------|--------|------|------|-------------|------|-------|--------------------|-------|-------|
| | claims | liab | net | claims | liab | net | claims | liab | net | claims | liab | net | claims | liab | net | claims | liab | net | claims | liab | net | claims | liab | net |
| 1964 D | 180 | 110 | 70 | 170 | 210 | -40 | 280 | 70 | 210 | 450 | 200 | 250 | 160 | 120 | 40 | 80 | 90 | -10 | 100 | 750 | -650 | 1420 | 1550 | -130 |
| 1965 D | 160 | 150 | 10 | 200 | 310 | -110 | 190 | 90 | 100 | 430 | 590 | -160 | 140 | 100 | 40 | 80 | 80 | - | 190 | 1040 | -850 | 1390 | 2360 | -970 |
| 1966 M | 190 | 230 | -40 | 110 | 320 | -210 | 150 | 130 | 20 | 200 | 430 | -230 | 170 | 150 | 50 | 80 | 60 | 20 | 230 | 1150 | -920 | 1130 | 2440 | -1310 |
| J | 220 | 220 | - | 140 | 460 | -320 | 200 | 150 | 50 | 230 | 360 | -130 | 220 | 160 | 60 | 110 | 100 | 10 | 260 | 1200 | -940 | 1380 | 2650 | -1270 |
| S | 180 | 220 | -40 | 150 | 450 | -300 | 290 | 170 | 120 | 330 | 630 | -300 | 220 | 150 | 70 | 80 | 70 | 10 | 230 | 1220 | -990 | 1480 | 2910 | -1430 |
| D | 220 | 250 | -30 | 230 | 510 | -280 | 300 | 120 | 180 | 510 | 730 | -220 | 210 | 160 | 50 | 90 | 90 | - | 220 | 1690 | -1470 | 1780 | 3550 | -1770 |
| 1967 M | 250 | 280 | -30 | 200 | 450 | -250 | 280 | 390 | -110 | 290 | 540 | -250 | 200 | 160 | 40 | 90 | 110 | -20 | 260 | 1600 | -1340 | 1570 | 3530 | -1960 |
| J | 260 | 250 | 10 | 160 | 520 | -360 | 270 | 460 | -190 | 230 | 540 | -310 | 240 | 190 | 50 | 110 | 140 | -30 | 290 | 1790 | -1500 | 1560 | 3890 | -2330 |
| S | 250 | 330 | -80 | 180 | 660 | -480 | 180 | 530 | -350 | 270 | 760 | -490 | 230 | 200 | 30 | 110 | 190 | -80 | 320 | 1830 | -1510 | 1540 | 4500 | -2960 |
| D | 230 | 320 | -90 | 260 | 630 | -370 | 180 | 450 | -270 | 420 | 740 | -320 | 260 | 240 | 20 | 100 | 130 | -30 | 290 | 1810 | -1520 | 1740 | 4320 | -2580 |
| 1968 M | 240 | 430 | -190 | 300 | 720 | -420 | 170 | 690 | -520 | 350 | 770 | -420 | 210 | 290 | -80 | 80 | 170 | -90 | 390 | 1820 | -1430 | 1740 | 4790 | -3050 |
| J | 250 | 630 | -380 | 220 | 1020 | -800 | 180 | 400 | -220 | 320 | 980 | -660 | 180 | 330 | -150 | 100 | 210 | -110 | 460 | 2520 | -2060 | 1710 | 6090 | -4380 |
| S | 270 | 690 | -420 | 240 | 850 | -610 | 260 | 520 | -260 | 410 | 1040 | -630 | 210 | 410 | -200 | 120 | 210 | -90 | 470 | 2430 | -1960 | 1980 | 6150 | -4170 |
| D | 340 | 610 | -270 | 520 | 930 | -410 | 340 | 530 | -190 | 610 | 1460 | -850 | 260 | 400 | -140 | 150 | 240 | -90 | 500 | 2810 | -2310 | 2720 | 6980 | -4260 |
| 1969 M | 280 | 830 | -550 | 550 | 1110 | -560 | 290 | 750 | -460 | 530 | 1620 | -990 | 150 | 610 | -460 | 130 | 240 | -110 | 600 | 2650 | -2050 | 2530 | 7810 | -5280 |
| J | 460 | 1090 | -630 | 710 | 1320 | -610 | 490 | 850 | -360 | 630 | 1720 | -1090 | 240 | 870 | -630 | 110 | 260 | -150 | 780 | 4360 | -3580 | 3420 | 10470 | -7050 |
| S | 620 | 1060 | -440 | 940 | 1390 | -450 | 620 | 770 | -150 | 720 | 1780 | -1060 | 290 | 950 | -660 | 100 | 220 | -120 | 900 | 5040 | -4140 | 4190 | 11210 | -7020 |
| D | 740 | 1210 | -470 | 1220 | 1560 | -340 | 670 | 520 | 150 | 1330 | 2110 | -780 | 380 | 1090 | -710 | 140 | 180 | -40 | 820 | 5430 | -4610 | 5300 | 12100 | -6800 |

Source: Bank of England, as listed for Table 1.

¹ Converted from pounds sterling.² Identical to position (a) in Table 1.

TABLE 1b
COMPOSITION OF THE BRITISH POSITION VIS-À-VIS "OTHERS"
(in millions of U.S. dollars)¹

British position vis-à-vis:

| | <i>Other Western Europe²</i> | | | <i>Middle East</i> | | | <i>Latin America</i> | | | <i>Japan</i> | | | <i>Residual</i> | | | <i>Total³</i> | | |
|--------|---|-------------|------------|--------------------|-------------|------------|----------------------|-------------|------------|---------------|-------------|------------|-----------------|-------------|------------|--------------------------|-------------|------------|
| | <i>claims</i> | <i>liab</i> | <i>net</i> | <i>claims</i> | <i>liab</i> | <i>net</i> | <i>claims</i> | <i>liab</i> | <i>net</i> | <i>claims</i> | <i>liab</i> | <i>net</i> | <i>claims</i> | <i>liab</i> | <i>net</i> | <i>claims</i> | <i>liab</i> | <i>net</i> |
| 1964 D | 250 | 450 | -200 | 70 | 390 | -320 | 80 | 210 | -130 | 370 | 20 | 350 | 220 | 480 | -260 | 990 | 1550 | -560 |
| 1965 D | 400 | 480 | -80 | 100 | 510 | -410 | 200 | 250 | -50 | 460 | 20 | 440 | 280 | 620 | -340 | 1440 | 1880 | -440 |
| 1966 M | 370 | 470 | -100 | 80 | 520 | -440 | 180 | 270 | -90 | 470 | 30 | 440 | 340 | 650 | -310 | 1440 | 1940 | -500 |
| J | 510 | 530 | -20 | 90 | 560 | -470 | 200 | 310 | -110 | 520 | 30 | 490 | 380 | 690 | -310 | 1700 | 2120 | -420 |
| S | 480 | 680 | -200 | 90 | 630 | -540 | 180 | 320 | -140 | 570 | 20 | 550 | 370 | 840 | -470 | 1690 | 2490 | -800 |
| D | 560 | 670 | -110 | 120 | 580 | -460 | 200 | 360 | -160 | 620 | 20 | 600 | 360 | 920 | -560 | 1860 | 2550 | -690 |
| 1967 M | 560 | 700 | -140 | 130 | 670 | -540 | 230 | 380 | -150 | 760 | 20 | 740 | 380 | 960 | -580 | 2060 | 2730 | -670 |
| J | 630 | 770 | -140 | 170 | 500 | -330 | 330 | 410 | -80 | 830 | 30 | 800 | 630 | 930 | -300 | 2590 | 2640 | -50 |
| S | 700 | 940 | -240 | 150 | 520 | -370 | 360 | 420 | -60 | 850 | 30 | 820 | 570 | 1030 | -460 | 2630 | 2940 | -310 |
| D | 800 | 870 | -70 | 200 | 540 | -340 | 390 | 430 | -40 | 990 | 40 | 950 | 750 | 1340 | -590 | 3130 | 3220 | -90 |
| 1968 M | 860 | 950 | -90 | 210 | 540 | -330 | 450 | 470 | -20 | 1120 | 50 | 1070 | 730 | 1600 | -870 | 3370 | 3610 | -240 |
| J | 900 | 1000 | -100 | 200 | 530 | -330 | 530 | 490 | 40 | 1320 | 70 | 1250 | 870 | 1820 | -950 | 3820 | 3910 | -90 |
| S | 900 | 1210 | -310 | 270 | 510 | -240 | 540 | 540 | — | 1410 | 70 | 1340 | 950 | 2320 | -1370 | 3820 | 4650 | -830 |
| D | 970 | 1200 | -230 | 270 | 540 | -270 | 660 | 570 | 90 | 1590 | 60 | 1530 | 1100 | 2280 | -1180 | 4590 | 4650 | -60 |
| 1969 M | 1020 | 1270 | -250 | 190 | 640 | -450 | 760 | 740 | 20 | 1570 | 90 | 1480 | 1270 | 3040 | -1770 | 4810 | 5780 | -970 |
| J | 910 | 1320 | -410 | 240 | 780 | -540 | 760 | 910 | -150 | 1330 | 140 | 1190 | 1500 | 3600 | -2100 | 4740 | 6750 | -2010 |
| S | 850 | 1440 | -590 | 310 | 830 | -520 | 930 | 1170 | -240 | 1410 | 170 | 1240 | 2070 | 4130 | -2060 | 5570 | 7740 | -2170 |
| D | 1020 | 1680 | -660 | 270 | 660 | -390 | 970 | 1310 | -340 | 1420 | 290 | 1130 | 2380 | 4190 | -1810 | 6060 | 8130 | -2070 |

Source: Bank of England, as listed for Table 1.

¹ Converted from pounds sterling.

² Austria, Denmark, Norway, Spain, Andorra, Finland, Greece, Portugal, Turkey, and Yugoslavia.

³ Identical to position (d) in Table 1.

TABLE 2

EXTERNAL SHORT-TERM DOLLAR CLAIMS AND LIABILITIES OF THE EUROPEAN GROUP¹
(in millions of U.S. dollars)*European Group's position vis-à-vis:*

| | (a) ² United Kingdom | | | (f) United States | | | (g) Canada | | | (h) Others | | | (i) ³ European Group | | |
|--------|------------------------------------|------|------|----------------------|------|------|---------------|------|-----|---------------|------|-------|------------------------------------|------|-------|
| | claims | liab | net | claims | liab | net | claims | liab | net | claims | liab | net | claims | liab | net |
| 1964 D | 1200 | 1180 | 20 | 1600 | 720 | 830 | 390 | 140 | 250 | 810 | 1580 | -770 | 1340 | 1640 | -300 |
| 1965 D | 1860 | 1050 | 810 | 1410 | 820 | 590 | 570 | 90 | 480 | 1100 | 1730 | -630 | 2120 | 2400 | -280 |
| 1966 M | 1770 | 720 | 1050 | 1310 | 780 | 530 | 450 | 70 | 380 | 1150 | 1540 | -390 | 1900 | 1900 | — |
| J | 1690 | 940 | 750 | 1440 | 820 | 620 | 340 | 80 | 260 | 1380 | 1650 | -270 | 1790 | 1960 | -170 |
| S | 2140 | 970 | 1170 | 1610 | 800 | 810 | 290 | 130 | 160 | 1360 | 1770 | -410 | 2310 | 2520 | -210 |
| D | 2460 | 1340 | 1120 | 1780 | 750 | 1030 | 430 | 120 | 310 | 1400 | 1910 | -510 | 2770 | 3020 | -250 |
| 1967 M | 2310 | 1020 | 1290 | 1690 | 830 | 860 | 420 | 120 | 300 | 1380 | 1750 | -370 | 2510 | 2880 | -370 |
| J | 2700 | 1030 | 1670 | 1720 | 770 | 950 | 450 | 100 | 350 | 1630 | 1990 | -360 | 2430 | 2830 | -400 |
| S | 3260 | 1040 | 2220 | 1740 | 850 | 890 | 460 | 110 | 350 | 1580 | 2290 | -710 | 2690 | 3140 | -450 |
| D | 3230 | 1380 | 1850 | 2160 | 970 | 1190 | 460 | 140 | 320 | 1650 | 2170 | -520 | 3130 | 3620 | -490 |
| 1968 M | 3520 | 1400 | 2120 | 2330 | 1020 | 1310 | 510 | 190 | 320 | 2060 | 2510 | -450 | 3280 | 3820 | -540 |
| J | 4270 | 1210 | 3060 | 2660 | 1140 | 1520 | 610 | 120 | 490 | 2050 | 2620 | -570 | 3010 | 3690 | -680 |
| S | 4450 | 1520 | 2930 | 3120 | 1300 | 1820 | 590 | 100 | 490 | 2100 | 2400 | -300 | 3370 | 3890 | -520 |
| D | 5120 | 2290 | 2830 | 3490 | 1350 | 2140 | 560 | 120 | 440 | 2260 | 2770 | -510 | 4070 | 4720 | -650 |
| 1969 M | 5520 | 2150 | 3370 | 3650 | 1310 | 2340 | 580 | 230 | 350 | 2280 | 4390 | -2110 | 4000 | 4840 | -840 |
| J | 7320 | 2870 | 4450 | 4280 | 1790 | 2490 | 780 | 200 | 580 | 2160 | 4930 | -2770 | 5230 | 6600 | -1370 |
| S | 7030 | 3410 | 3620 | 4450 | 1890 | 2560 | 900 | 320 | 580 | 2240 | 5350 | -3110 | 5430 | 6800 | -1370 |
| D | 7480 | 4770 | 2710 | 4450 | 1660 | 2790 | 810 | 430 | 380 | 2040 | 5950 | -3910 | 7330 | 8740 | -1410 |

Sources: *B.I.S. 37th Annual Report* (June 1967), pp. 140, 150-152.
38th Annual Report (June 1968), pp. 148-149.
39th Annual Report (June 1969), pp. 146, 155-156.
40th Annual Report (June 1970), pp. 153-154, 156.
Bank of England, as listed for Table 1.

- 1 European Group, as defined for Table 1.
- 2 Note that this position is not consistent with position (a) in Table 1.
- 3 The internal position of the European Group. For details, see Table 2a.

Note on the separation of B.I.S. data from B.o.E. data. The B.I.S. data (for example, *39th Annual Report*, p. 146) show "Dollar positions of reporting European banks vis-à-vis non-residents." Sources used by the B.I.S. to compile these positions are the central banks of Belgium, France, Germany, Italy, the Netherlands, Sweden, Switzerland, and the United Kingdom. These countries constitute the B.I.S. "inside-area" concept. Not all of the inside-area central banks publish these positions independently of the B.I.S. In order to obtain positions for the European Group (Table 2)—the B.I.S. "inside area" minus the United Kingdom—it is therefore necessary to subtract the British position from the B.I.S. "inside-area" positions, as long as the area coverage between B.I.S. data and British data is identical.

Example: Claims on Latin America, December 1968 (Table 2b).
1180 Reporting European banks (*B.I.S. 39th Annual Report*, p. 146).
= 660 British banks (*Bank of England, Quarterly Bulletin*, Vol. 9, p. 509).
= 520 European Group (Table 2b).

This procedure of separating British from B.I.S. data is permissible in all cases where British positions from British sources are available for the same areas for

which B.I.S. positions are shown, that is, for positions (f) through (i) in Table 2 and for Tables 2a and 2b. Position (i) in Table 2 is derived according to this principle in the following way:

Liabilities to Italy, December 1969:

- 4230 Reporting European banks (*B.I.S. 40th Annual Report*, p. 156).
- 2110 British banks (*Bank of England, Quarterly Bulletin*, Vol. 10 [March 1970], p. 100).
- = 2120 European Group (Table 2a).

The sum of all positions calculated in this way for Table 2a is position (i) in Table 2.

The accuracy of the procedure used in Table 2 for the separation of British positions from positions of the European Group can be tested in the following manner: For any given date, the sum of all claims and liabilities of the European Group as shown in Table 2 should be equal to the sum of assets and liabilities of the seven countries belonging to the European Group as given by the B.I.S. data. Compare, for example, Table 2 and *B.I.S. 40th Annual Report*, p. 153. Small discrepancies are due to rounding and to possible differences in converting B.o.E. sterling figures into U.S. dollar figures. This equality, incidentally, also suggests that the B.I.S. used the same B.o.E. data as does this study.

The only exception to the consistency between British and B.I.S. data concerns the United Kingdom—European Group position (Table 1, position [a] and Table 2, position [a]). The British data show positions of British banks vis-à-vis banks and nonbanks of the European Group, while the B.I.S. data show the position of the European Group's banks vis-à-vis British banks and nonbanks. For this reason the two series differ greatly.

TABLE 2a

COMPOSITION OF THE EUROPEAN GROUP'S INTERNAL POSITION
(in millions of U.S. dollars)*European Group's position vis-à-vis:*¹

| | Belgium | | | France | | | Germany | | | Italy | | Netherlands | | | Sweden | | | Switzerland | | | Total ² | | | |
|--------|---------|------|------|--------|------|-----|---------|------|------|--------|------|-------------|--------|------|--------|--------|------|-------------|--------|------|--------------------|--------|------|-------|
| | claims | liab | net | claims | liab | net | claims | liab | net | claims | liab | net | claims | liab | net | claims | liab | net | claims | liab | net | claims | liab | net |
| 1964 D | 140 | 160 | -20 | 370 | 340 | 30 | 90 | 70 | 20 | 430 | 420 | 10 | 70 | 140 | -70 | 10 | 20 | -10 | 230 | 490 | -260 | 1340 | 1640 | -300 |
| 1965 D | 210 | 190 | 20 | 510 | 530 | -20 | 180 | 100 | 80 | 640 | 650 | -10 | 230 | 190 | 40 | 80 | 50 | 30 | 270 | 690 | -420 | 2120 | 2400 | -280 |
| 1966 M | 210 | 160 | 50 | 410 | 400 | 10 | 190 | 120 | 70 | 450 | 420 | 30 | 230 | 140 | 90 | 70 | 20 | 50 | 340 | 640 | -300 | 1900 | 1900 | - |
| J | 160 | 230 | -70 | 410 | 420 | -10 | 210 | 70 | 140 | 370 | 520 | -150 | 250 | 140 | 110 | 70 | 30 | 40 | 320 | 550 | -230 | 1790 | 1960 | -170 |
| S | 210 | 300 | -90 | 630 | 510 | 120 | 190 | 170 | 20 | 560 | 670 | -110 | 300 | 170 | 130 | 80 | 40 | 40 | 340 | 660 | -320 | 2310 | 2520 | -210 |
| D | 240 | 390 | -150 | 770 | 530 | 240 | 180 | 120 | 60 | 680 | 780 | -100 | 360 | 250 | 110 | 90 | 60 | 30 | 450 | 890 | -440 | 2770 | 3020 | -250 |
| 1967 M | 230 | 340 | -110 | 640 | 520 | 120 | 160 | 210 | -50 | 620 | 670 | -50 | 320 | 200 | 120 | 100 | 40 | 60 | 440 | 900 | -460 | 2510 | 2880 | -370 |
| J | 270 | 310 | -40 | 470 | 540 | -70 | 160 | 190 | -30 | 630 | 610 | 20 | 320 | 190 | 130 | 130 | 40 | 90 | 450 | 950 | -500 | 2430 | 2830 | -400 |
| S | 290 | 360 | -70 | 610 | 590 | 20 | 160 | 200 | -40 | 750 | 610 | 140 | 300 | 270 | 30 | 130 | 90 | 40 | 450 | 1020 | -570 | 2690 | 3140 | -450 |
| D | 320 | 470 | -150 | 870 | 590 | 280 | 140 | 330 | -190 | 890 | 850 | 40 | 330 | 270 | 60 | 90 | 50 | 40 | 490 | 1060 | -570 | 3130 | 3620 | -490 |
| 1968 M | 400 | 530 | -130 | 880 | 620 | 260 | 160 | 320 | -160 | 770 | 710 | 60 | 380 | 280 | 100 | 80 | 30 | 50 | 610 | 1330 | -720 | 3280 | 3820 | -540 |
| J | 450 | 620 | -170 | 660 | 580 | 80 | 160 | 210 | -50 | 750 | 690 | 60 | 420 | 280 | 140 | 70 | 60 | 10 | 500 | 1250 | -750 | 3010 | 3690 | -680 |
| S | 430 | 510 | -80 | 790 | 720 | 70 | 220 | 310 | -90 | 750 | 790 | -40 | 430 | 250 | 180 | 80 | 60 | 20 | 670 | 1250 | -580 | 3370 | 3890 | -520 |
| D | 480 | 590 | -110 | 1080 | 780 | 300 | 250 | 570 | -320 | 1130 | 1080 | 50 | 430 | 320 | 110 | 70 | 60 | 10 | 630 | 1320 | -690 | 4070 | 4720 | -650 |
| 1969 M | 440 | 660 | -220 | 1310 | 660 | 650 | 210 | 380 | -170 | 880 | 1110 | -230 | 440 | 330 | 110 | 90 | 100 | -10 | 630 | 1600 | -970 | 4000 | 4840 | -840 |
| J | 710 | 850 | -140 | 1430 | 950 | 480 | 430 | 920 | -490 | 1070 | 1300 | -230 | 690 | 400 | 290 | 70 | 60 | 10 | 830 | 2120 | -1290 | 5230 | 6600 | -1370 |
| S | 610 | 850 | -240 | 1580 | 1070 | 510 | 490 | 700 | -210 | 1120 | 1330 | -210 | 630 | 520 | 110 | 110 | 60 | 50 | 890 | 2270 | -1380 | 5430 | 6800 | -1370 |
| D | 620 | 1110 | -490 | 2080 | 1910 | 170 | 930 | 360 | 570 | 1730 | 2120 | -390 | 670 | 690 | -20 | 130 | 70 | 60 | 1170 | 2480 | -1310 | 7330 | 8740 | -1410 |

Sources: B.I.S. and B.o.E., as listed for Table 2.

¹ Each column shows the position of the six other member countries of the European Group vis-à-vis the country named at the head of the column.² Identical to position (i) in Table 2.

TABLE 2b

COMPOSITION OF THE EUROPEAN GROUP'S POSITION VIS-À-VIS OTHERS
(in millions of U.S. dollars)*European Group's position vis-à-vis:*

| | <i>Other</i> | | | <i>Middle East</i> | | | <i>Latin America</i> | | | <i>Japan</i> | | | <i>Residual¹</i> | | | <i>Total²</i> | | |
|--------|---------------|-------------|------------|--------------------|-------------|------------|----------------------|-------------|------------|---------------|-------------|------------|-----------------------------|-------------|------------|--------------------------|-------------|------------|
| | <i>claims</i> | <i>liab</i> | <i>net</i> | <i>claims</i> | <i>liab</i> | <i>net</i> | <i>claims</i> | <i>liab</i> | <i>net</i> | <i>claims</i> | <i>liab</i> | <i>net</i> | <i>claims</i> | <i>liab</i> | <i>net</i> | <i>claims</i> | <i>liab</i> | <i>net</i> |
| 1964 D | 130 | 350 | -220 | 40 | 290 | -250 | 210 | 400 | -190 | 70 | 20 | 50 | 360 | 520 | -160 | 810 | 1580 | -770 |
| 1965 D | 270 | 370 | -100 | 70 | 340 | -270 | 180 | 470 | -290 | 50 | 30 | 20 | 530 | 520 | 10 | 1100 | 1730 | -630 |
| 1966 M | 250 | 300 | -50 | 70 | 340 | -270 | 220 | 440 | -220 | 60 | 30 | 30 | 550 | 430 | 120 | 1150 | 1540 | -390 |
| J | 270 | 340 | -70 | 60 | 400 | -340 | 270 | 430 | -160 | 90 | 30 | 60 | 690 | 450 | 240 | 1380 | 1650 | -270 |
| S | 280 | 340 | -60 | 80 | 460 | -380 | 240 | 440 | -200 | 50 | 30 | 20 | 710 | 500 | 210 | 1360 | 1770 | -410 |
| D | 330 | 420 | -90 | 70 | 420 | -350 | 250 | 480 | -230 | 50 | 30 | 20 | 700 | 560 | 140 | 1400 | 1910 | -510 |
| 1967 M | 350 | 420 | -70 | 70 | 420 | -350 | 250 | 390 | -140 | 30 | 40 | -10 | 680 | 480 | 200 | 1380 | 1750 | -370 |
| J | 450 | 460 | -10 | 80 | 460 | -380 | 310 | 440 | -130 | 70 | 30 | 40 | 720 | 600 | 120 | 1630 | 1990 | -360 |
| S | 370 | 530 | -160 | 80 | 560 | -480 | 340 | 480 | -140 | 40 | 30 | 10 | 750 | 690 | 60 | 1580 | 2290 | -710 |
| D | 410 | 530 | -120 | 110 | 580 | -470 | 370 | 520 | -150 | 40 | 30 | 10 | 720 | 510 | 210 | 1650 | 2170 | -520 |
| 1968 M | 470 | 620 | -150 | 180 | 780 | -600 | 450 | 650 | -200 | 110 | 40 | 70 | 850 | 420 | 430 | 2060 | 2510 | -450 |
| J | 530 | 570 | -40 | 110 | 970 | -860 | 440 | 720 | -280 | 130 | 30 | 100 | 840 | 330 | 510 | 2050 | 2620 | -570 |
| S | 490 | 640 | -150 | 140 | 1000 | -860 | 450 | 690 | -240 | 100 | 40 | 60 | 920 | 30 | 890 | 2100 | 2400 | -300 |
| D | 550 | 700 | -150 | 200 | 940 | -740 | 520 | 750 | -230 | 100 | 30 | 70 | 890 | 350 | 540 | 2260 | 2770 | -510 |
| 1969 M | 520 | 790 | -270 | 150 | 1170 | -1020 | 560 | 770 | -210 | 80 | 70 | 10 | 970 | 1590 | -620 | 2280 | 4390 | -2110 |
| J | 470 | 820 | -350 | 150 | 1340 | -1190 | 520 | 950 | -430 | 60 | 80 | -20 | 960 | 1740 | -780 | 2160 | 4930 | -2770 |
| S | 530 | 990 | -460 | 180 | 1540 | -1360 | 530 | 960 | -430 | 60 | 80 | -20 | 940 | 1780 | -840 | 2240 | 5350 | -3110 |
| D | 590 | 1110 | -520 | 190 | 1330 | -1140 | 470 | 1240 | -770 | 60 | 100 | -40 | 730 | 2170 | -1440 | 2040 | 5950 | -3910 |

Sources: B.I.S. and B.o.E., as listed for Table 2.

1 This residual cannot be further disaggregated due to coverage differences between B.I.S. and B.o.E. data.

2 Identical to position (h) in Table 2.

TABLE 2c

SHORT-TERM DOLLAR CLAIMS AND LIABILITIES OF SWITZERLAND
(in millions of U.S. dollars)

Swiss position vis-à-vis:

| | Total | | | United States | | | United Kingdom | | | European Group | | |
|--------|--------|------|------|---------------|------|-----|----------------|------|------|----------------|------|------|
| | claims | liab | net | claims | liab | net | claims | liab | net | claims | liab | net |
| 1964 D | 2180 | 1590 | 590 | 570 | 150 | 420 | 750 | 100 | 650 | 490 | 230 | 260 |
| 1965 D | 2660 | 1700 | 960 | 500 | 150 | 350 | 1040 | 190 | 850 | 690 | 270 | 420 |
| 1966 M | 2520 | 1490 | 1030 | 450 | 170 | 280 | 1150 | 230 | 920 | 640 | 340 | 300 |
| J | 2370 | 1760 | 610 | 520 | 170 | 350 | 1200 | 260 | 940 | 550 | 320 | 230 |
| S | 2310 | 1730 | 580 | 480 | 160 | 320 | 1220 | 230 | 990 | 660 | 340 | 320 |
| D | 2780 | 1890 | 890 | 480 | 140 | 340 | 1690 | 220 | 1470 | 890 | 450 | 440 |
| 1967 M | 2780 | 1920 | 860 | 500 | 160 | 340 | 1600 | 260 | 1340 | 900 | 440 | 460 |
| J | 3280 | 2100 | 1180 | 520 | 180 | 340 | 1790 | 290 | 1500 | 950 | 450 | 500 |
| S | 3310 | 2260 | 1050 | 460 | 210 | 250 | 1830 | 320 | 1510 | 1020 | 450 | 570 |
| D | 3520 | 2430 | 1090 | 530 | 310 | 220 | 1810 | 290 | 1520 | 1060 | 490 | 570 |
| 1968 M | 3850 | 2680 | 1170 | 760 | 250 | 510 | 1820 | 390 | 1430 | 1330 | 610 | 720 |
| J | 4340 | 2630 | 1710 | 790 | 270 | 520 | 2520 | 460 | 2060 | 1250 | 500 | 750 |
| S | 4370 | 2840 | 1530 | 850 | 340 | 510 | 2430 | 470 | 1960 | 1250 | 670 | 580 |
| D | 4390 | 2820 | 1570 | 850 | 320 | 530 | 2810 | 500 | 2310 | 1320 | 630 | 690 |
| 1969 M | 4450 | 3080 | 1370 | 1030 | 380 | 650 | 2650 | 600 | 2050 | 1600 | 630 | 970 |
| J | 5650 | 3860 | 1790 | 1010 | 480 | 530 | 4360 | 780 | 3580 | 2120 | 830 | 1290 |
| S | 5970 | 4160 | 1810 | 1110 | 510 | 600 | 5040 | 900 | 4140 | 2270 | 890 | 1380 |
| D | 5520 | 4460 | 1060 | 940 | 440 | 500 | 5430 | 820 | 4610 | 2480 | 1170 | 1310 |

Sources: For position "Total" and "United States"

B.I.S., 37th Annual Report (June 1967), pp. 148-151.

38th Annual Report (June 1968), pp. 148-149.

39th Annual Report (June 1969), pp. 155-156.

40th Annual Report (June 1970), pp. 153-154.

For position "United Kingdom"; Table 1a.

"European Group"; Table 2a.

Note that in this table the column "Total" does not reflect the sum of the remaining columns.

TABLE 3

SHORT-TERM DOLLAR CLAIMS AND LIABILITIES OF CANADIAN BANKS
(in millions of U.S. dollars)¹

Canadian position vis-à-vis:

| | (j) United States | | | (k) ² Others | | | (l) ³ Residents | | |
|--------|----------------------|------|------|----------------------------|------|------|-------------------------------|------|-------|
| | claims | liab | net | claims | liab | net | claims | liab | net |
| 1964 D | 1965 | 1675 | 290 | 179 | 377 | -198 | 594 | 1224 | -630 |
| 1965 M | 1760 | 1721 | 39 | 207 | 55 | 152 | 691 | 1075 | -384 |
| J | 1687 | 1116 | 571 | 217 | 490 | -273 | 758 | 950 | -192 |
| S | 1928 | 1086 | 842 | 172 | 534 | -362 | 802 | 1069 | -267 |
| D | 1758 | 979 | 779 | 182 | 545 | -363 | 850 | 1126 | -276 |
| 1966 M | 1593 | 843 | 750 | 185 | 466 | -281 | 914 | 1294 | -380 |
| J | 1526 | 780 | 746 | 204 | 529 | -325 | 916 | 1351 | -435 |
| S | 1683 | 710 | 973 | 162 | 495 | -333 | 909 | 1545 | -636 |
| D | 1966 | 710 | 1256 | 173 | 563 | -390 | 936 | 1508 | -572 |
| 1967 M | 1639 | 728 | 911 | 185 | 609 | -424 | 928 | 1345 | -417 |
| J | 1744 | 733 | 1011 | 221 | 658 | -437 | 857 | 1312 | -455 |
| S | 1971 | 634 | 1337 | 223 | 677 | -454 | 850 | 1436 | -586 |
| D | 2213 | 787 | 1426 | 286 | 737 | -451 | 848 | 1861 | -1013 |
| 1968 M | 2048 | 697 | 1351 | 333 | 793 | -460 | 821 | 1885 | -1064 |
| J | 2188 | 729 | 1459 | 347 | 866 | -519 | 794 | 1800 | -1006 |
| S | 2372 | 591 | 1781 | 379 | 1072 | -693 | 784 | 1890 | -1106 |
| D | 2335 | 505 | 1830 | 382 | 987 | -605 | 789 | 1903 | -1114 |
| 1969 M | 2556 | 655 | 1901 | 479 | 1180 | -701 | 730 | 2049 | -1319 |
| J | 2570 | 732 | 1838 | 647 | 1332 | -685 | 933 | 2784 | -1851 |
| S | 2808 | 681 | 2127 | 637 | 1536 | -899 | 941 | 3117 | -2176 |
| D | 3094 | 814 | 2280 | 672 | 1665 | -993 | 991 | 3057 | -2066 |

Source: *Bank of Canada, Statistical Summary* (November 1965), p. 726.
(September 1966), p. 601.
(December 1966), p. 825.
(September 1967), p. 639.
(December 1967), p. 872.
(September 1968), p. 655.
(December 1968), p. 900.
(September 1969), p. 678.
(December 1969), p. 926.
(May 1970), p. 346.

¹ Converted from Canadian Dollars.

² Other than United States, United Kingdom, and Continental Europe.

³ Nonbank Canadian residents.

PUBLICATIONS OF THE INTERNATIONAL FINANCE SECTION

The International Finance Section publishes at irregular intervals papers in four series: *ESSAYS IN INTERNATIONAL FINANCE*, *PRINCETON STUDIES IN INTERNATIONAL FINANCE*, *SPECIAL PAPERS IN INTERNATIONAL ECONOMICS*, and *REPRINTS IN INTERNATIONAL FINANCE*. All four of these should be ordered directly from the Section (P.O. Box 644, Princeton, New Jersey 08540).

A mailing list is maintained for free distribution of *ESSAYS* and *REPRINTS* as they are issued and of announcements of new issues in the series of *STUDIES* and *SPECIAL PAPERS*. Requests for inclusion in this list will be honored, except that students will not be placed on the permanent mailing list, because waste results from frequent changes of address.

For the *STUDIES* and *SPECIAL PAPERS* there will be a charge of \$1.00 a copy, payable in advance. This charge will be waived on copies distributed to college and university libraries here and abroad. In addition the charge is sometimes waived on single copies requested by persons residing abroad who find it difficult to make remittance.

For noneducational institutions there is a simplified procedure whereby all issues of all four series will be sent to them automatically in return for an annual contribution of \$25 to the publication program of the International Finance Section. Any company finding it irksome to order individual *SPECIAL PAPERS* and *STUDIES* is welcome to take advantage of this plan.

Orders for single copies of the *ESSAYS* and *REPRINTS* will be filled against a handling charge of \$1.00, payable in advance. The charge for more than one copy of these two series will be \$0.50 a copy. These charges may be waived to foreign institutions of education and research. Charges may also be waived on single copies requested by persons residing abroad who find it difficult to make remittance.

For the convenience of our British customers, arrangements have been made for retail distribution of the *STUDIES* and *SPECIAL PAPERS* through the Economists' Bookshop, Portugal Street, London, W.C. 2, and Blackwells, Broad Street, Oxford. These booksellers will usually have our publications in stock.

The following is a complete list of the publications of the International Finance Section. The issues of the four series that are still available from the Section are marked by asterisks. Those marked by daggers are out of stock at the International Finance Section but may be obtained in xerographic reproductions (that is, looking like the originals) from University Microfilm, Inc., 300 N. Zeeb Road, Ann Arbor, Michigan 48106. (Most of the issues are priced at \$3.00.)

ESSAYS IN INTERNATIONAL FINANCE

- †No. 1. Friedrich A. Lutz, *International Monetary Mechanisms: The Keynes and White Proposals*. (July 1943)
- † 2. Frank D. Graham, *Fundamentals of International Monetary Policy*. (Autumn 1943)
- † 3. Richard A. Lester, *International Aspects of Wartime Monetary Experience*. (Aug. 1944)
- † 4. Ragnar Nurkse, *Conditions of International Monetary Equilibrium*. (Spring 1945)
- † 5. Howard S. Ellis, *Bilateralism and the Future of International Trade*. (Summer 1945)
- † 6. Arthur I. Bloomfield, *The British Balance-of-Payments Problem*. (Autumn 1945)
- † 7. Frank A. Southard, Jr., *Some European Currency and Exchange Experiences: 1943-1946*. (Summer 1946)
- † 8. Miroslav A. Kriz, *Postwar International Lending*. (Spring 1947)
- † 9. Friedrich A. Lutz, *The Marshall Plan and European Economic Policy*. (Spring 1948)
- † 10. Frank D. Graham, *The Cause and Cure of "Dollar Shortage."* (Jan. 1949)
- † 11. Horst Mendershausen, *Dollar Shortage and Oil Surplus in 1949-1950*. (Nov. 1950)
- † 12. Sir Arthur Salter, *Foreign Investment*. (Feb. 1951)
- † 13. Sir Roy Harrod, *The Pound Sterling*. (Feb. 1952)
- † 14. S. Herbert Frankel, *Some Conceptual Aspects of International Economic Development of Underdeveloped Territories*. (May 1952)
- † 15. Miroslav A. Kriz, *The Price of Gold*. (July 1952)
- † 16. William Diebold, Jr., *The End of the I.T.O.* (Oct. 1952)
- † 17. Sir Douglas Copland, *Problems of the Sterling Area: With Special Reference to Australia*. (Sept. 1953)
- † 18. Raymond F. Mikesell, *The Emerging Pattern of International Payments*. (April 1954)
- † 19. D. Gale Johnson, *Agricultural Price Policy and International Trade*. (June 1954)
- † 20. Ida Greaves, *"The Colonial Sterling Balances."* (Sept. 1954)
- † 21. Raymond Vernon, *America's Foreign Trade Policy and the GATT*. (Oct. 1954)
- † 22. Roger Auboin, *The Bank for International Settlements, 1930-1955*. (May 1955)
- † 23. Wytze Gorter, *United States Merchant Marine Policies: Some International Implications*. (June 1955)
- † 24. Thomas C. Schelling, *International Cost-Sharing Arrangements*. (Sept. 1955)
- † 25. James E. Meade, *The Belgium-Luxembourg Economic Union, 1921-1939*. (March 1956)
- † 26. Samuel I. Katz, *Two Approaches to the Exchange-Rate Problem: The United Kingdom and Canada*. (Aug. 1956)
- † 27. A. R. Conan, *The Changing Pattern of International Investment in Selected Sterling Countries*. (Dec. 1956)
- † 28. Fred H. Klopstock, *The International Status of the Dollar*. (May 1957)
- † 29. Raymond Vernon, *Trade Policy in Crisis*. (March 1958)
- † 30. Sir Roy Harrod, *The Pound Sterling, 1951-1958*. (Aug. 1958)
- † 31. Randall Hinshaw, *Toward European Convertibility*. (Nov. 1958)
- † 32. Francis H. Schott, *The Evolution of Latin American Exchange-Rate Policies since World War II*. (Jan. 1959)
- † 33. Alec Cairncross, *The International Bank for Reconstruction and Development*. (March 1959)

- † 34. Miroslav A. Kriz, *Gold in World Monetary Affairs Today*. (June 1959)
- † 35. Sir Donald MacDougall, *The Dollar Problem: A Reappraisal*. (Nov. 1960)
- † 36. Brian Tew, *The International Monetary Fund: Its Present Role and Future Prospect*. (March 1961)
- † 37. Samuel I. Katz, *Sterling Speculation and European Convertibility: 1955-1958*. (Oct. 1961)
- † 38. Boris C. Swerling, *Current Issues in International Commodity Policy*. (June 1962)
- † 39. Pieter Lieftinck, *Recent Trends in International Monetary Policies*. (Sept. 1962)
- † 40. Jerome L. Stein, *The Nature and Efficiency of the Foreign Exchange Market*. (Oct. 1962)
- † 41. Friedrich A. Lutz, *The Problem of International Liquidity and the Multiple-Currency Standard*. (March 1963)
- † 42. Sir Dennis Robertson, *A Memorandum Submitted to the Canadian Royal Commission on Banking and Finance*. (May 1963)
- † 43. Marius W. Holtrop, *Monetary Policy in an Open Economy: Its Objectives, Instruments, Limitations, and Dilemmas*. (Sept. 1963)
- † 44. Harry G. Johnson, *Alternative Guiding Principles for the Use of Monetary Policy*. (Nov. 1963)
- † 45. Jacob Viner, *Problems of Monetary Control*. (May 1964)
- † 46. Charles P. Kindleberger, *Balance-of-Payments Deficits and the International Market for Liquidity*. (May 1965)
- † 47. Jacques Rueff and Fred Hirsch, *The Role and the Rule of Gold: An Argument*. (June 1965)
- † 48. Sidney Weintraub, *The Foreign-Exchange Gap of the Developing Countries*. (Sept. 1965)
- † 49. Tibor Scitovsky, *Requirements of an International Reserve System*. (Nov. 1965)
- † 50. John H. Williamson, *The Crawling Peg*. (Dec. 1965)
- † 51. Pieter Lieftinck, *External Debt and Debt-Bearing Capacity of Developing Countries*. (March 1966)
- † 52. Raymond F. Mikesell, *Public Foreign Capital for Private Enterprise in Developing Countries*. (April 1966)
- † 53. Milton Gilbert, *Problems of the International Monetary System*. (April 1966)
- † 54. Robert V. Roosa and Fred Hirsch, *Reserves, Reserve Currencies, and Vehicle Currencies: An Argument*. (May 1966)
- † 55. Robert Triffin, *The Balance of Payments and the Foreign Investment Position of the United States*. (Sept. 1966)
- † 56. John Parke Young, *United States Gold Policy: The Case for Change*. (Oct. 1966)
- * 57. Gunther Ruff, *A Dollar-Reserve System as a Transitional Solution*. (Jan. 1967)
- * 58. J. Marcus Fleming, *Toward Assessing the Need for International Reserves*. (Feb. 1967)
- † 59. N. T. Wang, *New Proposals for the International Finance of Development*. (April 1967)
- † 60. Miroslav A. Kriz, *Gold: Barbarous Relic or Useful Instrument?* (June 1967)
- * 61. Charles P. Kindleberger, *The Politics of International Money and World Language*. (Aug. 1967)
- * 62. Delbert A. Snider, *Optimum Adjustment Processes and Currency Areas*. (Oct. 1967)
- † 63. Eugene A. Birnbaum, *Changing the United States Commitment to Gold*. (Nov. 1967)
- † 64. Alexander K. Swoboda, *The Euro-Dollar Market: An Interpretation*. (Feb. 1968)

- * 65. Fred H. Klopstock, *The Euro-Dollar Market: Some Unresolved Issues*. (March 1968)
- * 66. Eugene A. Birnbaum, *Gold and the International Monetary System: An Orderly Reform*. (April 1968)
- * 67. J. Marcus Fleming, *Guidelines for Balance-of-Payments Adjustment under the Par-Value System*. (May 1968)
- * 68. George N. Halm, *International Financial Intermediation: Deficits Benign and Malignant*. (June 1968)
- † 69. Albert O. Hirschman and Richard M. Bird, *Foreign Aid—A Critique and a Proposal*. (July 1968)
- † 70. Milton Gilbert, *The Gold-Dollar System: Conditions of Equilibrium and the Price of Gold*. (Nov. 1968)
- * 71. Henry G. Aubrey, *Behind the Veil of International Money*. (Jan. 1969)
- * 72. Anthony Lanyi, *The Case for Floating Exchange Rates Reconsidered*. (Feb. 1969)
- * 73. George N. Halm, *Toward Limited Exchange-Rate Flexibility*. (March 1969)
- * 74. Ronald I. McKinnon, *Private and Official International Money: The Case for the Dollar*. (April 1969)
- * 75. Jack L. Davies, *Gold: A Forward Strategy*. (May 1969)
- * 76. Albert O. Hirschman, *How to Divest in Latin America, and Why*. (Nov. 1969)
- * 77. Benjamin J. Cohen, *The Reform of Sterling*. Dec. 1969
- * 78. Thomas D. Willett, Samuel I. Katz, and William H. Branson, *Exchange-Rate Systems, Interest Rates, and Capital Flows*. (Jan. 1970)
- * 79. Helmut W. Mayer, *Some Theoretical Problems Relating to the Euro-Dollar Market*. (Feb. 1970)
- * 80. Stephen Marris, *The Bürgenstock Communiqué: A Critical Examination of the Case for Limited Flexibility of Exchange Rates*. (May 1970)
- * 81. A. F. Wynne Plumtre, *Exchange-Rate Policy: Experience with Canada's Floating Rate*. (June 1970)

PRINCETON STUDIES IN INTERNATIONAL FINANCE

- †No. 1. Friedrich A. and Vera C. Lutz, *Monetary and Foreign Exchange Policy in Italy*. (Jan. 1950)
- † 2. Eugene R. Schlesinger, *Multiple Exchange Rates and Economic Development*. (May 1952)
- † 3. Arthur I. Bloomfield, *Speculative and Flight Movements of Capital in Postwar International Finance*. (Feb. 1954)
- † 4. Merlyn N. Trued and Raymond F. Mikesell, *Postwar Bilateral Payments Agreements*. (April 1955)
- † 5. Derek Curtis Bok, *The First Three Years of the Schuman Plan*. (Dec. 1955)
- † 6. James E. Meade, *Negotiations for Benelux: An Annotated Chronicle, 1943-1956*. (March 1957)
- † 7. H. H. Liesner, *The Import Dependence of Britain and Western Germany: A Comparative Study*. (Dec. 1957)
- † 8. Raymond F. Mikesell and Jack N. Behrman, *Financing Free World Trade with the Sino-Soviet Bloc*. (Sept. 1958)
- † 9. Marina von Neumann Whitman, *The United States Investment Guaranty Program and Private Foreign Investment*. (Dec. 1959)
- † 10. Peter B. Kenen, *Reserve-Asset Preferences of Central Banks and Stability of the Gold-Exchange Standard*. (June 1963)
- † 11. Arthur I. Bloomfield, *Short-Term Capital Movements under the Pre-1914 Gold Standard*. (July 1963)
- * 12. Robert Triffin, *The Evolution of the International Monetary System: Historical Reappraisal and Future Perspectives*. (June 1964)
- * 13. Robert Z. Aliber, *The Management of the Dollar in International Finance*. (June 1964)

- * 14. Weir M. Brown, *The External Liquidity of an Advanced Country*. (Oct. 1964)
- † 15. E. Ray Canterbery, *Foreign Exchange, Capital Flows, and Monetary Policy*. (June 1965)
- * 16. Ronald I. McKinnon and Wallace E. Oates, *The Implications of International Economic Integration for Monetary, Fiscal, and Exchange-Rate Policy*. (March 1966)
- * 17. Egon Sohmen, *The Theory of Forward Exchange*. (Aug. 1966)
- * 18. Benjamin J. Cohen, *Adjustment Costs and the Distribution of New Reserves*. (Oct. 1966)
- * 19. Marina von Neumann Whitman, *International and Interregional Payments Adjustment: A Synthetic View*. (Feb. 1967)
- * 20. Fred R. Glahe, *An Empirical Study of the Foreign-Exchange Market: Test of A Theory*. (June 1967)
- * 21. Arthur I. Bloomfield, *Patterns of Fluctuation in International Investment Before 1914*. (Dec. 1968)
- * 22. Samuel I. Katz, *External Surpluses, Capital Flows, and Credit Policy in the European Economic Community*. (Feb. 1969)
- * 23. Hans Aufricht, *The Fund Agreement: Living Law and Emerging Practice*. (June 1969)
- * 24. Peter H. Lindert, *Key Currencies and Gold, 1900-1913*. (Aug. 1969)
- * 25. Ralph C. Bryant and Patric H. Hendershott, *Financial Capital Flows in the Balance of Payments of the United States: An Exploratory Empirical Study*. (June 1970)
- * 26. Klaus Friedrich, *A Quantitative Framework for the Euro-Dollar System*. (Oct. 1970)

SPECIAL PAPERS IN INTERNATIONAL ECONOMICS

- *No. 1. Gottfried Haberler, *A Survey of International Trade Theory*. (Sept. 1955; Revised edition, July 1961)
- † 2. Oskar Morgenstern, *The Validity of International Gold Movement Statistics*. (Nov. 1955)
- * 3. Fritz Machlup, *Plans for Reform of the International Monetary System*. (Aug. 1962; Revised edition, March 1964)
- † 4. Egon Sohmen, *International Monetary Problems and the Foreign Exchanges*. (April 1963)
- † 5. Walther Lederer, *The Balance on Foreign Transactions: Problems of Definition and Measurement*. (Sept. 1963)
- * 6. George N. Halm, *The "Band" Proposal: The Limits of Permissible Exchange Rate Variations*. (Jan. 1965)
- * 7. W. M. Corden, *Recent Developments in the Theory of International Trade*. (March 1965)
- * 8. Jagdish Bhagwati, *The Theory and Practice of Commercial Policy: Departures from Unified Exchange Rates*. (Jan. 1968)

REPRINTS IN INTERNATIONAL FINANCE

- †No. 1. Fritz Machlup, *The Cloakroom Rule of International Reserves: Reserve Creation and Resources Transfer*. [Reprinted from *Quarterly Journal of Economics*, Vol. LXXIX (Aug. 1965)]
- † 2. Fritz Machlup, *Real Adjustment, Compensatory Corrections, and Foreign Financing of Imbalances in International Payments*. [Reprinted from Robert E. Baldwin et al., *Trade, Growth, and the Balance of Payments* (Chicago: Rand McNally and Amsterdam: North-Holland Publishing Co., 1965)]

- † 3. Fritz Machlup, *International Monetary Systems and the Free Market Economy*. [Reprinted from *International Payments Problems: A Symposium* (Washington, D.C.: American Enterprise Institute, 1966)]
- * 4. Fritz Machlup, *World Monetary Debate—Bases for Agreement*. [Reprinted from *The Banker*, Vol. 116 (Sept. 1966)]
- * 5. Fritz Machlup, *The Need for Monetary Reserves*. [Reprinted from *Banca Nazionale del Lavoro Quarterly Review*, Vol. 77 (Sept. 1966)]
- * 6. Benjamin J. Cohen, *Voluntary Foreign Investment Curbs: A Plan that Really Works*. [Reprinted from *Challenge: The Magazine of Economic Affairs* (March/April 1967)]
- * 7. Fritz Machlup, *Credit Facilities or Reserve Allotments?* [Reprinted from *Banca Nazionale del Lavoro Quarterly Review*, No. 81 (June 1967)]
- * 8. Fritz Machlup, *From Dormant Liabilities to Dormant Assets*. [Reprinted from *The Banker*, Vol. 117 (Sept. 1967)]
- * 9. Benjamin J. Cohen, *Reparations in the Postwar Period: A Survey*. [Reprinted from *Banca Nazionale del Lavoro Quarterly Review*, No. 82 (Sept. 1967)]
- * 10. Fritz Machlup, *The Price of Gold*. [Reprinted from *The Banker*, Vol. 118 (Sept. 1968)]
- * 11. Fritz Machlup, *The Transfer Gap of the United States*. [Reprinted from *Banca Nazionale del Lavoro Quarterly Review*, No. 86 (Sept. 1968)]
- * 12. Fritz Machlup, *Speculations on Gold Speculation*. [Reprinted from *American Economic Review, Papers and Proceedings*, Vol. LVI (May 1969)]
- * 13. Benjamin J. Cohen, *Sterling and the City*. [Reprinted from *The Banker*, Vol. 120 (Feb. 1970)]
- * 14. Fritz Machlup, *On Terms, Concepts, Theories and Strategies in the Discussion of Greater Flexibility of Exchange Rates*. [Reprinted from *Banca Nazionale del Lavoro Quarterly Review*, No. 92 (March 1970)]
- * 15. Benjamin J. Cohen, *The Benefits and Costs of Sterling*. [Reprinted from *Euro-money*, Vol. I, Nos. 4 and 11 (Sept. 1969 and April 1970)]

SEPARATE PUBLICATIONS

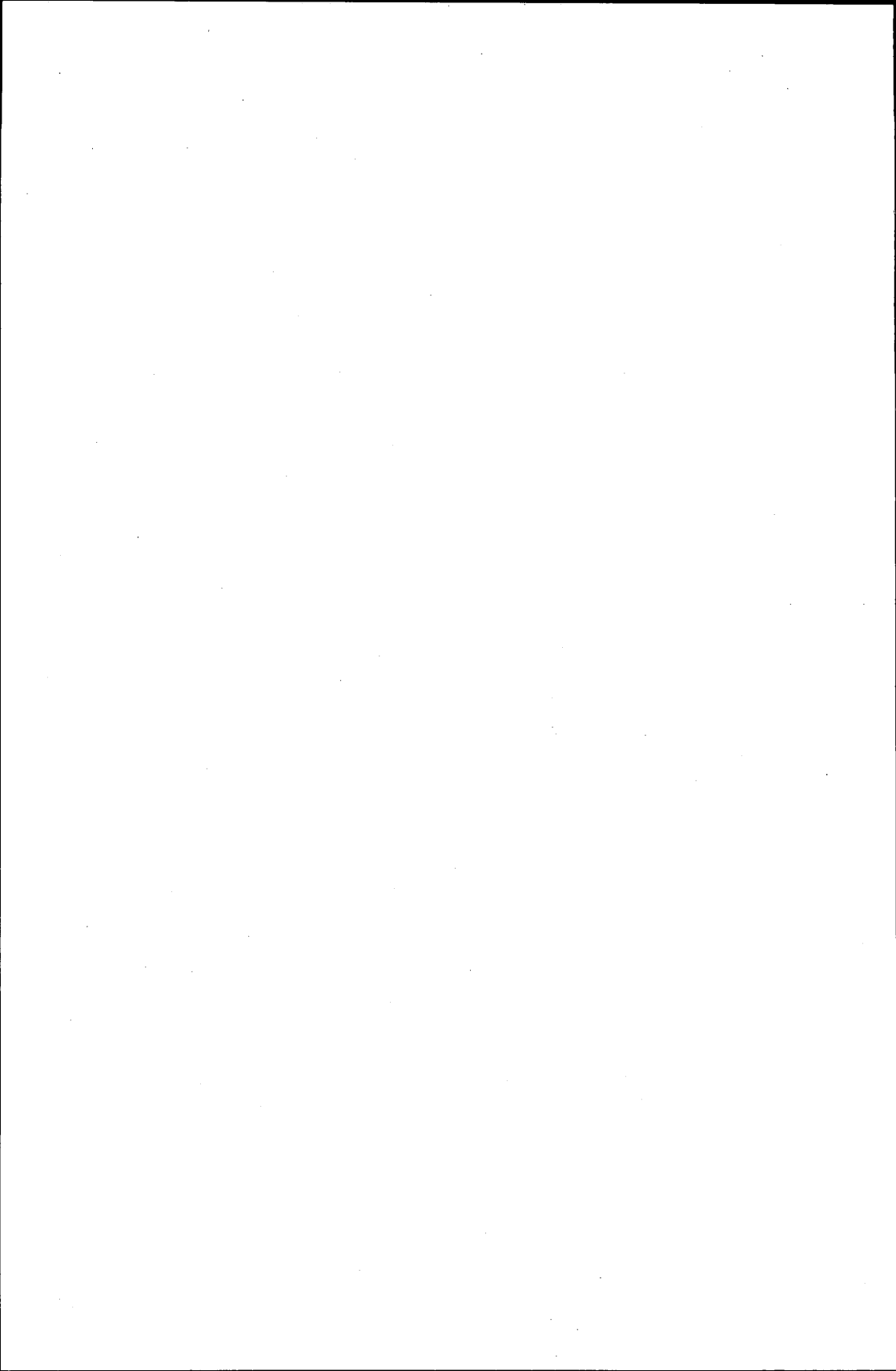
- † (1) Klaus Knorr and Gardner Patterson (editors), *A Critique of the Randall Commission Report*. (1954)
- † (2) Gardner Patterson and Edgar S. Furniss Jr. (editors), *NATO: A Critical Appraisal*. (1957)
- * (3) Fritz Machlup and Burton G. Malkiel (editors), *International Monetary Arrangements: The Problem of Choice*. Report on the Deliberations of an International Study Group of 32 Economists. (Aug. 1964) [\$1.00]

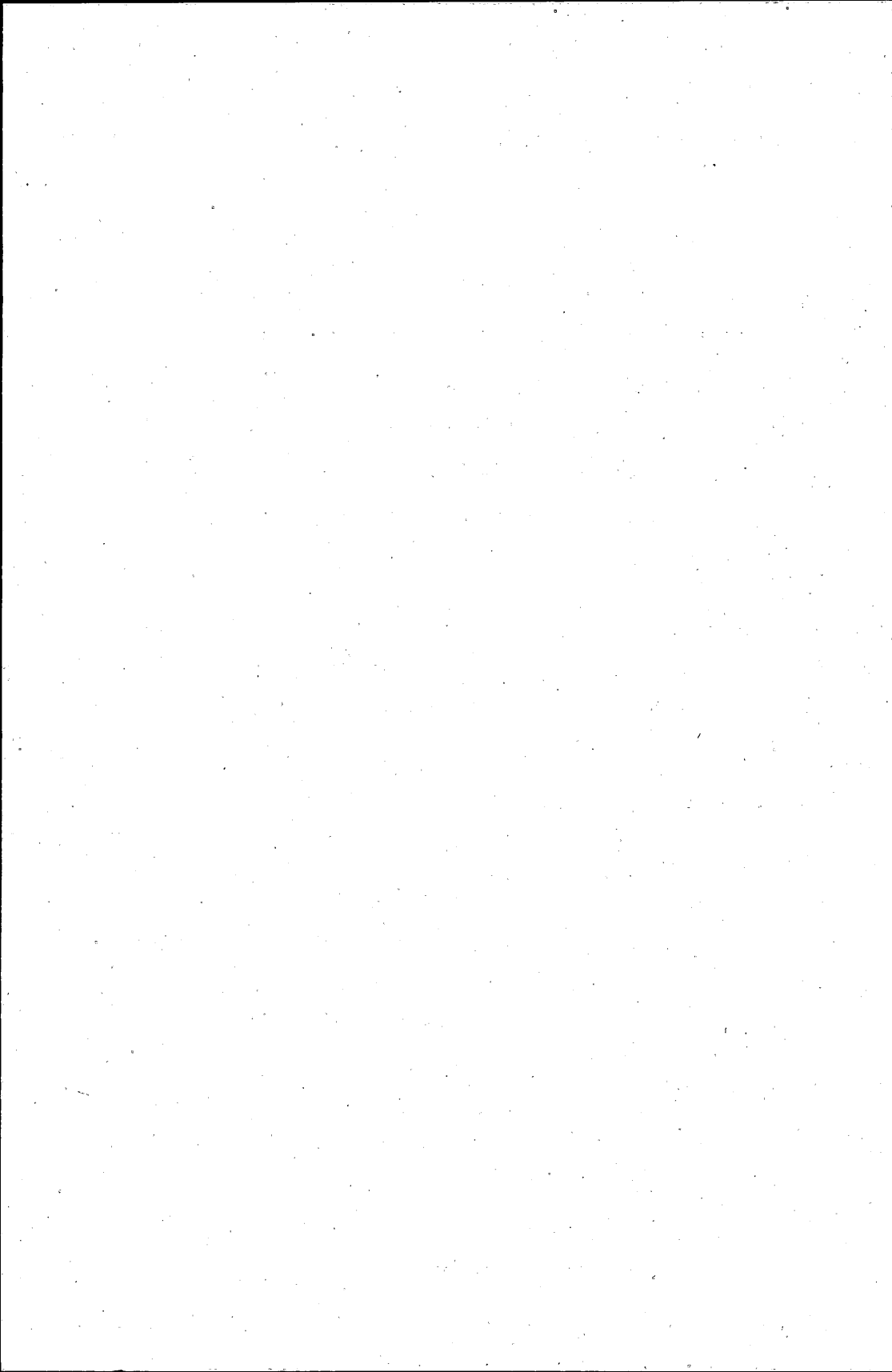
AVAILABLE FROM OTHER SOURCES

William Fellner, Fritz Machlup, Robert Triffin, and Eleven Others, *Maintaining and Restoring Balance in International Payments* (1966). [This volume may be ordered from Princeton University Press, Princeton, New Jersey 08540, at a price of \$6.50.]

Fritz Machlup, *Remaking the International Monetary System: The Rio Agreement and Beyond* (1968). [This volume may be ordered from the Johns Hopkins Press, Baltimore, Maryland 21218, at \$6.95 in cloth cover and \$2.45 in paperback.]

C. Fred Bergsten, George N. Halm, Fritz Machlup, Robert V. Roosa, and others, *Approaches to Greater Flexibility of Exchange Rates: The Bürgenstock Papers* (1970). [This volume may be ordered from Princeton University Press, Princeton, New Jersey 08540, at a price of \$12.50.]





\$1.00