

PRINCETON STUDIES IN INTERNATIONAL FINANCE NO. 14

The External Liquidity of an Advanced Country

Weir M. Brown

INTERNATIONAL FINANCE SECTION

DEPARTMENT OF ECONOMICS

PRINCETON UNIVERSITY • 1964

This is the fourteenth number in the series PRINCETON STUDIES IN INTERNATIONAL FINANCE, published from time to time under the sponsorship of the International Finance Section of the Department of Economics at Princeton University.

The author, Weir M. Brown, is Deputy Chief of the U.S. Delegation to the Organization for Economic Cooperation and Development, Paris, and U.S. Treasury Representative. This paper represents the personal views of the author and should not be interpreted as constituting the opinions of any institution or governmental agency.

This series is intended to be restricted to meritorious research studies in the general field of international financial problems, both policy and theory, which are too long for the journals and too short to warrant publication as books. 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. 14

The External Liquidity of an Advanced Country

Weir M. Brown

INTERNATIONAL FINANCE SECTION
DEPARTMENT OF ECONOMICS
PRINCETON UNIVERSITY • 1964

*Copyright © 1964, by International Finance Section
Department of Economics
Princeton University
L.C. Card 64-8379*

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

TABLE OF CONTENTS

	<i>Page</i>
I. INTRODUCTION	1
II. DEFINITIONS OF LIQUIDITY	2
III. ADEQUACY OF LIQUIDITY: A FIRST CONSIDERATION	6
IV. THE STATISTICAL RECORD	11
V. MEANING OF ADEQUACY: A RECONSIDERATION	17
Prospective changes in the adequacy of liquidity: the current opinion	23
Prospective changes in the adequacy of liquidity: a modified view	24
VI. THE COMPOSITION OF LIQUIDITY	37
VII. SUMMARY AND CONCLUSIONS	40

STATISTICAL ANNEX

I. Country Tables and Charts

Tables: External Liquidity of Monetary Authority, in Relation to Imports and to Net Overall External Balance, 1953-1963

I-a	Belgium-Luxembourg	44
I-b	Canada	45
I-c	France	46
I-d	Germany	47
I-e	Italy	48
I-f	Japan	49
I-g	Netherlands	50
I-h	Sweden	51
I-i	Switzerland	52
I-j	United Kingdom	53
I-k	United States	54

Charts: External Liquidity in Relation to Net Overall External Balance, 1953-1963

I-a	Belgium-Luxembourg	55
I-b	Canada	55
I-c	France	56
I-d	Germany	56
I-e	Italy	57
I-f	Japan	57
I-g	Netherlands	58
I-h	Sweden	58
I-i	Switzerland	59
I-j	United Kingdom	59
I-k	United States	60

II. Summary Tables—Group of Ten Countries

II-a	Total (official) External Liquidity, 1953-1963	62
II-b	Value of Imports, 1953-1963	64
II-c	Net Overall External Balance of International Payments, 1953-1962	65
II-d	Liquidity Ratios: Relation of External Liquidity (A) to Imports and (B) to Net Overall External Balance, 1953-1963	66

THE EXTERNAL LIQUIDITY OF AN ADVANCED COUNTRY*

I. INTRODUCTION

The term liquidity is gradually taking on a somewhat more precise and commonly accepted meaning. At the beginning, as so often happens in economic discussion, references to "the liquidity problem" were picked up, like a piece of shiny quartz, by us savages in government service or the press and brandished or carried around with us as a talisman until the wiser men in the village began to examine the shiny concept to identify its content and determine whether it could take on a fine cutting edge. Through careful analysis, considerable progress already has been made in defining a meaningful concept of liquidity, comparing it with the somewhat narrower but likewise slippery concept of reserves, and separating liquidity itself from the question of whether its availability is adequate or in shortage. Regarding the latter point, it is becoming increasingly understood that the relationship between a country's liquidity position and other economic variables, and the manner in which this relationship may change over time, are more complex than at first presumed. Analysis of these latter questions, as well as the more heated discussion of various prescribed remedies for putative deficiencies in liquidity, is of course being intensively pursued.

In the present article, with the aid of the now more clearly articulated concept of external liquidity, the pertinent relationships to other financial phenomena are further explored with the hope of adding to the understanding of these functional relationships and their policy implications. In method, the exposition will be primarily theoretical. It will, however, be illustrated by reference from time to time to statistical material assembled in the Annex. The statistics tabulated there relate to the countries known as the Group of Ten¹ and are

* The author wishes to acknowledge his appreciation to the Secretariat of the Organization for Economic Cooperation and Development (O.E.C.D.), and especially to M. Raoul Gross of its Economics and Statistics Department, for making available and advising on the use of balance-of-payments data. M. Serge R. Foy assisted the author very effectively in preparing the tables and charts.

¹ More precisely, the series cover the ten I.M.F. member countries which entered into the Special Borrowing Arrangement with the Fund (Belgium, Canada, France, Germany, Italy, Japan, Netherlands, Sweden, United Kingdom, and United States) plus Switzerland. See International Monetary Fund, *Summary Proceedings, Annual Meeting, 1962*, p. 19.

shown separately by country. Apart from the simplification gained by such a selection, there are good reasons for concentrating the analysis on this group of countries whose currencies are internationally significant; not only do they dispose over 70 percent of total liquidity resources, but their institutional arrangements are relatively homogeneous, and they occupy a dominant policy position with respect to monetary affairs. Still more pertinently, it is precisely the non-reserve-currency countries of this group of advanced nations about which the apprehension has been commonly expressed that their liquidity position will become progressively less adequate. Analysis of that hypothesis of increasing inadequacy will occupy a major place in this paper.

II. DEFINITIONS OF LIQUIDITY

As a definition for the term external liquidity used in this article, the definition developed by Wood in his excellent paper seems acceptable. The external liquidity of a country is defined as "such resources as are readily available to its monetary authorities for the purpose of financing temporary deficits in its balance of payments and defending the stability of its rate of exchange."²

This definition is acceptable and usable. It has the virtue of stating as explicitly as possible the principal shades of connotation ordinarily implied when the term liquidity is employed in current usage. While being acceptable, it is far from ideal, and the trouble with the definition is as much with the subject term itself as with the predicate. As used in current monetary discussion and as defined above, the term refers to the means-of-international-payment held by and accessible to a country's monetary authorities. One could wish that some term more accurate descriptively and functionally, such as "reserve availability," might have been chosen. That might, for instance, have reduced some of the sources of ambiguity about whether liquidity refers to a quantity (which is how it is ordinarily employed in this paper), or a quality, or an absolute or relative capacity.³ But the red men encountered by Columbus in Central America have become for all time

² Ralph C. Wood, "Conceptual Aspects of International Liquidity" (unpublished paper, September 1963), p. 5. See also J. Marcus Fleming, "International Liquidity: Ends and Means," *I.M.F. Staff Papers*, Vol. III, No. 3 (December 1961), p. 439.

³ See the careful analysis on this point by Fritz Machlup, "Liquidité Nationale et Internationale," Banque Nationale de Belgique, *Bulletin d'Information et de Documentation* (February 1962).

"Indians," and we do not need to insist on renaming external "liquidity."

As in every other field of orderly discussion, any term can be adopted so long as there is an accepted understanding as to what phenomena, processes, etc., it embraces. The definition of external liquidity adopted above has the merit of incorporating the essential characteristics of the resources themselves and of relating them functionally to given purposes, the whole matter being viewed from the standpoint of the monetary authorities of the country in question. (Since the orientation is that of a single country, the term "external liquidity" seems preferable to "international liquidity," although some authors—including Wood—use the two interchangeably.)

At several significant places in the definition there is seen to be a word or phrase of considerable elasticity of meaning or measurement. It is perfectly apparent, for example, that such terms as "readily available" take on a wider or narrower meaning according to circumstances. Do we mean resources which are conditionally accessible to the authorities, as well as those without conditions; to what extent are commercial banks' foreign assets considered as "available," etc.? These possibilities of variation in concept and measurement have been explored exhaustively by others,⁴ with the general result that such elastic elements in the definition are not a weakness but, on the contrary, offer a certain resiliency which is useful.

In the statistical data presented in the Annex for the key countries, the easy adaptability and mental correction which can be indulged in the pure definition-making stage are not sufficient, and it is necessary to encounter the concrete problem of making measurement choices among available time series, without knowing in which past recorded year or which unknown future year a more expanded or contracted measure of "readily available" financial resources than the one chosen may give a more precise idea of the liquidity position of the country.

The definition of liquidity has been described above as possessing, at several points, degrees of flexibility which permit it to be adapted according to circumstances. Nevertheless, for the purposes of the present analysis it has seemed desirable to decide which degree of width or narrowness of definition provides the most meaningful measure for general purposes. The author has been guided by the fact

⁴ See especially the articles by Wood and Machlup cited above, as well as the present author's "The Concept and Measurement of Foreign Exchange Reserves," *Economic Journal* (September 1955).

that the concept of external liquidity grows by extension out of the more established idea of monetary reserves, and that the difference between them lies primarily in the extent to which the notion of liquidity embraces resources not held by the monetary authorities of the given country but available to them.

Before leaving this examination of the definition of liquidity for a consideration of some of its applications, it may be pertinent to annotate the main "flexible points" of the liquidity definition so as to indicate what are the most likely choices for general application. The areas of choice will be discussed under three main headings: gross versus net resources; conditional versus unconditional availability; and public versus public-plus-private resources. Often the decision made under one of these headings tends to influence and be influenced by the other headings.

1. *Gross versus net resources.* Whether to consider the external resources available to the country's monetary authorities on a gross basis or to offset its external liabilities is a familiar and anguished question that has been well explored in the literature on external reserves. The main conclusion there reached—i.e., that neither treatment is correct or incorrect and that either or both may need to be applied in some circumstances—is also valid when extended to the broader field of liquidity. For most purposes, however, it seems somewhat preferable to deal mainly with gross resources. This is only in part because net resources present greater conceptual problems when they are aggregated for many countries. Several advantages of the gross measurement remain even when no summation of countries is intended. When a country goes into balance-of-payments deficit or finds its currency under pressure for other reasons, it is difficult to predict whether the central bank will be confronted with calls to liquidate its liabilities to foreign holders (usually official institutions), thus reducing the adequacy of its gross assets vis-à-vis the overall external balance, and, if so, at what stage in the disequilibrium. Secondly, as a practical matter, among the Group of Ten countries liabilities to other central banks have not been quantitatively large except in the United States and the United Kingdom (although this has altered somewhat as a result of the adoption of reciprocal currency swap arrangements).

A most important argument in favor of working with gross rather than net resources is that, whatever may be the desirability on suitable occasions of considering a country's net position in direct reserve holdings, when we have moved from the concept of reserve holdings to the

extended concept of liquidity, which includes credits externally accessible, the idea of measuring net resources potentially available to and from the country becomes even less feasible than before.

2. *Conditional versus unconditional availability.* This paper tends to include as additional external resources only those which are relatively certainly available, without extraordinary conditions. This could well include, in addition to the "owned reserves" in gold and convertible currencies, such assets or availabilities as currencies available for drawing under stand-by arrangements, the I.M.F. gold and first credit tranche, and foreign loans callable on unilateral demand. It would not include, for example, special credits to be negotiated or loans owed by a foreign government but subject to a fixed amortization schedule. (The data used in this paper for purposes of the standard tables are described in Section IV below.)

3. *Are private resources included?* From a theoretical standpoint, it would usually be correct to consider the present and potential foreign resources of the commercial banks as additive to those of the central monetary authorities, and, under the convention adopted above, these would likewise be considered on a gross basis. Such holdings of foreign currencies can be sold to domestic firms to pay for imports; and when the local currency is under strain the central bank often can, by monetary measures, entice the repatriation of some commercial banks' balances, thus adding to its own holdings. Yet that is sometimes possible only at the cost of either overly drastic credit contraction at home or by forcing repatriation through foreign-exchange control. Assets so obtained by the monetary authorities would violate both (a) our disposition to disregard resources which are only conditionally available and (b) our basic general decision to study the liquidity problem with special reference to advanced countries maintaining a high degree of convertibility.

There are other obstacles to the inclusion of privately held foreign-currency assets. One secondary reason, from the standpoint of measurement, is that for some countries the commercial-bank data are only available on a net basis, whereas it seems preferable to measure official holdings grossly. Moreover, even when the gross assets and liabilities of the commercial banks are shown separately, for some countries the data give the net "foreign position" of assets in the domestic currency and foreign currencies combined. While it may be probable that the figures shown under "assets in foreign and domestic currencies," which have risen perceptibly in the past five years, rep-

resent predominantly foreign-currency assets, for any individual country this is not necessarily the case. Another consideration of major theoretical importance is that even if we could obtain reliable and comparable figures on the gross amounts of foreign currencies actually held by the commercial banks, there is no readily acceptable statistical or conceptual way of measuring how much would be available to them additionally through foreign credits. (It seems obvious that the *Crédit Lyonnais* has an availability of foreign credit beyond its present holdings of foreign currencies; but the amount of such additional resources for the French commercial banks is less determinate than the amounts available to the *Banque de France* at the I.M.F.)

To summarize these definitional notes: in addition to the gross foreign-currency resources presently held and potentially available abroad to the monetary authorities on a relatively unconditional basis, there are, according to circumstances, varying further amounts which are largely indeterminate and not subject to easy generalization but which could be made available conditionally, either from the commercial banks or through resort to foreign and international institutions. A country's liquidity is made up principally of two major components, both of which we have chosen to regard on a gross basis—those foreign-currency assets already held by the monetary authority and those financial resources available to it abroad on credit terms. With all due regard for the circumstances in which some other interpretation may become preferable or more pertinent, the writer employs in this paper an interpretation of external liquidity which tends to concentrate on a country's gross rather than net resources; on those secondary or borrowed resources available with very few conditions if any; and on *public* holdings and availabilities, largely to the exclusion of private resources.

III. ADEQUACY OF LIQUIDITY: A FIRST CONSIDERATION

Having established what is comprehended by the term external liquidity, the discussion can now proceed to the question of whether this liquidity is adequate or whether it is, or will become, in some sense "inadequate," as is sometimes declared. Formulation of the question obviously implies comparison of the amount of liquidity with some magnitude representing "requirements." Since the approach to be used will continue to be a general one, we shall be concerned less with specifying any present amounts or making detailed statistical projec-

tions than with examining the nature of the criteria suitable for determining adequacy or inadequacy of a country's liquidity.

It must be recalled that the definition adopted concerns liquidity from the viewpoint of the individual country. What is meaningful in any examination of the question of adequacy of liquidity, therefore, is to consider the volume of a country's liquidity against the functional needs or requirements which it is intended to serve. Throughout, attention is concentrated primarily upon the industrialized, financially important countries, and, in the present section, upon those countries other than the two reserve-currency countries.

What are the needs which establish the requirement of an advanced (non-reserve-currency) country for liquidity? How is this requirement determined by or related to significant magnitudes in the country's situation (GNP, volume of money, major balance-of-payments components, etc.), and how can this relation be expected to change? Studies on the subject of liquidity have usually dealt with this question of adequacy by comparing the amount of liquidity with the value of imports. To be more precise, the comparisons in fact have ordinarily been made between official reserves—rather than liquidity—and imports.⁵ This form of presentation understates the volume of liquidity by ignoring the credit component, a component which has increased at irregular intervals in recent years as an absolute, and sometimes relative, portion of a country's total liquidity. Nevertheless, at this point, we are not concerned with the fact that liquidity had been only partially measured but with whether a country's import value constitutes a satisfactory indication of its requirement for liquidity.

The ratio of liquidity to imports is subject to many faults either as an explanation *ex post* of a given liquidity change or as a criterion for use by central banks in their "liquidity policy." Let us start with the latter, with the liquidity/import ratio as a prospective measure of monetary-resource requirements. Recent authors have pointed to the fact that in most countries there is no longer a close link, either by statute or by monetary policy, between the amount of monetary gold held by a country and the major macroeconomic variables of its domestic economy (price levels, money supply). They have passed from this observation, which was also valid to a large extent under the full gold standard, to the conclusion that a country's liquidity position

⁵ See International Monetary Fund, *International Reserves and Liquidity* (Washington, 1958); Robert Triffin, *Gold and the Dollar Crisis* (New Haven: Yale University Press, 1960), especially Chapter 5.

is relevant only to its external requirements, which in turn they have measured in comparison with the value of imports. A country's reserves have been expressed as X per cent of its annual imports or as Y months of imports. Such a ratio implicitly assumes a situation in which the country would have no foreign-exchange receipts whatsoever and would face the necessity of covering its current (prosperity) level of imports entirely by liquidating its reserve holdings. Strictly speaking, it is only in this sense that a country's liquidity is equal to "Y months of imports."

This measurement is, on the one hand, not sufficiently rigorous, for other foreign expenditures besides those for merchandise imports would have to be financed. On the other hand, the standard is too rigorous, for a country is never entirely devoid of receipts even in the most extreme balance-of-payments crisis. The ratio reserves-to-imports might be applicable to a medieval walled city in a state of complete siege but is hardly appropriate to the situation of modern advanced economies, and it can be doubted that even Continental central bankers conceive of their contingencies in exactly these terms of complete physical siege.

What is much more relevant in a calculation of the adequacy of liquidity than the reserves-to-imports ratio is a comparison between liquidity and the country's net external balance, somehow defined. That is to say, the amount which the monetary authorities may be called upon to finance out of the gold and foreign currencies which they now hold or could readily obtain is the amount represented by a present or expected net imbalance in the country's balance of international payments. It is this that the monetary authorities will have in mind in pursuing their liquidity policy (apart from any reasons of internal economic policy that may occasionally dictate a change in reserve level). The respective payments for merchandise imports, services, and private and public capital transactions, on the one hand, and the corresponding receipts for these "above-the-line" items, on the other, will produce a balance which will have to be financed, in the balance-of-payments sense, and which probably will affect the liquidity position (up or down) of the monetary authorities.⁶ It is not necessary to belabor the fact that a country's balance-of-payments position is a more meaningful measure against which to compare its liquidity than

⁶ The fact that balance-of-payments presentations ordinarily show changes during the reporting period in the country's net position, whereas our preference is to measure liquidity in gross terms, does not alter the principle under discussion.

is its import volume. A country's imports may be rising steadily over a period of years, but the influence of that rise upon the country's current level of liquidity or its future liquidity requirements depends also upon what developments take place in other components of the balance of payments. An upward movement of imports, by itself, does not necessarily produce a corresponding increase in the country's requirements for liquidity.

Abandonment of the term imports in the adequacy ratio and its replacement by the net external balance is a change which appears both desirable and comforting. This is, first, because it constitutes a more logical indication of the external financing requirements which the monetary authority must contemplate, as stated above. Secondly, the net external balance, being a substantially smaller figure than imports, represents a much lower "requirement," and its use raises the apparent adequacy of a country's liquidity. Among the Group of Ten countries, the net external balance in foreign payments in recent years has, though considered large, typically been at a level of one-fifth or less of annual imports. When compared with the figures taken as representing the respective countries' liquidities, these data yield ratios which indicate liquidities corresponding to several years' requirements.

Although this improved ratio is distinctly superior to the reserves-to-imports ratio, it has some of the latter's defects as well as some of its own. For example, although the net balance in the external accounts is a smaller magnitude, it is a residual and is highly variable. For Germany during the years 1953 through 1962, the net external balance varied from an arithmetic figure as low as \$163 million to one of \$1,684 million; for Italy, the range was from \$8 million to \$804 million. As a result, the liquidity ratios for these two countries (which are not extreme examples among the Ten) showed a variation of considerable range. For Germany the values varied from less than 3 to 49, although in seven out of the ten years the liquidity volume lay in the range of 4 to 7 times the overall external balance.

This variability in the ratio liquidity-to-net external balance, which results from the wide shifts in the size of the external balance itself, has a further related effect which is as initially disconcerting as it is mathematically inevitable. When the net external balances are very small the ratio under consideration assumes very high values, and when the balance of payments approaches equilibrium the liquidity ratio approaches infinity. At first glance, this may appear absurd or at