King goes on to develop a concise statement of the purchasing-power-parity theory of exchange rates under inconvertible currencies.

While in the above passage, King appeared to adopt the mechanistic proportionality quantity theory, he made it clear later in the pamphlet that this proportionality, if it occurs at all, only does so in the long run. For King, like Boyd, was a complete bullionist, and presented by far the best and most developed statement of this position in this entire period. King demonstrates that the inflation process *necessarily* involves a redistribution of wealth and income. Developing hints of process analysis from Hume, King writes that the proportional effect of an increase of the quantity of paper money on prices is far from immediate, and that 'some time must elapse before the new currency can circulate through the community and affect the prices of all commodities'. But while Hume hailed this interval as spurring business activity, King correctly focused on the coerced advantages that this process gives to the early, as opposed to the later, recipients of the new money:

> It is this interval between the creation of the new paper and the rise of prices which may be a source of advantage to the persons who obtain loans from the Bank. The merchant, to whom the notes are immediately issued, employs them in the purchase of goods at the prices which they then bear. But by the very effect of these notes, when they are afterwards circulated, the price of the goods is enhanced and the merchant has the advantage of this rise in addition to the ordinary profits of trade. If he is an exporting merchant, he will receive, beside the usual profit, the amount of the depreciation which will have taken place in the currency between the time of purchasing the goods and the arrival of the remittance in return.

King also calls the depreciation of central Bank of Ireland notes like 'an income tax which levies not for the benefit of Government, but of the proprietors of Irish Bank stock'. And on the Bank of England, he noted that the 'undue advantage [that] has been obtained by the bank in the exact degree of the excess of their notes' has been more than offset by 'the loss and injury to the public, as in all cases of depreciated currency'. Hence 'An indirect tax is thus imposed upon the community, not for the benefit of the public, but of individuals. It is levied in the most pernicious manner; and is of all taxes the least productive in proportion to the loss and inconvenience sustained'.

In short, King recognizes that the privileged beneficiaries of inflation and depreciation are, largely, the central banks themselves and their stockholders, as well as merchants who borrow from these banks, and exporters who benefit by the depreciation of foreign exchange. All these are bought at the expense of the public. King also perceptively notes that it is precisely these groups who had been the main apologists for the bank restriction. He suggests that these London and Dublin merchants had probably never read

Hume, nor precisely traced the theoretical steps by which they obtained the privilege of bank inflation:

> But their experience has undoubtedly led them to the same conclusions; and there can be no doubt that since the period of the Restriction discounts have been obtained from the Bank by commercial men with less difficulty and that these accommodations together with the profits derived from hence have given their minds a strong bias in favour of the measure.

Furthermore, Lord King's mordant analysis of the advantages accruing to the bank as against the public by inflation of its notes led him to denounce *per se* any 'exclusive privilege' in issuing notes granted to the Bank of England. For such a privilege would be 'as unjust and impolitic as to grant a monopoly of any other branch of skill and industry to any private merchant or company'.

Tied in with his rejection of the mechanistic proportionality approach, Lord King conceded that real factors can have subordinate and temporary effects on depreciation and the exchange rate. Indeed, it is precisely this understanding of the temporary effects of real factors that helped lead King to reject the idea of strict proportionality, and hence of any precise quantitative *measurement* of the degree of depreciation or of the excess of paper money. As King wrote: 'nor will the most careful reference to the two tests of the price of bullion and the state of the exchanges enable us to ascertain in what precise degree a currency is depreciated; though the general fact of a depreciation may be proved beyond dispute.' Indeed, he gently chided Boyd for unduly stressing such a measure of excess, and thereby having 'given an advantage to his opponents by insisting too much on the degree of depreciation...'

Finally, it is unfortunate that King followed Smith's and Thornton's confusion of bills of exchange and other evidences of debt with money, and rejected Walter Boyd's clear-cut distinction between them.

Lord King's contribution immediately vaulted him to the front rank of bullionist theorists; and when David Ricardo entered the fray almost a decade later, he hailed King's booklet as having had a great influence on him. For some reason, however, King's vital contribution has been grievously overlooked by most later historians, and even in Nassau Senior's day, in the mid-1840s, Senior found it necessary to chide posterity for neglecting Lord King's great achievement. Indeed, Senior lauded King's work as 'so full, and in the main so true, an exposition of the Theory of Paper Money, that after more than forty years of discussion, there is little to add to it, or to correct'. Senior's reminder was afterwards echoed by Henry D. MacLeod and by Francis A. Walker, and as late as 1911, Jacob Hollander, in his famous resurrection of monetary theory between Smith and Ricardo, briefly hailed

King's pamphlet as a 'remarkable contrast to the prolix obscurity of Thornton's essay, and the heated temper of Boyd's performance', and 'fitted to become, as it speedily did, the epitome of what had already been written in sound criticism and in reasonable interpretation of the Bank's course no less than the inspiration of future effort in the same direction'.[12] Yet, unaccountably, appreciation of King's contribution promptly dropped completely out of sight once again, only to be resurrected in the seminal dissertation of Professor Salerno.

Perhaps the most important immediate impact of Lord King's *Thoughts* was on Francis Horner, for Horner was promptly converted by the booklet from his previous moderate moderate position to his permanent stance of moderate bullionist. The conversion probably rested not so much on King's theoretical analysis, as on his thorough marshalling of the statistics of the restriction period, which convinced the theoretical agnostic Horner that the facts were on the side of the cause of price inflation and depreciation from an excessive issue of paper money. Reviewing King's *Thoughts* in the July 1803 issue of the *Edinburgh Review*, Horner abandoned his previous policy agnosticism on the restriction to plumb squarely for redeemability. 'From the very first', he now wrote, 'there could be no doubt of the impolicy and injustice of the restriction...'. But whereas before, he felt that the facts were too complicated to decide whether Boyd had been right about the restriction's inflationary impact on prices, Horner was convinced by King that Boyd had been right. He now concluded that 'Throughout all these changes, one uniform effect may be perceived which, with the evidence by which it is proved, and the reasonings by which it is explained, is very ably and perspicuously described by Lord King'.

5.7 The Irish currency question

Much of Lord King's strictures were directed against the central Bank of Ireland as well as of England, and indeed, during 1803, as the restriction was extended into the future with the resurgence of war with France, attention shifted to the rapid depreciation of the currency of Ireland.

When Britain imposed the restriction in 1797, it also suspended specie payment for the Bank of Ireland and for the banking system of its Irish colony. It did so even though the Irish banking system was then in relatively sound and uninflated shape. The Bank of Ireland, however, quickly took advantage of its new-found privileges to inflate the supply of money and credit sharply, quadrupling its note circulation over the next six years. By 1803, therefore, the Irish pound had fallen over 10 per cent below its gold standard parity of 108:100 with the English pound. It was particularly evident that the problem here was the Irish supply of paper money, and nothing else, since Belfast, in the English currency orbit with no central bank of its own, remained at par with the English pound, and since the Dublin pound had depreciated to the same extent in Belfast as it had in London.

When the extension of bank restriction came up in Parliament in February 1803, an extension defended by Thornton, a bullionist critique of the Irish situation was launched by Lord King, who continued the same discussion in May when an extension of Irish restriction arose in Parliament.

With attention turned toward the Irish problem, the House of Commons in March 1804 established an Irish currency committee to investigate the matter (more precisely, the 'Select Committee on the Circulating Paper, the Specie and the Current Coin of Ireland'). The Bank of Ireland officials, desperately trying to defend their record, proclaimed with increasing absurdity that the depreciation of the Irish pound was due not to excessive issue but to the mysteriously 'unfavourable' balance of payments out of Ireland. The committee, of which Henry Thornton was a leading member, issued its report in June and gave short shrift to the anti-bullionist rationalizations. It adopted squarely the bullionist insight that the depreciation of the Irish pound was due to excessive issue of paper and extension of credit by the Bank of Ireland, and that this excessive issue had been made possible by the restriction. The committee report presaged the famous bullion committee report six years later, and was notable also for the virtual conversion of Henry Thornton, following Horner, into the moderate bullionist camp. The report declared that the 'great and effectual remedy' for Irish currency ills was 'Repeal of the Restriction Act from whence all the evils have flowed', but it then drew back from such a radical solution to opt for an intermediary solution: for the Bank of Ireland at least to make its notes redeemable in the far less depreciated Bank of England currency. This, in fact, was also the intermediate solution proffered by Lord King. Above all, the committee warned that the Bank of Ireland must limit its paper issue in all times of unfavourable balances of trade, 'and that all the evils of a high and fluctuating Exchange must be imputable to them if they fail to do so'.

Joining the bullionist camp around the Irish currency question were two important members of the Anglo-Irish Establishment. A month before the appointment of the Irish currency committee, Henry Brooke Parnell (1776–1842), the first Baron Congleton, published his pamphlet of *Observations on the State of Currency in Ireland*. Parnell, the son of Sir John, Chancellor of the Irish Exchequer, was educated at Eton and at Trinity College, Cambridge. An influential MP from 1802 on, Parnell's application of bullionist principles to the Irish question was largely influenced by Lord King. Parnell brought charges against the Bank of England of inundating the country with its paper; of diminishing the value of the greatest portion of the property of the country; of establishing a ruinous rate of exchange; and of bringing upon the state all the calamities attending a depreciated currency. As an intermediate remedy, Parnell also recommended King's proposal to make Irish paper redeemable in Bank of England notes. So compatible was Parnell's booklet with the Irish currency committee report, that the third edition of Parnell's essay placed a summary of the committee's evidence in its appendix.

The committee report, and the King proposal, were also backed by another member of the Anglo-Irish Establishment, the young Irish attorney in London, John Leslie Foster (d. 1842), in his pamphlet, an *Essay on the Principles of Commercial Exchanges* (1804). Foster, the son of an Anglican bishop, and graduate of Trinity College, Dublin, later became an Irish judge and a Tory MP in England. There is also the curious case of James Maitland, the eighth earl of Lauderdale (1759–1839), a Scottish attorney and first a Whig and then a Tory MP. On the one hand, Lauderdale was a fanatical underconsumptionist and opponent of saving – thereby anticipating Keynes – in his *Inquiry into the Nature and Origins of Public Wealth* (1804) and in his argument against debt repayment and for government expenditure *per se* (*Three Letters to the Duke of Wellington*, 1829). On the other hand, Lord Lauderdale was a sound hard-money man, endorsing the Irish currency report in a hard-hitting pamphlet. Not only did Lauderdale agree that excessive paper issue of the Bank of Ireland had led to the depreciation of the Irish pound and the premium on gold; he went beyond the report to insist that outright contraction of Bank of Ireland paper was the only effective remedy for the existing problem (In his *Thoughts on the Alarming State of the Circulation and on the Means of Redressing the Pecuniary Grievances of Ireland* (1805). It is certainly unusual for one person to be at the same time an arch-underconsumptionist and an ardent hard-money deflationist!

While the King and committee solutions did not triumph, the Irish bank officials apparently understood the situation far better than they had let on. For they soon managed to defuse the problem by pursuing harder monetary policies, and thereby bringing the Irish pound back to par with England.

5.8 The emergence of mechanistic bullionism: John Wheatley

After 1804, the Bank of England dampened its expansionist policy for a few years, and inflation and depreciation abated as well. As a result, the bullionist controversy about England and Ireland died down. Phase 1 of the great bullionist controversy was over. There had appeared on the scene three schools of monetary thought and opinion: first, the anti-bullionist apologists of the British government and the Bank of England, whose views can scarcely be dignified by the name of 'theory' and who simply denied that monetary issue had any relation to the evils of inflation and depreciation. Ranged against them, were, second, the complete bullionists, headed by Lord King and by Walter Boyd, who trenchantly applied supply and demand for money analysis to the new conditions of irredeemable fiat money, and who attacked the

Bank of England's over-issue as the cause of the evils, with 'real' factors also playing a temporary and subordinate role. In the middle were, third, the moderates, consisting largely of Henry Thornton and Francis Horner, theoretical agnostics who claimed that either monetary or real factors might be responsible for any given inflation, and emphasized empirically and *ad hoc* which set of factors might be the culprits in any given situation. Starting as a moderate anti-bullionist, the empirical weight shifted quickly for Horner, at least, to enter the moderate bullionist camp by 1803.

Before Phase 1 had ended, however, a fourth school of thought, and the third strand of bullionism, had emerged: mechanistic bullionism. The great error of mechanistic bullionism was not simply to neglect all real influences, and to insist that monetary factors and monetary factors alone determined price levels and exchange rates. If that had been the only flaw, the error would have been a relatively minor one. The main problem was that the mechanists were also moved to neglect *all other* causal factors than the money supply – many of them of great importance. In brief, they neglected the demand for money, in all its subtle variations, and such vital 'distribution' effects – even in the long run – as changes in relative assets and incomes and changes in relative prices. In sum, the mechanists claimed that, in the short run and in the long, the *only* causal factors on price and exchanges were changes in the quantity of money. Hence their erroneous and distorted view that changes in price 'levels' are exactly quantitatively proportionate to changes in the quantity of money.

The mechanistic bullionist view, presumably emerging in over-reaction to the moderates, was first presented by a man who was neither an MP nor otherwise in the public eye: the attorney John Wheatley (1772–1830). In his first of many contributions to monetary economics, *Remarks on Currency and Commerce* (1803), Wheatley set forth the long-run bullionist and monetary approach in its starkest and most simplistic form. Any discussion of temporary adjustments or even temporal processes was cast aside, in order to linger exclusively on final equilibrium states. To Wheatley, all export or import of gold was exclusively determined by its demand and price, i.e. by monetary factors, and bullion prices and exchange rates were solely determined by monetary considerations. Real factors play no role in these matters even temporarily or in the short run. Hence the effect of the supply of money on price levels or exchange rates is strictly and precisely proportionate. Overall prices move, not only proportionately, but also uniformly in 'levels', with no changes occurring in relative prices. Thus Wheatley:

> The increase of currency by paper must cause the same reduction in the value of money, in proportion to the activity of its circulation as an increase of currency by specie. But...if paper depreciate money, it must advance in similar proportion the price of articles of subsistence and luxury.

From these principles, it was easy for Wheatley to deduce that it was impossible for an expansion of the money supply *ever* to stimulate the economy, since by definition, 'the wages of labour are augmented only in porportion to the increase [of currency]'. And since wages rise proportionately to the money supply and to all other prices, they can 'purchase no greater quantity of products after the addition than before it', and therefore 'no greater stimulus can in reality exist, and therefore no greater effect is likely to be produced by the deception...'. A heroic conclusion, no doubt, and surely true in the long run; but such blithely dogmatic statements omit the whole point of monetary inflation and its short-run stimulus: e.g. making prices rise faster than wage rates.

Moreover, since Wheatley had an exclusively long-run, and therefore monetary, theory of exchange rates under inconvertibility, he again blithely assumed that the value of any given money was always and everywhere equal, i.e. in the long-run equilibrium, and that fiat money exchange rates always trade at precisely their purchasing-power-parities to their respective monetary purchasing powers. Hence, for Wheatley, not only was a depreciated exchange rate and a premium on specie bullion, an 'unmistakable system' of currency depreciation; it also provided an exact 'measure' of that depreciation. In contrast, King and Boyd, let alone Thornton, only saw currency depreciation when such phenomena existed for 'any considerable time' (Boyd) or were 'long continued' (King). And neither of the latter claimed that such premia or discounted exchange rates provide a precise measure of depreciation.

While John Wheatley did not enjoy anything like the prominence of his fellow debaters on bullionism, he was by no means an insignificant figure. He was born in Kent to a prominent landed and military family of the county. His father William was a high sheriff and deputy lieutenant of Kent; an older brother, William, served as a major-general in the French wars; and a younger brother, Sir Henry Wheatley, was attached for many years to the royal court. Wheatley received a BA from the aristocratic Christ Church, Oxford in 1793, and was then admitted to the bar. His wife, Georgiana, was the daughter of William Lushington, prominent London merchant and an MP for the City of London, and brother of Sir Stephen Lushington, formerly president of the great East India Company. Oddly enough, William Lushington, as chairman of the committee of the merchants of London, had petitioned the Bank of England in March 1797 to be more expansionist in its discount policy.

Wheatley's *Remarks* were attacked in the *Edinburgh Review* by the prominent Whig leader Henry Brougham, on familiar Thorntonian grounds. But while Wheatley followed up his pamphlet with the first volume of *An Essay on the Theory of Money and Principles of Commerce* (1807), his timing was poor, since there was little interest in the bullionist controversy at that time. Wheatley compounded his tactical problems by writing nothing on money for the next nine years, during a time when the bullionist controversy was at its height. For all these reasons, Wheatley's stance was largely overlooked, until in 1809 David Ricardo assumed the leadership of the mechanistic bullionist camp. Wheatley's influence, furthermore, was scarcely helped by his being in chronic financial difficulties virtually all his life. He acted from time to time as agent for the Lushington family in their West India dealings, but financial troubles sent him wandering abroad, and the publication of the second volume of his *Essay* in 1822 was followed promptly by migration to India, where he continued in financial distress, and thence to South Africa with similar problems. But throughout these problems and wanderings, he continued to publish pamphlets calling ardently for freedom of trade.

John Wheatley's exclusive emphasis on the money supply and unitary price levels foreshadowed the modern severe monetarist and macroeconomic split between the monetary and real realms. More pointedly, his mechanistic emphasis on the price level also foreshadowed the unfortunate Fisherine, Chicagoite and later monetarist preoccupation with stabilizing the 'price level' and with fanatically opposing any and all changes in such 'levels'. Even in his early books of 1803 and 1807, Wheatley denounced the alleged evils of falling prices as well as of inflation, and indeed claimed that falling prices were even more damaging. Indeed, the influence of Wheatley's early tracts was gravely weakened by his being soft-core and timid in drawing any policy conclusions from his hard-core analysis. Instead of returning to the gold standard, Wheatley could only suggest the withdrawal of note issue powers from the country banks and the redemption of all small bank notes under £5.

In his 1807 work, he urged that long-term contracts be made in accordance with an index number of price levels and, in his later works, when this plea went unheeded, he began to grow hysterical about the alleged evils of price declines and their injury to the poor. By his 1822 volume Wheatley had gone so far as to urge the postponement of resumption of specie payments until more supplies might enter the country to prevent prices from falling. Indeed, by this point, Wheatley was ready to abandon the gold standard, in his frenzied opposition to falling prices. Yearning for fiat paper stabilized in value by the government, Wheatley wrote: 'if paper were kept without increase or decrease it would be a better measure of value and medium of exchange than gold.' And by the time of his last work, in 1828, written in South Africa, Wheatley called only for fiat paper expansion of the money supply, else 'irremediable poverty is fixed upon as our eternal fate'.

In this way, as in the case of all too many monetarists and mechanistic quantity theorists, Wheatley began as an ardent hard-money bullionist, and was driven over the years by his frenetic hatred of deflation to wind up as a fiat money inflationist.

5.9 Notes

1. During the seventeenth and eighteenth centuries, England had been on a bimetallic standard, but the official rate consistently overvalued gold and undervalued silver in relation to the world market price. As a result, Britain had long been on a *de facto* gold standard. The discussion during the restriction period was complicated by the fact that during those two centuries, it was illegal for Britons to export British gold or silver coins, or bullion melted from such coin. It was legal to export foreign coin or bullion, but more important is the fact that substantial smuggling habitually nullified the export prohibition.
2. Norman J. Silberling, 'Financial and Monetary Policy of Great Britain during the Napoleonic Wars', *Quarterly Journal of Economics* 38 (1924), p. 420; quoted in Joseph Salerno, 'The Doctrinal Antecedents of the Monetary Approach to the Balance of Payments' (doctoral dissertation, Rutgers University, 1980), pp. 283–4.
3. In his pamphlet, *An Investigation of the Cause of the Present High Price of Provisions* (1800).
4. Salerno, op. cit., note 2, p. 294.
5. Ibid., pp. 299–300.
6. Heightening the impact of the *Letter* was Boyd's ability to point out in the Preface that in the few months since the writing of the body of the text, depreciation of the pound at Hamburg had risen from 9 to 14 per cent, and the premium on gold bullion over the pound had increased to $10^1/_2$ per cent. He further noted that in the same interval, the bank had at last been forced to disclose to Parliament statistics on the amount of its notes in circulation, confirming Boyd's strong hunch of a huge increase in Bank of England notes (from £8.6 million outstanding in February 1798 to £15.45 million in December 1800).
7. See the enlightening historiographical discussion of the bullionist controversy by Salerno, op. cit. note 2, pp. 266–82.
8. Quoted in F.A. von Hayek, 'Introduction', in Henry Thornton, *An Enquiry into the Nature and Effects of the Paper Credit of Great Britain* (1802) (New York: Rinehart & Co. 1939), p. 36n.
9. Thornton's biographer is surely right in rejecting von Hayek's claim that Thornton had been working on *Paper Credit* since 1796. Thornton himself, as von Hayek concedes, states the opposite in his introduction: 'The first intention of the writer of the following pages was merely to expose some popular errors which related chiefly to the suspension of the cash payments of the Bank of England, and to the influence of our paper currency on the price of provisions'. Von Hayek also admits that the book 'was intended partly as a reply to Boyd'. See von Hayek, op. cit., note 8, pp. 42–6; Thornton, op. cit., note 8, p. 67; Standish Meacham, *Henry Thornton of Clapham, 1760–1815* (Cambridge: Harvard University Press, 1964), p. 186.
10. Salerno, op. cit., note 2, pp. 364–5.
11. For a thorough critique of Thornton, see Salerno, op. cit., note 2, pp. 357–400.
12. Jacob Hollander, 'The Development of the Theory of Money from Adam Smith to David Ricardo', *Quarterly Journal of Economics*, 25 (May 1911), p. 456.

6 Monetary and banking thought, II: the bullion *Report* and the return to gold

6.1 Ricardo enters the fray

The bullionist controversy sank into oblivion for five years after 1804, largely because a cautious policy on the part of the Banks of England and Ireland temporarily abated the monetary inflation and its unwelcome consequences. Then, during 1809, the heating up of the war with Napoleon rekindled the inflation, bank note circulation increasing from £17.5 million in November 1808 to £19.8 million the following August. Consequently, the pound rapidly depreciated by the Summer, to a discount of 20 per cent on foreign exchange at Hamburg, and to a 20 per cent rise in the market price of gold (at 93 shillings/ounce) over the official mint par of 77s. 10½d. per ounce. It was time for the bullionist controversy to heat up again.

David Ricardo was first and foremost a monetary economist, and, as Professor Peake has reminded us, his focus on money remained a key to the entire body of his economic thought.[1] Ricardo had come upon *The Wealth of Nations* in 1799, and had steeped himself in political economy ever since, his practical life as a wealthy young stock- and bond-broker naturally leading him to emphasize monetary affairs. The rapidly growing depreciation of the pound in 1809 led Ricardo to his first published works on economics, beginning with a letter on the 'Price of Gold' in the *Morning Chronicle* (29 August).

Ricardo's letter made a great impact, particularly by his unique blend of hard-core theorizing and impressive command of the empirical and institutional facts of the monetary scene. His first letter to the *Morning Chronicle* was followed by two more, with the letters being shortly expanded into a renowned and highly influential work – Ricardo's first book – *The High Price of Bullion, a Proof of the Depreciation of Banknotes* (the point is summarized in the title), published at the beginning of 1810. The *High Price* went into no less than four editions by the following year.

The various positions in the bullionist controversy had been set during the first phase of the debate (1800–4). It was Ricardo's intention to revive and establish the bullionist position, not only against the anti-bullionists, but more importantly against the more respected and influential moderate anti-bullionist doctrine of Henry Thornton. Thornton was the most important theoretical opponent of bullionism, and so Ricardo set out to take up the cudgels for Lord King, although, in doing so, he unfortunately – as we shall see – reverted to and elaborated the rigid and mechanistic approach of John Wheatley.

It was Thornton, however, who was his leading opponent, and Ricardo set out to convert him; as he wrote in *High Price*:

> Mr. Thornton must, therefore, according to his own principles, attribute it [the premium on gold bullion] to some more permanent cause than an unfavourable balance of trade, and will, I doubt not, whatever his opinion may formerly have

> been, now agree that it is to be accounted for only by the depreciation of the circulating medium.

In the course of the *High Price*, Ricardo set forth clearly the important point that there is no such thing as a shortage of specie or a great need for more of it: that, in effect, *any* level of the money supply is optimal:

> If the quantity of gold or silver in the world employed as money were exceedingly small, or abundantly great...the variation in their quantity would have produced no other effect than to make the commodities for which they were exchanged comparatively dear or cheap. The smaller quantity of money would perform the functions of circulating medium as well as the larger.

As soon as the *High Price* was published in January 1810, Ricardo, hitting on the right tactic to spread his views, sent a copy to that leading moderate and influential MP, on monetary questions, Francis Horner. The effect on Horner was electric, and he was moved, the following month, to introduce – and get passed – a resolution in the House of Commons setting up a select committee to enquire into the cause of the high price of bullion. The justly famed 'bullion committee' of 22 illustrious MPs, chaired by Horner, issued its report in June 1810, recommending the bullionist policy of a return to the gold standard in two years' time. The bullion committee *Report* touched off an intense controversy, within Parliament and in the general pamphlet literature over the following year.

David Ricardo had partially accomplished his objective of converting Henry Thornton, who was perhaps the most influential member of the bullion committee and who co-wrote its *Report*, along with Horner and William Huskisson. Characteristically, it was not Ricardo's bullionist *theory* that had swayed Thornton, but the impressive marshalling of evidence that convinced him at long last that this particular inflation and depreciation were being caused by over-issue of Bank of England notes. Thornton, in short, had joined his disciple Horner before him in remaining a moderate, but in being converted from anti-bullionist to bullionist on empirical grounds.[2] In the parliamentary debate on the bullion *Report* in May 1811, Thornton conceded that the idea of poor harvests and subsidies to foreigners being the cause of the depreciation 'was an error to which he himself had once inclined, but he stood corrected after a fuller consideration of the subject'.

Thornton's conversion was all the more remarkable because his own bank was financially tied to the fiat expansion of bank credit; and the mere issuance of the *Report*, even though it did not carry the day in Parliament, was enough to cause a minor run on Thornton's bank. Furthermore, a period of difficulties that were never fully overcome now set in for the bank until it finally failed in 1825, ten years after Thornton's death.

Thornton's conversion, however, was only empirical. Thus, in the course of the debates on the bullion *Report*, he still brought up the bogy of deflation, and suggested that the pound be devalued to its existing market levels in order to ward off a deflation when resumption finally arrived.

Since Ricardo's main focus was combating the views of Henry Thornton, it is not surprising that he overreacted, and, instead of adopting the complete, sophisticated bullionism of Lord King, went on to the rigid and mechanistic doctrines of John Wheatley. In particular, in order to rebut Thornton completely, Ricardo believed that the dispute had to be elevated totally to the theoretical plane, so that he felt forced to maintain that *only* monetary factors, even in the short run, could ever have any influence whatever on prices or exchange rates. Money, Ricardo felt obliged to maintain, is ever and always, even in the short run, totally neutral to the rest of the economy, to everything, that is, except overall prices. As Professor Peake puts it:

> In large part, Ricardo's early works represented a reaction to Henry Thornton's non-neutral monetary economics, and in challenging Thornton's views, Ricardo committed himself to an explanation of output, value, and distribution in real terms consistent with neutral money.[3]

To accomplish his impressive if unbalanced task, David Ricardo had to concentrate exclusively on long-run equilibrium states, and to ignore the market processes towards them. In that way, Ricardo set the stage for his later approach to all economic questions.[4] Ricardo summarized his methodology in the course of his famous correspondence with Thomas Robert Malthus on monetary questions from 1811 to 1813: 'You always have in mind the immediate and temporary effects...[I] fix my whole attention on the permanent state of things which will result from them'.[5]

For money to be strictly neutral to everything except a general level of prices, Ricardo had to assert a strict, radical dichotomization between the monetary and the real worlds, with values, relative prices, production and incomes determined only in the 'real' sphere, while overall prices were set exclusively in the monetary sphere. And never the two spheres could meet. And here began the fateful and all-pervasive modern fallacy of a severe split between two hermetically sealed worlds: the 'micro' and the 'macro', each with its own determinants and laws. Furthermore, as Salerno writes, 'it was Ricardo's strong affirmation of the neutral-money doctrine in his bullionist writings that was to serve as the source of the classical conception of money as merely a "veil" hiding the "real" phenomena and processes of the economy'.[6] In particular, if money is neutral, then value, or relative prices, had to have only 'real' determinants, which Ricardo discovered in embodied quantities of labour.

In the macro area, in contrast, Ricardo set forth a mechanistic, strictly proportional causal relation between the quantity of money and the level of prices, a strictly proportionate 'quantity theory of money'. Again, Peake summed it up very well:

> Theoretically, Ricardo challenged Thornton by developing a strict quantity-theory, neutral-money analysis which resulted in his well-known dichotomization of the economy into goods and money sectors, with no role for money other than to determine the general level of prices. Analytically, this required him to convert Thornton's model into a dichotimized model...by demonstrating real-market equilibrium independent of the money market. A fundamental theme linking all of Ricardo's later works is the continuing search for neutral money.[7]

Thus Ricardo writes that

> The value of the circulating medium of every country bears some proportion to the value of the commodities which it circulates...No increase or decrease of its quantity, whether consisting of gold, silver, of paper-money, can increase or decrease its value above or below this proportion. If the mines cease to supply the annual consumption of the precious metals, money will become more valuable, and a smaller quantity will be employed as a circulating medium. The diminution in the quantity will be proportioned to the increase of its value.

The value of inconvertible paper money, declared Ricardo, becomes determined in the same way. Hence, under any restriction of specie payment,

> any excess of [Bank]...notes would depreciate the value of the circulating medium in proportion to the excess. If twenty millions had been the circulation of England before the restriction...and if the bank were successively to increase it to fifty, or a hundred millions, the increased quantity would be all absorbed in the circulation of England, but would be in all cases, depreciated to the value of the twenty millions.

Under inconvertible currency, furthermore, strict proportionality then gets carried over to the determination of exchange rates. Like Wheatley, Ricardo concluded that only monetary factors ever determine the exchange rate and hence that the depreciation of the exchange rate must precisely measure the extent of monetary inflation and of the over-issue of paper money. In the same way, and to the same precise proportion, the rise in the price of bullion, and the rise in prices of commodities, will also reflect the selfsame over-issue and depreciation.

David Ricardo's arrival on the monetary scene brought him into the first rank of bullionist champions, not because of anything original he had to say, but because of his empirical knowledge of money, his grasp of the literature, and his willingness to refute in detail the arguments of the numerous distinguished men of the anti-bullionist Establishment ranks. Thus, in the course of the storm over the bullion *Report* (see below), Charles Bosanquet (1769–1850), a London merchant governor of the South Seas Company, as well as a son of a former governor of the Bank of England, wrote a pamphlet attacking the *Report*, sneering at it from the point of view of a 'practical man' scoffing at wild and irrelevant theorists (in his *Practical Observations on the Report of the Bullion Committee*, two editions in 1810). Bosanquet's pamphlet drew a famous *Reply to Mr. Bosanquet's Practical Observations* (1811) by Ricardo the following year. Ricardo's pamphlet was a brilliant and effective polemic, in which he marshalled an impressive array of empirical data in the course of a lofty defence of high (and mechanistic) theory as against the dim-wittedness of self-proclaimed 'practical men'. The *Reply* was particularly effective because Ricardo could match Bosanquet in realistic, practical knowledge, a ploy which led many people to overlook the strident unrealism of his theoretical apparatus.

In sum, Jacob Hollander rightly explained Ricardo's influence on behalf of bullionism, not as the result of any original contributions, but

> because, not content with restating a positive theory, Ricardo set up in succession and demolished in turn, sometimes completely, always plausibly, every opposed argument in a written criticism or current opinion...A theory which had a dignified parentage was refurbished, defended from doctrinal attacks, justified by contemporary events, vitalized by urgent timeliness, and vindicated against current criticism. A standard was planted, the field cleared, and an alert and resourceful champion held the lists.[8]

But even at this early date, the hard-money champion was beginning to buckle and if not abandon at least to flounder in the cause. For in his reply to Malthus's review of *The High Price* in the *Edinburgh Review*, reprinted as an appendix to the fourth edition, Ricardo advanced a plan for ending the restriction that abandoned the heart of the gold standard. Specifically, he proposed that the pound sterling be redeemable in gold bullion rather than in coin. But a gold bullion standard means that the average person cannot redeem paper money in a commodity medium of payment, and that gold redemption is confined to a handful of wealthy international financiers. Ricardo's desertion of the gold coin standard was motivated, first, by a Smithian desire to 'economize' on the gold metal, and more prominently, by a fear of deflation that was conspicuously inconsistent with his dismissal of all non-price-level effects of changes in the supply of money. In this phobia about deflation, and in this inconsistency, Ricardo followed his mentor in mechanistic bullionism, John Wheatley.

In addition to Francis Horner, another person inspired by Ricardo's reawakening of the bullion controversy was Robert Mushet (1782–1818). A

Scotsman born near Edinburgh, young Mushet had entered the service of the Royal Mint in 1804, and by the time of the new controversy, had risen to the post of first clerk to the master of the Mint. Mushet's *An Enquiry into the Effects Produced on the National Currency and Rates of Exchange, by the Bank Restriction Bill*, came out early in 1810, before the appointment of the bullion committee, and went quickly into three editions. Mushet was able to add his expertise at the Royal Mint to the hard-core bullionist cause.

6.2 The storm over the bullion *Report*

Although Francis Horner, who formed and chaired the famed bullion committee, was a Whig, the committee itself was scarcely stacked against the Tory government. On the contrary, the committee's 22 members included seven Whigs, seven clear-cut Tories, including even the prime minister and chancellor of the exchequer Spencer Perceval,[9] and eight, including Thornton and Alexander Baring of the renowned banking family, who were independents friendly to the Tory administration. Of the co-authors of the *Report*, Thornton was still considered at the time of appointment of the committee perhaps the leading defender of bank restriction, and William Huskisson (1770–1830) was a leading Tory MP of the Canning wing of the party, who had been a member of the Tory government for several years until 1809.[10] The modal committee member may be summed up as a thoughtful Tory, a supporter of the restriction now troubled by the developing inflation and depreciation of the pound. While David Ricardo was acquainted with Thornton – both had been co-founders of the London Institution and its library in 1805 – his only close friend on the bullion committee was another London Institution co-founder Richard Sharp (1759–1835), a Whig and West Indies merchant.[11] The only member of the committee who shared Ricardo's bullionist hostility to the Bank of England was Henry Brooke Parnell. Indeed, Thornton's presence on the committee and support for the *Report* in Parliament shocked the anti-bullionists and led his wife to offer embarrassed explanations to their friends.[12] Frank W. Fetter summed it up clearly when he wrote that

> The position of Thornton and Huskisson in the Bullion Committee and in their subsequent defence of its Report was taken more in sorrow than in partisanship. It was the outgrowth of their increasing concern over the apathy of the Government and the Bank about the condition of the foreign exchanges and the bullion market, and over the support by the Bank and the Government spokesmen for the 'real bills' doctrine in its most extreme form, i.e., that as long as the Bank's advances were made only on sound commercial assets the amount of the advances could have no effect on prices or the foreign exchanges.[13]

Most important, the bullion *Report* itself was neither Kingian nor Ricardian, but squarely in the Thornton–Horner moderate bullionist camp. Its support