Journal of International Economics 45 (1998) 173–186

Journal of
INTERNATIONAL
ECONOMICS

Hume's specie-flow mechanism and classical monetary theory: An alternative interpretation

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Received 29 April 1997; received in revised form 10 July 1997; accepted 29 July 1997

Abstract

Hume's celebrated essay on the international distribution of money has always been criticized for ignoring the law of one price. Contrary to the traditional interpretation, however, Hume actually maintains that law and argues for the stability of long-run equilibrium. Putting money market equilibrium in the foreground, his analysis is essentially founded on the same hypothesis as the modern monetary approach, albeit focusing on the supply rather than on the demand side of the money market. © 1998 Elsevier Science B.V.

Keywords: Balance of payments; Classical monetary theory; Specie-flow mechanism

JEL classification: F40; B12; B31

1. Introduction

Hume's essay "Of the Balance of Trade" (Hume, 1752a) is the *locus classicus* of international monetary adjustment. Despite its time-honored fame, however, this contribution has always been controversial. Even before its appearance in the *Political Discourses*, Hume's close friend James Oswald of Dunnikier set forth a penetrating critique, initiating a debate that has continued down to our own days. As Samuelson (1980, p. 141) bluntly puts it, "Hume's account is both wrong and incomplete". This widespread thesis rests on Hume's purported neglect of the law of one price. In fact, the traditional description of Hume's analysis, which is

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common throughout the literature on international monetary economics, hinges on a variation in domestic prices vis-à-vis the rest of the world. An increase in money supply following a trade surplus pushes up the country's price level, which by discouraging exports and stimulating imports redresses the balance and siphons off the extra money. In order to mend the supposed violation of the law of one price, a price effect in the adjustment process was resurrected through changes in the terms of trade and the introduction of non-traded goods. But these reconstructions entail "sophisticated fallacies" (Samuelson, 1980) and, above all, are beside the point because, as the present paper argues, they originate from an erroneous interpretation of Hume. On a more attentive reading a consistent theoretical framework emerges, showing these recurrent criticisms to be entirely misplaced. Despite the unavoidable abundance of quotations in Sections 2 and 3, necessary to overturn the received view, this alternative appraisal is no mere exegetical exercise of antiquarian interest. Besides vindicating Hume it shows, in contrast with the prevailing opinion, that the modern monetary approach is closely related to his contribution (Section 4).

2. The Hume–Oswald exchange

The centuries-old controversy surrounding "Of the Balance of Trade" is indeed a peculiar story in that the arguments fuelling it had already been illustrated to the author more than a year before publication. In a letter dated 10 October 1750,[1] Oswald raised some crucial objections, which gave Hume the opportunity to ponder them in his rejoinder (Hume, 1750) and strengthen his analysis. However, several economists have since faulted Hume for the same reasons. The importance of this correspondence, therefore, goes beyond the history of economics because it shows how Hume would have answered his modern critics.

In his critique, Oswald points out the disregard for the law of one price and for the output effect of variations in the money stock. For both reasons, domestic prices do not change in proportion to money supply.

> "The increased quantity of money would not necessarily increase the price of all labour and commodities; because the increased quantity, not being confined to the home labour and commodities, might, and certainly would, be sent to purchase both from foreign countries, which importation, unless obstructed by arbitrary and absurd laws, would keep down the price of commodities to the level of foreign countries; and if the price of labour still continued for a short time at a higher rate than that level, it would only serve, by attracting foreigners, to increase the number of useful inhabitants

[1] Due to a misprint in Rotwein's edition, Oswald's letter is often referred to as being dated 10 October 1749 instead of 1750 (Greig, 1932, p. 132).

> in proportion to the increased quantity of money...it does not therefore follow that the quantity of money either is the same, or naturally will become the same, in all such countries; because the cultivation and population of the one may increase, and naturally will increase, while the cultivation and population of the other may diminish." (Oswald of Dunnikier, 1750, pp. 191–192)

Furthermore, the capital experiences a permanent trade surplus vis-à-vis distant provinces, and thus a monetary expansion that raises prices and enhances growth. Contrary to Hume's equilibrium hypothesis, therefore, this state of affairs is not reversed by self-correcting forces (Oswald of Dunnikier, 1750, pp. 193–195).

Hume replies by spelling out his analysis in two respects. In the first place, the money stock is not equally distributed in all countries, but in proportion to output and population.[2] This proposition disposes of Oswald's charge of neglecting the law of one price, since, abstracting from velocity, the ratio between money and output is equal to the price level, which must be the same everywhere. This equilibrium condition is central to Hume's theoretical framework. Secondly, Hume agrees with Oswald that, due to the law of one price, domestic prices do not vary with the money supply and, during transition from one equilibrium to another, an output effect may result. Hence, the money stock does not necessarily return to the former equilibrium level.

> "You allow, that if all the money in England were increased four-fold in one night, there would be a sudden rise of prices; but then, say you, the importation of foreign commodities would soon lower the prices. Here, then, is the flowing out of the money already begun. But, say you, a small part of this stock of money would suffice to buy foreign commodities, and lower the prices. I grant it would for one year, till the imported commodities be consumed. But must not the same thing be renewed next year? No, say you; the additional stock of money may, in this interval, so increase the people and industry, as to enable them to retain their money. Here I am extremely pleased with your reasoning. I agree with you, that the increase of money, if not too sudden, naturally increases people and industry, and by that means

[2] "I never meant to say that money, in all countries which communicate, must necessarily be on a level, but only on a level proportioned to their people, industry, and commodities. That is, where there is double people, &c. there will be double money, and so on; and that the only way of keeping or increasing money is, by keeping and increasing the people and industry; not by prohibitions of exporting money, or by taxes on commodities, the methods commonly thought of. I believe we differ little on this head" (Hume, 1750, p. 197). Hume made this point more than a year before in a letter to Montesquieu: "It does not seem that money, any more than water, can be raised or lowered anywhere much beyond the level it has in places where communication is open, but that it must rise and fall in proportion to the goods and labour contained in each state" (Hume, 1749, p. 189).

may retain itself; but if it do not produce such an increase, nothing will retain it except hoarding. Suppose twenty million brought into Scotland; suppose that, by some fatality, we take no advantage of this to augment our industry or people, how much would remain in the quarter of a century? Not a shilling more than we have at present. My expression in the Essay needs correction, which has occasioned you to mistake it." (Hume, 1750, pp. 197–198)

This passage clarifies Hume's view of international adjustment in detail and suggests several comments. First, it is the operation of the law of one price that triggers the equilibrating money flows. Second, if it is to stimulate output the increase in money must be unexpected ("not too sudden").[3] Third, inasmuch as the rise in output during transition helps to annul the disequilibrium, the country ends up with a higher money stock in the final equilibrium position.[4] Fourth, Hume's attention ultimately centers on long-run equilibrium. Besides the reference to "the quarter of a century" needed for adjustment, he rejects Oswald's argument that a rich country, or London vis-à-vis outlying provinces, can grow more than poor ones forever. And, in the final paragraph, Hume gives his own interpretation of the essay, emphasizing the equilibrium conception and the abandonment of mercantilist policies.[5] As this correspondence shows, the main criticisms raised against "Of the Balance of Trade", i.e. the presumed neglect of the law of one price and of the output effect of a money increase, had been correctly discussed by the author before publication. It is somewhat surprising, therefore, that the same criticisms, in particular the former, should be raised time and again in the ensuing centuries. Either Hume failed to incorporate his rejoinder to Oswald in the published version or his readers have misinterpreted the analytical content of his writing.

[3] In the essay "Of Money" (Hume, 1752b, p. 39, f. 1), Hume relates the output effectiveness of money variations to their slow and unannounced implementation (Cesarano, 1983, 1998). It may further be noted that Oswald's objection does not concern the effect on the terms of trade of spending excess cash balances, a point at the center of the transfer problem debate, but the effect on output and the price level of excess money supply. The issue at stake, therefore, regards absolute, not relative, prices. In other words, it belongs to the realm of monetary theory, not price theory.

[4] In this quotation, "hoarding" does not refer to a shift in the demand for money, as a modern economist might be tempted to think, but to the accumulation of a treasure by the sovereign. See Hume (1752a, pp. 73–75).

[5] "On the whole, my intention in the Essay was both to remove people's errors, who are apt, from chimerical calculations, to imagine they are losing their specie, though they can show in no instance that either their people or industry diminish; and also to expose the absurdity of guarding money otherwise than by watching over the people and their industry, and preserving or increasing them. To prohibit the exportation of money, or the importation of commodities, is mistaken policy; and I have the pleasure of seeing you agree with me" (Hume, 1750, p. 199).

3. An alternative interpretation

There is no direct evidence to answer this question, since the draft on which Oswald commented is not known. Besides the possible addition of a footnote (see footnote 6), the published essay has been assumed not to differ substantially from the manuscript (Greig, 1932, p. 143; Low, 1952, pp. 315–316; Berdell, 1995, p. 1206). This conjecture does not necessarily give rise to a conundrum, since Hume may have deemed the final version to be solid enough to stand up to Oswald's criticism. The present section, I believe, shows that this is indeed the case.

"Of the Balance of Trade" opens with a plea for free trade to increase the country's output and avoid outflows of money. Hume's chief objective is to put an end to the mercantilist fear of losing money and "prove the impossibility of this event, as long as we preserve our people and our industry" (Hume, 1752a, p. 62). The ratio of money to output, like water in communicating vessels, cannot diverge from a given "level". But this ratio is simply the price level, which must be everywhere the same. The core of Hume's analysis, therefore, is an equilibrium condition founded on the law of one price.

> "[A]ny man who travels over Europe at this day, may see, by the prices of commodities, that money, in spite of the absurd jealousy of princes and states, has brought itself nearly to a level; and that the difference between one kingdom and another is not greater in this respect, than it is often between different provinces of the same kingdom. Men naturally flock to capital cities, sea-ports, and navigable rivers. There we find more men, more industry, more commodities, and consequently more money; but still the latter difference holds proportion with the former, and the level is preserved." (Hume, 1752a, p. 66)[6]

This equilibrium condition is grounded on an unsophisticated version of the quantity theory that abstracts from and "does not [even] mention the velocity of circulation" (Holtrop, 1929, p. 513). However, though it is based on simplifying

[6] [illegible] footnote appended to this passage, Hume strengthens and further clarifies his standpoint. "It [illegible]refully be remarked, that throughout this discourse, wherever I speak of the level of money, I [illegible]ways its proportional level to the commodities, labour, industry, and skill, which is in the [illegible]tates. And I assert, that where these advantages are double, triple, quadruple, to what they are [illegible]eighbouring states, the money infallibly will also be double, triple, quadruple. The only [illegible]tance that can obstruct the exactness of these proportions, is the expense of transporting the [illegible]dities from one place to another; and this expense is sometimes unequal. Thus the corn, cattle, [illegible]utter, of Derbyshire, cannot draw the money of London, so much as the manufactures of [illegible] draw the money of Derbyshire. But this objection is only a seeming one: For so far as the [illegible] of commodities is expensive, so far is the communication between the places obstructed and [illegible]" (Hume, 1752a, p. 66, f. 1).

assumptions, Hume's approach is eminently correct. Dwelling upon the postulate of self-interest underlying money market equilibrium,[7] it maintains rather than ignores the law of one price. In the remaining pages (Hume, 1752a, pp. 67–77), he examines two instances – the establishment of banks and the accumulation of a public treasure – that, though seemingly contradicting his analysis by decreasing and increasing "money beyond its natural level", actually corroborate the equilibrium hypothesis.

The published article thus does reflect Hume's rejoinder to Oswald, but the first part only, dealing with equilibrium; the second part, relating to adjustment (see pp. 3–4 above), is not discussed at all. Such neglect should not be seen as a rearguard defense or an escape from Oswald's criticisms, since the latter had been efficaciously answered. The explanation should rather be sought in the nature of the issue addressed, namely the critique of mercantilism, as Hume himself argued (see footnote 5). The main message of his writing concerns the stability of equilibrium founded on the operation of forces that prevent money from falling or growing continuously. As stressed in the water analogy (Hume, 1749, p. 189; Hume, 1752a, pp. 63, 64, 72, 73 (lines 1 and 30), 77), the money stock, as long as communication is unobstructed, cannot deviate from the "natural level" determined by the law of one price. Hume's analysis, therefore, clashes head-on with the traditional account pointing at the discrepancy between domestic and foreign prices on the basis of two paragraphs[8] quoted ad nauseam in virtually all articles

[7] Aside from hindrances to communication like huge transport costs, equilibrium is maintained by "a moral attraction, arising from the interests and passions of men, which is full as potent and infallible [as physical attraction]. How is the balance kept in the provinces of every kingdom among themselves, but by the force of this principle, which makes it impossible for money to lose its level, and either to rise or sink beyond the proportion of the labour and commodities which are in each province?" (Hume, 1752a, p. 65). Waterman (1988) has drawn attention to the influence of Newton's contributions to physics on Hume.

[8] "Suppose four-fifths of all the money in Great Britain to be annihilated in one night, and the nation reduced to the same condition, with regard to specie, as in the reigns of the Harrys and Edwards, what would be the consequence? Must not the price of all labour and commodities sink in proportion, and everything be sold as cheap as they were in those ages? What nation could then dispute with us in any foreign market, or pretend to navigate or to sell manufactures at the same price, which to us would afford sufficient profit? In how little time, therefore, must this bring back the money which we had lost, and raise us to the level of all the neighbouring nations? Where, after we have arrived, we immediately lose the advantage of the cheapness of labour and commodities; and the farther flowing in of money is stopped by our fullness and repletion. Again, suppose, that all the money of Great Britain were multiplied fivefold in a night, must not the contrary effect follow? Must not all labour and commodities rise to such an exorbitant height, that no neighbouring nations could afford to buy from us; while their commodities, on the other hand, became comparatively so cheap, that, in spite of all the laws which could be formed, they would be run in upon us, and our money flow out; till we fall to a level with foreigners, and lose that great superiority of riches, which had laid us under such disadvantages?" (Hume 1752a, pp. 62–63).

and textbooks (a recent example is Krugman and Obstfeld, 1997, pp. 541–542). However, taken out of context, this passage is quite misleading. Hume is not analyzing the actual adjustment mechanism but simply a thought experiment describing the forces underlying a stable equilibrium. This appears patently in the paragraph, almost never quoted, that immediately follows the familiar ones.

> "Now, it is evident, that the same causes, which would correct these exorbitant inequalities, *were they to happen miraculously, must prevent their happening in the common course of nature*, and must for ever, in all neighbouring nations, preserve money nearly proportionable to the art and industry of each nation. All water, wherever it communicates, remains always at a level. Ask naturalists the reason; they tell you, that, were it to be raised in any one place, the superior gravity of that part not being balanced, must depress it, till it meet a counterpoise; and that the same cause, which redresses the inequality when it happens, must for ever prevent it, without some violent external operation." (Hume, 1752a, pp. 63–64, italics added)

Hume is evidently explaining the hypothetical character of those money stock variations that, just because the law of one price holds, cannot occur in reality as the italicized passage makes clear. This interpretation is confirmed by Hume himself when dealing with the impossibility of accumulating money, unless it is withdrawn from circulation in order to heap up a public treasure.[9] The change in money is just a "supposition", i.e. a thought experiment, to prove the stability result. Indeed, equilibrium is re-established "immediately" (Hume, 1752a, pp. 63, 69, 73) or "suddenly" like water in communicating vessels as emphasized in the letter to Montesquieu, the first statement of his theory (Hume, 1749, pp. 188–189). Yet this does not refer to the speed of the actual adjustment process but to the power of equilibrium forces deemed so strong as to make adjustment virtually instantaneous.

The question posed at the end of Section 2 can now be answered. "Of the Balance of Trade" reflects Hume's reply to Oswald and answers the same criticisms subsequently raised by others. The received view mistakenly takes Hume to task for ignoring the law of one price and misunderstands the essay entirely. The concentration on two single paragraphs (see footnote 8) has produced a caricatured interpretation centering on the adjustment mechanism. However, nowhere in this essay does Hume discuss transition; rather, positing the equality

[9] "To prove this, we need only return to our first *supposition*, of annihilating the half or any part of our cash; where we found, that the immediate consequence of such an event would be the attraction of an equal sum from all the neighbouring kingdoms" (Hume, 1752a, p. 72, italics added).

between domestic and foreign prices, he focuses on the stability property of long-run equilibrium.

4. Hume and classical monetary theory

Jacob Viner (1937) and Jürg Niehans (1990) are among the few who have not been caught in the trap laid by the mesmerizing passage quoted in footnote 8. In particular, Niehans (1990, p. 56) regards it as a *reductio ad absurdum* of the persistence of price differentials, thus hinting at the interpretation put forward in the present paper. Both recognize that Hume maintained, rather than ignored, the law of one price.[10] But Viner, deeming it "anachronistic" to ascribe to Hume the notion of price level because price indexes were not yet available, follows a relative price approach via the terms-of-trade channel (see the excellent treatment given by Negishi, 1989, pp. 40–48). If Viner falls short of a correct appraisal, Niehans goes beyond it by crediting Hume with a more sophisticated analysis involving the demand for real cash balances.[11] However, Hume has no such notion and, concentrating on the ratio between money and output, abstracts entirely from velocity. In fact, with the possible exception of Locke (Holtrop, 1929; Cesarano,

[10] In this respect, Viner is quite outspoken though his warning has remained unheeded. "The classical school and its important followers all held the same views on this point: after allowance for transportation costs, the market prices of identical transportable commodities must everywhere be equal or tend to be equal when expressed in or converted to a common currency. When, therefore, critics of the classical theory have taken it to task on the ground that it explained the adjustment of international balances by the influence on the course of trade of divergent market prices in different markets of identical transportable commodities, or when followers of the classical theory have attempted to defend it although themselves giving it such an interpretation, they have misinterpreted the classical doctrine" (Viner, 1937, pp. 316–317). That even authorities have been led astray on this essential point is shown by the following remark by Samuelson. "Gold's finding its proper geographical distribution by analogy with the way water finds its own level is merely a persuasive metaphor. If Hume had bothered to think the matter through, he'd have recognized that the analogy would have fit better if he likened the common price of wheat in two places to the common level of water in two places – a P rather than a Q or M analogy. No later writers have been harmed by Hume's level-of-water analogy" (Samuelson, 1980, pp. 146–47). But Hume did recognize the P analogy as extensively documented in the present paper (see especially the quotation on p. 5 and footnote 6).

[11] "Hume's expression of money everywhere maintaining its proper level clearly means that the ratio between the stock of money and the demand for real cash balances must everywhere be the same; but that ratio is simply the price level (if prices are expressed in coins with the same gold content). The economic substance of Hume's argument, therefore, though not innovative, was more solid than was often supposed. His exposition, however, though effective, was more misleading than Cantillon's or Smith's" (Niehans, 1990, p. 56). In a letter he sent me, Niehans agreed that Hume did not explicitly deal with the concept of real cash balances, although his water analogy might imply it (see footnotes 2 and 6).

1983), economists at the time had a rather mechanical conception of velocity assuming that its variations were tantamount to variations in the stock of money. Velocity was thus viewed as a factor impinging upon money supply rather than demand.[12] In the monetary transmission mechanism, an increase in money shifts the demand for goods, which raises output and eventually the price level (Cantillon, 1755, pp. 159–167). The real balance effect sets the mechanism in motion, but the discrepancy between desired and actual real cash balances is not even suggested. Indeed, the classics, albeit grasping the real balance effect, did not develop a fully-fledged conception of the demand for real cash balances and, particularly, of the adjustment of real balances to their equilibrium level. According to Patinkin (1965, p. 164 and Notes E and F), such adjustment was described only a century and a half later by Wicksell and Fisher. This point is important to arrive at a deeper assessment of Hume's contribution and to settle the much disputed question of the Humean character of the monetary approach to the balance of payment.

Hume is commonly criticized for neglecting the direct effect of the excess supply of money on the demand for foreign commodities and focusing, instead, on price differentials (Samuelson, 1980, p. 142). Of course, these are two sides of the same coin in that the violation of the law of one price results from the failure of arbitrage. As is shown in the previous section, however, equality between domestic and foreign prices is a central tenet of Hume's theory. Hence, the customary distinction between Hume's "price"-specie-flow mechanism and the modern approach based on arbitrage is unfounded. The point is not whether Hume

[12] Cantillon notes: "I have already remarked that an acceleration or greater rapidity in circulation of money in exchange, is equivalent to an increase of actual money up to a point" (Cantillon, 1755, p. 161). Holtrop (1929, pp. 508–509) aptly distinguishes the *motion theory* of velocity from the *cash-balance theory* and shows their theoretical implications. "These two theories diverge in the first place in their conception of the notions of supply and demand of money. The partisans of the motion theory are more or less inclined to regard the velocity of circulation as a property of money, as a kind of energy which is inherent to it. To be sure they do not say this in so many words, but all comparisons that are made, as e.g. with the carrying-capacity of a ship, go in this mechanical direction. If, however, the velocity is a property of money, then the supply of money is not a singular but a compound magnitude, being constituted of the product of quantity and velocity. Opposite to this supply they then put a demand for money, which is identified with the total supply of goods, thus coming to a formulation of the quantity theory, according to which the value of money is determined by supply and demand in the just mentioned sense. Otherwise the supporters of the cash-balance theory, who perceive that the size of the cash-balances is not dependent on the properties of the coins, but on the will of the owner which is governed by economic motives. To them the demand for money is the sum-total of the individual demands for a cash-balance, and the supply of money is simply constituted by its quantity. It is evident that, according to this view, the velocity of circulation, being nothing but the expression of the relative size of the cash-balances, is not a factor of supply, but of demand" (Holtrop, 1929, pp. 52[illegible]

upheld a direct effect on the demand for foreign goods, which he certainly did, as it follows from the law of one price, but whether his analysis is consistent with that law. Bearing in mind Oswald's criticisms, Hume avoids tackling the dynamics of transition to the new steady state and instead aims to demonstrate the stability of equilibrium. To this purpose, he can rely on *notional* changes in the price level, which do not refer to the actual adjustment process but to a thought experiment. This analytical apparatus, while quite consistent, does not spell out a theory of transition from one equilibrium to another in the presence of the law of one price. This was eventually accomplished by the modern monetary approach (Niehans, 1984, chapters 2 and 3). Hume restricts himself to an analysis of the adjustment process in the closed economy set-up of his essay "Of Money", where the problem of the law of one price does not arise. In fact, if a distinction can be drawn in Hume's work, the relevant one is between the analysis of equilibrium and that of transition, dealt with respectively in "Of the Balance of Trade" and "Of Money". The latter essay shows how employment and output are affected, while prices respond after a lag, during adjustment in consequence of the agents' incomplete information (Cesarano, 1998).[13] But there is no conflict between the two essays, because they address different topics on the basis of the same analytical framework grounded on the equilibrium hypothesis.

The problem Hume dealt with, namely the stability of long-run equilibrium, was entirely neglected by neo-classical economists (Patinkin, 1965, pp. 168, 186). This should be emphasized because his work has always been considered devoid of originality, its main tenets having been anticipated by Gervaise, Cantillon and Vanderlint (Vickers, 1959, p. 218; Allen, 1987, p. 431; Niehans, 1990, p. 55). His simple yet powerful box of tools explains the international distribution of money as well as the endogeneity of money supply inside a country, dwelling upon the equilibrium hypothesis and the forces underlying the stability of equilibrium. A fast-growing country, for instance, attracts money from the rest of the world. Moreover, the argument for free trade that opens and closes the essay is instrumental to growth, the only viable source of money accumulation.

This appraisal bears on the relationship between Hume and the monetary approach, whose exponents claim a Humean heritage (Johnson, 1972; Frenkel, 1976; Frenkel and Johnson, 1976) but maintain the traditional interpretation of

[13]In an often quoted passage, Keynes considers Hume the beginner of the classical equilibrium tradition, even though he argued partly in a mercantilist vein. "Hume... had a foot and a half in the classical world. For Hume began the practice amongst economists of stressing the importance of the equilibrium position as compared with the ever-shifting transition towards it, though he was still enough of a mercantilist not to overlook the fact that it is in the transition that we actually have our being" (Keynes, 1936, p. 343, f. 3). The quotation then refers to "Of Money" (Hume, 1752b) whereas, with regard to "Of the Balance of Trade", Hume certainly had both feet in the classical world.

Hume, thus failing to make a convincing case[14]. Indeed, the standard view in the literature points out the contrast between the "price"-specie-flow mechanism and the law of one price upon which the modern theory is built (Fausten, 1979; Samuelson, 1980; Berdell, 1995). Although this distinction has been shown to be baseless, it would be overhasty to suggest that a close link exists. On the one hand, Hume undoubtedly upholds the law of one price in a simple quantity theory set-up. On the other, he does not refer to the notion of demand for real cash balances, let alone of the equilibrating mechanism annulling the discrepancy between actual and desired real money balances, which is the core of the monetary approach. If the latter aspect, developed only a century and a half later, is deemed essential to the monetary approach, then we must agree with the standard view. Otherwise, we must affirm with Harry Johnson that "the mainstream of the classical tradition [is] epitomized in David Hume's 'price-specie flow mechanism'" (Johnson, 1976, p. 9). This, in fact, appears to be the case because the starting point of both Hume's theoretical framework and modern theory is money market equilibrium. The main difference is that while Hume's equilibrating mechanism is centered on the hydraulic process focusing on the money to output ratio and looks at the supply side of the market, contemporary economists emphasize the behavioral hypothesis underlying the notion of desired real cash balances and points at the demand side. Nevertheless, the two strains of thought originate from a common source, since both approach the balance of payments from a money market perspective and view it as a monetary phenomenon. Certainly, the modern theory displays greater sophistication and generality, which leads to a fully-fledged analysis of the dynamics of transition. But Hume's contribution, two centuries in advance, demonstrates considerable explanatory power within a simplified theoretical framework. In fact, it reaches the main results of the monetary approach (Fausten,

[14]See the following remark by Harry Johnson. "[I]n the detailed analysis of the mechanism there is a rather awkward compromise between the assumption of a closed and of an open economy, in which it is assumed that domestic prices can vary from purchasing-power parity under the influence of imbalances between money demand and money supply, but that such variations give rise to changes in trade flows which alter the balance of payments and hence the domestic stock of money in the longer run. As we shall see, the new approach to balance-of-payments theory, while basically Humean in spirit, places the emphasis not on relative price changes but on the direct influence of excess demand for or supply of money on the balance between income and expenditure, or more generally between total acquisition and disposal of funds whether through production and consumption or through borrowing and lending, and therefore on the overall balance of payments" (Johnson, 1972, p. 230). Frenkel (1976, p. 41), besides quoting a passage from Hume's "Of the Jealousy of Trade", refers to Gervaise and Cantillon in order to provide evidence for the direct effect on the demand for foreign goods. And, with regard to the "famous paragraph" (see footnote 8 above), he notes: "Hume's statements concerning the changes in prices raise some questions whether his price adjustment assumes failure of arbitrage" (Frenkel, 1976, p. 42).

1979, p. 661) – the endogeneity of money supply, the transitory and self-correcting character of payments disequilibria, and the concentration on the longer-run consequences of balance-of-payments policies – thus showing a common analytical foundation.

5. Conclusion

As economists are well aware, the classics are more often quoted than read. Theories mistakenly named after a classical author survive in the economic jargon with the wrong label. An example is the Ricardian Equivalence Theorem, which was in fact refuted by Ricardo (O'Driscoll, 1977). Likewise, textbooks will continue to dispense a popularized version of Hume's writing as the classic statement of international adjustment based on the divergence between domestic and foreign prices. Had readers not focused only on the passage cited in footnote 8, they would have recognized that the changes in money that Hume refers to represent a thought experiment relating to the stability of equilibrium and not to the actual adjustment mechanism. Admittedly, Hume's exposition can be confusing, but an attentive reading of the essay together with the correspondence with Oswald leads to a straightforward interpretation. Hume was perfectly aware of the objection concerning the violation of the law of one price long before publication. Not surprisingly, then, the definitive version of his work is immune to that critique. Hence, the received view of the "price"-specie-flow mechanism clashes with Hume's overall analysis. His theoretical framework hinges on money market equilibrium and, albeit concentrating on the supply rather than the demand side, can be seen as the epitome of the modern monetary approach to the balance of payments.

Acknowledgements

Thanks are due to William Allen, John Berdell, Mark Blaug, Robert Clower, Dietrich Fausten, Milton Friedman, David Laidler, Robert Mundell, Jürg Niehans, Eugene Rotwein, A.M.C. Waterman and two referees for their perceptive comments. The paper was presented at the History of Economics Society conference in Charleston, S.C., in June 1997. I am grateful to the discussant, Allin Cottrell, and to other participants for their helpful suggestions. The usual caveat applies.

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