

The Ricardian Non-Equivalence Theorem

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## "The Ricardian Non-Equivalence Theorem"

One hesitates to enter into the recent debate between Professors Barro, Buchanan and Feldstein on the public debt controversy.<sup>1</sup> But while all the current participants have been heard, the figure of one who cannot defend himself looms in the background. David Ricardo's views on this problem were mentioned in the course of a criticism of Barro's article by Buchanan in which, inter alia, Barro was taken to task for ignoring the literature on the problem.<sup>2</sup> But Buchanan has not adequately characterized Ricardo's own views on the subject. There are two reasons why a re-consideration of Ricardo's views is worthwhile: First, to demonstrate that Ricardo was aware of the problem of "fiscal illusion"; and second, to offer a framework within which future protagonists can carry on this debate.

Buchanan argued: "Is public debt issue equivalent to taxation? This is an age-old question in public finance theory. David Ricardo presented the case for the affirmative."<sup>3</sup> But Ricardo's own argument was more complex, and not at all family characterized by Buchanan. In the "Funding System" Ricardo considered the problems of the differences (if any) between financing a war by taxes, annually borrowing the sum that would otherwise be taxed and funding the interest only, or borrowing the sum and providing

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<sup>1</sup>Cf. Robert J. Barro, "Are Government Bonds Net Wealth?" J.P.E., 82, no. 6 (November/December 1974): 1095-1117; Martin Feldstein, "Perceived Wealth in Bonds and Social Security: A Comment," J.P.E. 84, no. 2 (April, 1976): 331-36; James M. Buchanan, "Barro on the Ricardian Equivalence Theorem," J.P.E. 84, no. 2 (April, 1976): 337-42; and Robert J. Barro, "Reply to Feldstein and Buchanan," J.P.E. 84, no. 2 (April 1976): 343-49.

<sup>2</sup>Buchanan (1976, p. 343).

<sup>3</sup>Buchanan (1976, p. 343).

a sinking fund to pay off the principal as well as the interest.<sup>4</sup> Ricardo assented that: "In point of economy, there is no real difference in either of the modes..." This is the position that it is commonly attributed to Ricardo. But, Ricardo continued his analyses in a manner that not merely modified it but completely changed it from an "equivalence theorem" to a "non-equivalence theorem":

...But the people who pay the taxes never so estimate them, and therefore do not manage their affairs accordingly. We are too apt to think, that the war is burdensome only in proportion to what we are at the moment called to pay in taxes, without reflecting on the probable duration of such taxes. It would be difficult to convince a man possessed of 20,000 l., or any other sum, that a perpetual payment of 50 l. per annum was equally burdensome with a single tax of 1000 l.<sup>5</sup>

In short, while Ricardo perceived that the two major methods of financing a war (i.e., taxation vs. issuance of public debt) are equivalent "in point of economy," he recognized that taxpayers suffer what we now call "fiscal illusion." Rather than taxation and debt-issuance being equivalent in their effects, Ricardo found them to be distinctly different.<sup>6</sup> Ricardo argued in fact that a war tax of 1000 pounds would "probably" result in the individual saving the whole amount, thereby "leaving the

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<sup>4</sup>Cf. David Ricardo, "Funding System," in Piero Sroffa, ed., The Works and Correspondence on David Ricardo, Vol. IV (Cambridge: Cambridge University Press, 1951), pp. 185-86

This piece was written after the Principles, and appeared as an article in the Supplement to the Fourth, Fifth and Sixth Editions of the Encyclopedia Britannica. Cf. the editorial introduction in The Works, IV, pp. 145-48.

<sup>5</sup>Ricardo, The Works, IV, pp. 186-87.

<sup>6</sup>There are a number of ways of interpreting Ricardo's curious (for 20th Century readers) distinction between equivalence "in point of economy" and non-equivalence in fact. The one that I believe accords best with Ricardo's intention consists in recognizing a distinction between what a hypothetical transactor with perfect foresight would do, and what transactors actually do. On this, see the text below.

national capital undiminished."<sup>7</sup> But, in the case of yearly charge for the interest only on a public debt, "an effort is only made to save the amount of the interest of such expenditure, and therefore the national capital is diminished in amount."<sup>8</sup> To repeat, Ricardo's position is more nearly the opposite of that presented as Ricardo's by Buchanan.

Of even more interest for the recent revival of this long debate is Ricardo's reasoning for why taxation and public debt are equivalent "in point of economy," though not in point of fact. For the reason is the very one rediscovered by Barro. Continuing his argument about the taxpayers treatment of a war tax of 1000 pounds versus a tax of 50 pounds for the interest on a loan of 1000 pounds, Ricardo stated that:

He would have some vague notion that the 50 l. per annum would be paid by posterity, and would not be paid by him; but if he leaves his fortune to his son, and leaves it charged with this perpetual tax, where is the difference whether he leaves 20,000 l., with the tax, or 19,000 l. without it? This argument of charging posterity with the interest of our debt, or of relieving them from a portion of such interest, is often used by otherwise well-informed people, but we confess we see no weight in it.<sup>9</sup>

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<sup>7</sup> Ricardo, The Works, IV, p. 187.

<sup>8</sup> Ricardo, The Works, IV, pp. 187-88.

<sup>9</sup> Ricardo, The Works, IV p. 187. Ricardo's position on the advisability of taxation over debt has received some recognition in passing in the literature. Cf. Thomas Sowell, Classical Economics Reconsidered (Princeton: Princeton University Press, 1974), pp. 67-68. Sowell, while citing this passage does not perceive that Ricardo is here denying the equivalence of taxation and debt, rather than postulating it. Likewise, in his earlier work on the public debt, Buchanan mentioned that Ricardo recognized "the possibility of individual irrationality in discounting future tax payments." Buchanan, Public Principles of Public Debt (Homewood, Ill: Richard D. Irwin, Inc., 1958), p. 46. Ricardo did more than recognize the irrationality - he moved it to center stage in his analysis.

In short, while Ricardo finally denied Barro's conclusion, he anticipated his reasoning.<sup>10</sup> The crucial difference between the two concerns their respective attitudes toward the likelihood of taxpayers' being deceived by the method of funding. Ricardo, the 19th century theorist of equilibrium, could not carry over to this problem his usual assumption of perfect foresight; Barro, the 20th century Ricardian, is undoubtedly the more consistent on this point. Whether one values consistency in this instance depends on one's attitude toward the Ricardian approach to theorizing.

It might be thought that Ricardo's treatment of the question differed in the Principles. It is true that the discussion is somewhat more abbreviated in the earlier work, with the consequence that Ricardo's position is not stated as clearly. Ricardo did state that:

A man who has 10,000 l., paying him an income of 500 l., out of which he has to pay 100 l. per annum towards the interest of the debt, is really worth only 800 l., and would be equally rich, whether he continued to pay 100 l. per annum, or at once; and for only once, sacrificed 2000 l.<sup>11</sup>

Once again, we see the "equivalence theorem" presented. But once again, Ricardo treated the two methods of financing as not equivalent in fact. Again, he did so because he believed that the wealth holder-taxpayer would typically be deceived by debt issue into believing that he was richer than was in fact (i.e., he would underestimate his future tax liabilities).<sup>12</sup>

The purpose of this note was two-fold. On the hand, I endeavored to show that Ricardo's position is more complex than that presented by Buchanan.

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<sup>10</sup>Thus, ironically, Buchanan is partially correct in noting similarity in Barro's and Ricardo's arguments, though the similarity is not that outlined by Buchanan. Instead of similarity in conclusions, there is similarity in reasoning. Cf. Buchanan (1976, p. 337).

<sup>11</sup>Ricardo, The Works, vol. I, p. 248

<sup>12</sup>Cf. Ricardo, The Works, vol. I, p. 247 and p. 248.

And second, I attempted to show that Ricardo's analysis is of interest to the contemporary theorist. This is the case whether one sides with Barro (i.e., adopts Ricardian reasoning) or Buchanan (i.e., adopts Ricardo's conclusions).<sup>13</sup> Even more generally, that quite apart from antiquarian or historical interest in the development of our discipline, theorists can gain from an acquaintance with the classics. For one thing, such knowledge can prevent the constant retracing of old paths of inquiry that presently characterizes professional work.

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<sup>13</sup>As should be clear by now I am in effect arguing that Buchanan and Ricardo are in agreement precisely where Buchanan sees himself disagreeing with Ricardo.