THE MONETARY ANALYSIS IN DAVID RICARDO'S *PRINCIPLES OF POLITICAL ECONOMY AND TAXATION*

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Abstract

The chapter on money credit and banking and references to money in other chapters of his *Principles of Political Economy* represents David Ricardo's final thoughts on money and credit. The paper presents a comparison with Ricardo's *Proposals for an Economical and Secure Currency* and some reflections on Ricardo's theory of interest, presented in the *Principles* as separate from value and distribution. Ricardo's views on money and interest have been wrongly interpreted as laying the foundations of monetarist thought and interest rate determination of the rate of profit.

Key words: Ricardo, bullionism, rate of interest

JEL Classification: B31; E42; E43

1. Introduction

2017 marks the bicentenary of David Ricardo’s *On the Principles of Political Economy and Taxation*, his best known contribution to economic theory and political economy. This paper examines the origin of the monetary theory in that work in his lesser known 1816 pamphlet: *Proposals for an Economical and Secure Currency*. The commonly held view is that monetary concerns were only of marginal importance to Ricardo, whose monetary analysis is considered to be the foundation of the quantity theory of money. In part this is because in the *Principles* monetary analysis is introduced separately from the system that determines value and distribution. This presentation therefore marks the departure of classical political economy from the integrated system of production, distribution, income and expenditure, that had been the main legacy of the Physiocrats.

The paper has three broad parts. The first discusses the context of the debates out of which Ricardo’s monetary theory emerged. (Section 2 presents a detailed overview of the plan
contained in the *Proposals*). The second part of the paper, Sections 3 and 4, shows how Ricardo transferred the ideas in the *Proposals* more or less without change into the *Principles* but with the addition of an important discussion on the rate of interest, which provides a second link between the monetary system and the production of value and distribution. The paper concludes that Ricardo’s monetary analysis reduced the role of money to determining the value of money, or the price level, since the rate of interest is determined by the rate of profit. However, this has generally been wrongly interpreted as Ricardo’s adherence to a quantity theory of money, and the determination of the rate of profit by the rate of interest.

2. Ricardo’s *Proposals* for a return to gold

England had suspended convertibility of its bank notes into specie in 1797 and during the early 1800s the causes of the deteriorating economic conditions were the subject of intense debate. The *Proposals* was published in 1816, a year after the end of the Napoleonic wars, and contained a detailed plan about the logistics of how the Bank of England could return to the gold standard all the while maintaining paper money as a means of payment. The Plan, according to Fetter (1965, p. 91), ‘showed him at his best as an economist’ because it provided a way of obtaining the most perfect kind of currency – one that possesses two traits: is both economical in use and secure.

One of the grave concerns about how and when to resume convertibility was the great quantity of gold that the Bank of England might need to purchase in order to satisfy all the notes that holders may want to exchange for gold. In light of this, the first version of the plan appeared in the Appendix of *High Price of Bullion* (1810) as a riposte to the view that the Bank of England would need to accumulate a great stock of gold in anticipation of resumption.

Ricardo’s plan suggested a means to reinstate a gold standard which would be ‘economical’ in part because it would not rely on gold circulating in the domestic economy. This was to be done by prohibiting the convertibility of bank notes into gold coins, while requiring the Bank instead to pay in gold ingots. Ricardo’s ingot innovation was thus to “replace metallic coin with paper … using an ingot of standard weight and fineness instead of coin for the conversion of the paper money” (Takenaga 2016, 199). The need to economise on gold as the circulating medium is pronounced in the *Proposals* when Ricardo describes the perfect currency as one in whose use ‘the utmost economy is practised’ (Ricardo 1816, p. 8). This
would reduce the amount of gold needed to circulate as money and so, according to Davis (2005, p. 194), the Bank’s gold reserves would face reduced pressure and demand by those wanting to redeem their notes because of the sheer inconvenience of receiving ingots in return. This would have the effect of allowing the Bank to maintain a smaller hoard, i.e. smaller reserves. Given the already run-down state of reserves, this economy was an important consideration. ‘I think there would be no provision of gold necessary beyond that which the bank must have now, however small it may be.’ (Ricardo 1819, p. 383).

Ricardo’s reputation is strongly linked to the Bullionist controversies of the early 1800s. According to the Bullionist view the suspension of convertibility had led to an uncontrolled expansion of note issue by the Bank of England and part of the public debate had focused on identifying the cause of an excess note issue. The Bullion report explained: ‘this excess is to be ascribed to the want of a sufficient check and control in the issues of paper from the Bank of England; and originally, to the suspension of cash payments, which removed the natural and true control (Select Committee, 1810: 73). Ricardo’s plan was to alleviate the ills caused by an excessive note issue by the Bank of England. But by what criterion can ‘excess’ be judged? For Ricardo this criterion should be the divergence between the market and mint price of gold, the latter being the legally set price of gold prior to suspension. Monetary adjustment would achieve convergence between these two prices. For example, given the amount of Bank of England notes already in circulation, there would have to be a reduction, estimated of about 15% of the note supply in 1810, to reach par (Bonar, 1923: p. 283). ‘Ricardo addressed himself wholly to the question of the adjustment of the supply of money and the price level to the price of gold that would be enforced by the decision to resume cash payments.’ (Sayers, 1952, p. 39). The aim was thus to close the gap between the market and mint price of gold, which he viewed would only require a small reduction in note issue (Morgan, 1943, p. 44). An ‘appreciable margin’ was proposed by setting the price for buying gold slightly cheaper than the price of selling gold £3 17sh 6d for the former and £3 17sh 10 ½ d for the latter’ (Amon, Weinblatt and Young, 2011, p 29). The way the contraction would be instituted was by beginning resumption of notes for gold at the market price and coming down in small steps at specific periods until the mint price was reached. The fall in the price of goods would follow the descent of the market price to the mint price of gold; a process which was estimated to last up to a year (Bonar, 1923, p. 289).

Legitimate concerns about deflationary prospects of a monetary contraction were implicit in the public discussion about ‘economising’ on gold. Later commentators have challenged the long-established view that Ricardo paid little regard to the deflationary problems of monetary contraction. Although not a central concern, Ricardo acknowledged that temporary problems
could emerge, as Laidler (2000) and Sayers (1953, p. 45) point out. Sayers (1953, p. 55) recognised that Ricardo did take note of the effects on employment of a monetary contraction, and notes that Ricardo always insisted on a gradual contraction (Sayers, 1953, p. 39). Frequently charged with being a deflationist, Ricardo however conceived a plan that would reduce the degree of monetary contraction necessary to return to gold. The amount of gold the Bank of England would be required to hold under his scheme was minimised. The quantity of paper money in circulation could then be more easily altered to meet changing conditions. The key operating principle of the ingot plan made the task of the Bank of England to alter the quantity of paper money in circulation in such a way as to prevent divergence between market and mint price of gold (Deleplace 2016 p. 11).

A ‘currency may be considered perfect, of which the standard is invariable, [and] which always conforms to that standard,’ (Ricardo 1816, p. 8). Ricardo’s plan not only supported the resumption of cash payments through a scheme that would economise on the amount of gold needed but it also allowed England to resume gold payments without raising the value of gold i.e. its purchasing power. All writers on the subject of money have agreed that uniformity in the value of the circulating medium is an object greatly to be desired.’ (Ricardo 1810, p. 7). By proposing a paper circulation, where Bank of England notes would be convertible into bullion, rather than gold coins, Ricardo sought to improve the pre-1797 system by replacing the expensive medium of gold with one that was cheaper (Ricardo 1816, p. 32). However, the ingot plan goes further to enhance the stability of the price of gold via the peculiarity of returning to gold without it acting as a circulating medium. If gold was a circulating medium, then any increase in the quantity of gold supplies would affect both the value of the circulating medium and stocks of bullion. Using paper for circulation however, would allow the price of gold to remain constant ‘regardless of the amount of paper’ (Arnon 2011, p. 146). The advantage of paper over gold was that the quantity of paper money did not rely on the production process and deposit discovery of gold reserves, a source of real instability. With a changing need for trade and changing economic circumstances the quantity of money could be altered fairly simply, which would allow the value of money to remain more constant (Takenaga, 2003, p. 100). This reveals Ricardo’s higher order purpose, which was the search for an invariable measure of value against which to measure deviations of the note issue from its optimal amount, rather than any relationship between the quantity of money issued and the price level in the economy.
3. Money in the *Principles*

Hastily written in the year following publication of his *Proposals*, the chapter ‘On Currency and Banks’ contains the key idea of the earlier pamphlet and preceding works, namely, the proposal that banks can be prevented from over-issuing their notes as currency by an obligation to buy or sell gold bullion at a fixed price. This, in Ricardo’s view, would ensure an adequate amount of notes for the needs of trade while, at the same time minimizing the banks’ obligations to service the gold market. As he observed in his chapter ‘A currency is in its most perfect state when it consists wholly of paper money, but of paper money of an equal value with the gold which it professes to represent. The use of paper instead of gold, substitutes the cheapest in place of the most expensive medium, and enables the country, without any loss to any individual, to exchange all the gold which it before used for this purpose, for raw materials, utensils, and food; by the use of which, both its wealth and its enjoyment are increased.’ (Ricardo 1817/1819/1821 p. 361).

In his *Proposals*, Ricardo had justified gold convertibility on the grounds that gold would serve as a ‘standard commodity’, whose price can more immediately and obviously, serve as an unambiguous indicator of the value or purchasing power of money. In his chapter, Ricardo added to this central idea a justification for eliminating convertibility against coinage. He quoted with approval Adam Smith’s criticism of this practice, on the grounds that the needs of country banks obliged the Bank of England to coin large amounts of coins to supply to country banks, causing a loss of 2.5% to 3% of the gold in the process of coining. Ricardo observed that there was a further ‘loss of weight’ as heavy gold coins are transferred between the Bank of England and country banks.

Fresh from his polemic against the Directors of the Bank of England, Ricardo added that the issuers of bank notes should not be merchants or bankers who, in his view, would abuse the note-issuing privilege. They should instead be issued by commissioners specially appointed for that purpose and outside the control of ministers, a kind of ‘monetary policy committee’ responsible to parliament. It would also reserve for the public the benefits of seigniorage.

The remainder of his chapter is devoted a criticism of Adam Smith’s bimetallism. Smith had argued that the price of silver in terms of gold would settle down according the relative amounts of the respective precious metals in coins (Smith, 1904, Book 1 chapter V). However, Ricardo argued that the price of silver depended on which precious metal was used as legal tender for the payment of debts (Ricardo 1817/1819/1821 p. 361).
4. Ricardo’s Theory of Interest

Arguably the most significant addition to the monetary theory in the Proposals that Ricardo made in his chapter was in introducing the rate of interest into his analysis. While convertibility of bank notes into bullion at a fixed price was not so much to restrict the note issue to the amount that could be backed by gold, as much as to make gold a ‘standard commodity’ whose stable price would assure that money value would reflect real value (Marcuzzo and Rosselli 1987). However, the rate of interest was a further and crucial link between his monetary analysis and the theory of value and distribution laid out in the first six chapters of his Principles. His key doctrine, that the rate of interest is ultimately determined by the rate of profit, even more sharply distinguishes his monetary theory from the modern monetary theory descended from the Wicksell. It is in the light of Wicksell’s theory that Ricardo’s is too often interpreted.

Ricardo had first put forward the doctrine that that rate of interest is determined by the rate of profit in 1810 in his observations on ‘The High Price of Bullion’, where he denied what came to be the later Keynesian or neo-classical notion that the rate of interest depends on ‘the abundance of paper money; that if it were too abundant, interest would fall, and if not sufficiently so, interest would rise.’ He went on ‘It can, I think, be made manifest, that the rate of interest is not regulated by the abundance or scarcity of that part of capital, not consisting of money.’ As evidence to support this, Ricardo quoted a passage from Chapter 2, Book II of Adam Smith’s The Wealth of Nations in which Smith argued that money is not an input into production and serves only to circulate the inputs of production. Elsewhere, in chapter 4 of that Book, Smith had argued that the extraction of gold from newly discovered mines in North America, had greatly increased the quantity of money, but did not lower the rate of interest. Ricardo concluded that ‘the rate of interest… [is] regulated by the profits on the employment of capital, and not by the number or quality of the pieces of metal, which are used to circulate its produce.’ (Ricardo 1810, pp. 88-89).

In the same year, 1810, in his letter to the Editor of the Morning Chronicle concerning Sir John Sinclair’s pamphlet criticising the Bullion Report, Ricardo took issue with Sinclair’s notion that an increase in the circulation of bank-notes would reduce the rate of interest. Sinclair had written that if the note issue and coinage circulating in Britain of £40 millions were reduced, the rate of interest would rise: ‘… how much would not the rate of interest be cramped? Whereas if … [the note issue and coinage were raised] bearing an interest of 4
per cent and the whole of it actively employed in various industrious pursuits, it cannot be doubted, that the prosperity of the country would increase with a celerity, and be carried to a height, which would not otherwise have been attainable.' Ricardo commented 'If this reasoning be just, how incalculable would the prosperity of the country become, if the Bank would increase their notes to 100 millions and lend them at 3 per cent.'

Ricardo went on 'If Sir John will take the trouble to consult the 4th chap. 2d book, of Dr. A. Smith's celebrated work, he will there see it undeniably demonstrated, that the rate of interest for money is totally independent of the nominal amount of the circulating medium. It is regulated solely by the competition of capital, not consisting of money. The real amount of the circulating medium, with the same amount of commerce and confidence, must always be the same; it may, indeed, be called 100 millions, or 20 millions, but the real value of the one or the other sum must be the same.' (Ricardo 1810, p. 143).

In his chapter in the Principles on currency and banks, Ricardo reinforced this view: 'The whole business, which the whole community can carry on, depends on the quantity of its capital, that is, of its raw material, machinery, food, vessels, etc. employed in production. After a well-regulated paper money is established, these can neither be increased nor diminished by the operations of banking. If, then, the State were to issue the paper money of the country, although it should never discount a bill, or lend one shilling to the public, there would be no alteration in the amount of trade; for we should have the same quantity of raw materials, of machinery, food and ships; and it is probable, too, that the same amount of money might be lent, not always at 5 per cent. Indeed, a rate fixed by law, when that might be under the market rate, but at 6, 7, or 8 per cent., the result of the fair competition in the market between the lenders and the borrowers.' (Ricardo 1817/1819/1821 p. 365)

Ricardo expanded on this in a chapter on 'The Effects of Accumulation on Profits and Interest' confusingly placed earlier in the Principles, where it is chapter XXI and separated from chapter XXVII, 'On Currency and Banks', by chapters on 'Bounties on Exportation …', 'On Bounties on Production', Adam Smith's doctrine on Rent, 'On Colonial Trade, and 'On Gross and Net Revenue'. In that earlier chapter Ricardo conceded that the rate of interest may deviate temporarily from the rate of profit: 'The rate of interest, though ultimately and permanently governed by the rate of profit, is however subject to temporary variations from other causes.' (Ricardo 1817/1819/1821p. 297) Those causes could be a shortage of sales

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1 The Usury Laws at the time when Ricardo was writing restricted the rate of interest to a maximum of 5%.
revenue in the case of a manufacturer, or even credit inflation: ‘If by the discovery of a new mine, by the abuses of banking, or by any other cause, the quantity of money be greatly increased, its ultimate effect is to raise the price of commodities in proportion to the increased quantity of money; but there is always an interval, during which some effect is produced on the rate of interest.’ (ibid. p. 298. See also Shackle 1954).

Ricardo had little time for the Keynesian notion that emerged a century later that the long-term rate of interest, rather than the short-term rate in the money markets, is the one relevant to capital accumulation: ‘The price of funded property [i.e., the yield on bonds] is not a steady criterion by which to judge of the rate of interest.’ (ibid.) This is because in war-time the stock market is ‘loaded’ by the funding operations of the government, and in peace-time is so boosted by the operations of sinking funds (to pay off the national debt) and the demand of risk-averse investors, depressing ‘the rate of interest on these securities below the general market rate’. Different rates of interest are payable according to the term of the bond. At the same time, the quarterly interest payments on the national debt regularly squeeze the money market, causing sharp increases in the rate of interest in that market.

In an intriguing footnote, Ricardo took issue with Jean-Baptiste Say over a question that had bothered French political economy since the days of the Physiocrats. Like François Quesnay and Adam Smith, Say had deplored the offering of public loans at rates of interest in excess of the 5% that agriculture, manufacturing and commerce could afford, drawing capital away from productive employment in those activities. Ricardo dismissed such worries: ‘To the question “who would lend money to farmers, manufacturers and merchants, at 5 per cent per annum, when another borrower, having little credit, would give 7 or 8 per cent?” I reply, that every prudent and reasonable man would. Because the rate of interest is 7 or 8 per cent. there, where lender runs extraordinary risks, is this any reason that it should be equally high in those places where they are secured from such risks? M. Say allows, that the rate of interest depends on the rate of profits; but it does not therefore follow, that the rate of profits depends on the rate of interest. One is the cause, the other the effect, and it is impossible for any circumstances to make them change places.’ (Ibid. pp. 297-300. See also Toporowski 2005 pp. 17-25).

In his Principles Ricardo presented a system of value and distribution that was integrated with the monetary and financial system in two ways. The first was through the money supply that determined the price level and the value of money. The second was through the determination of the rate of interest by the rate of profit in the economy. The first channel of integration has recurred in monetarist ideas and policy since Ricardo’s time. However, the
second channel of integration has been systematically reversed in the two centuries since the publication of the *Principles*. There have been two parts to this reversal. First of all there was the realisation that the rate of interest is independent of the rate of profit, the discovery of a ‘pure monetary rate of interest’ most obvious in the monetary theory of Keynes. Secondly, there has been a conviction in a monetary transmission mechanism that is supposed to direct the chain of causation from the rate of interest to the rate of profit in the economy. This is a common line from Wicksell, through Hawtrey and Keynes, to Michael Woodford and the New Consensus today. It even appears in the most famous modern reconstruction of Ricardo’s system, Piero Sraffa’s *Production of Commodities by Means of Commodities*, whose author states that ‘The rate of profit, as a ratio, has a significance which is independent of any prices, and can well be “given” before the prices are fixed. It is accordingly susceptible of being determined from outside the system of production, in particular by the level of the money rates of interest.’ (Sraffa 1960, p. 33)

**Conclusion**

In his *Principles*, Ricardo incorporated the basic ideas of his *Proposals* but added to those a theory of the rate of interest that largely drew on earlier reflections on the money and bond markets. A distinctive feature of the *Principles* is its subordination of monetary analysis to the real factors that in his view determine value and distribution, including production, wages, profits and relative prices. The monetary sector is introduced as separate from the system of production and distribution, but is connected to the ‘real’ economy by two links. The first is the quantity of money that determines the money price level, but not value, production or distribution, with the price of gold bullion serving as the indicator of value. The second link is the rate of interest that is supposed to be determined by the rate of profit. While the connection between money and the price level has been a recurrent feature of monetarist ideas since Ricardo’s time, monetary thought and policy since then has generally reversed the causal relationship between the rate of profit and the rate of interest to make the rate of interest the causal factor.

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