

David Ricardo



(1772-1823)

The brilliant British economist David Ricardo was one of the most important figures in the development of economic theory. He articulated and rigorously formulated the 'classical' system of political economy. The legacy of Ricardo dominated economic thinking throughout the 19th Century.

David Ricardo's family was descended from Iberian Jews who had fled to Holland during a wave of persecutions in the early 18th Century. His father, a stockbroker, emigrated to England shortly before Ricardo's birth in 1772. David Ricardo was his third son - out of seventeen!.

At the age of fourteen, after a brief schooling in Holland, Ricardo's father employed him full-time at the London Stock Exchange, where he quickly acquired a knack for the trade. At 21, Ricardo broke with his family and his orthodox Jewish faith when he decided to marry a Quaker. However, with the assistance of acquaintances and on the strength of his already considerable reputation in the City of London, Ricardo managed to set up his own business as a dealer in government securities. He became immensely rich in a very short while. In 1814, at the age of 41, finding himself "sufficiently rich to satisfy all my desires and the reasonable desires of all those about me" (Letter to Mill, 1815), Ricardo retired from city business, bought the estate of Gatcomb Park and set himself up as a country gentleman.

Egged on by his good friend James Mill, Ricardo got himself elected into the British parliament in 1819 as an independent representing a borough in Ireland, which he served up to his death in 1823. In parliament, he was primarily interested in the currency and commercial questions of the day, such as the repayment of public debt, capital taxation and the repeal of the Corn Laws. (cf. Thomas Moore's poems on Cash, Corn and

Catholics)

Ricardo's interest in economics was sparked by a chance reading of [Adam Smith's](#) *Wealth of Nations* (1776) when he was in his late twenties. Bright and talkative, Ricardo discussed his own economic ideas with his friends, notably James Mill. But it was only after the persistent urging of the eager Mill that Ricardo actually decided to write them down. He began in 1809, authoring newspaper articles on currency questions which drew him into the great Bullionist Controversy that was raging at the time. In that affair, he was a partisan of the Bullionist position, which argued for the resumption of the convertibility of paper money into gold. He wrote a pair of tracts (1810, 1811) articulating their arguments and outlining what has since become known as the "classical approach" to the theory of money.

In these very same tracts, Ricardo also suggested the impossibility of a "general glut" - an excess supply of all goods - in an economy. This provoked the Rev. Thomas Robert Malthus to respond to Ricardo. The course of this debate continued in their extensive correspondence with each other, culminating in a series of notes Ricardo wrote on Malthus's 1820 *Principles* (these were later published posthumously as *Notes on Malthus*). Ricardo stood firm in his support of [Say's Law](#) and dismissed Malthus's underconsumption thesis as theoretically impossible. Yet, in spite of their disagreements on economic doctrines, they took to each other personally and fostered a legendary friendship. Ricardo even passed on investment tips to Malthus - the most famous case being when Ricardo urged Malthus to invest in the bond market in anticipation of a British victory at Waterloo. Ever the conservative parson, Malthus declined. Ricardo, as usual, made a killing.

In 1815, Ricardo published his groundbreaking *Essay on Profits*. There he introduced the differential theory of rent and the [law of diminishing returns](#) to land cultivation. Coincidentally, this principle was discovered simultaneously and independently by Malthus, [Robert Torrens](#) and Edward West. (more astoundingly, all of them published their tracts within three weeks in February, 1815!)

In his 1815 *Essay*, Ricardo formulated his theory of distribution in a one-commodity (corn) economy. With wages at their "natural" level, Ricardo argued that rate of profit and rents were determined residually in the agricultural sector. He then used the concept of arbitrage to claim that the agricultural profit and wage rates would be equal to the counterparts in industrial sectors. With this theory, he could show that a rise in wages did not lead to higher prices, but merely lowered profits.

Arguably, a proper theory of value was missing in the 1815 tract. In a one-commodity model, this is not an big issue. But, prodded on by Malthus's criticisms, Ricardo realized that in a multiple-commodity economy, for rents and profits to remain residuals, then prices must be pinned down somewhere. In his formidable treatise, *Principles of Political Economy and Taxation* (1817), Ricardo finally articulated and integrated a theory of value into his theory of distribution.

For Ricardo, the appropriate theory was the "labor-embodied" theory of value or LTV, i.e. the argument that the relative "natural" prices of commodities are determined by the relative hours of labor expended in their production. Indeed, he began his 1817 book by criticizing Adam Smith's alternatives - the "labor-commanded" and "adding up" theories of value - because, he argued, that made value a function of wages and thus income distribution. For Ricardo, this was untenable. In his vision, value was independent of distribution, and thus only the "labor-embodied" theory made sense.

However, Ricardo realized that when the question of capital comes in, a problem arose: specifically, as different industries apply different amounts of capital per laborer, then the rate of profit will also differ across industries. Ricardo understood that if he then assumed that the rates of profit across different industries were equalized (as free competition would imply), then, mathematically, relative prices would now vary with wages - exactly what he had criticized Adam Smith for. Ricardo realized that the labor theory of value would only work if the degree of capital-intensity was the same across all sectors, casting doubt on the generality of his cherished theory.

Ricardo proposed two ways out of this dilemma. The first was the empirical argument that firms apply capital in a roughly proportional manner to the amount of labor invested. In this case, the resulting prices when profits are equalized would not differ much from the values implied by the LTV. This is what Stigler (1958) has called Ricardo's "93% labor theory of value". The second solution was to find a commodity which has the average capital per worker, so that its price would reflect labor-embodied value and thus not vary with changes in distribution. He called this the "invariable standard of value". If one can find what this "standard" commodity is, Ricardo argued, then the rest of the analysis is simple. One can, say, change technology, trace the change in value of the standard commodity, and then extrapolate the change in value for all other commodities by the degree to which their capital composition deviates from this standard. Despite his search, Ricardo never found this standard commodity. On his death, an incomplete paper entitled "The Invariable Standard of Value" was found on his desk. Eventually, Karl Marx (1867) proposed one way out of it, but the proper solution would have to wait until Piero Sraffa (1960).

A little tripped up on value, Ricardo (1817) pressed on nonetheless. With prices (more or less) pinned down by the LTV, he restated his old theory of distribution. Dividing the economy into classes of landowners (who spend their rental income on luxuries), workers (who spend their wage income on necessities) and capitalists (who save most of their profit income and reinvest it), Ricardo argued showed once again how the size of profits is determined residually by the extent of cultivation on land and the historically-given real wage. He then added on a theory of growth. Specifically, with profits determined in the manner given above, then the amount of capitalist saving, accumulation and labor demand growth could also be deduced. This, in turn, would increase population and thus bring more land, of less and less quality, into cultivation. As the economy continued to grow, then, by his theory of distribution, profits would be eventually squeezed out by rents and wages. In the limit, Ricardo argued, a "stationary state" would be reached where capitalists will be making near-zero profits and no further accumulation would occur.

Ricardo suggested two things which might hold this **law of diminishing returns** at bay and keep accumulation going at least for a while: technical progress and foreign trade. On technical progress, Ricardo was ambivalent. On the one hand, he recognized that technical improvements would help push the marginal product of land cultivation upwards and thus allow for more growth. But, in his famous Chapter 31 "On Machinery" (added in 1821 to the third edition of his Principles), he noted that technical progress requires the introduction of labor-saving machinery. This is costly to purchase and install, and so will reduce the wages fund. In this case, either wages must fall or workers must be fired. Some of these unemployed workers may be mopped up by the greater amount of accumulation that the extra profits will permit, but it might not be enough. A pool of unemployed might remain, placing downward pressure on wages and leading to the general misery of the working classes. Technical progress, for Ricardo, was not a many-splendored thing.

On foreign trade, Ricardo set forth his famous theory of comparative advantage. Using his famous example of two nations (Portugal and England) and two commodities (wine and cloth), Ricardo argued that trade would be beneficial even if Portugal held an absolute cost advantage over England in both commodities. Ricardo's argument was that there are gains from trade if each nation specializes completely in the production of the good in which it has a "comparative" cost advantage in producing, and then trades with the other nation for the other good. Notice that the differences in initial position mean that the **labor theory of value** is not assumed to hold across countries - as it should be, Ricardo argued, because factors, particularly labor, are not mobile across borders. As far as growth is concerned, foreign trade may promote further accumulation and growth if wage goods (not luxuries) are imported at a lower price than they cost domestically - thereby leading to a lowering of the real wage and a rise in profits. But the main effect, Ricardo noted, is that overall income levels would rise in both nations regardless.

With his 1817 treatise, Ricardo took economics to an unprecedented degree of theoretical sophistication. He formalized the classical system more clearly and consistently than anyone before had done. For his efforts, he acquired a substantial following in Great Britain and elsewhere - what became known as the 'Classical' or 'Ricardian' School. His system, however, was improved very little by his disciples. Perhaps only **John Stuart Mill** (1848) and **Karl Marx** (1867-94) added insights of any great weight.

Ricardo's theory gradually fell out of favor, and died a slow death soon after the Marginalist Revolution of 1871-74. But research continued in some corners of the world, e.g. Vladimir Dmitriev (1898). Only much later did **Piero Sraffa** (1960) finally solve the "invariable measure of value" problem and re-ignited interest in Ricardo's theory. The "Neo-Ricardian" research program continues to advance today.

Major Works of David Ricardo

- The High Price of Bullion, A Proof of the Depreciation of Bank Notes, 1810
- Observations on some Passages in a Article in the Edinburgh Review, on the

Depreciation of the Paper Currency, 1811

- Reply to Mr. Bosanquet's Practical Observation on the Report of the Bullion Committee , 1811 (French)
- An Essay on the Influence of a Low Price of Corn on the Profits of Stock showing the inexpediency of Restrictions on Importation; with remarks on Mr Malthus' two last Publications" 1815 - (2nd Copy)
- Proposals for an Economical and Secure Currency, with Observations on the profits of the Bank of England, as they regard the Public and the Proprietors of Bank Stock, 1816. (French)
- On the Principles of Political Economy and Taxation , 1817 Copy (1) (2)
- Notes on Malthus' Principles of Political Economy, 1820 (publ. 1928)
- Funding System, 1820, Encyclopedia Britannica (Supp.)
- On Protection in Agriculture, 1822. (French)
- Mr Ricardo's Speech on Mr Western's Motion, for a Committee to consider the Effects produced by the Resumption of Cash payments, 1822
- Plan for the Establishment of a National Bank, 1824. (French)
- The Works of David Ricardo, Esq., M.P. With a Notice of the Live and Writings of the Author, 1846, edited by J.R. McCulloch
- The Works and Correspondence of David Ricardo, 1951-1973, 11 volumes, edited by P. Sraffa and M.H. Dobb