How David Ricardo's Experience as a Bond Trader Influenced his Economic Methodology

WORK-IN-PROGRESS

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Introduction

David Ricardo retired, independently wealthy, from bond-trading when he was in his early 40s around 1813; he had wanted to become an economist upon reading Adam Smith's *Wealth of Nations* at the age of 27 in 1799[1]. It is well-known that Ricardo's *Principles* is greatly influenced by Smith's work, a fact Ricardo makes clear in the text. Both Smith and Ricardo stated that labor wages would tend toward "subsistence level." However, Ricardo's economic model also has profits tending towards a "general level," whereas Smith said that, "the ordinary rate of profit varies more or less with the certainty or uncertainty of the returns."[2] Ricardo's level, a six or seven percent return on capital[3], has lead to what is known as the Ricardian "93% labor theory of value" concept, e.g., that capital accounts for 7% of value and labor accounts for the rest, or the remaining 93%.

It is my intention in this paper to show that Ricardo's experience as a bond trader – a profession he started at age 14 in his father's business – is what may have given him this insight of capital tending towards this specific percentage and towards an equilibrium in general.

[1] Biographical data on Ricardo from Rothbard (pp. 81-83).
[2] *Wealth of Nations* (p. 127)
[3] *Principles* (p. 123).

Return on Capital in Ricardo's System

In one way Ricardo's "general level" of return on capital is a brilliant insight into a general equilibrium model with free entry and exit (perfect competition, which is after all, what Ricardo was arguing for in *Principles*) and foretells financial theory of the 20th century. In *Principles* there are many specific examples[4] Ricardo gives for capital going to a more profitable use gaining excess returns in the short-run, and only the short-run. Ricardo said that these excess returns would be "temporary"[5] and would "speedily return"[6] to the general level.

> The high profits on capital employed in producing that commodity, will naturally attract capital to that trade; and as soon as the requisite funds are supplied, and the quantity of the commodity is dully increased, its price will fall, and the profits of the trade will conform to the general level (Ricardo, 119).

It should be noted that whereas Ricardo's system was one of perfect competition, Smith was more aware of the excess profits granted by government intervention, or "monopoly rents" in modern parlance, under the mercantilist system, stating, "Actual differences of pecuniary wages and profits are due partly to counterbalancing circumstances [e.g. excess profits in the short-run] and partly due to want of perfect liberty."[7]

Ricardo's system is one in which the use of increasingly unproductive land requires the use of more workers - whose wages rise in order to remain at the subsistence level – with the portion of society's income going to rents increasing as more land is brought in use. The returns to accumulated capital is decreased to a stagnant state (which is only temporarily improved with advances in farming technology and the importation of labor-intensive commodities), meaning that capital only returns the general level of interest (6 or 7%). It is for this reason that Ricardo emphasizes free-trade, the international division of labor and a tax on land (rents) and not on labor or commodities.

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[4] See for example, *Ibid.*pages 113, 119, 123, and 129, among others.
[5] *Ibid.* (p. 119).
[6] *Ibid.* (p. 129).
[7] *Wealth of Nations* (p. 114).

Ricardo begins the *Principles* section on profits,

> The profits of stock, in different employments, having been shewn to bear a proportion to each other, and to have a tendency to vary all in the same degree and in the same direction, it remains for us to consider what is the cause of the permanent variations in the rate of profit, and the consequent permanent alterations in the rate of interest….The whole value of their commodities is divided into two portions only: one constitutes the profits of stock, the other the wages of labour (Ricardo, 110).

In Ricardo's system, the profit (interest) is naturally decreased to the 6 or 7% and the wages alone affect the farmers' return to their effort; the lower the wages, the higher the profit.

> The farmer then, although he pays no part of his landlord's rent, that being always regulated by the price of the produce, and invariably falling on the consumers, has however a decided interest in keeping rent low, or rather in keeping the natural price of produce low….he is mostly materially concerned with the high price of corn as it effects wages (Ricardo, 115).

This system then sets-up a tension, caused by the landlords not being part of the exchange between farmers and workers, between the farmer and his or her laborers. If wages tend towards subsistence and profits towards their general level, there is stasis in the system and an inherent class struggle.

Why Bond Trading Informed Ricardo's Theory

Economists attempt to model how society works, from their own perspectives and for their own reasons, trying to determine as Thorstein Veblen said, "what next and why." Because Ricardo was a bond trader he understood the capital markets of his day. By trading government bonds over a 25 or 30 year period Ricardo knew that "risk-free" interest rates tend toward a certain level; that people require a certain amount of payment to part with their consumption for a period of time, and that what is perceived as the trade-off between this foregone consumption and risk-free government borrowing equalizes at an interest rate (for Ricardo around 6 or 7%).

This capital tendency idea fit in well with Adam Smith's model of long-term wages tending toward subsistence and Ricardo then applied this concept towards capital itself. The idea of long-term tendencies ("centers of gravity") then completed his model of rents being the only variable in his system, which he would use to argue against the rise of income (rents) of the landed class as that of stifling the well-being of the society. This coincided with the political occurrences of the day, including import restrictions under the Corn Laws and legislative reforms against inherited positions in government.

In modern financial theory there are two types of return to capital, the risk-free rate, and the return to risk.

Return to capital = $\alpha + \beta$

In modern economic theory capital returns the risk-free rate, plus a normal level of profits (call this the average return on equity) plus any returns due to monopoly power.

Return to capital = $\alpha + \theta + \varphi$

If you add entrepreneurial risk-taking to the economic equation, the following becomes the formula for return on capital.

Return to capital = $\alpha + \theta + \varphi + \lambda$

Where α is risk-free returns, θ is equity returns above risk-free, φ is returns to monopoly market power, and λ the return to entrepreneurial risk.

It has been assumed that in Ricardo's model includes only the risk-free rate.[8] We cannot know if Ricardo assumed this to better make his case or because of the unsophisticated financial markets in the early 1800s. Assuming returns to capital in addition to a stationary risk-free rate would assume a different, more dynamic, economy[9], one in which it would be more difficult

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[8] See the paragraph from Mark Blaug later in this paper for an example of this assumption.
[9] This economy could not be one based on perfect competition with homogenous commodities, but one with multiple sectors and entrepreneurial activity.

to model the long-term state and in which to analyze class structures and distribution of national income.

After the Napoleonic wars the sovereign debt business gained momentum, and was later to flourish, in 19th century London. Between 1818 and 1832 there were 26 foreign government bonds issued in London, with a total value of 60 million pounds.[10] By 1860 there was an estimated 2.6 billion pounds in sovereign debt outstanding worldwide, 25% of it issued in London. Most of the government bonds at the time (and still today in Europe and the USA) were issued at between 3 and 6%.[11] Therefore, Ricardo's prediction of 6 to 7% may or may not have included a "risk premium". It may be argued that he did include a risk premium. The British government raised capital to finance the US revolutionary and Napoleonic wars at 3%[12]. Note that this was during times of war when risk was higher than at times without war, so the level of 6 or 7% seems on the high-side of a risk-free return and therefore may include a risk premium. This would show that Ricardo may have had a more sophisticated understanding of finance than previously understood but would also indicate that he did not account enough for returns to risk-taking in the long-run in *Principles*.

Mark Blaug describes the accepted Classical Economics view of finance.

> It ought to be said that the classical theory of business profits refers to what we would call the "pure" rate of interest, the rate on risk-less perpetual bonds. This does not mean that the classical economists failed to distinguish between the rate of return on real capital and the market rate of interest, but in the long-run, with prefect certainty the two rates are equal and therefore in their theory of value and distribution they ignored the distinction. Nowadays we draw a distinction the capitalist earning interest and the entrepreneur earning a profit (Blaug, 91).

The above paragraph, given the rates of government bonds at the time that Ricardo was writing, may not hold true of Ricardo's use of returns to capital. Given that rates at the time were generally lower than Ricardo's 6 or 7% Ricardo may have accounted for risk in his returns to capital with his given percentages, but of course we are not to know this. Nor are we to know if

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[10] Chapman (p. 20).
[11] See Cohen, various pages throughout article.
[12] Cohen (pp. 238, 239).

any returns above risk-free would be considered to be monopoly, equity, or entrepreneurial returns. If Ricardo did factor-in returns to risk above a "general level" this is not clear in his long-term economic distribution model in *The Principles of Political Economy and Taxation*. Perhaps had equity markets been more developed in Ricardo's time we would have a '90% labor theory of value' instead of a 93% theory, the 10% to include risk-free, equity and/or entrepreneurial returns in addition to the risk-free return.[13]

[13] I am using 10% as a general indicator for long-term stock market returns.

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