

Currents of monetary theory in classical political economy

by
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I. Introduction

The classical theory of money and credit is characterised by the underlying assumption that natural harmony prevails in the operations of the market economy, a harmony that also extends to the realm of money and credit. Two distinct traditions can be discerned within the classical theory in this respect. On the one hand, the quantity theory of money (or the currency school) emphasises the harmonious equilibration of the total quantity of commodity output and the total quantity of commodity money, provided that there has been no state or other interference with the domestic and international operations of the capitalist markets. In this view, money is a secondary aspect of capitalist exchange, a 'veil' on real economic activities. Credit money created by banks could upset the presumed harmony, resulting in commodity price disturbances. Thus, this tradition supported the introduction of the English Bank Act of 1844 in the hope that tight quantitative regulation of credit money created by the Bank of England would eradicate capitalist market disturbances.

On the other hand, the tradition of the anti-quantity-theory (or the banking school) stresses that harmony also largely prevails in the relation between commodity output and credit money, as long as bank lending and repayment take place along non-speculative lines. In order to sustain this view, the economists of this tradition had to re-examine the role of commodity money in capitalist exchange, and opposed the quantity theory by stressing the hoarding and paying functions of money. For this reason, the anti-quantity-theory tradition has left a more substantial legacy for the analysis of the monetary phenomena of capitalist exchange. At the same time, however, it has left a poor legacy of theoretical and practical recommendations on how to deal with capitalist market disturbances.

In this article the antecedents and the main exponents of the two traditions are examined. Section II deals with the emergence of money, the measurement of commodity values, and the relationship between commodities and money as

aggregate quantities. Section III considers the implications of the operations of the credit system for the forms and functions of money.

II. Value, commodities, and money

The measurement of value

Adam Smith (1776, Bk I, ch IV) offered an early and full discussion of the origin of money among the classical economists.¹ Smith first examined the division of labour, the root cause of increases in labour productivity. Given an elaborate division of labour, producers have to exchange a part of the product of their labour for that of others. The process of direct commodity exchange, however, is frequently ‘clogged and embarrassed in its operations’ because of the inevitable incompatibility of wants among the producers (Smith, 1776, Bk I, p 26). Thus, a ‘prudent’ person is forced to keep ‘a certain quantity of some one commodity or other, such as he imagined few people would be likely to refuse in exchange for the produce of their industry’, (ibid). The precious metals, since they are imperishable and divisible, are best suited for the purpose. Metallic money initially went by weight, but the costs of weighing and assaying the metal in each transaction, not forgetting the inevitable fraud, led to state-minted coinage based on weight. Soon, however, coin began to circulate by tale rather than weight and so established the nominal price of goods.

Thus, Smith derived money as a commodity that reliably purchases other goods and so overcomes the problems of barter. The nominal price of goods evidently is a measure of their exchangeability. Smith (1776, Bk I, p 34), consequently, distinguished between value-in-use and value-in-exchange, and put forth the first authoritative statement of the classical theory of exchange-value, ‘Labour, therefore, is the real measure of the exchangeable value of all commodities ... The real price of every thing, what every thing really costs to the man who wants to acquire it, is the toil and trouble of acquiring it’. There is considerable ambiguity in Smith’s treatment of value, particularly between the labour embodied in a commodity in production and the labour commanded by the commodity in exchange. These two concepts, which Smith used interchangeably, are not identical in thought, and could result in contradictory theoretical conclusions regarding changes in relative prices. Nevertheless, to relate coherently value to labour was an intellectual breakthrough for Smith, which became the cornerstone of the classical theory of value. Smith also engaged in a vain search for

1. See also Mill (1848, bk III, ch VII).

an invariant measure of value-in-exchange (and mostly identified it with corn). Since the 'real' price of the money commodity is directly affected by changes in the conditions of its production, the monetary metal cannot be this invariant measure. The most that metallic money can do was establish 'nominal' prices, which vary inversely with the value of the metal and the metallic content of coin.²

Other than differentiating between 'real' ('value') and 'nominal' ('money') price, however, Smith had little to say on the accounting system of nominal prices and its relation to the value of money and the value of commodities. Sir James Steuart, a late mercantilist and unjustly neglected contemporary of Smith,³ had an important insight on this issue. Steuart, despite some rather muddled efforts, did not arrive at a labour theory of value and thought that value and price were determined by demand and supply in the sphere of exchange. Fundamental to his theory of price was the concept of money of account, "Money, which I call of account is no more than an arbitrary scale of equal parts, invented for measuring the respective value of things vendible." (1767, Vol II, p 270, emphasis in original).⁴ Money of account establishes a system of prices by measuring the values of "things vendible". On the other hand, money is also metal, which Steuart (1767, Vol II, p 279), never one for accurate classifications, called 'artificial or material money'. Material money is a practical approximation of the money of account. Since the value of material money (determined by demand and supply) is variable, such money cannot satisfactorily realise the system of prices established by the money of account. Material money is necessarily a poor approximation of the ideal money of account.

Steuart's claim that the accounting system of prices has an abstract existence was an important advance for economic theory. There is no denying that commodity values can indeed be expressed in many different types of money, and this money need not be corporeally present in order to render values into prices.⁵

2. Ricardo (1817, pp 14-15) pointed out more clearly than Smith that corn and the money metal are not different in this respect.

3. Steuart's monetary theories continue to be neglected by modern research. Aspromourgos (1996) is typical of this, in an otherwise excellent book. An important exception is Green (1992).

4. Schumpeter (1954, pp 296-297) remarked that this was an early and faulty notion of the numeraire. He did not say why it was faulty.

5. Steuart had a firm grasp of physical measurement, see (1805). Essentially he approached the problem of value measurement as physics approaches the problem of the measurement of mass. All bodies have a definite mass, abstractly accounted for in grams; the closest practical approximation to the gram is the thousandth part of a certain mass kept at the BIPM in France.

Marx (1867, pp 189-198) also stressed the difference between abstract money, which renders value into price, and real money, which renders price into a concrete equivalent. The actual translation of abstract into real money in the process of capitalist exchange is never an easy process. The problem with Steuart's analysis, however, is that he treated metallic coin as a practical approximation of an abstract numeraire. While it is undoubtedly true that coin is a social convention, Smith was on more solid ground than Steuart when he treated coin as simply a socially conventional division of the monetary metal and not as an approximation of some abstract measure of value. Smith's labour theory of value allowed him to posit money and commodities as commensurate prior to their coming into contact in exchange on the grounds that production of both money and commodities entails human toil. Steuart, who did not have a labour theory of value, was instead led to argue that the abstract system of accounting prices arises from the arbitrary approximation of the ideal value measure.

The quantity theory of money

Money, however, does not only establish prices but also functions as means of circulation. A monetary economy with a developed division of labour and autonomous producers, such as the capitalist one, relies on several well-functioning markets to provide producers with their inputs, and workers and others with their means of consumption. A regular, but not consciously organised, exchange of goods with money has to take place to sustain such an economy. At any moment in time, flows of commodities both enter and exit the sphere of exchange, respectively seeking sale or having been sold for money. The aggregate quantities of commodities and money in the sphere of exchange during any given period of time are clearly important economic magnitudes in this connection, as is also the velocity of money. Values and quantities of commodities and money, moreover, certainly have a connection with aggregate prices. Fully to appreciate the classical arguments on these issues, however, we must first examine Hume's quantity theory of money and Steuart's critique of it.

David Hume devoted very little effort to political economy, but managed in a few short essays to capture for posterity the gist of an entire monetary tradition. There was a complex background to Hume's mid-eighteenth century theory: the collapse of John Law's 'System' in the 1720's, which is further discussed below; the struggle against Mercantilism, including the latter's treatment of money as the substance of national wealth; the steady European price inflation of the sixteenth and seventeenth centuries, associated with the Spanish discovery of precious metals in the New World. The core of Hume's theory was not original (others,

including Cantillon and Montesquieu, had made similar points earlier), but he gave to the quantity theory of money coherence and conciseness.

For Hume (1752, p 48), money only has 'fictitious value', and is a 'representation of labour and commodities' in the sphere of exchange (ibid, p 37). The 'fictitious value' of money is essentially the rate of exchange of the aggregate quantity of commodities for the aggregate quantity of money (the inverse of the price level). Money, moreover, is a pure means of exchange, 'only the instrument which men have agreed upon to facilitate the exchange of one commodity for another.' (Hume, 1752, p 33).

Hume's theory further possesses an inextricable international aspect. Money flows between nations in the manner of water between vessels, and seeks the same 'level' in all countries (Hume, 1752, pp 64-65). If the domestic quantity of money is increased by, say, silver discoveries in the New World, money's rate of exchange with the quantity of commodities is disturbed. The value of money naturally falls (commodity prices rise). The international 'level' of money having remained the same, however, the monetary metal flows out of the country and there is a balance of payments deficit. The disturbance stops when money has again attained its correct 'level' internationally. Opposite results follow a sudden reduction of the domestic quantity of money.

Hume also incorporated a 'transmission mechanism' into his basic price-level-specie-flow theory. In the short-run, merchants, finding themselves in possession of larger than usual quantities of money, increase their effective demand, putting more artisans to work and giving a boost to production. With the passage of time, however, the temporary boost to real activity fizzles out, leaving output the same as before but prices higher. In the long-run money is a 'veil' on real activity, and economically neutral. However, this analytical detour, despite the high esteem to which it is held in contemporary literature, was not essential to the thrust of Hume's argument. Ricardo, who mostly concerned himself with the configuration of the long run, never dallied with such ideas.⁶

Hume's formulation of the quantity theory had a powerful, but entirely deceptive, simplicity. At a stroke it explained European price inflation and rejected the Mercantilist view that money was the only true wealth. It should be stressed, however, that the quantity theory of money was not necessary to achieve either of these aims. Smith, despite his familiarity with Hume and his willingness to adopt other people's views, meticulously avoided Hume's quantity theory in his critique

6. James Mill (1826, pp 294-295), probably reflecting Ricardo's opinion, criticised Hume for including a transmission mechanism in his account of the quantity theory.

of the Mercantile System.⁷ As for European price inflation, the decline in the value of the precious metals, attendant to the discovery of rich mines in the New World exploited through the enslavement of the native population, could also explain the price rises and without recourse to the quantity theory.

Hume's theoretical argument, in any case, soon came under attack by Steuart. For Steuart (1767, Bk II, ch XXVII), the circulation of money is the successive passage of commodities and money from hand to hand, a process representing the fundamental exchanges among the great classes of society. If the proper exchange of equivalents among the classes does not take place, consumption is limited and 'industriousness' suffers. Consequently, the 'statesman', the reference point for Steuart's political economy, who has to oversee economic activity and ensure that all are provided with food and necessities, '*ought at all times to maintain a just proportion between the produce of industry, and the quantity of circulating equivalent, in the hands of his subjects, for the purchase of it;*' (1767, Bk II, p 53, emphasis in original).

The 'statesman' has to know the propensity of the rich to consume, the disposition of the poor to industriousness, and the proportion of circulating money with respect to both the above propensity and disposition. Purely metallic money is problematic in this respect because people are inclined to hoard it as soon as they have no desire to consume, and so render it lost to circulation. Metallic money, in other words, gives rise to an insufficiency of domestic money, a fact that inhibits the growth of industry. To stimulate 'industriousness', the 'statesman' has to draw metallic money out of its hoards. Even better, however, the 'statesman' can rely on the creation of paper money by the banks. Steuart called this process 'the melting down of solid property', which amounts to the acquisition of illiquid assets by banks through the issuing of liquid liabilities, as is further explained below. The land-owner class could, thereby, increase its consumption and spur industry.

Steuart was prolix and, compared to Smith, not a great system-builder. For instance, though he relied on paper credit money in order to analyse the process of circulation, he discussed the properties of such money only much later in his work. His analysis of circulation suffers from the misconception that greater durability of commodities stands for more value, but, nevertheless, it still has a dynamic and 'modern' feel compared to Hume's. His summary rejection of Hume's quantity theory of money is remarkably penetrating, and worth quoting at length,

7. This point has been much debated in the history of economic thought, but, curiously enough, the possibility of Steuart's opinions influencing Smith has been neglected, see, for instance, Eagly (1970) and Laidler (1981).

The circulation of every country ... must ever be *in proportion to the industry of the inhabitants, producing the commodities which come to market*: ... if the coin of a country, therefore, fall below the proportion of the produce of industry *offered to sale*, industry itself will come to a stop; or inventions, such as symbolical money, will be fallen upon to provide an equivalent for it. But if the specie be found above the proportion of the industry, it will have no effect in raising prices, nor will it enter into circulation: it will be hoarded up in treasures, where it must wait not only the call of desire in the proprietors to consume, but of the industrious to satisfy this call.

(Steuart, 1767, Book II, p 95, emphasis in original)

This is an uncompromising rejection of the quantity theory of money based on the hoarding of metallic money, the endogenous creation of credit money to meet the needs of circulation, and the non-neutrality of money. In reply to Hume's statement that the only result of a drastic reduction in the quantity of circulating money would be lower prices, Steuart (1767, Book II, p 98) observed that, if paper money was proscribed, industry and employment would collapse and direct exchange would rapidly substitute itself for the destroyed monetary exchange. Prices would indeed fall, but they would not maintain their initial proportion to the quantity of money. More broadly, money is not a 'representation of commodities' in a freely functioning market. This would have been an appropriate idea only if a 'statesman' was directly to 'perform all the operations of circulation' by controlling all commodities and all money and ascertaining the proportion among them. Finally, according to Steuart, no conclusions can be drawn about prices from the assumption of arbitrary changes in the quantity of money. Increases in the latter might not be translated into expansions of consumer demand, and decreases would certainly lead to a decline in industry and a rise in unemployment.

Some of Steuart's further important insights on monetary circulation ought to be mentioned here since they reappear in the work of later critics of the quantity theory of money, including the Banking School and Marx. As well as money hoarding, Steuart (1767, Bk IV, pp 255-256) stressed that money pays debts, a fact which gives rise to a type of money circulation very different from plain commodity exchange.

We have distinguished between *necessary* and *voluntary* circulation: the *necessary* has *the payment of debts*; the *voluntary* has *buying* for its object. We have said that he who owes is either a bankrupt, or *must* pay, as long as there is a shilling in the country ... By withholding money for the uses of circulation, which banks may do for some time, buying *may* be stopped; paying *never can*.

The forced, obligatory, character of debt repayment, later also emphasised by Marx (1867, pp 232-240), makes it doubly important for a country to have access to flexible and manageable bank paper money. This opinion accorded well with Stuart's overall view of monetary circulation; where Hume had posited an undifferentiated mass of commodities confronting an equally undifferentiated mass of money, Stuart (1767, Bk IV, ch XIX) distinguished among i) the domestic circulation of coin, ii) the domestic circulation of paper money issued by banks, and iii) the payment of balances abroad, ie the international circulation of money. Stuart (1767, Bk IV, p 285) remarked that, 'These three objects are absolutely different in their nature, and they are influenced by different principles'. Coin and credit money, in other words, circulate according to different principles, and money does not move among the nations of the world in the manner of water seeking the same 'level' among vessels. Compared to Hume, who had stressed inordinately the function of means of circulation, Stuart offered a considerably richer treatment, discussing money as unit of account, means of debt repayment, means of hoarding, and means of payment in international transactions. Marx's analysis of the functions of money owes much to Stuart's earlier work.

The 'channel of circulation'

It is a characteristic view of the classical economists that a certain quantity of money must necessarily exist in the sphere of commodity exchange during any given period of time.⁸ The necessary quantity of money depends on commodity values, money value, and money velocity. Smith (1776, Bk I, 210), whose favourite metaphor in this respect was 'the channel of circulation', argued that when a country becomes wealthier the quantity of circulating coin increases 'from necessity'. Were more than the 'necessary amount' of metallic money to find itself in the 'channel of circulation', the latter would 'overflow', a notion which Smith put to good use in the analysis of credit money. Furthermore, for Smith, the metallic money that comprises 'the great wheel of circulation' is clearly not a part of the net revenue of society, but merely facilitates the accrual of the net revenue as wages, profits, and rent. Yet, extracting metallic money from the bowels of the earth costs labour, thus it is a net subtraction from the net revenue of society. Smith (1776, Bk II, pp 313-314), unlike Hume, was sympathetic to paper money issued by banks which provides a cheaper 'wheel', 'a sort of waggon-way through the air'.

David Ricardo, the most powerful model-builder among economists, analysed the principles of the 'necessary' quantity of money in the same spirit as Smith but

8. Green (1992, pp 88-89) calls this 'the law of monetary circulation'.

with more accuracy. Ricardo (1817, pp 18-20) identified the ambiguity in Smith between value as labour commanded and as labour embodied, rejected the former, and put forth the finished classical position of value as labour embodied.⁹ The value of money as that of all other commodities from which it was indistinguishable, is determined by the labour embodied in its production (Ricardo, 1810, p 52). If only metallic money circulated in the world, in equilibrium each country would possess a quantity of money determined by the number and frequency of the payments that have to be completed domestically. This 'necessary' quantity varies directly with the total value of commodities circulated (or the value of payments to be made), inversely with the value of the money metal, and inversely with 'the degree of economy practised in effecting these payments' (the velocity of money) (Ricardo, 1816, pp 55-58). The question that emerges immediately at this point is what happens when the actual quantity of money in circulation diverges from the 'necessary'? Here Ricardo followed an entirely different path from Smith, and adopted Hume's quantity theory of money.

The background to Ricardo's quantity theory of money was very different from that of Hume's, and included the Restriction of convertibility of Bank of England banknotes into gold after 1797 and the subsequent Bullion controversy. Nevertheless, the gist of Ricardo's theory was very similar to Hume's, but with the important exception that money (and commodities) has intrinsic value determined by labour content. In Ricardo's schema, the intrinsic value of money had to be reconciled with Hume's 'fictitious value' of money, that is, with the rate of exchange of the aggregate quantity of commodities for the aggregate quantity of money (the inverse of the price level).

Ricardo reconciled these two values of money in a complex and elegant manner.¹⁰ If money was exclusively metallic across the world, at equilibrium each country would possess a quantity of money 'necessary' to its sphere of exchange. Since for Ricardo the 'necessary' quantity of money is determined by the value of money, the value of commodities, and velocity, it follows that at equilibrium no disparity exists between the intrinsic value of money and money's aggregate rate of exchange with commodities. Moreover, given that equilibrium is global, the intrinsic value of money as commodity prevails across the world. Thus, there is no economic motive to transfer money between countries, and international transactions involve only commodity flows. International equilibrium is balance of trade equilibrium, trade being, in effect, barter.

9. Marx (1905, Pt 1, ch III) explored this ambiguity in much more depth.

10. For more on this point see Lapavistas (1996)

A shock to equilibrium, such as the discovery of a new gold mine or the printing of more money by the banks, *ceteris paribus*, sets off a complex train of events. As for Hume, the rise in the domestic quantity of money initially lowers the value of money relative to commodities (raises prices). Since the intrinsic value of the monetary metal has remained the same across the world, however, bullion can be exported at a profit. The holders of coin can melt it into bullion and send it abroad, in the process creating a balance of trade deficit and depressing the exchange rate of domestic to foreign currency. However, this reduces the domestic quantity of money and eventually re-establishes equilibrium: the value of money relative to commodities is once again in accord with money's intrinsic value. The opposite process takes place if the circulating quantity of money falls short of the 'necessary'.

Paper money (Ricardo did not discriminate between bank-issued and state-issued notes) does not disturb this automatic mechanism, as long as it is fully convertible into gold. If the original shock originated in extra issues of paper money by banks, the holders of the notes simply convert them into coin, which is then melted down and exported. Inconvertible paper money, however, is a different thing altogether. Increases in its quantity drives coin out of circulation and results in an aggregate rate of exchange of money for commodities permanently below the intrinsic value of the money metal. The exchange rate of domestic to foreign currency also falls commensurately. Ricardo, unlike Hume, was not against paper money, provided that such money was convertible. Indeed, he argued that paper money is superior to metallic precisely because its quantity could be consciously manipulated to produce a stable aggregate rate of exchange of money with commodities (Ricardo, 1816, p 57).

Since Ricardo's theory relied on the continuous and free conversion of coin into bullion and vice versa, it could not allow for non-circulating, hoarded money, held by traders for no reason other than that it is money. By the same token, his theory could not envisage commodity owners demanding specifically money in exchange for their goods, rather than any another commodity. If traders find it necessary, rather than profitable, to use and to hoard money in the course of commercial operations, it follows that money is a special commodity. Yet, Ricardo's reconciliation of the labour theory of value with the quantity theory of money was premised on the assumption that money is an ordinary commodity among the many.

However, in practice, money is regularly hoarded and exported among nations for reasons evidently unrelated to the arbitrage gains of traders; for instance, money is specifically used to effect urgent purchases of foodstuffs abroad when

crops fail, or to settle international debts. This is precisely the aspect of money's operations that Steuart had stressed in his critique of Hume. Ricardo, however, could not incorporate such phenomena into his theory, and attacked other theorists who had done so. He asked Thornton to explain why foreigners should refuse to accept English goods and demand money instead (Ricardo, 1810, p 61); he dismissed Bosanquet's suggestion that England was 'compelled' to import corn when the harvest was bad (Ricardo, 1811, p 208); he befuddled Malthus who sensed, rather than knew, that something was amiss (Ricardo, 1951, 26). For Ricardo's quantity theory of money to possess coherence, money has to be a means of exchange pure and simple.

III. Money and the processes of credit

Historical and institutional background

The advance of mercantile capitalism throughout the eighteenth century and its eventual replacement by industrial capitalism, were accompanied by a proliferation of new money forms which were non-metallic and, more often than not, associated with credit relations. Political economists were much exercised by these forms of money. Fully to appreciate the classical debates on credit money, however, the rise and fall of John Law's 'System' in the first quarter of the eighteenth century must first be considered, and a broad outline sketched of the English credit system during the high period of classical political economy.

Toward the end of Louis XIV's reign, wars, extravagance, and the lack of regular tax income had severely dented the creditworthiness of the French state. In 1715, John Law, a remarkable financier, theorist, and adventurer from the early days of capitalism, was allowed to establish a bank in France, capitalised mostly by deeply discounted government debt instruments.¹¹ From such modest beginnings Law rapidly erected his 'System'. The intention was to use the power of credit to create a great national economic venture and so galvanise the productive forces of France. By 1719 the *Compagnie des Indes*, with Law as the director-general, had taken over the tobacco monopoly, Colbert's East India and China Companies, the mints, the slaving companies of West Africa, and the General Farms. These enormous acquisitions were financed by issuing banknotes (the bank having soon become nationalised and its notes made legal tender), and by issuing stock. In 1720 the bank and the *Compagnie des Indes* merged. Increasing reliance on fresh equity issue, and Law's dextrous cultivation of rumours and expectations of lucrative

11. This brief historical account of Law's ventures is indebted to Buchan (1995).

future returns, encouraged a tremendous stock exchange bubble across Europe. In 1720 the speculative bubble inevitably burst and panic spread in the European stock exchanges. The collapse of the bubble, and the lack of a guarantee of regular interest payments on the French state debts, caused the crash of Law's 'System' amidst a deluge of worthless banknotes.

Law's major work in English (1705) makes it clear that he was a Mercantilist,¹² who, like Steuart, believed that a shortage of metallic money leads to insufficiency of output and employment. To deal with such shortages, the supply of money has to be supplemented through credit processes, which implies that banks must be created to advance loans backed by their reserves. Law's real innovation, however, was to argue further that the banks should be allowed to issue inconvertible banknotes secured by land. This would at a stroke demonetise silver, and transform land fully into an alienable commodity. Absent from Law's work, and ultimately contributing to the collapse of his 'System', is an analysis of how banknote quantity is to be limited, thus preserving the value of banknotes relative to metallic money and commodities. Property in land is not a principle of limitation of banknote issue. Steuart (1767, Bk IV, p 141), who admired Law and rescued the pioneering elements of his thought, was forced to seek a 'real' and not an 'imaginary' foundation for credit. Steuart, nevertheless, (and Smith soon after him) had the advantage of observing the early workings of the first national credit system.

By the fourth quarter of the eighteenth century the English credit system had achieved a developed form, which it maintained until at least the middle of the next century. The semi-public Bank of England, formed in 1694, loomed large over the English credit system: banker to the state, zealous guardian of its monopoly of issue in London, holder of the reserves of other banks, holder of the largest gold reserve in the country. Its notes were the means of settlement at the London Clearing House, the means of payment among large merchants and traders in the London markets, the indisputable money of commerce. Until well into the nineteenth century only the so-called London banks could withstand the competition of the Bank of England in the London area. These, however, were non-issuing private banks, specialising in making personal loans to the rich.

In the provinces a great number of so-called country banks did energetic business. Those based in the agricultural areas, such as Norfolk, typically had a surplus of loanable funds but few local investment outlets. Those based in the new industrial areas, such as Lancashire, faced a scarcity of funds but had plenty of investment opportunities. Country banks were allowed to issue banknotes, which

12. A paper money mercantilist, as Heckscher (1931, Vol 2, 182) accurately described him.

they did mostly in the discount of bills of exchange, the banknotes circulating primarily in each bank's local area. Country banks in the industrial areas received large amounts of bills of exchange and sought to rediscount them in order to give to their assets a still more liquid form. Agriculturally-based banks, especially awash with funds in the months after the harvest, sought to purchase such bills. The flow of bills was centred in the London bill market, the efficient running of which was guaranteed by bill brokers. Since the brokers operated mostly with borrowed capital, they were absolutely dependent on fast turnover, hence they were the first to be alerted to impending financial crises. The Bank of England played an important role in the bill market, both by discounting bills and by lending outright. The Bank's discount rate was a benchmark for other rates, though the Usury Laws kept rates below 5% until 1832.

The reflux and the balance of payments

In his polemic against Hume, Steuart had employed the term 'symbolical' money, which really referred to credit money.

'Bank notes, credit in bank, bills, bonds, and merchants' books (where credit is given and taken) are some of the many species of credit included under the term *symbolical money*.' (Steuart, 1767, Bk II, 39, original emphasis).

The term 'symbolical' is unfortunate because it is more appropriate for fiat money issued by the state rather than credit money issued by banks. The issuing of fiat money resting exclusively on the authority of the state had been common throughout the late eighteenth century in Prussia, in Russia, and, above all, in the revolutionary France of the Assignats. The opponents of the quantity theory, unlike its partisans, generally differentiated between fiat money and credit money, and sought the principles of the behaviour of the latter in the operations of the credit system.

For Steuart, the creation of 'symbolical' money (credit money) is the easiest and most flexible way of regulating the exchanges among the classes, and so stimulating employment and wealth creation. The difference between 'real' (metallic) and 'symbolical' money is that the former definitively settles transactions, while the latter, since it is essentially a promise to pay, does not (Steuart, 1767, Bk III, p 268). Moreover, while metallic money tends to be locked up in hoards, 'symbolical' money follows a different regulating principle,

[when] it happens that the money already in the country is not sufficient for carrying on these purposes [trade, industry, consumption], a part of the solid

property, equal to the deficiency, may be melted down (as we have called it) and made to circulate in paper: that as soon again as this paper augments beyond this proportion, a part of what was before in circulation, must return upon the debtor in the paper, and be realised anew.

(Steuart, 1767, Bk IV, p 147)

The superfluous amount of credit money that returns to its issuer, Steuart called 'regorging' money. The 'regorging' money does not remain idle but is either turned into metals and so exported, or the government intervenes and borrows it (Steuart, 1767, Bk IV, p 149). In short, contrary to metallic coin the excess of which stagnates in hoards, the excess of credit money flows back to its issuers to be converted into metallic money and subsequently exported as metal, or is lent to the state (see also, Steuart, 1767, Bk IV, p 228). Three quarters of a century later this characteristic movement of credit money was called the Law of the reflux, by which name it is still generally recognised in monetary theory.

The significance of the 'regorging' for Steuart's critique of Hume is evident in his analysis of international transactions. From the context it is fairly clear that Steuart (1767, Bk IV, pp 217-217) treated disequilibria in the balance of payments, including the payment of international debt and the making of fresh loans, as short-term phenomena. A surplus leads to a rise in the exchange rate and the inflow of coin into the country. Several possibilities arise at that point, the most likely of which is the redundancy of a part of the domestically circulating quantity of money. This leads to the 'regorging' of some of the circulating paper money back to the banks, hence to lower interest rates and a reduction in the securities held by banks, (Steuart, 1767, Bk IV, p 228). This is a reversal of the 'melting down of solid property'.

A deficit, by contrast, could mean the loss of part of the country's coin to foreigners. In this case, the banks have to supply the deficiency by 'melting down solid property' and acquiring more assets. If the deficit proves long lasting, the banks have to borrow abroad to make good the flow of coin to the foreigners. Finally, in cases of panic, the quantity of circulating coin declines rapidly, and, Steuart thought, the banks should not refuse to replenish circulation in order to protect their bullion reserves. The source of the drain of metallic money is the external deficit, and the pressure abates as soon as the payments abroad are completed. The banks would only compound the trouble, and harm domestic circulation, if they refused to issue their own money.

There are several obvious loose ends with this analysis (the ultimate cause of disequilibria being one) but the difference with Hume is striking. For Steuart, no

automatic equilibrating mechanism exists, operating through international flows of commodities and money. Rather, foreign deficits have several implications for the balance sheets of banks; on the asset side, banks probably lose some bullion reserves and acquire some securities; on the liability side, banks have more banknotes outstanding. These financial changes do not by themselves restore equilibrium in the balance of payments.

Steuart's clear exposition of the reflux and his original examination of balance of payment disequilibria were considerable achievements. Nevertheless, he had no clear theory to offer on how the reflux of credit money is related to the lending policy of the banks. He urged complete security of collateral, but that did not link the reflux with the regular operations of banks and industrial capitalists. Smith's more powerful synthetic mind was necessary to provide a theoretical (though fallacious) foundation for the reflux, what later became known as the Real Bills Doctrine.

The real bills doctrine

Smith's analysis of credit money reveals close familiarity with Steuart's work: the issuing of banknotes replaces metallic coin, leaving 'the channel of circulation' 'precisely the same as before'. For Smith (1776, Bk II, p 318), 'The whole paper money of every kind which can easily circulate in any country never can exceed the value of gold and silver, of which it supplies the place, or which (the commerce being supposed the same) would circulate there, if there was no paper money'. Banknotes that in practice prove 'superfluous' to the 'channel of circulation' are converted into gold and exported abroad (Smith, 1776, Bk II, pp 311, 319). To sustain his claim that the 'overflow' of banknotes returns to the banks rather than raise prices, Smith had to consider more closely the operations of banks.

In his analysis of banking Smith adopted a very different attitude to that of Law and Steuart, the intention of whom was to strengthen the productive mechanism of a country through the advance of credit. For Smith, the size of the annual revenue of a country is determined by 'real' factors: the division of labour, saving and the accumulation of capital. The advance of credit does not increase the capital of a country; it merely enables capitalists to avoid holding idle stocks of money, and speeds up the turnover of the country's capital (Smith, 1776, Bk II, pp 340-341). By this token, the proper operation of banks is to advance to capitalists precisely that part of the latter's capital which would have been kept as idle precautionary hoards in the normal run of business.

What a bank can with propriety advance to a merchant or undertaker of any

kind, is not either the whole capital with which he trades, or even any considerable part of that capital, but that part of it only, which he would otherwise be obliged to keep by him unemployed, and in ready money for answering occasional demands.

(Smith, 1776, Bk II, pp 322-323)

If an individual bank issued quantities of banknotes larger than could be used in the 'channel of circulation', the bank would find that its notes returned to it much faster than usual. Were it to attempt to maintain the abnormal amount of notes in circulation, the bank would have to keep an unusually high level of reserves to be able to continue converting the returning banknotes into metallic money. Therefore, the bank's profitability would decline accordingly. Smith thought that banks operating in this manner were not rare, and that their lending was typically associated with 'The over-trading of some bold projectors in both parts of the United Kingdom.' (Smith, 1776, Bk II, p 322). Thus, Smith put across the following rule in order to guide the lending of banks,

When a bank discounts to a merchant a real bill of exchange drawn by a real creditor upon a real debtor, and which, as soon as it becomes due, is really paid by that debtor; it only advances to him a part of the value which he would otherwise be obliged to keep by him unemployed and in ready money for answering occasional demands.

(Smith, 1776, Bk II, p 323)

This argument has become known as the real bills doctrine. Banks which discount solely real bills, as opposed to fictitious bills not backed by the sale of goods, can be certain that their reserves would never run low since fresh advances of bank money are regularly counterbalanced by the repayment of old advances. Real bills are discounted with banks because the traders aim at procuring the funds that they would have kept idle with them to facilitate the turnover of their capital. More by association than reasoning, Smith then implied that if banks discounted only real bills the channel of circulation would never overflow. For Smith, if banks followed the best banking practice, as he had defined it, the quantity of credit money would adjust itself to the precise requirements of circulation. Harmony reigns between the quantity of commodities and the quantity of credit money created by the spontaneous processes of capitalist production and exchange. This is a theoretical tour de force compared to Steuart's plain statement of the law of the reflux nevertheless it is a fallacy for reasons discussed immediately below.

The bullion controversy

Smith exercised a strong influence on English monetary theory until the emergence of Ricardo. Ricardo's quantity theory of money was considered earlier in this chapter, but fully to appreciate its rise to prominence a brief look at the backdrop of political and institutional events is necessary. In 1793 England entered war against revolutionary France. Lack of military success and domestic social unrest inspired by the French Revolution, raised the spectre of a bank run to convert banknotes into gold. To forestall disruption of the credit system the convertibility of banknotes into gold was suspended in 1797. The supposedly temporary Restriction lasted until 1821 and gave rise to a classic monetary debate, the Bullion controversy.¹³ Despite the initial worries, nothing dramatic happened until 1802. Then, the exchange rate of the pound against the franc and the mark fell sharply, there was a severe gold drain out of the country, and the market price of gold rose significantly above its mint price of £3 17s 10 1/2d. A flood of mostly mediocre pamphlets contested the explanation of these phenomena. On the one hand, the bullionists argued that the monetary unrest was due to the Restriction, and advocated a return to gold convertibility. On the other hand, the anti-bullionists believed that banknotes were not the source of the trouble, and that the effects of the war should not be overlooked.

The exception to the general mediocrity was the work of Henry Thornton (1802), a banker who was also the brains behind the famous Bullion Report of 1810.¹⁴ Thornton took an intermediate position between the two sides, though by the time the Bullion Report was written he had sided with the bullionists. The vicissitudes of Henry Thornton's book are evidence that for intellectuals life after death can be better than the real thing. After a brief career of modest influence Thornton's work was consigned to oblivion, to be rescued more than a century later by that inveterate bookworm, Jacob Viner (1924). Thornton's intellectual stock has since risen sky-high, helped not a little by Hayek's (1939) glowing introduction to the re-edited book and by Hicks' (1967) masterly recapitulation of its arguments.

13. Several classic accounts of the events and the Bullion and Banking Controversies exist in English. An imperfect sample of different interpretations is, Fetter (1965), Morgan (1965), Viner (1937), Horsefield (1944), (1949), Silberling (1924a), (1924b), Rist (1940), Feavearyear (1931), Wood (1939), and Mints (1945).

14. For more than a century Ricardo was considered the main intellectual force behind the Bullion Report. There is no denying the very close affinity between the views of the Report and those of Ricardo. However, Fetter (1959) has established that Thornton actually provided the analytical foundations for the Report.

It is a measure of Smith's influence and of Steuart's eclipse, that throughout his book Thornton conducted a polemic against Smith and did not even mention Steuart. Thornton's aim was to produce a theoretical treatise on monetary questions, but even his most ardent admirers admit that his book "lacked system" (Hayek, 1939, p 46). Despite Smith's path-breaking work on value and price, Thornton (1802, ch VIII) argued that commodity prices are determined by demand and supply in the sphere of exchange, and did not make much use of the notion that money has value as a produced commodity. This premise actually weakened Thornton's critique of Smith's analysis of the 'channel of circulation'.¹⁵ Smith had claimed that paper money could not exceed the value of the gold and silver that it replaces since the excess would flow back to the banks. In refutation, Thornton (1802, ch III) argued that the velocity of circulation of banknotes is higher than that of bills of exchange (another form of paper money), therefore, the quantity of paper money actually in circulation depends on the mix of these two components. Thornton was clearly right to stress the variability of the velocity of money, but he also appeared to be refuting the very existence of a necessary amount of circulating money. This made his subsequent discussion of Hume's price-level-specie-flow mechanism less logically coherent, and so less persuasive, than Ricardo's.

Thornton's attack on Smith's distinction between 'real' and 'fictitious' bills, however, had decisive results. For Thornton (1802, ch I, II), it is incorrect to claim that 'real' bills always represent actual property while 'fictitious' bills are imaginary. The sale of one lot of goods may give rise to several 'real' bills as the goods pass from merchant to merchant. Thornton (1802, p 87) recognised that 'real' bills are, on the whole, more likely to be repaid promptly than 'fictitious' bills, and that the capitalist's actual sales are a limit to the amount of 'real' bills created, but, for him, this was a 'very imperfect' limit. 'In substance' there is no difference between a fictitious bill and a common promissory note, ie a promise rather than an order to pay for the delivery of goods. Moreover, the distinction between 'real' and 'fictitious' bills has little relevance to the practice of a bank. To avoid problematic lending, it is much better for the bank to rely on traditional methods, that is, simply on ascertaining the creditworthiness of the debtor.

It could be still claimed, however, that some natural tendency exists for the quantity of banknotes to limit itself, contingent on the free operations of the banking system. Thornton (1802, pp 252-253) dismissed this argument in a manner

15. It also led to some inevitable confusion on the price of goods measured in terms of bullion and in terms of paper money, noted by both Horner (1957, pp 36-40) and Ricardo (1810, p 60), with exasperation and relish respectively.

immediately relevant to the Law of the reflux. Lending on 'real' bills, insisting on collateral, and taking precautions to increase 'the probability of prompt repayment', might result in some limitation of banknote issue. However, if the banks progressively increased the volume of their outstanding banknotes, they would also be increasing the means available to capitalists to settle their existing obligations with the banks. Moreover, the increase in bank lending necessary for the quantity of banknotes to rise progressively would not necessarily sate the demand for loans and so it would not naturally limit the quantity of banknotes. For Thornton (1802, p 254), what matters is the rate of interest in comparison to the rate of profit. If the banks kept the rate of interest charged on loans below the rate of profit, the demand for new loans would have no limit and neither would the quantity of banknotes. Thornton (1802, p 259) concluded with a nice turn of phrase, 'To suffer either the solicitations of merchants, or the wishes of government, to determine the measure of the bank issues, is unquestionably to adopt a very false principle of conduct.'

It should be noted that Thornton was sympathetic to the Bank of England and his book was a defence of the Bank. His discussion of balance of trade disequilibria is not exactly a model of clarity and coherence, nevertheless, he had important points to make. Short-run deficits can be caused by 'real' factors, such as bad harvests, and they lead to falls in the exchange rate and the drain of gold abroad (1802, ch V). Contracting the credit advances of the Bank of England, and so the issue of banknotes, could deal with such phenomena, but not through Hume's mechanism of reducing the quantity of money and so lowering prices. Rather, the contraction of credit leads to a contraction of production and so limits imports. Since this policy involves real costs, it is better that the Bank should simply possess a large hoard of gold and wait for the storm to end. Long-term balance of trade deficits, on the other hand, Thornton (1802, ch VIII, IX) analysed by employing Hume's mechanism. Increases in the quantity of credit money could, presumably, accelerate the process of real accumulation, but they could also create higher domestic expenditure and prices, thus leading to external deficits. Thornton treated this argument as a refutation of Smith's views on the capacity of the 'channel of circulation': if prices rose the 'channel of circulation' could take any quantity of money thrown into it.

After the first bout of unrest, relative stability returned to the financial system until 1809. By that time, Britain had started to operate a naval blockade on the European Continent, and Napoleon had proclaimed the Continental System forbidding the docking of British ships in French-controlled ports. In 1809, once again, the rate of exchange moved sharply against Britain, gold left the country and

its market price rose precipitously. The bullion controversy flared up again and Ricardo entered the field of economic theory.

Ricardo's explanation for these monetary phenomena, as discussed above, was basically a revival of Hume's quantity theory of money, with the significant difference that the labour theory of value was appended to the latter. Ricardo thus became the chief exponent of the bullionists, his rise facilitated by overwhelming intellectual power and truculent controversialism. According to him, the culprit of the monetary unrest was the Bank of England, which, taking advantage of the Restriction, had overissued its banknotes. The anti-bullionists, mainly the merchant Directors of the Bank of England, protested, but lamely and incoherently. Ricardo (1810, p 61) also dismissed as logically insubstantial Thornton's argument about 'real', short-run, balance of trade disequilibria: gold would go abroad only if it was cheap, hence if too much money circulated domestically. As for the part of Thornton's work which was compatible with Hume's mechanism, Ricardo could make the same point from first principles, based on the labour theory of value, and with fewer words. It is not surprising that Ricardo's views eclipsed Thornton's.

The impact of Ricardo's intervention can be appreciated by casting a glance at the work of James Mill, the midwife of Ricardo's **Principles**. In an early work Mill (1808) had stoutly defended Adam Smith's treatment of the 'channel of circulation' against Thornton's critique. Mill (1808, pp 167-169) claimed that the difference between state-issued paper money and bank-issued paper money was common knowledge among political economists at the time. Unlike state-issued fiat notes, banknotes return to the banks to redeem bills and so withdraw from the 'channel of circulation. The most important component of Mill's (1808, p 163) argument, however, was that Thornton had failed to reconcile the presumed rise in prices caused by the overissue of banknotes with the proposition that, 'the precious metals, in all countries which are not exceedingly distant from one another, approach very nearly to an equality of price.'

Mill's famously pedagogical mind sought system in monetary theory, and sensed that the value of the precious metals had to be an integral element of the theory of price disturbances. Thornton, despite his many strengths was no theorist of value, and of the value of the precious metals in particular. Ricardo provided precisely the theoretical foundation sought by Mill. By the time the **Elements of Political Economy** were published, Mill (1826, pp 292-293) had entirely abandoned Smith,

We have already seen, that the value of a metallic currency is determined by the value of the metal which it contains. That of paper currency, therefore,

exchangeable at pleasure, either for coins or for bullion, is also determined by the value of the metal which can be obtained for it ... The effects of an increase of the quantity, and consequent diminution of the value of the currency in any particular country, are two: first, a rise of prices; secondly a loss to all those persons who had a right to receive a certain sum of money of the old and undiminished value.

Gone was the distinction between credit money and fiat money, not a mention was made of the Law of the reflux: increases in the quantity of currency simply lead to falls in its value. The Ricardian quantity theory of money had taken a strong hold on English monetary theory.¹⁶

The banking/currency controversy

The Restriction was officially over in 1821 and the British economy adjusted successfully to the end of the Napoleonic Wars, despite early fears to the contrary. The industrial revolution and the march of Napoleon through Europe had created propitious conditions for the emergence of a true world market in industrial goods with Britain at its centre. For twenty years after the Bullion controversy relative peace reigned in monetary theory. Then, toward the end of the 1830's battle was joined again, and the banking/currency controversy took shape. This time, theorists were exercised by the monetary phenomena attendant to the periodic commercial and industrial crises of the emergent world market. In the classic decennial crises of the period from the 1820s to the 1860s, merchants were unable to pay their debts, interest rates rose very high as traders desperately tried to borrow money, the balance of payments went into deficit and gold drained abroad. Merchant and industrial companies soon started to go bankrupt, workers were laid off, and prices began to fall. At the peak of each crisis, panic gripped the markets and there was fear that the credit system might collapse leading to the inconvertibility of banknotes into gold. The various currents of thought contesting the explanation of these phenomena soon crystallised into the currency and banking schools.¹⁷

16. Viner (1937) has called consistent bullionism the 'Ricardo/Wheatley' argument, and his appellation has proved popular with the subsequent literature. Viner's term, however, is seriously misleading. Ricardo was a giant of economic thought, Wheatley was an insignificant pamphleteer. Fetter's (1942) research into Wheatley's life and work does nothing to allay this impression.

17. In a moment of candidness, John Stuart Mill (1848, p 660) stated that the true but unacknowledged object of debate between the Banking and the Currency Schools was how to deal with capitalist crises.

Currency school authors were the heirs and defenders of Ricardian orthodoxy. The rich and well-connected Manchester banker Samuel Lloyd Jones, later Lord Overstone, was at the time considered the great authority of the currency school. However, his imprecise and meandering writings reveal no clues as to why that should have been so. The contribution to economic theory of the ex-colonel of the Marines Robert Torrens, on the other hand, has proved more substantial and durable. An incisive and determined controversialist, Torrens (1812) was originally a critic of Ricardianism but then became the theoretical pillar of the currency school. George Warde Norman, a Director of the Bank of England, completed the school's leadership, though his influence was, and has remained, much smaller than that of Overstone and Torrens.

The currency school's main theoretical contention, the so-called currency principle, may be summarised as follows. The ideal currency of a country is a purely metallic one. Currency in its ideal state behaves in a broadly Ricardian manner, ie changes in the circulating quantity of money, other things equal, alter money's value and lead to the export or import of gold. However, it was claimed, the actual currency of England consists of gold and convertible banknotes, and does not behave as a pure gold currency: country banks and, above all, the Bank of England tend to overissue their banknotes. Overstone (1840a, p 189) explained the meaning of overissue in the following manner, 'This brings us to the question - what constitutes excessive issues? I understand by excessive issues, issues which render the amount of the paper circulation at any moment greater than would be the amount of metallic circulation.'

The currency school, in broadly Ricardian fashion, claimed that overissued (but still convertible) banknotes depreciate relative to gold, leading to falls in the exchange rate and to the export of gold abroad. The movement of the exchange rate and the flows of gold between countries constitute *prima facie* evidence of overissue of credit money. Torrens' (1847, pp 10-11) 'criterion principle' stated, 'that the only maintainable amount of the media of exchange, is that which is required to bring prices to the level at which exports balance imports'. Overstone (1840a, p 190), was as forthcoming on this as on any other topic, 'I propose fluctuations of the bullion as the standard measure by which to try a paper currency'. The outflow of gold restores equilibrium, but at the cost of disturbing domestic monetary conditions. This essentially Ricardian mechanism, if one disregards the logical contradiction that it is necessary to Ricardo's theory that banknotes be inconvertible, was used to account for the monetary phenomena of the recurrent English crises. Currency school authors, like Thornton but unlike Ricardo, also recognised that 'real' balance of trade deficits could occur

(Overstone, 1840b, p 167, and Norman, 1833, Sec II), but the thrust of their analysis was to seek monetary causes for capitalist crises.

The currency principle has a clear implication: the circulation of credit money should be made to fluctuate exactly as a pure metallic circulation would have done (Torrens, 1857, ch II). Harmony can then be established between credit money and commodities in exchange, but to achieve it the fluctuations of the gold reserve of the Bank of England are critically important. When the Bank's gold reserve rises it follows that an influx of gold is in process, hence the domestic quantity of money is too small; when the Bank's reserve declines it follows that the domestic quantity of money is too large. A properly managed Bank of England, therefore, ought to be increasing (decreasing) the quantity of its outstanding banknotes as its gold reserve is increasing (decreasing). It was further argued by Currency school authors that such adjustments of the quantity of Bank of England notes should happen slowly and before a fully fledged crisis had actually materialised (Overstone, 1840c, ch II). Above all, the discretion of the Bank of England cannot be relied upon, but instead there ought to be a fixed rule binding the quantity of credit money to the gold reserve of the Bank. Not surprisingly, Congdon (1980) has sought parallels here with the variant of contemporary monetarism that advocates monetary base control.

The political influence of the Currency school resulted in the introduction of the Bank Act of 1844, arguably the most famous piece of economic legislation ever. The Act had been anticipated by the application of the Palmer rule in the 1830's, named after Horsley Palmer, a Director of the Bank. The Palmer rule was an empirically derived principle guiding the Bank's lending policy. The securities held by the Bank were to be equivalent to two thirds of its liabilities, the gold reserve making up the balance of its assets. Since banknotes formed most of the liabilities of the Bank, Palmer's rule essentially stated that the gold reserve should be roughly one third of the Bank's outstanding notes. In a spirit similar to Palmer's rule, the Act of 1844 separated the Bank of England into the Issue and the Banking Departments. The assets of the Issue Department comprised the bulk of the gold reserve, and its liabilities comprised the bulk of the banknotes outstanding. Therefore, the Act implied that banknote quantity had to change in line with changes in the reserve. The Banking Department's assets were mostly discounted bills of exchange and government securities, and the Department could carry up to £14 million in liabilities backed by government securities instead of gold. The Act gave the Bank of England banknote monopoly across the country by placing quantitative limits, which declined over time, on the issuing activities of the country banks.

The currency principle was fiercely opposed by the banking school. The main exponent of the Banking school was Thomas Tooke, a wealthy merchant with a profound practical knowledge of the London markets, and an avid collector of economic data who did not put pen to paper until ripe middle age but then wrote several hefty volumes.¹⁸ Tooke was given vital theoretical support by John Fullarton, a retired India surgeon whose theoretical output, unfortunately for economics, consisted of a single volume. James Wilson, the founder of the Economist magazine, was also a significant and original member of the Banking school. Finally, John Stuart Mill, the last of the classical economists, lent considerable support to the Banking school, though he also accepted parts of the Ricardian doctrine.

Thomas Tooke was not a great theorist. In his monumental **History of Prices** he examined empirically the movement of key commodity prices, such as corn, hemp, and wool over three quarters of a century. His work was remarkable above all because it sought to demonstrate that changes in the quantity of money in circulation actually follow, and are caused by, changes in prices. Tooke (1844, p 123) summarised his findings thus,

12. That the prices of commodities do not depend upon the quantity of money indicated by the amount of bank notes, nor upon the amount of the whole of the circulating medium; but that, on the contrary, the amount of the circulating medium is the consequence of prices.

This is an unambiguous rejection of Ricardo and Hume, and the rediscovery after three quarters of a century (though unknowingly) of Steuart's arguments. To support the above claim, a theory of metallic circulation different from Ricardo's is necessary and, thus, both Tooke and Fullarton emphasised the hoarding function of money. The monetary stock of a country exists as both circulating money and stagnant coin and bullion; the latter has no influence on prices (Tooke, 1844, ch II, Fullarton, 1844, ch IV). The money hoards have both a domestic and an international role. International hoards are held by major banks, such as the Bank of England, the Bank of France, the public banks of Hamburg and Amsterdam, and their function is specifically to deal with imbalances of trade (Tooke, 1844, ch II).

Having shaken off the deadweight of Ricardianism, the authors of the Banking school explored further the distinction between fiat paper money and banknotes (Wilson, 1859, Article IV). The former is issued at the whim of the state and could easily overwhelm the 'channel of circulation'. The latter is issued by

18. It is surprising that the first analytical biography of Tooke was Arnon's (1991) excellent book, see also (1984). Robbins (1959) had earlier looked after Torrens' memory.

banks against debt and so it regularly returns to the banks and withdraws from circulation. In Tooke's (1848, Pt III, Ch II, Sec 4, 5) words, the former is *paper money* or *assignats*, the later is *paper credit*. The substantive difference between these two forms of money lies essentially with the fact that the quantity of credit money is regulated by the Law of the reflux, Steuart's original principle of credit money rediscovered by Fullarton (1844, p 67),

[it] is not so much by convertibility into gold, as by the regularity of the reflux, that in the ordinary course of things any redundance of the bank-note issues is rendered impossible.

The same idea was also clearly stated by Tooke (1848, p 185), 'This law operates in bringing back to the issuing banks the amount of their notes, whatever it may be, that is not wanted for the purposes which they are required to serve.' It was a natural step from here to declare that there is nothing special about banknotes as credit. The currency school had strenuously denied that bank deposits should be considered as money (Overstone, 1840, p 200, and Torrens, 1857, ch I).¹⁹ Fullarton's (1844, p 38) rejection of the claims of the currency school on this score shows tremendous insight, again reminiscent of Steuart: 'There is scarcely any shape into which credit can be cast, in which it will not at times be called to perform the functions of money; and whether that shape be a banknote, or a bill of exchange, or a banker's cheque, the process is in every essential particular the same, and the result is the same.'

Moreover, it was the law of the reflux which the banking school authors had rediscovered and not Smith's real bills. It is true that at times they came close to asserting something akin to Smith's axiom. For instance, Fullarton (1844, p 64) argued that, 'The banker has only to take care that they [banknotes] are lent on sufficient security, and the reflux and the issue will, in the long run, always balance each other.' However, 'sufficient security' was not 'real bills', and, unlike Smith, the banking school authors did not attempt to base the Law of the reflux on the profit and loss decisions of banks. This, on the one hand, was a strength because it did not openly commit the banking school to the fallacy of the real bills doctrine. On the other hand, however, it was a weakness because it led the banking school authors away from relating the law of the reflux to the rate of interest. To this we must briefly turn below.

The banking school certainly did not ignore the rate of interest as an economic category. Tooke (1826, Sec 1) accepted that the rate of profit 'governed'

19. Torrens (1837, p 7) had some doubts on this, but not enough confidence to stand up to Overstone.

the rate of interest. He distinguished between 'monied capital' and 'currency', called interest the price of 'monied capital', and argued that increases in banknote issue depress the rate of interest. In a slightly later work, Tooke (1829, sec III) argued that a rash of discounts by the Bank of England after the end of the Restriction failed to materialise simply because the market rate never substantially rose above the Bank's 5%. Tooke also showed a keen appreciation of the price implications of 'overbanking', ie of speculative transactions funded by banks. Tooke (1844, ch XIII), finally, confronted the conventional view that low interest rates raise prices while high interest rates lower them. Low interest rates do not necessarily lead to speculative fever, on the contrary, they represent a reduction in the costs of production, and so lead to lower prices. Fullarton (1844, ch VIII), incidentally, disagreed with his master on this score.

What is absent from the banking school's work, however, is a theory of the movement of interest rates, based on the behaviour of banks and on the cyclical pattern of economic activity already apparent by the middle of the century. Wicksell (1935, Vol II, ch IV, sec 8) took advantage of this absence to criticise the banking school for ignoring the possibility that the banking system could lower the rate of interest and so lead to price rises. This was, in essence, also the point Thornton had made about Smith's real bills doctrine. It was not enough to register the undoubted fact that on the approach to monetary crises the rate of interest tended to rise, and that the discount rate of the Bank of England was rarely significantly below the market rate. A theory of the rate of interest was also necessary, and the banking school did not have an adequate one. The absence of such a theory also coloured the banking school's practical proposals against foreign exchange crises and gold drains: hold a substantial reserve of gold, lend freely, and let the drain run its course (Fullarton, 1844, VIII).

The monetary rules put in place by the Act of 1844 certainly did not succeed in averting monetary crises. Tooke (1844, ch XV) had claimed that the separation of the Bank into an Issue and a Banking Department was a foolish and dangerous measure. According to him, if a crisis were to materialise, the Banking Department would face enormous pressures to discount bills and to lend but it would not have sufficient reserves to do so. Meanwhile the Issue Department would be holding an enormous hoard of gold. In late 1847, a short three years after the Act was passed, a monetary crisis began to emerge. As Tooke had predicted, the Banking Department was in no position to deal with the crisis, and mere knowledge of this fact was enough to create panic among the merchants of London. The government was forced to suspend the Act and the panic rapidly subsided, though the British economy went through a full-blown commercial and industrial crisis in 1848.

Suspension was also the fate of this Act in the subsequent crises of 1857 and 1866.

Nevertheless, the Act of 1844 was not merely problematic economic policy guided by fallacious economic theory. The Act was preceded by Palmer's rule, which, in an empirical manner, was also in favour of the quantitative limitation of the liabilities of the Bank of England. The point is that management of the liabilities of the Bank through the use of interest rates rather than quantitative restrictions, was not a realistic possibility for the Bank throughout the first half of the nineteenth century. What was later known as Bank Rate policy, ie raising the Bank's lending rate in order to staunch the loss of gold mostly abroad, was not plausible during the period of the banking/currency controversy. Given the structure of the English credit system, it was highly unlikely that a rise in Bank Rate would result in capital inflows that would reverse the outflow of gold. Horsley Palmer himself seems to have realised the ineffectuality of Bank Rate in the historical and institutional conditions of his day (Cramp, 1959).

Things changed in the second half of the nineteenth century as a different era set in for British capitalism, one not disturbed until 1914. The consolidation of the British Empire, the shift in the basis of British capitalist accumulation away from textiles and toward iron, steel, and railways, and the emergence of the City of London as the centre of world finance, changed the outlook and the structure of the British credit system. The accumulated experience of several crises, the clearing of international obligations through London, the rise of commercial banking collecting deposits across the world, and the extensive international lending activities of British capital, allowed the management of foreign exchange crises through the manipulation of the rate of interest charged by the Bank of England. In the era of Bank Rate policy the banking/currency controversy seemed irrelevant. A pronounced fatigue with the "ancient debates" was obvious in Bagehot (1873, ch I), the herald of the new era. Calmer waters in the monetary sphere, however, proved dire for theory, the arid debates of bimetallism consuming the second half of the century. Only after the shocks of the First World War did theorists produce work comparable to that of the debates of the first half of the nineteenth century. By then the beacon of classical political economy was extinct.

IV. Conclusion

Recapping the key arguments of this chapter, it has to be noted that the classical school opposed the mercantilist identification of wealth with money and the emphasis on money as a stimulant of economic activity. For classical political economy, exchange is a natural part of harmonious and self-sustaining economic reproduction, thus money is a largely passive economic category subordinate to the

exchange of commodities. This view is especially characteristic of the strand of classical political economy that identified with to the quantity theory of money, and, as a result, stressed inordinately the function of money as means of exchange. The opposite strand, spurred by the realisation that the quantity theory of money did not satisfactorily explain the English monetary phenomena of the first half of nineteenth century, did much to restore to monetary theory the full complexity of money's functions. In this respect, the anti-quantity theory tradition rediscovered the partial validity of mercantilist monetary arguments. Nevertheless, even this strand of the classical school remained firmly wedded to the naturalistic view of money as a harmonious element of capitalist exchange.

Reliance on the quantity theory of money led the heirs of Ricardo in classical monetary theory to advocate the social regulation of money and credit in the form of the Bank Act of 1844. This was so despite the classical school's liberal support for Free Trade and for the absence of direct regulation of economic affairs. The Act was neither based on sound theory nor was it effective in eradicating recurrent monetary and economic crises. It also showed that classical liberalism was fundamentally inconsistent. The anti-quantity-theory current, moreover, was incapable of overcoming these weaknesses. Despite its richer analysis of the role of money and credit in a capitalist economy, the banking school advanced neither a theory of capitalist crisis nor policy proposals capable of dealing with recurrent economic fluctuations. In these respects, both currents were prisoner to the ideological emphasis on natural harmony, which was characteristic of their age.

Marxist monetary economics sympathises strongly with the anti-quantity-theory tradition but also claims that capitalism is a historically specific and narrowly based social system. As a result, Marxist monetary theory can more clearly identify the elements of disharmony and instability imparted to economic reproduction by money and credit. The complexity of money's functions in capitalist exchange, and the social and economic power which money exerts over economic life, are inseparable from the unstable and crisis-ridden character of the capitalist economy. The elaboration and demonstration of this argument, however, is the subject of another work.

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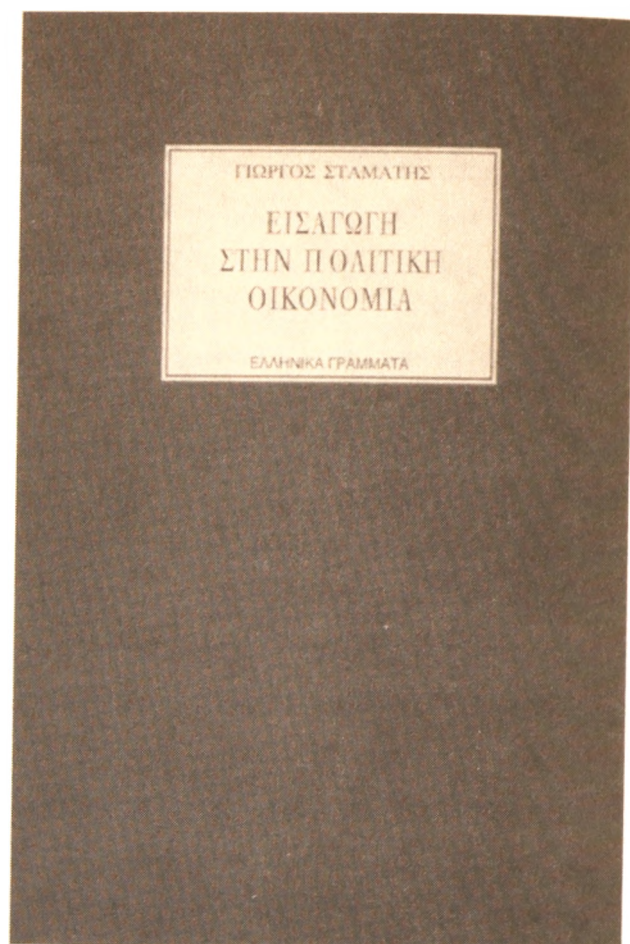
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ΕΙΣΑΓΩΓΗ ΣΤΗΝ ΠΟΛΙΤΙΚΗ ΟΙΚΟΝΟΜΙΑ

Η Εισαγωγή στην Πολιτική Οικονομία του Γιώργου Σταμάτη απευθύνεται σε φοιτητές των Οικονομικών Επιστημών, της Κοινωνιολογίας και της Πολιτικής Επιστήμης. Απευθύνεται επίσης και σε όσους, χωρίς να είναι ή να θέλουν να γίνουν οικονομολόγοι, επιθυμούν να ασχοληθούν με την Πολιτική Οικονομία για να κατανοήσουν πληρέστερα τον τρόπο συγκρότησης και λειτουργίας της κοινωνίας μας, δηλαδή, μεταξύ άλλων, σε κοινωνιολόγους και πολιτικούς επιστήμονες, αλλά και σε ανθρώπους της πράξης, όπως οικονομικούς συντάκτες και δημοσιογράφους, επιχειρηματίες και συνδικαλιστές.

Πραγματεύεται τον κοινωνικό καταμερισμό της εργασίας και της παραγωγής, την απλή εμπορευματική παραγωγή, την παραγωγή με σκοπό το κέρδος και αναπτύσσει έτσι τι είναι αυτό που «συνέχει» από οικονομική άποψη την κοινωνία μας.

Παρουσιάζει τη θεωρία της αξίας και των τιμών παραγωγής και αναλύει τη διαδικασία παραγωγής και αναπαραγωγής του οικονομικού συστήματος. Τέλος αναπτύσσει το σχήμα του λεγόμενου εισοδηματικού κυκλώματος. Πρόκειται για το πλέγμα των ποσοτικοποιημένων σχέσεων μεταξύ των



επιχειρήσεων, των νοικοκυριών των μισθωτών εργαζομένων, των νοικοκυριών των επιχειρηματιών και του Δημοσίου καθώς και μεταξύ της συνολικής εθνικής οικονομίας και των άλλων εθνικών οικονομιών. Πρόκειται επίσης για τις σχέσεις μεταξύ των μεγθών ιδιωτική και δημόσια κατανάλωση, αποταμίευση, επένδυση, εισαγωγών, εξαγωγών, εισοδημάτων από μισθωτή εργασία, εισοδημάτων από κεφάλαιο, φόρων, δημοσίων δαπανών, δημοσίων ελλειμμάτων κ.λπ. Έτσι, με τη βοήθεια του εισοδηματικού κυκλώματος, ο αναγνώστης αποκτά μια στατική εικόνα της εθνικής οικονομίας σε μια δεδομένη παρελθούσα περίοδο.

ΕΛΛΗΝΙΚΑ ΓΡΑΜΜΑΤΑ

Δύναμη στη γνώση