Volume Title: International Mobility and Movement of Capital

Volume Author/Editor: Fritz Machlup, Walter S. Salant, and Lorie Tarshis, eds.

Volume Publisher: NBER

Volume ISBN: 0-87014-249-6

Volume URL: http://www.nber.org/books/mach72-1

Publication Date: 1972

Chapter Title: Introduction to "International Mobility and Movement of Capital"

Chapter Author: Fritz Machlup

Chapter URL: http://www.nber.org/chapters/c3457

Chapter pages in book: (p. 1 - 24)

INTRODUCTION

FRITZ MACHLUP Princeton University and New York University

THIS volume collects all papers and comments that were prepared for the conference on "International Mobility and Movement of Capital." The conference was held in the auditorium of the Brookings Institution in Washington, D.C., on January 30 and 31, and February 1, 1970. It was sponsored by the Universities–National Bureau Committee of Economic Research. The exploratory committee, as well as the program committee for the conference, consisted of Richard N. Cooper, Yale University, Ilse Mintz, National Bureau of Economic Research, Walter S. Salant, Brookings Institution, David W. Slater, Queen's University (Canada), and Fritz Machlup, Princeton University (Chairman). The task of editing this volume was shared by Fritz Machlup, Walter Salant, and Lorie Tarshis of Stanford University. The volume was prepared for the printer by Ruth Ridler of the National Bureau of Economic Research. H. Irving Forman, also of the Bureau, made the charts.

MOBILITY AND MOVEMENT

IN CHOOSING the title for the conference and for this volume, the committee deliberately included both "mobility" and "movement" of capital in order to stress the difference between the two. For there may be great mobility without any movement – when there is no inducement to movement. And there may be much movement despite little mobility – when the stimuli are very strong. Thus, measurements of actual movement without measurements, or estimates, of all relevant stimuli tell us nothing about mobility.

It is possible to treat certain obstacles to movement, that is, certain factors reducing the mobility of capital, as negative stimuli. For example, the cost of transactions may well be included as a variable in an equation that is designed to explain movements of capital as a function of variables expressing various incentives and disincentives. Negative signs would then differentiate the factors that have reduced movement from those that have increased it, provided we can find acceptable statistical proxies for all theoretical variables. This, however, is unlikely. It is especially unlikely with respect to some of the factors which we know impede the movement of capital but which cannot be quantified. Moreover, as will be shown later, a deliberately imposed restriction may at times actually increase capital movements instead of reducing them. The positive sign in the numerically estimated equation would then characterize as a stimulus what the government intended as an obstacle. It would not be helpful to present an inefficient, perversely working restriction as an encouragement of capital movements just because the figures and, perhaps, also the facts in a particular situation at certain times and places resulted in a positive instead of a negative sign.

Even the briefest conceptual reflection about the meanings of mobility and immobility makes us realize that several of the theoretically relevant variables resist statistical treatment or even casual empirical observation. We may attempt to distinguish several types of causes of immobility: ignorance, vague or specific fears, general reluctance, prohibitions and other impediments imposed by government, and real costs of services required for transactions. Some of these distinctions may be rejected as not being backed by genuine differences. For example, both ignorance about existing opportunities (of obtaining attractive yields) and fears about particular risks may be the consequence of an absence of reliable information, as well as of great uncertainty regarding particular kinds of information; or reluctance concerning lending and investing abroad may be caused by the kind of information available, as well as by attitudes created by public pronouncements; and transactions costs may partially reflect the need for overcoming artificial institutional impediments and partly the need for making use of technologically required services. Still, the proposed distinctions are suggestive of a variety of causes of immobility. Some of these causes change over time. The availability of good information sometimes changes quite abruptly, as do some kinds of fear created by hints or rumors. Prohibitions, controls, and other restrictions imposed by governments are, of course, subject to sudden change, either through new laws and decrees, or through altered administrative procedures.

We may note that the causes of limited mobility may be either environmental or psychological in origin. Environmental causes may be institutional (such as governmental controls and private cartel arrangements) or technological (such as indispensable inputs of services like banking and communication). Psychological causes may relate to expectations (say, concerning risks and uncertainty) or to tastes and preferences (like aversion to risk, dislike of uncertainty, propensity to gamble). It is possible, without undue strain, to fit the theory of limited mobility into the Walrasian frame of *les goûts* (tastes) and *les obstacles* (costs). It is especially the role of tastes in the theory of mobility that accounts for the fact that we cannot hope for a complete econometric model where all variables must allow operational definition and quantitative analysis. We recall Frank Knight's remark that "we cannot measure, but we measure anyhow"; it means that we should be aware of a fact of life—whatever we measure is never quite the thing that represents, or closely corresponds to, the theoretical concept of our theories.

If mobility means sensitivity to stimuli, one has to realize that responses to different stimuli may be very different: how are they to be weighted in an evaluation of "sensitivity"? If several types of stimuli are selected—say, interest differentials, expectation of currency appreciation, and so on—one has to bear in mind that capitalists in different countries may react with different alertness and alacrity; in country i they may be more sensitive than elsewhere to stimulus j but less sensitive to stimulus k. If mobility is explained in part by an absence of impediments, one should not forget that the same objectively defined obstacles may impede capitalists in different countries in different degrees. If mobility is measured by elasticities—by the ratio of relative changes in quantities to relative changes in some "price term" (such as a rate of interest or a rate of return)—the question is whether the quantity of capital moved from, or to, a country should also be related to the stock of capital accumulated, the stock of liquid funds held, the flows of gross or net saving generated per year, or to other magnitudes considered relevant in the context.

Little of this sort is discussed in the papers collected in this volume. This is somewhat disappointing to me, because it indicates that too often researchers do not question the meanings of the terms with which they work; they are diving into piles of third-rate statistical data which they believe, or assume, to be suitable proxies for the vague or ambiguous theoretical concepts with which their supposedly first-rate models are furnished. This grumble of mine is meant not as a criticism of the papers collected in this volume, but rather of the scientific attitude of a generation of economists contemptuous of "philosophical" reflection and impatient to get on with the business of measuring.

RESTRICTIONS IMPOSED BY GOVERNMENT

OF THE papers collected in this volume, a large proportion deal explicitly with limitations which governments have imposed on international mobility of capital. One paper does so in a largely historical and institutional mode (Gillespie), others attempt to obtain quantitative impressions, or even econometric estimates, of the effectiveness of government restrictions (Branson and Willett, Stevens, Severn, Prachowny), again others express doubts about the econometric techniques employed and the results obtained (Leamer and Stern, Bryant and Hendershott), and one paper offers a comparison of the social costs of restrictions on capital movements with the costs of restrictions on trade and on monetary and fiscal expansion (Cohen). The references are to different countries: United Kingdom (Cohen, Gillespie), France and Germany (Gillespie), the members of the European Economic Community (Hawkins), Japan (Bryant and Hendershott), and the United States (Branson and Willett, Stevens, Severn, Prachowny). The governmental restrictions in question are on short-term lending (Bryant and Hendershott, Branson and Willett) and on direct investment (Stevens, Severn, Prachowny).

Some of the econometric estimates of the effectiveness of controls are surprising, at least to those expecting that restrictions would restrict. Yet, one paper reports that estimates of short-term movements which ignored the existence of controls were not much different from estimates which explicitly took account of the controls (Bryant and

Hendershott); and another reports that the impact of the restraint program on bank lending which the United States instituted in 1965 did not show up strongly in the estimates, although the restraints "probably reduced the sensitivity of short-term capital to changes in interest rates" (Branson and Willett). As to the voluntary and mandatory restraints upon direct foreign investment by American corporations, one study finds no effects (Stevens); another, using in its model a dummy variable for the restraint program, obtains a positive sign for its influence, indicating that the controls resulted in larger, not smaller, direct investments abroad (Severn); and a third finds direct investment increased in some years but reduced in other years as an effect of the governmental restraints (Prachowny). The last cited explains its result by larger anticipatory investments, that is, investments above currently desired magnitudes, undertaken to beat the controls that would in later years hinder American corporations in transferring funds abroad when they might really want to do so.

INTERNATIONALIZATION OF CAPITAL MARKETS

THAT certain impediments to the international mobility of capital have in recent years been weakened or offset is implied by the "increasing internationalization of capital markets, especially the development of the Eurodollar market." This quotation comes not from the papers in this volume but from the Annual Report of the Council of Economic Advisers, who go on to say that the "increasing mobility of capital is a reflection of the growing flexibility and responsiveness of capital markets. . . ." (See *Economic Report of the President*, 1971, p. 143.)

This assertion probably conforms to the facts, and readers of the papers in this volume may find support for it in some of the attempts at measurement. Unfortunately, no study included in this volume treats of the effects the Eurodollar market and the Eurobond market have on international mobility and movements of capital. There is a natural time lag of economic analysis behind new economic developments, which explains the absence of scholarly investigations of money markets and capital markets in Eurocurrencies. Although the program committee for the conference had some forty papers to choose from, none was offered on this increasingly important phenomenon, perhaps because the call for papers was issued in the summer of 1968, when these markets were of far less importance, and the responses to that call were presumably dominated by topics that the respondents had chosen to work on even earlier.

CAPITAL MOVEMENTS AND BALANCE OF PAYMENTS

MUCH economic discussion in recent years has dealt with the effects of capital flows upon the balance of payments; with the possibility and desirability of trade flows adjusting themselves promptly to changes in capital flows; and with attempts to prevent or obviate such adjustments by influencing the direction and size of capital movements in such a way as to have them match the existing balance of transactions on current account. Relatively little of that discussion appears in this volume—not because of any shortage of supply of papers, but because of a deliberate choice by the program committee.

The primary concern of the program committee was to explain international movements of capital and their changes; that is, to find what causes them, or influences them, not to analyze their consequences. Thus only a few papers in this volume address themselves to the question of the effects of changes in capital movements upon the current account and upon net monetary movements; and even these few do so only collaterally. Two papers have titles that may give the impression that they deal chiefly with the problems arising for the balance of payments from the change or state of the capital balance (Howle, Prachowny). In fact, however, these papers are cast differently and the approaches employed are not those of the usual discourses on the international adjustment problem.

Two other papers come within the compass of balance-of-payments problems, but they do not interpret the enduring deficits of the United States as a failure of the adjustment process to work or of adjustment policies to be adopted. One of these papers interprets the supposed imbalance as a failure to understand that the statistical "deficits" (or some part of the deficits) may represent "equilibrium" in a world in which the United States provides financial intermediation for other countries (Laffer). The other critically examines the arguments presented to refute this hypothesis and finds them deficient or inconclusive (Salant).

ASSEMBLAGE WITHOUT VISIBLE ORGANIZATION

FROM what has been said thus far, one would think that the papers collected in this volume fall into recognizable groups which can be arranged under various headings. Yet, the Table of Contents shows no division of themes into separate parts, and readers may well complain about being offered an unstructured assemblage of papers, strung together without any attempt at organization according to some inherent order or systematic arrangement.

Let me say that we intended to present a well-structured collection of papers and have worked hard to find a system of headings under which the papers could be grouped. Our first plan was to divide the volume into four parts: I. Recent Developments in Capital Markets. II. Mobility and Movements of Capital: Theoretical Studies. III. International Capital Flows: Empirical Studies. IV. Policy Implications. This organization proved unworkable. Several months before the conference, when the contributors were shown in which group their papers would be placed, many of them argued that they regarded their product as belonging in some other group.

In a second attempt to group the papers, I proposed the following four headings:

Part I. Historical-Institutional. The major emphasis is on observed changes in capital markets of particular countries or groups of countries.

Part II. Analytical-Theoretical. The major emphasis is on recent developments in the theory of mobility and movements of capital, especially new or controversial hypotheses.

Part III. Numerical-Empirical. The major emphasis is on the use of numerical data in testing or illustrating particular hypotheses concerning mobility and movements of capital.

Part IV. Pragmatic-Instrumental. The major emphasis is on policy implications concerning mobility and movements of capital.

These headings did not, however, provide any better way of arranging the papers than the previous ones had. Alternative groupings—for example, according to the type of capital movement investigated or according to the major variables chosen to explain them—struck me as too artificial, and I finally decided against building Procrustean beds into which the contributions to the conference might be forced. The sequence in which the papers are presented and their arrangement in pairs for comments by discussants should give enough order to the contents of this volume. Incidentally, the assignment of papers to commentators on the basis of titles before the actual contents were known became a constraint in rearranging the order in which the material is presented in this volume.

There was a good reason for departing from the more usual pattern of assigning only one commentator to each paper. By selecting two commentators we hoped to reduce the risk that a contributor might find his paper appraised by a particularly unsympathetic critic who failed to understand the contribution and did it injustice. On the other hand, to have two comments for each paper would have required 34 commentators had we not assigned two papers to each pair of commentators. The total number of commentators is thus still equal to the number of papers, though there are two comments on each paper. If both of them contain severe criticisms, it is quite likely that the paper truly deserves them. Moreover, joint comments on two papers afford the commentator an opportunity of comparing methods and findings of two different inquiries into related subjects.

ABSTRACTS OF THE PAPERS

THE reader of this volume may find it helpful to have brief abstracts of all 17 papers. Needless to say, abstracts are not supposed to be substitutes for the papers themselves, but they may guide the reader much better than the mere titles could to the papers in which he is especially interested. In the preparation of these abstracts I had the help of the contributors. I wish to thank them for their cooperation and to ask their forgiveness for my making abstracts of the abstracts that they provided. It should go without saying that these sketches cannot attempt to tell what will be found in the papers; only a small fraction of their contents can be alluded to.

Benjamin J. Cohen. "The United Kingdom as an Exporter of Capital."

Britain, once the most important international investor and originator of investible funds, has become an international investment banker, a middleman of funds. When Britain for several years refused to treat the imbalance in its foreign accounts with adjustment of the exchange rate, it chose to treat it by restrictions on capital movement in preference to restrictions on trade or to retrenchments of domestic expenditures. This choice was less costly than unemployment or trade restrictions would have been.

Robert G. Hawkins. "Intra-EEC Capital Movements and Domestic Financial Markets."

It is conceivable that the proposed European monetary coordination, together with the continuing integration of commodity markets and labor markets, will eventually provide for more mobility of capital among member countries of the European Community than between these and other countries. The experience of recent years, however, has been otherwise. Capital movements among EEC countries were not becoming more important than between these countries and the rest of the world, and there was no strong tendency for interest differentials to become narrower within the EEC than between these and other countries. Integrating forces within the Community seem to have been less significant than the internationalization of capital markets by facilities such as the Eurodollar system and Eurobond markets.

John E. Floyd. "Portfolio Equilibrium and the Theory of Capital Movements."

A general-equilibrium model of a small, fully employed economy in a large trading world is constructed. In the model, international movements of capital tend to bring about portfolio balance by stock adjustments, as well as by changes in the national ownership of the continuous additions to the stock of capital through time. A small country maintaining a fixed exchange rate for its currency has little control over its internal price level. An increase in the domestic stock of money will result, not in a proportional rise in the price level, but in a portfolio disequilibrium that is resolved by purchases of assets abroad. Where the exchange rate is flexible, the resulting reduction first in the external, and then in the internal, value of the currency will reverse all of the once-for-all and steady state effects of the increase in the nominal money stock, driving the real money stock back to its initial level.

Edward S. Howle. "Capital Mobility and Payments Equilibrium."

Perfect mobility of capital makes the specie-flow mechanism inoperative. In the long run, a region can grow or inflate no faster than is warranted by the world's demand for the region's goods. This "demand constraint" (rather than a "liquidity constraint") tends to produce a dynamic payments equilibrium in which the region's imbalance of payments and foreign indebtedness grow at the same rate as its capacity to produce. The analysis attempts, among other things, to explore the nature of the ultimate limits of fiscal policy that are imposed by fixed exchange rates.

Edward E. Leamer and Robert M. Stern. "Problems in the Theory and Empirical Estimation of International Capital Movements."

A distinction is made between models using type of activity and those using type of transactor to classify influences explaining capital movements. Portfolio-adjustment theory uses transactor models not relevant to transactors of all kinds of transactions. In the choice of explanatory variables, most models of capital movements use an "activities framework." The choice and measurement of appropriate variables for wealth, yields, and trade finance are particularly problematic. While a portfolio approach is appropriate for decisions on portfolio investment, it is not suitable for decisions on direct investment. Foremost among the problems of empirical estimation is the choice of representative information on expected returns and risks, on speculation, capital controls, and credit rationing, but there are also purely statistical matters regarding disaggregation, lag structures, and simultaneity. Empirical work is likely to be more effective when meaningful alternative hypotheses are more carefully constructed.

Ralph C. Bryant and Patric H. Hendershott. "Empirical Analysis of Capital Flows: Some Consequences of Alternative Specifications."

Useful empirical knowledge of the behavior relationships determining capital flows cannot be acquired rapidly and at small cost. Needed are a judicious selection of the particular flows to be studied, well thought-out theoretical specifications appropriate in the particular circumstances, and careful collection of reliable and relevant data. The researcher is frequently unable to discriminate clearly, in purely statistical terms, among alternative imperfect specifications; he can easily find specifications that will give a good statistical fit. Much more reliable criteria of success are needed than the customary tests of statistical significance. One well-researched relationship based on prior development of a sound theoretical framework, and on careful matching of empirical counterparts to theoretical constructs, will usually prove more useful and interesting than scores of equations with good fits but weak theoretical underpinnings.

Norman C. Miller and Marina v. N. Whitman. "The Outflow of Short-Term Funds from the United States: Adjustments of Stocks and Flows."

A model for the explanation of movements of short-term funds is constructed with both a supply function of foreign I.O.U.'s to American lenders and a demand function for foreign I.O.U.'s by American lenders. Both these functions are based on postulated optimization by debtors and creditors who take account of interest rates and risk conditions. This theory is tested against quarterly data on flows of American capital from 1959 through 1967. The flows are interpreted as the result of stock adjustment—as Americans alter the proportion of foreign assets in their portfolios; and of flow adjustment—as investors increase the size of their portfolios through new saving. The desired proportions are estimated first and then used for the separation of the two components of the movement of funds. Deviations of the

GNP of the United States from its time trend were used as a proxy for risk conditions. These deviations, together with levels of domestic and foreign interest rates, emerge as the essential influences on flows of capital. Government policy affecting these two variables is quickly reflected in the total flow of capital, but chiefly by way of stock adjustments and only very little by adjustments of the permanent flow.

William H. Branson and Thomas D. Willett. "Policy Toward Short-Term Capital Movements: Some Implications of the Portfolio Approach."

Interest rates and trade flows show up as the most significant variables explaining changes in the flow of short-term funds. If interest rates rise abroad, there will be a one-time outflow of funds due to a stock switch, which will be followed by a rise in the continuing outflow as portfolios grow in size. The ratio of the effect on the continuing flow to the initial effect on the stock tends to be equal to the growth rate of the total portfolio. The increase in interest income earned abroad—because the rates are higher and because more foreign assets were acquired in the stock switch—may offset, or more than offset, the continuing-flow effect. As a result, if we look at the effects on capital and income accounts together, we may find net financial inflows, rather than outflows, after the stock switch is completed. An illustrative estimation of the flows of American short-term funds shows their sensitivity to changes in interest rates, which was slightly reduced by the restraint program imposed by the government. The role of stock-adjustment implies that a crawling peg for exchange rates need not constrain national interest-rate policies as much as it appears to do when that role is not considered. Flows of short-term funds induced by expectations of a crawl will be only temporary and easily handled by official financing; the funds that move in the stock switch will return when the exchange rate reaches its new equilibrium level.

Guy V. G. Stevens. "Capital Mobility and the International Firm."

The capital movements resulting from the decision of firms to make direct investments abroad, and their choice of whether to finance these expenditures at home or abroad, are depicted in a model that includes among its variables the firms' expenditures for plant and equipment, the changes in their current assets abroad, the profits from their foreign activities, and the repatriation of foreign dividends. Previous studies have not yielded econometrically defensible estimates concerning the effectiveness of the restraint program of the United States; the firms may have borrowed more abroad but they did not reduce direct investments. There is a distinct possibility that financial flows are indeterminate if the conditions for the Miller-Modigliani theorems hold.

Alan K. Severn. "Investment and Financial Behavior of American Direct Investors in Manufacturing."

The firms' decisions to invest abroad and to raise funds abroad are interrelated with their domestic activities. Net outflows of funds (net of repatriated profits) are expected to be positively related to their domestic incomes and foreign investment, and negatively to their foreign income, domestic investment, and payments of dividends. Simulation indicates that macroeconomic policies can have only small net effects on the balance of payments through their influence upon direct investment: the effect of changes in the outlays of firms for domestic investment and dividend payments is offset by the opposite effect of changes in their domestic incomes. The results suggest that foreign and domestic investment are interrelated primarily through financing mechanisms, chiefly the firms' decisions to allocate their internally generated funds in optimal ways.

Robert W. Gillespie. "The Policies of England, France, and Germany as Recipients of Foreign Direct Investment."

Since the end of World War II, the three major West European countries have followed different policies with regard to direct investment and take-overs by foreign firms. Their policy actions, however, have often been inconsistent with their official statements of the reasons for their policies. The announced objectives have stressed the state of the balance of payments, the implementation of economic planning, the existence of a technology gap, and various political considerations. Economic nationalism was obviously a dominant element in the direct restrictions imposed in France. To some extent this holds also for the United Kingdom, where, however, an effort to change the structure of domestic industry was at the bottom of the defenses against foreign take-overs. This seems to apply as well to the policies now being formulated by the European Economic Community.

Martin F. J. Prachowny. "Direct Investment and the Balance of Payments of the United States: A Portfolio Approach."

Demand equations for foreign assets are developed both for American firms making direct investments abroad and for foreign firms investing in the United States. The main explanatory variables are relative rates of expected returns and risks, the latter divided into those due to internal causes and those due to external ones, such as devaluation and expropriation. The empirical results indicate that, at least in 1966, the restraint program of the United States had perverse effects on the balance of payments, probably because of anticipatory investment abroad in excess of what would have been optimal had not demand been restrained by controls. Monetary and fiscal policies have only short-run effects on the balance of payments as long as wealth is a constraint and risk is considered.

Grant L. Reuber and Frank Roseman. "International Capital Flows and the Take-Over of Domestic Companies by Foreign Firms: Canada 1945–61."

Foreign take-overs are part of the general phenomenon of business mergers in most countries. In order to evaluate the importance and characteristics of foreign take-overs, mergers of domestic firms are taken as a control group. Variations over time in the number and pattern of foreign take-overs in Canada are largely explained by the level and pattern of mergers in the United States. In addition, variables such as tariff policy, corporate cash flows (as influenced by governmental financial policies), and the level of business activity (also influenced by macroeconomic policies) are significant in explaining variations in take-overs. Little or no influence is attributed to such variables as aggregate economic growth, economies of scale, research and development, and changes in antitrust laws and their enforcement in the United States. Only very little of the foreign control of Canadian industry in 1962 resulted from take-overs between 1944 and 1961, and the number of such take-overs has been small relative to the total number of firms in Canada.

Alan R. Dobell and Thomas A. Wilson. "The Impact of Taxation on Capital Flows and the Balance of Payments in Canada."

The hypothetical effects of major tax reforms in Canada (as proposed, but not adopted, in 1967 and 1969) upon international movements of capital and the balance of payments are analyzed on the assumption that the foreign-exchange rate is kept unchanged. The analysis includes portfolio capital, as well as direct investment, and takes account of induced changes in saving and investment, interest rates and rates of return, government revenues and expenditures, various components of the balance of payments, and other endogenous variables. After certain short-run adjustments to the change in taxation are completed the equilibrium effects on investment yields and capital flows are modest enough to be readily accommodated by the use of normal macroeconomic policy instruments. None of the proposed reforms would have had devastating effects on the balance of payments.

George H. Borts and Kenneth J. Kopecky. "Capital Movements and Economic Growth in Developed Countries."

On the assumption that a balance on current account is offset by an equal and opposite balance on capital account, a model that provides solutions for saving and domestic investment explains also international movements of capital. A growth model is constructed to generate a country's equilibrium pattern of these aggregative variables, including the return flows of interest and dividends earned abroad. The main feature of this model is that international capital movements are independent of national differentials in interest rates and continue in a given direction with a uniform worldwide interest rate. In general, a country will lend more the higher its ratio of saving to income, the lower its rate of growth, the smaller the share of capital income in GDP, the higher the rate of depreciation on its fixed capital, the larger the share of taxes, and the smaller the share of government spending in GNP. Multiple-regression analysis applied to statistical data on these variables for thirteen countries leads the authors to conclude that capital movements can be explained by means of a growth model without any reference to differential yields or to any monetary factors.

Walter S. Salant. "Financial Intermediation as an Explanation of Enduring 'Deficits' in the Balance of Payments."

Provision of financial intermediary services by one country to others could be explained by any of three phenomena: (1) lower liquidity preference of residents (including financial intermediaries) in the country providing the services than in foreign countries; (2) greater competitiveness of that country's financial-intermediary industry than in those of foreign countries; or (3) lower costs of intermediating. International financial intermediation by the United States satisfies the growth in foreign private and official demand for liquid dollar assets in a growing world economy, and can cause deficits in this country's balance of payments on both the liquidity and official-settlements definitions. Deficits limited to satisfying growth in that demand are not only consistent with equilibrium but necessary for it. This hypothesis does not assert or imply that continuing financial intermediation by the United States would be compatible with the present international monetary system, or that it will continue indefinitely. The available empirical evidence is also consistent with other explanations of the enduring deficits, but none of the evidence or theoretical arguments adduced thus far has eroded the thesis that financial intermediation by the United States accounted for a good part of its liquidity deficits in the 1950's and 1960's.

Arthur B. Laffer. "International Financial Intermediation: Interpretation and Empirical Analysis."

The demand for money in each country is assumed to be a function of real income, price level, the cost of money, and the demand elasticity with respect to the cost of money. The supply of money is assumed to be determined exogenously by the monetary authorities of the United States, since they create the primary monetary asset used in the world. Equilibrium between the world's demand for money and, the supply of it, is achieved by a change in the world price level. The essential parts of the model are then the net capital account of the banking nation, the increase in the total supply of money, real income, and other exogenous variables that influence the demand for money. An empirical counterpart of this theoretical model is constructed and regression coefficients are provided from quarterly data for 1958–67.

A one-to-one relationship is found between capital outflow and trade surplus, a positive relationship between capital outflow and increases in the American money supply, and a negative relationship between capital outflows and real growth, increases in exports, and the velocity of money in the United States. There is no empirical evidence that American deficits imply overvaluation of the dollar. Policy, unless extreme, appears to have had little, if any, effect on the balance of payments.

A TABULAR CHARACTERIZATION OF THE PAPERS

NO ONE will be surprised to find that the papers in this volume, though addressing themselves to the same theme, differ considerably in many respects. After all, people, tastes, talents, interests, and techniques differ widely; such differences are reflected in the papers presented. I thought it might be interesting to compare some of their main characteristics. (See the table beginning on the next page.)

The comparison provided here is in tabular form to allow the reader to compare at a glance the modes of exposition, theoretical models and variables used, quantitative data, econometric techniques, and policy implications—to the extent that these rubrics apply. No value judgments are implied—at least, not by me. For example, whether second-hand statistical data used by a contributor are, or are not, reproduced in his paper is neither good nor bad. To have them reproduced is a waste of space but may save some readers the time of looking them up in the original sources. Or, to give another example, use or nonuse of econometric techniques is neither good nor bad on principle. But it may be of interest to note that only five of the 17 papers are without econometrics. Similarly, only four contributions are without policy implications; apparently, scholars these days do not want to be open to the charge that their work lacks political relevance. On the other hand, the subject of this volume is so timely that any findings of research in this field may be significant for policy-making even if the researcher is quite unaware of such significance.

Authors and Titles of Papers	Mode of Exposition	Theoretical Model and Variables
Cohen The United Kingdom as an Exporter of Capital	Verbal	Alternative costs of measures to cope with imbalance of payments
Hawkins Intra-EEC Capital Movements and Domestic Financial Markets	Verbal	International integration of capital markets
Floyd Portfolio Equilibrium and the Theory of Capital Movements	Algebraic and geometric	Portfolio balance. Variables: real-money stock, permanent income, price level, fixed exchange rate, contrasted with flexible rates
Howle Capital Mobility and Payments Equilibrium	Algebraic and geometric	Adjustment processes with perfect mobility of capital. Demand constraint versus liquidity constraint
Leamer and Stern Problems in the Theory and Empirical Estimation of International Capital Movements	Verbal	Activity models versus transactor models of portfolio adjustment
Bryant and Hendershott Empirical Analysis of Capital Flows: Some Consequences of Alternative Specifications	Algebraic	Portfolio balance. Lagged responses are incorporated with and without controls of capital movements
Miller and Whitman The Outflow of Short-term Funds from the United States: Adjustments of Stocks and Flows	Algebraic and geometric	Portfolio balance with stock- and flow-adjustments. Supply and demand as functions of returns and risks

Use of Numerical Data	Data Repro-duced	Econometric Techniques	Policy Implications
Long-term capital move-ments, U.K., annual, 1952–68	Yes	None	Restrictions on capital are less costly than trade restric-tions or demand cuts in cop-ing with imbalance of pay-ments
(1) Inflows and outflows of capital for direct and port-folio investment, EEC countries, annual, 1960 or 1963 to 1967 (2) Relative shares of intra-EEC and total flows (3) Interest rates, 1960–69	Yes Yes Yes	Simple correlation	None
None	No	None	The conflict between internal and external balance inherent in fixed exchange rates and adjustable pegs is more seri-ous than commonly realized
None	No	None	Fixed exchange rates impose limits on fiscal employment policy
(1) Forward exchange rates of French franc, DM, and £, 1960–69 (2) Effects of change in inter-est rates on capital flows, U.S. and Canada	Yes No	Discussion of choice of variables	Existing empirical evidence may not be sufficiently relia-ble for purposes of balance-of-payments policy
Borrowings by Japanese banks from American banks, annual, 1959–67 and 1964–68	No	Multiple regression	None
Short-term capital flows, U.S., quarterly, 1959–67	No	Multiple regression	Government policies chang-ing interest rates and GNP have quick effects on capital flows by way of stock adjust-ment; effects via permanent flows are miniscule

Authors and Titles of Papers	Mode of Exposition	Theoretical Model and Variables
Branson and Willett Policy Toward Short-term Capital Movements: Some Implications of the Portfolio Approach	Algebraic	Portfolio balance. Portfolio distribution is a function of returns and risks. Stock- and flow-adjustments are separated
Stevens Capital Mobility and the International Firm	Algebraic	Decisions of manufacturing firm: flexible accelerator model for plant and equipment. Internal and external financing at home and abroad
Severn Investment and Financial Behavior of American Direct Investors in Manufacturing	Algebraic and geometric	Marginal efficiency of investment by American firms in manufacturing, domestic and foreign outlays. Variables include dividend payments and net outflows, depending on income, investment, and dividends
Gillespie The Policies of England, France, and Germany as Recipients of Foreign Direct Investment	Verbal	None
Prachowny Direct Investment and the Balance of Payments of the United States: A Portfolio Approach	Algebraic	Portfolio balance of assets at home and abroad. Investments abroad by Americans and in the United States by foreigners as functions of relative returns and of internal and external risks
Reuber and Roseman International Capital Flows and the Take-over of Domestic Companies by Foreign Firms: Canada, 1945–61	Verbal and algebraic	Variations in foreign take-overs as functions of tariffs, government financial policies, total business activity, and internally generated funds of the firms
Dobell and Wilson The Impact of Taxation on Capital Flows and the Balance of Payments in Canada	Algebraic	Effects of changes in taxes on balance of payments, chiefly through government revenues, business investment, capital requirements, and dividends

Use of Numerical Data	Data Repro- duced	Econometric Techniques	Policy Implications
Short-term capital flows, U.S., quarterly, 1960–64 and 1965–68	No	Multiple regression	Interest constraint of gliding parity changes is not so strong as to eliminate freedom of monetary policy
Current assets, financial flows, sales, and investments, foreign manufacturing affiliates of U.S. corporations, annual aggregates, 1957–65 or 1968	Yes	Multiple regression	Direct foreign investment is not affected by controls, but foreign borrowing by parent firm probably is
Domestic and foreign activities of individual manufacturing firms, U.S., annual, 1961–66	No	Multiple regression	Domestic macropolicy has small effects on direct-investment component of balance of payments: positive effects are offset by negative ones
None	No	None	None
Foreign direct investment by U.S. firms and foreign firms, annual, 1963–64	No	Multiple regression	Monetary and fiscal policies affect balance of payments only in short run, apart from wealth effects
Domestic and foreign mergers in Canada, annual, 1954–61	No	Multiple regression	Foreign control of Canadian industry has not been seriously affected by take-overs since 1945
Estimated changes in taxes with estimates of variables used in model	No	Simulation in econometric model	Effects of changes in taxation on capital flows and payments balance are too small to constitute a serious constraint on reform plans

Authors and Titles of Papers	Mode of Exposition	Theoretical Model and Variables
Borts and Kopecky Capital Movements and Economic Growth in Developed Countries	Algebraic	International capital flows as functions of growth, the ratios of saving to income, capital to GDP, and government expenditures to GDP, also of taxes and depreciation. but independent of differences in monetary policy or interest rates
Salant Financial Intermediation as an Explanation of Enduring "Deficits" in the Balance of Payments	Verbal	International intermediation due to national differences in liquidity preferences and in cost and competitiveness of banking
Laffer International Financial Intermediation: Interpretation and Empirical Analysis	Algebraic	International money flows, instantaneously adjusted to demand for money as a function of real income, the world price level, and the world interest rate

Use of Numerical Data	Data Repro-duced	Econometric Techniques	Policy Implications
Ratios of net factor income earned abroad to GNP, 13 countries, annual, 1956–65	Yes	Multiple regression	None
None	No	None	Better understanding would lead to acceptance of enduring U.S. deficits as condition of international equilibrium
Current account, capital account, money supply, index of industrial production, U.S., quarterly, 1958–67	Yes	Multiple regression	Policy acting directly on the U.S. balance of payments may be futile; U.S. deficits need not imply that dollar is overvalued but may reflect ability of private capital to supply external as well as internal liquidity. Lack of confidence may represent failure to recognize this function

THE COMMENTATORS

EVERY one of the 17 papers is subject to two comments by official commentators, that is, by specialists appointed to this task before the conference. At the conference itself, lively discussion from the floor followed the formal comments, but (with one exception) only the formal comments are reproduced here.

A few of the comments are rather colorless, being confined to polite commendation and needless paraphrase of the paper under discussion. Most of them, however, provide good criticism, or amplification, of the contents of the papers. Perhaps I ought to remain an impartial *conférencier,* but I cannot resist recommending to readers who merely "sample" this volume that they peruse the comments by Bloomfield, Lanyi, Black, Yudin, Flanders, Rhomberg, Lipsey, McKinnon, Tarshis, Balassa, and Modigliani.

THE EDITORS

THE three editors of this volume have given unusually large amounts of time to their task. Every paper was carefully read by each editor, first by Tarshis, then Salant, and finally Machlup. The authors received critical comments and suggestions in all three phases as their manuscripts went through the three stages of purgatory (or was it hell?). Each editor "sat" on the manuscripts for roughly three months; each engaged in considerable correspondence with the authors; and each found the authors responsive to, and appreciative of, critical suggestions. We would not now be willing to take responsibility for either substance or form of the papers as they are presented in this volume, but perhaps we may claim a little credit for having shortened some of the papers and removed a few flaws of exposition or style.

It has been a pleasure to be associated with Lorie Tarshis and Walter Salant in this enterprise. I want to thank them for a labor of love. They have assuredly earned the gratitude of every reader.