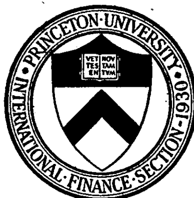
ESSAYS IN INTERNATIONAL FINANCE

No. 124, November 1977

MONEY, BALANCE-OF-PAYMENTS THEORY, AND THE INTERNATIONAL MONETARY PROBLEM

HARRY G. JOHNSON



INTERNATIONAL FINANCE SECTION
DEPARTMENT OF ECONOMICS
PRINCETON UNIVERSITY
Princeton, New Jersey

This is the one hundred and twenty-fourth number in the series ESSAYS IN INTERNATIONAL FINANCE, *published from time to time by the International Finance Section of the Department of Economics of Princeton University.*

This Essay *is based upon the David Horowitz Lectures that Harry G. Johnson gave in Israel in 1975. Some weeks before his death on May 8, 1977, Professor Johnson wrote to ask whether the Section would like to publish a revised version of the Lectures. We do so now with a Foreword that was the obituary notice published by the* Times *of London; it was written by Professor W. M. Corden of the Australian National University.*

We are grateful to the Association of Banks in Israel for permission to publish the Horowitz Lectures, to Professor Corden, to the Times *of London for permission to publish the obituary notice, to Elizabeth Johnson for reviewing the edited manuscript, and to Professor Jacob A. Frenkel for reading the proofs.*

The Section sponsors the essays in this series but takes no further responsibility for the opinions expressed in them. The writers are free to develop their topics as they wish.

PETER B. KENEN, *Director*
International Finance Section

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FOREWORD*

Professor Harry G. Johnson FRCS, FBA, economist, died on May 8 at the age of 53. With his death the profession of economics has lost one of its most distinguished, prolific, widely-read and best-known members.

Harry Gordon Johnson was born in Toronto in 1923 and graduated with honours from the University of Toronto in 1943. After teaching at St. Francis Xavier University, Nova Scotia, he served in the Canadian forces in Europe, and in 1945 spent a formative year in Cambridge, a year when he met Maynard Keynes and encountered the well-known controversialists of the Cambridge Economics Faculty.

After an interlude in Toronto and Harvard (where he subsequently obtained his doctorate) he returned to Cambridge as a Research Fellow of Jesus College, later moving to King's College. From 1956 to 1959 he was Professor of Economic Theory at Manchester, and since 1959 he had been Professor of Economics at the University of Chicago. In addition, from 1966 until 1974 he held a Chair at the London School of Economics, spending about half the year in Chicago and half the year in London. He held numerous other Chairs for limited periods, and acted as stimulant-teacher-researcher in many parts of the world, from month-long special courses in Pakistan to the Irving Fisher Chair at Yale University, and more recently a Chair at the Graduate Institute for International Studies at Geneva.

Harry—as he was known to vast numbers of economists, young and old, all around the world—had a key position in the international economics profession. He was himself dedicatedly anti-establishment—and especially anti-Oxbridge—but was really in himself a sort of one-man Establishment. Numerous young economists whom he thought of good prospects, and especially those who came from peripheral universities, owed jobs, fellowships, invitations to conferences and first publications in journals to him. He was an editor of economic journals—perhaps the best editor since Keynes. He started his editorial career with the *Review of Economic Studies* in 1951 and has been editor or co-editor of *The Manchester School*, *Economica*, the *Journal of International Economics* and, above all, the *Journal of Political Economy*. He edited the last of these from 1960 to 1966 and was co-editor from 1969 until his death. He maintained this famous Chicago journal as probably one of the best-edited and one of the two or three best economic journals in the world.

He was an inveterate conference goer and traveller. Hardly a

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Canadian university did not consider him one of its own on the basis of his visits. And a conference of economists anywhere in the world was hardly complete without Harry—quietly chipping away at his carvings during the conference and then incisively summing-up at the end.

Amidst all this activity, often late into the night, in airports and in the air, even during conferences, he wrote prodigiously. He published over 400 articles, mainly in professional journals. Many of them were subsequently reprinted in collections which have become essential reading for students in these fields, notably *International Trade and Economic Growth* (1958), *Essays in Monetary Economics* (1967), *Aspects of the Theory of Tariffs* (1971) and *Further Essays in Monetary Economics* (1972). Most of these articles were theoretical but he showed his ability to apply sharp analysis to current issues in such works as *The Canadian Quandary* (1963), *World Economy at the Crossroads* (1965), and *Economic Policies Towards Less Developed Countries* (1967).

He had a concept of the "economics profession" using a "scientific approach," steadily advancing knowledge, each little contribution building on the professional heritage. Indeed, "professional" was a key word in his vocabulary. In the early 1970s he sternly lectured economists at various universities who were, in his view, slumping back into the old "non-scientific" ways.

While his writings on monetary theory and on current economic issues were probably the most widely read, his principal original theoretical contributions were in international trade theory. His scholarly care in acknowledging the work of previous authors often gave the impression that he himself was relatively unoriginal and was only building on the work of others, but, among other things, he pioneered the theory of trade and growth, made major contributions to the theory of tariffs, and extended the techniques of trade theory to income distribution analysis.

At the LSE he devoted himself to building up postgraduate education in economics, hoping to restructure courses on United States graduate school lines. He had his battles and did not achieve what he set out to do. He wanted the LSE to become a wholly postgraduate institution. For various reasons he gave up the LSE Chair in 1974. He had developed a marked hostility to what he would describe as the amateurism as well as the penny-pinching in British academic life. In some forthright articles he criticized the British economics profession for its lack of intellectual rigour, the supposed failure of prominent

members to keep up with new theoretical developments in the United States, and its devotion to old-fashioned Keynesianism.

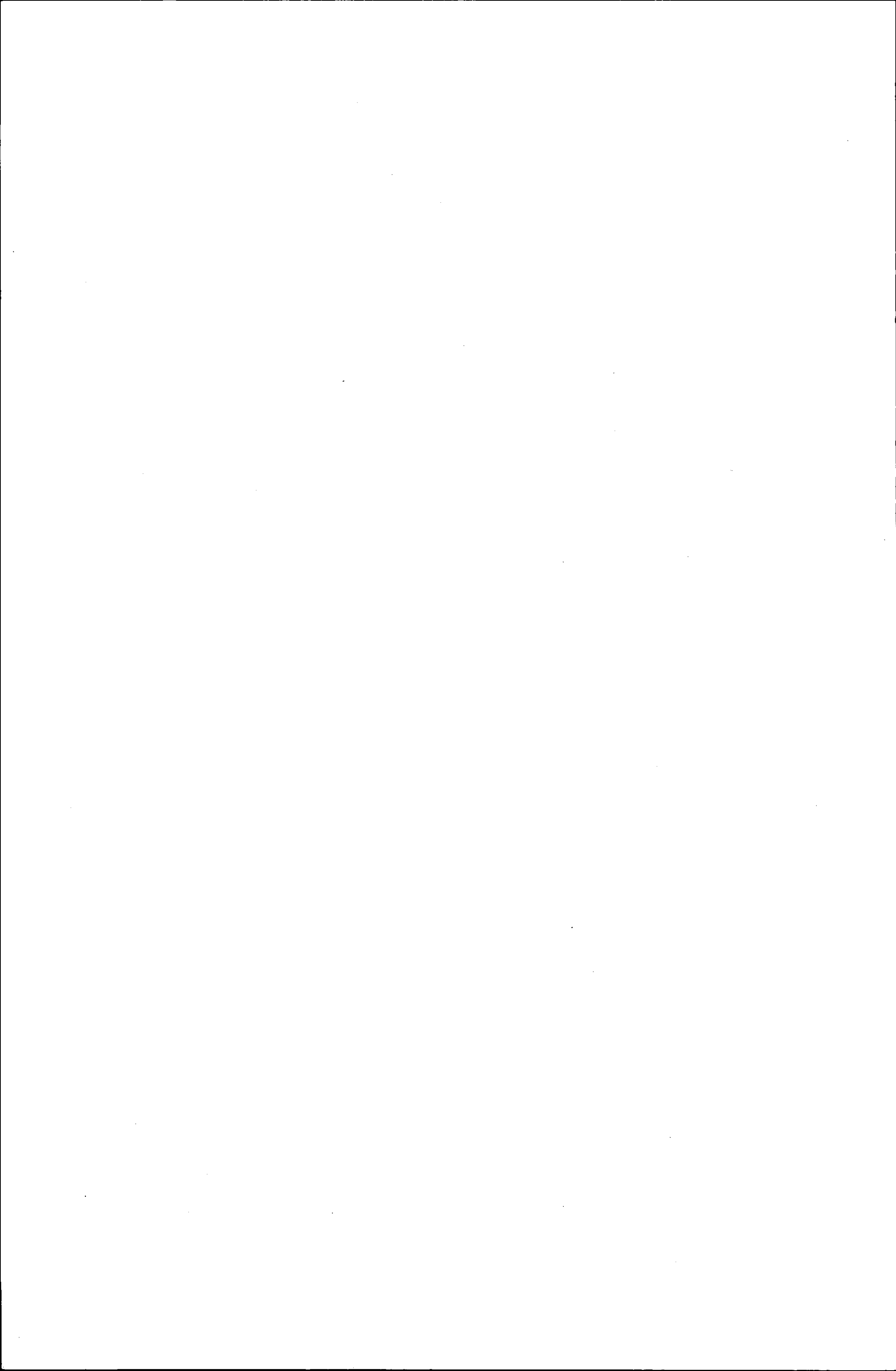
He was a complex character, both fierce in debate and kind in personal relationships. He had a life-long love-hate relationship not only with Britain but also with Canada. He acted like a resident when he was within Canada, freely criticizing everything within sight without the detachment of the visitor. Many Canadian universities offered him positions, yet he would not commit himself to Canada. Essentially he was an internationalist, opposing nationalism, especially the Canadian variety, in all its economic manifestations.

But he opposed Britain's application to join the Common Market, for his sympathies, not surprisingly, were much more Atlantic than European, and some of the economic arguments used by the Common Market advocates were rather too easily destroyed.

In 1974 he suffered a stroke from which he made a good recovery, though it left him mildly handicapped. But his will-power was impressive and it did not take him long to get back to writing and to conference-going. He devoted himself particularly to developing the new monetary theory of the balance of payments.

He leaves a widow, Elizabeth, one of the editors of Keynes's *Collected Papers* and a writer on Keynes, as well as a son and daughter.

W. M. CORDEN



Introduction

This Essay is adapted with small modifications from the David Horowitz Lectures that I delivered in Israel in 1975. I was honored by and grateful for the invitation to give them. My only previous visit to Israel had been ten years earlier, for a Rehovoth Conference graced by an address by Governor Horowitz himself. At that time, he was extremely active in two major world economic-policy debates—the reform of the international monetary system, which already appeared as a necessary task but one that could be tackled with due deliberation by economic statesmen of good will, and the problem of devising new ways to transfer resources for development to the less developed countries, a problem to which world attention had been dramatically called by the First United Nations Conference on Trade and Development in Geneva in 1964. Governor Horowitz, in common with many other international monetary experts, sought to solve the two problems simultaneously by linking reserve creation in some way to development assistance. That general class of proposals, I must admit, did not appeal to me then and has never appealed to me any more strongly since. After years of learning to appreciate the necessity and the difficulty of distinguishing between monetary and real phenomena, I find intellectually obscurantist any analysis or proposition that unwittingly or willfully confuses the creation of money with the liberation of real resources, however noble the intention. The world inflation of recent years bears ample evidence to the dangers of the politically popular belief that desirable real results can be achieved by manipulations of monetary magnitudes and maneuvers with monetary mystique. Nevertheless, I admired the combination of ingenuity and economic statesmanship that distinguished the contributions of Governor Horowitz to the debate—a combination that is in some ways reminiscent of John Maynard Keynes at his best as a policy advisor.

There is a second reason why I was glad to return to Israel: so many Israeli economists have contributed to the development of the two main fields of economic theory I am interested in, monetary theory and international economic theory. In particular, at the time of my previous visit the second edition of Don Patinkin's *Money, Interest and Prices* (1965) was just about to appear—in fact, he showed me an advance copy. His book had only begun to establish the classic position in monetary theory that it has since come to enjoy, and neither of us, I am sure, had any thought that it would become a major source of ideas and techniques for the analysis of a problem it did not deal with

at all, the theory of the balance of payments and the international monetary system. In brief, as I shall show later, Patinkin's work on the integration of money and value theory through the real balance effect, and on the interaction of stock and flow adjustments on the establishment and the stability requirements of full economic equilibrium, provided the key to understanding classical income-expenditure, monetary balance-of-payments theory. That key was necessary for an effective return from the post-Keynesian tradition to the classical tradition of analysis of international disequilibrium problems as monetary phenomena.

My two Horowitz Lectures were entitled "Money and the Balance of Payments" and "The International Monetary Problem." That my selection of topics may seem on the one hand an arbitrary linking of two largely unrelated subjects, and on the other hand a choice catering to the widely different interests of two eminent Israeli economists, Governor Horowitz and Don Patinkin, is admitted. But in my own mind the two topics are firmly interwoven: both areas of economic concern illustrate the difficulties that professional economists and policy-makers get into when they forget the fundamental truism that a monetary economy is different from a barter economy because it is monetary, and the corollary that in some broad sense the demand for and supply of money are relevant to what happens to monetary magnitudes in such an economy. One cannot hope to reason effectively about a monetary economy in the terms appropriate to the barter economy of value theory.

Both topic areas exemplify the pitfalls of attempting to analyze a monetary world with the tools of "real" theory. I include under this term theories like sophisticated Keynesianism that attempt to create a simulacrum of a monetary economy by treating money and monetary policy as a determinant of a real quantity or real price in the shape of a real quantity of money or "liquidity" or a rate of interest. Notable examples are the "Yale School's" "portfolio balance" approach and the alternative liquidity approach presented in recent writings of J. R. Hicks. My own experience as both a pure theorist and a minor participant in over fifteen years of discussion of the international monetary system and its possible reform has led me increasingly to ask myself, as a social scientist: Why do policy-makers and their professional economic advisors, who should know better, consistently retreat into "real" analyses of and solutions for monetary problems? I can offer only a brief sketch of an answer here: The "real" world is familiar, and identical with the "monetary" world as long as the price level is reasonably stable; everyone lives his normal life in a partial-equilibrium

context in which money price changes are also real price changes. The "money" world of monetary macro-equilibrium and disequilibrium is by contrast unfamiliar and strange. Few people indeed possess either a systemic concept of the economy as a whole, as distinct from their own small corner of it, or the imagination to recognize what seem like "real" changes with "real" causes as being in reality monetary changes with monetary causes. Hence they do "what comes (intellectually) naturally," treating unemployment as due to business pessimism, automation, inadequate training of the labor force, and so on, and inflation as due to the monopoly power and greediness of big business or big labor, or to excessive and wasteful public spending on warfare or welfare, according to political taste.

Money and the Balance of Payments

The new, so-called "monetary approach" to the theory of the balance of payments has been developing and gaining popularity in recent years as an alternative to the "elasticity approach," the "absorption approach," and various other Keynesian approaches which may be termed "the foreign-income multiplier approach" and "the Meade-Tinbergen-Keynesian economic-policy approach." (The meaning of these approaches will be explained more fully later.)

At the outset, it is important to note that the monetary approach is new only in the context of balance-of-payments theory as it has developed since the 1930s, when the collapse of the liberal international economic order based on the gold-standard system was accompanied by the Keynesian revolution in economic theory. The monetary approach actually represents a return to the classical tradition of international monetary theory established by the work of David Hume, summarized in the classical price-specie flow mechanism of adjustment to international monetary disequilibria, and foreshadowed in the work of Isaac Gervaise (1720). This tradition has dominated international economics for most of the two centuries during which economics has existed as a scientific system of thought. It is important to emphasize this point, because the development of the monetary approach to the balance of payments has been confused in many so-called minds with something called "monetarism," which is one side of an argument about domestic macroeconomic policy management that has been conducted mainly in the United States, though with a subsequent and derivative manifestation in the United Kingdom. The argument is between those who place their faith in fiscal policy, following the Hansenian American version of the Keynesian revolution,

and those who emphasize the necessity of proper monetary policy for the stabilization of the economy, led but by no means dragooned by Milton Friedman.

The issue has been further confused by the fact that Robert Mundell and I, as the two most visible exponents of the new approach, were associated with the University of Chicago during the crucial period when the approach was developed and hence are easily identified by the unthinking as lesser lights in the contemporary "Chicago School" led by Milton Friedman. Yet we are Canadians by birth and citizenship, did our graduate work at M.I.T. and Harvard respectively, and were strongly influenced in our early professional years by the balance-of-payments theorizing of James Meade of the London School of Economics. Mundell worked out his central ideas at the Johns Hopkins Bologna Center and the International Monetary Fund before he joined the Chicago department. Most of my own work on the subject was done during my periods at the London School of Economics, in response to international monetary developments as seen from—more accurately, not understood by—the United Kingdom. Unfortunately, however, the description of scientific activity as a debate between risible and reasonable schools of thought and the assignment of skeptics about prevailing orthodoxy to a ludicrous school through guilt by association, however tenuous geographically and intellectually, has become a hallmark of post-Keynesian discussion of monetary economics. The ability to do so with fluency and plausibility has been assumed by many to be more than adequate to justify the earning of a Ph.D. at public expense.

In order to explain the nature of the new approach, I find it convenient to begin with a brief history of the development of balance-of-payments theory, an *excursus* that will allow me to make some incidental digressions on the inherent difficulty of monetary theory and the shackles imposed on free theoretical inquiry in economics by the limitations of the tools—particularly the mathematical tools—of theoretical analysis.

Hume's price-specie flow analysis was developed as an answer to the mercantilist contention that the path to augmentation of national wealth and power lay in the development and maintenance of a balance-of-payments surplus through measures to increase exports and decrease imports ("a policy of import substitution," in the modern phrase) so as to produce a continuing inflow of precious metals ("treasure") into the country. Hume's analysis demonstrated that such a policy would inevitably be self-defeating, since the accumulation of money stocks would satiate the demand for them and any ex-

cess stocks would "leak out" through a balance-of-payments deficit. (Remember that, in an open system, actual stocks of real balances are adjusted to desired levels not by price inflation or deflation, as in a Patinkinian closed economy, but by outflow or inflow of nominal money through the balance of payments.)[1] In illustrating this proposition, Hume showed that the expansion of issue of paper-currency substitutes for precious metals would lead merely to an outflow of precious metals. The parallel in the contemporary monetary approach is the proposition that excessive expansion of "domestic credit" by a country's banking system will lead to a balance-of-payments deficit under fixed exchange rates and a loss of international reserves. A corollary of Hume's analysis is the assertion that there is a "natural distribution" of the world money or reserve stock among the member countries of the world system toward which the actual distribution will gravitate. (Note the parallel with the Archibald and Lipsey [1958] critique of Patinkin's first-edition analysis of the effects of a disproportionately distributed increase in nominal money.)

Hume's analysis was related to the economic world of his time, but such is the propensity of economists to live with archaic old facts rather than open their eyes to new facts that the work of Hume and his immediate successors left a permanent mark on balance-of-payments theory. The most important and pervasive point of influence was his concentration on the trade account—exports and imports of goods—as the locus of adjustment to international monetary disturbances. This concentration has remained a valid point of complaint by practical men against academic balance-of-payments theory, especially as it has been carried over to, and accentuated in, the post-Keynesian "elasticities," multiplier, and policy approaches to the balance of payments. A second influence, which—apart from some work by Ohlin in the 1920s (see, e.g., Ohlin, 1929)—has only in the last four years begun to be questioned, was the assumption incorporated in the phrase "price-specie flow mechanism" that the domestic price level of a country possessing excess money stocks must rise relative to other countries' price levels before trade flows are affected and a balance-of-payments deficit emerges. This view assumes limited holdings of commodity stocks and long lags in transportation and in the dissemination of information about markets, assumptions appropriate to Hume's time but a decreasingly realistic approximation for contemporary integrated world markets. Furthermore, Hume's

[1] This proposition cleared monetary phenomena from policy discussion and permitted the advocacy of free trade as the way to maximize output from national resources.

account predated the development of large-scale commercial banking subject to control by a central bank. By this century, however, the theory had been extended by the addition of the standard textbook analysis of the role of bank-rate adjustments in stimulating short-term capital movements as substitutes for actual specie movements.

The classical Humean tradition of international monetary analysis, like so much else of value in the classical and neoclassical traditions of monetary theory, was swept aside and, at least transiently, completely suppressed in the wake of the Great Depression and the Keynesian revolution. I attribute the fragility of that tradition, and its vulnerability to attack by what purported to be "common sense," to the inherent difficulty of monetary theory. "Real" theory began with the notion that value is created by the expenditure of human effort over time, a notion that raises no real questions of understanding or ethical justification. But it ran into problems once it became necessary to explain the productive role of material capital and the existence of a return on it, problems that still and needlessly confuse, or are confused by, the present-day Cambridge successors of the English classical tradition. But real capital at least requires sacrifice to accumulate, and it contributes in tangible form to total output. Money, on the other hand, is a stock that ultimately requires confidence, not tangible effort, to create, appears to have no inherent usefulness in its medium-of-exchange function, and yields no explicit return identifiable with an easily measurable contribution to production. Hence it requires a great deal of sophistication to treat money as a stock requiring application of stock-flow adjustment mechanisms. It is not surprising that even great monetary theorists like Wicksell and Keynes have found it more congenial to treat monetary adjustments proximately in terms of income-expenditure flow relationships motivated by the fixing of a disequilibrium relative price (the interest rate) through monetary policy, while politicians and the public prefer to attribute balance-of-payments deficits to prices being too high, businessmen and workers too lazy, or governments too spendthrift with the taxpayers' money.

Be that as it may, the classical approach to international monetary equilibrium and disequilibrium and balance-of-payments problems was swept away in the 1930s in favor of a succession of alternative approaches that attempted to treat balance-of-payments equilibria and disequilibria as flow equilibria. The implicit or explicit assumption on which these approaches were based was that flow trade deficits or surpluses (or, in some cases, surpluses or deficits on the balance of trade and services) entailed corresponding outward or inward flows of international reserves. This brief description, incidentally, encapsu-

lates the two main objections to these approaches made on behalf of the monetary approach. The first, which is one of those blindingly obvious elementary tautological points that economists are carefully trained to disregard in the process of formal model building, is that (in a fixed-exchange-rate system) an excess demand for money can be supplied *either* by the acquisition of international money through a balance-of-payments surplus *or* through the creation of money against domestic credit by the domestic monetary authority. This point has pervasive implications for international economic policy; they can be summarized in the proposition that no policy for improving the balance of payments can be successful unless supported by an appropriate restriction of domestic credit. The second objection, which requires sophisticated understanding of the basics of stock-flow relationships and adjustments subsumed in Patinkin's "real balance effect," is that a balance-of-payments deficit or surplus represents a transient stock-adjustment process evoked by an initial inequality of desired and actual money stocks. It cannot be treated as a continuing flow equilibrium. It is worth noting in passing that Keynes never made that mistake—he dealt entirely with a closed economy and a full stock and flow equilibrium in the goods, money, and bonds market. It was entirely a creation of others, who committed the error of analyzing a disaggregated monetary economy as if overall stock-flow equilibrium was enough and continuing net cash flows between its national parts would leave other flow equilibria unchanged.

The first popular successor to the traditional framework of analysis, one that still prevails in official and public policy discussions, was the so-called "elasticities approach," attributable to a classic essay by Joan Robinson (1950), though traceable to early work by the eccentric Bickerdike. That approach was pre-Keynesian, in the direct tradition of Marshallian partial-equilibrium analysis, which ignored repercussions of changes in production and expenditure in one sector on the equilibrium of the rest of the economy. Specifically, the approach regarded exports and imports as separate small sectors whose equilibria were determined by sector demand-and-supply functions in terms of domestic money prices (proxying for relative prices of traded goods in terms of domestic nontraded goods in general) as affected by the exchange rate applicable to conversion of domestic into foreign prices and vice versa.

The elasticities approach had the advantage of apparently shedding light, mistakenly it now appears, on two questions of contemporary concern apart from the effect of exchange-rate changes on the balance of payments itself: the effect on domestic employment, where im-