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David Ricardo

John E. King
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Preface and Acknowledgements

First of all I must thank the series editor, A.P. (Tony) Thirlwall, for commissioning this book and thereby allowing me to return to early nineteenth-century political economy after spending the last two decades working on the history of much more recent economic ideas. He also made many helpful suggestions and criticisms.

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I am also grateful to the Dead Economists’ Society, better known as the History of Economic Thought Society of Australia (HETSA), for 25 years of annual conferences, with hardly a single bad paper at any of them.

My greatest thanks must go to Mike Howard, from whom I have learned so much over so many years. Mike read the entire manuscript and improved it greatly. But the usual disclaimer applies, of course.

A note on sources: almost all references to Ricardo come from the eleven-volume *Works and Correspondence*, edited by Piero Sraffa (with the assistance of Maurice Dobb) and published by Cambridge University Press between 1951 and 1955 (volume XI was delayed until 1973). They are cited by volume: thus ‘I, p. 30’ refers to p. 30 of the *Principles*. The same method of citation has been used for Sraffa’s (copious) editorial notes, which are often (but not always) in lower-case Roman numerals: thus ‘I, p. xxx’ refers to p. xxx of his ‘Introduction’ to the *Principles*, but ‘IV, pp. 3–8’ refers to his editorial notes on pp. 3–8 of volume IV of the *Works and Correspondence*. It should always be clear from the context whether it is Ricardo or his editor who is being cited.

A relatively small number of manuscripts and letters have come to light since the completion of the Cambridge University Press edition. In each case they are attributed to the editor; full citations are given in the References.

JOHN E. KING
1
The Life and Times of David Ricardo

1.1 The Importance of Ricardo

My previous contribution to this series was devoted to Nicholas Kaldor (1908–1986), a man with a very high opinion of David Ricardo as an economic theorist, even though he was never himself in any sense a Ricardian. Kaldor once described Ricardo’s *Principles* as being ‘generally regarded as the basis of modern economics’ (Kaldor 1978, p. 183). As he wrote in 1982, with reference to Keynes’s *General Theory*: ‘It will rank as one of the top 5 classics in the field – of comparable importance to Adam Smith’s *Wealth of Nations*, Ricardo’s *Principles*, Marx’s *Das Kapital* and Alfred Marshall’s *Principles of Economics*’ (Kaldor 1982, p. 259). Half a century earlier, Claud Guillebaud (1927, p. 16) went even further, describing Ricardo as ‘perhaps the greatest intellect which has turned to economic science’. If this is a contentious assessment, it is probably more generally accepted that ‘no figure in the history of economics has been more controversial than Ricardo’ (Whitaker 1989, p. 492).¹

Ironically, one area of controversy concerning Ricardo is precisely the extent of his influence. According to the most authoritative recent history of classical political economy, by Dennis O’Brien, ‘the full Ricardian apparatus attracted hardly any disciples ... By 1830–1 Ricardian value theory had effectively disappeared ... Only in the case of Ricardo’s treatment of comparative advantage do we really find an unbroken continuation, development, and refinement of his work’. And then he continues:

But having said all this it is vital to be clear about one thing. Though the influence of Ricardo has been shown to have been extremely limited, it was, for the further development of Classical economics,
entirely necessary to discuss his system. For his tremendous intellectual vitality had burnt deep scars onto the Classical-economic consciousness. It simply is not possible to read the Classical economic literature and understand it unless we know the system in which those scars originated. (O’Brien 2004, pp. 49, 52; original stress deleted)

These ‘Ricardian scars’ continue to generate great interest.² There have been two new editions of the Principles in the twenty-first century, one published in the United States and one in India (Wright 2005; Ghosh 2010). Articles on Ricardo’s work appear almost every year in the leading journals of the history of economic thought, and his name is taken in vain more frequently than that of any other economist with the possible exception of Keynes. The intellectual followers of Ricardo’s great editor, Piero Sraffa (1899–1983), are often described (to their displeasure) as ‘neo-Ricardians’. And in the year 2000 a Ricardo Society was established in Tokyo; a great deal of work on Ricardo had already been carried out in Japan since 1945 (Sato 2013). In September 2012 the Society sponsored an international conference in Lyon on ‘New Developments on Ricardo and the Ricardian Tradition’. (http://www.ricardosociety.com/english/english).

1.2 Ricardo’s Life

David Ricardo was born on 18 April 1772 in the City of London, where his family lived before moving to Bow in the East End in 1792. The third son of devout Sephardic Jewish parents, he was circumcised at the age of one week (Heertje 2004, p. 285). Ricardo’s Jewish heritage can be traced back through five generations. The family came from Portugal, probably around 1593, when Jews were invited by the Grand Duke of Tuscany to settle in the free port of Leghorn, or Livorno (ibid., p. 281). In 1680 David Ricardo’s great-great-grandfather moved to Amsterdam, joining the large Sephardic community there. His grandfather, Joseph Israel Ricardo (1699–1762), was a stockbroker and a man of some substance, although he was not especially wealthy. His second son, Abraham Israel Ricardo, was David’s father.

Born in Amsterdam in 1733, Abraham moved to London in 1760 for business reasons; he was an agent representing Dutch firms that had invested large sums in English funds during the Seven Years War. In 1769 he married Abigail Delvalle, the daughter of a Sephardic family
long established in England. Three years later he became a British subject, and shortly thereafter he was appointed to one of the twelve brokerages allotted to Jews in the City of London. By the time of David Ricardo's birth his father was already a prominent member of the Sephardic community in London, and well on his way to considerable financial success. Abraham Ricardo died on 21 March 1812, eleven years after his wife, leaving a fortune of about £45,000 (Heertje 2004, p. 285).

To put this sum in perspective, in 1820 a farm labourer in southern England might earn 9s.4d. (= 46.7p) a week, or a little over £24 per annum if he was in the unusually fortunate position of being fully employed throughout the year (Burnett 1969, p. 250). Thus Abraham Ricardo's fortune would have bought the services of approximately 1,800 labourers for a year. Two hundred years later, with a minimum wage of about £6 per hour, it would be equivalent to £23 million, more or less.

When Ricardo's father arrived in England in 1760 there were between 6,000 and 8,000 Jews in England, the great majority of whom lived in London. They were divided into two groups: the Sephardim, of 'Spanish-Mediterranean Levantine' descent, and the Ashkenazim, who were 'Franco-German-Polish' in origin (Roth 1964, p. 136 n1). About a quarter of them, including 'a majority of the more anglicized as well as of the well-to-do', were Sephardic (ibid., p. 225).

At this time the Jews were better treated in England than anywhere else in Europe. They 'were under the protection of the law, could settle anywhere they pleased, and enjoyed virtual social equality' (ibid., p. 204), although there were a few remaining disabilities. Those who chose to give up their faith and move into the wider community were able to 'lose touch with their co-religionists and enter English life as playwrights, authors, physicians, and even naval officers' (ibid., p. 226).

Abraham and Abigail Ricardo, however, remained entirely unassimilated. They had at least seventeen children, of whom it seems that all but three were still alive when David died in 1823 (X, pp. 54–61; the family records are incomplete). They were a healthy brood. Only two died in infancy, and two of David's brothers lived to the ripe old age of 89: Raphael or Ralph (1785–1875) and Moses (1776–1866), the latter being the author of the well-known 'Memoir' of his illustrious brother (X, pp. 3–15). There are some gaps in the young David's early biography: '[a]bout Ricardo's youth very little is known' (Heertje 2004, p. 285).
He seems to have attended a local school in the City until, in 1783, his father sent him to Amsterdam. As he told the novelist Maria Edgeworth, two years before his death:

My father gave me but little education. He thought reading, writing and arithmetic sufficient because he doomed me to be nothing but a man of business, he sent me at eleven to Amsterdam to learn Dutch, French and Spanish. But I was so unhappy at being separated from my brothers and sisters and family that I learned nothing in two years but Dutch which I could not help learning. (Heertje 2004, p. 286)

There is no evidence that he attended the great Amsterdam Talmud Torah, as is sometimes claimed (ibid., p. 287).

On his return to London, Moses reported in his ‘Memoir’, the young David ‘continued the common school-education till his father took him into business. At his intervals of leisure he was allowed any masters for private instruction whom he chose to have; but he had not the benefit of what is called a classical education’ (X, p. 3). Moses recalled that their father:

was a man of good intellect, but uncultivated. His prejudices were exceedingly strong; and they induced him to take the opinions of his forefathers in points of religion, politics, education, &c., upon faith, and without investigation. Not only did he adopt this rule for himself, but he insisted on its being followed by his children. (X, p. 5)

The young David, Moses recalled, was quite different from his father in this respect:

he never yielded his assent on any important subject, until after he had thoroughly investigated it. It was perhaps in opposing these strong prejudices, that he was first led to that freedom and independence of thought for which he was so remarkable, and which has indeed extended itself to the other branches of the family. (X, p. 5)

Ricardo’s marriage in December 1793 to Priscilla Ann Wilkinson, a Quaker, precipitated a break with his parents that had probably been coming for some time. He was never reconciled with his mother, who died in 1801. There is a poignant contrast here with Adam Smith, who seems to have concealed his true (irreligious) beliefs well into middle age in order to avoid distressing his own mother (Kennedy 2011).
David’s relations with his father were later repaired, so that in 1807 he became executor of Abraham’s will (Heertje 2004, pp. 288–9), and he seems to have remained on good terms with his siblings. His brothers Daniel and Ralph served as his clerks on the Stock Exchange in the early years of the nineteenth century (X, p. 58). David himself became a Unitarian, and thus joined a small but distinguished community of free-thinking liberals whose profound influence on his own intellectual development will be considered in chapter 2.

Full details of Ricardo’s business activities are provided by Sraffa (X, pp. 65–104). They can be briefly summarized. ‘Ricardo, at the time of his marriage, was a poor man’, Max Hartwell notes; ‘at the time of his death, thirty years later, his total estate was worth between £675,000 and £775,000. How did he make such a large fortune? In three ways: as a Stock Exchange jobber, as a loan contractor, as an investor in land and French bonds’ (Hartwell 1971, p. 40). Ricardo had a remarkable talent for buying and selling stocks. He was said, one J.L. Mallet recalled, ‘to have possessed an extraordinary quickness in perceiving in the turns of the market any accidental difference which might arise between the relative price of different stocks, and to have availed himself of this advantage, so as to realise as much as £200 or £300 in one day, by selling out of one, and buying into another stock, or vice versa’ (X, p. 73).

As Moses Ricardo reported, ‘perhaps in nothing did Mr. Ricardo more evince his extraordinary powers than he did in his business’. Moses praised ‘[h]is complete knowledge of all its intricacies; his surprising quickness at figures and calculation … his coolness and judgement’, and some good luck, which made his reputation and his fortune (X, p. 6). And Sraffa reports ‘a tradition that Ricardo’s successful dealings rested upon a scrupulous attention to what he called his own “golden rules”, namely: “Cut short your losses” and “Let your profits run on”’ (X, p. 73).

He took full advantage of the financial system in which he found himself. ‘If Ricardo laid the foundation of his fortune by stock jobbing’, Hartwell continues, ‘he greatly increased it as a loan contractor. During the war [against Napoleon’s France] Ricardo was the principal member of a syndicate which contracted for Government War Loans, corresponding to what today is known as “underwriting”’ (Hartwell 1971, p. 41).

He was a successful contractor every year from 1811 to 1815, doing especially well in the latter year, when his bet on an English victory over the French at the battle of Waterloo really made his fortune: ‘At one blow he became one of the richest men in England’ (Kurz 2008a, p. 121). ‘This was Ricardo’s last great speculation’, Hartwell notes, apart
from a final unsuccessful bid in 1819. It marked the end of his business career, and at the end of 1819 he ceased to be a member of the Stock Exchange (Hartwell 1971, p. 42).

Timothy Davis emphasizes that ‘his business prowess derived from a comprehensive knowledge of monetary fluctuations, tax revenues, government expenditures, commercial credit, foreign trade and domestic commerce’, facts which he used to very good effect in deriving and defending his principles of economics (Davis 2002, pp. 1–2), and also in deciding on the course of his own life. Ricardo’s decision to move to the country was strongly influenced by his theory of the rising share of rent in total output, which implied that becoming a landlord was a very good business proposition. ‘There is nothing so practical as a good theory’ (Kurz 2008a, p. 122).

Of course, this was not solely a business decision. Unlike his eminent contemporary, Nathan Mayer Rothschild, Ricardo was not devoted to the world of finance. ‘There could hardly have been two more contrasting types’, says Sraffa:

> It was in the making of money that Rothschild found the main enjoyment of life ... Ricardo, however, brought up his sons to be country gentlemen, and as for himself he had no craving for the bustle of the City and viewed financial success as a means of retirement into the country, to the quiet pursuit of his ‘favourite science’. When he first went to Gatcomb he wrote to Malthus [in July 1814]: ‘I believe that in this sweet place I shall not sigh after the Stock Exchange and its enjoyments.’ (X, p. 90, citing VI, p. 115)

This is a reference to the 5,000-acre estate and gentlemen's residence that he bought in July 1814. Gatcombe Park in Gloucestershire – the ‘e’ was added later – remained in the Ricardo family until 1940, when it was acquired by Samuel Courtauld. Since 1976 it has been owned by Princess Anne, the daughter of Queen Elizabeth II, and has become a well-known venue for equestrian events. Ricardo later bought large estates near Tonbridge and Ledbury, and by 1819 he had about £275,000 invested in land and another £200,000 lent to landowners on mortgage. He also invested £140,000 in French stocks.

This gave him an annual income, between 1819 and 1823, of some £28,000: £10,000 from his estates, £10,000 from mortgages and £8,000 from French stock (Hartwell 1971, p. 42). By the standards of the day he was an extremely wealthy man. Using the same procedure as for his father Abraham, we can estimate the 2013 value of David Ricardo’s
estate as between £350 million and £400 million, and his annual income as roughly £15 million.

Before his purchase of Gatcomb Park, Ricardo had lived in several districts of London. He first moved south of the river, to Lambeth, in 1793, shortly before his marriage. Four or five years later the family moved back north of the Thames, to New Grove, Mile End, ‘well within the sound of Bow Bells’, but none the less ‘pleasantly situated in rural surroundings’ (X, p. 47).

After a decade in the East End they moved up West at the prompting of Mrs Ricardo, ‘who, now that her daughters were growing up, was anxious to live in town’. They found a ‘handsome building’, 56 Upper Brook Street, Grosvenor Square, and settled there in the spring of 1812. ‘For the rest of his life this remained Ricardo’s London home’, Sraffa reports, ‘and from 1814 he divided his time about equally between it and Gatcomb Park’ (X, p. 48).

He was very happy as a country squire. ‘Indeed the picture that has come down to us of the rural Ricardo, with his family and friends, is a charming one; that of a gracious and kindly father and neighbour, living well, entertaining with pleasure, and devoting his spare time to the reading and writing of political economy’ (Hartwell 1971, p. 38). He was sufficiently well regarded by the local gentry to be elected High Sheriff of Gloucestershire in 1818. Although this was a purely ceremonial position it carried considerable prestige, and Ricardo’s appointment confirms his acceptance as a distinguished member of the county’s propertied establishment.

David and Priscilla Ricardo had three sons and five daughters. Curiously, while none of their daughters survived beyond their forties, the three sons all enjoyed long and comfortable lives as country gentlemen. Two of them – Osman (1795–1881) and David (1803–64) – followed their father into Parliament, while Osman and Mortimer (1807–76) served as Lord-Lieutenants of the counties of Worcestershire and Oxfordshire, respectively (X, pp. 61–4).

Ricardo’s own brief political career began in 1819, when he effectively bought the Irish seat of Portarlington, an archetypal ‘rotten borough’ that was owned by, or ‘in the pocket of’, Lord Portarlington, who negotiated a loan of £25,000 at 6%, secured by a mortgage on his estates, and an upfront payment of £4,000. A rumour that Ricardo was planning to give up his seat to contest the County of Gloucester in the general election of 1820 proved to be ill-founded (V, pp. xv–xix).

Despite the questionable way in which he entered Parliament, Ricardo performed well as an MP. As Moses recalled: ‘He was of no party;
and at all times advocated such principles as he held to be sound and true, whether on the ministerial or the opposition side, or at variance with both’. He was also hard-working and conscientious: ‘During the session, Mr. Ricardo’s whole time was devoted to his duties as a member of parliament. His mornings were spent in study, in receiving visitors, in answering correspondents, or in attendance upon some committee; and in the evening he never missed going to the House’ (X, p. 11). We shall have more to say about Ricardo’s political career in chapter 2.

In addition to his business activities and a very active social life, Ricardo was constantly improving his knowledge of the world around him. As Moses wrote:

When young, Mr. Ricardo showed a taste for abstract and general reasoning; and though he was without any inducement to its cultivation, or rather lay under positive discouragement, yet at the age of nineteen and twenty, works of that description which occasionally occupied his attention afforded him amusement and cause for reflection. (X, pp. 4–5)

The ‘positive discouragement’ came from his father, a strict observer of the tenets of Sephardic Judaism. The young David, however, ‘never yielded his assent on any important subject, until after he had thoroughly investigated it’ (X, p. 5). By the age of 25 ‘his leisure hours were devoted to some of the branches of mathematics, chemistry, geology, and mineralogy. He fitted up a laboratory, formed a collection of minerals, and was one of the original members of the Geological Society’ (X, p. 6), but gave it all up when he discovered economics.

Roy Porter describes the London clubs as ‘exclusive spaces...carved out for those seeking select company. The club, probably a child of the coffee-house, defined an all-male enclave’, where fashion and gambling predominated. But there were also clubs that ‘catered for more elevated interests’ (Porter 1995, p. 178). Ricardo belonged to clubs in both categories. The Geological Society of London was founded in November 1807. Ricardo joined in the following year, and was appointed a trustee in 1810 (X, pp. 49–51). He also belonged to the London Institution, using its large reference library; to the ‘King of Clubs’, a ‘select Whig dining club’ (X, p. 50), being elected a member in 1817, five years after Malthus; to Brooks’s, where he was proposed in 1818 by two Whig grandees, Lord Essex and Lord Holland, and which ‘was at the time notable both as a gambling resort and as a centre for
the Parliamentary opposition’ (X, p. 50; cf. Porter 1995, p. 178 – so far as is known, Ricardo was not himself a gambler, other than on the Stock Exchange); and, after its establishment in 1821, to the Political Economy Club, where he was a regular attender at meetings when in London (X, p. 51).

What sort of man was he? Sraffa quotes Mallet’s description of his physical appearance: ‘His stature was somewhat under the common size, but well proportioned and active; his countenance open; and his features good, although with a light Jewish cast; his eye had a soft, beaming, intelligent and, at the same time, thoughtful expression’. His voice was described by a contemporary as ‘although sweet and pleasing ... pitched extremely high, and his distinct articulation gave him an advantage in the House of Commons by fixing attention, which is not the case with monotonous tones’. An obituarist wrote: ‘In St. Stephens, we shall miss the little plain man with the acute features and the keen eye, who sat by the pillar’ (X, p. 51).

As regards his character, almost all his contemporaries were impressed by Ricardo’s honesty. Again in the words of Moses, his brother displayed a disinterestedness which made him always regardless of his own personal benefit, in the maintenance of general principles. When a Bank [of England] proprietor, he argued strenuously and warmly against the inordinate gains of that body; he defended the cause of the fund-holders when he had ceased to be one; he was accused of an attempt to ruin the landed interest after he became a large landed proprietor; and while a member of parliament, he advocated the cause of reform, which, if adopted, would have deprived him of his seat. (X, p. 13)

Sraffa devotes four pages to rebutting ‘A Canard’: the claim by the American academic Norman J. Silberling (1924) that Ricardo was the leader of a ‘clique’ of stock exchange jobber-brokers who manipulated the market for their profit (X, pp. 91–4). No one (other than the irascible William Cobbett) had made any similar allegations during Ricardo’s lifetime, and they were certainly not supported by his fellow financiers, who in 1807 presented him with a silver vase to reward his ‘integrity’ in making an unusually ‘equitable distribution’ of that year’s loan (Hartwell 1971, p. 42). Sraffa notes that he repeatedly advocated reforms to the financial system that would have been to his personal disadvantage, on one occasion disastrously so.
The favourable verdict of almost all of Ricardo’s contemporaries applied also to his intellectual life. As Maria Edgeworth wrote, while staying with the Ricardo family at Gatcomb in 1821:

Mr. Ricardo, with a very composed manner, has a continual life of mind, and starts perpetually new game in conversation. I never argued or discussed a question with any person who argues more fairly or less for victory and more for truth. He gives full weight to every argument brought against him, and seems not to be on any side of the question for one instant longer than the conviction of his mind on that side. It seems indifferent to him whether you find the truth, or whether he finds it, provided it be found. (X, pp. 168–9)

Modern commentators write in similar vein. Thus Frank W. Fetter, reviewing the biography by David Weatherall (1976), commented that:

The book reinforces the picture of Ricardo that is familiar to those who have read the correspondence and biographical material in the Ricardo Works: his reasonableness, his high sense of integrity, his concern for those less financially fortunate than himself – both in his own family and outside – and his efforts in [sic] behalf of religious toleration and of political reform. For the noneconomist who has read too deeply in Carlyle and Ruskin about the heartlessness of classical economists, this book should do much to correct an all too common stereotype. (Fetter 1977, p. 1318)

By 1820 Ricardo was beginning to feel his age. As he wrote to his good friend James Mill:

You are mistaken in supposing that because I consider life on the whole as not a very desirable thing to retain after 60, that therefore I am discontented with my situation, or have not objects of immediate interest to employ me. The contrary is the case – I am very comfortable, and am never in want of objects of interest and amusement. I am led to set a light value on life when I consider the many accidents and privations to which we are liable. – In my own case, I have already lost the use of one ear, completely, – and am daily losing my teeth, that I scarcely have one that is useful to me ... I have not I assure you seriously quarreled with life, – I am on very good terms with it, and mean while I have it to make the best of it, but my observation on the loss of esteem and interest which old people
generally sustain from their young relatives, often indeed from their own imperfections and misbehaviour, but sometimes from the want of indulgence and consideration on the part of the young, convinces me that general happiness would be best promoted if death visited us on average at an earlier period than he now does. (VIII, p. 253)

Ricardo, his wife and two youngest daughters made ‘the customary Grand Tour of the Continent’ in the second half of 1822, visiting France, the Low Countries, Germany, Switzerland and Italy. They were accompanied by a governess, a maid and a courier (who went ahead of the party’s private carriage to arrange accommodation). Ricardo wrote up a substantial Journal of a Tour (X, pp. 175–352). As S.G. Checkland observes:

Ricardo’s letters and utterances give no hint of introspection or frustration; all is complacency and propriety. But the Journal carries suggestions that the rigours of travel might produce in him more human reactions. The portrait of Mrs. Ricardo introduces the volume and her stout figure dominates the Journal. In Amsterdam she showed her lack of enthusiasm for her husband’s Dutch background, was disdainful of ships and barges and the trappings of trade, fussled greatly about her clothes, her weight posing transport problems on more than one occasion. Thus Ricardo, with diminishing enthusiasm, armed with ‘Mr. Sharpe’s paper of hints’, perambulated the Continent, the coach cluttered with books unread, surfeited with pictures and churches, annoyed at the terms offered for his bills of exchange, but revived in the Simplon by accidentally meeting a young admirer of his works. (Checkland 1956, pp. 463–4)

As Sraffa notes, this was a chance meeting with two young Poles, ‘one of whom surprised Ricardo by asking him whether he was the writer on Political Economy; this young man, Stanislaw Kunatt, was to become a well-known economist and translator of Ricardo’s Principles (X, p. 178).

In fact, death came to Ricardo well before he reached 60. On his return from the Continent he had less than a year to live. After a very brief illness he died at Gatcomb on 11 September 1823 from an ear infection (presumably affecting the one that he had lost the use of three years earlier). His funeral was private by choice, Moses recorded:

It was always his wish to be buried in the most private manner, as he hated any thing like ostentation, and more particularly on such an
occasion; he was therefore followed to the grave only by his three sons, seven brothers, three sons-in-law, and three brothers-in-law. Mr. Hume, M.P., also attended, at his own particular request. (X, pp. 12–13)

He was buried at Hardenhuish Park (or Harnish) in Wiltshire, the church and graveyard being on the estate of his son-in-law, Thomas Clutterbuck, the husband of his daughter Henrietta (Netty). Sraffa notes that an illustration of his tomb appeared in *Country Life*, 3 February 1950 (X, pp. 12n, 63). Ricardo’s will was unusual in the sharp differentiation in his bequests between his sons and his daughters, ‘the portion of a son being no less than eight times the value of that of a daughter’. His father Abraham had given them equal treatment, which was unusual among bourgeois families at this time (X, p. 104 and n4).

David Ricardo’s death was described as ‘a great national calamity’ by John Black, the editor of the *Morning Chronicle*, in his obituary notice (Gilbert 1987). In a letter to the same newspaper, James Mill paid tribute ‘in the name of my country, to one of the most valuable men whose loss she has ever had to deplore’ (Bain 1882, p. 212). There were two tributes in Parliament in February 1824. One was from Ricardo’s friend Joseph Hume, who had attended the funeral, and the other was from William Huskisson, President of the Board of Trade. In Huskisson’s words:

There was no man who esteemed more highly the acuteness and ability of Mr. Ricardo than he did, and no man who more sincerely lamented his loss. In all his public conduct there was an evident anxiety to do what he thought right, and to pursue no other object; and his speeches were always distinguished by a spirit of firmness and conciliation that did equal honour to himself and to his country. (V, p. 332)

1.3 Ricardo’s England: The Economy

The England into which David Ricardo was born had 6.6 million people in about 1770. Two years before his death, according to the 1821 census, this had grown to 11.5 million (Wrigley 2004, p. 64). In the decades immediately before Ricardo’s birth the population grew at only about 0.5% per year, but it accelerated in the 1780s and by the 1820s it was growing at around 1.5% per year. This ‘not only was without precedent, it was unequalled elsewhere in Europe. The population of France, her great rival of the eighteenth century, grew by only 39 per cent’ in
the course of the century, ‘while that of her major trade competitor, Holland, stagnated’ (Rule 1992b, p. 5).

The population growth in Hanoverian England was largely due to increased fertility, with a smaller contribution made by reduced mortality. Although (as we shall see) it was not always evident to contemporaries, modern historians now accept that ‘the industrial revolution broke through age-old constraints which had until then imposed a population ceiling of around 5 million’ (Rule 1992a, p. 1).

There was something of a North–South divide in the rate of population growth. Whereas in 1751 only 19% of the English population lived in the North, by 1821 this had increased to 25%. It was associated with rapidly increasing industrialization and urbanization. ‘Early in the nineteenth century England became the most urbanised country in Western Europe’ (Wrigley 2004, p. 88). The numbers living in towns of more than 5,000 people trebled between 1714 and 1815, by which time a third of the population was urban. There was, of course, a steady decline in the proportion of the working population employed on the land.

But this tells only part of the story. The steady decline in the proportion of the labour force occupied in agriculture meant that, by the beginning of the nineteenth century, more than a third of the active population lived in the countryside but were not directly engaged in farming. ‘By 1801, the countryside was as concerned with services, commerce, and “protoindustries” as with agriculture … Capitalism was as much rural as urban, as much agrarian and commercial as industrial’ (Mann 1993, p. 93). In the country as a whole, as late as 1831, manufacturing was ‘dwarfed by employment in retail trade and handicraft’. The biggest occupations, in declining order of size, were shoemaker, carpenter, tailor, publican, shopkeeper, blacksmith, mason, butcher, bricklayer and baker (Wrigley 2004, pp. 91, 92).

Michael Mann stresses the very limited role of ‘big capital and complex science’ in what we now know as the ‘industrial revolution’: ‘industrial enterprises remained small and shaped by existing commercial institutions … Bestriding this world were small masters, jobbers, traders, engineers and independent artisans, mixing their own labor with small amounts of family capital – the classic petite bourgeoisie’ (Mann 1993, pp. 95, 96). Similarly, Joel Mokyr notes that ‘[t]he industrial revolution … was mostly a local phenomenon, leaving much of Britain unaffected at least until the coming of the railway … In the last four decades of the eighteenth century, most of Britain’s industry was still located outside the modern sector and hardly experienced any
technological change’ (Mokyr 2010, p. 95). But there was a noticeable acceleration after 1750, if not a clear discontinuity, as evidenced by an increased number of patents, a larger number of books published, more turnpike trusts (implying an increase in road construction) and a larger number of country banks (the Bank of England had a statutory monopoly of banking in the capital).

Although many provincial towns were growing even faster than the capital, as the rural population went into relative decline, London was still overwhelmingly the biggest city. It accounted for 11% of the population in 1801, as it had a century earlier. ‘London dominated the nation like no other capital’. It had a much larger share of nation’s population than Paris, while even Amsterdam never had more than about 8% of the population of the Dutch Republic (Porter 1995, p. 131). At the beginning of the nineteenth century the ‘great wen’, as William Cobbett disparagingly called it, had almost a million inhabitants (a wen is a spot or blemish on the skin).

The next largest city was Manchester, with a mere 89,000, and the capital had more people than Manchester and the next 25 towns combined (Rule 1992a, p. 12). Moreover, London could still claim to be the largest centre of manufacturing in the country’, with an immense variety of small artisan workshops employing many thousands of craftsmen, journeymen and apprentices (Rule 1992b, p. 101). And it was, of course, the financial and banking capital of England, as well as the political hub of the British Empire.

Ricardo’s England was by some distance the richest country in Europe:

In 1820 it appears from Maddison’s estimates that gross domestic product per head in Britain was about 36 per cent higher than in the Netherlands and 44 per cent higher than in France … For England alone the gap would be still wider … The British advantage compared with Germany, Italy or Spain must have been substantially greater. (Wrigley 2004, p. 93)

By modern standards, though, it was still very poor. Britain in 1760 was ‘marginally richer than India or Bolivia [were] in 2000, but a little poorer than Armenia and Indonesia. If the Britain of 1760 were an independent country today, it would rank 149th out of 208 countries’. Even in 1850, per capita income was below the level enjoyed in 2000 by Lebanon and the Philippines (Voth 2004, p. 269).

There had been substantial growth, but this was less the result of a dramatic Industrial Revolution than the outcome of a slow, cumulative
process of rising productivity in all sectors. During the ‘long eighteenth century’, from 1680 to 1820, ‘the great bulk of the expansion taking place was attributable to the “old” rather than the “new” economy, to the remarkably successful exploitation of the possibilities of an advanced organic economy rather than to the prospects opened up by the new mineral-based energy economy’ (Wrigley 2004, p. 93). There was a substantial increase in agricultural output per acre, and a slower but still significant growth in output per worker.

None the less, contemporary observers were ‘doubtful about the future, and their forebodings were not without foundation’ (ibid., p. 93). Adverse weather conditions and the resulting crop failures became more common after 1750, and they had severe consequences across the entire economy (Mokyr 2010, pp. 451–2). In England the agricultural revolution had preceded the Industrial Revolution, the big improvements coming between 1600 and 1750, not later.

Throughout Ricardo’s lifetime, indeed, agricultural output was growing less rapidly than the population:

Production and consumption per head declined, and the drop in consumption would have been much greater had imports not expanded to meet demand. Prices rose to allocate the limited supply of food. The result was downward pressure on working-class living standards and a deterioration in stature during the first half of the nineteenth century. If one asks how British agriculture fed the expanding population during the industrial revolution, the answer is – badly. (Allen 2004, p. 115)

There was also chronic structural unemployment in agriculture, especially in southern England, and a large gap between rural and urban wages (but no such gap in the North) (ibid., p. 116).

The weakness of agriculture was reflected in the structure of overseas trade. There was already a very heavy reliance on imports of food and raw materials. Exports amounted to 12.3% of GDP in 1801, while foodstuffs (40% or more) and raw materials (at least 55%) accounted for almost all imports. ‘It is striking how, even in the early stages of the Industrial Revolution, Britain’s foreign trade is already heavily specialized, with manufacturing dominating exports, and the country depending on imports for food and raw materials’ (Mokyr 2010, p. 167).

The benefits of economic growth, such as they were, were not evenly shared. Real wages seem to have risen much more slowly than production per head, increasing by only 4% between 1760 and 1820, and
by less than a quarter over the longer period 1760–1850 (Voth 2004, p. 269). Real earnings were no higher in 1811, when Ricardo was just beginning his work in political economy, than they had been thirty years earlier (ibid., p. 272). Mokyr confirms that rising income per head was accompanied by little or no improvement in the living standards of the bulk of the population. Real consumption per capita was stagnant between 1780 and 1820, but the landlords were doing better (and the investment share in total output increased, along with that of government spending due to war).

Income per capita continued to increase after 1825, but there is no clear evidence of a rise in real wages before 1850, so that the share of non-wage income increased substantially (Mokyr 2010, p. 471). Hours of work were very long and rising – by between 20% and 35% between the mid-eighteenth and the mid-nineteenth centuries – as labour discipline tightened, holy days were cut and the enjoyment of the traditional ‘Saint Monday’ became much less tolerable to employers (Voth 2004, pp. 276–9). Life expectancy was increasing only very slowly, and literacy rates improved at a snail’s pace over the course of Ricardo’s lifetime, from 49.5% in 1780 to 54.5% in 1820 (ibid., p. 271).

If income was unevenly distributed, wealth was even more so. It has been estimated that in 1810 the top 5% of individuals in Britain owned 85.3% of total wealth, compared with 81.9% in 1700 (and 75% in 1960); the top 1% of households owned 54.9% of total wealth, a very substantial increase on the figure of 39.3% in 1700 (Schneider 2004, pp. 20–1). There are no data from this period for any of the European countries. Less than fully comparable statistics for the United States show a very much lower degree of inequality: the top 1% of American individuals had 16.5% of net wealth in 1774, while in 1810 the top 1% of households owned 21% of the country’s total wealth (ibid., pp. 28–9). With his fortune of rather more than £600,000, David Ricardo fell well short of the 179 millionaires, but he was one of 338 half-millionaires whose death was recorded in the 50 years after 1828 (ibid., p. 60, Table 3.2).

1.4 Ricardo’s England: Society and Politics

In Ricardo’s day, and indeed right down until 1880, ‘more than half of all the really wealthy men in Britain were landowners...An observer entering a room full of Britain’s 200 wealthiest men in 1825 might be forgiven for thinking that the Industrial Revolution had not occurred’ (Rubinstein 1981, pp. 60–1). Away from the land, ‘the wealthy in Britain have disproportionately earned their fortunes in commerce and finance – that is, as
merchants, bankers, shipowners, merchant bankers and brokers, rather than in manufacturing or industry’ (ibid., p. 61).

With his origins in the City and his huge, newly acquired country estates, then, Ricardo belonged to both sections of the very wealthy elite of his time. As what Rubinstein describes as a ‘merchant banker’, one of ‘that peculiar group of financiers engaged exclusively or almost exclusively in foreign or government loans’, he had shared their ‘anomalous religious and ethnic origins … overwhelmingly foreign and disproportionately Jewish’ (ibid., pp. 91, 92).

Socially, Ricardo’s origins were humbler than most, since ‘one often has the impression that a “self-made” merchant banker would be one whose father was not a millionaire’ (ibid., p. 96) – as Abraham Ricardo was not. David was also atypical in becoming a large landowner. Large-scale land purchases were common, but not universal or even particularly common practice among the majority of wealthy businessmen and professionals’ (ibid., p. 213). They seem to have become less frequent in Ricardo’s lifetime: ‘from the beginnings of the Industrial Revolution down to the 1880s, the British landed aristocracy was increasingly becoming a caste-like and socially-isolated group, distancing itself from, and distanced from, the newer business magnates who found it nearly impossible in many cases to gain full acceptance into the inner circle of high landed society’ (ibid., p. 219). As we have seen, High Sheriff David Ricardo did not suffer any such isolation, though how much of his successful entry into the ‘high landed society’ of contemporary Gloucestershire was due to his personal qualities of character and intellect is impossible to say.

Rural society already had a very distinctive modern structure. By 1850, 85% of all farmland in Britain was farmed by tenants, with only 15% in the hands of peasant proprietors (Mokyr 2010, p. 193). There had been several centuries of enclosures: 50% of all farm land was already enclosed in England by 1500, and this rose to 71% in 1700 and no less than 95% by 1914. There was also an increase in average farm size, which by 1800 was 150 acres in the South and 100 acres in the North (Allen 2004, pp. 99–100).

The growth in farm size was accompanied by ‘a revolution in land tenure’. In 1700 most small farms were owned or held on life-term copyhold:

During the eighteenth century, small freeholds were bought up by great estates and manorial lords stopped renewing copyholds for lives and beneficial leases. The formerly yeoman lands passed
David Ricardo

into the hands of the gentry and aristocracy. The small farms were amalgamated into large [farms] and were then leased to large-scale farmers. The result was the consolidation of the great estates and the emergence of the three-tiered social structure of rich landlord, substantial tenant farmer and poor landless labourer. (ibid., p. 100)

This formed the basis of all Ricardo's economic models.

In fact, the evidence on enclosures confirms Marx's analysis in volume I of Capital (Marx 1867, part 8), where they were described as a crucially important part of the ‘primitive accumulation’ of capital. Enclosures were also accompanied by the rise of a capitalist mentality with respect to the land, by the proletarianization of the peasantry, and by very large profits, which accrued as rent and were accompanied by a fall in the standard of living of the producers as they became wage-labourers rather than independent proprietors (Cohen and Weitzman 1975).

This was the age of the ‘improving landlord’, especially among the gentry. ‘Even when landlords were not directly involved in agricultural improvements, they were often savvy enough to hire those who were. More than ever before, eighteenth-century landlords were in it for the money' (Mokyr 2010, p. 183), rather than solely for the social status and political power that ownership of land still conferred. And they benefited greatly from technical improvements in agriculture: between 1700–24 and 1825–49 total rents increased sixfold (ibid., p. 193). On balance, the principal beneficiaries of the improved agricultural organization and increased productivity were the landlords (ibid., p. 470).

Proletarianization was not confined to agriculture. While in the mid-sixteenth century only one quarter of the population had depended on wages, by the mid-nineteenth century this had increased to 80%, with most of the change occurring in the eighteenth century (Rule 1992a, p. 4). As for the non-proletarian minority, the sociologist Michael Mann distinguishes three classes. The first was the ‘old regime, the British ruling class in 1760’, which consisted of the monarch and the court, the established church, the aristocracy, the country gentry and the commercial merchant oligarchies. They owned substantial property which they used capitalistically, that is, with an eye to profit. Then there was the ‘petite bourgeoisie, which included small capitalists from trading and manufacturing, including independent artisans; they were described at the time as the ‘middling classes’. The petite bourgeoisie was increasing in numbers, wealth, literacy, and confidence, but ‘they were excluded from the state, and on occasion they opposed the old regime’. Finally, there were the farmers. ‘Most British small farmers
were not proprietors. They rented from a landlord, but with some security of tenure’.

These three social categories made up what contemporary writers like Joseph Massie (in 1759) and Patrick Colquhoun (in 1801–3) described as ‘the people’, who by the late eighteenth century accounted for 36% of all families (constituting respectively 5%, 15% and 16% of the total) and 77% of income (28%, 26% and 23%, respectively). ‘The populace’ made up the remaining 68% of families and 26% of income (there are some large rounding errors here): ‘lesser artisans’ (21% of families and 13% of income), ‘labourers, cottagers, paupers, vagrants’ (36% and 8%), and ‘military and maritime’ families (11% and 5%) (Mann 1993, pp. 96–9).

Politically, the dominance of the aristocracy had been confirmed by the ‘Glorious Revolution’ of 1688, which restricted (without eliminating) the power of the Crown. It continued through the eighteenth century without any significant challenge, bolstered by widespread acceptance of aristocratic values and leadership (Rule 1992a, p. 32). The number of men involved was very small (and there were of course no women in the House of Lords). In 1780 there were only 189 peers, the same number as in 1709; a rapid expansion over the next two decades saw an increase to 267 by 1800.

The broader aristocracy included the younger sons of peers, and also hereditary knights (baronets), but still amounted to little more than 1,000 men, who between them controlled the House of Lords and a large part of the Commons, through patronage and direct membership. The total ‘peerage element’ in the Commons (peers, baronets and blood relatives and in-laws of baronets) was 21% in 1796 (ibid., p. 33).

The aristocracy also dominated the ‘great offices of state’ (especially Cabinet posts) and the military (through the system of army purchase). Its control of the Commons was maintained by means of an electoral system that might be described, in twenty-first century terms, as ‘pseudo-democratic’. The franchise was ‘a mess’:

About 500,000 propertied males (15 per cent of adult males) could vote and hold office. Franchise inequities were grounded in custom and geography as well as class discrimination. Borough electorates varied from the 12,000 ratepayers of Westminster to the zero electorate of Old Sarum, whose patron could allocate the seat as he pleased. (Mann 1993, p. 110)

This system, if such it was, survived until the first Reform Act of 1832. When Ricardo entered Parliament in 1819:
the 658 county, borough and university members of the House of Commons were returned at septennial general elections by an all-male electoral body that amounted to scarcely more than 2.5 percent of the population. In the counties, the franchise extended only as far as the celebrated forty-shilling freeholder. In the boroughs, the franchise was more heterogeneous but scarcely more extensive. It ranged from the potwalloping and scot-and-lot boroughs at the more ‘democratic’ end of the spectrum, through corporation boroughs, and right down to the pocket and rotten boroughs at the other. (Milgate and Stimson 2009, p. 162)

There were three broad groups of MPs in the eighteenth-century Commons. The first was the Court and Treasury party, numbering about 100: these were civil servants, courtiers, merchants, lawyers, and military officers seeking preferment, sinecures, or honours. This party was loyal to the government of the day and to the King. The second group were the ‘outs’: 200–250 independent country gentlemen who demanded low taxes and denounced ministerial corruption. The ‘outs’ included an old Tory faction, and supported Church and King against their radical opponents. Finally, there were the 100–150 political activists: ‘landowning faction leaders and their clients who provided ministers and orators, the famous men of the period’, motivated ‘mainly by the prospect of material gain and rarely (like Edmund Burke) by political principle’.

Taken together, these parties represented the material interests of no more than one per cent of the population: the 200 ruling families of the great landowners, 5–7,000 gentry families and 3–4,000 families of richer merchants, tradesmen and professionals. ‘This was not a democracy, but it had stably institutionalized political contestation’ (Mann 1993, p. 114).

‘By comparison with European states’, Mann notes, Ricardo’s Britain was ‘much less despotic than Prussia, Austria or France, but relatively centralized (similar to Prussia, in contrast with Austria and France) – there were no powerful provincial institutions’ (ibid., pp. 108–9). This is a matter of degree, as Ron Harris suggests:

The state itself is viewed today as a less homogeneous entity than it once was, so that it is not sufficient to focus exclusively on central government policy or on parliamentary regulation. We now devote more attention to private acts [of parliament], to bureaucrats, to the judiciary and to local government. The private bill served as a venue through which conflicting interest groups could clash and negotiate. The state
served as a mediator or meeting place. Private acts reflected agreements between interest groups and forced resolution in disputes. They created and abolished monopolies; created regulations and exempted from regulations; defined property rights and expropriated property. (Harris 2004, pp. 235–6)

Even public acts of Parliament were often ‘particularistic’, Mann records: ‘Tax legislation involved the levy of 2d. Scots or 1/6d. sterling on every pint of ale sold at Dunbar, as well as general customs and excise duties. Public order concerned the rebuilding of the road from Shillingford to Reading as well as renewing the Mutiny Act’ (Mann 1993, p. 112). Thus the state seems to have surfaced almost everywhere in the economy. It not only regulated markets but also created them. It not only protected property rights but also defined them. It ... was also a partner in joint public private undertakings, be they new modes of transportation or new imperial conquests. It seems more appropriate to speak now of the state within the economy rather than of the state and the economy. (Harris 2004, p. 235)

Within the state everything hinged on patronage, at every level:

The king’s ministers had to preserve court and treasury spoils, bribe ‘in’ factions yet satisfy ‘outs’ with low taxes, national success, and adherence to the Protestant constitution, and avoid too much overt discontent among the ‘excludeds’. Most governments succeeded rather well and became admired throughout Europe as stable, balanced, and modern. Yet these qualities arose as factions institutionalized and embedded corruption. It was ‘old corruption’. (Mann 1993, p. 114; original stress)

Although constantly denounced by radical critics, ‘Old Corruption’ was not simply a term of abuse. It was also ‘serious shorthand for a political system ultimately resting on the expectation that advantage should be gained not only from office but from the vote of the elector; from a seat in parliament or from the representation of a borough’ (Rule 1992a, pp. 34–5).

It was ‘a parasitical system – ostensibly built up to enormous proportions during the Napoleonic Wars – through which the elite fed its insatiable appetite for power and money at the people’s expense’, through sale of office, government contracts, pensions and church
preferment. Although it had clear roots in the Glorious Revolution of 1688, Cobbett and his fellow radicals regarded it as ‘in many way a new system created by the Napoleonic war machine’ (Harling 1995, pp.127–8). Their objections were ‘not confined to radical circles. They were also widespread among the more “respectable” ranks of British society, most notably country gentlemen and tenant farmers’ (ibid., p. 129).

Old Corruption ‘resonated throughout every level of late Georgian politics’ (ibid., p. 130). Thus holders of high political office benefited from lucrative sinecures: ‘The earl of Ranelagh, the Duke of Chandos, Walpole and Henry Fox all founded fortunes from brief tenures’ of the office of Paymaster General. It was a system of ‘parasitism on the backs of the lower orders who bore the burden of a system of indirect taxation which was increasingly regressive in its effects’ (Rule 1992a, p. 34; cf. Thompson 1998, ch. 2; Mokyr 2010, p. 72).

In this way those who controlled the state offered financial benefits from both revenue and expenditure, and were able to impose costs on those who did not: ‘Access to the spoils of office and to the terms of government bonds and privileged exemption from taxation were the most important reasons for political activity’ (Mann 1993, p. 112). Sale of office was less prevalent than in France, but it was a matter of degree. Possibly half of the 16,000 non-military offices of state were distributed by patronage (ibid., p. 113).

There is some dispute over the longevity of Old Corruption. Traditional accounts begin its protracted demise in the 1830s, culminating in the far-reaching reform of the civil service between 1855 and 1870. Philip Harling claims that it began to decline much earlier, initiated by Pitt the Younger and his followers, who placed increasing stress on projecting ‘an image of probity’, especially after 1815 (Harling 1995, p. 131). There were three reasons for this: increased concern inside the government for greater efficiency and economy, the greater influence of Evangelical Christianity inside the ruling elite, and growing public pressure for economy in state expenditure to reduce the tax burden. The latter was the most important, and deeply influenced the other two, especially since the Napoleonic Wars proved to be longer and much more expensive than had been expected.

And there was increased awareness among the ruling elite of the need to prevent dissatisfaction among the lower orders from building up, with the example of the French Revolution serving as a powerful deterrent. ‘Many Evangelicals looked upon the French revolution and the subsequent wars as God’s punishment upon rapacious rulers at home
as well as abroad’. The anti-slavery campaigner William Wilberforce led a group of them, known as ‘the Saints’, who sided with the opposition and other independents on issues of economic reform (*ibid*., p. 153).

Mokyr locates the beginning of the end of Old Corruption even earlier, with the government of Pitt the Elder in the 1780s, and suggests that ‘the disastrous American War of Independence may have been a catalyst in this movement’. ‘The transition from Walpole to Pitt marks a notable shift in political culture’, which was, however, partially reversed as a result of the huge expansion of government spending during the Wars. This ‘created almost irresistible opportunities for graft, and thus slowed down and in some cases reversed the move toward the ideal of government as disinterested public service’ (Mokyr 2010, pp. 424–5).

Throughout Europe, in fact, the eighteenth century had seen a substantial increase in the size of the state, largely as a consequence of the rising cost of the increasingly frequent wars fought by professional armies and, in the case of Britain, a powerful and expensive navy. On average in 1700 the European state accounted for about 5% of GDP in peacetime and 10% in time of war. By 1760 the latter figure had increased to between 15% and 25%, and by 1810 it stood at 25–35%, which was comparable to the share of the state during the World Wars of the twentieth century (Mann 2004, p. 32). ‘The dynamics of this path reveal a “ratchet effect” – during the eighteenth century each war raised taxes dramatically, and when peace returned, they fell back, but usually to a higher level than before’ (Mokyr 2010, p. 429).

War had less impact on domestic politics in Britain than in any rival state other than Holland. By their nature, naval powers are less representative than land powers, since navies cannot sail on dry land (Mann 1993, p. 65). But the economic impact was much greater: ‘Contrary to popular liberal stereotypes, Great Britain managed the highest level of military mobilization seen in Europe during this period, in the Napoleonic Wars’ (*ibid*., p. 394). On one estimate, which Mann doubts, the British state took no less than 43% of GDP in 1810 (*ibid*., p. 368).

These were the Wars that continued for the majority of Ricardo’s adult life, beginning in 1793 when he was 22 and ending 18 years later in 1815, just eight years before his death. By 1809 one in ten of the adult population, or 786,000 men, were serving on land and sea (Rule 1992b, p. 285). One immediate impact, which no one could ignore, was on prices. Measured in terms of a ‘composite unit of consumables in Southern England’, and taking 1792 = 100, the price level reached a peak of 198 in 1801, falling to 144 in 1803, peaking again in 1813 at 213. There followed three years of decline to a new trough of 152
in 1816 and a new peak of 173 in 1818. In 1823, the year of Ricardo’s death, prices had reached another trough of 125 (Green 1992, p. 223).

To pay for the Wars, the state:

borrowed from the rich and repaid them; it raised taxes, mostly excise taxes on everyday consumables – beer, tobacco, salt, sugar, tea, coal and housing. Between 1800 and 1834 (until the burden of debt repayment declined), the burden remained onerous and regressive, redistributing from those without to those with savings … During 1820–5, poor relief absorbed 6 percent of its expenditures, whereas cash transfers to bondholders absorbed 53 percent. (Mann 1993, pp. 520–1)

This was relatively new: ‘The Hanoverians inherited a system of taxation which was already shifting away from taxes on land and immovable property that had provided almost half of government income under the later Stuarts. By 1793 they provided only a fifth’ (Rule 1992b, p. 289).

And so the tax system became much more regressive in the course of the eighteenth century (ibid., p. 290). Mokyr emphasizes that ‘Britain’s fiscal system was unique in that it raised most of its revenues from indirect taxes; throughout the eighteenth century between 70 and 75 percent of all tax revenues came from customs and excise taxes’, which fell most heavily on goods consumed by the ‘middle class’: tobacco, sugar, alcohol, glass, and paper. ‘The land tax, on the other hand, which was paid largely by the rich, was reduced sharply by Walpole, whose constituency was primarily Whig landowners’ (Mokyr 2010, p. 430).

Thus, Mokyr concludes, taxes in Britain were paid disproportionately by the middle class, and not by the gentry (ibid., p. 431). Bread was not taxed, so that the very poor were largely untaxed. The tax collection system was also relatively efficient and (due to the absence of tax farming) much less corrupt than on the Continent. ‘To sum up: the surprising thing is how effective, on the whole, the British taxation and public finances were … If the fiscal regime in Britain had any advantages, it was not that its net effect on the economy was on balance salutary, but that it could have been a lot worse, and was elsewhere’ (ibid., p. 437), for example in France.

Similarly, Patrick O’Brien argues that, despite the claims of many radicals, excise taxation was:

framed in order to minimize incidence on the poor. For example, excluding beer and Scottish spirits, neither basic foodstuffs (apart from salt) nor plain clothing were subjected to excises. Furthermore,
burdens could be calibrated so that the more expensive varieties of a
taxed commodity paid higher rates of taxation. This occurred in the
cases, for example, of printed and plain cloth, strong compared with
table beer, wax as against tallow candles, and soft and hard soap.
(P. O’Brien 1988, p. 27)

Taxes on beer, salt, candles and soap will, however, have been paid by
all but the extremely poor, and low-income taxpayers will have been
well aware that the proceeds were ‘used for fighting wars and bring-
ing about destruction to the benefit of the few, not for investment in
infrastructure and welfare to the benefit of all’ (Harris 2004, p. 236).

Mann stresses the importance of fiscal grievances in the growth of
lower-class radicalism after 1790. ‘The state and class had mattered little
to most people in the mid-eighteenth century; by 1815, the state mattered
considerably and was organizing class exploitation on a national scale.
Military-fiscal extraction drove forward a political and national class strug-
gle’, which did produce some significant results. The temporary income
taxation introduced in Britain during the Napoleonic Wars, and abolished
in 1816, was designed to avert revolution (Mann 1993, pp. 116, 387), and
the postwar reforms were also significant. ‘The pattern of public finance
in the decades after 1815 reflects the paradigm of the new political econ-
omy: an enlightened world was one of peace, low government spending,
and fiscal prudence’ (Mokyr 2010, p. 429).

In effect, Mokyr is here following Marx in describing ‘Enlightenment
liberalism’ as the ideology of the rising bourgeoisie, which used it to
unfetter the forces of production by forcing through radical and far-
reaching changes to the social relations of production and to the super-
structure. These are not Mokyr’s terms, since he himself is a classical
liberal, but his argument is entirely consistent with that of the Communist
Manifesto (Hobsbawm 1998). Mokyr himself stresses the intellectual and
institutional background to economic change, in which new ideas were
propagated in a society in which ‘opportunities to innovate and succeed
in business had been increasingly a key to personal prosperity…the
industrial revolution must be understood in the light of its intellectual
and institutional background as much as in the light of its economics’
(Mokyr 2010, p. 85). Again, Marx would have concurred.

As Mann observes, between 1760 and 1820 capitalist laissez-faire was
imposed, not by a bourgeois government but by the old regime. Guild
restrictions on industry and (most) restrictions on trade were done away
with. All this ‘was legislated by an unreformed Parliament, whose members
were merchants, or bankers, or landowners or professionals with merchant
or banking interests. There were virtually no industrialists’ (Mann 1993, p. 101). This helps to explain why the middle classes submitted to aristocratic rule. In part this was due to ‘middle class deference to aristocratic values and cultural leadership’, in part to ‘the governing class’s acceptance of what are usually considered the “bourgeois” values of the market and its willingness to recognize the importance to the nation of trade, especially in employment-creating manufactures’ (Rule 1992a, p. 99).

In sum, there was no fundamental economic opposition between the old regime and the petite bourgeoisie, despite ‘economic squabbles’ over free trade, fiscal policy, the Bank of England and the Poor Law (Mann 1993, p. 102). None of these disputes produced deep class conflict between the petite bourgeoisie and the old regime. As Mokyr concludes:

> It is easy to mistake the divisions between radicals, Whigs, liberal Tories, and ‘high’ Tories as a lack of consensus. On the main issues, however, there was agreement, or at least an agreement on how disagreements should be decided. Governments should rule frugally and responsibly, getting rid of privileges and patronage, at least in part to disarm their increasingly vocal radical critics … Liberal Tories such as Huskisson and Peel believed that rent-seeking was the main enemy of progressive society. (Mokyr 2010, pp. 66, 71)

However, it is also important to remember that the legitimacy of the political system did ‘come under siege from the people. The great public protests of Ricardo’s day included on their agenda a demand for parliamentary reform’ (Milgate and Stimson 2009, p.162; the classic reference is Thompson 1968). David Ricardo’s *bête noire* William Cobbett was the most prominent leader of ‘the rising tide of protest and insurgency which marked the first decades of the nineteenth century’ (Calhoun 1988, p. 137). Cobbett ‘produced a critique of the existing social and political structure in the name of traditional rights and values’, leading a populist movement which ‘was not statist or supportive of reactionary elites, in the manner of some Latin American populisms’, but nevertheless was ‘fundamentally conservative’. It was at the same time ‘very radical, because it demanded things which could not readily be incorporated within the emerging framework of industrial capitalist society’ (*ibid.*, p. 138). ‘In the 1810s’, in particular, ‘Cobbett spoke to the bulk of the English people in a shared populist rhetoric of traditional glories and present day theft and corruption’ (*ibid.*, p. 139).

The ambivalence of this radical movement is stressed by Mann, who describes how, beginning in the last quarter of the eighteenth century, a
combative sense of class identity and opposition to the old regime formed among a smallish radical petite bourgeoisie, especially among independent artisans. They identified themselves proudly in newspapers and pamphlets as ‘the industrious classes’. The label, like ‘nation’ and ‘people’, included only those of independent means and education, excluding labourers (dependent on others for their subsistence). It comprised independent capitalists who also worked, whether as masters or artisans, as opposed to the supposedly idle and parasitic rentiers, office placemen, and East India nabobs who used capital passively ... Yet such elements of class ideology could not form a totality, for they coexisted with conceptions more congenial to the old regime. Both included overlapping versions of the ‘Protestant constitution’. (Mann 1993, pp. 105–6)

The churches also ‘fostered more class cooperation and local-regionalism than conflict’ (ibid., p. 107). Food and military riots, too, ‘were undercut by class differences’ (ibid., p. 121) based on property. And property, ‘whatever its source, lineage or patronage – was to rule the nation’ (ibid., p. 125).

Thus it is broadly true that the period of the Industrial Revolution was as remarkable for what did not happen in Britain as for what did. ‘Britain was practically the only European nation that was not deeply and directly affected by the political and social disruptions that started with the French revolution and ended with the Battle of Waterloo in 1815’. Highly talented people were not distracted from economic activity by politics and war, as they were on the Continent, and Britain’s naval supremacy meant that her economy was not seriously damaged by economic warfare (privateering and blockades) as badly as those of the Continental countries. Taxes and the cost of living rose steeply, and political freedoms came under attack, but there was no fighting on British soil, and ‘the stability of the regime was never seriously threatened’ (Mokyr 2010, p. 66).

Unlike the situation in continental Europe, Enlightenment ideas took root in Britain without great political upheaval, and intellectuals rarely took extreme radical positions, mostly accepted and even embraced religion, and managed to get reforms instituted from within ... in Britain the state was not the enemy, at least before the Jacobin scares of the 1790s. Ideas circulated freely, and they affected culture, institutions and daily life in myriad ways. (Mann 1993, pp. 112–13)
Thus the flexibility and relative openness of the British political system helped to preserve it. ‘Englishmen were not “slaves” or “papists”, not did they wear the “wooden shoe” of less free countries. They had a “birthright” of liberty, even the regime allowed’ (ibid., p. 110). They enjoyed rights to property, which even the Crown could not override, and the right to petition Parliament for the redress of grievances. Thus ‘the dividing, and eventual compromising, of potentially subversive class ideologies was primarily the unintended consequence of the mess that was the British franchise’ (ibid., p. 111). This was Ricardo’s England.
Ricardo’s Vision

2.1 Philosophy, History, Society

In an often-cited passage in his *History of Economic Analysis*, Joseph Schumpeter wrote of the importance of the ‘preanalytic cognitive act’ that guides the thinking of any great economist. ‘Obviously, in order to be able to posit to ourselves any problems at all, we should first have to visualize a distinct set of coherent phenomena as a worthwhile object of our analytic efforts’. This he termed ‘vision’, which ‘must precede historically the emergence of analytic effort in any field’ (Schumpeter 1954, p. 41).

What, then, was Ricardo’s vision? What was ‘the economic problem’ that had to be analysed, and how did he believe this analysis should proceed? As far as the first, factual, dimension is concerned, we shall see in later chapters that he had a thoroughly realistic view of the realities of the contemporary economy and the difficulties that it faced. Ricardo’s England, as depicted in the *Principles*, is a three-class capitalist economy in which landlords and workers consume their entire incomes and the accumulation of capital depends entirely on the profits made by the capitalists, which are under constant pressure.

Population is growing faster than ever before and agricultural output is struggling to keep pace. The living standards of the working masses are stagnating, and without continuously increasing imports of food they are likely to decline. Industry is making slow progress, but the economic fate of the nation will be determined by the outcome of the struggle between the protectionist landlords and the rest of society over the distribution of income. Political reform is urgently necessary to break the stranglehold of the landlords over economic policy, to accelerate the demise of Old Corruption and (not least) to reduce the burden of taxation.
On all these matters, Ricardo was right. ‘Commercial capitalism dominated eighteenth-century Britain … Old regime, farmers, and petite bourgeoisie all sold commodities on the market, and most bought free wage labour … Centuries of enclosures had ended rights to common land; most feudal privileges and restrictions on alienability were abolished by 1700’ (Mann 1993, p. 101) The three-class structure in agriculture was unique to England. Rents were rising faster than agricultural output, and the landlords were the principal beneficiaries of agricultural improvements. Their rapidly increasing rents were largely consumed, and were not invested in urban or industrial activities (Allen 2004, p. 115).

Industrial output was indeed growing, but ‘for contemporaries the importance of technological change was only becoming clear very slowly and it was by no means clear to all in 1850 that a new economic age had dawned’ (Mokyr 2010, p. 144). In sum, the classical laws of political economy set out by Ricardo actually did describe the early nineteenth-century British economy, its prospects and its problems.

But Ricardo’s observations of contemporary reality were married to a determination to theorize about them. This is what made him a great economist, and it is this methodological element of his vision that needs to be explained. Where, then, did this part of the Ricardian vision come from? As we saw in chapter 1, very little is known about his formal education, but there can be little doubt about his family background. His brother Moses stressed the negative influence of his strict and dogmatic father on the intellectual development of the young David, and his opinion was confirmed, more than a century later, by a historian of the Sephardim of England. At the beginning of the nineteenth century, ‘the Community lay still, according to its laws and regulations, under close control, almost the dictatorship of a small group of individuals, the hereditary aristocracy of Sephardi England’ (Hyamson 1951, p. 221).

Members could be arbitrarily expelled and regarded as untouchables for offending the leadership in any way. Offences included the publication of religious or political works:

To enter into religious or political controversy with a non-Jew ... was immediately visited with heavy punishment, as a rule exclusion from the Community or the imposition of a heavy fine. A member of the Community who took a wife from outside was promptly expelled and considered as having become an apostate. (Ibid., pp. 221–2)
One can imagine how a young man, intelligent and independent-minded if rather poorly educated, would have reacted to growing up in such an obscurantist, authoritarian and claustrophobic milieu.

His new denomination could not have been more different. Unitarianism was a ‘strange hybrid of Christianity, ancient heresy, and rationalism’ (Jacob 2000, p. 278). As Sraffa put it, the Unitarians ‘at this time formed the most liberal section of that “Wide Dissent”, as it was called, which was accused of ‘paving the way to irreligion pure and simple; and during the French Revolution they came to be regarded as a centre of rationalism and republicanism’ (X, p. 39). Indeed, Unitarianism was ‘the Enlightenment religion par excellence’ (Mokyr 2010, p. 362), attracting the allegiance of industrialists like the Stephensons, Josiah Wedgwood and James Watt, and of philosophers such as Erasmus Darwin, Joseph Priestly and Benjamin Franklin.

Some of Ricardo’s Unitarian acquaintances were men of intellectual substance, including Thomas Belsham (1750–1829), Robert Aspland (1782–1845), Thomas Foster (1759/60–1834) and Dr James Lindsay (1753–1821) (X, pp. 38–9). Unitarianism, in fact, was the ‘religious stepchild’ of ‘the new scientific culture’ of Ricardo’s age, reflecting ‘a distinctive and worldly asceticism at work in lives dedicated to invention and the profit that comes from striving’ (Jacob 2000, p. 277). It emphasized the existence of ‘a law-bound, rational universe where causes lead inexorably to effects’ (ibid., p. 292). Unitarians were bound together by ‘a belief in the possibility of progress … a distrust of the old, landed elite and the established Church, Whig if not radical politics, and a disposition towards commerce or its encouragement’ (ibid., p. 279).

It is easy to understand the appeal of such a creed to the young Ricardo, casting off the shackles of his Sephardic upbringing and beginning to make his way in the world. Exactly how deep his commitment to it really was remains disputed. We know that he was a regular attender at Unitarian meetings, at least until he moved to the West End in 1812 (X, pp. 38–40). Whether this indicated more than intellectual curiosity and a need for companionship is not clear. Sergio Cremaschi and Marcelo Dascal (1996, 2002) maintain that the influence on Ricardo of Priestly and Belsham was decisive in shaping his a priori-istic, rigorous methodology. Others claim that he was always a religious sceptic, with Unitarianism as ‘the best method of hiding his atheism’ (Depoortère 2002, p. 501).

As one of his editors puts it, ‘he was, in belief and habit, as near to being an atheist as was then socially and intellectually respectable’
Certainly on the problem of evil his position was at best agnostic: ‘On these difficult points I keep my mind in a state of doubt’, he told James Mill in November 1817, ‘from which in this world I never can be relieved. To account for evil in a world governed by a Being of unbounded benevolence and power is or appears to be impossible’ (VII, p. 206; see also VII, p. 229).

Ricardo was certainly a strong advocate of freedom of opinion, on religion as on all other matters of conscience, and in this he may well have been influenced by his Unitarian beliefs. Thus in 1817, writing of John Locke, he told James Mill that ‘I very much admire his tolerant spirit, and the ardor with which he enforces not only the right but the duty of free enquiry into the grounds of our religious opinions’ (VII, p. 207). Six years later he called for the release of Mary Ann Carlile from prison after she had been convicted of blasphemous libel. As he told the Commons in February 1823:

prosecutions ought never to be instituted for religious opinions. All religious opinions, however absurd and extravagant, might be conscientiously believed by some individuals. Why, then, was one man to set up his ideas on the subject as the criterion from which no other was to be allowed to differ with impunity? Why was one man to be considered infallible, and all his fellow men as frail and erring creatures? (V, p. 280)

He also defended Robert Owen, whom he described in a Parliamentary speech in July 1823 as ‘a great benefactor to society, and yet a man not believing (judging from some opinions of his) in a future state. Would any man, with the demonstrating experience of the contrary before his eyes, say that Mr. Owen was less susceptible of moral feeling, because he was incredulous upon matters of religion?’ (V, p. 328). This was despite his strong opposition to Owen’s socialist political ideas.

There were, of course, other influences on Ricardo, including his early friendships and his lifelong commitment to self-education. Sraffa speculates about the identity of the friend who had encouraged his initial interest in science (about 1797), and concludes that ‘these early mathematical and scientific studies (whoever may have inspired them) must have been a more decisive influence on Ricardo’s characteristic cast of mind than the teachings of his later mentors, James Mill and Bentham, whose approach was essentially that of jurisprudence and moral philosophy’ (X, p. 35).
There is some disagreement over the extent and nature of Jeremy Bentham’s influence on Ricardo, although, as he himself told Maria Edgeworth, ‘my motto, after Mr. Bentham, is “the greatest happiness to the greatest number”’ (IX, p. 239). It has been argued that Ricardo was not strictly a utilitarian … for the simple reason that in defining the standard of material well-being as aggregate production itself, rather than some aggregate of individual utility, he shifted the focus of analysis away from individual utility maximizers’ (Milgate and Stimson 1991, p. 144). Others suggest that he was very close:

By means of his identification of happiness with the consumption of material output, Ricardo equipped himself with a standard for measuring individual and collective happiness and, consequently, with a utilitarian basis for his major policy argument in favour of free trade: as the most physically productive economic system, free trade was also (potentially) productive of the greatest happiness of the greatest number. (Peach 1997, p. 223)

In fact most of Ricardo’s reading on philosophical issues seems to have come after the publication of the Principles in 1817, and was therefore too late to have much influence on the development of his economic thinking. ‘The myth of Ricardo’s dependence on Bentham and Mill’ has been attacked on the grounds that Ricardo had already worked out his own approach to economic theory when he first met James Mill, and that their influence on Ricardo was very limited. James Mill’s impact on Ricardo, in particular, ‘was more in “practical” matters (style of composition, publishing policies, engagement in politics) than in matters of “method”’ (Cremaschi 2004, pp. 377, 396).

In addition to Locke, Ricardo’s reading list included works by George Berkeley, David Hume and the seventeenth-century French philosopher Pierre Bayle. It was not without its frustrations. As he told Mill in August 1818, Hume’s critics ‘do not remove the difficulties which make the subject of metaphysics so perplexing. Indeed these cannot be removed for from the nature of the enquiry if they satisfied you on some points you would only transfer your difficulties to some other’ (VII, pp. 277–8). Many subsequent generations of philosophy students will have shared his exasperation.

As to the conclusions that he drew from his reading in philosophy, there is also some controversy as to whether ‘Ricardo’s thinking can be characterized as a form of philosophical naturalism’ (Femminis and Salanti 1995, p. 101), in which the social order is a harmonious one
and the human condition is largely determined by natural laws, about which humanity can do relatively little. Criticizing this interpretation, John Davis cites the celebrated chapter 31 (‘On Machinery’) that Ricardo added to the third edition of the Principles, which ‘circumscribed the role for natural forces in the economy’, since the ‘development and application of machinery … is largely to be explained in terms of the advance of science, knowledge, and technology, whose progress is rarely explained in terms of the laws of nature’ (Davis 1995, p. 105).

Cutting across these debates, the anthropologist Stephen Gudeman (1984) offers a ‘cultural analysis’ of Ricardo’s 1815 Essay on Profits, a work which we shall dissect in some detail in chapter 3. For Gudeman, at the core of the Essay is a model ‘constructed within the tradition of Galileo and Descartes. Such models are linear and essentialist … Ideally, the model would be Euclidean, with a core, a set of operational rules, and derived parts’ (p. 96). Much of this carried over into Ricardo’s mature political economy, above all into his Principles.

2.2 Ricardo’s Method and Style

Ricardo was always very clear about the scientific status of political economy, and he was never ashamed of abstract theorizing. Arnold Heertje suggests that this may have reflected both his Jewish heritage and his business experience:

In order to judge Ricardo as a deductive economist, one cannot circumvent the study of the Talmud according to an age-long tradition. On the one hand, he learned to think within a dogmatic system of strong rules and, on the other hand, at the same time he developed a talent for thinking independently. (Heertje 2004, p. 290)

Moreover, the profitable sale and purchase of securities ‘implies the ability to introduce assumptions on endogenous and exogenous factors, to reason from assumptions, to deduce conclusions, and to act’. It ‘calls for the implicit use of models’ (ibid., pp. 291, 292).

As early as 1811, Ricardo was writing to Malthus in defence of a priori reasoning. Significantly, the context was the important policy issue of free trade:

The first point to be considered is, what is the interest of countries in the case supposed? The second what is their practice? Now it is obvious that I need not be greatly solicitous about this latter point;
it is sufficient for my purpose if I can clearly demonstrate that the interest of the public is as I have stated it. It would be no answer to me to say that men were ignorant of the best and cheapest mode of conducting their business and paying their debts, because that is a question of fact not of science, and might be urged against almost every proposition in Political Economy. (VI, p. 64; stress added)

He continued to assert the scientific status of theoretical political economy in correspondence with his friends, as, for example, in a letter to his friend, the stockbroker Hutches Trower, in 1815, just as he was starting work on the *Principles*:

Mr. Malthus and I continue to differ in our views on the principles of Rent, Profit and Wages. These principles are so linked and connected with every thing belonging to the science of Political Economy that I consider the just view of them as of the first importance. (VI, pp. 315–16)

His continuing disagreement with Malthus had a significant methodological component. As he told James Mill, on New Year’s Day 1821:

Another of his [Malthus’s] great mistakes is I think this; Political Economy he says is not a strict science like mathematics, and therefore he thinks he may use words in a vague way, sometimes attaching one meaning to them, sometimes another and quite different. No proposition can surely be more absurd. (VIII, p. 331)

Ricardo was no less forthright in his public statements. In Parliament, in February 1823, he said that ‘he remembered, that at the termination of the last session, he had frequently to repel the attacks which were made upon the science of political economy’ (V, p. 248). Three months later, in the debate on a petition on the Silk Manufacture Bill, he repeated his defence of economic theory:

The hon. Member for Weymouth [F. Buxton] had observed, that the petitioners knew nothing about political economy, the principles of which seemed to change every two or three years. Now, the principles of true political economy never changed; and those who did not understand that science had better say nothing about it, but endeavour to give good reasons, if they could find any, for supporting the existing act. (V, p. 296; stress added)
Dogmatic statements like this were controversial at the time, leading to accusations that he had lost contact with reality. As Sraffa observes in his introduction to volume V of the *Works*, which contains Ricardo's Parliamentary speeches, he was at first treated with great respect in the House. ‘However, following his proposal of a tax on capital to pay off the national debt, which was regarded as “a wild sort of notion” even by his own friends, the attitude of the House towards him underwent some change, and he came to be looked upon as a theorist’ (V, p. 56); the term was not intended as a compliment. One comment by Henry Brougham in a Parliamentary debate in May 1820 is often quoted: ‘His hon. friend, the member for Portarlington, had argued as if he had dropped from another planet’, ignoring reality and instead arguing as if ‘in this Utopian world’ of his own creation, the only restriction on freedom of trade was in corn (V, p. 56).

Ricardo was well aware of the problem. As he wrote to McCulloch a few months later, ‘I am treated as an ultra reformer and a visionary on commercial subjects by both Agriculturists and Manufacturers’ (V, p. xx). It did not worry him unduly. In another speech in the following year, displaying a fine sense of irony, he cited Brougham as asking: ‘Where has the Honourable member (Mr. Ricardo) been? Has he just descended from some other planet?’ (V, p. 85).

For Ricardo, then, political economy was indeed ‘a strict science like mathematics’. As Heinz Kurz observes, he ‘always defended economic theory against the “vulgar charge” of those who are “all for fact and nothing for theory”. Such men can hardly ever sift their facts. They are credulous, and necessarily so, because they have no standard of reference’” (Kurz 2008c, p. 244, citing III, pp. 160, 181). His commitment to abstract theorizing meant that ‘[t]he simplifying assumption was Ricardo’s trademark’ (Stigler 1965, p. 449).

As we have seen, this worried many of his contemporaries, and it drew criticism from many commentators in later generations, among them Alfred Marshall, whose own *Principles* include two substantial comments on Ricardo’s method. The first relates to his Jewishness:

He is often spoken of as a representative Englishman: but this is just what he was not. His strong constructive originality is the mark of the highest genius in all nations. But his aversion to inductions and his delight in abstract reasonings are due, not to his English education, but, as Bagehot points out, to his Semitic origin. Nearly every branch of the Semitic race has had some special genius for dealing with abstractions, and several of them have had a bias towards the
abstract calculations connected with the trade of money dealing, and its modern developments; and Ricardo’s power of threading his way through intricate paths to new and unexpected results has never been surpassed. But it is difficult even for an Englishman to follow his track; and his foreign critics have, as a rule, failed to detect the real drift and purpose of his work. For he never explains himself; he never shows what his purpose is in working first on one hypothesis and then on another, nor how by properly combining the results of his different hypothesis [sic] it is possible to cover a great variety of practical questions. (Marshall 1890, p. 629 n1)

Marshall’s second comment relates to Ricardo’s failure to acknowledge the historical and social context of economic behaviour:

For the sake of simplicity of argument, Ricardo and his followers often spoke as though they regarded man as a constant quantity, and they never gave themselves enough trouble to study his variations. The people whom they knew most intimately were city men; and they sometimes expressed themselves so carelessly as almost to imply that other Englishmen were very much like those whom they knew in the city. They were aware that the inhabitants of other countries had peculiarities of their own that deserved study; but they seemed to regard such differences as superficial and sure to be removed, as soon as other nations had got to know that better way which Englishmen were ready to teach them. The same bent of mind that led our lawyers to impose English civil law on the Hindoos [sic], led our economists to work out their theories on the tacit supposition that the world was made up of city men. (ibid., p. 630)

Criticism of Ricardo along these lines has never ceased. Here are some further examples. ‘To the end of his days, indeed, he never comprehended what he was doing’, Walter Bagehot wrote. ‘He dealt with abstractions without knowing that they were such; he thoroughly believed that he was dealing with real things’ (Bagehot 1880, p. 205). For Wesley Mitchell, Ricardo’s economics ‘consisted of conclusions reached by reasoning from a few broad assumptions that oversimplified the facts. Human nature is far less simple and social organization is far less stable than he assumed’ (Mitchell 1929, p. 352). ‘Indeed’, Mark Blaug maintains, ‘the divorce between abstract theory and practical work was never more complete than in the heyday of Ricardian economics’ (Blaug 1956, p. 42).
And this is Terence Hutchison’s assessment:

For Ricardo still is – as he long has been – the Founding Father of ‘anything-goes’ abstractionism; of the contempt for empirical discipline; of the ‘unrealism-of-assumptions-doesn’t-matter’ school of thought – and especially of the assumption of omniscience – originally and explicitly introduced by Ricardo … [he was] when he started, something of an innocent abroad, whose inconsistent ideas, both originally, 170 years ago, and again in recent decades, fell into the hands of people too keen on exploiting them for their own ideological purposes, and who had to pretend that the inconsistencies were not there. (Hutchison 1994b, p. 99)

Hutchison was fiercely anti-Marxist, but very similar complaints have been made, from the opposite end of the political spectrum, by Ben Fine and Dmitris Milonakis (2009, p. 51).

Several of Ricardo’s editors felt obliged to defend him from these charges. This is E.C.K. Gonner’s verdict, written at the end of the nineteenth century:

Like many others, I had learned to look upon him as doctrinaire, cold, and if anything a trifle illiberal and inelastic in thought … But now I see how I misjudged him, how others have misjudged him, by confusing the scientific formulas which he developed with the man himself. He was abstract, not doctrinaire; precise, not dogmatic; and always ready to discuss, and, if need be, to remodel his opinions. (Gonner 1891, pp. xix–xx; original stress)

Twenty years later, F.W. Kolthammer described Ricardo’s immersion in ‘the air of deduction’ that was breathed by men of science in the early nineteenth century. This did have its advantages, since ‘the order which he made to reign where all had long been chaos, the system which he offered in explanation of an unwieldy toppling mass of details, simply stole by its audacious clarity the admiration and the conversion of his contemporaries’ (Kolthammer 1911, p. x). Then, half a century on, William Fellner praised Ricardo’s analysis of international trade and his theory of rent, both of which demonstrate the way in which ‘his genius enabled him to reduce a problem to its essentials and then to develop a very simple piece of analysis for acquainting us with the fundamentals of a phenomenon’ (Fellner 1963, p. ix).
This is very much a matter of taste. Schumpeter famously coined the term ‘Ricardian Vice’, which ‘was intended to highlight Ricardo’s alleged habit of introducing utterly bold assumptions into an already oversimplified representation of the economy and treating these as givens when in fact they are unknown’ (Kurz 2008b, p. 241). There was also a policy dimension, since Schumpeter also deplored Ricardo’s supposed habit of ‘piling a heavy load of practical conclusions upon a tenuous groundwork’ (ibid., citing Schumpeter 1954, p. 1171).

Denis O’Brien concurs:

Ricardo’s deductive method, his model building, was to be of the greatest importance. Ricardo essentially invented these techniques. His procedure not only contrasts strongly with Adam Smith’s basically inductive approach, but, as a process of heroic abstraction, it not only neglects the frictions in the economic system, but also habitually reasons in terms of the immediate relevance of the long run. Both these characteristics were to be of far greater importance for economics after the end of the Classical era: that they left their scars on Classical economics there can, however, be no doubt. (O’Brien 2004, p. 49; stress added)

Terence Hutchison went even further, denouncing a tendency towards ‘ultra-deductivism’ in early nineteenth-century political economy in which Ricardo, under the malign influence of James Mill, played a major part:

In fact, mentally, Ricardo had just dropped from another planet: a mental or ‘model’ planet which he himself was the first economist to explore and exploit, but which has been constantly visited, and for ‘long periods’ lived in by countless, ‘model-building’ economists ever since: an extra-terrestrial, timeless planet, the inhuman inhabitants of which are virtually perfect in knowledge, mobility and perfect adjustability: a planet where so many processes, which take ages in our real world, happen ‘immediately’: a planet the conditions of which may be very easy for economists to assume, but the actual workings of which are very difficult to imagine. (Hutchison 1993, p. 3; original stress; cf. Hutchison 1998)

Thus the ‘legacy of the Mill-Ricardo methodological revolution was one of insufficiently controlled abstraction and over-simplification on the one hand, and of over-confident pretensions on the other hand. Traces
of this legacy were still discernible in economics a century and a half after Ricardo's death' (Hutchison 1994a, p. 76).

Against this, R.S. Sayers suggests that:

The really fascinating play of Ricardo's mind is to be seen rather in those passages where he is turning his torchlight on a group of specific facts, especially statistical facts. For example, in the Reply to Bosanquet, after Bosanquet had posed as the practical man who would write about the real facts of the case Ricardo turned on him with a battery of elaborate factual evidence as though he had an efficient intelligence department in his stockbroker's office; and similarly when he discussed the profits of the Bank of England ... and the manipulation of the Sinking Fund. (Sayers 1952, p. 663; cf. Arnon 2011, pp. 134–44)

In similar vein, David Levine argues that the 'objective to which Ricardo explicitly subordinates his theoretical work is, virtually in every case, a specific practical end. Ricardo's writing is dominated by immediate practical concerns and consists almost exclusively of essays taken up with current issues' (Levine 1977, p. 75).

Max Hartwell heads the first section of his introduction to the Penguin edition of the Principles ‘The Practical Economist’, noting that the ‘character and content of David Ricardo’s economic writings were largely determined by the times in which he lived’ (Hartwell 1971, p. 7). Ricardo wrote on the three great contemporary economic issues, Hartwell notes: the stability of the currency, the national debt and the consequences of agricultural protection. ‘Thus Ricardo’s appeal was both theoretical and practical; he not only provided the theory to analyse problems, he also provided acceptable practical solutions for them’. In fact, ‘Ricardo's writing is a good chronological guide to Britain's economic problems’ (ibid., pp. 11–12). Certainly his factual knowledge was deep and extensive (Davis 2002); in chapter 3 we shall cite a letter that he wrote to Malthus in 1815 in which he cites the business accounts of an individual farm in Essex.

In any case, as Kurz comments, the criticism of Ricardo for excessive abstract theorizing was never unanimous:

Some later commentators rightly praised him for having heralded an approach in economics that requires a clear statement of the assumptions on the basis of which certain propositions are taken to be valid within a given analytical content. This is now considered
an indispensable prerequisite of scientific communication. Therefore what Schumpeter considered to be a vice, others took to be a virtue. (Kurz 2008b, p. 242)

Ricardo was defended on this question by later economists such as Léon Walras and Knut Wicksell, who disagreed strongly with him on matters of substantive theory, and his own defence of rigorous formal analysis made him ‘one of the inspirations for mathematical economic theory’ (Kurz 2006, p. xxxiv).

There are stronger grounds for criticizing his style. As Lionel Robbins complained, subsequent misunderstanding of classical economics is partly Ricardo’s fault:

one of the main sources of trouble lies in the peculiar abstractions and the elliptical style of Ricardo … his writings were for the most part addressed to a relatively small circle of readers whom he imagined to understand his intellectual shorthand; and in his pre-occupation with ‘strong cases’ he often neglected to make explicit the nature of his assumptions or the limitations of his conclusions. (Robbins 1978, pp. 82–3)

John Neville Keynes had registered a similar complaint almost a century earlier, objecting that Ricardo’s

method was not free from grave faults, and he was very far indeed from presenting to the world a complete or logically perfect system. His materials are ill-arranged, his modes of expression are often so careless as readily to lend themselves to misrepresentation, and he constantly assumes without due warrant that conditions and qualifications present to his own mind will also as a matter of course be present to the minds of his readers. (Keynes 1891, p. 769)

And there was an element of dogmatism in his attitude to criticism:

Beneath Ricardo’s sweet reasonableness in controversy, his almost unfailing courtesy, and his apparent desire to consider all sides of a question with an open mind, there lies a certain rigidity … The reader gets the impression that no one, however skilful and systematic, could have persuaded Ricardo to alter foundations of his macro-economic structure, once the edifice had been reared. (Shoup 1960, p. 253)
2.3 Ricardo’s Politics

He was equally self-confident on questions of politics. As we saw in chapter 1, Ricardo spent the last four years of his life as a member of the unreformed House of Commons. Earlier he had been very reluctant to enter Parliament. As he wrote to James Mill in August 1815: ‘my inclination does not in the least point that way. Speak indeed! I could not, I am sure, utter three sentences coherently, and if I attempted it should probably from vexation and disappointment turn my back on the house for ever’ (V, p. 263). Three years later he had changed his mind: ‘If I could, without much trouble, get into the New Parliament I would’, he told Trower, in March 1818 (VII, p. 260).

In the following year he encountered little trouble – but was put to considerable expense – in purchasing the ‘pocket’ or ‘rotten borough’ of Portarlington. Although he was a consistent advocate of political reform, Ricardo twice rejected the possibility of standing for election in an open constituency. He rejected suggestions that he might stand for the county of Gloucestershire in 1820: ‘I do not soar so high’, he informed Trower in the March of that year, ‘and am the most unfit of all men to engage in an undertaking so difficult and so expensive as that of contesting a county with an old and powerful family’ (VIII, pp. 162–3); this was a reference to the Duke of Beaufort. Two years later he rejected any suggestion that he might contest the relatively open borough constituency of Liverpool (XI, pp. xiii–xiv).

What position did he take as a Member of Parliament? The conventional opinion on Ricardo's political views is that they were largely unoriginal, and simply reflected the rationalist, secular Enlightenment liberalism – ‘Philosophical Radicalism’ is the term made famous by Elie Halévy (1934) – of Bentham and Mill. This made him an enemy of Old Corruption in all its forms and a believer in progress through gradual, peaceful but far-reaching reform of the political system and the government apparatus that it supported.

In 1991 Murray Milgate and Shannon Stimson presented a new view of Ricardo on politics (this was not the first ‘new view’ of a particular aspect of Ricardo’s thought, nor was it the last, as we shall see in later chapters). They make:

three basic claims about Ricardian politics. First, that Ricardo developed a systematic and democratic platform which drew at key points on, as he called it, the science of political economy ... Second, we shall provide evidence that Ricardo reached his own conclusions
independently, and indeed before, the publication of James Mill’s essay on *Government* (1820) ... This should give the lie to the idea that Ricardo is best understood as having been scripted and stage-managed by James Mill in matters political. Finally, we shall show that Ricardo developed a quite sophisticated argument for democratic citizenship as a pre-requisite for economic progress. (Milgate and Stimson 1991, pp. 17–18)

For Ricardo there was no fundamental conflict between these principles: ‘He never once seems to have entertained a doubt that capitalism could survive democracy (something which cannot, it seems, be said with equal certainty of his philosophic-radical friends)’ (*ibid.*, p. 149).

Similar claims were made by Milgate and Stimson in a later book on the transformation of British politics, and political economy, in the century after the publication of the *Wealth of Nations*. In their discussion of ‘the rise and fall of civil society’ they emphasize the class nature of Ricardo’s economics by contrast with the individualism of neoclassical economics (Milgate and Stimson 2009, chapter 3), and in their survey of opinion on Parliamentary reform they again praise both the originality of Ricardo’s political thought and his respect for the wisdom of the working class – though not the poor, on which subject ‘Ricardo advanced not far beyond the opinions of other reformers’. ‘This confidence in the capacity of members of the working class to come to correct conclusions on matters concerning the well-being of the nation’, they argue, pervades Ricardo’s politics’ (*ibid.*, pp. 174, 176).

Reviews of Milgate’s and Stimson’s original book ranged from broadly favourable (Fenn 1992), through more guarded assessments (Hont 1992; Cremaschi 1994), to hostile. Thus Terence Hutchison denounced it as a piece of hagiography, with a sneer: ‘Ricardo the major, original, overlooked, radical political thinker’. Instead, Ricardo’s political opinions display ‘waverings, wobblings, contrasts and conflicts of view’ (Hutchison 1993, pp. 1, 10). Showing more restraint, Terry Peach maintained that Ricardo was committed to democracy not as an end but only as a means to good government. ‘On a ranking of the importance of the three components of reform – the ballot, more frequent elections and the franchise – the franchise came a somewhat distant third’ (Peach 1997, p. 225).

As with his economics, so with his political thought, Peach maintains, Ricardo was not always consistent. And his ‘moderation’ was notable, especially his support for the British ‘mixed system’ of government (King, Lords and Commons). ‘In this regard he was again out of kilter
with both Bentham and James Mill, neither of whom could be remotely described as supporters of existing political institutions’ (*ibid.*, p. 229).

Peach suggests three reasons for Ricardo’s moderation. The first was practicality: in the conditions of the time, more radical reform was unattainable. The second was a matter of political judgement: ‘Ricardo was not convinced that the bulk of “the people” were in possession of the requisite knowledge to ensure the success of a far-reaching reform’. Popular support for the Poor Laws was evidence that they were unaware of their own true interests (*ibid.*, pp. 226, 227–8). The ‘third reason for Ricardo’s moderation was practical: only moderate reform was required in order to secure “good government”’ (*ibid.*, p. 230; original stress).

As we shall see, there is a lot to be said for the intermediate position taken by William Dixon, who suggests that Ricardo’s support for the extension of the franchise to the working class was not ‘some version of social democratic welfare’, as Milgate and Stimson imply. Instead it was consistent with his support for capitalism: ‘they were not only tied to accumulation but were the linchpin, given democracy, of capitalist society’ (Dixon 2008, p. 248). For Ricardo, the workers were for the most part conscious of their own interests, which lay in the removal of the obstacles to economic progress. Thus, Dixon concludes, Ricardo ‘saw no dangers in extending the franchise to the workers; there was no inconsistency between the qualification of respect for property [as a condition of getting the vote] and full extension of the franchise, since the interests of the workers coincided with the security of property’, and they were intelligent enough to realize that this was indeed so (*ibid.*, p. 249; stress added).

He set out his political principles in some detail in a speech in the Commons in April 1823 on Lord John Russell’s motion for a reform of Parliament. He made a strong attack on the influence of the aristocracy over elections, and the ‘threats and terrors’ used to prevent electors from voting according to their conscience (*V.*, p. 285). ‘His opinion was, that at present the government of the country was a compromise between the aristocracy and the Crown’ (*V.*, p. 287).

Ricardo denied the legitimacy of property rights in rotten boroughs like the one that he had purchased, and criticized Russell’s proposals for not going far enough. ‘He believed that if that plan were adopted, the House would continue to be what it now was – the representative of the aristocracy of the country, and of the aristocracy only’ (*V.*, p. 286). He cited Montesquieu in support of his claim that ‘the people’ would act ‘wisely and prudently’ if allowed to vote freely, ‘instead of
selecting demagogues and disturbers of the public peace, as was unjustly apprehended’ (V, p. 289).

In correspondence, Ricardo supported the sovereignty of ‘the people’ on what were essentially pragmatic grounds: ‘There is no class in the community whose interests are so clearly on the side of good government as the people – all other classes may have private interests opposed to those of the people’, he wrote to Trower in March 1818 (VII, p. 261). There are many similar statements in his letters to Trower. Six months later he described the Press and public opinion as ‘the real check on our Government … it is of this both the monarchy and the oligarchy stand in awe, and to it we are indebted for all the liberty we enjoy’ (VII, p. 298). As he wrote to Trower in September 1818: ‘I know of no security under any form of Government for the happiness of the people, but that the people themselves, through the means of their representatives, should have a preponderating voice’ (VII, p. 299).

This raises the question of what, exactly, Ricardo meant by ‘the people’. In another letter to Trower, in November 1818, he defined the people as ‘the reasonable part of the country’. But he was not a republican, and instead defended ‘a mixed government such as ours, consisting of King, Lords, and Commons’ as ‘the best form of government’ (VII, p. 320; original stress). Consistent with this, in a letter to James Mill in the following month, he denied that those who supported political reform were ‘republicans in disguise, who call out indeed for reform, but mean revolution’. But for Ricardo this was not the decisive question: ‘If they really were so, I should not abate my wish for reform, because I should be sure that if we had a good and wise legislature, no countenance should be given to any project which had revolution for its object’ (VII, p. 381). In the following year he told Mill that ‘Reform is the most efficacious preventative of Revolution’ (VIII, p. 49).

Ricardo was, however, a consistent opponent of universal male suffrage, as he made clear in several Parliamentary speeches. Thus he told the Commons in December 1819 that universal suffrage was not necessary for good government: ‘he thought that suffrage far from universal would effect that object’ (V, p. 29). In April 1821 he urged support for ‘voting by ballot, which he thought would be a greater security for the full and fair representation of the people than any extension of the franchise’ (V, p. 122). And in April 1823 he advocated the ballot, and more frequent elections, as being ‘of deeper interest’ than an extension of the franchise, ‘important as he felt that topic to be, and convinced as he was that it ought to be extended much beyond its present limits’ (V, p. 284).
Again, these were positions that Ricardo took consistently in his correspondence. Writing to Trower in March 1818, he declared his support for the ballot and ‘no less than triennial’ elections, but not for universal suffrage: ‘If the suffrage is not universal there can be no danger of anarchy’ (VII, p. 261). Later that year, he had expressed to Mill his difference of opinion with John Cam Hobhouse over the latter’s support for universal suffrage. This time his justification was tactical: ‘I really believe that the reformers have done injury by going so far in their demands’ (VII, p. 360).

Once more, in 1819, he wrote to Trower agreeing that the franchise should be granted only to ‘such persons who by their education have the ability to decide correctly’. ‘In other words you would require security for a good choice of representatives and this is precisely what I want. If I cannot obtain it without limiting the elective franchise to the very narrowest bounds, I would so limit it’. He did want to extend the franchise, ‘not indeed universally to all the people, but to that part of them which cannot be supposed to have any interest in overturning the rights of property’ (VII, pp. 360–70). He took this very seriously, having already referred in his major work to ‘that principle which should ever be held sacred, the security of property’ (I, p. 204).

This put Ricardo at odds with those radicals who insisted on much more thoroughgoing democratic reform and often, as we shall see in chapter 6, had rather different views on precisely what constituted ‘the rights of property’. One of his most bitter adversaries was William Cobbett, whose hostility to Ricardo has long been noted (Bonar 1923, p. 290; Gillman 1956, p. 154 n 21). There is a lengthy footnote by Piero Sraffa on the poisonous relations between them. Cobbett described Ricardo as ‘the oracle’ (alluding to Brougham’s famous remark that he seemed to have come from ‘another planet’) and the Principles as ‘a heap of senseless, Change-Alley jargon, put upon paper and bound into a book’. He described a Mr. Perry, who had recommended it, as ‘the greatest fool in this whole kingdom’, an ‘empty, pompous fool’ (V, p. 40 n2).

In private Ricardo gave as good as he got, denouncing Cobbett in an 1822 letter to Trower as a ‘mischievous scoundrel ... It is confusion he wants, and he cares not what means he takes to produce it’ (IX, p. 167). Earlier he had told Malthus: ‘You must no longer plume yourself on being the principal object of Cobbett’s abuse. I have come in for my share of it, and just in the way that I anticipated. Even when he agrees with you he can find shades of difference which calls forth his virulence’ (VIII, p. 74). In 1823 he described to Trower a public meeting in Hereford where ‘Cobbett as usual asserted falsehoods respecting my opinions’ (IX, p. 266).
Cobbett was not alone in his abusive comments, with many of the detractors of classical economics attacking it as ‘the work of Scots, Jews, and Radicals’ (Grampp 1976, p. 543). But it was Cobbett who ‘brought the three charges together ... and let fly in a single salvo ... He said Ricardo was “a Scotsman, who appears to have been engrafted on a Jew” and that his doctrine, if it were applied, would destroy the institutions of England’ (ibid., p. 553). Cobbett’s anti-Semitism is also stressed as one reason for his hatred of ‘Scotch Jews’ like Ricardo by Schweizer and Osborne (1990, pp. 75, 153) and Spater (1982, p. 441).

And yet Ricardo was a personal friend of the radical activist Francis Place, and supported him on many issues. In 1819–20 he defended civil liberties in the face of violent repression by the government, and he was a strong critic of the behaviour of the authorities in the Peterloo massacre, when a peaceful demonstration in St. Peter’s Square in Manchester was attacked by troops, with heavy loss of life (Marlow 1971). Writing to Trower soon afterwards, Ricardo defended freedom of assembly, since ‘the security of our freedom’ depends on ‘the right to petition’, and even if this led to disorder ‘then we must patiently suffer the lesser evil to avoid the greater’ (VIII, p. 80).

In Parliament he voted against the notorious Six Acts, which imposed severe restrictions on political protest and which, as he told Trower, he regarded as ‘serious infringements on our liberties’ and as likely to increase discontent rather than reduce it (V, pp. 28–9; VIII, p. 146). In another letter to Trower he defended

the right of the people to meet, and to state their real or supposed grievances ... A Government is free in proportion to the facility with which the people can overthrow it ... The fear of insurrection, and of the people combining to make a general effort are the great checks on all governments. (VIII, p. 133)

On these issues Ricardo and Cobbett had a great deal in common. Both were also strong defenders of ‘the independent labourer’; indeed, Ricardo opposed the Poor Laws in part because he saw them as a form of imprisonment of the labourer (Dixon 2011). Both attacked ‘Old Corruption’, on the grounds that it rewarded what would be described today as ‘rent-seeking’ behaviour by the aristocracy (literally so in this case). As Ricardo told Trower in December 1818:

In our government the mutual interest of the monarchy, and the aristocracy to combine cannot admit of a doubt, one possessing
the privilege of bestowing every place of honour and emolument, and in a degree never possessed perhaps by any former government – the other having an overwhelming influence in the legislature, which may be advantageously disposed of to the minister. (VII, p. 369)

This was why he supported political reform.

On other issues, too, Ricardo had much in common with the more advanced radicals. He was, for example, firmly anti-imperialist, showing himself in letters to James Mill (in December 1817 and August 1819) to be highly critical of British rule in India and to be contemplating independence for Ireland as perhaps the only way of protecting its interests against those of England (VII, p. 239; VIII, p. 50). He had a very low opinion of the capabilities of Irish landlords (Black 1953, p. 32). And his opposition to slavery was revealed by his speech at the meeting of the Court of the East India Company in March 1823:

But he confessed that he really was inclined to blush with shame, to hide his face, when West-India slavery was mentioned. (Hear!) It was a stain on the otherwise pure character of the country, which he ardently desired to see wiped away. (Hear!) The question of slavery was one of infinite importance. It well deserved the consideration of the country. (V, p. 483)

On the two important issues of gender and socialism, however, Ricardo took a more conservative position. He was certainly not a feminist: there was never any question that the franchise might be extended to women, who are largely ignored in his economic writings (Pujol 1992, p. 23). As Nancy Folbre complains, while he did analyse the role of labour as an input in the production of commodities, he never recognized that the ability to perform labour was itself the output of a domestic production process. Thus ‘Ricardo had little or nothing to say on the subject’ of women workers; ‘(there is, at least, no entry in the definitive edition of his collected works under “women” or “workers, women”)’ (Folbre 2009, p. 136).

Ricardo’s sympathy for Robert Owen’s socialist proposals was revealed in June 1819 when he spoke at a meeting chaired by the Duke of Kent, praising the ‘benevolent intention’ of ‘his friend’, Mr. Owen (V, pp. 467–8). In Parliament he was more critical. Speaking in December 1819 on a motion to set up a select committee to look into Owen’s plan, ‘Mr. Ricardo observed, that he was completely at war with the system of
Mr. Owen, which was built upon a theory inconsistent with the principles of political economy, and in his opinion was calculated to produce infinite mischief to the community’ (V, p. 30).

He concluded that Mr. Owen’s plan ‘was in many parts visionary’ (V, p. 35). This was not intended as a compliment. As he had told Trower in July, Owen had a quite unrealistic view of human nature, relying on ‘regard to a community’ rather than self-interest. ‘Is not the experience of ages against him?’ (VIII, p. 46).

If Ricardo was no socialist, neither was he a methodological individualist, as is sometimes claimed (Udehn 2001, pp. 14–15). On the contrary, his political economy in particular ‘is not individualist, because Ricardo instead focused on the conditions of reproduction and growth, where the relevant actors, for him, were social classes not individual agents’ (Milgate and Stimson 1991, p. 144). Hutchison, too, notes an inconsistency between ‘the marked emphasis on class conflict which pervades much of his economics ... and, on the other hand, the naïve optimism of much of his longer-term political rhetoric implying far-reaching harmony (or harmonizability) in the political arena’ (1993, p. 15, n9).

2.4 Ricardo’s Works

A similar inconsistency might be found in Adam Smith, whose (very few) references to the benevolent intervention of an ‘invisible hand’ sit somewhat uneasily with his more frequent denunciations of class and other vested interests. Indeed, Ricardo was critical of Smith on precisely these grounds (I, p. 313). In the ‘Preface’ to the Principles, Ricardo does refer approvingly to ‘the writings of Turgot, Steuart, Smith, Say, Sismondi, and others’, but also complains that ‘they afford very little satisfactory information respecting the natural course of rent, profit, and wages’ (I, p. 5).

These are the principal sources that he drew on while working out his own political economy. As we shall see, he disagreed strongly with Sismondi on the important question of Say’s Law, and he would have disputed many of the conclusions of Sir James Steuart, a conservative critic of the free market (King 1988, ch. 1). It is unclear precisely what Ricardo learned from Turgot, whose nine-volume collected works he owned (X, p. 399).

From Smith, Ricardo derived his underlying concept of ‘commercial society’ as the final stage of human history. This was the three-class society of landlords, capitalists and wage labourers that was fundamental
to his own theoretical work. He also adopted Smith’s economic liberalism and his support for free trade, but not his theory of value. As we shall see in chapter 3, Ricardo was a strong critic of Smith’s ‘Adding-Up Theory’ of value, according to which the long-run or ‘natural’ price of a commodity could be derived by summing the costs of the labour, capital and land needed to produce it.

Ricardo took very little interest in Smith’s analysis of the division of labour and the resulting dynamic economies of scale in manufacturing. He was also unconvinced by Smith’s optimism concerning the long-run prospects for the British economy. Here he revealed the influence of Robert Malthus, whose theory of population growth was central to his own thinking (Malthus 1798) and who became a close personal friend.

But he had a very high opinion of Smith’s work as a whole:

In deriving his method and constructing his system, Ricardo drew on remarkably few sources. His main source was undoubtedly the book which first interested him in economics – the *Wealth of Nations*. The order of the chapters in his *Principles* aligns closely with the order of topics in the *Wealth of Nations*. This is no coincidence. For with Ricardo, as with Marx, criticism was his method of working, and it is to the raw material contained in the *Wealth of Nations*, rather than to specific theoretical positions, that Ricardo is indebted for all that is characteristic of his analysis. (O’Brien 2004, p. 50)

There was also a clear political affinity between the two men, since the influence of Adam Smith and his colleagues in the Scottish Enlightenment was ‘one identifiable channel through which Enlightenment thought affected public policy’ (Mokyr 2010, p. 70).

This influence operated through William Greville (Pitt’s Foreign Secretary) and William Huskisson, who were both free traders; as we saw in chapter 1, Huskisson paid tribute to Ricardo in the House of Commons immediately after his death. Mokyr distinguishes three groups of political economists in early nineteenth-century Britain: ‘the pure Smithians’, who insisted on the strong complementarity of peace, prosperity, and free trade; the Christian political economists, who combined Enlightenment thought with evangelical religion; and a more radical group of Ricardians and Benthamites, whose belief in free trade was more extreme (*ibid.*, p. 71).

Although he was critical of Smith on many important points, and in particular objected to his theory of value, Samuel Hollander notes, ‘it must be strongly emphasized that in formulating his challenge Ricardo
utilized principles of resource allocation learned from the *Wealth of Nations* itself. In effect, he took his predecessor to task for a faulty application’ (Hollander 1979, p. 7) – perhaps ‘many faulty applications’ would be a more accurate summary. There was even a methodological resemblance, since Smith was frequently criticized for excessive abstraction. Hollander reports:

the quite widespread complaint that Smith tended to neglect frictions in the economic system in his applications to trade policy, reasoning in terms of the immediate relevance of the long run. These are precisely the characteristics attributed to Ricardo – they constitute the so-called ‘Ricardian Vice’ – whose method is so often contrasted with Smithian ‘induction’. (*Ibid.*, p. 65)

It is well established that ‘Ricardo’s interest in political economy was first awakened by his taking up a copy of the *Wealth of Nations* by chance while on a visit to Bath in 1799’ (X, p. 35). He later recalled regular discussions on political economy with his friend Trower – ‘an agreeable subject for half an hour’s chat, when business did not engage us’ (X, p. 36) – but his first public contribution to economic debate came in 1809, when he published a series of articles on monetary questions in the *Morning Chronicle*.

These articles, and the pamphlet that emanated from them entitled *The High Price of Bullion. A Proof of the Depreciation of Banknotes*, brought his name to the attention of Malthus, James Mill and others with a longer-established interest in political economy and saw the start of a correspondence that would continue until Ricardo’s death thirteen years later. In the following years he published three more pamphlets, one of them the important 1815 *Essay on the Influence of a Low Price of Corn on the Profits of Stock*, which will be discussed in some detail in chapter 3 (see Hartwell 1971, pp. 22–8 for a very clear account of all Ricardo’s pamphlets).

The possibility of a book now arose. ‘In the late summer of 1815, Mill began to press for a treatise ... The letters now unfold the picture of a strict but kindly master dealing with a brilliant but unconfident and procrastinating pupil’ (Stigler 1953, p. 589). At first Ricardo was ambivalent, telling Trower in October that:

I have no other encouragement to pursue the study of Political Economy than the pleasure which the study itself affords me, for never shall I be so fortunate however correct my opinions may
become as to produce a work which shall procure me fame and distinction. I am determined however not to be daunted by common difficulties. (VI, p. 315)

However, he went on to say that he differed from both Smith and Malthus on the questions of rent, profit and wages, and foreshadowed the \textit{Principles}. ‘For my own satisfaction I shall certainly make the attempt, and perhaps with repeated revisions during a year or so I shall at last produce something that may be understood’ (V, p. 316).

He began work soon afterwards, and after repeated delays he delivered the final part of the manuscript to the printer in March 1817. Astonishingly, in an age when information technology was such that every word had to be typeset by hand in hot metal, it was published on 19 April of that year (X, pp. vii–xix). A second edition appeared in February 1819, with only minor changes, and the third and final edition in May 1821; this contained some very significant revisions, as we shall see in later chapters.

The \textit{Principles} ‘falls into roughly equal parts on theory, taxation, and the errors of other writers’ (Aldrich 2004, p. 384), principally Smith and Malthus. In the third (1821) edition there are 32 chapters which amount (in the Sraffa edition) to 429 pages. While the first seven chapters are devoted to theoretical questions (value, rent, wages, profits, foreign trade), and the next eleven chapters to taxation, the final fourteen chapters are a mélange, prompting two of Ricardo’s editors to propose alternative, more coherent chapter plans (see the Appendix to this chapter).

If the organization of the book leaves much to be desired, the same is true of its literary quality. It is generally agreed that Ricardo was no great stylist. He was not a professor of rhetoric, like Smith, nor a well-published historian, like Sismondi. As Gonner commented, the \textit{Principles} is ‘disfigured by blemishes and defects of very many kinds. Not only is it remarkable for infelicity of language, with all its fatal consequences of exaggeration and obscurity, but the grammar itself is halting and the accuracy often apparent, fallaciously apparent, rather than real’ (Gonner 1891 [1921], p. xxiv).

A further difficulty arises from the fact that the many formal models are set out in words, without the assistance of algebra or diagrams: Ricardo was a couple of generations too early for the widespread use of diagrammatic analysis in economics (on which see Blaug and Lloyd 2010). Instead he relies on a myriad of numerical examples – on my count there are 38 of them in the \textit{Principles} – which are not
always fully specified and often incompletely explained. It is not an easy read.

While he was completing the *Principles*, Ricardo published another pamphlet (his fourth), the 1816 *Proposals for an Economical and Secure Currency*. Four years later he wrote an entry on fiscal policy, entitled *Funding System*, for the *Encyclopaedia Britannica*, and in 1822 there appeared another pamphlet *On Protection of Agriculture*. At the time of his death Ricardo was working on *A Plan for the Establishment of a National Bank*, which was published posthumously in 1824.

Over the next century much of his published work was reprinted, including several editions of the *Principles* and some of his correspondence (see X, pp. 355–85, for a full bibliography). Then, to mark the centenary of his death, the Royal Economic Society decided to commission a complete edition of his *Works*. At first the economic historian T.E. Gregory from the London School of Economics was appointed as editor, but in 1930 the task was entrusted to Piero Sraffa, a young Italian émigré now based in Cambridge, and a protégé of John Maynard Keynes. Thus ‘Sraffa began working on Ricardo’s writings in 1930, and went on with it for over a quarter of a century’ (Roncaglia 2009, p. 35), in the process discovering a treasure trove of hitherto unknown manuscripts and letters:

For the final stages of the work, with pressure from the Royal Economic Society and the publisher mounting relentlessly, Sraffa was partnered in his labours by Maurice Dobb, a Marxist economist and one of his best friends ... At last, between 1951 and 1955, the now ten volumes of the *Works and Correspondence* of David Ricardo made their appearance, to be followed in 1973 by a painstakingly compiled volume of indexes. (*Ibid.*, pp. 35–6; see also Pollitt 1988)

Volume I is given over to the only variorum edition of the *Principles*, with comprehensive editorial notes by Sraffa. Volume II presents Ricardo’s critical notes on Malthus’s *Principles of Economics*, while volumes III and IV contain his pamphlets and unpublished manuscripts, including the important 1823 paper on *Absolute Value and Exchangeable Value*. Volume V (which runs to more than 500 pages) contains all Ricardo’s Parliamentary speeches and evidence to select committees, together with other speeches and related material.

His 1810–1823 correspondence occupies Volumes VI–IX, with 555 letters (259 from Ricardo and 296 addressed to him). The largest number involves Malthus (167 letters), followed by James Mill (107),
Ricardo’s stockbroker friend Hutches Trower (99), his young disciple J.R. McCulloch (76), and the controversial French economist J.B. Say (17). Volume X is a mine of biographical and bibliographical information, while the long-delayed volume XI contains an immensely detailed 114-page index and a handful of previously unpublished letters that were discovered after the appearance of the earlier volumes.

These eleven volumes are as close to being a definitive edition of Ricardo’s *Works* as anyone might ask for, though a few additional letters have come to light since then, largely due to the efforts of the Dutch economist and bibliophile Arnold Heertje (see Heertje 1991, 2007; Heertje, Polak and Weatherall 1985; Heertje and Weatherall 1978). A recently published letter sets out Ricardo’s views on bimetallism (Deleplace, Depoortière and Riecau 2013), and a few minor manuscripts have also been discovered (Asso and Barucci 1988; Corry 1957; Porta 1992; De Vivo 1996). But that is all.

As we shall see in chapter 8, considerable controversy has surrounded Sraffa’s interpretation of Ricardo’s core model, as set out in the 1815 *Essay* and, in a modified version, in the *Principles*. But the quality of his editorial work has never been questioned. This is the verdict of George Stigler, a free market liberal who stood at the opposite end of the political spectrum from the left-leaning Italian: ‘Sraffa’s *Ricardo* is a work of rare scholarship. The meticulous care, the constant good sense, and the erudition, make this a permanent model for such work’ (Stigler 1953, p. 586). ‘The editorial notes are superb’, Stigler continues. ‘They seem unbelievably omniscient; they are never obtrusive or pedantic; and they maintain unfailing neutrality. Their presence not only clarifies much of Ricardo’s work but also provides a vast fund of information on the economics of the period’ (*ibid.*, p. 587). Sraffa’s editorial work earned him the Söderstrom Medal of the Swedish Academy of Sciences (widely regarded as the forerunner of the Nobel Prize in economics) in 1961.

**Appendix: The *Principles***

Sraffa discusses the ordering of the material in the 32 chapters of the *Principles* at some length (I, pp. xxii–xxx). Two of Ricardo’s editors were sufficiently dissatisfied with it that they proposed the alternatives reproduced in Table 2.A1, taken from Gonner (1891 [1929], p. xxii) and Hartwell (1971, p. 15). Note that chapters 2, 21 and 31 feature twice in Hartwell’s list, and chapter 22 appears three times.
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<td>8–18, 22–6</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
3

Value and Distribution

3.1 Ricardo’s Problem

I have taken the title of this chapter from the book by Maurice Dobb (1973), which provides a very clear and largely non-sectarian account of Ricardo’s treatment of these fundamental issues of value and distribution. But Dobb has a Marxian story to tell, as we shall see in chapter 8, and it is perhaps for this reason that he places ‘value’ ahead of ‘distribution’. Ricardo himself did it the other way round. Consistent with his vision (see chapter 2), the distribution of the social product was the most important question for him, since it was the principal factor that determined the rate of economic growth.

The theory of value was important mainly because it was needed to provide an unobjectionable and unambiguous means of measuring the distributional magnitudes with which he was concerned. This is also reflected chronologically, in the order in which he dealt with these questions. So we shall start with distribution, and come to the theory of value only after we have dealt with Ricardo’s theory of profits (and rent, with which his theory of profits is inextricably intertwined) and his treatment of wages.

Ricardo’s priorities are set out clearly and explicitly in the ‘Preface’ to the Principles, where the first words that the reader encounters are these:

The produce of the earth – all that is derived from its surface by the united application of labour, machinery, and capital, is divided among three classes of the community; namely, the proprietor of the land, the owner of the stock or capital necessary for its cultivation, and the labourers by whose industry it is cultivated. (I, p. 5)
Ricardo’s focus on agriculture is already obvious: it is ‘the earth’ and its ‘cultivation’ with which he is primarily concerned. The ‘Preface’ continues in this vein:

But in different stages of society, the proportions of the whole produce of the earth which will be allotted to each of these classes, under the names of rent, profit, and wages, will be essentially different; depending mainly on the actual fertility of the soil, on the accumulation of capital and population, and on the skill, ingenuity, and instruments employed in agriculture.

To determine the laws which regulate this distribution, is the principal problem in Political Economy. (I, p. 5)

Surprisingly, Ricardo does not in the ‘Preface’ provide any justification for regarding distribution as the principal problem in political economy. One reason for viewing it as such was, however, set out in October 1820 in a famous letter to Malthus, where Ricardo reflected on what might be achieved by the science of economics:

Political Economy you think is an enquiry into the nature and causes of wealth – I think it should rather be called an enquiry into the laws which determine the division of the produce of industry among the classes who concur in its formation. No law can be laid down respecting quantity, but a tolerably correct one can be laid down respecting proportions. Every day I am more satisfied that the former enquiry is vain and delusive, and the latter only the true objects of the science. (VIII, pp. 278–9)

But there was an additional and even more important motive for Ricardo’s emphasis on distribution, which might well have been mentioned in the ‘Preface’ but for some reason was not, and was stated only in chapter 6 (‘On Profits’), where he now referred to industry in addition to agriculture. Economic growth, he argues, depends crucially on the rate of profit:

The farmer and manufacturer can no more live without profit, than the labourer without wages. Their motive for accumulation will diminish with every diminution of profit, and will cease altogether when their profits are so low as not to afford them an adequate compensation for their trouble, and the risk which they must necessarily encounter in employing their capital productively. (I, p. 122)
As a result of diminishing returns in agriculture, the ‘natural tendency’ is for the rate of profit to decline (I, p. 120). ‘Long indeed before’ it has fallen to zero, Ricardo maintained, ‘the very low rate of profits will have arrested all accumulation, and almost the whole produce of the country, after paying the labourers, will be the property of the owners of land and the receivers of tithes and taxes’ (I, pp. 120–1).

There were, however, some grounds for optimism:

This tendency, this gravitation as it were of profits, is happily checked at repeated intervals by the improvements in machinery, connected with the production of necessaries, as well as by discoveries in the science of agriculture which enable us to relinquish a proportion of the labour before required, and therefore to lower the price of the prime necessary of the labourer. (I, p. 120)

But the danger of a falling rate of profit was always present, and this carried a very significant political message:

However extensive a country may be where the land is of a poor quality, and where the importation of food is prohibited, the most moderate accumulations of capital will be attended with great reductions in the rate of profit, and a rapid rise in rent; and on the contrary a small but fertile country, particularly if it freely permits the importation of food, may accumulate a large stock of capital without any great diminution in the rate of profits, or any great increase in the rent of land. (I, p. 126)

For a ‘small but fertile’ country like England, free trade in food was thus the key to continued economic growth. This was the fundamental economic problem, he believed, not just for himself as a political economist but also for the nation.¹

3.2 Profits and Rent

These concerns were not evident in Ricardo’s earliest writings on political economy, which were devoted to monetary policy. Sraffa has shown that his interest in profits dates from August 1813, as revealed by two letters to Malthus (IV, pp. 3–8, citing VI, pp. 94–5). As G.L.S. Tucker notes, the precise origins of Ricardo’s new interest are not certain: ‘a number of economic problems arose in the first half of the year 1813, any one of which would have been sufficient to evoke Ricardo’s interest
in a theory of profits’ (Tucker 1954, p. 331). I suspect, though, that the crucial event was the Parliamentary debate on the Corn Laws that took place in June 1813, in the context of an expected bumper harvest and the inevitable sharp fall in the price of wheat.

At all events, he had conceived of the basic theory soon afterwards, probably by mid-August 1813 when he wrote to Malthus setting out the very first statement of his theory of the falling rate of profit. Ricardo conceded that the profit rate had been increasing ‘for a long period, during the interval you mention’ – probably the two decades 1793–1813 – ‘but it has been accompanied with such decided improvements of agriculture both here and abroad ... that it is perfectly reconcilable to my theory. My conclusion is that there has been a rapid increase of Capital which has been prevented from shewing itself in a low rate of interest by new facilities in the production of food’ (VI, pp. 94–5).

It is surprising, given his reference here to ‘such decided improvements of agriculture both here and abroad’ over the period 1793–1813, that Ricardo was so pessimistic about the prospect of such improvements continuing to occur in the future. This question will be discussed in chapter 5. He again emphasized the crucial role of agriculture in a letter to Trower in March 1814:

it is the profits of the farmer which regulate the profits of all other trades, – and as the profits of the farmer must necessarily decrease with every augmentation of Capital employed on the land, provided no improvements be at the same time made in husbandry, all other profits must diminish and therefore the rate of interest must fall. To this proposition Mr. Malthus does not agree. He thinks that ... the profits of the farmer no more regulate the profits of other trades, than the profits of other trades regulate the profits of the farmer. (VI, p. 104)

Strictly speaking, this is true only in an economy in which the agricultural sector is self-contained, in the sense that it uses no produced input other than its own output (corn), and there are no wage goods other than corn. This is the so-called ‘corn model’; Ricardo’s commitment to it will be discussed in chapter 8. It is, of course, not literally true, and – as we shall see later in this chapter – his growing interest in the theory of value seems to have been provoked by the need to extend the argument to the more realistic case in which agriculture is not entirely self-contained.
But he continued to assert the fundamental principle throughout 1814, insisting in a letter to Malthus in June that ‘[t]he rate of profits and of interest must depend on the proportion of production to the consumption necessary to such production, – this again essentially depends upon the cheapness of provisions, which is after all, whatever intervals we may be willing to allow, the great regulator of the wages of labour’ (VI, p. 108).

The difference between total output and ‘the consumption necessary to such production’ is the surplus product, which is also denoted (in chapter 26 of the *Principles*) as the ‘net revenue’ of society (I, p. 348). The ‘necessary consumption’ includes the goods that are consumed by the labourers, on the assumption that they are paid the long-run equilibrium or ‘natural’ wage. Ricardo’s theory of profits was thus ‘essentially a surplus theory, more clearly and explicitly than in the case of Adam Smith’s “deduction” theory’ (Dobb 1973, p. 69). (By ‘deduction theory’, Dobb meant the claim that profits and rent are deductions from the value created by labour). ‘As regards profits, Ricardo was very clear: “Profits come out of the surplus produce”. This he stressed time and again’ (Kurz 2011, p. 5, citing II, p. 128).²

The other beneficiary of the surplus product was the landlord. The classical theory of rent ‘as a price-determined surplus due to diminishing returns’ was stated ‘more or less simultaneously in 1815’ by four writers, with Adam Smith as a precursor: ‘as was so often the case, the basic building blocks were to be found in that great quarry the *Wealth of Nations*’ (O’Brien 2004, p. 146). Ricardo’s own theory was set out in detail in his *Essay on Profits*, which, as Sraffa notes, was written ‘within a few days’ in February 1815, immediately after the appearance of Malthus’s *Inquiry Into Rent* and pamphlets on rent by Edward West and Robert Torrens, all of which were published within three weeks of each other (IV, pp. 4–5).

This theory is commonly referred to as ‘the Ricardian theory of rent’, misleadingly so in that Ricardo was not the discoverer of it, though he did popularize it. According to this theory, ‘whatever diminishes the inequality in the produce obtained from successive portions of capital employed on the same or on new land, tends to lower rent; and that whatever increases that inequality, necessarily produces an opposite effect, and tends to raise it’ (I, p. 83). He alludes here to what later became known as the ‘intensive’ and ‘extensive’ margins of cultivation, the latter assuming uncultivated land to be less productive than already cultivated land.³
The discussion of profits and rent in the *Principles* draws heavily on the 1815 *Essay*. In the ‘Preface’ to the *Principles* Ricardo credited Malthus and West with the discovery of the theory of rent (I, p. 5). Sraffa observes that there is, in fact, no discussion of rent in any of Ricardo’s letters before Feb. 1815:

> for the previous two years in his letters he had been working out his theory of profits without ever finding it necessary explicitly to mention rent. Indeed, the theory of profits presented in the pamphlet adds little to what was already contained in his letters of 1813 and 1814, before his attention had been drawn to the connection between rent and profits. (IV, pp. 7–8)

As Maurice Dobb suggests:

> what seems to have happened is that Ricardo realized that the theory [of rent] as expounded by Malthus neatly complemented his own theory of profits … Ricardo, accordingly, can be said to have had the essential framework for a theory of rent, but had not yet actually fitted into it the notion of rent as a surplus, with the manner of its determination, until he had read Malthus’s pamphlet. (Dobb 1973, p. 68)

Ricardo was too early, by one or two generations, to use either mathematical models or diagrammatic illustrations. However, he was a pioneer in the use of intricate numerical examples to illustrate his theoretical arguments, as is apparent from even a cursory glance at the *Principles*. But numerical examples can also be found in his correspondence with Malthus, McCulloch and Mill, and – most strikingly – in his 1815 ‘Essay’, which contains a remarkable ‘TABLE, shewing the Progress of Rent and Profit under an assumed Augmentation of Capital’. This involves no fewer than 24 columns, and had to be printed in two separate sections on the page, with 16 and 8 columns respectively (IV, p. 17).

This table is much more elaborate than anything that can be found in the literature of economics before 1815; although there is no algebra, Ricardo does make use of arithmetic progressions, additions, subtractions and divisions. It is also easier to follow than the relevant numerical examples in the *Principles*, which are often difficult to interpret and contain errors in the arithmetic (Cannan 1893, pp. 322–31; Blaug 1995, pp. 118–21). So I shall use the 1815 table as the best available illustration of Ricardo’s theory of distribution, and the clearest model that he ever produced of his economic system as a whole.
The purpose of the table is very clear. Ricardo intends to show how, with given technology, capital accumulation in agriculture will increase rent and reduce profit, both as a share in output and eventually also in absolute terms, as well as reducing the rate of profit:

Thus by bringing successively land of a worse quality, or less favourably situated into cultivation, rent would rise on the land previously cultivated, and precisely in the same degree would profits fall; and if the smallness of profits do not check accumulation, there are hardly any limits to the rise of rent, and the fall of profit. (IV, p. 14)

It was difficult to predict the course of real wages over long periods of time, Ricardo conceded:

But I think it may be most satisfactorily proved, that in every society advancing in wealth and population, independently of the effect produced by liberal or scanty wages, general profits must fall, unless there be improvements in agriculture, or corn can be imported at a cheaper price. (IV, p. 23)

Thus the core of the Ricardian system is contained in this one numerical example, and he was justifiably proud of it. ‘This is a view of the effects of accumulation which is exceedingly curious’, he wrote, ‘and has I believe, never before been noticed’ (IV, p. 16). However, Ricardo is not consistent in his use of terms, and the example itself is not fully specified. Thus I have been forced to make some additional assumptions in order to present a complete and consistent version of his model – for this is what it is, even without any algebra or any diagrams – in Tables 3.1 and 3.2 below.

First there are some definitional issues. Ricardo is dealing with an agricultural sector that produces nothing but wheat (referred to, in the language of his time, as ‘corn’). All his numbers are expressed in physical terms, as ‘quarters of wheat’ (a ‘quarter’ of a hundredweight is 28 pounds, or approximately 12.5 kilograms). In modern terminology the gross product of agriculture is simply the total harvest. The net product is the difference between the gross product and the non-labour inputs that are required to produce it, and the surplus product is the difference between the net product and the wage bill of the agricultural labour force.

Confusingly, in the heading of the third column in his Table, Ricardo describes as the ‘neat produce’ – that which is left over ‘after paying the cost of production’ – what he elsewhere correctly describes as the
'surplus produce' (IV, pp. 11n, 15). To make matters worse, he provides numbers only for the surplus product, and not for either the gross product or the net product (that is to say, for column 6 in my Table 3.1, but not for columns 2 or 4).

Now Ricardo’s intention is to illustrate the effect of capital accumulation on the assumption that ‘no improvements take place in agriculture’, so that it is necessary that ‘more capital should be employed to obtain the same produce’ (IV, pp. 12, 13). The implication is that the gross product increases proportionately (from \(x\), to \(2x\), to \(3x\) …), while the capital employed increases more than proportionately (from 200, to 410, to 630 … in column 1, which reproduces Ricardo’s own numbers). I have set \(x = 200\), so that my numbers for the gross product in column 2 are consistent with Ricardo’s intentions; nothing of any consequence would change if some number other than 200 were selected instead.

The calculation of the net product is a little more complicated. For Ricardo the ‘cost of production’, which he also refers to as ‘the outgoings belonging to cultivation’ (IV, p. 10), can be broken down into fixed capital (‘such as buildings, implements, etc.’) (IV, p. 10) and circulating capital, which he seems to assume to consist entirely of wages; surprisingly he makes no mention of seed corn. He states that fixed capital and circulating capital are of equal value at the start of the process of accumulation, and I have assumed (in the absence of any statement to the contrary) that in some sense this equality remains when the total quantity of capital increases (from 200 to 410 … to 1880, as in column 1). But Ricardo is silent on this question.

There is a further problem. In his own calculation of the surplus product as that left over ‘after replacing the fixed and constant capital’ (IV, p. 10) Ricardo makes no allowance for the different turnover times of the two forms of capital. In Table 3.1 I have assumed that, while the entire circulating capital has to be replaced each year, only half of the fixed capital needs to be replaced, and have calculated the depreciation of fixed capital accordingly (in column 3): thus it is always equal to one quarter of the total capital employed. Once again, nothing of any consequence would change if I made different assumptions about the division between fixed and circulating capital, or about depreciation rates.

It is now possible to calculate the net product (in column 4) as the gross product minus depreciation. On the assumption that circulating capital consists only of wages, that it turns over once a year, and (more contentiously) that this is what Ricardo himself meant by equality in the value of fixed and circulating capital, the numbers for wages (column 5)
Table 3.1 Output, income and the profit rate

<table>
<thead>
<tr>
<th>Capital</th>
<th>Gross Product</th>
<th>Depreciation</th>
<th>Net Product</th>
<th>Wages</th>
<th>Surplus Product</th>
<th>Rent</th>
<th>Profits</th>
<th>Rate of Profit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
<td>(6)</td>
<td>(7)</td>
<td>(8)</td>
</tr>
<tr>
<td>200</td>
<td>200</td>
<td>50</td>
<td>150</td>
<td>50</td>
<td>100</td>
<td>0</td>
<td>100</td>
<td>50</td>
</tr>
<tr>
<td>410</td>
<td>400</td>
<td>105</td>
<td>295</td>
<td>105</td>
<td>190</td>
<td>14</td>
<td>176</td>
<td>43</td>
</tr>
<tr>
<td>630</td>
<td>600</td>
<td>165</td>
<td>435</td>
<td>165</td>
<td>270</td>
<td>42</td>
<td>228</td>
<td>36</td>
</tr>
<tr>
<td>860</td>
<td>800</td>
<td>230</td>
<td>570</td>
<td>230</td>
<td>340</td>
<td>81</td>
<td>259</td>
<td>30</td>
</tr>
<tr>
<td>1100</td>
<td>1000</td>
<td>300</td>
<td>700</td>
<td>300</td>
<td>400</td>
<td>125</td>
<td>275</td>
<td>25</td>
</tr>
<tr>
<td>1350</td>
<td>1200</td>
<td>375</td>
<td>825</td>
<td>375</td>
<td>450</td>
<td>180</td>
<td>270</td>
<td>20</td>
</tr>
<tr>
<td>1610</td>
<td>1400</td>
<td>455</td>
<td>945</td>
<td>455</td>
<td>490</td>
<td>248.5</td>
<td>241.5</td>
<td>15</td>
</tr>
<tr>
<td>1880</td>
<td>1600</td>
<td>540</td>
<td>1060</td>
<td>540</td>
<td>520</td>
<td>314.5</td>
<td>205.5</td>
<td>11</td>
</tr>
</tbody>
</table>

Note: the numbers in columns (1), (6), (7), (8) and (9) are Ricardo's; those in columns (2), (3), (4) and (5) are mine, and have been calculated on assumptions that are explained in the text; all except (9) are measured in quarters of wheat.
are simply calculated as equal to those for depreciation (column 3). The numbers for rent and profits (columns 7 and 8) are Ricardo’s own, as are those for the rate of profit on the capital employed (column 9).

Table 3.2 then shows the shares of wages, rent and profits in the net product, and the shares of rent and profits in the surplus product. These, to repeat, are my numbers, based on my interpretation of Ricardo’s incomplete and under-specified table. They show that the rent share of both the net product and the surplus product increases rapidly as capital is accumulated. The share of profits falls even faster, while the rate of profit declines continually. The wage share in the net product also increases steadily, while the real wage is assumed to remain constant.

If Ricardo himself had produced a diagrammatic illustration of his example it would probably have resembled Figure 3.1, which is a slightly modified version of the diagram drawn by Nicholas Kaldor, first in an entry for the *Chambers Encyclopedia* and then in a paper on alternative theories of distribution (Kaldor 1950, 1956). Here Ricardo’s ambiguous assumption of the ‘equal value’ of fixed and circulating capital is assumed to mean that fixed capital (‘buildings, implements, etc.’) and labour are employed in fixed proportions. Thus corn output per unit of the composite input, labour-and-capital, is measured on the vertical axis, and the quantity of labour-and-capital employed is measured on the horizontal axis.

It is further assumed that the quantity of labour-and-capital can be varied continuously, so that the average product (AP) and marginal

**Table 3.2 Shares in net product and in surplus product**

<table>
<thead>
<tr>
<th>Wage Share of Net Product (%) (= 5/4)</th>
<th>Rent Share of Net Product (%) (= 7/4)</th>
<th>Profit Share in Net Product (%) (= 8/4)</th>
<th>Rent Share of Surplus Product (%) (= 7/6)</th>
<th>Profit Share of Surplus Product (%) (= 8/6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>33.3</td>
<td>0</td>
<td>66.7</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>35.6</td>
<td>4.7</td>
<td>59.7</td>
<td>7.4</td>
<td>92.6</td>
</tr>
<tr>
<td>37.9</td>
<td>9.7</td>
<td>52.4</td>
<td>15.6</td>
<td>84.4</td>
</tr>
<tr>
<td>40.4</td>
<td>14.2</td>
<td>45.4</td>
<td>23.8</td>
<td>76.2</td>
</tr>
<tr>
<td>42.9</td>
<td>17.9</td>
<td>39.3</td>
<td>31.3</td>
<td>68.7</td>
</tr>
<tr>
<td>45.5</td>
<td>21.8</td>
<td>32.7</td>
<td>40</td>
<td>60</td>
</tr>
<tr>
<td>48.1</td>
<td>26.3</td>
<td>25.6</td>
<td>50.7</td>
<td>49.3</td>
</tr>
<tr>
<td>50.9</td>
<td>29.7</td>
<td>19.4</td>
<td>60.5</td>
<td>39.5</td>
</tr>
</tbody>
</table>
product \( (MP) \) curves are also continuous. It is important to note that these are Kaldor’s terms, which were \textit{not} used by Ricardo, and that Ricardo’s examples all have inputs and output increasing \textit{discontinuously}, in substantial steps. Total output is shown by the area under the \( MP \) curve; there are diminishing returns (another term \textit{not} employed by Ricardo), so that both \( AP \) and \( MP \) fall as more units of labour-and-capital are applied to a given area of land. Thus Kaldor’s diagram shows decreasing output per unit of input, unlike Ricardo’s table (and mine), which show increasing input per unit of output; the story is the same, but the illustrations are different.

Kaldor assumes that \( AP \) falls at an increasing rate, so that \( MP \) falls even faster; J.R. Hicks’s adaptation of Kaldor’s diagram has linear \( AP \) and \( MP \) curves (Hicks 1972, p. 161). When \( OL_1 \) units of labour-and-capital are employed, the average product is \( OK = AL_1 \). On the assumption that the real wage in terms of corn is constant at \( OW = E L_1 \), the total wage bill is shown by the rectangle \( OWE L_1 \).

Rent is the difference between the average product and the marginal product (which, as Kaldor points out, depends on the elasticity of the \( AP \) curve): total rent payments are therefore equal to the area \( HKAC \). Profit is a ‘residue’, and is shown by the area \( HWEC \). The shares of rent,

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure3.1.png}
\caption{Kaldor’s Ricardian diagram}
\end{figure}
profit and wages can be read off the y-axis: they are $HK (= AC)$, $WH (= CE)$ and $OW (= EL_1)$ respectively, each divided by $OK (= AL_1)$.

Capital accumulation proceeds, and employment increases, up to $OL_2$. At this point profit has fallen to $DF$ per unit, which is the minimum required to compensate the capitalists for their time and trouble (including the necessary risk premium), and accumulation ceases. In the resulting Ricardian ‘stationary state’, the shares of rent, profit and wages are equal to $JG (= BD)$, $GW (= DF)$ and $OW (= FL_2)$ respectively, all divided by $OJ (= BL_2)$.

The wage share must increase as the economy approaches the stationary state, since the real wage is constant and therefore takes up an increasing proportion of the declining average product. The shares of land and capital, taken together, must decline, but the course followed by the individual shares of rent and profit over time will depend on the precise shape of the $AP$ and $MP$ functions (see Marshall 1890, Appendix L; Davidson 1959; Blaug 1995, ch. 4).

This all cries out for a mathematical treatment. It duly received one, beginning with William Whewell in 1831 (Cochrane 1970) and John Tozer in 1838 (Gehrke 2000) and culminating in the work of Luigi Pasinetti (1960) and the intricate ‘canonical classical model’ of Paul Samuelson (1978). Indeed, Ricardo was ‘one of the inspirations for mathematical economic theory’ (Kurz 2006, p. xxiv).

But the implications of his analysis are clear enough, without any further formalization: ‘The general profits of stock depend wholly on the profits of the last portion of capital employed on the land’ (IV, p. 21; added stress). Social and political conflict is therefore inevitable, since ‘the interest of the landlord is always opposed to the interest of every other class in the community. His situation is never so prosperous, as when food is scarce and dear; whereas, all other persons are greatly benefited by procuring food cheap’ (IV, p. 21; cf. I, p. 335). Strictly speaking, this is true only if lower food prices result in higher real wages; Ricardo’s rather complicated attitude to this question will be discussed later in this chapter.

As he told Malthus in March 1815:

I see no limit to the fall in the corn value of goods but the impossibility of manufacturing them with any the least return of profit, and this will not happen until the landlord has appropriated to himself in the form of rent nearly the whole surplus produce of the land. It appears to me that the progress of wealth, whilst it encourages accumulation, has a natural tendency to produce this effect and is as certain as the principle of gravitation. (VI, pp. 203–4; added stress)
Hence there was a strong case for free trade in corn, which would benefit the whole of society, except for the landlords (IV, pp. 26–36). ‘I shall greatly regret’, Ricardo concludes, ‘that considerations for any particular class, are allowed to check the progress of the wealth and population of the country’. If the interests of the landlords justified protection, they should also justify the banning of agricultural improvements (IV, p. 41).

This was a rhetorical device that Ricardo often used. It is a variant of the classical reductio ad absurdum principle: if you are prepared to accept policy X, he would ask his opponents, why not also endorse the (much more obviously obnoxious) policy Y, which could be defended by the same argument? His views on agricultural improvements were actually more nuanced than his rhetoric might suggest. ‘They appear to me in their immediate effects to be beneficial to the farmer only, and not to the landlord’, he told Malthus in February 1815 (VI, p. 172). In the Essay he identifies them as one of three factors that might offset the tendency of the profit rate to fall, along with a reduction in real wages and the availability of new sources of cheap imported corn (IV, p. 22). He has very little to say about agricultural improvements, instead concentrating on the benefits of free trade.

In the Principles he pays much more attention to this question. Ricardo makes a very clear distinction between two types of technical progress in agriculture, which he believes to have quite different effects on profits and rent, at least in the short run: ‘those which increase the productive powers of the land, and those which enable us, by improving our machinery, to obtain its produce with less labour’ (I, p. 80). As examples of land-saving improvements, he cites more skilful crop rotation and better choice of manure, while labour-saving improvements include better ploughs and threshing machines, ‘economy in the use of horses employed in husbandry, and a better knowledge of the veterinary arts’ (I, p. 82).

He provides a numerical example of the way in which land-saving technical progress may reduce rent. Before the improvements are introduced, successive units of capital yield an output of 100, 90, 80 and 70; total output is thus 340, and rent is equal to 10 + 20 + 30 = 60 quarters of corn. After the land-saving improvements have been made, the output numbers change to 125, 115, 105 and 95, so that the least productive unit of capital will be withdrawn, giving an output of 125 + 115 + 105 = 345 and reducing rent to 10 + 20 = 30 (I, pp. 81–2).

The underlying principle, Ricardo concludes, is ‘that whatever diminishes the inequality in the produce obtained from successive portions of capital employed on the same or on new land’ – he alludes here to what
would later become known as the ‘intensive’ and ‘extensive’ margins of cultivation – ‘tends to lower rent; and that whatever increases that inequality, necessarily produces an opposite effect, and tends to raise it’ (I, p. 83). The implication is that labour-saving improvements are in the second category, though Ricardo does not offer any substantial arguments in favour of this conclusion.

Both types of innovation will benefit the landlords in the longer term, as he concedes in a footnote added to the third edition:

I hope I am not understood as undervaluing the importance of all sorts of improvements in agriculture to landlords – their immediate effect is to lower rent; but as they give a great stimulus to population, and at the same time enable us to cultivate poorer lands, with less labour, they are ultimately of immense advantage to landlords. A period however must elapse, during which they are positively injurious to him. (I, p. 81n)

He repeats this conclusion in chapter 24 (‘Adam Smith on Rent’): ‘all extraordinary profits are in their nature but of limited duration, as the whole surplus produce of the soil, after deducting from it only such moderate profits as are sufficient to encourage accumulation, must finally rest with the landlord’ (I, p. 335).

3.3 Wages

As we have seen, there is a brief discussion of wages in the Essay, where Ricardo lists a ‘fall of the real wages of labour’ as one of three factors that might lead to an increase in the rate of profit. The course of real wages over time depends on the relative growth rates of capital and labour, and on this important question his conclusion is neutral: ‘As experience demonstrates that capital and population alternately take the lead, and wages in consequence are liberal or scanty, nothing can be positively laid down, respecting profits, so far as wages are concerned’ (V, p. 23).

Around this time he was corresponding with Malthus on the issue, and in May 1815 he denounced the as yet unformulated productivity theory of wages in the most forthright manner: ‘Wages do not depend upon the quantity of a commodity which a day’s labour will produce’ (VI, p. 226). Instead, he told Malthus in October 1816, ‘wages depend on demand and supply of labour, and on the cost of the necessaries on which wages are expended. These two causes may be operating on profits at the same time, either in the same, or in an opposite direction’ (VII, p. 72).
By now Ricardo was in the process of writing the *Principles*, in which he paid much more attention to the theory of wages. It was a very important question for the integrity of his entire model, since his ability to distinguish clearly between the net product and the surplus product hinged on the assumption that the real wage was fixed. If the real wage were allowed to vary, the definition of the surplus product would become unclear. To avoid this problem, it would be necessary to allow workers to share in the surplus (as in Sraffa 1960, pp. 9–10), and the clear-cut conclusions that Ricardo drew from his analysis, concerning the prospects for growth and the incidence of taxation, would be cast into doubt.

This is why wages are discussed at some length in the *Principles* in chapter 5 (‘On Wages’). Ricardo begins by defining the ‘natural price’ of labour, which ‘is that price which is necessary to enable the labourers, one with another, to subsist and to perpetuate their race, without either increase or diminution’. It ‘depends on the price of the food, necessaries and conveniences required for the support of the labourer and his family’ (I, p. 93). The natural price must be distinguished from the ‘market price of labour’, which depends on supply and demand: ‘labour is dear when it is scarce, and cheap when it is plentiful. However much the market price of labour may deviate from its natural price’, Ricardo continues, ‘it has, like commodities, a tendency to conform to it’ (I, p. 94). This last statement is soon qualified, as we shall see.

Although Ricardo defines the natural price of labour as that which is just sufficient to maintain a constant population, he is clear that it is not a physiological minimum:

> It is not to be understood that the natural price of labour, estimated even in food and necessaries, is absolutely fixed and constant. It varies at different times in the same country, and very materially differs in different countries. It essentially depends on the habits and customs of the people ... Many of the conveniences now enjoyed in an English cottage, would have been thought luxuries at an earlier period of our history. (I, pp. 96–7)

The same point had been made by Adam Smith in the *Wealth of Nations* (Smith 1776, ch. VIII).

Ricardo then repeats his argument from the *Essay*: the actual course of real wages over time depends on the relationship between the growth of capital and the growth of the population. This is a proposition concerning long-run developments, and should not be interpreted as a
commitment on Ricardo’s part to the ‘wages fund’ doctrine (on which see Vint 1994, pp. 50–7, 60–1, 250–1):

Notwithstanding the tendency of wages to conform to their natural rate, their market rate may, in an improving society, for an indefinite period, be constantly above it; for no sooner may the impulse, which an increased capital gives to a new demand for labour be obeyed, than another increase of capital may produce the same effect; and thus, if the increase of capital be gradual and constant, the demand for labour may give a continued stimulus to an increase of people. (I, pp. 94–5)

Thus there is some prospect of a permanent increase in real wages, if there is an improvement in the ‘habits and customs’ of the population:

The friends of humanity cannot but wish that in all countries the labouring classes should have a taste for comforts and enjoyments, and that they should be stimulated by all legal means in their exertions to procure them. There cannot be a better security against a superabundant population. (I, p. 100)

In chapter 32 (‘Malthus on Rent’), however, Ricardo shows himself to be rather less optimistic. An increase in real wages will probably induce an increase in population, he maintains. The labourer may decide to increase his consumption of

any commodities that may contribute to his enjoyments – chairs, tables, and hardware; or better clothes, sugar, and tobacco … But although this might be the consequence of high wages, yet so great are the delights of domestic society, that in practice it is invariably found that an increase of population follows the amended condition of the labourer. (I, pp. 406–7)

This passage, as Hutchison rather unkindly suggests, ‘exemplifies the rather baffling amalgam of ambiguity, pessimism, and pious hopes to be found in Ricardo’s remarks on the prospects for wages’ (Hutchison 1952, p. 420 n2).

Interestingly, Ricardo nowhere mentions the widespread occurrence of food riots in contemporary England. These violent popular protests against the high price of bread suggest that real wages did indeed fall in times of bad harvests, so that much of the short-term impact fell on
labour, not on capitalists or landlords (Bohstedt 2010). His analysis in chapter 16 (‘Taxes on Wages’) rests on the assumption that real wages cannot be reduced, at least not by government impositions, so that ‘a tax on wages is wholly a tax on profits’ (I, p. 215).

Ricardo attributes the same position to Adam Smith, who ‘uniformly, and I think justly, contends, that the labouring classes cannot materially contribute to the burdens of the State. A tax on necessaries, or on wages, will therefore be shifted from the poor to the rich’ (I, p. 235). Although Ricardo does not say so, this reinforces his conclusion that free trade in corn would benefit capital more than labour. Long after his death, the anti-Corn Law campaigners of the 1840s would be embarrassed when precisely this argument was used against them (Pickering and Tyrrell 2000, ch. 7).

Similar issues arose in the 1970s:

The wage used to be untaxable because of the classical population supply mechanism. That meant that the finance of government had to be derived from profits and rent. The population supply mechanism is now generally regarded as obsolete, but sufficiently powerful trade unions which seek to preserve the real level of workers’ private consumption, however high taxes become, can have precisely the same effect. If workers have the power to pass on extra taxation beyond a certain point, any extra growth of government expenditure can only occur at the expense of luxury consumption by non-workers, or on capital investment, or on the balance of payments. That essentially is what Smith [and Ricardo] might have said. (Eltis 1984, pp. 337–8)

By the second decade of the twenty-first century, however, this was no longer a problem, since unions had been greatly weakened throughout the capitalist world and the ‘natural price’ of labour had long ceased to be inflexible downwards. Real wages of non-managerial male employees in the United States, for example, were lower in 2012 than they had been forty years earlier (Stiglitz 2012).

3.4 The Theory of Value

As we have seen, Ricardo’s theory of value was ‘subservient to his distribution theory’ (O’Brien 2004, p. 102). The Principles, however, begins with the chapter ‘On Value’, which thus precedes the discussion of distribution in chapter 2 (‘On Rent’), chapter 5 (‘On Wages’) and
chapter 6 (‘On Profits’). In organizing his material in this way Ricardo may simply have been following Adam Smith, who in the Wealth of Nations also placed his discussion of value ahead of distribution (Smith 1776, chs. V–VII, VIII–XI). Or he might have decided to deal first with what he increasingly found to be the most difficult and intellectually challenging topic, which undoubtedly was the theory of value.

Whatever the reason for the order of the chapters, distribution was indeed ‘chronologically previous’ in Ricardo’s work to the question of value (Levine 1977, p. 83). There is a brief reference to the issue in an early letter to James Mill, written in September 1811, where Ricardo insists, against Mill, that ‘value’ and ‘price’ are words with very different meanings: ‘You have no where defined the word value. It has a very different meaning from the word price and yet I think you have often used th[ese words] as synonymous’ (VI, p. 54). But he does not elaborate.

Four years later, in August 1815, he wrote to J.B. Say, criticizing the Frenchman’s utility theory of value: ‘Utility is certainly the foundation of value, but the degree of utility can never be the measure by which to estimate value ... A commodity must be useful to have value but the difficulty of its production is the true measure of its value. For this reason Iron though more useful is of less value than gold’ (VI, pp. 247–8). This is what later came to be known as the ‘paradox of value’, to which Adam Smith had first drawn attention with his example of water and diamonds (Smith 1776, ch. 4).

For the most part, however, in his early work Ricardo used the ‘corn model’ to evade the question of value. As late as November 1815, he is ‘still considering the writing of his Principles without a systematic treatment of the value problem’, so that ‘the stumbling-block in the development of Ricardo’s theory of value was not the discovery of the law of value itself but the discovery of the need for a theory of value’, which came six years after he had begun to write on economic matters (Levine 1977, p. 87). It was, as Dobb suggests:

in the course of generalising his primitive ‘agricultural’ theory of profit that Ricardo saw the need to base his theory on a developed theory of value ... as soon as he was obliged to defend (against Malthus, for example) the view that profits elsewhere were governed by the rate of surplus product in agriculture, he had to introduce a theory of value to show how the prices of those other commodities moved (if at all) when the cost in labour of corn increased ... In using the Labour Theory of value for this purpose, Ricardo in effect was
substituting Labour for Corn as the quantity in terms of which product, wages and surplus were alike expressed. (Dobb 1973, pp. 73–4; original stress)

Terry Peach suggests that ‘Ricardo seems to have first adopted an unmodified “labour theory” in early 1816’, when he had still not thought through the issues that were involved. ‘It seems likely that the first chapter of the Principles, “On Value”, together with several other chapters, were drafted before Ricardo became aware of the modifying influence on the labour theory associated with different “capital structures”’, which he discovered ‘only at a comparatively late stage in the writing of the Principles’ (Peach 1993, pp. 27, 28).

Ricardo continued to worry about these problems after the appearance of the Principles, as is revealed by his correspondence, by several manuscripts on value that remained unpublished during his lifetime, and by the revisions that he made to chapter 1 in the second and (especially) the third editions of the Principles, which were published in 1819 and 1821 respectively. The discussion that follows is based on the third edition, in which the treatment of the theory of value was either only slightly different from that in the first edition (according to Sraffa: I, pp. xxx–xlix), or was changed quite substantially (according to Peach 1993, pp. 28–32).5

Despite its rather complicated origins the exposition of Ricardo’s value theory in the third edition of the Principles is in fact very clear, though (as we shall) see the organization of the argument does leave a lot to be desired, with important points being made haphazardly in a variety of chapters. The theory itself is well summarized by Denis O’Brien:

Two things are indisputable about Ricardo’s value theory: that a primary role was given to labor; and that recognition was given to the complications caused by capital ... In fact the problem of capital manifested itself in four different forms. Firstly, there were straightforward differences in the amounts of fixed and circulating capital and hence (since the latter largely represented wage payments) in capital/labor ratios. Secondly, there was the unequal durability of fixed capital. Thirdly, there were variations in the length of time before a product could be brought to market. Finally, there were differences in the rapidity with which capital was returned to the employer. These last two are particularly important to note. The former is the period of production and the latter the turnover rate of capital. Ricardo in fact saw quite clearly that all of these differences between commodities reduced to the common problem of time. (O’Brien 2004, p. 100)
The *Principles* begins with Smith’s distinction between ‘value in use’ and ‘value in exchange’ and the paradox of value that Ricardo had already identified in the previously quoted letter to Say. He changes the examples: water and air are very useful but have no exchange value, while gold, ‘though of little use compared with air or water, will exchange for a great quantity of other goods’. There is a very important consequence: ‘Utility then is not the measure of exchangeable value, although it is absolutely essential to it’ (I, p. 11). This is the first page of text. In the final sentence of the very last page of the book, Ricardo adduces an additional objection to any utility theory of value: ‘value in use cannot be measured by any known standard; it is differently estimated by different persons’ (I, p. 429).

What, then, does determine value? On the assumption that they do possess utility, Ricardo continues, ‘commodities derive their exchangeable value from two sources: from their scarcity, and from the quantity of labour required to obtain them’. The value of a small minority of commodities ‘is determined by their scarcity alone’: these are goods that are not freely reproducible, such as ‘rare statues and pictures, scarce books and coins, wines of a peculiar quality, which can be made only from grapes grown on a particular soil, of which there is only a very limited quantity’.

But these are exceptional cases. The great majority of commodities can be freely reproduced ‘almost without any assignable limit’ by the employment of human labour, and it is only to these commodities, ‘on the production of which competition operates without constraint’, that Ricardo intends his theory of value to apply (I, p. 12).

At this early stage in the argument he might well have made three additional points, which come only in later chapters. First, in chapter 4 (‘On Natural and Market Price’), Ricardo identifies labour as ‘the foundation of the value of commodities’ and ‘the comparative quantity of labour which is necessary to their production’ as ‘the rule which determines the respective quantities of goods which shall be given in exchange for each other’. This must be distinguished from ‘the accidental and temporary deviations of the actual or market price of commodities from this, their primary and natural price’. Such ‘deviations’ are invariably ‘temporary’, he argues, owing to ‘the restless desire on the part of all the employers of stock, to quit a less profitable for a more advantageous business’, which ‘has a strong tendency to equalize the rate of profits for all’, and to ensure that any difference between market and natural price will soon be eliminated (I, p. 88).

Second, in chapter 30 (‘On the Influence of Demand and Supply on Prices’), he applies the same argument to show that ‘the proportion between supply and demand may, indeed, for a time, affect the market
value of a commodity ... but this effect will be of only temporary dura-
tion’ (I, p. 382). Say and Lauderdale had advocated a general supply-
and-demand theory of price, without realizing that it was only ‘true of
monopolized commodities, and indeed of the market price of all other
commodities for a limited period’, but not permanently for goods pro-
duced under conditions of free competition (I, p. 384). Third, in chapter 5
(‘On Wages’), Ricardo notes that these principles do not apply to human
labour, which is not produced for profit, and for which the market price
may therefore exceed the natural price ‘for an indefinite period’ (I, p. 95).

Returning to chapter 1, Ricardo cites Adam Smith on ‘the early stages
of society’, where the exchange value of one commodity for another
‘depends almost exclusively on the comparative quantity of labour
expended on each’ (I, p. 12). He then devotes the rest of section I of
the chapter to criticizing Smith for proposing the quantity of labour
commanded as an alternative to the quantity of labour embodied as the

Ricardo continues by considering the complications that have to be
taken into account, outside the ‘early stages of society’. The first of them
is also the least troublesome: in section II he notes the existence of wage
differentials for labour of different qualities but argues that they can
be ignored, since inequalities in skill and pay change only very slowly,
if at all, and ‘therefore, can have little effect, for short periods, on the
relative value of commodities’ (I, p. 22).

The next complicating factor is much less easy to dismiss. It is sum-
marized in the heading of section III: ‘Not only the labour applied
immediately to commodities affects their values, but the labour also
which is bestowed on the implements, tools, and buildings, with which
such labour is assisted’ (I, p. 22). This is a problem even in Smith’s
early state of society, where the implements and tools used by hunters
and fishermen vary slightly in value, inducing Ricardo to refer for the
first time to the desirability of finding an ‘invariable standard’ of value
(I, p. 29). It is much more serious in industrial societies, as indicated
by the title of section IV of chapter I: ‘The principle that the quantity
of labour bestowed on the production of commodities regulates their
relative value, considerably modified by the employment of machinery
and other fixed and durable capital’.

Ricardo now maintains that differences in the proportions of fixed
and circulating capital, and in the durability of both forms of capi-
tal, constitute ‘another cause’ of variations in value (I, p. 30). Note
that Ricardo now refers to value in terms not of relative values but of
changes in relative values. Cassels (1935) argues that this was all that he
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needed to support his theory of distribution. By way of example Ricardo compares the operations of brewers with the work of shoemakers, who use respectively very much and very little fixed capital; and he contrasts farmers and bakers to illustrate differences in the turnover periods of circulating capital (I, pp. 30–4).

He then sets out the first numerical example in the *Principles* to demonstrate that the quantitative significance of these differences in capital structure is rather small. Ricardo concedes that if wages increase, and the rate of profit therefore falls, relative values will change without any alteration in the amounts of labour required to produce (or embodied in) the various commodities. But this is not a matter of huge importance. ‘The greatest effects which could be produced on the relative prices of these goods from a rise of wages’, he contends, ‘could not exceed 6 or 7 per cent’ (I, p. 36).

This is the celebrated assertion of a ‘93 per cent labour theory of value’ (Stigler 1958). Unfortunately for Ricardo, the numbers stack up only under the particular restrictive assumptions of his own numerical example. Coleman (1990) demonstrates that Ricardo’s argument for the 93% labour theory of value holds only if the ratio of indirect to direct labour inputs in manufactures is equal to one, while O’Brien’s (2004, pp. 100–1) algebraic model reveals an 80% labour theory to be no less plausible than ‘Ricardo’s guess’ of 93%.

‘For many’, Dobb acknowledges,

this reference to a second ‘cause of value ... appears as evidence of a contradiction and of a shift away from a ‘primitive’ theory with which he started at the time of the *Essay* towards something like a Cost of Production Theory such as it was to become later in the century, not in essentials different from Adam Smith’s theory of the ‘component parts of price’. (Dobb 1973, p. 80)

However, Ricardo himself strongly denied this, claiming instead that his analysis had undermined Smith’s ‘Adding-Up Theory’ of value. ‘In the course of writing the *Principles*’, Dobb notes,

he emphasized, in a letter to James Mill, the ‘curious’ effect of a rise of wages upon prices: namely that, contrary to raising prices generally, as the Smithian corollary supposed, it would cause the prices of commodities ‘which are chiefly obtained by the aid of machinery and fixed capital’ to fall. (Dobb 1975, p. 329, original stress; the reference, not given by Dobb, is to VII, p. 82)
A similar point is made, without any reference to Smith, at the end of section V (I, p. 43).

Ricardo's explicit attack on the ‘Adding-Up Theory’ comes in section VI, ‘On an invariable measure of value’, where he denies Smith’s contention that a rise in wages would increase the price of all commodities. ‘On the contrary’, Ricardo claims, ‘if wages fell, those commodities only would fall in value, which had a less proportion of fixed capital employed upon them, than the medium in which price was estimated; all those which had more, would positively rise in price’ (I, p. 46).

In chapter 2, ‘On Rent’, Ricardo provides a second reason for denying the Adding-Up Theory. In modern terminology, rent is price-determined and not (as the Adding-Up Theory requires) price-determining. In Ricardo’s own words, ‘Corn is not high because a rent is paid, but a rent is paid because corn is high’ (I, p. 74). Since ‘rent is not a component part of the price of commodities’, he concludes, Smith was wrong to suppose that the labour theory of value ‘can be at all altered by the appropriation of land and the payment of rent’ (I, p. 78).

O’Brien regards the invariable measure of value as ‘the most important part of Ricardo’s value theory’ (2004, p. 102). In sections VI and VII of chapter 1 Ricardo does his best to establish the merits of using gold as a measure of value. The problem is this:

When commodities varied in relative value, it would be desirable to have the means of ascertaining which of them fell and which rose in real value, and this could be effected only by comparing them one after another with some invariable standard measure of value, which should itself be subject to none of the fluctuations to which other commodities are exposed. Of such a measure it is impossible to be possessed, because there is no commodity which is not itself exposed to the same variations as the things, the value of which is to be ascertained. (I, pp. 43–4; added stress)

Take gold as an example. Even if the conditions of production in gold mining change only very slowly, as he asserts to be the case in chapter 3, ‘On the Rent of Mines’ (I, pp. 86–7), Ricardo concedes that:

still gold would not be a perfect measure of value ... because it would not be produced with precisely the same combinations of fixed and circulating capital as all other things; nor with fixed capital of the same durability; nor would it require precisely the same length of time, before it could be brought to market. (I, p. 45)
But, he continues, the quantitative effects of these differences are quite small. In the circumstances, gold is no worse a candidate than any other commodity to be chosen as a measure of value, and better than most. In choosing gold, ‘we shall probably possess as near an approximation to a standard measure of value as can be theoretically conceived’ (I, p. 45; see O’Brien 2004, pp. 102–3, for a very critical assessment).

Even after the publication of the third edition, ‘while there was no shift in his standpoint on “the real foundation of exchangeable value”, hesitation and doubt become increasingly evident’ in Ricardo’s search for an invariable standard of value (Dobb 1973, p. 82). This is reflected in the two manuscripts on *Absolute Value and Exchangeable Value*, written in August–September 1823 (IV, 361–412); in the short critical manuscript on Malthus dating from April–May of the same year that was unaccountably omitted from the *Collected Works* and published later under the editorship of Pier Luigi Porta (1992); and in several letters to Malthus, also written in the last months of his life, in which Ricardo stated his doubts and reaffirmed his conclusion that there was no simple solution to the problem of value.

He criticized Malthus for advocating a simple labour theory of value and ignoring the complications posed by time. In July 1823, for example, he wrote:

> If all things required precisely the same quantities of capital and labour, and for the same length of time, to produce them, any one of them would be an accurate measure of the rest; but this is not the case; the conditions admit of infinite variety, and therefore whichever we choose it can only be an approximation to truth, and we are bound to give good reasons for preferring it. (IX, pp. 393–4; added stress)

And again, in the following month, he admitted that value was ‘the most difficult question in Political Economy. All I have hitherto done is to convince myself more and more of the extreme difficulty of finding an unobjectionable measure of value’ (IX, p. 325). ‘The fact really is that no accurate measure of absolute value can be found. No one doubts the desirability of having one, but all we can ever hope to get is one tolerably well calculated to measure the greatest number of commodities’ (IX, p. 346).

The last letter in this series contains the famous, oft-quoted reference to their friendship: ‘And now my dear Malthus I have done. Like other disputants after much discussion we each retain our own opinions. These discussions however never influence our friendship; I should not like you more than I do if you agreed in opinion with me’ (IX, p. 382).
It was not quite Ricardo's last word on the subject of value. On 5 September he wrote to James Mill, repeating his admission of defeat on the invariable standard of value – 'they are all imperfect measures' (IX, p. 386) – and criticizing Mill's young son John, who, in his attempt to defend the labour theory of value, 'does not allow for profits increasing at a compound rate ... I see the same difficulties as before and am more confirmed than ever that strictly speaking there is not in nature any correct measure of value nor can any ingenuity suggest one' (IX, p. 387). This was Ricardo's very last letter.

It bears repeating that he never wavered either in his rejection of supply-and-demand and utility-based theories of value, in his insistence on the priority of 'natural prices' over 'market prices', or in his repudiation of Adam Smith's Adding-Up Theory. Ricardo remained committed to the labour theory of value, though whether this reflected an *a priori* commitment to the theory as strong as that of Karl Marx, or simply the lack of any convincing alternative, is an open question.

Some very important analytical issues are involved here, but it is also important not to lose sight of the big picture, which is why Ricardo became involved with the theory of value in the first place. As we have seen, his primary theoretical interest was in the distribution of the social product, which he believed to be central to the future of the British economy. This was why he needed to know how best to measure economic variables, and how to distinguish the effects of changes in different parameters. All this was bound up with practical questions of economic policy, including the incidence of taxation, the correct approach to monetary policy, and also the case for free trade, to which we now turn.
As we saw in chapter 3, for Ricardo the most important economic variable was the rate of profit, on which the accumulation of capital and the growth of output depended. Anything that maintained or increased the rate of profit was to be encouraged; anything that dragged it down had to be opposed. His writings on international trade are dominated by this one problem. Once again he reveals himself to be above all a practical economist.

This is not to say, of course, that he backed away from abstract theoretical analysis. On the contrary, his model of comparative advantage has attracted the attention of all the most eminent economic theorists of the last two centuries; it is ‘the deepest and most beautiful result in all of economics’ (Findlay 1987, p. 574). Yet it remains both contentious and rather enigmatic, as we shall see in section 4.1. His views on agricultural protection, the future of the Corn Laws, and on free trade more generally are much more straightforward; they are the subject of section 4.2.

Ricardo is often criticized for having neglected some of the most important issues in international trade. It is alleged that he presented a static rather than a dynamic model, neglected the role of absolute as opposed to comparative advantage, made unrealistic assumptions about the international immobility of labour and capital, and failed to pursue the crucial question of the distribution of the gains from trade. These charges are considered in section 4.3.

Criticism has also been levied at Ricardo’s treatment of the political dimensions of international trade, which are the subject of section 4.4. Many of these questions continue to resonate in the twenty-first century, as will be demonstrated in section 4.5, where Ricardo’s views on trade are related to current controversies over globalization, unequal
exchange and Third World poverty, and the existence of different ‘varieties of capitalism’.

4.1 The Theory of Comparative Advantage

If Ricardo is remembered today for anything at all, it is for his theory of comparative advantage. As Arghiri Emmanuel wrote some forty years ago, with only slight exaggeration:

When we look back over the history of economic doctrines during the last 150 years or so, we are struck by the brilliant race that has been run by the theory of comparative costs. In a branch of learning in which hardly anyone agrees with anyone else, in space or time; in which practically nothing is generally accepted and each generation of scholars changes academic truths into paradoxes and paradoxes into classical rules; in which everything is various and contradictory, up to and including the categories and concepts employed, so that even discussion itself becomes impossible for lack of a common language – David Ricardo’s famous proposition emerges from the fray as a truth that is unshakable, if not in its applicability and scope, at least in its foundations.

The sternest of detractors, the Austrians, the marginalists, have called everything in question in Ricardo’s work and demolished it – with the exception of the chapter on foreign trade. (Emmanuel 1972, p. xi)

The example of comparative advantage that Ricardo sets out in chapter 7 of the Principles (I, pp. 135–6) must be the most frequently reproduced numerical example in the entire history of economics. Yet it occupies little more than a page of the 22-page chapter (itself less than 5% of the book), which is for the most part devoted to quite different questions, and its interpretation continues to be a matter of some controversy.

To begin at the beginning: Ricardo starts chapter 7 of the Principles by drawing a very clear distinction between factors that improve ‘the happiness of mankind’ and those that increase the rate of profit. The higher level of imports resulting from an extension of international trade will increase the quantity of goods available to consumers and thereby promote human happiness (recall from chapter 2 that Ricardo identifies an expansion in total output with a larger sum of aggregate utility). This comes about through ‘the better distribution of labour, by each country producing those commodities for which by its situation, its climate,
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and its other natural or artificial advantages, it is adapted, and by their exchanging them for the commodities of other countries’ (I, p. 132).

In this respect, Ricardo maintains, the growth of international trade has very similar consequences to the introduction of new and better machinery. But it will increase the rate of profit only under certain specific circumstances: only, in fact, if the imported commodities are wage goods. The same is true, he continues, of increased trade between different regions of the same country (I, p. 133). An increase in imports of luxury goods will add to the utility of the (relatively wealthy) consumers, and thus increase the sum of human happiness, but it will have no effect on the rate of profit.

Ricardo now changes tack. The theory of value, he argues, has to be amended once foreign trade is allowed for: ‘The same rule which regulates the relative value of commodities in one country, does not regulate the relative value of the commodities exchanged between two or more countries’ (I, p. 133). He begins with a three-commodity, five-country example in which France and Portugal produce wine, the United States and Poland produce corn, and England concentrates on ‘hardware and other goods’ (I, p. 134).

Then he shifts to the example that has become so famous, with Portugal producing wine and England producing cloth. It deserves to be quoted in full:

England may be so circumstanced, that to produce the cloth may require the labour of 100 men for one year; and if she attempted to make the wine, it might require the labour of 120 men for the same time. England would therefore find it in her interest to import wine, and to purchase it by the exportation of cloth.

To produce the wine in Portugal, might require only the labour of 80 men for one year, and to produce the cloth in the same country, might require the labour of 90 men for the same time. It would therefore be advantageous for her to export wine in exchange for cloth. This exchange might even take place, notwithstanding that the commodity imported by Portugal could be produced there with less labour than in England. Though she could make the cloth with the labour of 90 men, she would import it from a country where it required the labour of 100 men to produce it, because it would be advantageous to her rather to employ her capital in the production of wine, for which she would obtain more cloth from England, than she could produce by diverting a portion of her capital from the cultivation of vines to the production of cloth.
Thus England would give the produce of the labour of 100 men, for the produce of the labour of 80. Such an exchange could not take place between the individuals of the same country. The labour of 100 Englishmen cannot be given for that of 80 Englishmen, but the produce of the labour of 100 Englishmen may be given for the produce of the labour of 80 Portuguese, 60 Russians, or 120 East Indians. (I, p. 135)

This is so, Ricardo continues, because capital is not as freely mobile between countries as it is within an individual nation. If it were, English capital would move to Portugal (or Russia), and neither wine nor cloth would be produced in England. Less than halfway into chapter 7, Ricardo changes tack again and shifts the focus of his discussion to the monetary implications of international trade (I, pp. 137–49).

There are some additional references to trade issues in later chapters (Maneschi 1992a, 1998). In chapter 19, ‘On Sudden Changes in the Channels of Trade’, Ricardo writes on the effects of a protracted war on international trade. Domestic agriculture expands to replace imports, so that there is substantial hardship when peace returns, and a case can be made for a temporary (and steadily declining) tax on imports to soften the necessary adjustment process (I, pp. 266–8, 272).

Then, in chapter 22, which is devoted to export subsidies and import prohibitions, he makes some very strong pronouncements about the way in which free trade benefits everyone except the landlords (for example I, pp. 314, 317). These are repeated in chapter 24, a critique of Adam Smith on rent, which contains the oft-quoted statement that ‘the interest of the landlord is always opposed to that of the consumer and manufacturer’ (I, p. 335). There are some brief references to trade in chapters 28, 31 and 32, while the content of the short but important chapter 25 (‘On Colonial Trade’) will be analysed in section 4.4.

But none of this adds very much to the brief but incisive analysis of the first half of chapter 7, and the same may be said of the references to international trade in Ricardo’s other writings and in his Parliamentary speeches. Thus trade theory, narrowly defined, accounts for little more than 2% of the Principles: 10 pages out of 429. Moreover, Ricardo seems never to have referred again to the principle of comparative advantage; certainly the ‘principle never appears in any of the other numerous references to trade in his book’ (Maneschi 1998, p. 54).

There is, none the less, an extensive critical literature on Ricardian comparative advantage. Before we can assess this literature, two preliminary questions need to be considered. First, how original was Ricardo’s analysis? On this issue, claims have been advanced for both Robert Torrens and
James Mill ahead of Ricardo, and John Chipman suggests that Ricardo got the credit for discovering the principle largely because of the ‘self-effacing modesty’ of John Stuart Mill, whose own statement of the theory in his 1844 essay, *On the Laws of Interchange between Nations*, was ‘perhaps the first completely satisfactory one’ (Chipman 1965, p. 482 n3).

Chipman claims that it was Torrens who discovered the law of comparative advantage, and that his 1815 *Essay on the External Corn Trade* ‘undoubtedly made an impression on Ricardo … There can be little doubt that Ricardo was influenced by it, whether he was conscious of the indebtedness or not’ (*ibid.*, pp. 478, 481). Nevertheless, Chipman continues, Ricardo:

> added a great deal in his own subsequent treatment … Furthermore, Ricardo succeeded to a greater extent than Torrens in relating the principle to a larger theoretical system. Thus it would seem fair to say that both Torrens and Ricardo contributed in essential ways to the development of the law of comparative advantage; and that credit for the principal discovery should go to Torrens. (*ibid.*, pp. 481, 482)

Other writers have disputed this conclusion, on the grounds that Ricardo’s formulation of the law was greatly superior to that of Torrens, who on the evidence of his 1815 essay lacked the necessary insights to have inspired Ricardo’s work (Maneschi 1998, p. 55; Ruffin 2002, pp. 731–5). William Thweatt went so far as to describe Ricardo’s discovery as the result of James Mill’s ‘constant badgering and tutoring’, in the course of which Mill drew on his own booklet *Commerce Defended* (1808) and on his critique of the Corn Laws, published in the *Eclectic Review* seven years later (Thweatt 1976). Thweatt’s attribution of the principle of comparative advantage to James Mill was subsequently endorsed by Mark Blaug (1988).

However, Mill was not a competent trade theorist, as Piero Sraffa had already shown by reference to a logical error in his 1821 *Elements of Political Economy*, which had two inconsistent exchange ratios in a model of trade between England (exporting cloth) and Poland (exporting corn). The error was corrected in the 1826 edition, but John Stuart Mill wrongly blamed Ricardo for his father’s error (Sraffa 1930).

A suitably nuanced conclusion is provided by John Aldrich, who suggests that:

> Torrens, Ricardo and the Mills all made contributions to the discovery of comparative advantage, not by a major multiple discovery
but through a series of insights and arguments. Ricardo developed Torrens’s insight, that a country may import corn that is more costly to produce abroad, in the direction of a general demonstration that the law of value for domestic transactions does not hold for international ones. From the demonstration James Mill extracted the principle of comparative advantage and gave it ‘due emphasis’. Torrens had not formulated, nor even grasped the principle, while Ricardo had not appreciated there was a principle worth developing. It was from Mill’s *Elements*, and the works that followed, that other economists learned the principle. However Mill’s clear and emphatic statement of the principle was supported by unsound arguments. These were repaired by his son in an essay published only in 1844. This provided at last an ‘appropriate setting’ for the doctrine, as well as convincing support for Ricardo’s original value claim. (Aldrich 2004, p. 380)

In fact there is one piece of evidence in favour of the ‘multiple discovery’ interpretation that none of these writers takes into account. This is a remarkable brief anonymous pamphlet published in 1818, which was overlooked at the time, reprinted more than a century later in *Economica* with an introduction by Arnold Plant (1933), and recently rediscovered by John Pullen (2006). *A Letter on the True Principles of Advantageous Exportation. In Refutation of Certain Popular Notions of That Subject* provides a very clear statement of the law of comparative advantage, supported by enough algebra to make it something of a milestone in the early history of mathematical economics.

In plain words:

Suppose the manufacture we most excel in should become twice as dear, and twice as difficult to make, in England, as in foreign countries; and the one we least excel in, six times as dear and difficult to make; it would be strange folly to persist in manufacturing the article which requires six times the expense and trouble, rather than augment the produce of that which costs only twice the expense, and export the surplus in exchange. (Anon. 1818, p. 50)

‘One might instance hardware and wine’, the author adds in a footnote.

Nothing is known of the identity of the writer other than a few exasperating hints in the editorial note in which the publisher, one J.M. Richardson of ‘No. 23, Cornhill’, in the City of London, referred to ‘his late friend, the Author’, who had been unable to complete an intended and presumably much longer work on the subject. The mysterious
author recalled ‘the difficulty you [Richardson] had in believing that so simple and elementary a principle, and one so important in its application, should have escaped the attention of the writers on Political Economy’. However, he – I assume it was a he – had ‘not yet seen anything that tends to clear up the mist which has hung over these points’, even ‘now that so many years have elapsed’ (ibid., p. 43).

Presumably Richardson (about whom, too, nothing seems to be known) had read Ricardo’s Principles, which had been published just a few months earlier (in April 1817), found the principle of comparative advantage to be stated there, and published his deceased friend’s Letter in order to establish his claim to ‘many years’ of priority. Why did Richardson maintain the author’s anonymity? We shall probably never know, and there is also no evidence that Ricardo was aware of it, or that he ever read the Letter.

The second question is almost as difficult to answer. Why did Ricardo choose the particular countries, and the specific commodities, that he did? Why did he have England importing a luxury good – wine – from Portugal? Why not choose England and Poland, with England importing a wage-good (corn), so that trade would have a direct and beneficial impact on the rate of profit? This was what Torrens had done, and it is possible that Ricardo was, consciously or not, asserting his originality by coming up with a different example.

Perhaps it was simply a matter of rhetorical effect, as Joan Robinson suggests:

In Ricardo’s example, output per man in Portugal is higher than in England for both commodities. Presumably he set the example up this way in order to make it as striking as possible and in order to short-circuit the popular argument in favour of protecting home industry against low-cost imports. (Robinson 1974, p. 4)

Interestingly enough, in a footnote linked to the England/Portugal, cloth/wine example Ricardo reverses the relations of absolute advantage and suggests that ‘a country possessing very considerable advantages in machinery and skill’ and also more fertile land may none the less benefit from importing corn in exchange for exporting its manufactures.

Just to make things more confusing, the example that he offers in the footnote involves individuals, not nations, who are engaged in trading manufactured goods rather than foodstuffs:

Two men can both make shoes and hats, and one is superior to the other in both employments; but in making hats, he can only exceed
his competitor by one-fifth or 20 per cent, and in making shoes he can excel him by one-third or 33 per cent; – will it not be for the interest of both, that the superior man should employ himself exclusively in making shoes, and the inferior man in making hats? (I, p. 136n)

Possibly, as Vivian Walsh suggests in his discussion of this footnote, Ricardo’s example was intended as:

a *reductio ad absurdum* argument against the supporters of the corn laws: given England’s crushing superiority in manufactures, it would pay her to import corn even if she had a (smaller) absolute superiority in corn production. But everyone knew England to be absolutely inferior to Poland and other countries in corn, so it must be even more in her interest to allow in foreign corn. The footnote shows him returning after a brief exercise of fancy (signaled by the unreality of its assumptions) to his serious message, which, as always, was about absolute advantage, and about the basic, corn, not the non-basic, wine. (Walsh 1979, pp. 427–8)

Or perhaps Ricardo was simply rather careless in his choice of examples.

### 4.2 Ricardo on the Corn Laws

By 1815 there was already a long history of government intervention in the grain trade. ‘Legislation to prohibit or discourage importation can be traced back to the 15th century, though it only became effective with an Act of 1663, while bounties to encourage export date from the 14th century and became more systematic after an Act of 1689’ (Hilton 1987, p. 670).

Thus trade was the one important area in which the state was heavily involved between 1700 and 1850. Trade was regulated, controlled, and taxed. Throughout the Industrial Revolution, Britain’s trade policies were essentially mercantilist (Mokyr 2010, p. 142). Thus the Corn Laws were the crowning achievement of rent-seeking landowners, along with other tariffs and the Navigation Acts, which protected British shipping. And this was intimately connected with Old Corruption:

A prime example of the rent-seeking nature of British commercial policy was the system of agricultural bounties, which had been part of the Corn Law system since the years of William and Mary. Through
it, the British government subsidized its prime constituency, namely large landowners. The odd fact is that most calculations show that cereals in Britain were among the most expensive in Europe, and yet until 1760 Britain was a major grain exporter thanks to the subsidy, particularly to the Netherlands. (ibid., p. 150)

Tariffs also had revenue-raising benefits for the government – they were an easy way of collecting tax (ibid., p. 152).

In the late eighteenth century there had been a brief blossoming of trade liberalization between Britain and France, but this was interrupted between 1793 and 1815 by the Napoleonic Wars and then by the reinstatement of the Corn Laws in 1815. Thus ‘The Revolutionary and Napoleonic Wars in many ways represented a setback in the advance of Enlightenment-inspired policies’ (ibid., p. 151), and may well have given Ricardo the impression that he was fighting a rear-guard action.

So Britain was not a free trade nation for much of the nineteenth century (see also Chang 2008). Tariffs generally were higher in Britain than in France in the first half of the nineteenth century, partly because government spending was higher (and tariffs were such an easy way of raising revenue). But they fell on average from 60% to 29% between 1820 and 1850, by which time the two nations had similar tariff rates.

In the specific case of grain, the restoration of the Corn Laws in 1815:

did away with the subsidy to exports (which was perhaps the most objectionable piece of rent-seeking), but replaced it with a prohibition on imports if the price fell below 80s. per quarter. Yet this success was ephemeral; the law was weakened in 1822 by allowing importation above 70s., and in 1828, the prohibition was replaced by a complex system of graduated duties meant to keep domestic prices at about 70s.–80s. per quarter. (Ibid., pp. 153–4)

Ricardo’s own hostility to the reintroduction of the Corn Laws was made clear in an early letter to Malthus (in June 1814), where he stated the proposition that would soon be established in the Essay: ‘The rate of profits and of interest ... essentially depends upon the cheapness of provisions’ (VI, p. 108). Note that this precedes the analysis of comparative advantage set out in the Principles by three years, and in no way depends upon it (Gomes 1987, p. 184; Maneschi 1983, p. 79).

In the Essay itself, Ricardo quoted approvingly Malthus’s statement that agricultural productivity could be considerably improved simply by
applying the ‘best modes of cultivation’ that were already in operation in some areas of the country to industry as a whole:

This reflection is true, and is highly pleasing – it shews that we are yet at a great distance from the end of our resources, and that we may contemplate an increase of prosperity and wealth, far exceeding that of any country which has preceded us. This may take place under either system, that of importation or restriction, though not with an equally accelerated pace, and is no argument why we should not, at every period of our improvement, avail ourselves of the full extent of the advantages offered to our acceptance – it is no reason why we should not make the very best disposition of our capital, so as to ensure the most abundant return. (IV, p. 34)

Adam Smith had exempted food supply and defence from his support for free trade (Hilton 1987). Ricardo, however, considered that ‘arguments almost unanswerable respecting the danger of dependence on foreign countries for a portion of our food’ (IV, p. 26) would be needed to justify the protection of local agriculture. He dismissed these fears, noting that even at the height of the War, Napoleon had continued to permit French corn exports to Britain (IV, p. 28), and that foreign suppliers would lobby strongly against any restriction on their ability to export.

Ricardo also rejected the claim that free trade in corn would increase the instability of food prices, pointing to the ‘remarkably steady’ price of corn in Holland, which ‘depends almost wholly on foreign supply’ (IV, p. 32). Free trade in corn would have ‘a decided tendency to raise the real wages of labour’ and, as rents declined, ‘all capitalists whatever, whether they be farmers, manufacturers, or merchants, will have a great augmentation of profits’ (IV, p. 35). Ricardo conceded that this conclusion did require a slight qualification:

That the farmers of the poorer lands would be losers, there can be no doubt, but the public would gain many times the amount of their losses; and, after the exchange of capital from land to manufactures had been effected, the farmers themselves, as well as every other class of the community, except the landholders, would very considerably increase their profits. (IV, p. 33)

Ricardo took these transitional problems very seriously. In the Essay he suggested that, since rents were fixed in money terms and cheaper imported corn would tend to reduce the general price level, there was
a case for protecting farmers until new low-rent leases could be negotiated (IV, p. 33). In the *Principles* he devoted much of chapter 19 (‘On Sudden Changes in the Channels of Trade’) to the disruptive effects of a protracted war in which domestic agriculture had expanded to replace imports. Inevitably there would be substantial hardship when peace returned, and a case could be made for a temporary (and steadily declining) tax on imports to soften the necessary adjustment process (I, pp. 266–8, 272).

He was even prepared to endorse a permanent tax on imports as compensation for the tax levied on agricultural output (under the ancient name of ‘tithes’) by the Church of England. The short chapter 11 is dedicated to this issue. ‘Tithes’, he wrote, ‘may be considered as injurious to landlords, inasmuch as they act as a bounty on importation, by taxing the growth of home corn, while the importation of foreign corn remains unfettered’. Thus he regarded it as ‘fair and equitable’ if ‘imported corn were also taxed, in an equal degree with corn grown at home, and the produce paid to the State’ (I, p. 179).

Subject to these reservations, the Ricardo of the *Principles* is a strong advocate of free trade. Just because there are tariffs on many manufactured goods, he argues in chapter 22 (‘Bounties on Exportation, and Prohibitions of Importation’), there is no justification for also imposing tariffs on corn. ‘It would be much wiser to acknowledge the errors which a mistaken policy has induced us to adopt, and immediately to commence a gradual recurrence to the sound principles of an universally free trade’ (I, pp. 317–18). Note the use of the term ‘gradual’ in this otherwise powerful statement.

In Parliament, Ricardo was a vocal member of the small minority that campaigned for free trade. He continued to seek relevant factual information. One of the few letters that have been discovered since the publication of the Sraffa edition of the *Collected Works* was written in April 1821 to Edward Solly (1766–1844), a timber merchant active in the Baltic countries and knowledgeable about the corn trade, asking for information on the trade in corn in the Baltic to assist him in his work on the 1821 Select Committee on Agricultural Distress (Heertje 2007).

As Sraffa points out, Ricardo’s 1822 pamphlet on *Protection to Agriculture* was part of his contribution to the Parliamentary debate on this issue, and constituted a sort of Minority Report. Here he argues for unlimited imports once the price of wheat had reached 70s., with an import duty of 20s. to be reduced by 1s. each year until it reached its final level of 10s. These proposals were embodied in resolutions moved
by Ricardo in the Commons on 29 April 1822, which were defeated ten days later by the substantial margin of 218 votes to 25 (IV, p. 203). Sraffa notes that ‘[t]he Report of 1821, having been originally drafted by Huskisson, supported in principle a free trade in corn, but the landlords on the committee had succeeded in adding a number of protectionist recommendations’. In consequence, the 1822 Report was much more clearly protectionist (pp. 203–4).

Ricardo was consistent in his opposition to restrictions on trade, whether they applied to imports or exports. Another recently discovered letter was written in February 1822 to Francis Finch of West Bromwich, who seems to have asked him about the export of machinery. The growth of industry overseas was a benefit to England, Ricardo wrote, as was the export of machinery. Only the export of (money) capital was bad, since it reduced output and employment in Britain:

> The establishment of manufactories abroad cannot I think be injurious to us ... If however the manufactories abroad are to be established with British capital, an injury will be sustained by Britain: Fewer labourers will be employed in England, a less revenue will be expended in that country, and taxation will bear more heavily on the capital that remains at home.

However, Ricardo continued, this did not provide a case for export restrictions:

> Although I think that that these are the effects of a loss of capital, yet it would be unwise, and if wise would be impossible, to prevent capitalists from taking their capitals to other countries whenever they pleased. The only way of preventing it is to do away [with] all restraints on commerce, to have few taxes, and to afford the surest protection to property. I very much lament the bad policy of our Government in offering the least restriction on the exportation of machinery. I believe that if it were permitted it would become one of our best branches of trade. (Heertje, Polak and Weatherall 1985, pp. 1091–2)

On this final question, at least, Ricardo was entirely correct.

In political rather than intellectual terms, his campaign against the Corn Laws was a resounding failure. But there is some uncertainty about the practical consequences of the reintroduction of agricultural protection. ‘In practice’, Boyd Hilton writes:
the 1815 Law satisfied no-one. The sudden switch from total prohibition to total freedom of import at a particular price was destabilizing and failed to safeguard supply, since by the time (usually October or November) that prices reached the specified level, signaling a scarcity, the Baltic Sea was likely to have frozen over making cheap foreign imports unavailable for the remainder of the season. To meet these problems a sliding scale was introduced in 1828, modified downwards in 1842, and finally abandoned seven years later after a major political crisis in 1846 had brought down Sir Robert Peel’s second government and fundamentally divided the Conservative party … [The repeal] quickly acquired symbolic importance, though with the drying up of European wheat supplies from the mid-1830s the Corn Laws had ceased to make very much practical difference to the trade in grain. (Hilton 1987, p. 670, citing Fairlie 1965)

Hilton concludes that there was ‘a mythical element in the campaign, the Corn Laws having become a symbol rather than a real guarantee of landed monopoly’ (ibid., p. 670, citing Kemp 1961–2). In 1846 Peel was influenced much less by Ricardian economics than by Richard Cobden’s claims that ‘high farming’ would be encouraged by repeal. ‘Such confidence seemed to be justified by the “Golden Age of English Farming” which succeeded repeal, the real challenge to agriculture not occurring until the appearance of imports from the New World in the last quarter of the nineteenth century’ (ibid., p. 671).

But the data on British overseas trade are not entirely consistent with this conclusion. The ratio of exports to GDP rose from 7.5% in 1780 to 12.3% in 1801, before falling to 10.4% in 1831 and rising again to 13.3% in 1851, when it was only slightly higher than it had been half a century earlier (Mokyr 2010, Table 8.1, p. 167). Foodstuffs accounted for 42.5% of imports in 1784–6, remained constant at 42.6% in 1814–16, and then fell to 33.4% in 1844–6. Almost all the rest were raw materials: 47.0%, 56.2%, 62.2% respectively (ibid., Table 8.2, p. 168). The sharp decline in the share of food imports in the three decades after the reintroduction of protection suggests that the Corn Laws did have some effect, and that Ricardo was correct to oppose them.

4.3 Ricardo and His Critics

Ricardo has often been criticized for carelessness in his exposition of the theory of international trade. His ‘exposition of the laws governing trade between two nations was extremely concise’, Chipman complains,
'and not entirely free from ambiguity ... It does not seem to have been recognized that Ricardo’s own statement of the law is quite wanting, so much so as to cast some doubt as to whether he truly understood it; at best, his version is carelessly worded’ (Chipman 1965, pp. 479, 480). There may be a reason for this: if Ricardo’s purpose was only to demonstrate the non-applicability of the labour theory of value when there is trade, this would explain why (as Aldrich notes) he never claimed to have discovered a ‘law of comparative advantage’, since ‘his claim is a negation’ rather than a positive statement about trade (Méoqui 2011, p. 753, quoting Aldrich 2004, p. 388).

There are also some substantive criticisms. We should note at the outset that some of the criticisms directed against Ricardo are actually directed against later versions of ‘Ricardian theory’, which may not have very much to do with his own thinking. This is true, for example, of Rod Falvey, who complains that, in Ricardo’s model:

resource endowment differences across countries are removed as a potential determinant of the pattern of trade by assuming a single factor and constant returns to scale in production. Similarly, preference differences have limited impact because fixed opportunity costs lead to a linear production possibility frontier so that technology determines autarky-relative prices (unless there is specialization even in autarky). (Falvey 2002, p. 136)

It is not clear that any of these assumptions are made by Ricardo, at least in chapter 7.

Probably the most important relevant criticism concerns the supposedly static nature of Ricardo’s trade theory, which, according to Harry Johnson, assumes ‘a static and permanent distribution of comparative advantages and disadvantages’, so that comparative advantage is ‘ineluctably fixed by nature’ (cited by Bloomfield 1994, p. 24). As early as 1929 John Williams had objected that ‘classical theory assumes as fixed, for purposes of the reasoning, the very things which, in my view, should be the chief objects of study if what we wish to know is the effects and causes of international trade’, above all ‘the development of new resources and productive forces’ (Williams 1929, p. 196).

Ricardo is sometimes compared unfavourably with Adam Smith in this regard. Thus Andrea Maneschi cites Paul Krugman on ‘the long dominance of Ricardo over Smith – of comparative advantage over increasing returns’, due largely to the greater mathematical tractability of the former. Maneschi himself notes that Smith had stressed the ‘feedback process’
between trade and productivity growth, and for that reason is now seen as a precursor of ‘new trade theory’ (Maneschi 1998, p. 214, citing Krugman 1990, p. 4).

In similar vein, James Buchanan and Yong J. Yoon describe Smith and Ricardo as providing ‘two categorically different logical arguments’ on trade. For Smith, specialization is productive, even if the individuals who specialize and then trade with each other do not differ at all in their productive abilities. ‘By contrast, the Ricardian logic locates the origin of exchange in the differences among persons … In the Smithian setting, exchange emerges because of the advantages of specialization; in the Ricardian setting, specialization and subsequent trade become advantageous because of inherent differences among potential trading parties’. In reality trade ‘is explained by some combination of the two elements’, but ‘neoclassical economics tends to assign almost exclusive weight to the Ricardian explanation’ (Buchanan and Yoon 2002, pp. 2–4).

There is one important political implication: while in the Smithian view everyone gains from trade, and there are no net losers, this need not be so in the Ricardian conception. ‘In their role as consumers, all persons will secure gains, but those gains may be overwhelmed by losses as producers for the groups threatened by imports’ (ibid., p. 4); this is indeed what Ricardo believed in the case of the landlords. If Mercantilism is the notion that trade is a zero-sum game (Mokyr 2010, p. 150), it is clear that Ricardo was not a Mercantilist; but neither did he believe that free trade was necessarily (in modern terms) a Pareto improvement.

And so the politics of trade become contentious for a Ricardian, where there is no problem for a Smithian: ‘By exclusively following the Ricardian digression, economists have perhaps been responsible for unwittingly making movements towards open markets more difficult than they otherwise would have been’ (Buchanan and Yoon 2002, p. 7; stress added). David Evans also contrasts the ‘Ricardian tradition’ with ‘Adam Smith’s starting point’, since the former treats ‘movements on given production and consumption possibilities frontiers as providing the most important insights into the sources of the gains from trade’ while the latter does not (Evans 1989a, p. 1245). As Evans notes, the implications are potentially very significant: instead of being a mutually beneficial engine of growth, trade may instead be viewed as a source of ‘global polarity and unequal levels of development’ (ibid., p. 1277).

But several writers have objected to all this, on the grounds that this supposed ‘Ricardian tradition’ is not a faithful representation of Ricardo’s own thinking on the benefits of trade. Arthur Bloomfield, for example,
notes that ‘in the very chapter in which he expounded his trade model, Ricardo referred several times to situations in which comparative advantage could change because of improvements in the arts and machinery, discovery of new processes, or other factors’ (Bloomfield 1994, p. 25). Bloomfield cites an important passage in chapter 7 of the *Principles* in which Ricardo does allow for changes in technology, so that – incredibly – England comes to possess a comparative advantage over Portugal in the production of wine (I, 136–7; see also I, pp. 141–2, 144, 145; cf. Hollander 1979, p. 468, and Maneschi 1998, p. 214).

Andrea Maneschi (1983) goes so far as to claim that Ricardo had *two* models of trade, a static and a dynamic one, which he never fully integrated, later suggesting that ‘the principal role of international trade for Ricardo was to achieve the dynamic benefits associated with a rise in the rate of profit rather than the static gains from resource reallocation according to comparative advantage’ (Maneschi 1998, p. 57).

Similarly, Lynn Mainwaring argues that ‘Ricardo’s illustrative example, widely reproduced in elementary textbooks, scarcely does justice either to the remaining analysis of chapter 7 or to the general spirit of the *Principles*. In general terms, Ricardo’s vision was a dynamic one, stressing the importance of growth through the accumulation of capital’ (Mainwaring 1994, p. 226). Leonard Gomes (1987, p. 190) observes that the ‘conventional view ... neglects what Ricardo had to say later on in his trade chapter about the international distribution of specie. Here he discussed cases where comparative advantage could change under the impact of technical change, improvements in the arts and machinery or the discovery of new processes’ (Gomes 1987, p. 190).

David Evans, too, notes that ‘it is a simple matter to integrate’ Ricardo’s ‘essentially static’ model with models of economic growth (Evans 1989b, p. 37). As will be seen in section 4.6, some writers have even identified Ricardo as the intellectual father of ‘New Trade Theory’.

These issues are closely related to a further question, concerning the role of absolute (rather than comparative) advantage in Ricardo’s thinking on trade. What Jacob Viner described as ‘the eighteenth-century rule’ has been characterized by Jorge Morales Meoqui as ‘the classical rule for specialisation’. It ‘stipulates that it is beneficial for a country to import commodities whose production entails less real cost compared to the domestic production of the same amount of the imported commodities’ (Meoqui 2011, pp. 746–7).

This is absolute advantage in all but name. It has re-emerged in recent decades, its relevance apparently increased by the growing importance of international capital movements (Parinello 2010) and greater
recognition of the role played by unique natural resource endowments in international trade. It is also true that, ‘if countries have unique technical capabilities, albeit for limited periods of time, this provides a powerful base for absolute advantage, and reinforces the point that comparative advantage is more relevant between countries of comparable technological level’ (Metcalfe 1998, p. 173).

Ricardo can be criticized for neglecting these matters, and also for failing to deal adequately with the macroeconomic context in which trade takes place. As William Milberg points out, Marx and Keynes both rejected comparative advantage (in favour of absolute advantage) because of the lack in the real world of full employment and automatic balance of payments adjustment mechanisms. As Keynes told the Macmillan Committee in 1930, ‘the choice is not between making one article and something else for which we are not so well suited, the choice is between making something for which we are not so well suited and making nothing’ (Keynes 1981, p. 115; cf. ibid., pp. 506–8).

Both Marx and Keynes might well have accepted what Millberg refers to as ‘the technology-gap school of international trade theory’, which has developed some of their ideas, with an emphasis on the role of innovation and technical change. According to this approach, ‘a sector’s competitiveness is a function of its technological edge over foreign rivals as well as its relative variable costs and market structure’. This identifies absolute advantage as ‘a viable alternative theory’ to comparative advantage (Milberg 1994, pp. 229–30).

In chapter 7 of the Principles, indeed, Ricardo is very clear that he is assuming that there are no international capital movements – or, at the very least, that capital movements are too weak to equalize the rate of profit between countries in the same way that it is equalized between London and Yorkshire (I, p. 153). He explains this in terms of a (welcome) reluctance to leave one’s native country in pursuit of profit (I, p. 155). But he does not state explicitly what the consequences would be if the rate of profit were to be equalized between nations. There is also no mention of the international movement of labour, and no suggestion of any tendency for wages to be equalized internationally.

This was probably a mistake, since the historical evidence suggests that ‘the international mobility of commodities and factors was far greater than their mobility within national economies at an early stage of their development, thus undermining the assumed dichotomy between national mobility and international immobility of capital and labour’ (Evans 1989b, p. 3). A similar case had been made much earlier by Williams (1929), who argued that international factor mobility was always
at least as important as trade in goods. Contrary to what Ricardo seems to have assumed, Williams argued, wage differentials within countries were very large in the early nineteenth century, while capital mobility between countries was greater than internal capital mobility.

Further criticism of Ricardo concerns his supposed neglect of the distribution of the gains from trade, which allowed him to gloss over some important problems in international political economy concerning global justice and underdevelopment (Mumy 1986; but see Meoqui 2011, p. 757). The conventional view is that there is no explicit discussion of the terms of trade in chapter 7, or elsewhere in the *Principles*, and that this omission is related to the absence in Ricardo of a theory of demand. James Pennington (writing in 1840) is sometimes credited as being the first to establish in print the limits within which the prices of traded goods must settle (Hollander 1979, p. 464 n155). John Stuart Mill had written on this topic in an 1829 essay that was only published fifteen years later (Mill 1844).

Thus ‘Ricardo assumed the terms of trade to settle roughly midway between the autarky price ratios of the two countries, without justifying this. The arbitrary nature of this assumption has been noted by many commentators’ (Maneschi 1992a, p. 431; cf. Hollander 1979, pp. 462–4). Takashi Negishi (1982) has shown formally that Ricardian theory can determine the terms of trade without reference to demand factors once differences in profit rates in the two countries are taken into account, on the assumption that capitalists are satisfied with a lower profit rate in their domestic activities than in their international transactions due to the reduced risk and uncertainty at home; but Ricardo himself does not do so.

However, he does devote several pages to these questions in chapter 7, where he discusses the consequences of a hypothetical improvement in making wine in England. This will also improve the English balance of trade, he maintains, leading to an inflow of gold and therefore also a higher price level in England; the corresponding outflow of gold from Portugal will lower the price level there. Unfortunately Ricardo selects his numerical example in such a way that after these changes the two countries ‘find it in their interest to make their own wine and their own cloth’ (I, p. 140), so that trade is now unprofitable and the terms of trade are irrelevant.

He returns to this issue in chapter 25 (‘On Colonial Trade’), this time in the context of a preferential trade agreement (again, purely hypothetical) between England and France. Without such a treaty, he argues, traded goods will sell in both countries at the same price, which will be their ‘natural price’ in the country that produces and exports them.
Ricardo’s argument is far from clear, but he seems to be following his chapter 7 reasoning and suggesting that, if a pre-existing treaty were to be replaced by completely free trade, the English trade balance would deteriorate, gold would flow out of the country, and the price level would fall. This would be to the benefit of France: ‘the advantage gained by France will be the obtaining of a greater quantity of English, in exchange for a given quantity of French, goods, while the loss sustained by England will consist in obtaining a smaller quantity of French goods in exchange for a given quantity of those in England’ (I, pp. 342–3).

A similar line of argument is pursued in chapter 28 (which has the snappy title, ‘On the Comparative Value of Gold, Corn, and Labour, in Rich and Poor Countries’). This time it is in the course of a critique of Adam Smith’s views on free trade in corn (see Maneschi 1992a, pp. 431–2). In the third edition, chapter 31 (‘On Machinery’) also touches on these matters when Ricardo considers the consequences of England deciding unilaterally to reject the use of machinery in order to preserve jobs. He is strongly opposed to such a course of action, for several reasons, one of which is the loss of exports, outflow of gold and fall in the price level that would result. Other countries that employed machinery would benefit:

In making your exchanges with those countries, you might give a commodity which cost two days labour, here, for a commodity which cost one, abroad, and this disadvantageous exchange would be the consequence of your own act, for the commodity which you export, and which cost you two days labour, would have cost you only one if you had not rejected the use of machinery, the services of which your neighbours had more wisely appropriated to themselves. (I, p. 396)

The fairest conclusion might be that Ricardo was aware of the problem of determining the terms of trade, had some insights into the factors that might alter them, but fell far short of providing a comprehensive and systematic analysis.

One final problem is whether or not Ricardo was assuming complete or incomplete international specialization. Does England produce only corn, and Portugal nothing but wine? Samuel Hollander has a dollar each way: ‘the Ricardian model implies, of course, complete specialization by each trading partner in consequence of the assumption of constant-cost production. Yet Ricardo himself, in a note, referred to the possibility of partial specialization’ (Hollander 1979, p. 464). He cites a passage in which Ricardo does refer to a country importing ‘a portion of the corn required
for its consumption’ (I, p. 136n), and alludes to a similar statement in a letter to J.R. McCulloch in March 1821 (VIII, p. 358).

For his part, Maneschi concludes that ‘Ricardo clearly never intended’ full specialization, and implicitly assumed a curved production possibility frontier that reflected diminishing returns in agriculture (Maneschi 1998, p. 59). Both Maneschi (1992a) and Negishi (2010) construct formal models in a Ricardian vein to show that there is no need to suppose complete specialization, while it is also easy to prove that any tendency towards complete specialization is reduced in a many-commodity, many-country world (Evans 1989b, pp. 68–9). But this, we must remind ourselves, is not the world of the Principles.

4.4 The Politics of Trade

Liberal critics have long objected that Ricardo’s law of comparative advantage undermines political support for free trade because of the strong possibility that the producers of goods that compete with imports may be net losers from the opening of trade. The history of the debates over the Corn Laws in the three decades before their repeal in 1846 offers some support for this conclusion, as we have seen.

Here, though, our concern is not with domestic conflict but rather with the international politics of trade. The objection has often been raised that Ricardo

did not extend the dynamic implications of his model to the countries that were to supply Britain with foodstuffs ... he failed to recognize that the pattern of product specialisation determined by free trade might be detrimental to the long-run interests of the food-producing countries and that they would take steps to alter the comparative-advantage bases of their national economies. (Gomes 1987, p. 189)

He also ignored the possibility of long-term trade deficits, which would generate balance of payments problems, debt and dependence (Thirlwall and Pacheco-Lopez 2008).

In chapter 7 of the Principles Ricardo maintains, without any qualification, that free trade is good for all nations:

Under a system of perfectly free commerce, each country naturally devotes its capital and labour to such employments as are most beneficial to each. This pursuit of individual advantage is admirably
connected with the universal good of the whole. By stimulating industry, by rewarding ingenuity, and by using most efficaciously the peculiar powers bestowed by nature, it distributes labour most effectively and most economically: while, by increasing the general mass of productions, it diffuses general benefit, and binds together by one common tie of interest and intercourse, the universal society of nations throughout the civilized world. It is this principle which determines that wine shall be made in France and Portugal, that corn shall be grown in America and Poland, and that hardware and other goods shall be manufactured in England. (I, pp. 133–4)

But this is heavily qualified in chapter 25, ‘On Colonial Trade’, where he criticizes Adam Smith for being inconsistent on the possibility that the mother country may benefit from unfree trade at the expense of the colony. Smith had maintained that

the narrow policy adopted in the countries of Europe respecting their colonies, is not less injurious to the mother countries themselves, than to the colonies whose interests are sacrificed ... This part of his subject, however, is not treated in so clear and convincing a manner as that in which he shews the injustice of this system towards the colony. (I, p. 338)

Ricardo next raises the intriguing possibility of England being a colony of France, and being damaged economically as a result:

It may, I think, be doubted whether a mother country may not sometimes be benefited by the restraints to which she subjects her colonial possessions. Who can doubt, for example, that if England were the colony of France, the latter country would be benefited by a heavy bounty paid by England on the exportation of corn, cloth or any other commodities?’ (I, p. 334)

This would reduce the price of corn in France:

That the loss sustained, through a disadvantageous distribution of labour in the two countries, may be beneficial to one of them, while the other is made to suffer more than the loss actually belonging to such a distribution, has been stated by Adam Smith himself; which, if true, will at once prove that a measure, which may be greatly hurtful to a colony, may be partially beneficial to the mother country ...
Adam Smith, it is evident, admits, that a mother country may be benefited by oppressing her colony. (I, p. 340)

In sum:

It is evident, then, that the trade with a colony may be so regulated, that it shall at the same time be less beneficial to the colony, and more beneficial to the mother country, than a perfectly free trade. As it is disadvantageous to a single customer to be restricted in his dealings to one particular shop, so it is disadvantageous for a nation of consumers to be obliged to purchase of one particular country. (I, p. 343)

Thus Ricardo seems to accept, without stating it, that the universal benefits from free trade require a world of independent and equally powerful nations. He has often been criticized for neglecting the unequal power relations between England and Portugal, which were fundamental to the nature of the trading relations between the two countries in the eighteenth and early nineteenth centuries. This is related to some of the contentious issues that were discussed in the previous section. Thus David Evans writes, in relation to the celebrated numerical example, that Ricardo ‘based his exposition of the principle of comparative advantage on a static model of trade between England and Portugal in which neither capital nor land was required for production. All class, distribution, growth and conflict issues were eliminated and free trade was associated with a harmony of interests’ (Evans 1989b, p. 12). As we have seen, this is contested by many authors. If it is accepted as a correct interpretation, however, it is very easy to criticize on the grounds that Portugal stood, in relation to England, in a relation of semi-colonial dependence.

Joan Robinson argues that models of trade in the Ricardian tradition ‘imply trade between countries of equal weight and at the same level of development. This rules out imperialism and the use of power to foster economic advantage’. However, ‘in real life Portugal was dependent on British naval support, and it was for this reason that she was obliged to accept conditions of trade which wiped out her production of textiles and inhibited industrial development, so as to make her more dependent than ever’ (Robinson 1974, p. 1). ‘When accumulation is brought into the story’, she maintains, ‘it is evident that Portugal is not going to benefit from free trade. Investment in expanding manufactures leads to technical advance, learning by doing, specialization of industries and
accelerating accumulation, while investment in wine runs up a blind alley into stagnation’ (ibid., p. 6).

This is confirmed by Sideri, in a book with the title *Trade and Power: Informal Colonialism in Anglo-Portuguese Relations* that assesses the effects of the commercial treaties of 1642, 1654, and 1661, in addition to the Methuen Treaty (Sideri 1970, pp. 42–3). The effect of these treaties was ‘strong dependence by Portugal on England’ (ibid., p. 5), which was reinforced by the domestic political ramifications of the new pattern of trade: ‘Portugal’s specialization in wine, by reinforcing the landed interests and making very difficult, if not impossible, the emergence of a commercial and industrial bourgeoisie, prevented that development which, in the long run, it was assumed to foster’ (ibid., p. 6). Sideri concludes that free trade and Mercantilism ‘are not basically different, but both are the manifestation of and the instrument by which power is exercised’ (ibid., p. 5).

Similar arguments have often been made by radical critics of mainstream Ricardian trade theory. Thus Theresa Hayter argues that:

The fact that Portugal concentrated on wine was not at all the result of the natural workings of the market. It was imposed by the British government, in particular in the Methuen Treaty of 1703 whose provisions were specifically aimed to increase British textile exports to Portugal and Portuguese wine exports to Britain. This treaty, which more or less finalized Portuguese economic dependence on Britain, was preceded by a number of other commercial treaties in which Portugal ceded economic advantages to Britain in return, principally, for military protection against Spain. (Hayter 1981, p. 52)

Nancy Folbre concurs in this criticism of Ricardo:

While his reasoning was correct, it was incomplete. All else equal, free trade could make everyone better off. But little else was equal. Countries could use their military power to force trade on their own terms, as the British did in India – where they virtually prohibited handloom weaving, and in China – where they sent their battleships to expand the opium trade. Imperial power often retarded technological development in the colonies and strengthened the political class that Ricardo himself believed was retrograde, namely the landlords. Britain’s head start in the development of new industrial technologies made it difficult for other countries to compete. Most critics of the doctrine of free trade – and in the newly industrializing
United States there were many – argued that it simply ratified British monopoly. (Folbre 2009, p. 152)

Marx himself was a firm supporter of free trade, which, he believed, would accelerate the development of the capitalist mode of production and hence bring forward the date of its eventual overthrow. But the neglect of these issues of power and international exploitation has long been attacked by writers in the Marxian tradition, who emphasize the importance of the distribution of the gains from trade in reinforcing the dependence of poor primary producing countries on the rich industrial nations. Ricardo ‘did not extend the dynamic implications of his model to the countries that were to supply Britain with foodstuffs’, and ‘failed to recognize that the pattern of product specialization determined by free trade might be detrimental to the long-term interests of the food-producing countries’ (Gomes 1987, p. 189; cf. Milberg 1994).

Arghiri Emmanuel (1972) criticizes Ricardo for ignoring international differences in real wages in chapter 7 of the Principles and overlooking their contribution to the profoundly unequal exchange between high-wage and low-wage countries, in which manufactured commodities embodying small quantities of high-paid labour are traded for primary products containing much greater quantities of low-paid labour. In this way one country can exploit another, even without wars, oppressive taxation or formal relations of colonialism. There is no need to deny the existence of mutual gains from trade; it is just that they are distributed very unequally (Venezinani 2009).

Evans notes that these wage differences may result from either exogenous differences in class bargaining power (which is the factor stressed by Emmanuel) or the monopoly power exercised by rich countries in product and commodity markets. ‘In the Emmanuel case, the rising real wages in the centre, rather than being the effect of technical progress and industrialisation, precede and are a cause of development’ (Evans 1989a, p. 1276).

4.5 Ricardo’s Trade Theory in the Twenty-first Century

One question that was touched upon earlier in this chapter is the relevance of Ricardo to the so-called ‘New Trade Theory’ associated with Paul Krugman, with its emphasis on features largely or entirely absent from the Principles: imperfect competition, increasing returns to scale, product differentiation and intra-industry trade. It is sometimes argued that, since intra-industry trade is explained by product differentiation,
'there is no comparative advantage, and hence no predictable pattern of trade, within the industry' (Falvey 2002, p. 138).

This is possibly linked to the Smith–Ricardo contrast noted above: the new models are based on increasing returns and dynamic rather than static comparative advantage, so that intra-industry trade is characterized by Krugman as ‘non-comparative advantage trade’. ‘Despite the claims of several new trade theorists to find in Smith an intellectual forefather’, Maneschi maintains, ‘such claims do not imply that Ricardo should be consigned to play second fiddle in the Valhalla of international trade theorists’ (Maneschi 1998, p. 223). Indeed, Krugman himself constructs models of what he describes as ‘dynamic Ricardian comparative advantage’, so that New Trade Theory has ‘reinvigorated and given a new meaning’ to comparative advantage (ibid., p. 224).

One intriguing extension of Ricardo’s argument has emerged with the use of comparative advantage in the ‘varieties of capitalism’ literature. Peter Hall and David Soskice claim that traditional comparative advantage has indeed been weakened by the growth of intra-industry trade and increased international mobility of capital. To replace it they develop a concept of ‘comparative institutional advantage’, according to which ‘in some political economies, firms make more extensive use of non-market modes of coordination to organize their endeavours, while in others firms rely mainly on markets to coordinate those endeavours’ (Hall and Soskice 2001, pp. 37–8).

This, they argue, is reflected in the nature of innovation in the Coordinated Market Economies (CMEs) of northern and north-western Europe, which have a comparative advantage in incremental innovation, which requires long-term employment relationships, high levels of firm-specific skill and some influence of the workforce on the firm’s decisions. The Liberal Market Economies (LMEs) of the Anglo-Saxon countries are better at radical innovation, with high rates of labour turnover and labour mobility, concentrated power within the firm, and extensive equity markets. The result is ‘national patterns of specialization in activities and products’, with Germany specializing in engineering and the United States in biotechnology (ibid., pp. 43–4).

Bob Hancké actually cites Ricardo in arguing that the ‘varieties of capitalism’ literature suggests that ‘in today’s world the intricate institutional frameworks in different capitalist economies’ are what confer comparative advantage (Hancké 2009, p. 5). Thus the CME is ‘characterized by non-market relations, collaboration, credible commitments, and the “deliberative calculation” of firms’. The essence of its LME antithesis is, in contrast, ‘arm’s length, competitive relations, formal contracting,
and supply-and-demand price signalling’. Strong positive feedbacks exist via political influence. ‘This logic of adjustment and diversity is reinforced rather than undermined by globalization’, which tends ‘to reinforce comparative institutional advantage’ (ibid., pp. 274–5).

Globalization has also contributed to the revival of the unequal exchange literature that was discussed in the previous section. The tendencies towards the global equalization of profit rates, and the non-equalization of real wages and unit labour costs, seem to be stronger than ever (Itoh 2009), along with profound suspicion that the law of comparative advantage has served as an ideological justification of the old International Division of Labour between rich industrial and poor agricultural nations (Maneschi 1998, pp. 229–30), and may yet do the same for the New International Division of Labour between high-tech and low-tech manufacturing countries (Finland and Germany versus Mexico and China).

Anwar Shaikh, too, criticizes the classical theory of competitive advantage, which ‘generally favours the developed over the developing, and the rich over the poor’ (Shaikh 2007, p. 51). The crucial point is that ‘free trade does not make all nations equally competitive, as is argued within standard trade theory. Rather, it exposes the weak to the competition of the strong. And as in most such cases, the latter devour the former’ (ibid., p. 57). This operates in part through ‘persistent trade deficits, periodic and ineffective exchange rate devaluations, and eventual debt crises’ (ibid., p. 58), phenomena about which, as we have seen, Ricardo had little or nothing to say.

Thus fundamental criticisms of Ricardo’s principle of comparative advantage continue to be made. Shaikh concludes that ‘the fundamental problem of standard trade theory is that it is wrong on its own terms. That is to say, it is flawed at its very root, in the analysis of competitive free trade between nations: the very principle of comparative costs is wrong even under competitive conditions’ Shaikh (2007, p. 56). He names no names, but it is hard to imagine that he would exempt Ricardo from this criticism.

The formal analytics of Ricardo’s trade theory have been the explicit focus of recent detailed attacks by Ron Baiman (2010) and John Duffield (2010). By way of contrast, Meoqui (2011) defends Ricardo against many of the charges still made against him, including logical inconsistency and carelessness, neglecting the gains from trade, and assuming constant labour costs and international factor immobility. He concludes that Ricardo’s ‘innovative propositions remain valid in the contemporary economic system’ (Meoqui 2011, p. 761). Thus many of the contentious issues raised by Ricardo continue to resonate in the twenty-first century.
In this chapter we shall need to deal with two of the ‘new views’ of Ricardo. The first is one that was touched on in chapter 3. It concerns his thinking on the long-run prospects for real wages, and hence for the living standards of the great majority of the population. This question is considered in the first section of the chapter, since it has a very direct bearing on Ricardo’s attitude towards economic growth and the possibility that it would eventually peter out.

The second is the new view of Ricardo’s macroeconomics set out by Timothy Davis (2001, 2002, 2005), who offers a much more favourable assessment of his thinking about aggregate output and employment in the short run, and is much less critical than previous writers have been of his explanation of the post-1815 depression. This forms the subject of section 5.2.

Closely related to this is the question of Ricardo’s monetary theory, where issues of the neutrality and non-neutrality of money, the Quantity Theory and the factors influencing the rate of interest are all involved. These matters are dealt with in section 5.3.

The chapter concludes (in section 5.4) with a discussion of the new chapter 31 (‘On Machinery’) that Ricardo added to the third edition of the Principles. Here he suggested for the first time that mechanization might damage the interests of the working class by reducing employment and creating technological (or structural) unemployment. So far as possible, the policy implications of all this have been deferred to chapter 6, where Ricardo’s ideas on fiscal and monetary policy and the role of the state in relation to labour are discussed in some detail.
5.1 Growth and the Stationary State

The received view emphasizes Ricardo's pessimism concerning the long run, which he derived from Malthusian population theory and which was very soon contradicted by the facts of British economic growth. Thus Mark Blaug criticized both Ricardo and Malthus for failing to recognize that agricultural yields were increasing and real wages were rising after 1815, despite the Corn Laws, and that the population was growing largely as a result of a fall in the death rate, much more than a rise in the birth rate. ‘After 1834’, he argues, no writer on economics expounded the Malthusian theory without taking note of the empirical evidence that contradicted it’ (Blaug 1956, p. 48).

Part of the reason for Ricardo's neglect of the facts, Blaug suggests, was his deep ideological support for free trade, which might have been undermined if the evidence had contradicted the theoretical case for it. Another reason was methodological, and derived from his equally profound commitment to abstract a priori reasoning.

Timothy Davis is more sympathetic to Ricardo, though in the end no less critical. For 250 years down to 1800, he notes, ‘there was a stable relationship between the rate of growth of population and the rate of change of the cost of subsistence’. But the ‘predictive power of the classical model disappears’ when applied to the nineteenth century. ‘The connection between population and the cost of subsistence breaks suddenly about 1811, as population, now rising rapidly, doubles over the next sixty years, while the cost of subsistence levels out’. This was due to rising agricultural productivity. ‘The transformation of Britain’s economy rendered the classical model obsolete as a predictive engine’ (Davis 2005, pp. 221–2, citing Wrigley and Schofield 1981). On this interpretation Ricardo was the victim of Hegel’s Owl of Minerva, which spreads its wings at dusk: we only discover what is going on when it is about to stop.

This verdict assumes that Ricardo was indeed a long-run pessimist, but this is a question on which there has always been controversy. To take one example: William Thweatt concludes from his growth equation analysis of the Ricardian and Marxian theories of growth that Ricardo was not a pessimist concerning the long-run equilibrium rate of growth. If the Corn Laws were repealed, profits need not fall as growth proceeds. Thus ‘Ricardo was an optimist in a sense which Marx ... never could be’ (Thweatt 1958, p. 71).

In the 1970s and early 1980s this became the hallmark of a ‘new view' of Ricardo's approach to wages, proposed by a number of authors and perhaps stimulated by the apparent victory of the self-proclaimed
‘optimists’ over the ‘pessimists’ in the earlier debate among economic historians over the standard of living of the British working class during the Industrial Revolution (Hartwell 1972).¹

Thus M.A. Akhtar describes the Ricardian stationary state ‘as a fiction – an analytical tool … Ricardo maintained that technical progress could postpone the stationary state on a course of expansion … Historians of economic thought … have always underplayed the role of technical progress in classical economics, especially with respect to Ricardo and Malthus’ (Akhtar 1973, p. 73). These comments form part of a critique of F.R. Kolb, but Kolb actually says much the same: ‘when Ricardo and Malthus did make statements about the future their views were optimistic rather than pessimistic’ (Kolb 1972, p. 23), so that the stationary state was ‘an analytical device rather than a view of reality’ (ibid., p. 29, citing IX, p. 25; original stress removed). It was James Mill and McCulloch who treated it ‘as a possible future reality’, rather than Ricardo (ibid., p. 30; see also Kolb 1973).

Similarly, Alessandro Roncaglia claims that ‘for Ricardo the stationary state appears as an aside … so much so that the term “stationary state” is absent from Sraffa’s index (vol. XI)’ (Roncaglia 1982a, p. 347). Most recently, Walter Eltis concludes his magisterial account of classical growth theory by maintaining that the ‘so-called dynamic laws of evolution did not carry pessimistic conclusions. On the contrary, Ricardo’s belief was that the economic system could prosper without foreseeable limit once “good government” had performed its duty to abolish trade restrictions (notably on corn) and reduce, preferably to extinction, the national debt’ (Eltis 1984, p. 231).²

It is true that dissenting voices have never been entirely absent. To cite just one example, George Stigler argued that the ‘testimony of Ricardo’s contemporaries, and in particular of his disciples, is explicit on the level of Ricardian wages: they are normally at a long-run (“subsistence”) level. Even if Ricardo intended a wage theory that allowed long periods of wages above the equilibrium level, his message did not enter economics during his lifetime or long thereafter’ (Stigler 1990, p. 768).

So what did Ricardo himself believe? The discussion of Britain’s economic prospects in the Principles must be the starting point of any analysis of his own thinking on these matters. In chapter 5 (‘On Wages’), there are several passages that are difficult to reconcile with Stigler’s claim. ‘Notwithstanding the tendency of wages to conform to their natural rate’, he writes, ‘their market rate may, in an improving society, for an indefinite period, be constantly above it’ (pp. 94–5; added stress).
As we saw in chapter 3, for Ricardo the natural wage ‘varies at different times in the same country, and very materially differs in different countries. It essentially depends on the habits and customs of the people’ (pp. 96–7). In England the natural wage was higher than it once had been: ‘Many of the conveniences now enjoyed in an English cottage, would have been thought luxuries at an earlier period of our history’ (p. 97).

This, Ricardo believed, was a tendency that should be encouraged: ‘The friends of humanity cannot but wish that in all countries the labouring classes should have a taste for comforts and enjoyments, and that they should be stimulated by all legal means in their exertions to procure them. There cannot be a better security against a superabundant population’ (p. 100). It was also the basis of his opposition to the Poor Laws, a strong statement of which ends the chapter: ‘if our progress should become more slow; if we should attain the stationary state, from which I trust we are yet far distant, then will the pernicious nature of these laws become more manifest and alarming’ (p. 109; added stress).

There are also many references to these issues in Ricardo’s correspondence, dating back to the period when he was writing the Essay on Profits. Thus, in a letter to Malthus in August 1814, he clearly sets out saving as a function of the rate of interest, arguing that ‘[t]he temptation to save from revenue to augment capital is always in proportion to the rate of profits, and if from accumulation of capital profits and interest should fall very low indeed, at that point accumulation would nearly stop, because it would be almost without an object’. Ricardo attributed this chain of reasoning to Malthus himself, and expresses his own agreement with it (VI, p. 121).

He provided an equally lucid statement of the danger of a falling rate of profit in a second letter to Malthus in the December of that year:

Accumulation of capital has a tendency to lower profits. Why? Because every accumulation is attended with increased difficulty in obtaining food, unless it is accompanied with improvements in agriculture; in which case it has no tendency to diminish profits ... If with every accumulation of capital we could tack a piece of fresh fertile land to our Island, profits would never fall. (VI, p. 162)

This suggests grounds for optimism, which were evident in another letter to Malthus, in October 1815, when Ricardo raised the possibility
that technical progress in agriculture might have beneficial effects in all but the very long run. ‘I agree with you too’, he wrote:

that in a country ... peopled and capital’d up to the utmost limits of its produce, the profits of stock and the wages of labour would both be very low, although the quantity of produce yielded by a given capital including rent might be 100pct, – but I ask if by any miracle the produce of that land could at once be doubled would rents then continue as high as before, or could they possibly rise? We are speaking of the immediate not the ultimate effects. The improvements in skill and machinery may in 1000 years go to the Landlord but for 900 they will remain with the tenant. (VI, pp. 301–2; original stress)

This is a very, very long run indeed.

As he told Francis Place, in September 1821: under a socialist ‘system of equality’ population would, as Place had argued, increase more rapidly than it now does:

but so would food also. A larger proportion of the whole capital of the country would be employed in the production of food-necessaries, and a less proportion in the production of luxuries, and thus we might go on, even with an increase of capital, without any increased difficulty, till that distant time, which because of its distance, Mr. Malthus says should not damp our ardour.

And there was also considerable scope for increasing agricultural productivity in the near future:

It should always be remembered that we are not forcing our production of food to the extent of our power. Without one shilling more capital, without any additional labour being employed in the country, we might probably increase the quantity of food 25 pc. On this foundation are raised all Mr. Owen’s speculations [concerning the feasibility of socialism]. (VI, pp. 49–50)

Ricardo believed himself to be less pessimistic than some of his contemporaries. As he told McCulloch in February 1822:

We shall probably not agree in our opinions of the actual state of the country. I think it is on the whole in a flourishing condition, and that our wealth is daily increasing. Every thing indicates that our
manufactures are in a progressive state of improvement, and I should conclude that their prosperity more than makes up for the losses and adversity of the agricultural class.

There was, however, a political cloud on the horizon:

I hope we shall escape through this crisis without aggravating the evil by bad legislation – I have no hope of good measures being adopted, the landlords are too powerful in the House of Commons to give us any hope that they will relinquish the tax which they have in fact contrived to impose on the rest of the community. (IX, p. 158)

From passages such as these, it is difficult not to agree with Joan Robinson, for whom Ricardo’s stationary state ‘was not an equilibrium, but an awful warning’ (Robinson 1978, p. 15).

5.2 ‘Say’s Law’

So much for the long run, and for Ricardo’s analysis of the accumulation of capital. There is every bit as much controversy concerning his views on fluctuations in output and employment in the short run, when the productive capacity of the economy can be assumed to remain constant. Before 1936 this was not a live issue in Ricardo scholarship, but the coming of the Keynesian revolution quickly changed this. For several decades it was customary to criticize Ricardo for advocating the pre-Keynesian proposition that had been attacked in the *General Theory* as ‘Say’s Law’.

One immediate problem must be faced: the ‘Law’ itself has been subject to a variety of interpretations, which is why I have placed it in inverted commas throughout this chapter. As Steven Kates (1998) convincingly argues, the original meaning of the Law was a simple denial of the possibility of demand deficiency as a cause of recession and unemployment, and a rejection of the claim (advanced by Malthus and others) that unproductive consumption was needed to ensure prosperity by maintaining demand. This does seem to have been what Ricardo understood by it, and after him John Stuart Mill (see Mill 1848, Book I, chapter V).

It was this principle that led Ricardo to side with James Mill and J.B. Say against the proto-Keynesian thinking of Malthus and J.C.L. Simonde de Sismondi, who rejected the Law. It induced Ricardo to deny the existence of ‘general gluts’, and with them any possibility that output might
be constrained by deficient effective demand. This also led Ricardo to endorse a strict version of the Quantity Theory of Money and thereby also to accept the neutrality of money. It made him an early defender of the so-called ‘classical dichotomy’, according to which monetary factors influence only the price level, while output and employment are determined exclusively by ‘real’ factors on the ‘supply side’ of the economy – inputs of land, labour and capital, together with technology and other factors relevant to the organization of production.

All this had broader ideological implications, even if these were not fully apparent at the time. David Levine suggests that the underlying difference between Ricardo and Malthus is that ‘Malthus hints that the expansion of capital is inherently contradictory and that, therefore, the social conditions of capitalist production may not, in fact, be absolute. Ricardo purges the process of capitalist production and expansion of internal contradictions because he conceives it as, taken in itself, self-sustaining’ (Levine 1977, p. 121).

In the immediate aftermath of Keynes’s *General Theory*, many writers regretted Ricardo’s acceptance of ‘Say’s Law’. Thus Ronald Meek insisted that ‘the main role of “Mr. Mill’s principle” in the early formulations of Ricardo’s system was to confirm the theory that “the increased difficulty of obtaining food” was the only permanent cause of a fall in profits’ (Meek 1950, pp. 47–8). Ricardo clung on to it on political grounds, Meek suggests, since he was strongly opposed to Malthus’s defence of the landlords and their unproductive consumption. ‘Little damage would have been done to Ricardo’s system’, he argues, ‘by a recognition of the fact that over-accumulation might occasionally cause a temporary fall in profit – provided, of course, that the existence of effective long-run corrective tendencies was also recognised’ (*ibid.*, p. 51).

This interpretation of Ricardo’s short-run macroeconomic analysis has been challenged from two rather different perspectives. One rejects the idea that Ricardo had *any* theory of the determination of output in the short run, while the other claims that his admitted support for ‘Say’s Law’ did not commit him to the classical dichotomy or to the denial of general gluts. The first proposition originated with the Italian disciple of Piero Sraffa, Pierangelo Garegnani, who argued that ‘in Ricardo “Say’s law” was not the result of an analysis of the investment-saving process but rather the result of the lack of any such analysis ... in this respect Ricardo’s theory of distribution is open, in the sense that it *neither* provides premises capable of justifying the tendency of investment to adjust to saving, *nor* depends on the existence of such a tendency’ (Garegnani 1983b, p. 28; original stress).
Similarly, Matthew Smith (2012) sees Ricardo's version of 'Say's Law' as a truism, a long-period concept that is consistent with both unemployment and excess capacity. Like the other classical economists, Smith suggests, Ricardo had no theory of output, and could not have one, since he made no distinction between investment and saving. If this is correct, then Ricardo's support for 'Say's Law' does not form an insurmountable barrier to a synthesis of classical and Keynesian theory.

Garegnani's interpretation of Ricardo is influenced by Sraffa's 'physicalism', which Sraffa also attributed to Ricardo himself and is an important theme in their interpretation of classical economics more generally. For Heinz Kurz:

The classical economists had a concept of physical real cost. Their starting point can be summarized in the following way. Man cannot create matter; man can only change its form and move it. Production involves destruction, and the real cost of a commodity consists in the commodities destroyed in the course of its production. This concept differs markedly from the later marginalist concepts, with their emphasis on 'psychic cost'. (Kurz 2003, p. 171)

It does, however, constitute a real problem for any attempt to reconcile Ricardo and Keynes, since for the latter the beliefs and expectations of business people operating in an environment of fundamental uncertainty are crucially important.

The second position has been advocated by Timothy Davis, for whom the central question is whether Ricardo used the identity or the equality version of 'Say's Law'. The latter, sometimes known as 'Say's equality', allows for temporary general gluts, which are eliminated by falling prices, so that '[m]arkets eventually clear, but much distress can be experienced in the interim'. Davis argues that 'Ricardo applied the law of markets in several contexts – but not consistently', so that '[h]is analysis of postwar conditions relied on Say’s equality, while his opposition to expansionary fiscal measures implied Say’s identity ... his underlying analysis is fragmentary and incomplete' (Davis 2005, pp. 162, 182).

Ricardo:

rejected Malthus’s notion of oversaving because he did not believe that irrational investment on a grand scale ever occurred. He also knew that Britain’s economic troubles in the postwar period could not be traced to too rapid an accumulation of capital. It was just the opposite problem – too little capital relative to the supply of labor – that concerned him. (Davis 2005, p. 183)
But, Davis insists, Malthus did not have a coherent theory of aggregate demand, either: ‘Nothing in Malthus’s work anticipates Keynes’ explanation of why demand becomes deficient’ (ibid., p. 219), not least because Malthus stressed deficiencies in private consumption expenditure and did not focus on business investment, like Keynes.

Davis concludes that Malthus’s ‘intellectual link with Keynes is “more apparent than real”’ (ibid., p. 200, citing Corry 1962, p. 126). Terry Peach concurs: ‘Malthus’s reputation as a proto-Keynesian demand manager stands in need of revision’ (Peach 1996, p. 46).

Once again, our starting point in the assessment of Ricardo’s own opinions must be the Principles: in this case, principally chapter 21 (‘Effects of Accumulation on Profits and Interest’). It is worth noting, however, that he ends the ‘Preface’ to his book with a paragraph praising J.B. Say’s Économie Politique, which he describes as ‘original, accurate, and profound … chap. xv, part i. ‘Des Débouches, contains, in particular, some very important principles, which I believe were first explained by this distinguished writer’ (I, p. 7 and p. 7n).

In chapter 21 Ricardo sets out these principles at some length:

Mr. Say has, however, most satisfactorily shewn, that there is no amount of capital which may not be employed in a country, because demand is only limited by production. No man produces, but with a view to consume or sell, and he never sells, but with an intention to purchase some other commodity, which may be immediately useful to him, or which may contribute to future production. By producing, then, he necessarily becomes either the consumer of his own goods, or the purchaser and consumer of the goods of some other person. (I, p. 290)

This has important implications for the analysis of money, as we shall see. Ricardo is quite explicit in denying the possibility of a general glut: ‘Too much of a particular commodity may be produced, of which there may be such a glut in the market, as not to repay the capital expended on it; but this cannot be the case with respect to all commodities’ (I, p. 292).

There is one place in Ricardo’s correspondence where he does seem to concede the possibility of a general glut. This is in a recently discovered letter of April 1819 to his neighbour Thomas Smith of Easton Grey, in Gloucestershire, who had written to him from Rome:

You will find the politicians of this country in a very gloomy mood. Commerce is languishing – merchants and manufacturers are failing – overtrading has become general and all our markets are glutted
with goods ... A cloud is certainly passing over us, but I cannot help anticipating with confidence that we shall speedily resume our wonted energy and vigour. (Heertje and Weatherall 1978, p. 570; stress added)

One can only speculate as to whether Ricardo was making excessive use of irony, or whether he had genuinely changed his mind. If it was the latter, it did not last long.

His position in all his other correspondence seems to me to be entirely consistent. In September 1814 he told Malthus that:

We agree too that effectual demand consists of two elements, the power and the will to purchase, but I think the will is very seldom wanting where the power exists, – for the desire of accumulation will occasion demand just as effectually as a desire to consume, it will only change the objects on which the demand will exercise itself ... In short I consider the wants and tastes of mankind as unlimited. (VI, pp. 133–4; original stress)

He repeated this in the following month: ‘I go much further than you’, he wrote to Malthus, ‘in ascribing effects to the wants and tastes of mankind, – I believe them to be unlimited. Give men but the means of purchasing and their wants are insatiable. Mr. Mill’s theory is built on this assumption’ (VI, p. 148).

In December he was endorsing not James Mill but rather J.-B. Say, who, ‘in the new edition of his book, Page 99 Vol. 1, supports, I think, very a[bly] the doctrine that demand is regulated by production. Dema[nd is] always exchange of one commodity for another ... Accumulation necessarily increases production and as necessarily increases consumption’ (VI, pp. 163–4). And he reminded Malthus in October 1815 that ‘the demand for capital is infinite ... the demand will enlarge at the same rate as the supply, if there be no difficulty on the score of food and raw produce’ (VI, p. 301).

Ricardo took exactly the same position five years later, in his Notes on Malthus:

Mr. Malthus’ error is in supposing that cheap corn, and cheap commodities, necessarily imply a glut of corn and commodities. We agree that a glut is an evil ... It arises always I think from a bad selection in the object produced, but cheapness from facility of production, which I think is the only legitimate cheapness, never fails of being
attended with the happiest effects, and is as different from a glut, as light is from darkness. (II, pp. 412–13; added stress)

One could not ask for a clearer statement of the possibility of partial over-production and the impossibility of general over-production. ‘Mr. Malthus’, Ricardo objects, ‘never appears to remember that to save is to spend, as surely, as what he exclusively calls spending’ (II, 449; original stress).

At about the same time, in May 1820, he wrote to McCulloch in a very similar vein, attacking the chapter in Malthus’s *Principles* that deals with the adverse effects of over-accumulation of capital (Malthus 1820, ch. VII, s. III), and again identifying saving and investment: ‘He is not aware that the produce of a country is always consumed, and that saving means only that a larger portion shall be consumed by those who reproduce a value superior to their consumption ... It can never happen that capital and labour can be at the same time redundant’ (VIII, p. 181). In June 1821, in another letter to McCulloch, Ricardo expressly denies that the new chapter 31 (‘On Machinery’) is in any way a capitulation to Malthus (VIII, p. 387).

He also continued his attempts to persuade Malthus of his errors. Profits might indeed fall to zero, he wrote in July 1821, causing accumulation to cease, but only as a result of excessive wages. However, ‘there will not be a general glut’, and ‘stagnation of trade’ cannot result from ‘too great savings’. In fact, ‘in my opinion increased savings would alleviate rather than aggravate the sufferings of which we have lately had to complain. Stagnation is a derangement of the system, and not too much general production, arising from too great an accumulation of capital’ (IX, pp. 25–7; see also X, pp. 13, 16–17). In the following year Ricardo enjoyed meeting J.C.L. Simonde de Sismondi on his European tour, but reported himself entirely unconvinced by the Swiss economist’s underconsumptionist arguments (X, p. 278).

My own conclusion is that the early Keynesians were broadly correct, about Ricardo if not, perhaps, about Malthus. Ricardo did have a theory of aggregate output, which he shared with the great majority of classical economists: output is always supply-constrained, not demand-constrained. It might be more accurate to say that in classical political economy output is capital stock-constrained. John Stuart Mill’s version of ‘Say’s Law’ rests on the question-begging assumption that the capital stock is always fully utilized, and this seems also to have been Ricardo’s assumption, though in his case it was implicit rather than explicitly stated, and not easy to reconcile with his acceptance that partial over-production was a possibility.
It is important to be clear on one point: Ricardo did not thereby assume the full employment of labour. In Heinz Kurz’s words:

It appears to have escaped the attention of most commentators that in the classical economists Say’s Law was not taken to apply to what later was called the ‘labour market’. As no less an authority than David Ricardo put it in his Principles of 1817: ‘There is no amount of capital [!] which may not be employed in a country, because demand is only limited by production’… Notice that reference is to the employment of capital, not labour, and to production, not employment. The classical authors envisaged Say’s Law to apply to capitalistically produced commodities only. Since labour, although a particular kind of commodity, is not produced and reproduced in a capitalistic way, Say’s Law was not applicable. (Kurz 2010b, p. 10 n16, citing I, p. 290; original stress)

The extension of the Law to labour, Kurz suggests, was a later neoclassical generalization (see also Negishi 1990, p. 160).

This leaves two unresolved issues. One is factual, and is emphasized by Timothy Davis: was the post-1815 ‘distress’ due to a collapse of aggregate demand at the end of the war, ‘later aggravated by the ruinous policy of resumption, which necessitated a severe monetary contraction’? Or was it, as Ricardo believed, the result of ‘adventitious and nonrecurring circumstances’, including abundant harvests? (Davis 2005, p. 38, citing Blaug 1958, p. 98).

Davis defends Ricardo’s interpretation of the post-war distress. ‘Authors who associate Ricardo with Say’s identity and a primitive version of the quantity theory’, he suggests, ‘assume that he failed to recognize that Britain’s economy was depressed for the entire post-war decade and that the crisis resulted from a shortfall in consumer demand’.

For Davis, however:

there was no chronic depression in the postwar years. Instead, Britain suffered a series of exogenous shocks. An agricultural crisis prevailed from the harvest of 1813 to the spring of 1816, and two depressions befell trade and manufacturing. The first lasted from the fall of 1815 to early 1817; it was occasioned by the collapse of Britain’s foreign markets and by the transition from wartime to peacetime production. The second began early in 1819 and continued through the spring of 1820; it resulted from sudden setbacks in foreign trade and, to a lesser extent, from the Bank of England’s return to the gold standard. (Davis 2005, p. 40)
Now ‘Ricardo’s account of the postwar period relied on a distinction between temporary and permanent causes of distress. Temporary causes included the transition to peacetime production, reversals in foreign trade, and monetary shocks. The permanent cause of distress was a disproportion between the supply of labor and its demand’ (ibid., p. 41).

In Walter Eltis’s words:

Davis argues that Malthus got the postwar cycle wrong ... Ricardo believed that there was great prosperity in certain export industries, and that is one reason why he saw such opportunities for expansion in the postwar ... Ricardo believed that general gluts could occur, but that they would not, because of the potential prosperity of the export industries and because the Corn laws had the effect that exporting wheat became profitable at a price of corn above 80 shillings a quarter ... Ricardo’s preference for Say’s equation over Say’s identity meant that extra demand would sometimes create prosperity. He was convinced that the postwar period offered no such opportunities, because there was ample demand without additional demand created by the government. (Eltis 2007, pp. 320–1)

Davis himself concludes that Ricardo’s analysis of contemporary crises was excellent. ‘He was well informed and rightly characterized what he observed – namely that Britain’s economy adapted quickly to a series of exogenous shocks from 1813 to 1822’ (ibid., p. 42).

Roy Green takes a similar line: ‘at the time when Ricardo wrote, major crises affecting the world market were as yet unknown; his denial of their possibility therefore seemed plausible’, especially when ‘more visible factors’ like bad harvests, the wartime blockade, and what Ricardo described as ‘sudden changes in the channels of trade’ could be invoked instead (Green 1992, p. 97, citing the title of chapter 19 of the *Principles*). Karl Marx would have concurred, since he dated the onset of the modern periodic business cycle, which could not be attributed to isolated, one-off exogenous shocks, to 1825 – two years after Ricardo’s death (Marx 1872, p. 14).

This does not entirely get Ricardo off the hook, however, for the second residual question now arises. It is more theoretical than factual, and has been sharply posed by Terry Peach:

In Ricardo’s case, the ‘true’ principles of political economy led him to the somewhat counterfactual proposition that the distress ought not even be happening, certainly not on the scale, nor for the duration,
that was actually being experienced. To the extent that he could make any sense of it at all, its severity was attributed to blind irrationality on the part of the capitalist class. (Peach 1996, p. 30)

Peach cites Ricardo’s letter to Malthus in October 1820:

Men err in their productions, there is no deficiency of demand. If I wanted cloth, and you cotton goods, it would be great folly in us both with a view to an exchange between us, for one of us to produce velvets and the other wine, – we are guilty of some such folly now, and I can scarcely account for the length of time that this delusion continues. (VIII, 277–8)

Protracted episodes of ‘great folly’ and ‘delusion’ are indeed difficult to reconcile with Ricardo’s belief that most people, in all social classes, are normally engaged in the rational pursuit of their own self-interest.

5.3 Money and Banking

There is a very clear link between Ricardo’s position on Say’s Law and his approach to monetary theory, and here again there is strong support for the conventional interpretation (Sayers 1953; Humphrey 1990; Green 1992, O’Brien 2004). ‘Over his entire career’, Charles Peake notes, Ricardo devoted more attention to the subject of money than to any other’. His ‘preoccupation with monetary questions persisted, and two of his four major works after 1815 were devoted to the quantity-theory issue’ (Peake 1978, pp. 194, 208).

There is a clear chronological and analytical sequence, beginning with Ricardo’s early critique of Henry Thornton, continuing with his adoption of a theory of money neutrality and concluding with his acceptance of Say’s Law as a necessary theoretical consequence. Ricardo probably knew Thornton from the London Institution – they were both founding members in 1805.

‘Theoretically’, Peake argues, ‘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 price level’ (ibid., p. 203). For Ricardo, following David Hume and Adam Smith, the rate of interest was determined by the rate of profit, not by monetary factors; that is to say, he believed that it was determined in the real sector of the economy (ibid., p. 205). This impressed Keynes so much that he
(slightly mis-)quoted a long passage from the *Principles* where the issue was set out with great clarity (Keynes 1936, p. 190, citing I, pp. 363–4).

As we have seen, Ricardo was first induced to write on political economy by the monetary controversies of 1809. This was a year in which, as Sraffa notes, the price of gold rose sharply, as it had done in 1797–1801 before reverting to its original level by 1804 (III, pp. 3–4). In the autumn of 1809 Ricardo read Adam Smith, John Locke, Sir James Steuart and Lord Liverpool on money, in addition to Henry Thornton (III, p. 7), and his ‘Bullion Essays' and other related writings from 1809 to 1811 fill the 434 pages of volume III of the *Collected Works*. Peake notes that in the *High Price of Bullion* Ricardo also cites the great pioneer of the Quantity Theory, David Hume (1752).

Thus Ricardo’s thinking on money was not especially original: ‘Indeed as [Jacob] Hollander has pointed out Ricardo added little if anything to the monetary theory of the nineteenth century’, but was instead ‘part of the broad stream of classical monetary theory stemming ... from Smith, Thornton, Locke, Hume, and Blake’ (O’Brien 1970, pp. 189–90). Matthew Smith (2012) concurs, adding John Wheatley to the list of Ricardo’s influences. And Timothy Davis notes that it is not ‘obvious why he became ensconced in the pantheon of monetary economists’.

Both his recommendations for monetary policy and the analytic content of his pamphlets were very largely orthodox. ‘The modest scope of Ricardo’s pamphlets contrasts with the sophistication of Thornton’s *Paper Credit’*, Davis continues, and here the discussion of the need for a lender of last resort is ‘vastly superior’ to that of Ricardo. ‘The irony ... is ... that Ricardo’s work had the greater rhetorical force and the more lasting influence’ (Davis 2005, pp. 211–12). Roy Green concurs, concluding that, on monetary questions, ‘Ricardo laid claim to the Smithian legacy, either replicating his ideas or extending them to new fields’ (Green 1992, p. 146).

Possibly this explains the relative clarity of Ricardo’s writings on money, which are much easier to understand than some of his other work, for example on the theory of international trade. This is true not just of the pamphlets but also of his *Notes on Bentham*, written in December 1810 and January 1811 (see III, pp. 261–6) and summarized by Ricardo himself in a letter to James Mill written on New Year’s Day 1811.

Ricardo was highly critical of Bentham’s thinking:

Much of his argument is built on the assumption that an increase in the circulating medium though attended with the effect of depreciating the value of the currency, is also attended (provided it be
introduced through commercial channels,) with an increase of capital and commodities, and is so far beneficial; – he has supposed that money calls goods into existence which but for that money would not have been produced. – This opinion is advanced in many parts of his work, and was to me of great difficulty, as he had not advanced any reasons for entertaining it ... *The increase of money in my opinion can have no other effect than raising the prices of commodities.* By such means some members of the community are enriched at the expense of others; *there is a mere transfer of property, but no creation.* (VI, pp. 16–17; added stress)

It would be difficult to provide a clearer statement of the neutrality of money. The only minor qualification that Ricardo was prepared to admit to this principle involved the possibility of a temporary decline in real wages that would increase profits for a while and permit ‘some trifling addition’ to the society’s total capital (III, p. 17).

He was equally clear about the cause of the 1809 inflation. ‘It appears then to me’, he told Francis Horner in February 1810, ‘that no point can be more satisfactorily established, than that the excess of the market above the mint price of gold bullion, is, at present, wholly, and solely, owing to the too abundant quantity of paper circulation’ (VI, pp. 1–2).

In a sense he was forced to this conclusion by his insistence that gold was a commodity like any other, with its value determined by the quantity of labour needed to produce it. ‘There does not appear to me’, he wrote to Malthus in June 1811, to be any substantial difference between bullion and any other commodity, as far as regards the regulation of its value’ (VI, p. 24).

He repeated the point four years later: ‘I have observed in the bullion pamphlet that many who say they consider money only as a commodity, and subject to the same laws of variation in value from demand and supply as other commodities, seldom proceed far in their reasoning about money without shewing that they really consider money as something peculiar’, with ‘its value varying from causes totally different from those which affect other commodities’. Ricardo demurred, repeating to Malthus his belief that the value of money was determined ‘by the same law as all other commodities’ (VI, pp. 201–2).

Thus paper money was nothing more than a token of gold, the value of which depended entirely on the number of tokens that were produced per ounce of gold. Even as fierce a critic of the Quantity Theory as Karl Marx found himself forced into a theoretical corner on this issue (Nelson 1999, pp. 144–5). Ricardo was entirely comfortable with it.
Relatively little was added in the *Principles* to Ricardo’s earlier views on monetary questions. In the very brief chapter 3 (‘Rent of Mines’), he claims that technical change in gold mining takes place only very slowly, so that the value of gold also changes only slowly, and this makes it a good invariable measure of value (I, pp. 86–7; I, p. 50). In chapter 13 (‘Taxes on Gold’), there is a fairly explicit statement of the Quantity Theory (I, p. 193), which is repeated in the opening pages of chapter 27 (‘On Currency and Banks’), the only substantial chapter devoted entirely to monetary problems (at 19 pages, it amounts to roughly 5% of the book: I, pp. 347–65).

Here Ricardo makes it very clear that he sees paper money as a token of gold: ‘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’ (I, 361; stress added).

The only other significant passage on monetary theory comes at the end of chapter 21, where Ricardo concludes his exposition of Say’s Law with a statement of his views on the rate of interest: it is ‘ultimately and permanently governed by the rate of profit’. This is immediately qualified, since he acknowledges that the rate of interest is ‘subject to temporary variations from other causes’, for example the need of manufacturers to borrow on credit when prices fall and stocks of unsold goods build up. ‘This, however, is but of temporary duration’ (I, pp. 297–8).

It does not constitute a serious objection to the fundamental principle that Ricardo asserts against Say, whom he criticizes in the extended footnote that ends the chapter: ‘Mr. 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 circumstance to make them change places’ (I, p. 300n).

He had been consistent on this important point ever since the early pamphlets on money. Sayers cites his *Second Letter on the Bullion Report*, written in September 1810: ‘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’ (Sayers 1953, p. 47, citing III, pp. 143–4).

Green, too, notes that Ricardo’s theory of interest relies on real rather than monetary factors. Citing David Hume, Ricardo maintained that ‘the rate of interest is not regulated by the abundance or scarcity of money, but by the abundance or scarcity of that part of capital, not consisting of money ... [that is to say] by the profits on the employment of capital’ (III, pp. 88–9, cited by Green 1992, p. 170). Thus, for
Ricardo, there was ‘a “natural rate” of interest which was given by the demand and supply of real capital and to which was counterposed a “market rate”, expressing the daily fluctuations in the money market’ (ibid., p. 171).

Given his endorsement of Say’s Law, Ricardo was compelled to deny the existence of hoarding, since ‘a “glut of money”, like that of commodities, would be countered and eliminated automatically by a forced reduction in its price. The possibility of hoarding would therefore not arise’ (Green 1992, p. 87). ‘Productions are always bought by productions’, as Ricardo himself put it in the Principles, ‘or by services; money is only the medium by which the exchange is effected’ (I, p. 292). By implication it is not a store of value.

Nothing approximating a Keynesian liquidity preference theory of interest rates was possible for Ricardo, since there was no basis for either a speculative or a precautionary demand for money (Green 1992, pp. 165–6; cf. Takenaga 2011). This led him directly and inescapably to the classical dichotomy: changes in money affect prices, not output, even in the short run.

This, again, is a contentious interpretation. Cristina Marcuzzo and Annalisa Rosselli accept that for Ricardo an increase in the quantity of money would have no permanent effect on output or employment. ‘However, it is not difficult to find evidence of cases envisaged by Ricardo where monetary disturbances have real effects’ (Marcuzzo and Rosselli 1994, p. 1256). These include redistributational effects between creditors and debtors (III, p. 136; V, pp. 107–8), taxation effects (I, p. 209), and short-run effects of monetary contraction on employment (III, p. 94).

Several authors have noted similar qualifications to the principle of the neutrality of money in Ricardo’s writings, sometimes criticizing him for neglecting their practical significance in his quest for a logically consistent long-run theory (Carr and Ahiakpor 1982; Ahiakpor 1985; Davis 2005). Thus Sayers attacks Ricardo for unrealistically assuming very rapid quantity adjustments in industry – it seems that he never visited the factory districts of the Midlands and the North – and for exaggerating long-run effects at the expense of short-run consequences (Sayers 1953, pp. 47–8).

An additional, and related, line of criticism concerns Ricardo’s neglect of banks and credit money. This put him on the side of the Bullionists and in opposition to the Banking School in the monetary controversies of his day, which will be discussed in chapter 6. Thus Green notes that Ricardo’s failure to deal adequately with credit
money led to criticism from the Banking School and, somewhat later, from Karl Marx, who affirmed the validity of Ricardo’s theory in the context of paper money but found it inapplicable to a system of credit money. ‘While the leading lights of what became known as the “currency principle” did very little except apply classical quantity theory to a regime of convertible notes, their Banking School opponents attempted to develop for the first time a theory specific to credit’ (Green 1992, p. 209).

Matthew Smith (2012) contrasts Ricardo’s treatment of money unfavourably with that of Thomas Tooke, who rejected Say’s Law and the neutrality of money and argued for an alternative, ‘banking school theory’ of endogenous money, with a demand-led theory of output and a cost-determined, supply-side theory of price inflation.

The story is, however, a little more complicated than this. David Laidler emphasizes the need to distinguish long-run from short-run monetary theory. Most of the difficult questions concern the latter, since:

for long-run questions, classical analysis read the equation $MV = PY$ from right to left. Output was given at ‘full employment’, and the price of commodity money, the norm in that analysis, was determined by its production cost. Money, then, and/or velocity, had to adapt to an exogenously given nominal income.

But the classical economists were divided about the short-run. Anti-bullionists and the banking school read the equation from right to left in this context too: the former because they believed in the real bills doctrine, even in the absence of convertibility, and the latter because they thought that convertibility tied down the price level in the short run as firmly as it did in the long-run … Both groups thought real shocks, often to the harvest, explained balance of payments and price level fluctuations. Ricardo, and later the currency school, reading the quantity equation from left to right in the short run, attributed such problems to monetary shocks. (Laidler 1987, p. 1079)

And Denis O’Brien (2004, pp. 176–7) contrasts the ‘rigid’ and the ‘moderate’ Bullionists, placing Ricardo firmly in the former camp. This had important implications for monetary policy, which will be discussed in the following chapter.
5.4 ‘On Machinery’

Soon after its publication in 1817 Ricardo read *Observations on the Condition of the Labouring Classes* by John Barton, a Quaker country gentleman, promoter of a savings bank and founder of a famous school at Chichester (Maital and Haswell 1977, p. 360). Barton’s book was enough to make Ricardo change his mind on the consequences of mechanization, in one of the most celebrated *volte-faces* in the history of economics.5

In 1821 he added a new chapter 31 (‘On Machinery’) to the third edition of the *Principles*, repudiating his previous opinion that the application of machinery ‘was a general good, accompanied only with that portion of inconvenience which in most cases attends the removal of capital and labour from one employment to another’ (I, p. 386). Landlords, capitalists and workers would all benefit from the introduction of machinery, he had once believed. ‘As, then, it appeared to me that there would be the same demand for labour as before, and that wages would be no lower, I thought that the labouring class would, equally with the other classes, participate in the advantage, from the general cheapness of commodities arising from the use of machinery’ (I, p. 388).

He continued to believe that landlords and capitalists would gain; Ricardo wrote, ‘but I am convinced, that the substitution of machinery for human labour, is often very injurious to the interests of the class of labourers. My mistake arose from the supposition, that whenever the net income of a society increased, its gross income would also increase’. But he now realized that this was not the case: ‘the same cause which may increase the net revenue of the country, may at the same time render the population redundant, and deteriorate the condition of the labourer’ (I, p. 388).

He provides an elaborate numerical example. A capitalist employs a total capital of £20,000, of which £7,000 takes the form of fixed capital and £13,000 is ‘employed as circulating capital in the support of labour’, producing ‘food and necessaries’. The rate of profit is 10%, yielding annual profits of £2,000 to the capitalist, all of which he consumes. The annual gross product is £15,000, and the surplus product is £2,000 (note that Ricardo implicitly assumes that there are no landlords and no rent, and that there is no depreciation of fixed capital).

In the second year the capitalist decides to employ half his men in constructing a machine; he would pay out £13,000 in wages as usual, and would sell food and necessaries of the same value to his workers (these
were produced by them in the previous year). In year 3 things are slightly different. The machine is worth £7,500, and the food and necessaries produced in year 2 are also worth £7,500, £2,000 of which the capitalist himself consumes. The remaining £5,500 is used as circulating capital, and as he also has his original fixed capital of £7,000, his total capital remains equal to £20,000 (£7,500 + £7,000 + £5,500).

The problem for the workers is that he has only £5,500 in circulating capital, instead of £13,000, so that ‘all the labour which was before employed by £7,500, would become redundant’. The surplus product is unchanged (at £2,000), and so the capitalist is no worse off than he was before, but the gross product has fallen from £15,000 to £7,500, and with it the volume of employment (I, pp. 388–9). It follows, Ricardo concludes, that ‘the opinion entertained by the labouring class, that the employment of machinery is frequently detrimental to their interests, is not founded on prejudice and error, but is conformable to the correct principles of political economy’ (I, p. 392).

This was a brave statement for a man of property to make in 1821, when ‘General Ludd’ was active in many industrial areas and machine-breaking was common practice (Thomis 1970). As Marx subsequently commented, it ‘bears witness to his honesty which so essentially distinguishes him from the vulgar economists’ who followed him (Marx 1862–3, p. 555). It also testifies to Ricardo’s intellectual flexibility, a property not always apparent in his attitude to other topical issues.

Maital and Haswell compare his change of mind on machinery with his refusal to change his mind on the bullion controversy. They offer two explanations:

First, it was tighter logic and a better theory that changed Ricardo’s views on machinery ... Second, the cornerstone of the Ricardian model is that economic agents act in their own self-interest. Violent anti-machinery demonstrations by the working class forced Ricardo to consider whether new machinery might indeed be harmful to the workers’ interests, as the workers themselves vehemently maintained. In the Bullionist controversy, the premise that Bank of England directors act in their own interest – maximizing profits from credit creation – led inexorably to the conclusion that bank notes were over-issued, and no amount of data could shake Ricardo’s faith in that conclusion. (Maital and Haswell 1977, p. 359)

In fact, as we shall see in the next chapter, Ricardo was not persuaded that the Directors of the Bank of England did always act in their own
best interests. His belief that, at least in this instance, workers were more rational than some wealthy capitalists is an intriguing footnote to his – broadly democratic – views on British politics.

He was, though, insistent that his change of mind on the machinery question did not represent a capitulation to Malthus. Their opinions on the causes of unemployment were indeed very different. As Ricardo wrote to McCulloch in June 1821:

Mr. Malthus does not think that I have given up anything to him, and no one who has read the chapter has supposed me to have approached one step nearer to Mr. Malthus's doctrine than I was before. You must surely forget that Mr. Malthus' objection to machinery is that it adds so much to the gross produce of the country that the commodities produced cannot be consumed – that there is no demand for them; mine, on the contrary, is that the use of machinery often diminishes the quantity of gross produce, and although the inclination to consume is unlimited, the demand will be diminished, by the want of means of purchasing. Can any two doctrines be more different? And yet you speak of them as identically the same. (VIII, p. 387)

For Ricardo unemployment was the product of mechanization, not excessive saving, and the cure (if indeed there was one) did not lie in encouraging unproductive consumption by the landlords – or their government.

Some contemporaries were inclined to agree with Ricardo, though not always in the context of industrial England. ‘The first dark echo of Ricardo’s machinery analysis’, Walter Eltis suggests, ‘came in the Irish famine of the 1840s which John Stuart Mill analysed in precisely the terms of the machinery chapter in his Principles of Political Economy’. The Irish landlords had initiated a move from potato cultivation to the much more capital-intensive activity of cattle breeding, with the same effects as the introduction of machinery: ‘evictions and the starvation which continued long after the potato crop failed’ (Eltis 1984, p. 328, citing Mill 1848 [1909], p. 95).

O’Brien concludes that ‘the Barton/Ricardo argument was ... not one that impressed most other writers on economics’, with Robert Torrens and Thomas Joplin both criticizing it:

But Ricardo’s chapter was taken sufficiently seriously for three of the major Classical writers, Malthus, McCulloch, and J.S. Mill to consider
it at some length ... J.S. Mill’s view was that, in so far as installation of machinery involved the conversion of circulating into fixed capital which did not wear out every year, this was prejudicial to the interest of the laborer. (O’Brien 2004, pp. 272–3, citing Mill 1848, pp. 94–100, 135, 742–5)

Karl Marx’s analysis of the way in which a rising organic composition of capital would increase the reserve army of the unemployed was inspired by Ricardo, although it was set out in very different analytical terms (Howard and King 1985, pp. 93–4, 197–9). And in the 1930s Ricardo’s ideas influenced the thinking of the Austrian-German socialist, Emil Lederer (1882–1939), now exiled in the United States, who developed a theory of ‘structural unemployment’ resulting from technical progress (Hagemann 2000).

Critics of Ricardo have often objected to all this on the grounds that it neglected the ‘compensation effects’ that would, in the medium to long term, more than offset the employment-displacing effects of mechanization. It might be argued that chapter 31 is ‘uncharacteristically (for Ricardo) short-run ... For once, Ricardo seemed uninterested in the permanent effects’ (Maital and Haswell 1977, p. 366).

The same point was made by Knut Wicksell (Jonung 1981, p. 197). The great Swedish economist was fascinated by Ricardo’s analysis of the machinery problem and was the first to apply rigorous neoclassical theory to the issue. He criticized Ricardo for neglecting the effects of a fall in wages as a result of increased unemployment, which would encourage the substitution of labour for capital, increase employment and reabsorb those thrown out of work by the machinery (Hagemann 2000, pp. 68–9; cf. Hicks 1932, p. 121).

As Wicksell himself put it, in an unsuccessful submission to the *Economic Journal* in 1923:

This remarkable chapter, however, so far as I know has hardly met with quite the attention it deserves ... even in English writings I cannot remember to have seen it much discussed ... as far as I know I am myself the first who has pointed out that Ricardo’s conclusion as to a possible diminution of the gross product is actually wrong, and that although the introduction of machinery may very often be detrimental to the labourers, as a matter of fact it is never necessarily so. (Wicksell 1981 [1923], pp. 200–1; original stress)
O’Brien notes another point in Wicksell’s critique:

Ricardo’s argument depended on his scaling up a single enterprise to represent an entire sector. If we do not do this, then the fall in wages brought about by the initial displacement of labour will prevent other entrepreneurs installing machines. Indeed, the argument that gross produce will fall is, according to Wicksell, untenable because falling wage rates increase the profitability of the old method and thus output, produced by the old method, will be increased. (O’Brien 2004, p. 271, citing Wicksell 1934, I, pp. 134–5)

Similar objections to Ricardo’s argument have been made by Michio Morishima (1989), while he has been defended by Takashi Negishi (1990), and also by Paul Samuelson in two papers, the later and less formal of which has the title: ‘Ricardo Was Right!’ (Samuelson 1989).

In the first paper, Samuelson offers a ‘mathematical vindication’ of Ricardo and maintains that the chapter on machinery is ‘the best single chapter in this overpraised work’. He sets out a formal model of ‘a simple classical scenario’ in which the invention of a robot machine permanently reduces the demand for labour, the total wage-bill and the gross product, and causes the population to decline (Samuelson 1988, p. 274).

But Samuelson is quick to add that:

One must never go overboard in praising the uneven Ricardo. As Stephen Leacock would say, Ricardo was away from school the day they taught the difference between necessary and sufficient conditions. It is not required that gross product be reduced by an invention if the demand for labor is to be hurt by that invention, but his way of seeing this last possibility was by way of the former possibility. (Ibid., p. 278 n1)

The decline in gross product is a sufficient condition for reduced employment, but it is not necessary.

In chapter 31, Samuelson concludes, Ricardo ‘anticipates the induced factor-biased inventing that we associate with Marx, Hicks, Fellner, Charles Kennedy, von Weizsäcker and Samuelson, Dandrakis and Phelps, and many others ... I for one find chapter 31 a refreshing change from the sterilities and nonoptimalities of Ricardo’s opening chapters’ (Ibid., p. 281).

More recently, Takashi Uchiyama (2000) has set out a formal model of mechanization also showing that a decline in the gross product is not
necessary for employment to decline. In some cases, ‘even if the value of the gross produce increases, the demand for labour must decrease temporarily’ (Uchiyama 2000, pp. 208, 219). And in the very same week that I was working on the first draft of this chapter, Paul Krugman devoted part of his regular column in the New York Times to a discussion of capital-using technological change, making explicit and approving reference to chapter 31 of the Principles (Krugman 2012).
The importance of policy considerations in Ricardo’s economic thinking has long been recognized (Dobb 1973, ch. 3). It began with his critique of the Bank of England and the prominence of monetary policy issues in his early work on macroeconomics, and continued into his mature thought on rent, profit and value and the critical issue of the Corn Laws.

Ricardo was not, as he has sometimes been described, an ivory tower theorist. Both his theoretical and his policy writings were firmly grounded in the social structure of early nineteenth-century England, with its three classes and three sources of income. Even his widely (and correctly) criticized support for Say’s Law had a political undertone since, for Ricardo, denying the Law implied supporting protection for the landlords.1

This chapter begins with an account of Ricardo’s views on fiscal policy (in section 6.1), since the economic role of the state, the appropriate level of public expenditure and the way in which it might best be financed were all central to his approach to economic policy issues more generally. Then, in section 6.2, his views on monetary policy will be considered, including his highly critical attitude towards the Bank of England and his proposals for monetary reform.

Ricardo’s position on questions of social policy is the subject of section 6.3, which deals with the relief of poverty and the regulation of the labour market. Finally, in section 6.4, Ricardo’s role as a rather dogmatic free market liberal will be established. The case for free trade is the only significant policy issue not covered in this chapter, since Ricardo’s critique of the Corn Laws was discussed in chapter 4.
6.1 Fiscal Policy

With the emergence of ‘New Classical’ macroeconomics in the 1970s there was a rediscovery of Ricardo as a fiscal theorist, in particular the principle of ‘Ricardian equivalence’, which denies the effectiveness of deficit-financed government spending and therefore asserts the impotence of counter-cyclical fiscal policy (Barro 1974). For their part Keynesians suspect that Ricardo’s principle has also been used to ‘demonstrate’ the ineffectiveness of fiscal policy, since there is a tendency for economists influenced by ‘Ricardian equivalence’ systematically to underestimate the fiscal multiplier (Skidelsky 2012). As we shall see in this section, Ricardo’s views on these questions were nuanced, and he proposed a surprisingly radical remedy – the capital levy – for the British government’s post-1815 debt problem.

The background to his thinking on fiscal policy was set out in chapter 2.2 The Napoleonic Wars had required a massive increase in government expenditure, and since taxation had not risen to the same extent there had been a huge increase in public debt. As noted by Michael Bordo and Eugene White, the war against France was at first financed in the traditional eighteenth-century manner, that is, by government borrowing on a massive scale. Between 1793 and 1798 only 10% of war expenditure was covered by taxation, and the national debt doubled in five years.

This increased pressure on the government finances led to two very significant developments. The first was the suspension of specie payments in 1797, when Britain was forced off the gold standard and notes issued by the Bank of England were no longer convertible on demand into gold. The second was the introduction of an income tax in 1799, increasing the burden of taxation and also shifting its incidence from the lower-income classes who paid the bulk of indirect taxes to the wealthy, who alone were liable for income tax (Bordo and White 1991, p. 310).

They point to a sharp contrast in British and French financial policy during the Wars, which reflected the very different political situations in revolutionary France and conservative England. Before the Revolution, France had financed its frequent and expensive wars very largely by increased borrowing, leaving taxes relatively unchanged. This, they suggest, ‘was a relatively efficient strategy for war finance, but its success hinged critically on the credibility of the government to repay its accumulated and enlarged debt after the war’ (ibid., p. 303). But
the continuing political instability in France, together with the use of confiscation and capital levies by the revolutionary regime, destroyed the fiscal credibility of the French state. This made it impossible for the government to borrow on a sufficient scale, forcing the Napoleonic authorities to rely primarily on taxation.

In Britain, where political stability was never seriously threatened and the wealthy holders of government debt were strongly represented in both Houses of Parliament, confidence in the financial system was maintained throughout the Wars. Unlike the French, the UK government, was ‘able to issue a massive quantity of debt and leave the gold standard with the promise of eventual redemption’ (ibid., p. 304). In effect Britain financed its war effort by ‘tax smoothing’, with the establishment of a Sinking Fund at the end of the Wars to demonstrate the state’s commitment to fiscal austerity and the eventual repayment of the debt: it was ‘an investment in sovereign credibility and future borrowing power’ (ibid., p. 307).

As we shall see, Ricardo was deeply sceptical about the Sinking Fund in particular and the financial probity of the government more generally. His work on fiscal policy seems to have been prompted by precisely these issues. As Carl Shoup notes, there is very little evidence that Ricardo had thought systematically about taxation before he wrote the relevant chapters of the *Principles* in October 1816: ‘the weight of evidence favors the thesis that Ricardo worked out his tax analysis almost de novo, with facility, immediately after he had constructed the framework of his economic system in the first seven chapters of the *Principles*’. He did not add very much thereafter. ‘The passages on taxation in the speeches are remarkable in their consistency with the doctrines already advanced in the *Principles*, and little is added in the correspondence. Thus ‘Ricardo’s tax analysis can be appraised almost entirely in terms of what we find in the *Principles*. Ricardian tax doctrine was set down, in all its essentials, in October and November of 1816’ (Shoup 1960, pp. 241, 247). He both drew on and criticized Adam Smith, but from ‘a high level of abstraction’ that contrasted sharply with Smith’s ‘rich slice of real life’, so that their treatment of taxation is ‘complementary in consumption, not rival’ (ibid., p. 14).

So far as the fundamental principles of taxation are concerned, Ricardo was (even more than Smith) a ‘small government, low tax’ man, for two reasons. First, and most important, he emphasized the adverse effects of high taxation on capital accumulation, which was always his principal concern. Hence a large part of the *Principles* is devoted to
a minute examination of the incidence of various forms of taxation and their effect on profits; the crucial point throughout is that taxes on rent cannot be shifted (Kurz 2008a, p. 135).

The second reason for Ricardo’s hostility to government spending was his opposition to Old Corruption. In the political climate of the time, he believed, increased tax revenues would simply increase wasteful government spending and encourage rent-seeking by powerful interest groups. His objection to the Sinking Fund was based on these political considerations, to which he attributed great significance.

As he told Trower in June 1819:

Our sinking fund is gone, and I am not disposed to raise a new one, for the purpose of placing it again at the disposal of ministers. Do what you will, they will not respect it, and after a few years we should be as much in debt as ever. I am for a vigorous system of taxation, if it is for the purpose of paying off debt once for all, but I am sure that ministers will never respect any fund, which is to accumulate at compound interest. With the slightest pressure on the finances such a fund would be diverted from the employment to which it had been destined. (VIII, p. 33)

He made the same point in his essay on the ‘Funding System’, which was published in the Encyclopaedia Britannica in 1820:

Probably it will accumulate for a few years, until we are engaged in some new contest, when ministers, finding it difficult to raise taxes for the interest of loans, will silently encroach on this fund ... It is, we think, sufficiently proved, that no securities can be given by ministers that the sinking fund shall be faithfully devoted to the payment of debt, and without such securities we should be much better off without such a fund. (IV, p. 196; see also Sraffa’s ‘Note’, IV, pp. 145–8)

‘As to the particular taxes’, he told the Commons in the same month, ‘it was unnecessary for him to state his sentiments, seeing he was an enemy to taxation altogether’ (V, p. 36). This would have come as no surprise to readers of the Principles, where Ricardo had denounced ‘the great evil of taxation’ (I, p. 170), and concluded that ‘[t]axation under every form presents but a choice of evils’ (I, p. 183). This reflects ‘an opposition to all taxation that at times seems almost irresponsible’ (Shoup 1960, p. 249).
Unlike Smith, he paid relatively little attention to the other economic problems posed by taxation:

Equity issues appear now and again in Ricardo's writings and speeches ... But he makes no coordinated assault on the problems of justice in distribution of the tax burden. Thus he shows no interest in the issues of progressivity versus proportionality in taxation, allowances for size and composition of family, or earned versus unearned income. (Ibid., p. 249)

In this sense, and despite the title of his book – *Principles of Political Economy and Taxation* – Ricardo provides no clear ‘principles of taxation' in the Smithian sense. Ricardo's discussion of Smith's four ‘maxims' is rather perfunctory and he offers no critical assessment of them (I, pp. 181–6).

None the less, twelve chapters of the *Principles* are devoted explicitly to taxation (I, chapters 8–18, 29), to which should be added the two chapters on subsidies (I, chapters 22–3). Together they cover 141 pages out of 429, or almost exactly one third of the book, so that ‘the first seven chapters formulate the laws of distribution in a taxless state, and the next eleven chapters reveal how the operation of these laws is modified by the impact of taxation' (Shoup 1960, p. 8). This is something of an oversimplification, since Ricardo’s discussion of taxation is subject to a variety of distractions, in which issues of macroeconomic theory, trade and money frequently intrude. The material is poorly organized, the discussion is repetitive, and it is all rather too long.

Chapter 8 (‘On Taxes') provides a brief general introduction to the subject, making the important point that the incidence of taxation cannot be inferred from the identity of the individual, or class, that pays it; instead it depends on their reactions, above all the effects on their saving (I, pp. 150–5). In chapter 9 (‘Taxes on Raw Produce'), Ricardo argues that all such taxes increase the cost of production on zero-rent land and hence increase the price of corn. They cannot be passed on to the landlord, precisely because rent is zero, and they cannot be deducted from the farmer's profit, or he would have an incentive to move to another occupation (I, pp. 173–5). Thus a tax on corn falls on consumers and raises the price of corn. This means that it must increase money wages, since the working class ‘is never able to bear any considerable proportion of taxation’. The resulting increase in wages reduces profits (I, pp. 175–7).

In chapter 10 (‘Taxes on Rent') Ricardo maintains that the incidence of taxes on rents depends entirely on whether the landlord is able to
shift them to the farmer. He argues in chapter 11 (‘Tithes’) that tithes ‘fall wholly on the consumer’, since they are levied also on the produce of the marginal land (I, p. 176), while in chapter 12 (‘Land Tax’) he claims that a tax levied in proportion to rent ‘is in effect a tax on rent’, which ‘will fall wholly on the landlords’. But if it is also levied on zero-rent land, it becomes a tax on corn and will raise the price of corn, with the consequences set out above (I, p. 181).

In the next two chapters, 13 (‘Taxes on Gold’) and 14 (‘Taxes on Houses’), Ricardo deals with commodities which, unlike corn, are in inelastic short-run supply. A tax on houses, he argues, falls on the proprietor, that is, on the landlord, and not on the occupier. He objects to stamp duty on house purchases, which encourages speculation and discriminates against savers (I, p. 204). In chapter 15 (‘Taxes on Profits’), Ricardo comes to the ‘curious’ conclusion (I, p. 213) that taxing ‘the profits of the farmer only, and not the profits of any other capitalist, would be highly beneficial to landlords’ (I, p. 213n). He anticipates the most important conclusions of chapter 16 (‘Taxes on Wages’) by maintaining that ‘taxes on raw produce, tithes, taxes on wages, and on the necessaries of labour, will, by raising wages, lower profits’ (I, p. 214). Thus a tax on wages is ‘wholly a tax on profits’ (I, p. 215; cf. I, p. 225).

A tax on necessaries (wage-goods), however, is ‘partly a tax on profits, and partly a tax on rich consumers’ (I, p. 215). This is because a tax on necessaries will be ‘shifted from the poor to the rich’. Ricardo supports Adam Smith’s contention ‘that the labouring classes cannot materially contribute to the burdens of the State’ (I, p. 235) and favours taxes on luxuries, which ‘are generally paid from income, and therefore do not diminish the productive capital of the country’ (I, p. 241). The long, repetitive chapter 16 ends by endorsing ‘the golden maxim of M. Say, “that the very best of all plans of finance is to spend little, and the best of all taxes is that which is least in amount”’ (I, p. 242).

The misnamed chapter 17 (‘Taxes on Other Commodities than Raw Produce’) begins by setting out Ricardo’s position on war finance and the case against government borrowing (the so-called ‘Ricardian equivalence’ theorem) and on the capital levy; these matters will be discussed in detail shortly. The second part of the chapter offers a long, critical analysis of Smith and Say on taxation. In chapter 18 (‘Poor Rates’), Ricardo provides an intricate analysis of the incidence of what he regards as a very complicated tax.

After three chapters dealing with other issues, Ricardo returns to fiscal policy in the long chapter 22 (‘Bounties on Exportation, and Prohibitions of Importation’), which is notable chiefly for his very clear statement that
there are constant returns in manufacturing and diminishing returns in
agriculture (I, pp. 312–13); note, however, that Ricardo himself did not
use these terms. The brief chapters 23 (‘On Bounties on Production’) and
29 (‘Taxes Paid by the Producer’) add little of importance; the latter
is an attack on Say and Sismondi.

Ricardo’s views on taxation may be summarized as follows. In his
long discussion in the *Principles*, Ricardo comes to an

unexciting conclusion, inherent in the workings of a Ricardian econ-
omy. Aside from a tax on pure land rent, it makes very little differ-
ence, except in the short period, what major tax is imposed. Wealthy
consumers of luxury products may pay a small amount of the total
tax bill; the rest will come out of profits. (Shoup 1960, p. 250)

Although he believes the incidence of taxation to be a very complicated
question, Ricardo consistently maintains that workers do not pay taxes,
so that in these parts of the book, at least, he assumes there to be a fixed
subsistence wage.

Perhaps surprisingly, he did not campaign (either in the *Principles*
or in Parliament) for taxes to fall exclusively on the landlords rather
than on capitalists; the book is *not* a manifesto for tax reform. I sus-
pect that this reflects his fundamental belief in the sanctity of private
property, including property in land. Unlike Henry George, Ricardo
would never have contemplated the nationalization of the land, and
he would also have opposed the less radical Georgeite proposal for a
‘single tax’ on land rents on the grounds that this would be tantamount
to confiscation.

He did, however, draw on his analysis of taxation to establish two
important principles (‘Ricardian equivalence’, and the undesirability of
counter-cyclical public works programmes), and to advocate one major
policy change (a capital levy to pay off the national debt). As we have
seen, the first statement of ‘Ricardian equivalence’ comes in chapter 17
of the *Principles*, where Ricardo compares two methods of financing a
war, government borrowing and increased taxation. In principle, the
implications for the (wealthy) individual are the same.

In practice, Ricardo suspects, government borrowing ‘tends to make
us less thrifty – to blind us to our real situation’. If the costs of a war
were fully met by increased taxation, and assuming a 5% rate of inter-
est, an individual whose contribution was set at £100 per annum ‘would
endeavour, on being called upon for his portion, to save speedily the
£100 from his income. By the system of loans’, however, ‘he is called
upon to pay only the interest of this £100, or £5 per annum, and con-
siders that he does enough by saving this £5 from his expenditure, and then deludes himself with the belief, that he is as rich as before’ (I, p. 247; added stress).

While the underlying principle was clear enough to Ricardo, he always acknowledged the difficulty of persuading his critics. As he wrote to Sir John Sinclair in May 1820:

I fear that no plan for paying off the debt will receive any counte-
nance from Parliament. Men do not like to make an immediate sac-
rifice for a future good; and they please themselves with imaginary riches, from which they really derive no advantage. Are not these imaginary riches, from the possession of which we only derive a rev-
ue, which we are immediately obliged to pay to the tax-gatherer?’ (VIII, p. 187)

Similar statements of frustration and annoyance can be found repeat-
edly also in Ricardo’s advocacy of a capital levy to repay the debt. On this question he failed to convince even those with some knowledge of political economy. Since almost all his contemporaries favoured borrowing to finance the Napoleonic Wars, Ricardo was almost alone among the Classical economists on this issue (O’Brien 2004, p. 316).

On the question of Ricardian equivalence,3 James Buchanan notes that the Italian fiscal theorist Antonio De Viti De Marco ‘elaborated the Ricardian thesis in a somewhat modified setting’ in 1893, and again in 1936 (Buchanan 1976, p. 337 n1, citing Buchanan 1958, pp. 43–4, 114–22). An early recognition that Ricardo did not himself believe it was provided by R.O. Roberts (1942). The question was revived by Robert Barro in 1974, in the context of the anti-Keynesian movement in macroeconomic theory that soon came to describe itself as ‘New Classical’ economics, and there was a flurry of papers on this question in the mid to late 1970s.

Gerald O’Driscoll correctly maintained that Ricardo ‘recognized that taxpayers suffer from what we now call “fiscal illusion”’, since ‘he believed that the existence of the debt issue would deceive the wealth holder-taxpayer into believing that he was richer than he was in fact’ (O’Driscoll 1977, pp. 208, 209). Somewhat later, B. Motley (1987) reported econometric evidence against ‘the Ricardian hypothesis’: consumption expenditure does in fact depend on the level of private sector wealth, including government debt (which should not affect consumption if ‘Ricardian equivalence’ were correct).
One corollary of the theorem that Ricardo did insist upon was the futility of counter-cyclical government spending to provide employment in times of depression. While it is true that his tax analysis ‘was not addressed to the problem of short-term fluctuations’, so that ‘Ricardo did not attempt to prescribe a tax policy, or a budgetary policy, for the difficult years of 1815–1823’ (Shoup 1960, p. 248), he did state the ‘crowding out’ hypothesis in all but name in his opposition to public works proposals. Raising funds for employing the poor, he insisted in a letter to Malthus in January 1817, merely ‘diverts those funds from other employments which would be equally if not more productive to the community. That part of the capital which employs the poor on roads for example cannot fail to employ men somewhere and I believe every interference is prejudicial’ (VII, p. 117). He had made a similar case in the 1815 Essay (IV, pp. 39–40), and would do so again in the 1823 Plan for a National Bank (IV, p. 283).

A second implication was that there was a strong case for a one-off tax on capital, a capital levy, to redeem the national debt. Increasing the numbers by a factor of twenty, Ricardo argued in the Principles that his hypothetical individual ‘would be equally rich, whether he continued to pay £100 per annum, or at once, and for once only, sacrificed £2,000’ as his contribution to paying off the debt. ‘That which is wise in an individual’, he asserted, ‘is wise also in a nation’ (I, p. 248).

He advocated the capital levy in Parliament soon after his election in 1819, but denied any claim to originality, ‘for he was aware that many persons before his time had taken a similar view of the subject’ (V, p. 37). Early proponents had included Archibald Hutcheson, writing in 1714, and Richard Watson, Bishop of Llandaff, in 1798 (V, pp. 37–40). David Hume had criticized Hutcheson’s proposal on the grounds that ‘much property could be concealed, and it would thus fall only on visible property’, and also because the levy would not be imposed on the professional classes, who combined high incomes with relatively little wealth. Ricardo’s close friend J.R. McCulloch eventually came to agree with Hume and to oppose the proposal, as did John Stuart Mill (O’Brien 2004, p. 318).

Ricardo himself always doubted that it would ever be implemented. As he told the Commons in 1819: ‘He would not, however, dwell farther upon this chimerical project, as he understood it was considered by everyone except himself’ (V, p. 39). He wrote in similar vein to McCulloch in September 1820, referring to criticisms of the capital levy: ‘The principal one that I have heard, is the large quantity of land which a proprietor would be obliged to part with in order to redeem himself
from the payment of his annual taxes. It is difficult to make these men understand that the payment of £1000 pr. annm., is a heavier burden than the payment of £20000 once for all’ (VIII, 238; added stress). This is an even stronger claim that that of ‘equivalence’.

But he repeated the proposal in his contribution to the *Encyclopaedia Britannica* on ‘Sinking Fund’, now adducing an additional reason for financing war by taxation rather than by borrowing. It would help to prevent war, since ‘[t]here cannot be a greater security for the continuance of peace than the imposing on ministers the necessity of applying to the people for taxes to support a war’ (IV, p. 197).

By this time he had begun to work out some of the details of a possible capital levy. In 1988 a brief manuscript note by Ricardo came to light in the Gratz Collection at the Historical Society of Pennsylvania in Philadelphia, probably dating from late 1819 or early 1820. A 25% levy on capital, Ricardo calculated, would raise £488 million to pay off the debt of £650 million (after the fundholders had paid their share at the same rate of 25%, yielding the remaining £162 million). It could be levied monthly, over five years (Asso and Barucci 1988).

In a Parliamentary speech in May 1822 Ricardo again supported the capital levy:

> That great debt might be reduced by a fair contribution of all sorts of property – he meant, that, by the united contribution of the mercantile, the landed, and he would add, the funded interest, the national debt might be certainly got rid of. If this were done, and if the government would pursue a right course of policy as to the corn laws, England would be the cheapest country in which a man could live; and it would rise to a state of prosperity, in regard to population and riches, of which, perhaps, the imaginations of hon. gentlemen could at present form no idea. (V, pp. 187–8)

In fact the national debt did decline, slowly but inexorably, over the next century, until renewed massive borrowing was again used in 1914–18 during the First World War. At the end of the War the proposal for a capital levy was revived by the liberal economist A.C. Pigou (1918) and seriously debated by such eminent contemporaries as F.Y. Edgeworth and J.M. Keynes (Gottlieb 1953). It was even briefly adopted in the early 1920s as the official policy of the opposition Labour Party, and in 1939 it won the support of Friedrich von Hayek (Dooley 1989).

At the end of the Second World War the British national debt stood at 260% of GNP, only slightly less than the 300% that it had reached
in 1815. In neither World War was a capital levy actually imposed, and the debt-to-income ratio was instead slowly reduced by a combination of fiscal austerity (especially in the 1920s), economic growth, inflation and very low nominal interest rates (Chick and Pettifor 2010).

6.2 Monetary Policy

Ricardo would have approved of the first and second of the factors listed immediately above, but not the third, and he would have been surprised by the fourth, since he advocated a stable price level and regarded the rate of interest as a real rather than a monetary variable. As we have seen, his early interest in questions of monetary policy was responsible for his first publications in political economy, the pamphlets of 1809–10. He was a forceful critic of government policy in this area, and especially antagonistic towards the Bank of England. This led him to deny any role for active (counter-cyclical) monetary policy, and to anticipate twenty-first century political orthodoxy in his advocacy of an ‘independent’ central bank.4

At the start of the Napoleonic Wars, the stock of money in England consisted of gold coin and bank notes (issued in London by the Bank of England and outside the capital by the country banks), together with bills of exchange and bank deposits. The Bank of England’s liabilities constituted high-powered money, so that ‘any difficulties in the banking system at large quickly put pressure on the Bank’s specie reserves’ and threatened the convertibility of its notes into gold (Laidler 1987, p. 289). Four years into the war, in 1797, these problems became acute as massive government expenditure on the war placed the public finances under increasingly severe strain. Military setbacks and rumours of an impending French invasion led to a run on the banks, which forced the government to agree to a suspension of convertibility.

At first this was accepted without much fuss, and there was no financial crisis:

At least two reasons accounted for this, besides general confidence. In the first place, although non-convertible bank notes may have been a new element, many – perhaps most – commercial transactions had long depended on paper bills rather than value-for-weight coin. In the second place, the Bank of England issued its paper money with a restraint which inflated the money supply steadily rather than drastically. (Rule 1992b, p. 287; cf. Duffy 1982)
However, the suspension of convertibility did remove any legal constraint on the quantity of notes that the Bank of England was permitted to issue, and by 1800 rising prices and a depreciating pound ‘gave warning that all was not well’ (Laidler 1987, p. 290).

Contemporary economic theory provided very little guidance on these problems, which soon gave rise to a substantial literature in what came to be known as the ‘Bullion Controversy’. It was the revival of these debates as a result of the renewed inflation of 1809–10 that prompted Ricardo’s first interventions. Misinterpreting Adam Smith, the so-called ‘Anti-Bullionists’ argued that a rising price level could not be attributed to excessive issue of paper money by the Bank of England, which was simply discounting ‘real bills’ in order to finance profitable investment projects undertaken by private entrepreneurs.

The ‘real bills’ doctrine was used by the Bank and its supporters to defend the quantity of inconvertible notes that had been issued. Its ‘Bullionist’ opponents maintained that this was ‘a recipe for unlimited inflation and exchange depreciation’, which ‘was particularly dangerous in the circumstances of 1810’, when nominal interest rates were pegged at 5% by the usury laws and there appeared to be no limit to the quantity of ‘real bills’ that might be created (ibid., pp. 291–2).

A distinction must be made between ‘rigid’ or ‘extreme’ and ‘moderate’ Bullionists (ibid., pp. 290–1; cf. O’Brien 2004, pp. 176–7). The former, who included John Wheatley, Lord King and Ricardo himself, saw the high price of bullion and the depressed exchange rate as clear evidence that the Bank of England had issued an excessive quantity of paper currency, which must therefore be reduced. They denied the possibility that there might be other causes of inflation and a falling exchange rate, for example harvest failure.

The moderate Bullionists included Malthus, William Blake and the authors of the Bullion Report itself (Francis Horner, William Huskisson and Henry Thornton). While they accepted the analysis of the rigid Bullionists as a long-run proposition, they denied that over-issue was the only conceivable source of inflation and exchange depreciation, and did not insist on permanent and binding restrictions on the issue of Bank of England notes under all circumstances.

In the conditions of 1810 these theoretical differences were not important, and the Parliamentary Select Committee on the High Price of Gold Bullion emphatically rejected the real bills doctrine and recommended a return to convertibility within two years (in practice it was delayed until 1821). As a newcomer to political economy Ricardo was not responsible for the doctrines of the 1810 Bullion Report, but
as a pamphleteer and propagandist he ‘became their defender, thereby achieving a wide reputation’ (Fetter 1942, p. 656). Ricardo ‘dominated the later stages of the bullionist controversy, as Thornton dominated its earlier stages’ (Laidler 1987, p. 293).

His 1816 *Proposals for an Economical and Secure Currency* (IV, pp. 43–141) were especially influential. Here Ricardo proposed that a paper currency should continue but that Bank of England notes should be backed by gold in order to prevent over-issue. To economize on the use of gold, banknotes were to be redeemed only for gold bars but not for coins. Parliament adopted Ricardo’s ‘ingot plan’ in 1819, but fears of forgery led to second thoughts, and when convertibility was finally implemented in 1821 gold coins replaced small denomination banknotes in circulation.

The peculiar status of the Bank of England was a constant worry to Ricardo. It had been set up in 1694, mainly as an instrument to raise credit for the government. It was ‘a private financial institution that issued notes and maintained deposits in addition to its functions as the fiscal agent of the Crown. Its biggest asset was good connections with Parliament that helped it to ward off competition using political clout, in the best tradition of rent-seeking’ (Mokyr 2010, p. 225).

The Bank was crucial to government finance, especially in time of war. ‘The government thus viewed the Bank of England as an essential component of its war finance program. This can be seen in ... its support of the Bank in the face of the withering criticism of the Bullion Report of 1810’ (Bordo and White 1991, p. 311; cf. Broz and Grossman 2004). In this way the Bank ‘took advantage of the government’s financial emergencies by teasing privileges and special legislation from the authorities’ (Mokyr 2010, p. 225), including a semi-monopoly on banking in the London area and a ban on competitors incorporating as limited liability companies.

Ricardo was always strongly opposed to the Bank’s privileged status (Sayers 1953, pp. 37–46). In his *Three Letters on the Bullion Report* of 1810 he described it as ‘a company of merchants, notoriously ignorant of the most obvious principles of political economy’ (III, p. 133; cf. V, pp. 18, 143). ‘I always enjoy any attack upon the Bank’, he told Malthus in September 1815:

I think the Bank an unnecessary establishment getting rich by those profits which fairly belong to the public. I cannot help considering the issuing of paper money as a privilege which belongs exclusively to the state. – I regard it as a sort of seignorage, and I am
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convinced, if the principles of currency were rightly understood, that Commissioners might be appointed independent of all ministerial controul [sic] who should be the sole issuers of paper money, – by which I think a profit of from two to three millions might be secured to the public, at the same time that we should be protected from the abuses of the country Banks, who are the cause of much mischief all over the Kingdom. (VI, p. 268)

He acknowledged that this could not be done until the expiration of the Bank charter in 1833, but it was time to think about it now, since ‘the profits of the Bank have been enormous’ (VI, p. 268). Ricardo maintained his rage, telling Parliament in May 1822 that he ‘should oppose to the utmost the renewal of the Bank charter, because he was satisfied that every farthing made by the Bank ought to belong to the public’ (V, p. 193).

This was not a question of personal dishonesty. In a draft of a letter to the Whig leader George Tierney he wrote that ‘[i]t cannot be supposed that the Bank would willingly do any thing which might be hurtful either to public or to private credit. Whatever my opinion of their mistakes may be no one can be more persuaded than I am of the general integrity of their motives’ (VI, p. 70; cf. III, p. 152; V, pp. 14, 18, 143). The Bank’s directors were incompetent, not corrupt.

As he told McCulloch in May 1819:

I have been very much surprised that with the opportunities for making large profits, which the monopoly of the Bank has given them, their surplus capital does not exceed 5 millions. How very much they must have mismanaged their affairs. With good management they ought to have been possessed of double that sum. (VIII, p. 27; cf. V, pp. 76–7, 144; IX, pp. 15, 140–1, 176, 202)

The practical significance of the Bank’s incompetence and unwarranted privileges went beyond ‘undue gains wrested from the hands of an overburthened people’ (IV, p. 93) to the infliction of serious economic harm, since over-issue of paper currency led inexorably to inflation. ‘Depreciation cannot be effectually checked’, he told George Tierney, the Whig leader in the Commons in December 1811, ‘by any other means than by depriving the Bank of the power which they at present possess of adding indefinitely to the amount of their notes’ (VI, p. 67).
He had written to the then Prime Minister Spencer Perceval in July in this vein, to no effect (VI, pp. 43–5), receiving only a noncommittal reply from an official (VI, p. 46). As he put it in the Principles, ‘[e]xperience ... shews that neither a State nor a Bank ever have had the unrestricted power of issuing paper money, without abusing that power’ (I, p. 356; cf. III, pp. 75, 78).

Ricardo’s own alternative was set out in his pamphlet, Plan for a National Bank, published in February 1824, six months after his death (IV, pp. 275–97). It was written in July–August 1823, but was first conceived of in 1815 while he was writing his Proposals for an Economical and Secure Currency. The idea that the right of note issue should be removed from the Bank and vested in a governmental body seems to have come to him from J.B. Say, who had been commissioned by the French government to report on the British economy and ‘included in his unpublished report a currency plan which, it seems, he sent to Ricardo’ in late 1814 (Sayers 1953, pp. 44, 45). The essence of Ricardo’s proposals was reprinted in 1817 in chapter 27 of the Principles (I, pp. 357–61), and the 1824 pamphlet was included in 1838 as an Appendix to a pamphlet by his brother, Samson (IV, pp. 272–4).

Ricardo maintained that ‘the Bank of England performs two operations of banking, which are quite distinct, and have no necessary connection with each other: it issues a paper currency as a substitute for a metallic one; and it advances money in the way of loan, to merchants and others’. These two operations ‘might be carried on by two separate bodies without the slightest loss of advantage, either to the country, or to the merchants who receive accommodation from such loans’ (IV, p. 276). The Bank itself could be ‘dissolved’ and its business ‘managed with much more economy and skill than it is now managed by the Bank’ (IV, p. 278).

The only effect of denying the Bank the right to issue money would be ‘to transfer the profit which accrues from the interest of the money so issued from the Bank, to the Government’ (IV, p. 281). Independent Commissioners should be appointed, who should be not removable from their official situation but by a vote of one or both Houses of Parliament. I propose also to prevent all intercourse between these Commissioners and ministers, by forbidding every species of money transaction between them. The Commissioners should never, on any pretence, lend money to Government, nor be in the slightest degree under its controul or influence. Over Commissioners so entirely independent of them, the ministers would have much less power than they now possess over the Bank.
Directors. Experience shows how little this latter body have been able to withstand the cajolings of ministers. (IV, p. 282)

This would make it possible to avoid the evils of both excessive government expenditure and the inflationary increase in paper money:

If Government wanted money, it should be obliged to raise it in the legitimate way; by taxing the people; by the issue and sale of exchequer bills, by funded loans, or by borrowing from any of the numerous banks which might exist in the country; but in no case should it be allowed to borrow from those, who have the power of creating money. (IV, p. 283)

Ricardo proceeds by setting out a 16-point plan for ‘the establishment of a National Bank’ (IV, pp. 285–9), which should act as banker to all government departments, but should be prevented by law from acting as banker ‘either to any corporation, or to any individual whatever’ (IV, p. 289). There should be five Commissioners, who ‘should be appointed by government, but not removable by government’ (IV, p. 290). Country banks should also lose the right to issue notes (IV, p. 287). The savings to the government, he estimates, would be, ‘on the most moderate computation’, at least £750,000 p.a. (IV, p. 296).

There is some dispute in the literature over precisely what this was intended to mean for monetary policy, which is closely related to the conflicting interpretations of Ricardo’s macroeconomic theory that were discussed in the previous chapter. The standard Keynesian interpretation, which I find convincing, is set out by R.S. Sayers, who regards Ricardo’s strong support for the Quantity Theory of money as ‘a major disaster’ (Sayers 1953, p. 33) that committed him to the doctrine of the neutrality of money and hence forced him to deny any role for discretionary monetary policy. Sayers also attributes to Ricardo an unchanging refusal to advocate a lender of last resort function for the Bank, which is entirely consistent with his advocacy of Say’s Law (ibid., p. 46).

Similarly, Leonard Gomes sees Ricardo as adhering to a rigid version of the Quantity Theory that entailed, even in the short run, that ‘an adverse exchange was solely the result of an excess issue of domestic currency, and therefore amenable to correction by monetary restraint’ (Gomes 1987, p. 229). ‘This was the policy advice Ricardo wanted to give. He wished people to concentrate their minds on the duty of the Bank of England, as the guardian of the nation’s currency, to so regulate
the note-issue that external monetary equilibrium was maintained at all
times’ (ibid., p. 231).

In the same vein, Thomas Humphrey contrasts the views of Ricardo
and Thornton on the appropriate monetary response to supply shocks
like harvest failures (and draws an explicit parallel with the oil shocks of
the 1970s). The central issue was whether the resulting ‘external gold
drains … should be allowed to contract the money supply and bring
prices back to their pre-shock level. Ricardo argued that they should’,
while Thornton ‘argued that at a very minimum the money stock
should be held constant in the face of real shocks’ (Humphrey 1990,
pp. 265, 267).

This difference reflected an important theoretical disagreement: Ricardo
assumed the neutrality of money, so that a contraction in the money
supply would not affect output and employment, while Thornton
believed in the short-run non-neutrality of money at less than full
employment.

Against this, Timothy Davis argues that Ricardo also recognized the
non-neutrality of money, and ‘it is for this reason that he endorsed
the discretionary management of a convertible currency pegged to
gold’, in order to ‘compensate for erratic actions by country banks
and for variations in the demand for liquidity’ (Davis 2005, pp. 42,
184). Thus:

Ricardo’s preference for stable prices above all other monetary objec-
tives does not imply that he was blind to the effects of money on out-
put and employment. His ingot plan, his allowance for devaluation
if the currency was highly depreciated, and his criticism of the Bank’s
return to gold all demonstrate that he recognized the nonneutrality
of money.

It is probable, Davis suggests, that he refused to insist on a lender of last
resort for the Bank only because ‘this function was performed by the
Exchequer’ (ibid., p. 185).

This implies a greater element of consistency in Ricardo’s views than
would be accepted by Arie Arnon, who claims that a sharp change
in his thinking on central banking can be seen in the 1823 Plan, where
his views

differed significantly not only from his earlier views, but also from those
of the Currency School … his system is closer to what we would call
central banking than it is to the automatic mechanism characteristic
of the Currency School’s proposals, which left no room for discretion in either money or credit. (Arnon 1987, p. 279; cf. Arnon 2011, pp. 148–50)

This, I think, is reading too much into the 1823 Plan. It is certainly true that nothing like this can be found in the *Principles*, either in chapter 27 (‘On Currency and Banks’) or in chapter 19 (‘On Sudden Changes in the Channels of Trade’). Davis does draw a very interesting parallel between Ricardo’s views on the devaluation of 1819 and Keynes’s position on the return to gold in 1925, and here his interpretation is more convincing. ‘Ricardo had a mature concern for the practical consequences of monetary policy’, Davis maintains, so that ‘his position was, in fact, similar to Keynes’ observations a century later’. Both men opposed a revaluation of sterling because of the damage that this would cause to industrial output and employment. ‘Because of his concern about deflation, Ricardo recommended that parliament not return to the prewar parity if sterling was depreciated more than 5 percent. It is notable that in this choice he sided with the position later taken by Keynes’ (Davis 2005, pp. 225, 227; cf. Skidelsky 1992, ch. 6).

Speaking on the agricultural distress in the Commons in April 1822, Ricardo claimed that ‘no one could be more aware of the great difficulties which had been occasioned by alterations in the currency than himself. He had given the subject the greatest attention in his power, and had laboured hard to show the necessity of a fixed and invariable standard of value’, by which he meant a stable price level (V, p. 149).

While the Act of Resumption of 1819 ‘ended the bullionist controversy for all practical purposes’ (Gomes 1987, p. 231), it also led to serious deflation as a result of the contraction in the money stock. In the two years after the resumption of convertibility in 1821 the price level fell by more than 10%, provoking Thomas Attwood’s unsuccessful campaign for reflation in the interests of the manufacturers. Ricardo himself was attacked as the cause of all the country’s ills, but he never recanted, instead attacking the Bank of England for its incompetent handling of the return to convertibility (Sayers 1953, pp. 40–1).

There is also some disagreement on Ricardo’s legacy in matters of monetary policy. For Sayers, he was:

the father of the system adopted by the Bank of England after its internal revolution at the beginning of the forties and, after Peel’s
conversion, embodied in the famous Bank Charter Act of 1844. His direct influence on events was thus at least as great after his death as it had been when in 1819 he carried the country back to gold at the old parity. (Sayers 1953, pp. 46–7)

Similarly, Gomes argues that the debate over the 1844 Bank Charter Act ‘was simply a replay of the bullion controversy ... It was a victory of the Currency School over the Banking School, as the earlier bullionist contestants became known’ (Gomes 1987, p. 232).

Cristina Marcuzzo and Anna Rosselli emphasize Thornton’s support for discretionary monetary policy in response to confidence crises:

Conversely, Ricardo believed that discretion had to be checked by rules in order to avoid the otherwise inevitable abuse. As we know, in principle Ricardo won and the Bank Charter Act of 1844 was inspired by his ideas, but in practice the Bank of England turned increasingly to Thornton’s prescriptions in the course of the XIX century. (Marcuzzo and Rosselli 1994, p. 1261)

But this is denied by Davis, for whom ‘Ricardo was not a father of the Currency School and of the 1844 Bank Charter Act. It is true that his Plan for a National Bank influenced the Act. However, the Act’s crucial element – the repudiation of discretionary monetary policy – finds no support in his monetary pamphlets (Davis 2005, p. 42).

A broadly neutral position is taken by David Laidler. ‘The literature of the bullionist controversy’, he concludes, ‘not least Ricardo’s contributions to it, was much read and cited throughout the 19th century and into the 20th, not least by participants in the monetary debates of the 1920s’ (Laidler 1987, p. 293). As for the Bank of England, Joel Mokyr argues that its history mirrors the institutional development of Britain between 1700 and 1850 from a mercantilist to a liberal economy. It had begun as a rent-seeking monopoly, but ‘slowly transformed itself into a public institution whose purpose was to lubricate the economic activities of others and to reduce the instability caused by free-market financial institutions’ (Mokyr 2010, p. 226).

Thus the restrictions on other banks, which had protected it in the eighteenth century, were lifted between 1826 and 1844. Ricardo would certainly have approved of that, but he might have been less happy had he known that, by 1825, it had taken on the responsibility of lender of last resort (ibid., p. 227).
6.3 Social Policy, Labour and the Poor

On issues of social policy, too, Ricardo’s views were governed by his underlying theoretical principles. For several reasons the British state could not be trusted to apply the correct principles of political economy, and its power to intervene in the economy and to regulate market behaviour must therefore be subject to severe restrictions. This reinforced his hostility towards government expenditure of all kinds, as he made very clear in May 1822, in his Commons speech on the Budget: ‘With respect to the pressure of the taxes and the national debt upon the poor, that pressure could not be disputed, especially as it took away from the rich the means of employing the poor’ (V, p. 114).

There is no reason to doubt his sincerity on this question, or the strength of his ‘humanitarian feelings, despite his reputation as an impersonal and remorseless logician … He was ever alert to means which might improve the condition of the poor’ (Grampp 1948, p. 726). Thus Ricardo was especially concerned to oppose all forms of government intervention that might encourage an increase in the population and so destroy any prospect of improved living standards for the working people. This explains his strong opposition to the existing system of poor relief.

The English Poor Law – there was nothing comparable in Scotland or Ireland – dated back to the late sixteenth century. In its original form it was intended as a replacement for the very basic system of social welfare that before the Reformation had been provided by the monasteries to those in extreme poverty due to old age, illness or family breakdown. Administered by the local parish authorities and financed by a tax on landed property (the ‘poor rate’), the Poor Law underwent a major change in 1795, when the ‘Speenhamland system’ was introduced in many areas of the rural South of England. Now, for the first time, poor rates were used to pay wage subsidies to agricultural labourers in full-time (if invariably only seasonal) employment.

This was a reaction by the authorities to unusually high food prices, and in particular to their fear of the food riots that would otherwise have resulted from the increasing unwillingness of the authorities to interfere with market prices (Mokyr 2010, p. 441). ‘To the extent that it reduced riskiness and mitigated social unrest’, Mokyr suggests, ‘it may have contributed to an environment that was more friendly to innovation’ (ibid., p. 443). At all events, the Poor Laws now became a symbol of state intervention in the operation of the labour market; as we shall see, it was not the only form that such intervention could take.
The English system of poor relief was unique. Elsewhere in Europe, charity rather than local taxation was relied upon for the relief of poverty. Working-class activists were strongly opposed to the repeal of the Poor Laws, and they were especially hostile to proposals to replace ‘outdoor relief’ (cash payments to the poor) by ‘indoor relief’ (a euphemism for forced labour in specially constructed workhouses). They resisted the oppressive New Poor Law of 1834 not only on welfare grounds but also in defence of what they regarded as their legitimate property rights.

The Old Poor Law, they contended, had been passed in the days of Queen Elizabeth I in compensation for the enclosure of the common land, which had made it impossible for the poor to provide for themselves through petty agriculture and the keeping of livestock. (Oliver Goldsmith wrote a much-loved poem contrasting the fate of the poor man who stole the goose from the common with that of the rich man who had stolen the common from the goose). Ricardo seems to have been unaware of this fundamentally conservative argument in favour of the Old Poor Law, and certainly never made any attempt to rebut it.

Poor rates never accounted for more than 2% of GNP, but they made a large difference to the lives of the poor. In Ricardo’s day as much as 14% of the population of England were in receipt of poor relief in a bad year, and 9–10% on average (Mokyr 2010, p. 440). There was a rapid increase in per capita relief expenditures during the first third of the nineteenth century, which alarmed many contemporaries. Ricardo himself was anxious at the prospect that poor relief might eventually absorb ‘all the net revenue of the country’ (I, p. 106, cited by Boyer 1990, p. 123).

The consequences of the system have always been controversial. Boyer himself supports ‘the revisionist analysis’ of Mark Blaug (1963), seeing outdoor relief as a rational response to the removal of agricultural labourers’ access to common land and to the decline in cottage industry. It made sense for many farmers: ‘Contracts containing seasonal layoffs and outdoor relief were cost-minimizing in the grain-producing southeast, while full-employment contracts were cost-minimizing in the pasture-farming west and north’. And there was a strong element of ‘rent-seeking behaviour’, if this anachronistic term may again be used in this context:

Even in the grain-producing areas, the importance of outdoor relief was a function of the share of the poor rate paid by taxpayers who did not hire labor, such as family farmers, artisans, and shopkeepers ... What was required was a combination of seasonality and a tax system that allowed farmers to be subsidized by other parish taxpayers. (Boyer 1990, p. 266)
Mokyr suggests that outdoor relief did have significant Malthusian (population-increasing) effects. But it also provided an important safety net for the labouring classes when food prices rose sharply. Moreover the burden of the poor rates ‘was, of course, minuscule compared with the large expenses on war that served the interests of far fewer people’ (Mokyr 2010, pp. 444–5).

E.A. Wrigley argues that, by providing a source of income external to the family, the Poor Law must have reduced the importance of kinship ties and obligations, and for the same reason it may also have encouraged freer movement between parishes. Malthus himself noted the difference between capitalist and peasant agriculture in this respect: in the former, there was much less hidden unemployment.

This, Wrigley suggests, explains ‘why in the nineteenth century the percentage of total income contributed by the agricultural sector in England was roughly equal to its share of the labour force, whereas in many continental countries the former was far smaller than the latter’ (Wrigley 2004, p. 95). Working against this boost to labour productivity, however, was the subsidy that the system provided to labour hoarding by the agricultural sector.

The case for abolition was contained in the report of the 1817 Select Committee, two years before Ricardo entered Parliament and a full seventeen years before it was finally undertaken in the face of bitter and sustained opposition from working-class radicals (Edsall 1971). The repeal of the Old Poor Law came as a result of opposition from large landowners, ‘who by 1832 were convinced that outdoor relief represented a threat to their rental income’, and not from labour-hiring tenant farmers (Boyer 1990, p. 267). It reduced by one half the total expenditure on poor relief and, due to higher administrative costs, probably more than halved the benefit to the poor (Mokyr 2010, p. 441).

By 1820 most political economists already favoured repeal. Like Malthus, Ricardo’s opposition to the Poor Laws stemmed first and foremost from his belief that any system of poor relief would encourage excessive population growth. As he wrote to Trower in January 1817: ‘Is it not desirable that the poor laws should be done away [with], and the labouring classes should receive the recompense for their labour rather in the shape of wages than in that of bounty?’ (VII, p. 124). This would reduce the rate of population growth: ‘The population can only be repressed by diminishing the encouragement to its excessive increase, – by leaving contracts between the poor and their employers perfectly free, which would limit the quantity of labour in the market to the effective demand for it’ (VII, p. 125; original stress).
In the *Principles* he was even more emphatic:

It is a truth which admits not a doubt, that the comforts and well-being of the poor cannot be permanently secured without some regard on their part, or some effort on the part of the legislature, to regulate the increase of their numbers, and to render less frequent the increase of their numbers, and to render less frequent among them early and improvident marriages. The operation of the system of poor laws has been directly contrary to this. They have rendered restraint superfluous, and have invited imprudence, by offering it a portion of the wages of prudence and industry. (I, pp. 106–7)

Four years later, writing to Malthus in September 1821, Ricardo criticized Francis Place for continuing to support the Poor Laws. Although Place was wrong to ‘rely entirely on appeals judiciously made to the understandings of the people’ as to the dangers of over-population, ‘I think his arguments are popular, and will be easily understood’. They were therefore potentially very dangerous. This letter also contains the only reference Ricardo ever made in writing to contraception: ‘Place speaks of one of Owen’s preventives to an excessive population – he does not dwell upon it, but I have a little doubt whether it is right even to mention it’ (IX, p. 62).

Ricardo also had broader political and economic concerns. He was worried that the Poor Laws tended to undermine the independence and self-reliance of the working class (Dixon 2011). As he told Trower in January 1818, it was essential to revert to the original intention of the Old Poor Law, ‘namely, the relieving only the aged and infirm and under some circumstances, children’. Reform should, however, be gradual rather than sudden, and every effort should be made to persuade working people to save for a rainy day:

The great object should be to teach the labouring classes that they must themselves provide for those casualties to which they are exposed from occasional variations in the demand for particular manufactured goods, and which should not be the subject of legislation. A man’s wages should, and would on a really good system, be sufficient not only to maintain himself and his family when he is in full work, but also to enable him to lay up a provision in a Savings Bank for those extraordinary calls. (VII, p. 248)

Ricardo was convinced that the abolition of poor relief would increase wages, and would therefore benefit the poor themselves (I, pp. 105–9).
He insisted on this in a letter to Place in September 1821, in which he defended Malthus’s proposal to exclude future children from access to poor relief: ‘Mr. Malthus be it remembered does not propose the abolition of the poor laws as a measure of relief to the rich but as one of relief to the poor themselves’ (IX, p. 53).

Writing to Wilmot Horton in January 1823, Ricardo endorsed a government-supported emigration scheme, which ‘would enable us to get rid of the most objectionable part of the poor laws, the relieving [of] able bodied men; and what is to me by far the most important consideration, it could not fail to make the wages of labour more adequate to the support of the labourer and his family, besides giving him that as wages which is now given to him as charity’ (XI, p. xvi). His opposition to charity was a consistent theme. As he insisted in a letter to Trower in January 1818, charity was no better than taxation: ‘To relieve the poor by an extended exercise of private charity would hardly be less objectionable than the evil of which we now complain’ (VII, p. 248; original stress).

Ricardo’s opposition to poor relief was reinforced by his broader hostility to all forms of public expenditure. ‘I am not one of those’, he told Malthus in January 1817,

who think that the raising of funds for the purpose of employing the poor is a very efficacious mode of relief, as it diverts those funds from other employments which would be equally if not more productive to the community. That part of the capital which employs the poor on the roads for example cannot fail to employ men somewhere and I believe every interference is prejudicial. (VII, p. 116)

The Poor Laws were not the only issue that found Ricardo at odds with working-class radicals. For centuries the English state had regulated the labour market, ostensibly in the interests of the working man, setting minimum wages and overseeing the apprenticeship system. Through the eighteenth century state intervention in the labour market had come under sustained and largely successful attack, both from entrepreneurs who evaded it and from liberal critics who regarded it as ideologically unsound and economically damaging, and most of the old guild regulations were repealed in 1812–13. During Ricardo’s four years in Parliament some of the last vestiges of the old system came under investigation as the workers who were still protected by it tried desperately (and almost always unsuccessfully) to defend it.
Ricardo’s position on these matters was unequivocal, most obviously on the question of wage-fixing. Wages must depend on supply and demand, he told the Commons in June 1823 in a debate on the Silk Manufacture Bill: ‘the question was, whether labour should or should not be free?’ He believed it to be ‘improper that those wages should be artificially kept up by the interference of a magistrate’ (V, p. 307).

His speech on the Silk Manufacture Bill in the previous month had been equally dogmatic: ‘Now, the principles of true political economy never changed’, he told the Commons, and these principles prohibited intervention, even in the supposed interests of the poor:

Why should this particular trade come under the cognizance of the magistrates more than any other? Why should he interfere with this particular branch of the trade when many other branches of it were not under his control? ... Why should he have the power to fix the price of labour, more than the price of bread, meat, or beer? (V, p. 296)

He even opposed a petition for the enforcement of the law banning the truck system, whereby part of the worker’s wage was paid in kind, giving rise to frequent complaints about both the price and the quality of the goods supplied. Ricardo, however, ‘thought it impossible to renew so obnoxious an act’. He cited Robert Owen’s shop at New Lanark, ‘in which he sold the best commodities to his workmen cheaper than they could be obtained elsewhere, and he was persuaded that the practice was a beneficial one’ (V, p. 218).

Even when he accepted that working-class interests would be damaged by the operation of free market forces, Ricardo opposed regulation, most notably in the (very important) case of labour-saving machinery. In May 1823 he also contributed to a debate in the Commons on a petition from the handloom weavers of Stockport, presented by Attwood. Ricardo admitted that machinery might:

operate prejudicially to the working classes. But still he would not tolerate any law to prevent the use of machinery. The question was, – if they gave up a system which enabled them to undersell in the foreign market, would other nations refrain from pursuing it? Certainly not. They were therefore bound, for their own interest, to continue it. (V, p. 303)

He continued by insisting that wages were invariably determined by the supply and demand for labour, and by urging the workers to exercise
'a little prudence (which probably they would exert, if they were not made such machines of by the poor-laws)' (V, p. 303).

At the same time Ricardo consistently opposed the repressive measures introduced after 1793 by the Tory government, including the Combination Acts of 1799 and 1800 that imposed harsh penalties on trade union activity. In a letter to McCulloch in 1820:

Ricardo said that he had not studied the Combination Laws closely. His impression was that they were unjust to labor and yet did not protect employers from intimidation by it. ‘The true remedy for combination’, he wrote, ‘is perfect liberty on both sides, and adequate protection against violence and outrage. Wages should be the result of a free compact ...’. He wished McCulloch well in his efforts but said he did not himself expect much from parliament until it was reformed ... One has the impression Ricardo did not think there was much in the issue. Later he may have come to think otherwise. (Grampp 1979, p. 506, citing VIII, p. 316)

As Mokyr notes, ‘The freedom to organize spontaneously and cooperate with others, a basic Enlightenment principle, clashed with the anti-guild and anti-monopolist sentiments that increasingly became part of the conventional wisdom in the eighteenth century. More ominously, it clashed with the post-1793 British reaction to the French Revolution’ (Mokyr 2010): p. 355). In this instance Ricardo, to his great credit, placed the ‘freedom to organize and cooperate with others’ above his own ‘strong anti-guild and anti-monopolist sentiments’.

### 6.4 Ricardo, *Laissez-faire* and Classical Liberalism

Thus Ricardo really did believe that the free market was best for everyone (except for the beneficiaries of Old Corruption, perhaps including the landlords). To cite just one more example, in June 1823 he spoke in Parliament in support of a bill to repeal the usury laws: ‘Mr. Ricardo argued that money ought to be placed on the same footing as any other commodity. The lender and borrower ought to be allowed to bargain together, as freely as the buyer and seller did when goods were to be disposed of’ (V, p. 323; cf. I, pp. 296–7, p. 365). In a recently discovered letter to the industrialist Francis Finch, written four months earlier, he called on the government to ‘do away [with] all restraints on commerce, to have few taxes, and to afford the securest protection to property’ (Heertje, Polak and Weatherall 1985, p. 1092).
In fact his ‘distrust of government was almost absolute’ (Shoup 1960, p. 254). ‘Certainly, at times’, Terence Hutchison maintains, ‘Ricardo gave expression to a radical side of his not very coherent political and social views, which put him, however, much nearer a kind of hard-right, libertarian radicalism, than the kind of soft-left, democratic radicalism ascribed to him by M and S’ (Hutchison 1993, pp. 15–16 n11, referring to Milgate and Stimson 1991). There are indeed parallels between Ricardo’s hard-line opposition to the Poor Laws and twenty-first-century neo-liberal hostility to the supposed creation of ‘welfare dependency’ among the poor.

This locates Ricardo on the extreme free market fringe of classical political economy. As Lionel Robbins insists, most of the classical economists had a rather different view of the economic functions of the state:

Thus, so far from the system of economic freedom being something which will certainly come into being if things are just left to take their course, it can only come into being if they are not left to take their course, if a conscious effort is made to create the highly artificial environment which is necessary if it is to function properly. The invisible hand which guides men to promote ends which were no part of their intention, is not the hand of some god or natural agency; it is the hand of the lawmaker, the hand which withdraws from the sphere of pursuit of self-interest those possibilities which do not harmonize with the public good … Not only the good society, but the market itself is an artifact. (Robbins 1978, pp. 56–7)

The three-class rural society that forms the basis of all Ricardo’s economic analysis was itself the product of several centuries of enclosures, legitimated by private Acts of Parliament and enforced by the power of the state, that prohibited access to the former common land and thus denied the newly formed rural proletariat any possibility of returning to subsistence farming (Marx 1867, ch. 27; cf. Gray 1998, pp. 7–16).

Ricardo seems to have taken absolutely no interest in this historical process, though he would probably have acknowledged its occurrence if he had been asked about it. As Marx later complained, he instead regarded the capitalist mode of production as a natural phenomenon, with neither a past nor a finite future. The practical conclusions that he drew were those of a typical classical economist: ‘They did not conceive the self-acting mechanism to be self-created. But they did conceive that
once it had been so conditioned as to conform to their idea of what was self-acting, then it was not merely superfluous but positively pernicious to attempt to use other coercive influences’ (Robbins 1978, p. 57; cf. Viner 1960). It is no accident that Robbins himself was a founder member of the Mont Pèlerin Society, whose long and eventually successful campaign in support of the free market Ricardo might well have endorsed (Cockett 1994, ch. 3).
This chapter is structured chronologically, with successive sections devoted to the period before 1870 (section 7.1); the treatment of Ricardo’s work during and after the ‘marginalist revolution’, between 1870 and 1936 (section 7.2); the very different assessment of Ricardo that was common after 1936 during the Keynesian revolution (section 7.3); and, finally, Ricardo in the age of neoliberalism, that is, since 1975 (section 7.4).

There has been constant interest in Ricardo since his death in 1823, even if the interpretation and appraisal of his work has fluctuated over time.¹ In the English language alone there have been eleven separate editions of the *Principles*, each with a different editor and a new editorial introduction. Piero Sraffa records the publication of translations of the *Principles* into seven European and three Asian languages prior to 1955 (X, pp. 374–85), while details of the six German translations published between 1821 and 2006 are provided by Christian Gehrke (2006a).

Each section of this chapter will begin with a brief outline of the editor’s introduction to the relevant English editions of the *Principles*, to give some initial impression of the way in which views of Ricardo’s masterpiece have changed over the years. The points made by the editors – and, in some important instances, the points that they did not make – will then be developed at greater length.

Two limitations should be noted at the outset. First, the discussion is almost entirely restricted to the English-language literature. As Lionel Robbins notes:

It is true that the Ricardian element in Classical analysis did not prove a hardy migrant and was rarely understood abroad. But the broader theory of policy, based on Smith and Hume and Bentham,
although often misconceived, has certainly been very influential. It is no exaggeration to say that it is impossible to understand the evolution and the meaning of Western liberal civilization without some understanding of Classical Political Economy. (Robbins 1978, p. 4)

I cannot pretend to offer a full assessment of this influence, and of Ricardo’s contribution in particular, since this would need to draw on work in at least the ten languages other than English referred to above.

The second restriction is less significant, since it is only temporary. While occasional reference will be made in this chapter to Karl Marx, Alfred Marshall and Piero Sraffa, their very distinctive views of Ricardo and his system have been deferred until the following chapter, where they will be dealt with at some length.

7.1 The First Two Generations: 1823–1870

The first of Ricardo’s English-language editors was J. R. McCulloch (1789–1864), whose edition of the *Principles* was published in 1846 under the title *The Works of David Ricardo*, with 60 pages of additional material and a greatly expanded 20-page index; it was reprinted in 1871. There were translations of the *Principles* itself into French in 1819, German in 1821 and Polish in 1826; in the latter case the translator was the same Stanislaw Kunatt who had met Ricardo in Switzerland during his European grand tour in 1822. New translations appeared in French in 1836 and German in 1837, and for the first time also in Danish (1839) and Italian (1856). A French edition of the McCulloch *Works* was published in 1847.

McCulloch was a regular correspondent of Ricardo’s, but he was not a slavish disciple and seems to have drawn more from Adam Smith than from any other source (O’Brien 2004, p. 769). Although Ricardo had been dead for almost a quarter of a century when McCulloch’s 19-page ‘Notice’ was published by way of an introduction to his edition of the *Principles*, he drew heavily on the obituaries that he had published in the *Scotsman* in August and December 1823 (X, p. 369).

It reads almost like a eulogy, full of praise for the personal and intellectual virtues of his subject. McCulloch devotes five pages to the early pamphlets and only three pages to the *Principles*, focusing on the labour theory of value, perhaps because this subject had dominated his correspondence with Ricardo in the months before the latter’s death.

His only substantive criticism of Ricardo relates not to the theory of value but rather to his excessive use of abstraction. The *Principles*
David Ricardo was ‘not a practical work’, McCulloch claimed. On the contrary, ‘the establishment of general principles being Mr. Ricardo’s great object, he has paid comparatively little attention to their practical application, and sometimes, indeed, he has in great measure overlooked the circumstances by which they are occasionally countervailed’.

Thus he neglected the fact that agriculture is ‘susceptible of indefinite improvement’ and failed to recognize ‘the influence of increased prices in diminishing consumption and stimulating industry’. Both factors had undermined the effects of diminishing returns in agriculture, and Ricardo had indeed underestimated their significance (McCulloch 1846, p. xxv). Some of the most persistent objections to Ricardo’s economics originated with McCulloch, his close friend and obituarist.

Ricardo’s early critics focused on the theory of value, on Say’s Law and the associated denial of ‘general gluts’, and on the origins of profit and its justification.2 In the last decade of his life Ricardo himself had debated the first two questions over and over again with Malthus (Sinha 2010, pp. 117–31), but he had largely ignored the third issue.

Dobb notes that the reaction against Ricardo began almost immediately after his death with Samuel Bailey’s *Critical Dissertation on Value* (1825), which attacked the notion of absolute value, denied the possibility of establishing any absolute standard of value, and instead emphasized demand as the most important determinant of price. ‘Bailey’s Dissertation was quoted approvingly, and as being decisive in its criticism of Ricardo on Value, by Torrens’ (Dobb 1973, p. 101; cf. Sinha 2010, pp. 131–6).

Then, in 1834, Samuel Mountifort Longfield and Nassau Senior led the ‘retreat from Ricardo’s theory of profit’ as part of the social surplus product, with Longfield articulating ‘something akin to a marginal productivity theory of profits (profits were due to the additional productivity given to labour when capital was invested in machines)’ and Senior ‘propounding his well-known theory of profit as a reward for abstinence’. Senior, in particular, ‘was by no means unaware of, or unmoved by, the social implications of what he was saying’; he was a strong opponent of trade unions (Dobb 1973, p. 103).

Also prominent in the early 1830s were Richard Whately and William Forster Lloyd, who ‘are generally classified among the group of economists of the anti-Ricardian reaction who anticipated some of the main ideas of the “Jevonian Revolution” of forty years later’, along with Samuel Read and George Poulett Scrope. These writers ‘were quite consciously in retreat from the most characteristic doctrines of Ricardo, and especially from those (such as his theory of profit and its stress on
the antagonistic relationship between wages and profit and between profit and rent) which they regarded as socially dangerous and hence untenable' (ibid., pp. 109, 111–12).

In a passage already quoted, Mark Blaug notes that political objections were supplemented by factual criticisms, which were directed at both Ricardo and Malthus: ‘After 1834, no writer of economics expounded the Malthusian theory without taking note of the empirical evidence that contradicted it’, including rising real wages, rising (rather than declining) agricultural yields, and the fact that falling death rates were making a greater contribution to population growth than that of rising birth rates (Blaug 1956, p. 48).

These were the writers responsible for the rise of what Marx later described as ‘vulgar economy’, which he believed to have replaced Ricardo’s scientific political economy with a much more superficial theoretical system designed to provide an apology for the capitalist system (Marx 1872, pp. 14–15). In fact there were not one but three categories of political opposition to Ricardo’s economics. The first came from the pro-capitalist Right, which attacked the labour theory of value as providing a dangerous stimulus to socialism. This strain of anti-Ricardianism was important in the 1820s and 1830s, and as we shall see in the following section it revived after 1880 in reaction to the growth of mass socialism, in particular under the influence of Henry George.

Second, Ricardo was criticized by the illiberal, protectionist Right, including Wilhelm Roscher and the other Kathedersozialisten (‘professorial socialists’) in Germany and by economic nationalists in the United States, most notably Henry Carey (Kurz 2006, p. lii). In England this second strand of criticism was expressed rather more moderately by Edward Stillingfleet Cayley, who defended the Corn Laws on the quasi-Malthusian grounds that high prices for agricultural products and high rents would stimulate aggregate demand (King 1988, ch. 3). Michael Reich includes Scrope, Read, Longfield, Thomas Perronet Thompson and George Porter among ‘those anti-Ricardians who represented the conservative fraction of the landowners, who opposed anti-Corn law agitation, and who claimed rents were falling’, and who ‘attacked the rent theory for ideological reasons’. They replaced it with a ‘diluted Ricardianism that emphasized technical improvements’, thereby ‘softening the conflict between wages and profits’ (Reich 1980, pp. 10, 11).

The third source of hostility to Ricardian political economy came from the anti-free market Left (including traditionalist rebels like William Cobbett), who dismissed Ricardo as a supporter of unregulated market capitalism and, in the case of the early German socialist
Ferdinand Lassalle, as an advocate of the ‘iron law of wages’. But by no means all working-class radicals shared Cobbett’s disdain for Ricardo. The term ‘Ricardian Socialists’ was first used by Herbert Foxwell (1899) to describe a loose grouping of radical writers who, in the 1820s and 1830s, asserted the labourer’s ‘right to the whole produce of labour’, the title of an important critique of their ideas by Anton Menger (1899).

Consistently critical of the established order for violating this right, the Ricardian Socialists never constituted a school in any formal sense. Sometimes drawing on Smith, Ricardo and other classical economists to substantiate their critique, they were part of a vibrant intellectual milieu that included Jacobins, Owenites, monetary reformers, opponents of ‘Old Corruption’ and early advocates of the People’s Charter in an environment characterized by great economic and political discontent. Disputes raged over the fundamental causes of the deeply felt economic, political and social grievances of the working population and the appropriate remedies to be pursued (Claeys 1987; Thompson 1998).

The most important Ricardian socialists were John Francis Bray, John Gray, Thomas Hodgskin and William Thompson. A notable forerunner was Charles Hall, with significant contributions also coming from Thomas Rowe Edmonds, the pseudonymous Piercy Ravenstone and the anonymous author of an 1821 pamphlet entitled ‘The Source and Remedy of the National Difficulties’, who seems to have been the first writer to use the proto-Marxian term ‘surplus labour’ to denote the source of profits (King 2013a).

The most serious defect of the existing order, the Ricardian Socialists maintained, was an extreme and quite indefensible degree of inequality, which they attributed to an unjust system of property rights. Since, as John Locke had demonstrated, every producer was entitled to the full fruits of his own labour, the working man was clearly receiving much less than his due. Old Corruption and regressive taxation were secondary problems.

The Ricardian Socialists also criticized the way in which periodic industrial crises threw millions of working people into utter destitution and forced the economy to operate well below its potential capacity. This phenomenon, they argued, was linked to the inequality of incomes, which generated a chronic tendency to underconsumption. They denied the Malthusian claim that nature placed severe limits on material progress; instead it was capitalism that stood condemned for perpetuating poverty in the midst of potential plenty.

William Thompson was the only Ricardian Socialist who was personally acquainted with Ricardo. In his *Inquiry into the Principles of*
Wealth Most Conducive to Human Happiness, which had a great influence on the British Owenites, Thompson drew on both utilitarianism and the labour theory of value to attack the injustice of the existing distribution of income and wealth. Thompson’s theory of value closely followed Ricardo’s own account in the *Principles*, starting from the premise that labour was the sole source of wealth. He drew what appeared to him to be the unavoidable consequence, which Ricardo had not: capitalists and landlords obtained profit and rent by exploiting the real producers (Thompson 1824, pp. 4–6).

But Ricardo is not cited in Thompson’s 600-page book, and references to Ricardo in the substantial early socialist literature are relatively few and seldom very complimentary. More than anything, Ricardian Socialists were united by their unqualified hostility to Malthus. They had a considerable influence on working-class radicalism in Britain and Ireland in the second quarter of the nineteenth century. Respectable middle-class economists reacted with horror, so much so that ‘Thomas Hodgskin was a name to frighten children with in the days following the repeal of the Combination Laws in 1824’ (Meek 1956, p. 124).

The reputation of Ricardo himself seems to have suffered through a process of guilt by association (Hollander 1980b; Winch 2009, p. 257). Writing from a Marxian perspective, Ronald Meek identified the theory of social surplus and the critical role of human labour as the core of Ricardo’s system. ‘The most significant feature of the decade immediately following the death of Ricardo’, he comments, ‘is the extraordinary speed with which these fundamental concepts were removed from the agenda of economic discussion’, with the ‘popularisation (and vulgarisation)’ of his work by James Mill and J.R. McCulloch (Meek 1950, pp. 54–5). Evidence for this can be found in the proceedings of the Political Economy Club where, in 1831, Torrens reported ‘that all the great principles of Ricardo’s work have been successively abandoned, and that his theories of Value, Rent and Profits were now generally acknowledged to have been erroneous’ (cited *ibid.*, p. 56).

Politics, Meek argues, was the key motivating factor:

The early reaction against Ricardo, I think, was in large measure due to a widespread belief that important elements of his system set limits to the prospects of human progress under capitalism, and therefore could not possibly be true ... It is hardly too much to say that every new development in economic thought in England about this time had the objective effect of cutting the ground from under the feet of writers like Hodgskin and William Thompson. And at least in
some cases there can be little doubt that the critics of Ricardo knew exactly what they were doing and why they were doing it. (Ibid., pp. 57, p. 59)

Among the culprits were Scrope, Read and Longfield, the latter being ‘as fully aware of the political and ethical implications of his theory of distribution as was J.B. Clark of his some sixty years later’ (ibid., p. 61).

The reactions to Ricardo of Carey, Whately, and Frédéric Bastiat were very similar. They all objected to the emphasis on conflicts of interest in Ricardo’s thought and argued instead for a natural economic harmony. As Carey put it: ‘Mr. Ricardo’s system is one of discords … its whole tends to the production of hostility among classes and nations … His book is the true manual of the demagogue, who seeks power by means of agrarianism, war and plunder’ (Carey 1847, pp. 74–5, cited by Milgate and Stimson 2009, p. 211).

This posed significant intellectual problems for John Stuart Mill, whose great respect for Ricardo as a theorist (and good friend of his late father) was combined with uneasiness about these unfortunate political implications. In his own *Principles*, published in 1848, the younger Mill in effect joined the vulgarizers, in what Marx described as a work of ‘shallow syncretism’ (Mill 1848, pp. 452–3, 458–9; cf. Marx 1872, p. 15).

‘While Ricardian economics remained the ruling doctrine of the age’, Blaug comments, ‘it paid a price in the gradual but steady dissolution of the original theoretical structure’. In J.S. Mill’s *Principles* ‘the Ricardian system stands hedged about with serious qualifications and even the admission of directly contradictory arguments’ (Blaug 1958, p. 227).

The younger Mill was ‘theoretically eclectic, and hence it was that he tried to incorporate Ricardo’s work into his own, though in so doing he emasculated the former more or less completely’ (O’Brien 2004, p. 52), for example by weakening the role of diminishing returns in agriculture and treating the stationary state as a happy one. This is no less evident in Mill’s treatment of value and distribution, where he ‘found no difficulty in incorporating Senior’s abstinence concept into his system and substituting a rather superficial cost of production theory of value for Ricardo’s labour theory’ (Meek 1950, p. 62).

This was probably a deliberate strategy. Peach raises ‘the possibility that Mill intentionally played down the “labour quantity” dimension with a view to rehabilitating Ricardo as “the greatest political economist”’ of them all (Peach 1993, p. 300). Dobb’s verdict is that Mill developed the supply-and-demand approach to the theory of value ‘despite the inhibitions imposed by filial piety … so that his eventual influence
was to define and develop, not the Ricardian tradition, but its rival and eventual supplanter; this fact being obscured at the time (and since) by his insistence that he was preserving and improving Ricardo’s doctrine’ (Dobb 1973, p. 118).

Thus there is little to be said for Keynes’s well-known claim that ‘Ricardo conquered England as completely as the Holy Inquisition conquered Spain’ (Keynes 1936, p. 32). This was, however, a popular view in the mid-twentieth century, and it was not always confined (as Keynes himself intended) to Ricardo’s endorsement of Say’s Law).

Thus, for S.G. Checkland, ‘the Ricardian system soon became synonymous with political economy. In the space of something less than ten years a system had emerged from fragments and had assumed the stamp of orthodoxy’ (Checkland 1949, p. 41). The denial of general gluts was at the core of this system, which was opposed by the underconsumptionists. McCulloch was ‘the prince of propagators’, Checkland maintained, who ‘made political economy a popular science, a matter of general concern’, popularizing Ricardo’s ideas so that ‘[b]y the mid-century they had pervaded the nation’, with Malthus and Richard Jones fighting an unsuccessful rearguard action (ibid., pp. 47–9).

This is an exaggeration, since Ricardo was considerably less influential than Checkland suggests. Even on the critical question of free trade, the appeal of ‘the more radical political economy of David Ricardo’ was ‘much more stunted in its growth than used to be thought the case ... with many, perhaps the majority, of later free traders actually adopting a strongly anti-Ricardian tone’ (Howe 2002, pp. 196–7). Ricardo’s free trade arguments were too radical for most Anti-Corn Law Leaguers, so that ‘Ricardian political economy gradually became transmuted into a less class-based interpretation of the state and economic policy’ (ibid., p. 211). ‘When we look at the case put forth for the repeal of the Corn laws in the 1840s’, O’Brien concludes, ‘we do not find Ricardo’s model looming large ... Moreover, Ricardo’s theory of conflict between the interests of landlords and those of the rest of society exercised only a limited influence even in this context’ (O’Brien 2004, p. 51).

Blaug, too, insists that Ricardo’s ideas had little or no influence on the repeal of the Corn Laws:

The campaign which finally secured the repeal of the corn laws in 1846 based itself, more often than not, on arguments directly contrary to the spirit and letter of Ricardo’s works. The free traders of the 1840s were the progeny of a parent they disavowed. It is an ironic commentary on the history of Ricardian economics that the fundamental theorem
of profits depending upon wages and wages upon the price of wheat proved to be the Achilles heel of the anti-corn law agitation. (Blaug 1958, p. 209)

Even J.R. McCulloch, who was much more sympathetic towards Ricardo than many of his contemporaries, followed Smith rather than Ricardo in his treatment of both trade theory and trade policy (O’Brien 1970, pp. 191–5, 226–7).

Much the same might be said of the fate of Ricardo’s economics as a whole. By 1830 ‘the avowed partisans of Ricardo had all but disappeared. McCulloch remained his only active spokesman, and even he no longer commanded the same authority. Among what Mallet called “the great guns of science” there was now no doubt that Ricardo’s theory ... was rife with errors’ (Blaug 1958, p. 62). Moreover, ‘[b]y 1835 the Malthusian theory of population was, if not repudiated, so decisively shorn of its short-run implications that virtually nothing was left of it’ (ibid., p. 111).

Terence Hutchison concurs, noting that most of the great economists of the period between 1825 and 1850 had broken with Ricardo, abandoning both the questions that he had posed and the answers that he gave to them. Hutchison cites Samuel Bailey, Samuel Mountifort Longfield, Richard Whately, Nassau Senior, William Forster Lloyd and Richard Jones as the principal theorists in this period, and concludes that by the early 1830s they ‘were asking, on the whole, very different questions about value and distribution, and were certainly propounding very different answers, from those to be found in his Principles’ (Hutchison 1952, pp. 428–9). He concedes, however, that John Stuart Mill was a (partial) exception to the anti-Ricardian rule.

And O’Brien concludes that:

... the full Ricardian apparatus attracted hardly any disciples. By 1831 at the latest it is probably true that no writers, apart possibly from James Mill and Thomas De Quincey, could accurately be called Ricardian in the sense that they thought in terms of the Corn Model. Whereas Adam Smith influenced every Classical economist, Ricardo’s influence was both more uneven and more transient ... When we come to the more obscure and knotty parts of his analysis, especially his value theory, we find its influence even smaller ... By 1830–1 Ricardian value theory had effectively disappeared. (O’Brien 2004, pp. 50–2)

Two of these writers do, however, immediately qualify this very negative assessment. Blaug maintains that Ricardo’s ‘emphasis on economic
growth and the changes in distributive shares so permeated economic thinking in the period [1823–1870] that even those who revolted against Ricardo’s authority in fact accepted its essential outlook ... What is at issue here is an influence that cannot be measured by the number of avowed disciples’ (Blaug 1958, p. 226).

This continuing influence was strengthened by the analytical weaknesses of the opposition, since Malthus, Bailey, Scrope, Jones, Longfield and Senior were all greatly inferior to Ricardo as theorists. ‘The shortcomings of anti-Ricardian economics – its eclectic character, its failure to carry through – far more than the dogmatism of Ricardo’s disciples was the factor responsible for its lack of success’ (*ibid.*, p. 227). By the 1830s, O’Brien notes, ‘the magic of Ricardo’s influence had waned. But his theorems, though so modified as to alter completely their character as compared with their original formulation, continued to appear in the work of the later Classical economists’ (O’Brien 2004, p. 52).

We may conclude this section by comparing three different verdicts on the influence of Ricardo in the half-century after his death. Donald Winch regards the Ricardian legacy as providing a good example of the plural character of political economy:

The ‘pretended doctors’ of the mercantile system were never as unified (or as self-serving) as Smith’s rhetoric required them to be. Nor were the attempts by Ricardo’s disciples to create a tighter version of orthodoxy entirely successful or particularly long-lasting, though Mill and Marx represent two divergent versions of the Ricardian legacy that endured into and beyond the second half of the century. (Winch 2002, p. 10)

O’Brien’s overall conclusion, as summarized by Blaug, is that ‘the Ricardian system was a detour from the main line of advance running from Smith to Mill, which died effectively after 1830’. O’Brien sees the corn model, in which the rate of profit in the economy as a whole depends on production conditions in agriculture, as the essence of the Ricardian system. The theorem was never entirely abandoned by later classical economists, but, argues O’Brien, it was ‘practically emasculated and deprived of its predictive force’ (Blaug 2006, p. 399).

Dobb, however, takes a very different position, agreeing with Marx that ‘there were, broadly speaking, two quite distinct and rival traditions in nineteenth-century economic thought’ (Dobb 1973, p. 112). One stressed social production, the labour theory of value and the distribution of income between antagonistic classes. The other emphasized
acts of exchange, the determination of prices by supply and demand and the resulting incomes and expenditures of individuals. Both traditions were derived from Adam Smith; one led via Ricardo to Marx, and the other via the ‘vulgar economists’ to Jevons, Walras and the ‘marginal revolution’.

7.2 Ricardo and the ‘Marginalist Revolution’: 1870–1936

There were three new English-language editions of the *Principles* in this period.³ The first, edited by Edward Carter Kersey Gonner (1862–1922) appeared in 1891; it was reviewed by J.N. Keynes (1891). There were eleven reprints of this edition between 1895 and 1929 (X, p. 365) and, thirty-two years later, a posthumous ‘companion volume’ appeared, reprinting five of Ricardo’s most important pamphlets and with another substantial editorial introduction (Gonner 1923). An abbreviated version of the *Principles*, edited by William James Ashley (1860–1927), was published in 1895 as part of the ‘Economic Classics’ series by the New York branch of Macmillan; it contained only the first six chapters of the book.

The fourth English edition (and the third to be published in the UK) appeared in 1911 as no. 490 of J.M. Dent’s ‘Everyman’s Library’ series; it was edited by the little-known Frederick William Kolthammer (1884–1941). Earlier, Ricardo’s letters to Malthus had been published in 1887, with an introduction by James Bonar, who was also responsible for a volume of Ricardo’s correspondence that appeared in 1899. Across the Atlantic, Jacob Hollander published a volume of Ricardo’s letters to McCulloch in 1895, his ‘Notes on Malthus’ in 1928, and his *Papers on the Currency Question* in 1932.

In other European languages, the 1847 (McCulloch) edition of the *Works* was republished in French translation in 1882, and an abridged French version of the *Principles* (the first eight chapters) appeared in 1888. A new complete German translation of the *Principles* came out in 1905, followed by a new Polish translation in 1919. In Hungarian, a translation of the *Principles* appeared in 1892, followed by the *Letters to Malthus* in 1913.

Russian editions of Ricardo’s *Works* and of the *Principles*, translated by the eminent economist N.I. Sieber (Ziber), appeared in 1875 and 1882 respectively, with new Russian editions of the *Principles* in 1908 or 1910 and again in 1929, edited by David Riazanov, who was also the editor of the Marx-Engels *Collected Works* until he was executed on Stalin’s orders in 1938 (X, pp. 381–3; Barnett 2005, pp. 31–2). For the first time there
were translations of the *Principles* into Asian languages: two each in Chinese (in 1921 and 1928) and Japanese (1930 and 1931) and one, in serial form between 1928 and 1930, in the periodical *Arthic Unnati* (*Economic Progress*) in Bengali (X, pp. 383–5).

Ricardo's second editor is much less well known than McCulloch. E.C.K. Gonner held the Brunner Chair of Economic Science at University College, Liverpool from 1888 until his death in 1922; he was knighted in 1921 after war service for the British government. Gonner's 40-page 'Introductory Essay' is very largely a prolonged critical summary of the *Principles*. He first deals with wages and profits and with taxation, offers a detailed exposition of Ricardo's ideas and concludes in each case with a relatively favourable appraisal. Gonner has little or nothing to say about Ricardo's macroeconomics: he does not comment on Say's Law, the falling rate of profit, the effects of machinery or the prospects for Britain's economic growth.

He next deals with three topics that he believes to require further investigation: the theories of value, rent and trade. On the first issue, Gonner reveals the influence of his teacher, Alfred Marshall. Ricardo had a supply-and-demand theory of value, he argues, not (despite the mistaken claims of many socialists) a labour theory, and he expressed it more clearly than Adam Smith had been able to do. As for rent, Gonner maintains, Ricardo always acknowledged his debt to West, and while he 'was indebted in some measure to Malthus ... his indebtedness was that of the man who sifted out the right from the wrong' (Gonner 1891, p. lvi).

On the theory of trade, his achievement was even greater: 'the Law of Comparative Cost was a great, if not the great, discovery made by Ricardo' (ibid., p. lvii). In sum, Ricardo 'may be said to have completed the work which Adam Smith began’. He ‘did more than any other man, with the solitary exception of Adam Smith, to render possible a systematic study of economics (ibid., pp. lviii, lvii).

W.J. Ashley's editorship need not detain us long. The first six chapters of the *Principles* are accompanied by a two-page biographical note on Ricardo that is of interest only because it contains a curious error. ‘In 1793 he married’, Ashley tells us, ‘and about the same time conformed to the English Church’ (Ashley 1895, p. v). In fact, of course, on abandoning his Jewish faith Ricardo became a Unitarian; one might have expected Ashley, himself a distinguished economic historian, to have been better informed.

The editor of the Dent edition, F.W. Kolthammer, was born in London to German parents. A graduate of Brasenose College, Oxford, where he
studied classics, he seems to have had no formal training in economics. Between 1909 and 1920 he worked in Oxford as an adult education tutor for the semi-autonomous University Extension Delegacy. Kolthammer's introduction to the *Principles* links Ricardo's clumsy literary style to 'the air of deduction' that was breathed by men of science in the early nineteenth century. This did have its advantages, since 'the order which he made to reign where all had long been chaos, the system which he offered in explanation of an unwieldy toppling mass of details, simply stole by its audacious clarity the admiration and the conversion of his contemporaries' (Kolthammer 1911, p. x).

Kolthammer concludes by referring to the 'enormous extent' of Ricardo's influence, among his nineteenth-century supporters and opponents alike. 'A harsh conservatism and a perhaps harsher laissez-faire; a constitutional meliorism and a revolutionary anarchism – these all find their source in Ricardo' (*ibid.*, p. xii). This is all beautifully written, and it is only at the end that the reader realizes that Kolthammer has said nothing at all about the content of Ricardo's economics. This is unfortunate, not least because his was the first (and for many years the only) cheap edition of the *Principles*, and must have sold very many more copies than its rivals.

The attitude to Ricardo of the pioneers of the marginalist revolution is often thought to be epitomized in William Stanley Jevons's famous reference to 'that able but wrong-headed man, David Ricardo', who 'shunted the car of Economic science onto a wrong line, – a line, however, on which it was further urged on by his equally able and wrong-headed admirer, John Stuart Mill' (Jevons 1879, p. li). Using a similar metaphor, Joseph Schumpeter describes Ricardo's theory of value as 'a detour' in no fewer than four places in his magisterial *History of Economic Analysis* (Schumpeter 1954, pp. 474, 560, 568, 673n). Denouncing 'the mazy and preposterous assumptions of the Ricardian School', Jevons's language was much more extravagant than Schumpeter's. 'Our English Economists', he claimed, 'have been living in a fool's paradise' (Jevons 1879, pp. xliv–xlv).

But marginalist criticism of Ricardian economics went deeper than this, as Hutchison notes, and it was far from being confined to Jevons. In fact, he suggests, very few of the great neoclassical economists of the late nineteenth and early twentieth centuries were sympathetically disposed towards Ricardo. On the contrary, the great majority of neoclassical economists 'regarded themselves as having turned their backs on what they understood to be Ricardo's central theories of value and distribution'. In this category he includes Philip Wicksteed, Carl

The case against the labour theory of value was essentially that of Ricardo’s earliest critics, now reinforced by the provision of a much more systematic alternative theory, which combined a supply-and-demand theory of price with a marginal productivity theory of distribution. ‘That this view is one-sided scarcely needs proof’, Knut Wicksell maintained against Ricardo; ‘labour is only one factor of production among others, and therefore only one source of value among many’ (Wicksell 1934, II, p. 130).

In fact, as Hutchison notes, Wicksell was something of an admirer of Ricardo, along with his fellow Swede Gustav Cassel, ‘and, of course, Marshall’ (Hutchison 1952, p. 422). The index to Wicksell’s Lectures on Political Economy, from which this critical passage was taken, has five lines of references to Ricardo, more than for any other economist except Böhm-Bawerk. And Ricardo had other defenders in the marginalist camp. Léon Walras, who was no friend of the labour theory of value, ‘admired Ricardo’s theoretical acumen in many ways’ (Sinha 2010, p. 140) and praised his reliance on abstract theory, even though he was severely critical of his teachings on value and distribution (Kurz 2006, p. XXX, citing Walras 1877, p. 398).

In the 12-page Appendix A to his edition of the Principles, Gonner had assessed ‘Ricardo and his critics’, concentrating on Jevons, John Kells Ingham and the obscure but bitterly anti-Ricardian German economist Adolf Held, who probably did not merit the five pages that were devoted to him. Gonner was not much more impressed by the two English critics: Jevons had attacked Ricardo’s reputation rather than his fundamental theories and assumptions, while Ingham had been wrong to blame him for introducing the ‘deductive method’ into economics and quite mistaken in complaining that he ‘was not a man of strong social sympathy’ (Gonner 1891, pp. 425, 427).

With the revival of socialism in the early 1880s, the political issues that had been so important in the 1820s and 1830s also re-emerged, with Louis Mallet and others criticizing Ricardo for his exaggerated emphasis on social conflict (Winch 2009, pp. 186, 188). In the English-speaking world the socialist cause was promoted by the American land reformer Henry George, whose attack on the legitimacy of private property in land won him a huge following not only in the United States and Australia, where the dispossession of the indigenous population
was still underway, but also in Britain, where the myth of the ‘Norman yoke’ had always been a prominent part of radical thinking. George seems to have drawn on J.S. Mill rather than Ricardo, but in emphasizing the conflict of interest between landowners and the rest of society he was clearly taking up a Ricardian theme (King 1988, ch. 5).

In Germany the bogeyman was Johann Karl Rodbertus, a strange mixture of radical reformer and conservative monarchist, who accused Marx of stealing his ideas – wrongly, it seems (Hollander 2011a, pp. 93–100). Writing in mid-century, Rodbertus had emphasized the normative aspects of the labour theory of value and focused in particular on the underconsumptionist implications of the difference between value and price. His solution was monetary reform, with ‘labour notes’ proposed as the solution to deficiencies in effective demand. Rodbertus seems to have become more influential after his death in 1875, with late nineteenth-century writers like Albert Schäffle and Adolf Wagner regarding him as ‘the socialist Ricardo’ (Alcouffe and Diebolt 2010, p. 318).

Then, at the end of the century, the ideas of the Ricardian Socialists were disinterred by Anton Menger, brother of the better-known Austrian theorist Carl Menger, whose book The Right to the Whole Produce of Labour (Menger 1899) was soon translated into English. In his 112-page introduction to the English edition, Herbert Foxwell made his own position on the ideological dangers of Ricardo’s political economy very clear:

I am more and more impressed, as I study the literature of socialism, with the far-reaching, disastrous consequences of the unfortunate colour given to economic teaching by Ricardo, and the little band of able, but somewhat hard and narrow writers who called themselves by his name. As Dr. Menger clearly shows, it was Ricardo’s crude generalisations which gave modern socialism its fancied scientific basis, and provoked, if they did not justify, its revolutionary form. (Foxwell 1899, p. xli; cited by Hutchison 1952, p. 421 n2)

More than thirty years later, Foxwell was elected President of the Royal Economic Society. He failed to deliver a promised presidential address on Ricardo, excusing himself ‘on the ground that his onslaught on the man, who had convinced the world of the dreadful heresy of a necessary conflict between the interests of capital and labour, would have been too provocative’ (Collet 1936, p. 592; see also Winch 2009, p. 257).

In the United States, Schumpeter notes, McCulloch’s textbook had been well received before 1870, and ‘there was also Ricardian influence
on a higher level far into the next period – of front-rank names, [Frank] Taussig’s is an illustration’ (Schumpeter 1954, p. 479). There was also a flurry of interest in Ricardo early in the twentieth century, involving Jacob Hollander (1910, 1911a, 1911b), E.R.A. Seligman (1911) and Spurgeon Bell (1907), who used an algebraic model of the rate of profit as a function of the share of wages in net output in his critical comparison of Marx and Ricardo.

In the 1920s the American institutionalist Wesley C. Mitchell echoed Marx in criticizing Ricardo for failing to distinguish capitalism from earlier modes of production: ‘With so capitalistic a conception of precapitalistic life, of course he did not see that the rise of capitalism is itself an economic problem of the first importance’ (Mitchell 1929, pp. 207–8). But he also found some intriguing parallels between Ricardo’s thought and the institutional economics of which he himself was a leading advocate. Ricardo placed considerable emphasis on the role of habits and instincts in economic decision-making, Mitchell argued, so that he largely ‘steers clear of Bentham’s subjective tangle’ and his ‘economic psychology … smacks of behaviorism as well as of hedonism’ (ibid., pp. 220, 223).

So far as the fate of Ricardo’s ideas in Germany in this period is concerned, Schumpeter’s verdict is that ‘Marx and Rodbertus did much to keep Ricardian thought alive … Ricardo remained to the end of the century the great theorist for most of those German economists who had any theoretical ambitions at all: the names of [Adolf] Wagner, [Heinrich] Dietzel, and [Karl] Diehl are illustrative examples’. In contrast, ‘France, following her own tradition, resisted Ricardian influence more than did any other country’ (Schumpeter 1954, pp. 578–9).

In the German case the crucial phrase is ‘theoretical ambitions’. Heinz Kurz (2006) notes the rapid decline in interest in Ricardo during the Methodenstreit of the late nineteenth century, when many German economists became opposed in principle to any form of abstract theorizing. Like Friedrich List and Wilhelm Roscher before him, Gustav Schmoller (the powerful leader of the second generation of the Historical School) was a severe critic of Ricardo, attacking him for minimizing the role of the state and denouncing the principle of comparative advantage and the advocacy of free trade as threats to the development of German industry.

As Schumpeter suggests, one factor that worked in favour of Ricardo in Germany was the prevalent dislike of Austrian theory. Ironically, leading Austrian economists took more interest in Ricardo than their German contemporaries, even though this did not prevent them from
being severely critical of him. Eugen von Böhm-Bawerk is a case in point (Sinha 2010, pp. 141–3).

There was an echo of this Austrian fascination with Ricardo in 1939 when, in a book on the theory of the business cycle, Friedrich von Hayek invoked what he termed the ‘Ricardo effect’, by which he meant the reduction in the capital–labour ratio that would result from a fall in the real wage rate. Here Hayek referred to a brief passage in chapter 1, section V of the Principles, and to the numerical example used there (Hayek 1939, pp. 8–10, citing I, pp. 40–3).

The ‘Ricardo effect’ was intended to provide support for Hayek’s theory of the cycle, in which an increase in the demand for consumer goods leads to an increase in their price, a fall in real wages, and the adoption of less capital-intensive methods of production by entrepreneurs reacting to the decline in the cost of labour, relative to capital. Higher spending on consumption would thus lead to a decline in investment expenditure, and not to an increase.

Hayek had thus replaced the well-known acceleration principle – according to which investment expenditure is a positive function of the rate of change of consumption expenditure – with what his critic Nicholas Kaldor described as a ‘deceleration principle’ (Kaldor 1942, p. 361). Kaldor claimed that Ricardo had been misrepresented by Hayek: ‘the assumptions are different, the mode of operation is different, and the conditions of validity are quite different’, so that ‘any criticism made against Professor Hayek’s “Ricardo effect” would not necessarily apply to Ricardo’ (Kaldor 1942, p. 364; see Zamagni 1987 for a defence of Hayek on these matters). In his brief reply Hayek (1942) made no mention of Ricardo, who was indeed somewhat peripheral to this controversy.

Neither Hayek nor Kaldor offered any detailed discussion of Ricardo’s views on the trade cycle, his denial of the possibility of ‘general gluts’, or his relationship with Malthus, and Hayek’s own deceleration theory of the cycle was never anything more than a historical curiosity. In fact this entire set of ideas was lacking in the literature on Ricardo in the age of the marginalist revolution, to which the Hayek–Kaldor controversy serves as a coda. Before 1936 almost no one among Ricardo’s critics had anything to say about those questions of macroeconomic theory and policy that were discussed in Chapters 5–6 above.

There was, however, one important exception. In the mid-1920s John Maynard Keynes was starting to grapple with the issues raised by Say’s Law, the neutrality of money and the role of counter-cyclical fiscal and monetary policies. As we shall see, this led him first to Malthus, and inevitably from there to Ricardo.
7.3 Ricardo and the ‘Keynesian Revolution’: 1936–1975

There were no less than five new English-language editions of the *Principles* in this period, and two new German translations (the latter appeared in 1905 and 1958, with revised versions being published in 1972 and 1978 respectively); in 1925 Ricardo’s 1815 *Essay* was also translated into German. Of the English editions of the *Principles*, that edited by Piero Sraffa (1898–1983) appeared as volume I of the eleven-volume *Collected Works* and has already been discussed in that context, while Sraffa’s own version of Ricardian economics is dealt with at some length in the next chapter.

While his interpretation of Ricardo has proved contentious, Sraffa’s scholarship has never been impugned. He took his role as editor extremely seriously, so much so that (as already noted) the only aspects of Ricardo’s theory that he discusses in his introduction are those needed to explain the process of writing, the structure and the revisions of the three editions of the *Principles*. Apart from Sraffa’s brief discussion of the effects of machinery, this means that he deals almost exclusively with the theory of value. There is almost nothing on rent, distribution, economic growth, the stationary state or trade theory, and nothing at all on Ricardo’s thinking on taxation, public finance or Say’s law of markets.

The second American edition of the *Principles* (and the first in paperback) was published by Irwin in 1963. It was edited by William John Fellner (1905–1983). Born in Budapest, Fellner migrated to the United States in the late 1930s and taught at Berkeley (1939–1952) and Yale (1952–1973). His brief ‘Introduction’ is mainly devoted to theoretical issues, and is the first to make any reference to Keynesian macroeconomics. Fellner attributes to Ricardo a ‘pain cost’ or ‘sacrifice’ theory of value, in which – contrary to post-Ricardian theorists like Senior, who allowed also for ‘abstinence’ by savers – the sacrifice involved is entirely of labour. This approach to the theory of value has not proved fruitful, Fellner concludes.

He is much more favourably inclined towards Ricardo’s treatment of international trade and his theory of rent, both of which demonstrate the way in which ‘his genius enabled him to reduce a problem to its essentials and then to develop a very simple piece of analysis for acquainting us with the fundamentals of a phenomenon’ (Fellner 1963, p. ix). In the chapter ‘On Machinery’, Ricardo had identified a “non-Keynesian” type of unemployment, even though, here again, ‘the reader will presumably agree that the tools he was using did not enable
him to lay the foundation for a satisfactory analysis of the problem’ (*ibid.*, p. x).

Fellner concludes with an appraisal of Ricardo’s conception of the process of economic development, which he regards as still having considerable relevance in the middle of the twentieth century. Ricardo’s advocacy of Say’s Law was the least satisfactory part of his macroeconomic analysis, Fellner argues. But there is a broader sense in which Ricardo still has much to teach us: ‘the fundamental conception of the race between technological progress and diminishing returns has stayed in the center of our growth theories; and in addition to the central theme a sensitive ear discovers many more classical tunes when our contemporary orchestras perform’ (*ibid.*, p. xii).

Two years later Dent replaced the 1911 edition of the *Principles*. The new editor was Michael Fogarty (1916–2001), an Irishman who had been taught by Roy Harrod at Christ Church, Oxford. A self-described Christian Democrat, Fogarty published 28 books on questions of economic and social policy, the best-known being *The Just Wage* (Fogarty 1961). At 11 pages, his introduction is only slightly longer than Kolthammer’s, which he quotes on Ricardo’s upright character (Fogarty 1965, p. v).

The bulk of Fogarty’s introduction is devoted to three themes. By the first of these, ‘Ricardo’s theory of economic control’, he means the welfare implications of competitive and non-competitive markets. Ricardo was strong in his analysis of perfect competition, Fogarty concludes, but very weak on ‘partial or total monopoly’ (*ibid.*, p. ix). The second issue is ‘Ricardo’s theory of the choice of objectives’, an umbrella conception that includes the determinants of consumption, savings and investment, population policy and international trade. His third and concluding theme is the distribution of this income. However, he does not go into the theoretical issues raised by the *Principles* in any great depth.

Penguin Books got into the act very late in the day, with a 1971 addition to their Pelican Classics series. As the editor of Ricardo’s *Principles* they chose the Australian economic historian and Fellow of Nuffield College, Oxford, Max Hartwell (1921–2009), who provided what is probably the best of all the eleven editorial introductions. The first section of his introduction is headed ‘The Practical Economist’; here he emphasizes the importance of the Napoleonic Wars in the development of Ricardo’s thought. Next Hartwell discusses the *Principles*, acknowledging the many defects in its presentation and structure.

Hartwell’s treatment of the theory of value is very similar to that of Sraffa. Ricardo had developed a one-commodity, corn model in the *Essay*, he suggests, but had allowed for heterogeneity of output in the *Principles*.
and was thus forced to worry about value. He reconsidered the labour theory of value that he had adopted in the first edition, accepting that it needed to be modified to take account of the quantity and durability of the fixed and circulating capital required. None the less, Ricardo concluded that the labour theory was the best possible approximation. But this was not Ricardo’s principal interest, Hartwell insists: ‘analysis of the secular trend in distribution was his main theoretical concern’, and ‘the Principles was, above all, a treatise on Britain’s growth prospects’ (Hartwell 1971, pp. 15, 16) – and a pessimistic one, at that.

Next Hartwell summarizes the pamphlets, noting that they reveal Ricardo’s distinctive deductive method more clearly than the Principles. In fact ‘Ricardo was the first economist to use the word “law” as regards economic data’ (ibid., p. 24). Hartwell contrasts the supremacy of the Principles in the 1820s with its subsequent fate: ‘much of Ricardian doctrine was successfully demolished in the 1830s’, partly because of its unacceptable political implications but chiefly as a result of the continuing growth of the British economy that seemed to have falsified its most important predictions. After harsh criticism by Keynes, Hartwell noted, ‘the wheel has turned a full circle’, with Ricardo now being praised as a pioneering environmentalist. But his ‘most obvious, and perhaps his most important achievement and legacy was his invention of economic science’ (ibid., p. 31; original stress).

It may well have been competition from the Penguin edition that encouraged Dent to find a third editor, less than a decade after the second. Other than Hartwell’s, only Sraffa’s introduction could compete in quality with that by Donald Norman Winch (b. 1935), Professor of the History of Economics at Sussex since 1969, and Sraffa had fifty pages at his disposal against the thirteen that Winch was permitted by Dent. His introduction is both scholarly and provocative:

Ricardo’s Principles has none of the wide appeal, the historical insight, the grasp of institutional detail of Smith’s Wealth of Nations … [It is] a slender tract compared with Marx’s massive volumes on Capital, possessing none of Marx’s messianic appeal. Nor does Ricardo’s Principles have the scope and philosophical balance of Mill’s work of the same title. (Winch 1973, p. vii)

It is also ‘disjointed and poorly arranged. All of which merely serves to underline the question: Why has it survived?’ (ibid., p. viii).

Ricardo’s appeal to his contemporaries and to the generation that followed him was both political and methodological, Winch suggests. He
benefited from ‘the popularity of free trade, economic individualism, and laissez-faire sentiments among middle-class readers’ and from the belief that he had demonstrated the scientific status of the new political economy; ‘none of his opponents succeeded in erecting a system of equivalent power and scope’ (ibid., p. xvi).

In the final analysis, Winch concludes, Ricardo’s enduring appeal is a matter of ‘intellectual aesthetics’, since ‘the skill and tenacity with which he pursued the task of constructing a deductive model capable of generating practical solutions excites admiration’. Ricardo ‘was never guilty of mere formalism – the quest for theoretical generality for its own sake’. His ‘audacious simplifications’ were always motivated by practical, policy considerations (ibid., p. xviii).

Terence Hutchison notes that John Maynard Keynes was the enthusiastic moving spirit and initiator of the Royal Economic Society’s edition of the Collected Works, and that Keynes began by describing Ricardo as ‘the most distinguished mind that had found economics worthy of its powers’ (Harrod, 1951, p. 328). This judgement was contained in a lecture on Malthus given to the Political Economy Club in Cambridge in the early 1920s.

In a later and substantially revised version of this paper, published in his Essays in Biography, Keynes complained that the dominant influence of Ricardo ‘has been a disaster to the progress of economics’, while in The General Theory he maintained that ‘Ricardo offers us the supreme intellectual achievement, unattainable by weaker spirits, of adopting a hypothetical world remote from experience as though it were the world of experience and then living in it consistently’ (Keynes 1933, p. 98; Keynes 1936, p. 192; both cited by Hutchison 1994b, p. 105 n14).

What had happened between the early and the later statements to cause Keynes to change his mind so completely? He had discovered the principle of effective demand, Say’s Law as its antithesis, and Malthus as its most prominent early nineteenth-century opponent. Hence the potted history of macroeconomics that can be found in the 1933 version of the essay on Malthus:

But it was Ricardo’s more fascinating intellectual construction which was victorious, and Ricardo who, by turning his back so completely on Malthus’s ideas, constrained the subject for a full hundred years in an artificial groove ... the almost total obliteration of Malthus’s line of approach and the complete domination of Ricardo’s for a period of a hundred years has been a disaster to the progress of economics ... If only Malthus, instead of Ricardo, had been the parent
stem from which nineteenth-century economics proceeded, what a much wiser and richer place the world would be today! We have laboriously to re-discover and force through the obscuring envelopes of our misguided education what should never have ceased to be obvious. (Keynes 1933, pp. 87, 98, 100–1)

Keynes's assessment was very influential for a time, as can be seen from the paper by S.G. Checkland (1949), which makes Say's Law the core of Ricardian economics. But there have always been critics of Keynes's verdict on Ricardo, and his praise for Malthus has also been questioned (Sowell 1972; Davis 2005).

Two of Keynes's most prominent disciples also took an interest in Ricardo. One was Joan Robinson (1978), who did take issue with some of his criticisms:

Keynes was right in showing that Ricardo was blind to the nature of effective demand, but it was not right to throw him into the same box as Pigou in timeless equilibrium. Ricardo was observing a historical process of accumulation going on through time and, like Keynes, he was applying what he believed to be a realistic analysis of the actual situation to problems of policy. His stationary state was not an equilibrium, but an awful warning. (Robinson 1974, pp. 14–15)

For Robinson, the essential difference between the two men was rather different. Keynes's principal concern was always with the short period, while Ricardo focused on the long period.

David Andrews (2000, p. 240) notes that Keynes himself had cited a letter to Malthus from January 1817, in which Ricardo wrote:

It appears to me that one great cause of our difference in opinion, on the subjects which we have so often discussed, is that you have always in your mind the immediate and temporary effects of particular changes, – whereas I put these immediate and temporary effects quite aside, and fix my whole attention on the permanent state of things which will result from them. (VII, 120, cited by Keynes 1933 [1972], p. 97)

Robinson herself spent many years in an attempt to extend Keynesian reasoning to the long period, though her own growth models were certainly not constructed along Ricardian lines (Robinson 1956).
Nicholas Kaldor was another Keynesian with a strong interest in Ricardo, as we saw in chapter 3 (King 2013b). Note again that Kaldor’s diagrammatic version of the Ricardian system does not entail a belief that Ricardo was a forerunner of the marginal productivity theory of distribution. Although the marginal productivity principle ‘was already implicit in Ricardo’, Kaldor maintained, the classical economists had assumed that both ‘labour and capital have definite long-run supply prices. Only the remuneration of the third factor, land, was derived from the operation of the marginal principle’ (Kaldor 1950, p. 555).

Kaldor’s own macroeconomic theory of distribution was, in a sense, the polar opposite of Ricardo’s. In the Kaldor model the real wage is determined by the investment ratio and the capitalists’ propensity to save; it is not (as in Ricardo) the basic datum of the system. Thus it is the share of wages, rather than the profit share, that is a residual in Kaldor’s model, and all taxes fall on wages, not on rent (Kaldor 1956, p. 96).

Although Ricardo’s growth model was a major intellectual achievement, Kaldor believed, it was not relevant to twentieth-century industrial capitalism. The classical stationary state had never materialized, and the proportion of the labour force in most developed countries that was employed in agriculture had fallen to five per cent or less. This demonstrated that ‘the improvement in the “arts of cultivation” (to use Ricardo’s own expression) was more “land-saving” than “labour-saving” in character’ (Kaldor 1982, p. 220).

In the 1970s Kaldor began also to criticize the theory of comparative advantage. Ricardo’s case for free trade, he maintained, rested on the assumption that there were constant returns to scale in all activities. But this was true neither of agriculture, where diminishing returns prevailed, nor – crucially – of manufacturing, which was subject to both static and dynamic increasing returns. This had fatal consequences for Ricardo’s theory: ‘under these conditions it can be demonstrated that free trade may lead to stunted growth, or even impoverishment of some regions (or countries) to the greater benefit of others’ (Kaldor 1978, p. 237).

Ricardo had presented a strong case against protecting British agriculture, Kaldor argued, but it was less clear that the overseas countries that had exported food and raw materials to Britain had gained from the repeal of the Corn Laws to the same extent. Thus ‘more was claimed for “free trade” than was in fact justified’ (ibid., p. 238). Free trade was especially inappropriate for underdeveloped countries that wished to industrialize. Here, he believed, Friedrich List had scored an important intellectual victory over Ricardo (Kaldor 1978, p. 183).
7.4 Ricardo in the Age of Neoliberalism: After 1975

There have been only two new English-language editions of the *Principles* since the Winch edition appeared in 1973, both of them published in the twenty-first century. The first was edited by the American business and monetary historian Robert E. Wright (b. 1969), of Augustana College in Sioux Falls, South Dakota. Wright’s six-page ‘Introduction’ to the *Principles* was written for the ‘Barnes & Noble Library of Essential Reading’, which in 2005 numbered approximately 120 works of non-fiction; the *Wealth of Nations* was the only other economics title.

Wright begins by describing the *Principles* as ‘the first “modern” economics text’, and its author as ‘Adam Smith with attitude’ (Wright 2005, p. ix). The only aspects of Ricardo’s theory that Wright deals with at any length are his approach to monetary policy, which reflected his dread of inflation, and his analysis of international trade. ‘Were he alive today’, Wright concludes, Ricardo would have applauded the United States for opening its markets to cheap imported manufactures. ‘By doing what they do comparatively best, allowing others to do likewise, and encouraging unrestricted trade, the United States, Britain and other stalwarts of the World Trade Organization, Ricardo would argue, are helping to make the world a better place’ (*ibid.*, p. xiv).

The second twenty-first-century edition of the *Principles* was also the first (in English) from an Indian publisher. A graduate of the University of Delhi, R.N. Ghosh taught at the University of Western Australia in Perth for many years until his retirement in 1994. Unlike Wright, he ‘avoided, as far as possible, all current controversies on Ricardo’s great book’ (Ghosh 2010, p. v). Instead he provides a detailed, patient but critical account of the major themes of the *Principles*, criticizing ‘Ricardo’s vacillation between a labour theory and a cost-of-production theory’ of value and the ‘very confusing’ chapter V ‘On Wages’ (*ibid.*, pp. xxii, xxix). Ghosh’s is the only one of the eleven English-language introductions to include a mathematical formulation of the Ricardian theory of growth (*ibid.*, pp. xxxv–xxxvi).

There was also a new German edition of the *Principles*, published in 1994 and reissued in 2006 with substantial new editorial material. This includes a long essay on Ricardo by Heinz Kurz (2006) that will be discussed in chapter 8 in the context of the Sraffian interpretation of Ricardo’s work, and a translation of Sraffa’s own introduction to the 1951 English edition by Christian Gehrke (2006b).

Two central features of the literature on Ricardo in the age of neoliberalism have already been alluded to. The first is the tendency to cite his
authority for anti-Keynesian propositions in macroeconomics, so that ‘Ricardo’s monetary theory had a new lease of life’ in the 1970s with the rise of monetarism. He ‘appeared as the champion of the Quantity Theory approach ... which had been unwisely discarded on the advent of the Keynesian Revolution’ (Marcuzzo and Rosselli 1994, p. 1252). However, on this issue not much could be claimed for him by way of originality, since Ricardo’s views on money place him in a long line dating back at least as far as David Hume. It was very different with questions of fiscal policy, where the ‘Ricardian equivalence’ theorem was frequently evoked by self-proclaimed ‘New Classical’ economists to support the doctrine of the ineffectiveness of fiscal policy. Second, there was the ‘new view’ of Ricardo’s thinking on real wages, the prospects for growth and the dangers of the stationary state set out by Casarosa, Hicks, Hollander and others.

The pioneer environmentalists of the early 1970s tended to rely instead on the ‘old view’ of Ricardo, stressing the threat posed by diminishing returns in agriculture in the context of a neo-Malthusian concern with the continuing rapid growth of the world’s population. Thus it could be argued that Ricardian ideas were implicit in some of the early ‘limits to growth’ literature produced by the Club of Rome and its affiliates (Meadows 1972). More recently, Jared Diamond (2005) has invoked Ricardo (and, more frequently, Malthus) in his account of the environmental disasters that have overwhelmed a number of pre-capitalist societies, from Easter Island to the Mayan Empire.

All this, I think, is pulling a rather long bow. As Wesley Mitchell observed, back in 1929:

Ricardo was not troubled by the specter of soil exhaustion, by the wasting of coal measures, by the destruction of forests, or by the idea that climates change. All the large theories that hang thereby were beyond his horizon. His physical world was eminently stable, a constant in the theory. He could speak of rent as paid ‘for the use of the original and indestructible powers of the soil’; a modern man’s common sense is at once offended by the phrase – ‘indestructible’, indeed! (Mitchell 1929, p. 207)

I doubt also whether Ricardo would have recognized many of his own ideas in a supposedly ‘Ricardo–Malthus’ model of the Easter Island disaster that found its way into the American Economic Review (Brander and Taylor 1998).

His emphasis on the special role of agriculture in reducing the general rate of profit and thereby restricting the rate of capital accumulation
has also come under attack, even in the context of predominantly agricultural, low-income economies. In 1977 there was a special issue of the *Indian Economic Journal* on Ricardo, in which the relevance (or irrelevance) of his ideas to the problems facing less-developed countries was hotly debated.4

Ricardo’s model may be compared with that of W. Arthur Lewis, who saw the release of underemployed labour in agriculture for employment in manufacturing as the key to economic development and identified some important similarities with Ricardo, in particular concerning the crucial role of the surplus product in the development process (Lewis 1954, pp. 153–4). There is also one very important difference. In Ricardo agriculture is organized on capitalist lines, and there is no ‘traditional sector’ dominated by subsistence peasant farming (*ibid.*, p. 173). However, ‘this difference does not affect the conclusions which can be drawn from the model’: Ricardian diminishing returns do impose restrictions on the rate of growth of industrial production in the ‘modern sector’ (Grabowski and Shields 1989, p. 197).

Against this, there is a substantial literature on long-run movements in the relative world prices of primary products and manufactures, most of which points to a secular deterioration in the terms of trade for agricultural products, which is the reverse of what Ricardo would have expected (Bleaney and Greenaway 1993). And one might argue that, in the twenty-first century, the problems of low-skilled manufacturing industries are more pressing than those that confront peasant agriculture.

These are all practical issues of very considerable importance for public policy and economic well-being, but they have only an indirect bearing on the validity of Ricardian economics, viewed as abstract economic theory. And very little has been said in this chapter about the contrasting interpretations of Ricardo’s theoretical analysis offered by Karl Marx, Alfred Marshall and Piero Sraffa, to which we now turn.
8
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There have always been critics of the (understandable) tendency to claim Ricardo as one’s own. Thus Terence Hutchison complained bitterly about Keynes’s assessment of Ricardo in the *General Theory*, which he condemned as ‘one of the many examples of the way in which the magic name of Ricardo has been conjured with in generalisations about the history of economic thought’ (Hutchison 1952, p. 417). Hutchison distinguished three guilty parties – Mercantilist-Keynesians, Marxians and neoclassicals – whom he regarded as having been equally responsible for providing tendentious interpretations of Ricardo.

We have dealt with the Keynesian school in chapter 7. In this chapter we shall first consider the Marxian Ricardo (in section 8.1) and then (in section 8.2) the neoclassical Ricardo, from Alfred Marshall in the late nineteenth century to Samuel Hollander and Michio Morishima in the late twentieth century. In section 8.3 we explore a third controversial interpretation, by Piero Sraffa and his disciples, before concluding (in section 8.4) with an assessment of Ricardo’s legacy almost two hundred years after the publication of the *Principles*.

8.1 The Marxian Ricardo

Marx’s mature political economy was profoundly influenced by German philosophy (above all Hegel and Feuerbach), French socialism (Fourier and Saint-Simon) and English classical economics (Smith and Ricardo). In the process, Marx developed great respect for Ricardo, which did not, however, prevent him from being strongly critical on many points.¹ As Schumpeter wrote:
Marx had a master then? Yes. Real understanding of his economics begins with recognizing that, as a theorist, he was a pupil of Ricardo. He was his pupil not only in the sense that his own argument evidently starts from Ricardo’s propositions but also in the much more significant sense that he had learnt the art of theorizing from Ricardo. He always used Ricardo’s tools, and every theoretical problem presented itself to him in the form of difficulties which occurred to him in his profound study of Ricardo and of suggestions for further work which he gleaned from it. (Schumpeter 1951, p. 26)

Thus ‘criticism of Ricardo was his method in his purely theoretical work’ (Schumpeter 1954, p. 390; original stress deleted).

This view is not confined to those respectful of Marx (as Schumpeter was, despite his strongly opposed, liberal-conservative political stance). As the fiercely anti-Marxist Hutchison put it:

But with his labour-embodied standard of value, and with his macro-dynamic class-distribution analysis, and with the clash of interests and his – to put it mildly – somewhat bleak view of the actual prospects and probabilities for wages (pious hopes are another matter), and finally with his analysis of the falling rate of profit, Ricardo provided the foundations for the great part of Marxian economics. (Hutchison 1952, p. 420)

In fact Marx was engaged with Ricardo for most of his adult life. In Paris in April 1844 he began his systematic study of British classical political economy, reading Smith, Ricardo, James Mill and McCulloch in French translation (Rubel and Manale 1975, p. 42). In 1851 he undertook a detailed critique of Ricardo’s rent theory (ibid., p. 97), and in early 1860 he was re-reading several classical authors, including Smith, Ricardo and Malthus. By now he was using the third, rather than the second, edition of the Principles (Oakley 1985, p. 308 n12). Two years later, he told Engels that ‘he had cleared up the difficulties with the theory of ground rent and had also discovered Ricardo’s error’ (Rubel and Manale 1975, p. 178).

In 1873 Marx corresponded with the Russian theorist N.F. Danielson, and was sent a number of works in Russian from his economist friend, which allowed him to undertake a study of Nikolaus Ziber on Ricardo’s theory of value and capital (ibid., p. 289). Then, in 1879–80, just a few years before his death in 1883, Marx criticized the German economist Adolf Wagner for confusing Marx with Ricardo. Unlike the latter,
Marx insisted, he himself had not identified value with production costs (ibid., p. 320).

As he read, so he wrote. There is only one reference to Ricardo in the 1844 Paris manuscripts (Marx 1844, pp. 256–7), but many more in the Grundrisse manuscripts of 1857–8, which were both unpublished in Marx’s lifetime. The latter includes several pages of critical analysis of Ricardo in the context of Marx’s own theories of surplus value (Marx 1857–8, pp. 326–33), value and crisis (ibid., pp. 410–11), surplus value, wages and profit (ibid., pp. 551–4), capital (ibid., pp. 559–63) and money (ibid., p. 870), along with at least twenty other places where Ricardo’s Principles are referred to.

Marx’s first major publication devoted entirely to economic theory was the 1859 Critique of Political Economy, which pays considerable attention to Ricardo, not only to the Principles but also to his pamphlets on monetary issues. There is extensive criticism of Ricardo’s views on money (Marx 1859, pp. 170–5, 182–5) and – more importantly – of the failings of his theory of value, which will be considered below.

In the early 1860s, when Marx was working on Capital, he wrote a great deal more about Ricardo. In volume I of Capital (the only volume to appear in Marx’s lifetime) there are 19 places where he cites the Principles and another 40 references to Ricardo; there are fewer references in volume II (6 and 10, respectively), but many more in volume III (13 and 38).

By far the most extensive discussion comes, however, in the manuscripts on the history of political economy that Marx intended as a fourth volume of Capital and that were eventually published more than twenty years after his death, in three volumes, as Theories of Surplus Value (Oakley 1985, chs. 4–5). Critical analysis of Ricardo comes in volume II, where seven chapters are devoted entirely to him (Marx 1862–3, chs. XI–XIII and XV–XVII), and there is extensive discussion also in chapters IX, X and XVIII. All together, at least 360 pages of this 600-page book are dedicated to Ricardo’s theories of rent, surplus value, profit, accumulation and crisis.

Allen Oakley criticizes G.S.L. Tucker (1961) for concentrating on Capital, ‘where the relationship between Marx and Ricardo is less evident’, and for paying insufficient attention to Theories of Surplus Value, where it is very clear that:

Marx’s filiation with Ricardo was predominantly critico-analytical and was only reinforced by the implied political aspects of the Principles. Marx knew very well that Ricardo was pro-capitalist and had a
predominant belief in the system’s long-run viability and economic welfare capacities. What he found so meritorious in the *Principles* in this respect was Ricardo’s honesty in facing squarely the contradictions and conflicts made evident in the system by his logical analyses. (Oakley 1985, p. 306 n2)

In a frequently cited passage in the ‘Afterword’ to the second German edition of *Capital*, Marx described the year 1830 as marking the end of scientific political economy:

In France and England the bourgeoisie had conquered political power. Thenceforth, the class-struggle, practically as well as theoretically, took on more and more outspoken and threatening forms. It sounded the knell of scientific bourgeois economy. It was thenceforth no longer a question, whether this theorem or that was true, but whether it was useful to capital or harmful, expedient or inexpedient, politically dangerous or not. In place of disinterested inquirers, there were hired prize-fighters; in place of genuine scientific research, the bad conscience and evil intent of apologetic. (Marx 1872, p. 15)

This is just a little overdone, since Marx did have some respect for a handful of Ricardo’s successors, in particular Antoine Cherbuliez, Richard Jones and Sir George Ramsay (King 1979). Ironically, Jones was a strong critic of Ricardo.

In addition to his honesty, epitomized as we have seen by chapter 31 (‘On Machinery’), Marx believed Ricardo to have taken the correct position on many fundamental issues relating to political economy. This was true above all of his method. Marx praised Ricardo’s acceptance of the need for theory and abstraction, which had allowed him to penetrate beneath the surface appearance of economic and social phenomena to the underlying reality, including an explicit recognition of class antagonisms.

This was directly linked to his intellectual honesty: ‘the scientific impartiality and love of truth characteristic of him’ (Marx 1867, p. 438 n1). Thus Ricardo acknowledged that capitalism was a class society, with class conflict and the distribution of income between the classes at the core of his system. He saw production as being more fundamental than exchange and therefore emphasized the role of human labour, not least in formulating his theory of value.

Marx also praised Ricardo for recognizing the importance of the surplus product as the source of all non-wage incomes, so that the vital
concepts of surplus labour and surplus value are implicit in his reasoning, if never stated explicitly: ‘the nature of surplus-value is very palpably expressed’ in the numerical example in chapter 31 (Marx 1862–3, p. 566, citing I, pp. 388–9; original stress). Finally, and most important of all, Ricardo had discovered the fundamental role of the rate of profit as the crucial determinant of the rate of accumulation, which he (like Marx) regarded as the solution to the central problem for political economy.

But Ricardo’s errors were equally substantial, according to Marx. First, and most important, was ‘his presupposition that the bourgeois mode of production is the absolute mode of production ... the obsession that bourgeois production is production as such, just like a man who believes in a particular religion and sees it as the religion, and everything outside of it only as false religions’ (ibid., pp. 527, 529; original stress). Thus, since he saw capitalism as eternal, with no beginning and no end, he could not understand its contradictions: ‘He cannot therefore admit that the bourgeois mode of production contains within itself a barrier to the free development of the productive forces, a barrier which comes to the surface in crises and, in particular, in over-production – the basic phenomenon in crises’ (ibid., pp. 527–8; original stress).

To some extent, Marx conceded, this was inevitable, given the period in which Ricardo was writing (ibid., pp. 497–8). As we have seen, Marx himself regarded the modern business cycle as having begun with the crisis of 1825, two years after Ricardo’s death. But Ricardo had made things very much worse for himself by his enthusiastic endorsement of Say’s Law, and also by the serious defects in his theory of profits. The rate of profit falls’, Marx argues, ‘not because labour becomes less productive’, as in Ricardo, ‘but because it becomes more productive. Not because the worker is less exploited, but because he is more exploited’ (ibid., p. 439). For Marx the critical problem was the increased productivity of mechanized labour in manufacturing industry, not (as for Ricardo) the declining productivity of unmechanized labour in agriculture.

Underlying all of this were major errors in Ricardo’s theory of capital, which prevented him from articulating a theory of surplus value or identifying surplus labour as the source of profit. These mistakes, Marx claimed, were themselves the result of deep deficiencies in Ricardo’s theory of value, including his failure to pose (let alone solve) the so-called ‘transformation problem’ linking values to competitive ‘prices of production’. ‘Since the determination of exchange-value by labour-time has been formulated and expounded in the clearest manner by Ricardo’, Marx observed in the Critique of Political Economy, ‘who gave to classical political economy its final shape, it is quite natural that the arguments
Ricardo’s critics focused on four arguments. First, since labour itself has value, a vicious circle appears to arise if value is defined in terms of quantities of embodied labour. This, Marx notes, ‘merges into the following problem’: how are wages determined? ‘The theory of wage-labour provides the answer to this’ (ibid., pp. 61–2). Ricardo had failed to distinguish the worker’s performance of labour from the commodity that he sold to the capitalist, his labour power, by which Marx meant his capacity to work. It was labour power, that had a value, not labour, and the alleged vicious circle was the spurious result of confusing the two.

The second question that Ricardo’s bourgeois critics had posed, Marx continued, concerned the origins of profit. In a system of free and competitive markets, how was it possible that the exchange-value of labour was invariably less than the exchange-value of its product? ‘This problem is solved in our analysis of capital’ (ibid., p. 62), and in particular by the theory of surplus value. The value of the worker’s labour power (not, remember, of his labour) is less than the value that he produces. In other words, the quantity of labour time embodied in the commodities that the worker consumes is less than the quantity of labour time that the capitalist requires from him. The worker performs surplus labour, which is the source of surplus value, which is in turn the source of profit. This is Marx’s answer to the second question, a riddle which Ricardo had not been able to solve.

Third, exchange-value seemed to be determined by supply and demand, not by labour-time. ‘This problem’, Marx claimed, ‘is solved in the theory of competition’ (ibid., p. 62). It involves all the complications that Ricardo had agonized over in chapter 1 of the Principles, in his subsequent correspondence, and in the 1823 essay on Absolute Value and Exchangeable Value, though Marx, of course, had access only to Ricardo’s book. He claimed to have solved this third problem, which had defeated Ricardo, through his own analysis of the transformation of labour values into competitive ‘prices of production’.

Values and prices, surplus value and profits, were equal only in aggregate. In the case of individual commodities, prices would be greater than values (and profits greater than surplus value) if the organic composition of capital in their production was above the social average, and lower if the organic composition was below-average (see Howard and King 1985, ch. 6). Since Ricardo had failed to distinguish constant and variable capital, Marx maintained, he had no conception of the organic composition
of capital and was thus unable even to formulate the transformation problem clearly, let alone solve it.

Marx described the fourth problem as the ‘last and apparently the decisive objection’. How can commodities like land that are not produced by labour have any value whatsoever? ‘This problem’, he claimed, ‘is solved in the theory of rent’ (Marx 1859, p. 62). By insisting that no rent was paid at either the extensive or the intensive margin, he argued, Ricardo had mistakenly supposed that all rent was differential rent, and had failed to set out a theory of absolute rent, that is, rent paid on the least fertile land in cultivation (Marx 1862–3, pp. 240–4).

We must add a fifth criticism, which was not set out in the Critique of Political Economy but is every bit as important as the four that were. Marx believed that Ricardo was wrong in his assertion that the conditions of production of luxury goods (the so-called Department III) had no influence on the social rate of profit.

Not surprisingly, Marx’s interpretation of Ricardo has been supported by many prominent Marxian economists. Ronald Meek (1956) and Maurice Dobb both believed (like Marx) that Ricardo’s death had marked a crucial fork in the road for economic theory: ‘it is clear that there were, broadly speaking, two quite distinct and rival traditions in nineteenth-century economic thought as to the order and mode of determination of phenomena of exchange and income distribution’ (Dobb 1973, p. 112).

Both were derived from Adam Smith, one emphasizing supply and demand and treating value as the sum of the necessary payments to the various factors of production, and the other rejecting this ‘Adding-up-components Theory’ and explaining distribution ‘in terms peculiar to itself and not as an outcome of general supply-demand exchange-relations’. The first route led directly to neoclassical economics. Ricardo had chosen the second route, and had thereby ‘opened the door’ through which Marx introduced the social relations of production into economic theory and was able to develop a coherent theory of surplus value (ibid., pp. 115, 116).

In the early 1970s several Hegelian Marxists claimed that this was to give Ricardo far too much credit. Thus Geoff Pilling maintained that Marx’s method was ‘entirely opposed to that of Ricardo’, whose ‘false method of abstraction’ stemmed from his ‘empiricism’ (Pilling 1972, pp. 285, 289, 293). This is almost certainly the only occasion on which Ricardo has been accused of empiricism.

Suzanne de Brunhoff went even further, denying that the two thinkers had been concerned with similar problems: ‘Marx’s reasoning does
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not then consist in superseding the “bourgeois limits” of Ricardian ideas, but in *displacing the problems* of Ricardian economic theory’ (De Brunhoff 1973, p. 424, original stress; cf. Rowthorn 1974).

To my mind this comes very close to arguing that Marx himself misunderstood his own relationship to Ricardo, which is not credible. There is much more to be said for Giancarlo De Vivo’s conclusion:

> The differences between Marx and Ricardo appear to have been exaggerated by Marxists, sometimes as the result of a not very accurate reading of Marx. None of the criticisms we have considered really imply that between Ricardo and Marx there is more of a difference than is usual between two successive developments of the same theory. (De Vivo 1982, p. 98)

Ironically, De Brunhoff’s notion of Marx as an ‘a-Ricardian’ – or perhaps it should be Ricardo as an ‘a-Marxian’ – can also be found in some neoclassical discussions of the relationship between them. It is not simply a question of some of Marx’s criticisms being mistaken, or even of his overall assessment amounting to nothing more than a ‘comedy of errors’ (Blaug 1958, p. 236). Marshall always insisted that the problem went deeper than this, criticizing both Marx and Rodbertus for attributing an embryonic theory of surplus value to Ricardo, when this ‘is really as opposed to his explicit statement and the general tenor of his theory of value, as it is to common sense’ (Marshall 1890, p. 488, cited by Winch 2009, p. 260).

Much later, Tucker denied that Ricardo was ‘the intellectual father of Marx’, even though he ‘unwittingly and with different ends in mind, developed a theory which was later used to provide the essential foundations of Marxian economics’ (Tucker 1961, pp. 269, 252). Even this seems too strong for Tucker. ‘Except perhaps in the case of land-rent’, he writes, ‘I cannot myself see that Ricardo’s theory suggests any unfavourable judgement of the ethical nature of income distribution under capitalism ... In point of fact, it did not occur to him to raise the question of the ethical nature of profits, and there is little to indicate his views one way or the other’ (*ibid.*, pp. 258, 260). This is true, but it does not go to the heart of Marx’s assessment of Ricardo’s work as a whole, which has nothing to do with the ethics of income distribution.

More fundamental objections have been raised by those sympathetic to the Sraffian interpretation of Ricardo. We shall touch briefly on Sraffa’s own reactions to Marx in section 8.3 below. The debate began
much earlier, when the German theorist Ladislaus von Bortkiewicz denied Marx’s accusation that Ricardo had confused prices with values, and set out what he himself believed to be a logically coherent algebraic model of the Ricardian system (Gehrke and Kurz 2006).

Closely related criticisms were made, three-quarters of a century later, by Ian Steedman (1982) and subsequently by Heinz Kurz (1998, 2006) and others in the Sraffian tradition. They are all substantially correct, undermining both Marx’s critique of Ricardian value theory (Howard and King 1985, ch. 8) and his explicitly anti-Ricardian theory of absolute rent (Howard and King 1992b).

One further error, which appears to be of rather narrow technical interest, turns out instead to have a greater significance. Marx was quite wrong on the role of luxury production, and his mistake turns out to have very serious implications that he himself could only have guessed at. Weapons of war are neither means of production (Department I) nor wage goods (Department II); hence they are produced by Department III and in this important respect they resemble luxury goods.

If Marx’s argument had been correct, expenditure on armaments could offer no way out of a falling rate of profit crisis. Since he was mistaken, it follows that unlimited military spending could be carried out with no effect on the profit rate. Many Marxists have explained the continuing, massive military expenditure of the United States and other capitalist powers since 1945 as evidence of a ‘permanent arms economy’ in which the economic contradictions of the system have been overcome at the cost of enormous waste and the constant threat of war (Howard and King 1992a, ch. 8).

8.2 The Neoclassical Ricardo: From Marshall to Hollander

Just like (some) Marxists, many neoclassicals have tried to claim Ricardo as one of their own. As we saw in the previous chapter, John Stuart Mill was an influential precursor, arguing in his own Principles that there was substantial continuity in the thinking of Ricardo and many of his immediate successors, including those who emphasized their differences from him.

The same case was made forty years later by Alfred Marshall, perhaps because his interpretation was heavily influenced by that of John Stuart Mill, as argued by Krishna Bharadwaj (1978). Marshall mounted a defence of Ricardo in his own Principles of Economics. (Both Mill and Marshall copied Ricardo’s title for their most important book).
As Keynes wrote, in the preface to the Japanese edition of the *General Theory*, Marshall’s work ‘largely consisted in grafting the marginal principle and the principle of substitution onto the Ricardian tradition’ (Keynes 1936 [1972], p. xxix).

He did not find it a particularly difficult task. Marshall admitted that Ricardo had neglected the role of demand in his theory of value, but also criticized Jevons for going to the opposite extreme:

There is a special need to insist on this just now, because the reaction against the comparative neglect of the study of wants by Ricardo and his followers shows signs of being carried to the opposite extreme. It is important still to assert the great truth on which they dwelt somewhat too exclusively; viz. that while wants are the rulers of life among the lower animals, it is to changes in the forms of efforts and activities that we must turn when in search for the keynotes of the history of mankind. (Marshall 1890, p. 72)

Marshall repeated this point in Chapter III, ‘Market Demand’, where he noted that Jevons had greatly overstated his case. ‘For under the honest belief that Ricardo and his followers had rendered their account of the causes that determine values hopelessly wrong by omitting to lay stress on the law of satiable wants, he led many to think he was correcting great errors; whereas he was really only adding very important explanations’ (*ibid.*, p. 85 n1).

Marshall had always taken this position. In Appendix I, ‘Ricardo’s Theory of Value’, he refers to his own attack on Jevons in the early 1870s. Jevons’s ‘criticisms on Ricardo achieved some apparently unfair dialectical triumphs’, Marshall believed, ‘by assuming that Ricardo thought of value as governed by cost of production without reference to demand. This misconception of Ricardo was doing great harm in 1872; and it seemed necessary to show that Jevons’ Theory of Interest, if interpreted as he interpreted Ricardo, is untenable’ (*ibid.*, p. 675 n2).

And it was not only Jevons who had been unfair to Ricardo. Marshall also defends him from other neoclassical critics, including Henry Dunning Macleod, Léon Walras, Carl Menger, Eugen von Böhm-Bawerk and Friedrich von Wieser, who ‘do not appear to make any progress towards establishing their claim to have discovered a new doctrine of value which is in sharp contrast to the old; or which calls for any considerable demolition, as distinguished from development and extension of the old doctrine’ (*ibid.*, p. 676).
In Part V, chapter XV, ‘Equilibrium of Demand and Supply’, Marshall goes even further in attributing to Ricardo a proto-neoclassical, supply-and-demand theory of value:

Ricardo’s theory of cost of production in relation to value occupies so important a place in the history of economics that any misunderstanding as to its real character must necessarily be very mischievous; and unfortunately it is so expressed as almost to invite misunderstanding. In consequence there is a widely spread belief that it has needed to be reconstructed by the present generation of economists. Cause is shown in Appendix I for not accepting this opinion; and for holding on the contrary that the foundations of the theory as they were left by Ricardo remain intact; that much has been added to them, and that very much has been built upon them, but that little has been taken from them. It is there argued that he knew that demand played an essential part in governing value, but that he regarded its action as less obscure than that of cost of production, and therefore passed it lightly over ... also that he regarded cost of production as dependent – not as Marx asserted him to have done on the mere quantity of labour used up in production, but on the quality as well as the quantity of that labour; together with the amount of stored up capital needed to aid labour, and the length of time during which such aid was invoked. (ibid., pp. 416–17)

The same interpretation is provided in a later chapter, where Marshall suggests that ‘Ricardo and the able business men who followed in his wake took the operation of demand too much for granted as a thing which did not need to be explained’. He believes them to have been correct in this: ‘Ricardo and his followers seem to have been rightly guided by their intuitions, when they silently determined that the forces of supply were those, the study of which is the more urgent and involves the greater difficulty’ (ibid., p. 436).

An additional explanation is offered in Appendix I, where misunderstandings of Ricardo’s theory of value are attributed to his poor writing style. ‘His exposition is as confused as his thought is profound; he uses words in artificial senses which he does not explain; and he changes from one hypothesis to another without giving notice’. Hence, Marshall maintains, we need to interpret him generously. ‘If we do this with the desire to ascertain what he really meant, his doctrines, though very far from complete, are free from many of the errors that are commonly attributed to them’. For example, in his discussion of the difference
between ‘value’ and ‘riches’ Ricardo ‘seems to be feeling his way towards the distinction between marginal and total utility’. Again, after re-reading section V of ch. 1 of Ricardo’s *Principles* ‘it seems difficult to imagine how he could more strongly have emphasized the fact that Time or Waiting as well as Labour is an element of cost of production than by occupying his first chapter with this discussion’. Ricardo’s failure to make more of these points was an error of judgement, Marshall concedes:

> But while not thinking that he had much to say that was of great importance on the subject of utility, he believed that the connection between cost of production and value was imperfectly understood; and that erroneous views on this subject were likely to lead the country astray in practical problems of taxation and finance; and so he addressed himself specially to this subject. But here also he made short cuts. (*Ibid.*, pp. 670, 671)

Ricardo’s views on the distribution of income were also less clearly expressed than they might have been, Marshall maintains. On wages, his language is ‘even more unguarded than that of Adam Smith and Malthus’. Ricardo ‘states only once that real wages depend on “the habits and customs of the people” … But, having said this once, he does not take the trouble to repeat it constantly; and most of his readers forget that he says it’, causing him to be associated with a fictitious ‘iron law’ of wages. Thus the misinterpretation of Ricardo’s theory of wages was largely his own fault:

> The persistency with which many writers continue to attribute to him a belief in the ‘iron law’ can be accounted for only by his delight ‘in imagining strong cases’, and his habit of not repeating a hint, which he had once given, that he was omitting for the sake of simplicity the conditions and limitations that were needed to make his results applicable to real life. (*Ibid.*, pp. 421–2)

Marshall’s defence of Ricardo’s theory of rent against the criticisms of Henry Carey is similar: ‘Ricardo’s wording of the law of diminishing return was inexact. It is however probable that the inaccuracy was due not to careless thinking but only to careless writing’ (*ibid.*, p. 136). Much the same can be said of Ricardo’s treatment of technical change in agriculture, to which Marshall devotes Appendix L, confirming the plausibility of Ricardo’s conclusions through diagrammatic analysis.
David Ricardo

(ibid., pp. 686–9). Once again, however, Marshall notes that ‘Ricardo’s reasonings on all these questions are rather difficult to follow’ (ibid., p. 687), not least because he fails clearly to distinguish long-run and short-run arguments.

Reviewers of Marshall’s Principles were divided in their attitude towards his treatment of Ricardo. Marshall’s biographer, Peter Groenewegen, cites J.B. Clark’s objection that he had not taken his generalization of Ricardian rent theory far enough to form a general law of distribution, while Adolf Wagner praised his ‘defence, if not “rehabilitation”, of Ricardo’ (Clark 1891; Wagner 1891; both cited by Groenewegen 1995, p. 418). Groenewegen also quotes an early letter from Mary Paley Marshall to Herbert Foxwell in September 1878: ‘Alfred is very glad you are beginning to like the worthy Ricardo. He always seems to me to be the backbone of the science’ (ibid., p. 674n).

This failed to impress Foxwell, as we have seen, and Mary’s husband would not himself have gone quite this far. Marshall’s nephew Claud Guillebaud, writing three years after his uncle’s death, reported that he ‘can remember on several occasions hearing Marshall, who certainly could not be accused of lack of respect for Ricardo, make use of the phrase, “Back to Adam Smith!” when discussing the future progress of economics, but never “Back to Ricardo!”’ (Guillebaud 1927, p. 117).

None the less, Marshall’s treatment of Ricardo as a major forerunner of neoclassical economics has irritated many subsequent writers, the fiercely anti-Marxian Hutchison among them. The main objective of the neoclassical theories of value and distribution was to establish the conditions for the optimum allocation of goods and factors of production, and it did so by focusing on the decisions of individual consumers and firms. Neoclassical welfare economics was also based on the analysis of individual behaviour. But ‘Ricardo’s works have almost nothing about individual consumers and firms and only very intermittent and abstract references to firms – mainly agricultural firms’ (Hutchison 1952, pp. 425–6).

Thus, Hutchison concludes, Marshall was entirely mistaken when he pointed to Ricardo as an important forerunner of, and contributor to, neoclassical theory.

But Marshall’s erroneous interpretation proved to be extremely influential: ‘so dominating was Marshall’s authority that in Britain at any rate he was able to establish his view as the orthodox one, as against the wide range of authorities who saw Ricardo’s work very differently’ (ibid., p. 422).
A quarter of a century later, Samuel Hollander published a massive (759-page) monograph on Ricardo that began by identifying him explicitly as a precursor of Marshall (Hollander (1979, p. xi). For Hollander, Ricardo was ‘an unsuspecting neoclassical with a full general equilibrium theory’ (Berg 1981, p. 156). Ricardo’s analysis was largely a continuation of Adam Smith’s, emphasizing the role of supply and demand in the theory of value, proposing variable rather than constant real wages, and displaying an optimistic outlook for the growth potential of the British economy.

In Hollander’s own words:

On my reading, Ricardo did not ignore the influence of demand on value and price, either of inputs or outputs, either in the short or the long run, and treated supply and demand as functional relationships, not fixed quantities. Output levels adjust to demand and ‘natural’ prices satisfy the market-clearing conditions (as was the case for Adam Smith) and more generally, his economics allows for interdependence between – and simultaneous determination of – prices, output levels, and the distributive variables. (Hollander 1998, p. 430)

Hollander has consistently maintained this position in numerous publications over several decades.

A very similar account was provided in a subsequent book by Michio Morishima, who ‘reaches the Hollander-like conclusion that “Ricardo is the fore-runner, if not the founder, of the general equilibrium school”’ (Maneschi 1992b, p. 760, citing Morishima 1989, p. 149). Morishima begins by noting the central role of formal theoretical analysis in the Principles. Ricardo’s political economy is ‘nothing other than mathematical economics without mathematical symbols and formulas. It can easily be translated into mathematical language and one may find, as we shall do in this book, a general equilibrium system (that is very similar to Walras) concealed within’ (Morishima 1989, p. 3).

Morishima even suggests that ‘the aim (or one of the aims) of Walras’s Elements was to give Ricardo’s economics a true formulation and to establish it on rigorously mathematical foundations’ (ibid., p. 7). Thus he is concerned to rebut the ‘popular and conventional view that marginalism emerged in opposition to classical economics’. This Morishima regards as entirely wrong, since ‘Ricardian economics, in which the classical school is considered to have culminated, is indeed an economics based on marginalism’. Had he been able to do so, Ricardo would himself have ‘derived laws of prices directly from price-cost equations’ like those of
Walras, and would have abandoned the labour theory of value, which he had adopted as a simplified version of these equations (ibid., pp. 8, 10).

This is open to the rather obvious objection that it is really ‘Morishima in the garb of Ricardo’ (Maneschi 1992b, p. 761), and very similar criticisms have been aimed at Hollander from all directions. Thus George Stigler complained that, while Hollander ‘is a partisan defender of Ricardo’ and ‘a staunch ally’, nevertheless ‘in his zeal to defend Ricardo, he has done him grave injury’. Stigler defends in particular the constant real wage interpretation against Hollander’s implication that, on wages, Ricardo was ‘an unimportant, fuzzy theorist … not capable of presenting a consistent theory’ (Stigler 1981, pp. 101, 102). Ironically, Hutchison would soon criticize Stigler for ‘interpreting Ricardo as a kind of Proto-Chicagoan … a confident, trenchant classical liberal’ (Hutchison 1994b, p. 94).

From a Marxian perspective, John Henry objected to what he saw as an unstated political implication of the Hollander interpretation. Ricardo had been sceptical about the functioning of capitalism, Henry observed, which had made him politically problematic in the 1820s and 1830s and remained something of an embarrassment to liberal theorists a century and a half later: ‘Ricardo still lives and still breathes fire. His work, particularly insofar as it leads to a Marxist formulation, is potentially dangerous to the ideological supports of the present economic and political arrangements. What better way to sanitize Ricardo than to neoclassicize him?’ (Henry 1982–3, p. 217).

Criticism of a rather different kind came from Alessandro Roncaglia, a follower (and biographer) of Piero Sraffa, who cited John Eatwell (1975) and a then unpublished paper by Pierangelo Garegnani in defence of the Sraffian ‘corn model’ interpretation of Ricardo (see Garegnani 2002). The very different Hollander interpretation could be traced back to Marshall, who had seen Ricardo’s musings on the difference between ‘value and riches’ as evidence that he was groping towards the distinction between total utility and marginal utility, emphasizing the role of supply and demand, and thereby coming close to discovering Marshall’s own two blades of the scissors in price determination.

‘Such a characterization’, Roncaglia suggests, originated even earlier, and ‘can be attributed to Ricardians from McCulloch to John Stuart Mill’ (Roncaglia 1982a, p. 346). The same case had later been made by Jacob Hollander and Edwin Cannan, who were more subtle than Marshall in seeing a move from the first to the third edition of the Principles away from the labour theory of value and towards a cost of production theory.

But for Roncaglia this was not an accurate interpretation of Ricardo, whose ‘attitude towards demand and supply is reflected in his rejection of
Smith’s theory of profits … For Ricardo the supply-and-demand relation only affects market prices; natural prices are traced to the difficulty of production’ (ibid., p. 354, citing I, p. 382). Thus Ricardo was not a proto-neoclassical but instead adhered to ‘the classical (or “surplus”) approach’, in which the economic process is one of continuous reproduction (and enlargement) of the material bases of human societies, as “production of commodities by means of commodities”’ (ibid., p. 341).

This contrasts sharply with the analytical core of the marginalist approach, which is a ‘model of pure exchange, whereby perfect competition is depicted as the solution to the problem of the optimal allocation of scarce resources … Production processes are only an intermediate stage connecting final consumers’ tastes to the initial endowments of scarce original resources’ (ibid., (pp. 342–3).

In his reply to Roncaglia, Hollander maintained that ‘wages, for Ricardo, are an *endogenous* variable’, so that ‘it becomes difficult to represent profits in terms of “surplus”’ (Hollander 1982b, p. 363; original stress). He then cited Ricardo’s letter to McCulloch in June 1820, which placed ‘compensation for time’ on a par with ‘compensation for labour’ (ibid., p. 364, citing VIII, p. 193). ‘This formulation’ Hollander continues, ‘is incorporated into the third edition of the Principles … Does not Ricardo imply a pain cost that requires compensation if the period of investment of capital is to be lengthened?’, so that ‘profit is a compensation for “postponed enjoyment”’ (ibid., p. 364, citing I, p. 34).

In his rejoinder, Roncaglia claimed that Hollander’s modifications and additions to Ricardo ‘amount to a radical change of the very structure of Ricardo’s analysis’ (Roncaglia 1982b, p. 375). In particular, and contrary to Hollander, Ricardo did not accept a functional relationship between the wage and the rate of population growth, which would be needed to make the wage an endogenous variable. Moreover, ‘Ricardo never tries to explain the level of profits on the basis of the “quantity” of waiting and sticks to his determination of profits as a residual’. Finally, Roncaglia noted, there are no demand schedules in Ricardo – or, for that matter, in Smith (ibid., p. 373).

### 8.3 Piero Sraffa’s Ricardo

This leads us straight to Piero Sraffa’s interpretation of classical political economy, as set out in his ‘Introduction’ to the *Principles* (Sraffa 1951: I, pp. xiii–lxii) and in the only (short) book that he ever managed to write, *Production of Commodities by Means of Commodities* (Sraffa 1960). Three crucial elements can be distinguished in Sraffa’s interpretation.
First, there is a methodological insistence on the need for abstract reasoning and for the analysis of permanent rather than temporary changes – the emphasis on ‘long-period positions’. Second, there are some critical matters of substance. According to Sraffa, Ricardo began by taking as given the real wage, the techniques of production and the quantities of the various commodities that are produced, and then derived the ‘natural prices’ of these commodities from those given sets of data. Third, this way of proceeding is fundamentally inconsistent with the neoclassical approach to economics, in which outputs, techniques, prices and distributive variables are all determined simultaneously.

It is also difficult to reconcile with Marxian political economy, which gives analytical priority over all other determinants to quantities of embodied human labour. Sraffa seems to have become much less hostile to Marx in the 1940s, when his own equations began to point towards the labour theory of value. Before that he had been very critical, in part because of his deep hostility to Hegelian philosophy.

Now he was willing to give credit to Marx for making two correct criticisms of Ricardo. First, Marx had allowed for constant capital as well as variable capital, so that, second, the maximum rate of profit is finite (and equal to the inverse of the Marxian organic composition of capital) and not infinite, as Ricardo himself had implied (Kurz and Salvadori 2010b). On this question there is some common ground with Samuel Hollander, who argues that ‘Sraffa could only have come by his reading of Ricardo in post-Marx hindsight’ (Hollander 1998, p. 431), as is also maintained by Pier Luigi Porta (1986b).

But we are running ahead of ourselves. What, precisely, is involved in Sraffa’s equations? Roncaglia offers the following summary:

The labor-contained theory of value does not represent a complete theory of relative prices because of sectoral differences in the ratio of fixed to circulating capital, in the length of the production period, and in the durability of fixed capital … However, the major proposition on the relationship between the distributive variables identifiable in the ‘corn (one commodity) model’ or of the labor-contained theory of value nevertheless holds: an increase in the wage rate implies a decrease in the rate of profits, and not (contrarily to what Smith seems to imply, at least on Ricardo’s reading) a general price increase: certain prices will increase and others diminish, and a case can even be imagined (in which the commodity chosen as a standard of measure is produced by unassisted labor in the shortest production period) in which all prices fall. This is true whether the wage rate
be expressed in ‘real’ terms, i.e. in terms of the labor contained in
the basket of commodities consumed by the workers, or in ‘money’
terms, as in gold when used as the general standard of measure.
(Roncaglia 1982a, pp. 346–7; original stress)

Kurz acknowledges that reliance on the corn model is an interpretation,
since ‘this argument is never stated by Ricardo in any of his extant
letters and papers’, as Sraffa himself admits (Kurz 2011, p. 11, citing I,
xxxi). However, Kurz continues, ‘Ricardo’s contemporaries appear to
have had much less difficulties to discern in Ricardo’s reasoning a corn-
ratio approach to the theory of profits than some modern interpreters’;
he cites Robert Torrens as a case in point. ‘Interestingly, several authors
took up Ricardo’s concept or developed it independently from him. It
can, for example, also be found in Der isolierte Staat of Johann Heinrich
von Thünen, who had read some of Ricardo’s published work’ (ibid.,
pp. 12, 13).

Even before he commenced work on the Collected Works, Sraffa had
been highly critical both of Marshall and of neoclassical economics
more generally (Hart 2012, pp. 108–18). These criticisms were strength-
ened by his deep reading of Ricardo and his contemporaries, and cul-
minated (after more than three decades) in the publication of Production
of Commodities. This 98-page book has the modest sub-title, ‘Prelude
to a Critique of Economic Theory’; but, much more than this, it is an
attempt to revive what Sraffa understood to be the core of classical
political economy.

‘The investigation is concerned exclusively with such properties of an
economic system as do not depend on changes in the scale of produc-
tion or in the proportions of “factors”’, Sraffa wrote in the ‘Preface’. ‘This
standpoint’, he continued, ‘which is that of the old classical economists
from Adam Smith to Ricardo, has been submerged and forgotten since the
advent of the “marginal” method’ (Sraffa 1960, p. v).

The only other references to Ricardo come in the three-page Appen-
dix D, where Sraffa alludes to his own editorial introduction to the
Principles and to the ‘corn model’ interpretation that he offered there
(I, pp. xxxi–xxxii). Since corn is singled out as ‘the one product which
is required both for its own production and for the production of every
other commodity’, he argues:

the rate of profits of the grower of corn is determined independently
of value, merely by comparing the physical quantity on the side of
the means of production to that on the side of the product, both
of which consist of the same commodity; and on this rests Ricardo’s conclusion that ‘it is the profits of the farmer that regulate the profits of all the other trades’. (Sraffa 1960, p. 93)

Thus, like Ricardo, Sraffa is a ‘physicalist’ (Kurz 2003).

Sraffa devotes part of his book to an analysis of the composite (or ‘Standard’) commodity that would allow Ricardo’s conclusion to be maintained even in a multi-commodity economy (ibid., pp. 18–33). Surprisingly, this Standard commodity is ‘equivalent to something very close to the standard suggested by Adam Smith, namely “labour commanded”, to which Ricardo himself was so decidedly opposed’ (ibid., p. 94).

There is an intriguing footnote to this piece of terminology. Giorgio Fodor points out that Ricardo himself used the Sraffian term ‘standard commodity’ in 1815, in the heading of section II of his Proposals for an Economical and Secure Currency, albeit in a very different context (Fodor 2011, p. 311, citing IV, p. 58).

Sraffa’s own intentions in writing Production of Commodities were largely negative and critical, with his work constituting ‘a broom rather than a brick’, as Peter Groenewegen once put it. Sraffian arguments played an important role in the ‘capital controversies’ of the 1960s, when they were used to very good effect by critics of the neoclassical theory of value and distribution in their attack on the use of aggregate production functions and on the marginal productivity theory of distribution (Harcourt 1972).

But there is also a substantial volume of positive theoretical work in the Sraffian (or, as its proponents prefer, the modern classical) tradition, which generates results that are radically different from those obtained by the use of neoclassical economic analysis (Kurz and Salvadori 1995). This is especially clear in the case of trade theory, where classical and neoclassical models can be very clearly contrasted; for example, compare Pasinetti (1960) with Findlay (1974).4

As M.C. Howard has shown, Sraffa’s analysis can also be turned against Ricardo himself. In some ways the Production of Commodities strengthens the Ricardian system, since it can be shown that the Standard commodity is ‘a generalisation of Ricardo’s model’ (Howard 1981, p. 109) and that Sraffa’s analysis of ‘non-basic’ or luxury commodities confirms the theory of taxation that is set out in the Principles (ibid., p. 111). But there are also some very important adverse implications. First, Sraffa shows that Ricardo had no need of a labour theory of value; everything that he did with it could have been better done without it (cf. Steedman 1982).
Second, the Sraffian analysis of joint production undermines both Ricardo’s theory of value, since commodities may have negative labour values but positive prices, and his core conclusion that diminishing returns reduce the rate of profit, since an increase in an input coefficient may in fact be associated with an increase in the profit rate (Howard 1981, pp. 112–14). Third, Sraffa casts serious doubt on Ricardo’s theory of rent by demonstrating that it is not possible to rank pieces of land in terms of their ‘fertility’, viewed as a purely natural or technological property, since it can be shown that fertility itself depends on the rate of profit (Howard, pp. 124–6).

Two additional issues identified by Sraffa had worried Ricardo himself in the final months of his life. The labour theory of value is undermined by Sraffa’s demonstration that two commodities with equal quantities of embodied labour, applied in different time periods, may have different prices, depending on the profit rate (ibid., pp. 115–16). And it is in principle impossible for Ricardo’s ‘invariable standard of value’ to solve most of the problems for which it was intended (ibid., pp. 118–24). All this provides, Howard suggests, ‘a novel and illuminating evaluation of Ricardian economics’, which ‘emerges from the use of the framework and results developed in the Production of Commodities’ (ibid., p. 126). Given the depth of Sraffa’s own admiration for Ricardo, it is also a surprisingly negative one.

There is some controversy about possible forerunners of the Sraffian interpretation of Ricardo. Maurice Dobb identifies the Russian theorist V.K. Dmitriev, writing in 1898–1902, as one ‘who seems to have been the first both to appreciate and to formulate concisely the distinctive novelty of Ricardo’s analytical structure and approach – something which had become submerged and forgotten amid the revisions and reinterpretations that he had suffered in the interval’ (Dobb 1973, pp. 116–17).

Dmitriev’s price equations show relative prices in terms of labour inputs, input prices, the real wage, the rate of profit and the duration of the production process, and are in effect an algebraic summary of the position that Ricardo took in the third edition of the Principles. His work was translated into French only in 1968, and into English six years later (Dmitriev 1974). It influenced the German theoretician Ladislaus von Bortkiewicz, better known for his formalization and critique of the Marxian transformation problem, who is also sometimes regarded as a forerunner of the Sraffian version of Ricardian economics (Gehrke and Kurz 2006).
Terry Peach, who was soon to change his mind on these matters, criticized Samuel Hollander for ignoring them:

For over 20 years, Sraffa’s interpretation has been widely accepted. In essence, the interpretation was similar to those given by Dmitriev and Bortkiewicz, according to whom the Ricardian system is one in which distribution is not treated as a problem of pricing ... Sraffa’s main interpretive innovations were twofold: first, he ‘disinterred’ the single product ‘corn model’ from Ricardo’s early writings; and secondly he rescued the ‘invariable standard’ from ignominious oblivion ... Time after time Ricardo stated in correspondence that he was concerned with ‘permanent’ changes in profitability not associated with variations in the commodity wage. Particularly, he wished to establish that a ‘permanent’ fall in the general rate of profit would arise solely as a consequence of worsening conditions of production on the land. An important implication is that the ‘corn model’ would have suited Ricardo’s purposes admirably; reading Hollander, it is hard to imagine why Sraffa’s interpretation should have been taken so seriously, and for so long. (Peach 1981, pp. 245, 247)

However, Mario Nuti denies that this is an accurate characterization of Dmitriev’s thought, since the Russian was in fact attempting to synthesize the labour and marginal utility theories of value, and would have been critical of both the Sraffian and the neoclassical interpretations of Ricardo (Nuti 1974, pp. 27–8).

Hollander points to another important distinction:

The attributions to Ricardo by Sraffa, however, differ in an important respect from those of Pasinetti or Dmitriev. For while the latter two authorities ascribe the notion of a profit rate determined by the cost conditions in a single sector to the mature Ricardo, Sraffa limits his interpretation in terms of the corn-profit model to the *Essay on Profits* alone. After the *Essay*, Sraffa observes, the proposition that the profits of the farmer regulate the profit rate throughout the economy ‘disappears from view, and is not to be found in the *Principles*’. (Hollander 1979, pp. 704–5, citing I, xxxi; original stress)

Apart from the tantalizing indirect allusions to the corn model in the 1815 *Essay*, there are several additional pieces of evidence suggesting that Ricardo did indeed have something like this in mind. First, there is a letter to Malthus, written in May 1815):
I have an account before me of the Capital actually employed on a farm of 200 Acres in Essex. It amounts to £3433. – or about £17 pr. Acre, of which not more than £1100, or £1200 is of that description which is not subject to the same variation of value as the produce of land itself; for £2200 – consists of the value of the seeds in the ground, the advances for labour, – the horses and livestock &c. &c. (VI, p. 226)

This is not quite a corn model, but it is very close (Vianello 2011, pp. 257–8).

Second, there is an often overlooked numerical example in the Principles, where Ricardo varies the distribution of ‘every hundred hats, coats, and quarters of corn produced’ between labourers, landlords and capitalists from 25:25:50 to 22:22:56 (I, pp. 50, 64–6). This rather strange numerical example could ‘be said to elevate the corn-ratio theory from its previous single (and implicitly composite) commodity conceptualization to an explicitly multi-commodity one’ (Kurz 2011, p. 16). Third, there are two long footnotes in the Principles where Ricardo uses his numerical examples to express rent (and, in the second case, also profits and wages) in terms of corn as well as money, for no obvious reason other than a residual ‘physicalism’ left over from the corn model of 1814–15 (I, pp. 83–4n, 116n).

There are two additional pieces of indirect evidence, both linked to Robert Torrens. G.F. Langer draws attention to a little-known article written by Torrens which appeared in The Edinburgh Review in October 1819. This was a review of four pamphlets by Robert Owen, and ‘details a “corn model” theory of profits in much more explicit terms than does Ricardo’s Essay on Profits’ (Langer 1982, p. 397). And De Vivo maintains that ‘the logic which Sraffa ascribes to Ricardo is clearly spelled out in the second edition of Torrens’s External Corn Trade (1820), where we find both the determination of the agricultural rate of profit in physical terms (as a ratio between two quantities of corn) and the determination of the value of manufactured goods relative to corn using the given agricultural rate of profit’ (De Vivo 1985, p. 89).

‘Confirmation that Torrens had seen the logic of a “corn-ratio” theory of profits’, De Vivo continues, ‘comes from the following (1826) edition of Torrens’ External Corn Trade, where he (in contrast to his position in the 1820 edition) was an outspoken critic of Ricardo, but where he retained, in the chapters on value and distribution, the bulk of the relevant section of the 1820 edition’ (ibid., p. 91). Moreover, ‘it seems safe to think that Torrens’ “corn ratio” theory of profits did in fact derive from Ricardo’ (ibid., p. 92).
All this was denied by Peach, who in the meantime had become a strong opponent of the Sraffa interpretation of Ricardo:

Torrens borrowed wholesale from Ricardo’s analysis of the effect of diminishing agricultural returns on rent and profitability. But he did not borrow a corn model analysis. Whether he truly developed such an analysis in his later work is a moot point but, regardless, the evidence of the Letter suggests that it would have been his own invention, not something taken from Ricardo. (Peach 2001, p. 691; original stress)

Peach had been arguing in this vein since 1988, when he claimed that ‘the corn model is a gratuitous attribution to Ricardo. It was not his creation … On several matters of substance, the “very powerful theorist” who Sraffa and others have come to admire is a fictitious character’ (Peach 1988, pp. 109, 126–7).

Peach remained hostile to both the ‘new view’ of Ricardo on wages, which ‘cannot stand as a representation of Ricardo’s true position’ (ibid., p. 114) and Hollander’s neoclassical interpretation. ‘In sum, there are sound reasons for qualifying the hard-line interpretation that Ricardo had little or nothing to say about demand/demand and supply. But that is all’ (ibid., p. 126; cf. Blaug 1988).

Peach’s Interpreting Ricardo is a book-length version of the same argument (Gilbert 1996). ‘According to any known usage of the term’, Peach concludes, ‘Ricardo was not a “neoclassical”’. But neither was he a Sraffian. ‘The basic problem with Sraffa’s interpretation would seem to stem from a tendency to read more of himself into Ricardo than was warranted’, with ‘Sraffa having reconstituted Ricardo in his own image’ and having also understated ‘the complexity and confusion of Ricardo’s writings’ (Peach 1993 pp. 38, 299).

Not surprisingly, this conclusion has proved highly controversial. It was endorsed by Hutchison, who concluded that after Interpreting Ricardo it should no longer be possible to present him as ‘a major, original, super-consistent, charismatic figure’ (Hutchison 1994b, p. 95). Against this, Gary Mongiovi disputed Peach’s contention that ‘Ricardo’s theory of value is so riddled with inconsistencies and logical errors as to be insusceptible of coherent representation’ (Mongiovi 1994, p. 248). Mongiovi accepts that there has to be some speculation about these matters, since ‘[a] definitive reconstruction of the model Ricardo had in mind prior to 1815 is beyond our grasp’ (ibid., p. 250). But the numerical examples in the 1815 Essay do provide indirect support for Sraffa’s interpretation of
it as ‘a recasting of an earlier argument, a true corn model (ibid., p. 254)’. Indeed, this was how Malthus interpreted it at the time. Thus ‘Sraffa’s interpretation is consistent with what Ricardo wrote; no other interpretation aligns more closely with the textual record’ (ibid., p. 267).

In the final analysis this is a question of emphasis, as Kurz suggests, noting that Peach himself acknowledges a similarity between Ricardo and Sraffa over the treatment of distribution:

It is indeed the asymmetric treatment of the distributive variables – one given from outside, the other determined as a residual – which distinguishes the analyses of Ricardo and Sraffa sharply from neoclassical theory with its symmetrical treatment in terms of supply and demand. Compared to this similarity all other differences and dissimilarities, real and imagined, seem to count for little. (Kurz 1994, p. 419)

This, I think, is a very sensible conclusion. But, as Howard has argued, it leaves both Ricardo and Sraffa open to the criticism that their rejection of all subjective elements renders them incapable of setting out a convincing macroeconomic theory, in which investment depends on capitalists’ plans, which are themselves based on their expectations of future profitability (Howard 1987, p. 322). No one has succeeded in squaring this particular circle.

8.4 Ricardo’s Legacy

Ricardo’s political economy was the product of the age and of the country in which he created it. As we saw in chapter 1, his England was a three-class society characterized by immense inequalities in income and wealth, with a semi-democratic political system that encouraged rent-seeking behaviour and was attacked by its many critics as ‘Old Corruption’.

The population was still predominantly rural, with a low-productivity agricultural sector that continued to employ more than one third of the working people and struggled to feed the rest, especially on the frequent occasions when the harvest failed. The living standards of the masses were very low, contrasting sharply with the opulence of the landed aristocracy and the comfortable lifestyle enjoyed by the gentry and the more successful capitalists.

The economy was indeed progressing, but very slowly. There were grounds for optimism, with the gradual but inexorable penetration of Enlightenment rationalism and the related scientific and technological advances into every branch of the economy, and the equally gradual but
no less unstoppable decline of Old Corruption. Ricardo’s own ideological evolution, described in chapter 2, was profoundly conditioned by the economic, social and political environment of his time.

The economic model that he developed in the last decade of his life was also very much the product of his times. Ricardo viewed the English economy as one in which capital (but not labour) was always fully employed, so that the quantity of capital determined the level of output. In a dynamic context, this meant that growth was only possible through the accumulation of capital, which was carried out by capitalists reinvesting their profits; landlords and workers saved little or nothing. Everything thus depended on the share of profits in total output, and on the rate of profit on the total capital employed.

Ricardo believed that diminishing returns in agriculture posed an ever-present threat to economic growth, since without free trade in corn the share of rent in the surplus product would increase continually and the rate of profit on capital would fall. This could be demonstrated directly in formal terms through a ‘corn model’ in which the agricultural sector was self-contained. He claimed that both the model and the conclusions that he drew from it could be generalized to an integrated, agricultural and industrial economy in which all the important magnitudes were measured in units of embodied labour.

This was the core of Ricardo’s model, as set out in chapter 3. He acknowledged that there were numerous problems with his labour theory of value, but maintained that they did not undermine the essence of the argument. It was also the essence of England’s economic predicament, he believed, and provided the key to escaping from it.

Ricardo was indeed ‘the practical economist’, in Max Hartwell’s phrase. Even his most celebrated analytical achievement, the theory of comparative advantage discussed in chapter 4, was used (if not consciously designed) to support the case for free trade. His macroeconomic theory, unoriginal but consistent and vigorously argued, was also directed towards policy issues, as we saw in chapters 5–6. Say’s Law ruled out the possibility of effective demand failures, destroyed the case for government spending as a remedy for depression, and reinforced Ricardo’s classical liberal hostility to taxation and government debt. It also entailed the neutrality of money. This made Ricardo a strong supporter of the Bullionists, who explained the wartime inflation as the inevitable result of excessive creation of paper money by the Bank of England.

Many of the policy questions that were raised by Ricardo continue to be hotly debated, almost two centuries after his death. Indeed, they seem more pertinent today, in the age of neoliberalism, than they appeared to
many of the earlier editors and critics whose opinions of his work were discussed in chapter 7. This is most obvious in the revival of his ideas on fiscal policy under the title of ‘Ricardian Equivalence’, and in the modern dogma concerning the ‘independence’ of central banks that Ricardo advocated in 1823. In a broader sense the neoliberals’ suspicion of the state and the faith in the market would almost certainly have appealed to Ricardo, whose emphasis on rent-seeking and corruption is entirely consistent with recent neoliberal developments in the political economy of government policy.

There is an irony here. If on policy questions Ricardo’s twenty-first-century appeal is to the Right, his theoretical stance is viewed much more favourably by the remnants of the Left. This is most obvious on the question of class-based rather than individualistic modelling, where he has much more in common with the Marxists than with the neoclassicals. It is linked to his rejection of subjectivism in favour of objective factors in economic theorizing, seen most clearly in his theory of value, where the possession of utility is a pre-condition for a good to have value but has nothing whatever to do with its magnitude.

The full implications of the analytical separation of production and distribution in Ricardo’s work only became apparent in the mid-twentieth century, when Piero Sraffa and his followers began to use it to construct a powerful critique of the neoclassical theory of capital and to demonstrate the incoherence of the marginal productivity theory of distribution (Harcourt 1972). Thus, contrary to Schumpeter’s assertion that was noted in chapter 7, it was not Ricardo but Walras, Marshall and J.B. Clark who were responsible for an unfortunate ‘detour’ in the course of economic theory.

But Ricardo’s vision of contemporary reality was a rather narrow one. He took remarkably little interest in the industrial sector of the British economy – less so, in fact, than Adam Smith had done forty years before him. Ricardo’s examples of the use of science and technology to increase productivity were few in number and confined to agriculture. His industrial capitalists were fiercely competitive, moving their resources very quickly from one industry to another to eliminate differences in the rate of profit. The Schumpeterian vision of a world of temporary monopolies created by constant innovation, protected by patents, enjoying enormous economies of scale and generating huge profits for a short period before being destroyed by the innovations of rivals – all this was entirely absent from Ricardo’s world view.

This poses serious problems for his theory of value, which can cope with diminishing returns but not with massively increasing returns. In
the numerical example of the 1815 Essay, the average product of labour-and-capital is $1600/1800 = 0.89$ and the marginal product is $200/270 = 0.74$ (see Table 3.1), and it is not really very important whether value is defined in terms of the marginal or the average quantity of labour that is required to produce a unit of corn. But the marginal labour cost of a unit of Windows 8 is very close to zero, while the average cost is very much larger, and it is difficult to see how the theory of value set out in the Principles sheds any light on the price that Microsoft can get for it.

I chose this example deliberately, as it reveals an even more damaging criticism of Ricardo: the total absence in his model of intellectual as opposed to physical property, and of intangible assets or (to use a Marxian term) ‘fictitious capital’. This is related to a further problem with his ‘physicalist’ approach to economic analysis, which restricts his monetary theory to a world of precious metals and paper tokens. Ironically, given the source of his own great fortune, Ricardo has nothing to say about credit money or the growth of financial capital, and completely failed to anticipate the cyclical instability of the capitalist system that financialization would accentuate.

All this should come as no surprise, since Ricardo was not some latter-day Nostrodamus, able to see centuries into the future; neither was he infallible. He was, as Ronald Meek is supposed to have said about Karl Marx, ‘just another genius’. And so I end the book as I began it, by endorsing Nicholas Kaldor’s claim that Ricardo’s Principles is up there with the Wealth of Nations, Das Kapital and The General Theory as the four truly great works in the history of economic thought. And that is surely enough.
Notes

1 The Life and Times of David Ricardo

1. For three appraisals, each roughly half a century apart, see Bagehot (1880), Russell (1934) and Scazzeri (1988).
2. Many books have been devoted to Ricardo, including Blaug (1958); Caravale (1985a), reviewed by Kregel (1987) and Peach (1986b); Caravale and Tosato (1980); Gootzeit (1975), reviewed by Blaug (1976); Henderson (1997), reviewed by Blaug (1999); Hollander 1979; St. Clair (1957, reviewed by Dobb (1957); and Peach (1988, 1993). Reprinted articles on Ricardo can be found in Blaug (1991), Peach (2003a, four volumes) and Wood (1985, four volumes; 1994, three volumes). Essays and encyclopaedia entries include Blaug (1985), De Vivo (1987), Gonner (1913), Kurz (2006, 2008a, 2008c) and Peach (2008).

2 Ricardo’s Vision

1. See also Depoortère (2002, 2008); Gonner (1923); Grampp (1976); Hutchison (1998); Ramana (1957).
2. See also Cremaschi and Dascal (1996, 2002); Depoortère (2002, 2008); Gehrke (2000); Hamouda (1984); Hartwell (1971); Kurz (2008b); Kurz and Gehrke (2006); Ramana (1957).
3. On the Works and Correspondence, see Checkland (1952a, 1952b, 1954, 1956); De Vivo (1996); Gehrke (2005, 2010); Gehrke and Kurz (2002); Hutchison (1953); Marget (1952); Pollitt (1988); Porta (1986a, 1992, 1995, 1996, 2001); Robinson (1951); Rosselli (2001); Sayers (1952); St. Clair (1953); Stigler (1953).

3 Value and Distribution

1. See also Bharadwaj (1983b); Cannan (1893); Caravale (1985b); Costa (1985); Davis (1989); Dobb (1975); Dooley (2005); Gehrke (2003); Gehrke and Kurz (2001); Gordon (1959); J. Hollander (1911c); Hutchison (1994a); Kaldor (1950); Levine (1977); MacDonald (1912); Meek (1974); Moore (1966); Pasinetti (1982); Seligman (1911); Sinha (2010); Young (1978).
2. On Ricardo’s theory of profit, see Buchanan (1929); Davis (1993); Dimand (1990); Eatwell (1975); Edelberg (1933); Gillman (1956); Groenewegen (1972); J. Hollander (1904); S. Hollander (1973, 1975, 1986); Howard (1981); Kaldor (1956); Kregel (1977); Kurz (2011); Nag (1967); Peach (1984, 1986a, 2001); Prendergast (1986a, 1986b); Rakshit (1958); Samuelson (1977); Subramanian (1977); Tucker (1954).
3. On Ricardo’s theory of rent see Anderson (1967); Barkai (1966); Barnes (1984); Bird (1975); Brewer (1988); Buchanan (1929); Camp (1918); Cawley (1983); Davidson (1959); Fine (1983); Johnson (1948); Mishra (1977); Ofer (1980); Ohlin (1935); Shammugasundaram (1977); Subbarayudu (1977).
4. On the labour theory of value before Ricardo, see Aspromourgos (2006); Burgstaller (1987); Carlson (1994); Cassels (1935); Dobb (1973, 1975); Dooley (2005); Fine (1983); Gehrke and Kurz (2001); D.F. Gordon (1959); Groenewegen (1972); Hamouda (1984); Hollander (1904); Johnson (1984); Kausghil (1971); Konüs 1970; Kurz and Salvadori (1993, 2003); Macdonald (1912); Meek (1956, 1974); Moore (1966); Pasinetti (1981); Rankin (1980); Sinha (2010); Stigler (1958); Wilson and Pate (1968); Wolff, Callari and Roberts (1984).

5. Readers interested in tracing the evolution of Ricardo’s thinking on value in the four years between the publication of the first and third editions should consult the *Fragments on Torrens* of 1818 (IV, 303–18), the *Notes on Malthus’s Principles of Political Economy* of 1820 (II, pp. 1–451) and the much shorter 1823 manuscript on Malthus that was unaccountably omitted from the *Collected Works* and published later under the editorship of Pier Luigi Porta (1992). Some of the relevant letters are those to Malthus in June 1818 (VII, pp. 250–1) and October 1820 (VIII, p. 279); to Trower in September 1818 (VII, p. 297) and July 1821 (IX, pp. 1–4); to James Mill in December 1818 (VII, p. 377); to McCulloch in December 1819 (VIII, p. 142), May 1820 (VIII, p. 180) and June 1820 (VIII, p. 194); and to Say in January 1820 (VIII, p. 149).

5  **Ricardo’s Macroeconomics**


2. On Ricardo’s views of growth prospects for the English economy, see also Akhtar (1973); Barkai (1959, 1965); Brems (1960, 1970); Burgstaller (1986); Caravale (1985b); Caravale and Tosato (1980); Casarosa (1974, 1978); Corry (1962); Davis (2005); Eltis (1984, 2007); Gehrke, Kurz and Salvadori (2003); Gordon (1983); Green (1992); Hicks (1969, 1979); Hicks and Hollander (1977); Hollander (1980a, 1990a); Kaldor (1956); Kurz (2010b); Laidler (1993); Letiche (1960); Maneschi and Thweatt (1983); Murphy (2009); Peach (1990, 1995); Robbins (1978); Rosselli (2008); Roychowdhury (1975); Sahay (1978); Samuelson (1978); Tucker (1954, 1960).

3. On Say’s Law, see also Akhtar (1975); Bonar (1929); Davis (2001); Dorfman (1989); Hagemann (1998); H.G. Johnson (1949); Kates (1998); Kurz (1998); Mcclachlan (1999); Peach (1990); Sowell (1963, 1972, 1974).

4. On money and banking, see also Ahiakpor (1982, 1985); Akhtar (1975); Andrews (2000); Arnon (1987, 1989; 2011); Blaug (1996); Bonar (1896); Carr and Ahiakpor (1982); Davis (2001); Deleplace (2001); Erdős (1972); Feavearyear (1931); Fetter (1965); Glasner (1985); J. Hollander (1911a); S. Hollander (1979); Humphrey (1990); Kojima (1951); Laidler (1987); Marcuzzo and Rosselli (1991, 1994); Mason (1957); Milberg (1994); O’Brien (2012); Peake (1978, 1982); Rosselli (2008); Sayers (1953); Schwartz (1987); Takenaga (2011); Viner (1933).

5. On machinery, see also Barkai (1986); Barton (1817); Beach (1971); Berg (1980); Claeyys and Kerr (1981); Davis (1989); Eltis (1985); Femminis and
Salanti (1995); Ferguson (1973); Hagemann (2000); Hansson (1983); Hicks (1971); Hollander (1971); Jonung (1981); Kurz (1984, 1998, 2010a); Meacci (1985); Negishi (1990); Samuelson (1988, 1989); Sotiroff (1953); Uchiyama (2000); Wicksell (1981 [1923]).

6 Ricardo on Economic Policy

1. On policy issues, see also Barkai (1986); Barton (1817); Beach (1971); Berg (1980); Claeys and Kerr (1981); Davis (1989); Eltis (1985); Femminisi and Salanti (1995); Ferguson (1973); Hagemann (2009); Hansson (1983); Hicks (1971); Hollander (1971); Jonung (1981); Kurz (1984, 1998, 2010a); Meacci (1985); Negishi (1990); Samuelson (1988, 1989); Sotiroff (1953); Uchiyama (2000); Wicksell (1923).


3. On Ricardian equivalence, see the survey article by Ricciuti (2003).

4. On monetary policy, see Arnon (1998; 2011); Bonar (1896, 1923); Capie (2002); Deleplace and Sigot (2012); Duffy (1982); Fearvearyear (1931); Fetter (1965); Maital and Haswell (1977); Perlman (1986); Schwartz (1987); and Silberling (1924).

7 Editors and Critics

1. See also Arrow (1991); Blaug (1958); Camp (1918); De Marchi (1970); Fetter (1969); Gilbert (1996); J.H. Hollander (1904); S. Hollander (1977b); Hutchison (1952, 1994b); Johnson (1993); Maneschi (1990); Maneschi and Thwaitt (1983); Peach (1993); Robertson (1957); Rutherford (1986); Scazzeri (1988); West (1982).

2. See also Bailey (1825); Berg (1975); Checkland (1949); Cochrane (1970); De Marchi (1970); De Vivo (1984, 1985); Fetter (1969); Gehrke (2000); Hansson (1983); J. Hollander (1910, 111b); S. Hollander (1980b); Hunt (1979); Johnson, Haney and Taylor (1911); Knight (1935); Kriesler (1984); Kurz (1995); Kurz and Salvadori (2002); Mitchell (1929); O’Brien (1970); Ohlin (1935); Pashkoff (2005); Patten (1893); Reich (1980); Scazzeri (1987); Skourtos (1986); Tucker (1961); Turner (1912); Viner (1933); Whewell (1831); Wicksell (1923).

3. See also Ashley (1891); Bonar (1911); Collet (1936); Dmitriev (1974); Dunbar (1887); Gonner (1890); Hayek (1942, 1969); Hollander (1910, 111b); Johnson, Haney and Taylor (1911); Knight (1935); Kurz (1995); MacDonald (1912); Mitchell (1929); Patten (1893); Seligman (111); Skourtos (1986); Zamagni (1987, 1994).

4. See also Brander and Taylor (1998); Devi (1977); Grabowski and Shields (1989); Harinarayana (1977); Mishra (1977); Naimuddin (1977); Prasad (1977); Ranadive (1977); Roy (1977); Roychowdhury (1977); and Shammugasundaram (1977).
8 The Three Ricardos

1. See also Baumol (2001); Bell (1907); De Brunhoff (1973); De Vivo (1982, 1984); Garegnani (1984); Gordon (1983); Henry (1982–3); Hollander (2000); Hunt (1977); King (1979); Kurz (1998); Kurz and Mongiovi (2002); Napoleoni (1975); Oakley (1985); Pasinetti (1982); Pilling (1972); Reich (1980); Steedman (1982); Tucker (1961); and Wolff, Callari and Roberts (1984).


4. For a selection of Ricardian trade models in a Sraffian vein, see Burgstaller (1985, 1986, 1987); Kurz and Salvadori (2010a); Maneschi (1998); Parinello (2010); Steedman and Metcalfe (1985).
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