

1 The balance of payments

Introduction

I am greatly honored to be invited to lecture in the distinguished series of lectures in memory of Alfred Marshall. I trust you will indulge me if I return to a subject of my youth $-\grave{a}$ la recherche du temps perdu, so to speak, or a return to the scene of the crime. My dissertation, published in 1937 – half a century ago – dealt with international short-term capital movements. Since that bygone era I have wandered more widely in international economics and economic history, without, however, entirely deserting the subjects of capital movements, foreign exchange, balances of payments and the like.

The gap of fifty years bothers me somewhat. My colleague, Paul Samuelson, has told me of reading an article a number of years ago by Professor Pigou, and thinking that it sounded familiar. He was, of course, certain that Pigou was not a plagiarist, but he was nonetheless curious as to its origin. Some digging revealed that it was similar to an article that had appeared fifty years earlier, written by Pigou himself. It seemed that certain synaps, long closed, had opened up again and Professor Pigou rediscovered his own theorem, analysis, conjecture, whatever it was. In these lectures I am acutely conscious of the fact that I repeat to a considerable extent what I have said on previous occasions.

International capital movements do not fit neatly into the thought of Alfred Marshall. The *Principles* (8th edn, 1920) refer to them not at all, as far as I see from a cursory view, perhaps because Marshall thought that little of first-rate importance



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remained to be worked out after the Bullion Report of 1810 (Money, Credit and Commerce, 1923 (1960), p. 135). The chapter on "International Exchanges" in Money, Credit and Commerce was said to be "an elementary account of matters that are familiar to every business man, and that are well understood by a great part of the general public" (ibid., p. 140). As indicated below, however, Marshall's discussion of international security markets has a very modern ring to it.

I choose to approach my subject with taxonomy, much as I did half a century ago. I shall first set out a few identities and definitional equations dealing with the balance of payments and its relationships with national income, though I shall use no mathematics, no econometrics, and none but the most casual empiricism. This is partly a matter of formation – the years when economics was being formalized were spent by me in government service and the Army. On returning to academic life I made the perhaps mistaken decision to carry on as a literary economist. interested in simple models and economic history. In part, however, I have come to believe that in order successfully to interpret what goes on in the real world it is necessary to change models continuously. I have insisted that this is true as between Keynesians on the one hand and monetarists on the other, between the analogous banking and currency schools in Britain in the first half of the nineteenth century - the latter thought by Marshall to have cleared our subject up - of the monetary and balance-of-payments explanations of the German inflation after World War I, and of such debates as to whether capital flows are correlated positively or negatively with the domestic business cycle (Kindleberger, 1985a). It is tempting to develop a single economic model for a given class of economic behavior and to cling to it. I believe it is a serious mistake and the analyst that relies on a single model is led deceptively into blind alleys.

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I start with an identity for the balance of payments

$$X - M - LTC - STC - G \equiv O \tag{1}$$



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in which X stands for exports of goods and services; M is not money, as in most macro-economic discussion, but the absolute value of imports of goods and services; LTC are exports of long-term capital, with imports of capital having an implicit minus sign; STC are exports of short-term capital, imports again having an implicit negative sign; and G represents not government but imports of gold, with gold exports implicitly minus. I shall have something to say at a later stage about gold's recent transmutation from money into a commodity, but let me treat it for the nonce in a classical way.

Identity (1) says merely that the balance of payments always balances. It assumes perfect knowledge of transactions, so that there are no errors and no omissions. I further neglect for the time being such complications as transfers – foreign aid, reparations, indemnities and the like. I shall later break down various items, especially long-term capital (LTC) which is treated in chapter 2, and STC, the subject of chapter 3, into various subgroups with different characteristics. Observe that X-M is the current account in the balance of payments, and that as a first approximation LTC and STC comprise the capital account and G the money account. In due course we shall find that much of STC belongs in the money account and that perhaps all of G should be counted among exports and imports of merchandise in the current account.

Early in the development of economics, little attention was paid to capital movements, although, as Postan reminded us, they were very much in evidence (1973). Bills of exchange assisted gold and silver in balancing exports and imports, a great improvement in efficiency as together they overcame the necessity to balance exports and imports in the very short run. Specie had gone some distance to meet the need for widening trade balances both in time and space, but the development of bills of exchange provided still greater freedom. The Hanseatic League, without bills of exchange, was limited to a kind of barter, selling goods abroad for local money then used to buy goods for import at the same time and the same place, except for small bilateral imbalances settled with specie (Dollinger, 1964 (1973)). But something like the fallacy of misplaced concreteness made early economists concen-



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trate on exports, imports and specie. If LTC and STC drop out of identity (1) it becomes

$$X - M - G \equiv O \tag{1a}$$

David Hume insisted that equilibrium in the balance of payments of such a country was

$$X - M = O = G \tag{2}$$

This notion was developed in reaction to the mercantilists of the seventeenth and earlier centuries, who, with limited capital flows, wanted an export surplus on current account to accumulate specie. Their equilibrium position could be considered as

$$X - M = G \tag{3}$$

with both sides of the equation positive. Modern economics assumes that Hume's attack on the mercantilists revealed the fallacy of their thought. I have lately developed more sympathy with their position as I read of the "bullion famine" of the fifteenth century and up to about 1550, with specie drained to the Levant and the Eastern Baltic, areas that we would today regard as "low absorbers" (Day, 1978). Gold, silver and copper coin also disappeared through rubbing, sweating, clipping, wear and tear, and inadvertent loss, plus or minus the movement into or out of jewelry and plate. From time to time the shortage became so acute that it was necessary to substitute salt, pepper, cochineal (a dye) or similar valuable products traded at an arbitrary value for money, evoking in the economists of my immediate postwar generation the memory of the use of cigarettes, soluble coffee, and silk stockings for money in West Germany prior to the monetary reform of 1948. Mercantilists then were not completely stupid in their concern that a bullion famine might produce deflation. Theirs was a monetarist position, and one that differs from Keynes' view in The General Theory (1936, chap. 23) that the kernel of truth in mercantilism lay in the stimulus that exports gave to income and employment, a view that an expert on the period insists is inaccurate and riddled with misinterpretations (de Roover, 1949, p. 287n): In any event, by the eighteenth century, with the flow of specie from the New World distributed through bankrupt and



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indebted Spain to Genoa, Bruges, Antwerp, Amsterdam and London, mercantilist explanations were out of date and Hume's account of the price-specie-flow mechanism was needed. As a brief digression, I may observe that it often happens that economic analysis makes discontinuous changes in response to changes in the underlying situation. For a further, not unrelated example, note that physiocratic doctrine favoring the export of grain in place of a "policy of abundance" that restricted exports gained acceptance only when it was clear from the development of the grain trade from the Baltic to the Mediterranean that the populace would not have to rely completely on local supplies.

The transfer problem

When notice began to be taken of capital movements, the current account no longer served as the measure of an equilibrium position. The question now was whether the current account accommodated to the capital flow or perhaps vice versa. Most of Money, Credit and Commerce had been written in the 1890s before the treatment of the transfer problem by Taussig and his students, so that Marshall may be forgiven for thinking that little needed to be added to the Bullion Report of 1810.

The transfer problem came to the fore with the development of the accounting device of the balance of payments (Bullock, Williams and Tucker, 1919) and the problem posed by German reparations after World War I. There had been frequent indemnities before, in 1570, 1586, 1613 and the like, not to mention the classic cases of the indemnity paid by France with the help of a recycling Baring loan, to the allies victorious over Napoleon, and the Franco-Prussian indemnity of 1871-7 (Kindleberger, 1984, chap. xiii). Indeed, in the early sixteenth century loans were made and repaid in kind, including such commodities as copper and butter to illustrate the possibility (and the inefficiency) of the "natural" as opposed to the money economy (Heckscher, 1931 (1953), pp. 213-14). But the problem posed by the payment of reparations by Germany to the Allies after World War I faced economics squarely with the need to analyze transfers. The transfer problem arose because

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$$X - M - LTC \neq O \neq STC + G \tag{4a}$$

whereas equilibrium consisted in

$$X - M - LTC = O = STC + G \tag{4b}$$

This latter definitional equation is referred to today as "basic balance" in international payments. Some of you may prefer to think of the autonomous items on the left-hand side as "above the line," and those on the right as "induced" and "below the line." You will, I hope, forgive me if I use this form of notation to emphasize that items can be shifted from autonomous to induced as the analysis of particular events requires. I suffered when the editor of the International Finance Section of Princeton University some years ago, the late Fritz Machlup, insisted on my changing the horizontal arrangement to a vertical one with the "line" where the equal signs come. I changed back when I escaped that determined editor.

You will recall that Viner believed that the movement of capital from London to Canada from 1896, and especially 1904, to 1913 was autonomous and the current account induced. He also thought that money movements served as instrumental variables and were reversed during the process as a whole (1924). In his model, the price-specie-flow mechanism brought it about that gold moved from Britain to Canada in the early part of the process to start the development of a goods surplus, and then reversed itself. The position ended up with the capital transferred in kind, the gold flows cancelled out and

$$LTC = X - M (5a)$$

R. H. Coats, the Canadian Dominion statistician, on the other hand thought the causation ran the other way – from expansion in Canada to an import surplus and an increase in interest rates that induced the capital flow (Board of Inquiry, 1915), in short

$$X - M = LTC (5b)$$

In Keynes' famous remark, capital was fluid and the current account "the sticky mass" (1929). Viner (1952) and Machlup (1950 (1964)) disagreed, contending that the current account is



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highly malleable and readily conformed to whatever direction and amount of capital might be forthcoming. They cited as example the experience of Germany continuing to pay reparations to the Allies after the inflow of private funds to Germany had halted in mid-1928, developing an export surplus to produce the foreign exchange needed to pay reparations, even in the depressed circumstances of 1930 and the first half of 1931. This was, however, at a tremendous social cost of 15 percent unemployment and the rise of the National Socialists to power. In 1958 in an article entitled "Equilibrium and Disequilibrium: Misplaced Concreteness and Disguised Politics," Machlup insisted that equilibrium in the balance of payments was a purely economic concept without political content. When the article was republished, he added a footnote saying that he had not meant to accuse Ragnar Nurkse (1949) or me, whose work had been cited in the article, of concealing or disguising the political dimensions of equilibrium when we had in fact been explicit on the point (1969, p. 128, n. 19). Toward the end of his life, Machlup recanted his earlier views entirely, and admitted that to transfer capital flight or reparations abroad through rigorous deflation might put such a severe strain on an economy as to jeopardize social and political stability.

National income and the balance of payments

The relationship of domestic investment to the balance of payments, of course, comes from the Alexander classic article (1952) in which he relates the balance of payments to what he calls "absorption." Starting with the definitional identity for national income (Y)

$$Y \equiv C + I + G \tag{6}$$

C being consumption, I investment and G government (not in this instance gold, but the meaning should always be clear in context), investment is broken down into segments, domestic and foreign

$$I = I_d + I_f \tag{6a}$$

 I_f , that may be positive or negative, is the international movement of capital and money, or the current-account surplus or deficit.

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Substituting and rearranging, one arrives at

$$X - M = Y - (C + I_d + G)$$
 (6b)

which in equilibrium is the same, with the help of (5a), as

$$Y - (C + I_d + G) = LTC (6c)$$

If absorption is less than national income, the surplus is taken off in long-term capital exports. In the Canadian case of Coats' showing, however, absorption exceeded income so that capital imports were induced. Alternatively, one can deal with savings and investment on a net basis, starting with $S = I_d + X - M$, and arrive at the net equivalent of (6c)

$$S - I_d = LTC \tag{6d}$$

In some cases it helps to break down savings into personal, corporate and government savings (surplus or deficit) $(S_p, S_c \text{ and } S_g)$. If one nets the corporate sector $(I_d \text{ and } S_c)$, (6d) becomes

$$S_p - (I_d - S_c) + S_g = LTC (6e)$$

With corporate savings after net investment negative and offset by savings of the household sector, a government deficit produces a capital inflow. This is the position in the United States today.

Whether the government deficit crowds out domestic investment, raises interest rates that induce a capital flow that gives rise to the inward real transfer of capital – the current-account deficit – or the current-account deficit comes directly from the excess government spending that in turn leads to the capital inflow, or some of each, is a matter far from resolution by the most sophisticated statistical methods. In addition to the spending and interestrate changes motivating capital flows, there are, in today's world, exchange-rate fluctuations giving rise to price changes and the responses to them of spending units, choosing between home and foreign-trade goods, and domestic and foreign assets. The ambiguities involved will be encountered below again and again. As already suggested, however, it is methodological error to insist that only one model is at work all the time, or even in a given complex incident. Here, as in Marshall's famous general-equilibrium



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example of balls in a bowl, the position of each determines the position of all others and vice versa.

What this means, of course, is that it is a mistake to lay all the blame for the United States deficit vis-à-vis Japan on the U.S. governmental budget deficit $(S_g < O)$ or on high Japanese personal savings $(S_p > O)$, explaining the former, say, by rising entitlements under the social security laws passed in president Roosevelt's time with indexation, farm subsidies, and President Reagan's commitments to high defense expenditure and to no turning back from the tax reductions made early in his first term; ascribing the latter to Japan's lack of social security provision at the national level, forcing each family to save for its own retirement, to the payment of salaries thirteen times a year with the annual bonus of a month's pay that tends to be saved, and the like. In equilibrium, everything determines everything.

In this discussion of net investment or net savings and long-term capital flows, it is assumed that the money variables cancel out in the transfer process, i.e., that the gold and/or short-term capital flow is reversed when transfer is complete. But Jeffrey Williamson, in treating the history of the American balance of payments in the nineteenth century, made a crucial contribution to the discussion that is generally overlooked (1964). The transfer mechanism in the typical analysis, he stated, assumes that the movement of long-term capital is balanced by the net of exports and imports of goods and services. Given growth, however, a country's money stock must grow. It can acquire more money by an export of goods and services. It can equally do so by borrowing. In the nineteenth century, the United States borrowed abroad mainly to acquire goods and services for capital investment, but partly also to enlarge the money stock. This money was not an instrument but part of the purpose of borrowing. This is international financial intermediation, borrowing long and holding gold. We shall hear more of international financial intermediation, perhaps more than you will want to hear.

In Williamson's version, three markets must clear in equilibrium – not separately but in the aggregate – that for goods and services (X - M), that for financial assets and to some degree real capital (LTC), and that for money (STC + G). The monetarist



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view of the balance of payments acknowledges that the money stock must grow with economic development but again assumes only two markets, for money and for goods. With more money needed as growth proceeds, the country must develop an export surplus. But with three markets in overall balance, that is no longer necessary. The sought-after money can be borrowed. And unlike the Viner model of the transfer process with the price-specie-flow mechanism at work, it need not return. In fact the distribution of new supplies of specie from the gold and silver mines of Europe, Africa and the New World took place partly through the trade account but also through capital movements.

Let us, however, dispense with gold for the time being. Since at least 1971 when the United States closed the gold window, or perhaps 1968 when the gold pool in London broke up and the two-tier price system was introduced, gold has been a commodity rather than money. The Midas neurosis, or perhaps I should say "paranoia," still abounds, not least in central banks. The nostalgia for a return to the gold standard evident in France and in the small band of American followers of Jacques Rueff and Robert Mundell in the United States seems doomed to frustration, especially after the Reagan Gold Commission's negative report written by Anna Jacobson Schwartz, rejecting a return to the gold standard in favor of monetarism. Unable now to serve as a medium of exchange or unit of account, gold is no longer international money. It has lost the unit-of-account function because of its varying price, when the moneyness of money rests in the fact that its price is constant in terms of other monies. I shall occasionally reintroduce gold into these definitions to conform to classical definitions, but the principal international money is short-term capital, in an earlier day sterling, today usually dollars.

The three markets that have to clear: for goods and services, for long-term assets or liabilities, and for money, conform to three modes of analysis in balances of payments: the elasticities and/or absorption, the absorption, and the monetary. The monetary approach assumes that exports and imports of goods and services adjust to the relationship between the demand for and the supply of money in a given country. I lack an intuitive feel for this, since I normally think of money as balancing the difference between