PRINCETON STUDIES IN INTERNATIONAL FINANCE NO. 11

Short-Term Capital Movements Under the Pre-1914 Gold Standard

Arthur I. Bloomfield

INTERNATIONAL FINANCE SECTION
DEPARTMENT OF ECONOMICS
PRINCETON UNIVERSITY · 1963

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Fritz Machlup
Director

Princeton University
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I. INTRODUCTION

Not since the international financial upheavals of the nineteen thirties have short-term capital movements attracted as much attention or provoked as much discussion as they have during the past few years. International transfers of short-term funds have increased markedly in volume and volatility since the restoration of currency convertibility by the leading countries of Western Europe at the end of 1958. Changing interest-rate differentials and forward-exchange rates between financial centers, expectations of exchange-rate adjustments, political uncertainties, and other factors have prompted sudden and substantial shifts of liquid funds across national boundaries that have at times had major disequilibrating effects upon the balances of payments of the countries concerned. These movements have also added to the difficulties of the monetary authorities in their efforts to maintain domestic economic stability and have complicated the problem of harmonizing internal and external objectives of financial policy. In some circles there are fears concerning the possibility of precipitate liquidations of the huge foreign short-term liabilities of the two reserve centers, the United States and the United Kingdom—to say nothing of outflows of domestic short-term funds—on a scale that could put such heavy pressures on their official reserves as to seriously undermine the foundations of the international monetary system. Recognition of the disturbances and dangers inherent in sudden and erratic movements of short-term funds from center to center and the large-scale conversion of reserve currencies into gold has resulted during the past few years in the adoption of a variety of national and international measures and the elaboration of a number of plans to counteract such movements and to strengthen the world's payments mechanism against these and other potential shocks.[1]

[1] This study is an outgrowth of research undertaken in Europe in 1957-8 under a year's grant from the Rockefeller Foundation. Acknowledgment is also made of a summer grant in 1961 from the National Science Foundation through the University of Pennsylvania. Thanks are also due to those many foreign central bankers, commercial bankers, and government officials who helped me in the collection or interpretation of statistical and other data relating to their respective countries. In drafting this paper I have been helped in a variety of ways by my former colleague, Dr. F. H. Klopstock of the Federal Reserve Bank of New York. On certain statistical details I have benefited from the advice of Professors M. Hamburg, L. R. Klein, and R. Summers of the University of Pennsylvania. I alone am responsible for any errors of fact or shortcomings of logic contained in this study. The charts were drawn by Mr. John H. Hendrickson.

In current discussions of international monetary organization and reform, nostalgic reference is sometimes made to the "good old days" of the international gold standard from 1880 to 1914 when these and other related problems now facing monetary authorities are supposed to have been of little importance or even nonexistent. Thus, for example, it is often stated or implied that in those days "hot-money" movements were almost unheard of, short-term capital flows were almost invariably equilibrating in character, short-term foreign indebtedness and the level of international reserves were matters of little concern, and so forth. Yet in actual fact many of the international financial problems of today were by no means without their parallels in the years before World War I, even if admittedly they were of considerably less importance. Disequilibrating movements of short-term capital, destabilizing exchange speculation, capital flight, threats to the continued maintenance of convertibility, concern as to the adequacy of international reserves and the volume of floating international indebtedness—all these at times were in evidence under the pre-1914 system and in some cases necessitated measures going well beyond routine application of discount-rate policy.

The fact is that we still know far too little about the actual functioning of the pre-1914 gold standard, which was a much more complex mechanism than is often believed, and are prone to rely far too much on oversimplifications and stereotypes as a substitute for detailed empirical research. In an earlier study I explored one of the many neglected areas of research in this field, by a comparative examination of the monetary policies of European central banks from 1880 to 1914, and cast some doubt upon the validity of various generally accepted views as to the nature and role of these policies.[2] An attempt will be made in the present study to throw some further light upon another aspect of the pre-1914 system by assembling and analyzing for a variety of countries some quantitative data and other material relating to short-term capital movements that have not as yet been systematically put together and evaluated. While the primary focus will be on international transfers of short-term funds—mainly between gold-standard countries—attention will also be given to some related matters such as international liquidity and gold-exchange-standard arrangements before 1914.

Published statistics relating to short-term capital movements before

[2] A. I. Bloomfield, *Monetary Policy under the International Gold Standard, 1880-1914* (New York, 1959).

1914, at least so far as *private* movements are concerned, are exceedingly hard to come by. This is not at all surprising when one realizes how inadequate such statistics are even today for the great majority of countries. One writer could cite only two countries before World War I (Sweden and Finland) for which the short-term foreign assets and liabilities of the commercial banks were regularly published.[3] Those economists who have constructed annual balance-of-payments statements for individual countries before 1914 have in nearly all cases had to include short-term capital movements (or the private component thereof) in a residual item along with long-term capital movements and/or errors and omissions. In view of this scarcity of data, it is understandable why previous attempts statistically to analyze various aspects of the behavior of short-term capital movements before 1914, notably those of Neisser[4] and Morgenstern,[5] have chosen to approach the problem indirectly, and to draw inferences as to the pattern of these movements, by using related financial series such as interest-rate differentials and exchange rates between pairs of countries, international gold movements, etc.

While pre-1914 statistics relating to private short-term capital movements are seriously deficient, no one has as yet attempted to assemble and analyze such series as are available. In actual fact, moreover, the amount of published data in this field is somewhat larger than is generally believed, even if most of it relates to smaller gold-standard countries. In a few cases I have also been able to construct series from the unpublished records of leading commercial banks in the countries concerned. Admittedly, these various series are all subject to distinct limitations from an analytical viewpoint, but they seem to be of sufficient interest to justify examination.

Statistics relating to *official* movements of short-term funds before 1914 are, on the other hand, reasonably good, although these have never been systematically put together. The majority of central banks that held foreign short-term assets usually reported them separately on their balance sheets, or at least that part of them that constituted legal cover

[3] F. G. Conolly, "Memorandum on the International Short-term Indebtedness," *The Improvement of Commercial Relations Between Nations and the Problems of Monetary Stabilization* (Paris, 1936), p. 353.

[4] H. Neisser, "Der Internationale Geldmarkt vor und nach dem Kriege," *Weltwirtschaftliches Archiv*, April 1929, pp. 171-226, and July 1930, pp. 150-202.

[5] O. Morgenstern, *International Financial Transactions and Business Cycles* (Princeton, 1959). On page 164, Morgenstern refers to "the annoying lack of statistics on short-term capital movements [before 1914]."

against central-bank note and deposit liabilities. In some cases, too, the foreign short-term assets held separately by treasuries and other official institutions were also published. Where statistics of central-bank and treasury holdings were not published in one form or another, I was able in some of these cases to get them directly from the institutions concerned.

This study avoids duplicating the much more ambitious statistical undertakings of Morgenstern and Neisser, which in any case have a somewhat different focus and are limited to the four leading gold-standard countries; and it deals with certain aspects of the subject with which they were not directly concerned. Its main purpose, as already suggested, is to present a variety of statistics and related materials on pre-1914 short-term capital movements and to draw such limited conclusions as the data permit.

The span of the international gold standard, stretching from about 1880 to 1914, was a relatively brief one. In 1880 the following were the main countries on the gold standard or some variant thereof: Great Britain, France, Germany, the United States, Belgium, Holland, Switzerland, Norway, Sweden, Denmark, Finland, Canada, Australia, South Africa, and New Zealand. They were joined in 1890 by Roumania, at the turn of the century by Russia, Japan, India, Argentina, Italy, and Austria-Hungary,[6] and in the early years of the 20th century by a number of other Asiatic and Latin American countries. Exchange rates between gold-standard countries were maintained within narrow limits approximating their respective gold points, without the support of exchange restrictions, direct import controls, or any significant degree of international monetary cooperation. Only a trifling number of countries were forced off the gold standard, once adopted. Other countries, including Spain, Greece, China, and various Latin American and Asiatic countries, remained throughout the period on a fluctuating-paper or silver-standard basis.

The form of the gold standard, both in its external and internal manifestations, revealed an almost bewildering diversity of legal and institutional arrangements from country to country. Some countries were on a full gold standard, others on a limping standard, and still others on a form of gold-exchange standard. Gold coin formed a rela-

[6] Italy and Austria-Hungary did not *legally* go on to the gold standard at all, but from the turn of the century kept their exchange rates relatively stable in terms of gold currencies and close to their own theoretical gold parities. Italy had actually gone legally on to the gold standard as early as 1881, but had abandoned it in 1891.

tively substantial part of the circulating medium in some countries, but a negligible part in most. Central banking was confined almost entirely to Europe; elsewhere in the gold-standard world the task of "managing" the standard was left to treasuries, other official institutions, or the commercial banks themselves. Money markets, where they existed at all, were in differing stages of development and linked together with differing degrees of cohesion. Despite these and many other diversities, all of the members of the gold-standard "club" had the common policy objective of seeking to maintain the convertibility of their currencies directly or indirectly into gold at the legal parity.[7]

According to the usual definition, an outflow of short-term capital from a given country involves an increase in its short-term claims on foreigners (nonresidents) and/or a decrease in foreign-owned short-term claims on that country. Conversely, an inflow of short-term capital into a country involves a decrease in its short-term claims on foreigners and/or an increase in foreign-owned short-term claims on that country. A short-term claim (asset) is defined in this connection as one with an original maturity of less than one year, including of course deposits and currency. Long-term capital movements involve changes in assets with an original maturity of more than one year as well as in holdings of shares of stock, real property, etc. This criterion for distinguishing short-term and long-term capital movements does not, of course, indicate whether or not a given capital movement is likely to be temporary and reversed within a short time. Indeed, a short-term capital movement as defined above could be "long-term" from the viewpoint of *motivation*, or conversely. But the asset basis of classification has at least the advantage of being objectively identifiable, and will be adhered to here; where exceptions are made they will be noted. For this reason, this study will not deal with international movements of outstanding (long-term) securities, although these are often motivated by the same factors influencing short-term capital transfers, and are known to have been very important in the pre-1914 period.[8]

For purposes of exposition we may also distinguish "official" and "private" short-term capital movements. An official short-term capital movement may be defined as one involving a change in short-term

[7] For more details on these matters, see part II of the study cited in footnote 2 above.

[8] For an analysis of these movements, with some historical material, see my paper "The Significance of Outstanding Securities in the International Movement of Capital," *Canadian Journal of Economics and Political Science*, November 1940, pp. 495-524. See also Morgenstern, *op.cit.*, pp. 507-528.

claims on foreigners held by official institutions of a given country, notably central banks and treasuries, regardless of whether or not the foreigners concerned are themselves official institutions. Likewise, a private short-term capital movement will be defined as one involving a change in short-term claims on foreigners held by private institutions, firms, or individuals of a given country, regardless of whether or not the foreigners concerned are themselves private parties. In short, we base the distinction between these two categories of short-term capital movements on the official or private character of the *owners* of the claims on foreigners, not that of the foreigners on whom the claims are held. In actual practice one can not always determine precisely whether a given owner of foreign short-term claims is in the "official" or "private" category. Moreover, both official and private short-term capital movements frequently perform in effect an identical role in the balance of payments. Nevertheless, these two broad classes of movements are sufficiently distinct as to motivations to justify their separate treatment here. But the interrelations between the two will also be examined.

II. OFFICIAL SHORT-TERM CAPITAL MOVEMENTS

With the notable exception of the Bank of England, nearly all central banks during all or part of the period 1880-1914 held some foreign-exchange assets[1] in addition to gold in their international monetary reserves. These holdings, apart from earning interest (unlike gold), enabled central banks to intervene directly in the exchange market when it was desired to keep or to influence exchange rates within the gold points. Central-bank legal minimum-reserve requirements usually provided that foreign-exchange assets or specified categories thereof could be included in the legal cover up to a maximum amount or maximum proportion of the total cover, and in some cases in unlimited amounts.

In a number of countries, even some with central banks, national treasuries or other official agencies also held some foreign exchange on their own account, whether for purposes of stabilizing exchange rates or meeting external debt service or other official expenditures abroad, or as a reflection of temporarily unutilized proceeds of borrowings on foreign markets. In countries where central banks existed, however, any foreign balances held by the government were usually held through the intermediary of the central bank or merged completely with the latter's own holdings.

Statistics of Official Foreign-Exchange Holdings

Table I brings together statistics of reported official holdings of foreign-exchange assets by individual countries at the end of 1913, converted into dollars on the basis of the existing rates of exchange and broken down according to central-bank and other official holders. The total of such assets, which is believed to be reasonably complete, amounted to $963 million, over half of which was represented by the holdings of three countries: Russia, India, and Japan. This figure compares with total official gold holdings on the same date of about $4.9 billion for all countries,[2] including those that held no official foreign-exchange assets. Clearly, from the viewpoint of the world as a whole,

[1] In the discussion that follows, the terms "foreign-exchange assets," "foreign exchange," "foreign balances," and "foreign short-term assets" will be used interchangeably.

[2] Board of Governors of the Federal Reserve System, *Banking and Monetary Statistics* (Washington, 1943), p. 544.

foreign exchange was a smaller fraction of total official monetary reserves in 1913 than it has been in more recent years.

TABLE I

Reported Gross Official Holdings of Foreign-Exchange Assets: End of 1913[a] (millions of 1913 dollars[b])

Country	*Central Bank*	*Treasury or Other Official Agencies*	*Total*
Russia	86.2	219.9	306.1
India		136.4	136.4
Japan		115.8[c]	115.8
Belgium	32.2	45.5[d]	77.7
Italy	38.1[e]	13.5[f]	51.6
Germany	49.6		49.6
Greece	43.7[g]		43.7
Sweden	34.3	9.1[h]	43.4
Chile		39.0	39.0
Finland	20.9		20.9
Austria-Hungary	12.2		12.2
Philippines		11.4[i]	11.4
Roumania	10.9		10.9
Norway	8.9		8.9
Switzerland	8.2		8.2
Denmark	6.2		6.2
Netherlands	5.5		5.5
Ceylon		4.9	4.9
Java	4.7		4.7
France	3.2		3.2
Bulgaria	2.7		2.7
TOTAL	367.5	595.5	963.0

[a] For sources, see Appendix III.

[b] For exchange rates in terms of the dollar in 1913 (and during the gold-standard period as a whole), see Appendix I.

[c] Yokohama Specie Bank. No statistics are available regarding the foreign-exchange assets of the Bank of Japan and the Japanese Government.

[d] Belgian Government ($13.7 million) and *Caisse Générale d'Epargne et de Retraite* ($31.8 million).

[e] Three Italian Banks of Issue.

[f] June 30 figure.

[g] Includes a small amount of gold that cannot be separated out.

[h] Swedish National Debt Office.

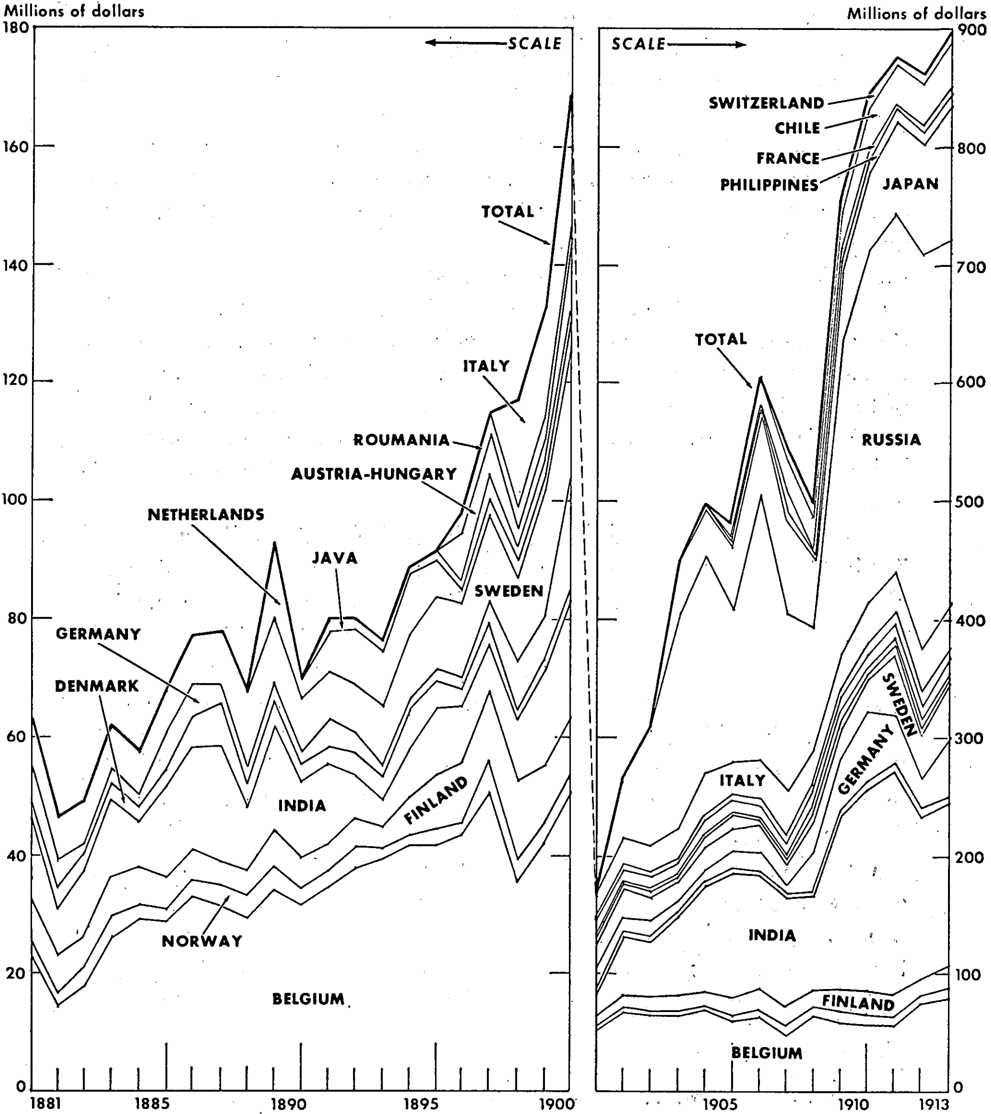
[i] December 31, 1911. Later figures are not available.

Chart 1 brings together, for the first time to my knowledge, year-end statistics of aggregate official foreign-exchange holdings from 1880 to 1913, broken down according to the individual countries concerned.[8]

[8] The underlying statistics are given in Appendix II and the sources in Appendix III.

CHART 1

OFFICIAL FOREIGN EXCHANGE HOLDINGS



Note: Figures converted into dollars on basis of pre-1914 rates of exchange.

All of the figures have been converted into dollars on the basis of pre-1914 exchange rates.[4] In view of the very sharp increase in the aggregate of these assets after 1900, it was necessary to break the chart into two sections, each with a different scale. The individual lines at the beginning of the second section correspond to those at the end of the first.

Most of the individual series begin later than 1880, usually in the year in which the official institutions concerned actually began to acquire foreign exchange and/or for which the relevant data become available. In a few cases, notably Russia, Austria-Hungary, and Italy, the series in question could have been started a few years earlier but were not because, due to fluctuating exchange rates in those years for the currencies concerned, I was unable to determine what rates of exchange should be used to convert the reported local-currency amounts of the official foreign balances into dollars,[5] i.e., what rates of exchange the official institutions involved had originally used in converting their holdings of foreign balances into local-currency equivalents for balance-sheet purposes.

The statistics of official foreign-exchange holdings in Chart 1 (and Table I) are presented on a gross basis and not on a net basis after allowance for the short-term foreign liabilities, if any, of the institutions concerned. As it so happens, statistics of such liabilities are available for only a few countries, e.g., Sweden, Finland and Italy, and the amounts involved were relatively small. Foreign *bonds* have been included in official foreign balances in those few instances where separate figures were available, e.g., Sweden, Japan and Finland, although technically speaking they do not constitute foreign short-term assets as defined earlier.[6]

While the identification of "official institutions" whose foreign-exchange holdings were to be included in the series generally posed no problem, a few borderline cases presented themselves where central banks or treasuries were not involved. Most prominent was the Belgian *Caisse Générale d'Epargne et de Retraite*, a government-owned savings

[4] For the rates of exchange used here and elsewhere in this study, see Appendix I.

[5] The series for Russia, Austria-Hungary, and Italy could actually have been started in 1893, 1886, and 1894, respectively. Although the ruble was stabilized in terms of gold in 1897, the Russian series does not start until 1901 because statistics of the foreign-exchange holdings of the Russian Government (as contrasted with the State Bank) are not available before that year.

[6] Central-bank balance sheets usually classified foreign assets according to foreign bills and sums due from foreign correspondents.