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Public Principles and Economic Legacy

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Public Principles and Economic Legacy

Abstract

2018 will mark the 60th anniversary of the publication of *Public Principles of Public Debt*. The Nobel-prize winning economist's first book conflicted with the Keynesian orthodoxy of the day, and added fresh ideas to an ongoing debate over the fundamentals of public debt theory. This paper seeks to outline the dialogue among leading economists surrounding public debt since the publication of *Public Principles of Public Debt*, examining the major schools of thought and their development. The ideas of John Maynard Keynes, James Buchanan, and Richard Barro will receive attention, without neglecting other significant contributions. The paper will conclude by examining current papers in the field of public debt theory, considering them in light of the noted historical ideas. Despite the foundational nature of James Buchanan's work in public finance, his cautions regarding the assumptions, methodology, incentives, and institutions of public debt, particularly his integration of public choice, are not treated centrally in many ongoing analyses. The empirical nature of much current public debt theory and research has led away from the presuppositional roots of the public debt debate. Renewed awareness of the historical and theoretical realities of public debt theory will be valuable for the field, and can provide reinvigorated application of public choice. This paper works toward those goals, examining the 60 years of public debt theory history since the publication of James Buchanan's *Public Principles of Public Debt* and considering current work in the field.

Keywords

Ricardian Equivalence

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Public Principles and Economic Legacy

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Introduction

Before the crisis of stagflation in the 1970's, Keynesian economics was at its peak of academic and popular strength. Paul Samuelson's popularizing textbooks had brought the new macroeconomic model a widespread acceptance and broad application of its principles. In the field of public finance, this school favored a generally Panglossian assessment of public debt as not harmful to national budgeting because of the idea that "we owe it to ourselves." As long as the nation's citizens are the holders of its debt, issuing more does not decrease national wealth. At the same time, many Americans were skeptical of this justification of public debt. The popular perception was that government debt, like individual debt, subtracted from future revenue streams. Consumption now meant costs later. If this layman's conception of public debt was correct, the Keynesian public finance practiced by the U.S. government indicated irresponsibility and a risk of serious financial problems in the future.

Economist James Buchanan studied in Italy from 1955-56 and became steeped in its history and literature of public finance.¹ That year provided him with resources and ideas that developed some of his thoughts in public finance and led to the completion of a book, *Public Principles of Public Debt*, which challenged the Keynesian orthodoxy.² The responses to Buchanan's work, followed by his ongoing contributions to the field, energized a debate which continued among the major participants into the 1970's. Robert Barro's entry into the conversation at that point renewed and reshaped the conflict, providing a new framework that is foundational for much of the recent work in the field. As a result of the turn toward Barro's model, public finance today has again fallen into errors that James Buchanan demonstrated and sought to correct nearly 60 years ago. James Buchanan's contributions to public finance, beginning with *Public Principles of Public Debt* and continuing with his integration of Public Choice, provide a foundational framework and corrective to error. This paper seeks to demonstrate that a revived understanding of Buchanan's public finance work on public debt will be valuable for precise analyses moving forward.

An examination of Buchanan's key works and those of his opponents will show the power of his argumentation over time. This study will also demonstrate the versatility of Buchanan's work in refuting multiple critiques and opposing models. Finally, a review of relevant current literature will conclude the paper with an understanding of how

¹ R.E. Wagner, "James Buchanan's public debt theory: a rational reconstruction," *Constitutional Political Economy*, (2014) 25: 257. <https://doi.org/10.1007/s10602-014-9161-3>

² Ibid, 257-258.

Buchanan's work is utilized today. In many technical works, the application of Buchanan's principles and applied models is unfortunately lacking. However, prominent economists in the current debate over public debt, particularly in the United States, still utilize Buchanan's work as they consider the empirical and institutional situation of public finance today. Lastly, there is a presence of some of Buchanan's most salient points in current textbooks, even those from economists generally inclined to different ideological conclusions than Buchanan. This suggests a successful penetration of Buchanan's public debt theory into the field, but the possibility of further growth and improvement for public finance if Buchanan's work is properly understood, especially along his Public Choice analyses.

The Impact of Public Principles – Buchanan and the Keynesians

In *Public Principles of Public Debt*, Buchanan lays out the core ideas of the Keynesian orthodoxy of his day and then presents his arguments in a clear contrast. The first and most seminal point of contention is whether or not the burden of debt is shifted into the future. For Keynesians, the answer was no; the cost or burden of the debt is "the real sacrifice of private goods and services" that the government spending requires, and this sacrifice must occur in the present.³ There is no burden in the future because the interest payments and tax payments resulting from the debt are both located in the future. The costs of tax payments are balanced by the benefits of interest payments such that public debt in the future is something which we simply owe to ourselves as a nation. This national aggregation and future balance perspective is the crux of the Keynesian argument on public debt.

Buchanan disputes the premises and conclusion that his opponents offered, arguing instead for a potential future burden from public debt issue. To Buchanan, the present bondholders do not bear the burden of the debt because they are not making a sacrifice. They freely choose to lend because it meets their preferences – they are moving to a higher, not lower, position on their individual utility surfaces.⁴ Unless this were true, the bondholders would not have chosen to voluntarily surrender their present consumption for the delayed gratification of the bond. Under standard theory, this voluntary choice indicates the highest expected utility curve. The future taxpayers, on the other hand, are compelled to pay more than they would have without the public debt issue, and they do so without the guarantee the bondholders receive of a preferred future asset. Thus, the burden of the debt does not fall on present bondholders, but on future taxpayers.

Buchanan argues that the answer to burden incidence becomes obvious upon asking a simple question: "Who suffers if the public borrowing is unwise and the public expenditure wasteful?"⁵ Even if this harmful scenario occurs, the present bondholder is not injured more than otherwise – he still has interest payments to compensate for the shift in his income stream as he would under a beneficial and wise public spending. Thus, as current

³ James Buchanan, *The Collected Works of James Buchanan: Volume 2 - Public Principles of Public Debt: A Defense and Restatement*, (Liberty Fund Inc., Indianapolis: IN, 1999), 6.

⁴ Ibid, 28.

⁵ Ibid, 32.

taxpayers are not bearing the burden for the given public expenditure, future taxpayers must do so. Through its group focus, the argument that the impact to national finance in the future is balanced between tax payments and interest payments misses the importance of the individual. The bondholder's individual balance sheet properly includes both the present reduction and future increase in income stream, while the future taxpayer's individual balance sheet is reduced by tax payments and only increased by the personal value of whatever social or economic asset the public debt creates.⁶ Thus, Buchanan overturned the Keynesian orthodoxy on the burden of public debt by correcting the level of analysis and reevaluating the idea of a bondholder's sacrifice.

Having undermined the fundamentals of the Keynesian position, Buchanan next considered whether its proponents were correct in arguing broadly that private debt and public debt were unrelated. Buchanan's opponents contended that public debt is not a reduction from the national income stream - as private debt reduces an individual's income stream - because future interest payments offset future tax payments. Public debt only creates future transfers within the nation, thus not reducing national wealth by this reckoning. This is usually expressed in the statement concerning public debt that "we owe it to ourselves." One Keynesian wrote: "Thus an internal loan raised by the state is not really a loan in the ordinary sense since it possesses none of the *essential* characteristics of such a transaction."⁷ Clearly, this point is tied to the previous one about the location of the burden of the public debt and how this should be considered. Therefore, Buchanan ties the two considerations together to present the Keynesian position: an individual borrower gains wealth in the present but must face a sacrifice in the future. However, the public borrower does not face a sacrifice in the future because interest and tax payments balance.

To refute this argument, Buchanan appeals to something he believes the Keynesians missed: "*only the decrease in the net worth of the taxpayers may be attributed to the fiscal operation under consideration.*"⁸ Buchanan notes that bondholders would have chosen to lend with or without the public debt issue. Their interest payments would remain absent the issue of public debt, stemming instead from private capital investment. By contrast, the taxpayers' loss due to future tax increases is a unique feature that would not have occurred without the public debt. Therefore, understanding the national outcome of public debt as equally good for bondholders and bad for taxpayers, and thus neutral on net, as the Keynesians proposed, is incorrect. The loss of the taxpayers through increased tax payments is an unmitigated burden from public debt, paralleling an individual's loss in future interest payments. On Buchanan's arguments, the analogy between individual and public debt holds, despite the contentions of the Keynesian new orthodoxy that public debt was uniquely non-burdensome.

⁶ Ibid, 33.

⁷ Jorgen Pederson, cited by James Buchanan in *Public Principles of Public Debt*, (Indianapolis, 1999), 38, cited from Alvin H. Hansen, *Fiscal Policy and Business Cycles*, (New York, 1941), 142.

⁸ James Buchanan, *The Collected Works of James Buchanan: Volume 2 - Public Principles of Public Debt: A Defense and Restatement*, (Liberty Fund Inc., Indianapolis: IN, 1999), 42.

The final point that Buchanan critiques is the last tenet of the new orthodoxy, which argues that internal debt and external debt are fundamentally and sharply different. In this stream of thought, A.C. Pigou wrote “It is true that *loans raised from* foreigners entail a burden in the interest and sinking fund on future generations in the borrowing country. But interest and sinking funds on *internal* loans are merely transfers from one set of people in the country to another set.”⁹ No matter the relevant rates of interest, then, the government should operate with internal debt as a result of this analysis.

Buchanan disagrees, noting that the result of issuing internal debt is the removal of significant streams of domestic savings that would have been productively invested in the domestic economy.¹⁰ Future private income streams are decreased under internal debt, with the magnitude of the loss depending on the rate of return for private capital investment. External debt finances public expenditure from foreign savings, allowing future income streams to be higher at first, with resulting costs of interest paid to external bondholders. Thus, the only difficulty of financial transfer from external savings, due to institutional or currency problems for instance, can differentiate internal and external debt.¹¹ The rate of return which the bonds will need to provide is the definitive factor in deciding between internal and external debt, unless transfer problems are severe.

Finally, after rejecting the three tenets of the Keynesian orthodoxy, Buchanan moves into a brief discussion of the political and institutional realities surrounding public debt. He notes the important incentive regarding public debt in democracies: because the burden falls on future taxpayers and the benefit accrues to present citizens, almost any perceived present good will present a temptation to issue debt.¹² This presents concerns with debt issue as both a seriously and pervasively problematic instrument among Public Finance tools. Importantly, this also means that it is unlikely that citizens would be willing to allow tax increases to fund long-term expenditures. Today’s citizens would bear the cost in that case, while tomorrow’s citizens would get the benefits.

Further, there is no market for an asset that will be created in the future, so the individual in this public context cannot properly evaluate the asset or program the government spending is proposed to create.¹³ Similarly, there is no way to accurately calculate the cost of future debt in comparison with a current asset that is easily marketable. The collective decision-making process cannot discount correctly.¹⁴ Thus, long-term projects should be tied to long-term debt so that costs and benefits align, with short-term projects and taxation paired as well. Still, Buchanan notes that even this precaution may not succeed in

⁹ A.C. Pigou, *A Study in Public Finance*, (3d ed. London, 1949), cited by James Buchanan in *Public Principles of Public Debt*, (Liberty Fund Inc., Indianapolis: IN, 1999), 59.

¹⁰ James Buchanan, *Public Principles of Public Debt*, (Liberty Fund, Inc., Indianapolis, IN: 1999), 61.

¹¹ *Ibid*, 65.

¹² *Ibid*, 120.

¹³ *Ibid*, 124.

¹⁴ *Ibid*, 123.

producing ideal social outcomes if one group, such as an impoverished majority, controls financial levers and uses them in a partisan struggle with other factions.¹⁵

Early Responses to Buchanan

Naturally, Buchanan's arguments in *Public Principles of Public Debt* did not go unanswered. Keynesian reviews of this work, as well as independent articles moving forward, presented several critiques of his contentions. As one commentator on this debate has noted, these authors, while "generally respectful," "pretty much rejected" Buchanan's central claims in *Public Principles of Public Debt*.¹⁶ One good example of such a review is the one given by Earl Rolph in the *American Economic Review*. Rolph argued that Buchanan's work was polemical in nature and controversial in tone, separating it from good academic literature.¹⁷ Further, he argues that Buchanan's use of the term "new orthodoxy" for a group of economic thinkers that Rolph saw as diverse and varied, is improper and harmful.¹⁸ No clear policy implications or principles emerge from the work on Rolph's reading, and he reiterated the Keynesian argument regarding the impossibility of burden-shifting:

The cost of construction is the value of resources used to produce them. Such costs are contemporaneous; present resources are being used to produce planes instead of other present things. In this sense of cost, there can be no postponement regardless of any accompanying financial devices.¹⁹

Rolph thereby maintained the positions that Buchanan denoted as belonging to the new orthodoxy without conceding that such an orthodoxy existed. A further Keynesian rebuttal came with James Tobin's review of *Public Debt and Future Generations*, an anthology edited by James Ferguson that includes three articles by Buchanan tracing his key arguments. Like Rolph, Tobin held the burden of debt in the present, noting this as Buchanan's central point of attack and presenting the counterpoint as follows: "The debt can be no burden, because future payments of interest or principal from taxpayers to bondholders will be transfers involving no aggregate draft on resources."²⁰ More importantly, Tobin found Buchanan's basic assumptions unconvincing, namely that unnecessary taxation is coercive and harmful, while government use of market operations do not result in a burden.²¹ Tobin argued that borrowers displaced by government debt issue are harmed in the present due to the lost access to a possibly more advantageous option, so that even though lenders maintain utility, not everyone does. Overall, Tobin did suggest that only Buchanan's presuppositional

¹⁵ Ibid, 131.

¹⁶ R.E. Wagner, "James Buchanan's public debt theory: a rational reconstruction," *Constitutional Political Economy*, (2014) 25: 254. <https://doi.org/10.1007/s10602-014-9161-3>

¹⁷ Earl Rolph, "Public Principles of Public Debt," in *American Economic Review* 49, no. 1, (1959), 183, 185.

¹⁸ Ibid, 184.

¹⁹ Ibid, 184.

²⁰ James Tobin, "The Burden of the Public Debt: A Review Article," *Journal of Finance* 20, no. 4 (Dec., 1965), 680.

²¹ Ibid, 680.

framework of taxes as inherently burdensome and an appropriate individualized level of analysis, among all the contributions in the volume, could disturb the economic orthodoxy on public debt.²² Fundamentally identifying tax payments as a burden means that debt issue, by definition, shifts the burden to future generations, but for Tobin this is not a given. A final example of an attack on Buchanan's work came in an article by EJ Mishan. Although only published in 1963, Mishan's work, "How to Make a Burden of the Public Debt," was openly targeted against Buchanan's attempt to establish a viewpoint contrary to Keynesian orthodoxy. Mishan specifically notes the publication of *Public Principles of Public Debt* as the start of the movement that he describes as the "new heretics."²³ Mishan critiqued Buchanan on general and specific grounds. First, Mishan argues that future taxes are not necessary if government bond issue creates productive assets.²⁴ Second, Mishan objects that changing individual tastes indicates a lack of guaranteed welfare increase for the bondholder.²⁵ For example, a bondholder might prefer today a certain level of current consumption and future income, but in ten years the preferred ratio may be so wholly changed that the bondholder will recognize a loss of utility, despite the fact that his past action was preferred at that time.

Mishan's arguments include repeated appeals to the idea that government will not spend wastefully and that government spending can certainly produce "a greater social yield than that arising from private expenditure."²⁶ Assuming this argument and comparing relevant alternatives, as Buchanan does throughout his work, should lead to a result in favor of government finance. In other areas of the new orthodoxy, Mishan defends simply by restatement. For instance, regarding Buchanan's arguments on internal and external debt, Mishan points out that Buchanan cannot "detract from the simple proposition that if an *existing* debt is internally held 'we owe it to ourselves,' while if it is held externally 'we owe it to the foreigner.'"²⁷ Lengthy quotes of A.C. Pigou serve to strengthen his arguments with authority. Buchanan's framework regarding the effect of government bond issue on private savings is faulty on the theory of these past thinkers because he ignores Ricardian equivalence, the resultant inflation, and a change in savings preferences resulting from the bond issue which Keynesianism expects.²⁸ Mishan's arguments are strongest when he concedes points to Buchanan, but notes that Keynesianism or the "new orthodoxy" would already endorse these points wholeheartedly. For instance, Mishan admits government surely should not spend when funds could be used more productively in the private sector but that current public expenditures have higher social yield than if left to private sector.²⁹ Mishan's article is representative of the various attempts to defend the Keynesian

²² Ibid, 682.

²³ E.J. Mishan, "How to Make a Burden of the Public Debt," *The Journal of Political Economy* LXXI, no. 6, (Dec. 1963), 530-531.

²⁴ Ibid, 533.

²⁵ Ibid, 533.

²⁶ Ibid, 534.

²⁷ Ibid, 535.

²⁸ Ibid, 532

²⁹ Ibid, 532

consensus in public finance while critiquing Buchanan's perceptions of taxation as burdensome and government spending as not uniquely productive.

Neither the extent nor the intensity of these critiques indicates a general contemporary consensus against Buchanan's ideas in *Public Principles of Public Debt*, especially when understood in light of other reviews. Vance Alvis described the work as "a scholarly presentation" with a "real contribution" that "should be read by everyone seriously concerned with public debt policy."³⁰ Alvis presented very little critique in his discussion, choosing instead to relate in more depth the fundamental points Buchanan made. Alvis did contest Buchanan's third major point, that the internal and external debt were not sharply distinguished, and argues that U.S. institutions may not provide a feasible platform for some elements of Buchanan's ideas, such as more extensive money creation.³¹ Still, overall, Alvis found little to take issue with in Buchanan's work.

Mary Sue Garner Staig, in her review for *The Southwestern Social Science Quarterly*, agrees with critics like Rolph that Buchanan's position might have caused "explosive controversy," but also found his arguments "meticulously logical" and "ably presented and defended."³² In her work, as in Alvis's, there was little defense or presentation of the Keynesian orthodoxy that Buchanan opposed, and a generally sympathetic presentation of the position argued in *Public Principles of Public Debt*. In contrast to Alvis, Staig argued that Buchanan's arguments were accessible outside of the economics profession, but otherwise there was significant agreement.

Finally, Ansel Sharp, with a review in *The American Journal of Economics and Sociology*, saw Buchanan's work as a strong and impactful, if imperfect, perspective on public debt. For instance, Sharp criticized the new orthodoxy in general, contending that Buchanan "argued devastatingly" against it, but the reviewer still maintained some elements of the Keynesian perspective. For instance, Sharp correctly states that there are still key differences between private debt and public debt because public debt has more sure resources to call upon in tax revenue and Federal Reserve support than a private citizen could muster.³³ Like Alvis, Sharp also concluded that Buchanan puts too little weight on the transfer costs which make internal debt distinctly advantageous compared to external debt.³⁴ Nevertheless, Sharp's support for the overall thrust of *Public Principles of Public Debt* should not be missed, as he clearly stated "Buchanan successfully replaces the we-owe-it-to-ourselves type of reasoning with sound economic reasoning."³⁵ Further, he finds the overall framework Buchanan presents extremely powerful:

³⁰ Vance Alvis, "Public Principles of Public Debt: A Defense and Restatement," *Journal of Finance* 14, no. 1 (Mar., 1959), 126.

³¹ Ibid, 125-126.

³² Mary Sue Garner Staig, "Public Principles of Public Debt," *The Southwestern Science Quarterly* 39, no. 3 (Dec., 1958), 266.

³³ Ansel Sharp, "A General Theory of Public Debt," *The American Journal of Economics and Sociology* 19, no. 1 (Oct., 1959), 109.

³⁴ Ibid, 109.

³⁵ Ibid, 108.

The significance of Buchanan's analysis lies in the general framework which it provides for public debt analysis. A framework within which public debt may be analyzed under the Classical economic condition of full employment and the Keynesian economic condition of unemployment; a framework which has its philosophical starting point in the individual or the family; a framework which discards the pain cost doctrine and replaces it with the opportunity cost doctrine; a framework which views the relevant alternatives of private lenders and the differential effects of tax, debt, and currency financing; a framework which distinguishes between the effects of securing funds and the effects of spending these funds, and considers the combined effect of the financing-spending operation: a framework which provides the basis for better public policy decisions.

Overall, the reviews may demonstrate a slight consensus that saw *Public Principles of Public Debt* as a key contribution that is most important in its overall framework for understanding public debt in times of full employment or unemployment. It would go too far to argue that all reviewers saw Buchanan's analysis as scholarly, strong, logical, and dispassionate, making this work a powerful contrast to prevailing economic theory. Nevertheless, some certainly were of this opinion, and the key points of agreement, among both supporters and opponents of Buchanan's early contributions, were that he had succeeded in generating a significant contrast with prevailing theory that, if accurate, had serious implications for the field of public finance.

Buchanan's Responses to Critiques

Buchanan continued to engage in this developing debate, defending his ideas and their formulation by responding to critics. One example would be his response to EJ Mishan, entitled "Confessions of a Burden Monger," in the *Journal of Political Economy*. In this essay, Buchanan argued that the taxpayer under normal "voluntaristic political" conditions will not discount future tax payments as a result of their knowledge of the increasing debt level.³⁶ He did not reject the equivalent response to tax or loan financing under conditions of "perfect certainty and perfectly working capital markets," but simply found this theoretical consideration to be practically unimportant.³⁷ In Buchanan's mind, the methods of tax and debt finance are alternatives for public financing of expenditures. Indeed, the very point of debt, both in general and as a contrast to tax finance, is to push costs into the future.³⁸

Finally, Buchanan made methodological observations regarding Mishan's criticisms. Buchanan pointed out Mishan's inability to separate debt issue and money issue as different means of government finance, arguing that the merits of each depends on the

³⁶ James Buchanan, *The Collected Works of James Buchanan, Vol. 14, Debt and Taxes*, "Confessions of a Burden Monger," (Liberty Fund Inc., Indianapolis: IN, 1999), 358.

³⁷ Ibid, 358.

³⁸ Ibid, 358.

economic environment concerning inflation.³⁹ Buchanan distanced himself from the idea that politicians should infer something about “the desirability of budget deficits” from an economic discussion of the burden of public debt. Nevertheless, he stated clearly that “the economist should not retreat ever further into technical and terminological obscurity” when simple analysis is possible.⁴⁰

In his response to James Tobin, an article titled “The Icons of Public Debt” in the *Journal of Finance*, Buchanan is more focused on defending the presuppositions of utility maximizing individuals and the beneficial nature of free action that Tobin attacked. He begins with a counterattack, arguing that he is not the only one with fundamental assumptions, but rather that, “My notions about debt burden seem to counter images that are more than intellectual constructions, more than scientific paradigms.”⁴¹ According to Buchanan, Tobin’s unwillingness to accept Buchanan’s founding assumptions is not a reasoned rejection but one of emotion. Further, he attempts to show that his own arguments are based on fundamental facts and not assumptions about the coerciveness or compulsion felt as a result of government action. “The fact that *taxes are payments* is, in itself, sufficient. In this sense, taxes are no different from prices paid in market transactions. The payment of prices for ordinary goods and services is also, *per se*, a burden. This we all accept without the sophistication of economic theory.”⁴²

Further, Buchanan attempted to defend the broader context of his theoretical framework, arguing against Tobin that full employment conditions are not the only situation to which public finance analysis can or should be applied.⁴³ Also, Buchanan insists on establishing the separate decisions of individuals to vote for debt finance and to purchase government bonds. The former choice is made by individuals in a group, while the latter is “strictly individualistic.”⁴⁴ This prevents debt issue from being understood only in the Keynesian framework of aggregation which asserts that we owe it [public debt] to ourselves. All in all, Buchanan conceded very little to his critics, setting up a conflict of assumptions, frameworks, methods, and conclusions, what Buchanan called a “murky battleground.”⁴⁵

The result of the initial major clash between Buchanan and his opponents in the Keynesian orthodoxy did not lead to a single winner dominating the resulting literature alone. Nevertheless, in the ensuing years, Buchanan’s contributions began to penetrate the field of public finance to a greater extent. One example of this comes in an article by Roger Spencer and William Yohe in 1970. They argued that crowding out of private investment is a key problem for public debt issue. Closer to full employment, crowding out becomes very

³⁹ Ibid, 360.

⁴⁰ Ibid, 360.

⁴¹ James Buchanan, *The Collected Works of James Buchanan, Vol. 14, Debt and Taxes*, “The Icons of Public Debt,” (Liberty Fund Inc., Indianapolis: IN, 1999), 361.

⁴² Ibid, 362.

⁴³ Ibid, 363.

⁴⁴ Ibid, 363.

⁴⁵ Ibid, 361.

significant. Interest rate increases, decreased confidence from government action, and an inability to raise overall demand in the face of price level changes are key problems. Thus, to the authors, Buchanan was correct – government expenditure must be examined in light of government income, not separated. Furthermore, the authors rely on Buchanan explicitly, first in consideration of how fractional reserve banking impacts public debt issue, and then also in relation to the complex assumptions behind Keynesian multiplier theory.⁴⁶ If the Keynesians had been considered victorious in the public debt debate, Buchanan's work would not have been relied on in this fashion. Thus, the literature does not indicate that Buchanan's contributions were abandoned by the 1970's, but that they were becoming increasingly impactful.

Robert Barro and Ricardian Equivalence

Nevertheless, with the publication of an article by Robert Barro in 1974, a new chapter opened in the history of Buchanan's contribution to the public debt field of public finance. The article "Are Government Bonds Net Wealth?" sought to address the same "expansionary fiscal policy" of Keynesian new orthodoxy that drew Buchanan's attention in 1959.⁴⁷ Yet, the methodology employed by Barro, along with his conclusions, led to a conflict with Buchanan's earlier synthesis. By framing the public debt in terms of net wealth, rather than burdens, Barro's article, and subsequent defenses, tended to focus on constructing situations where certain premises might hold in contrast to Buchanan's concern with the real and present economic and political context of public debt. In his foundational article, Barro contends that government bonds are net wealth if the government has a monopoly on bond liquidity services, or if the government is more efficient at the margin than the market. He begins by postulating a strong form of the basic Ricardian equivalence:

[H]ouseholds regard deficit financing as equivalent to taxation. The issue of a bond by the government to finance expenditures involves a liability for future interest payments and possible ultimate repayment of principal, and thus implies future taxes that would not be necessary if the expenditures were financed by current taxation. . . . If future tax liabilities implicit in deficit financing are accurately foreseen, the level at which total tax receipts are set is immaterial; the behavior of the community will be exactly the same as if the budget were continuously balanced.⁴⁸

Barro here argued that Ricardian equivalence prevents government bonds from being perceived as additional national wealth; households simply adjust their spending and saving patterns to neutralize the impact of public debt issue. He gives two possible counter-arguments to his application of Ricardian equivalence in the area of public finance. First,

⁴⁶ Roger Spencer and William Yohe, "The "Crowding Out" of Private Expenditures by Fiscal Policy Actions," *Federal Reserve Bank of St. Louis*, (October 1970), 20-21.

⁴⁷ Robert J. Barro, "Are Government Bonds Net Wealth?," *Journal of Political Economy* 82, no. 6, 1095.

⁴⁸ M.J. Bailey, *National Income and the Price Level*, (1962), cited in Barro, "Are Government Bonds Net Wealth?," 1096.

taxpayers will experience a net positive present value for government bonds over the future costs in taxation they entail because of their finite lives.⁴⁹ Second, taxpayers will have a higher discount rate for future tax liabilities than for the interest payments with which they correspond.⁵⁰ While Barro does not cite Buchanan in defense of these two arguments, the latter author had used both in *Public Principles of Public Debt* 15 years earlier.

In the first case, Buchanan wrote that “the Ricardian argument would be acceptable if individuals lived eternal lives...[but the] individual must operate within a reasonably limited time horizon. If this is accepted the Ricardian argument falls”.⁵¹ Second, Buchanan argued that “the same absence of a *market* will cause the individual also to undervalue (in a relative sense) future tax payments which are necessary to service debt which has financed current capital outlay.”⁵² Barro’s paper seeks to disprove these two critiques of Ricardian equivalence, because they both suggest a net positive present wealth effect for government bonds that is necessary for debt issue to increase aggregate demand as expansionary fiscal policy hopes.

These two critiques on Ricardian equivalence suggest a net positive present wealth effect for government bonds that is necessary for debt issue to increase aggregate demand as expansionary fiscal policy hopes. Because of these suggestions, Barro’s paper seeks to disprove Buchanan’s critiques.

Barro attempts to show that the aggregate demand impact is not tenable, thus critiquing Keynesianism but also undercutting Buchanan’s fundamental assumptions.

To begin his critique of the finite lives argument, Barro assumes an overlapping generations model where individuals maximize their utility based on their present consumption and that of their descendants.⁵³ Thus, following government bond-issue, individuals will alter their bequest amount to create an equivalence that offsets the tax payments of the future generations.⁵⁴ Similarly, spending on educational infrastructure by the government will result in households decreasing their discretionary transfers. To defend the likelihood of this occurring in terms of the individual choices, Barro wrote as follows:

[I]f, prior to the government bond issue, a member of the old generation had already selected a positive bequest, it is clear that this individual already had the option of shifting resources from his descendant to himself, but he had

⁴⁹ Robert J. Barro, “Are Government Bonds Net Wealth?”, *Journal of Political Economy* 82, no. 6, 1096-7.

⁵⁰ *Ibid*, 1097.

⁵¹ James Buchanan, *The Collected Works of James Buchanan: Volume 2 - Public Principles of Public Debt: A Defense and Restatement*, (Liberty Fund Inc., Indianapolis: IN, 1999), 123.

⁵² *Ibid*, 125.

⁵³ Robert J. Barro, “Are Government Bonds Net Wealth?”, *Journal of Political Economy* 82, no. 6, 1100.

⁵⁴ *Ibid*, 1103.

determined that such shifting, at the margin was nonoptimal. Since the change in B does not alter the relevant opportunity set in this sense, it follows that—through the appropriate adjustment of the bequest—the values of current and future consumption and attained utility will be unaffected.⁵⁵

Barro generalizes these results to generations further from the initial debt issue and mathematically justifies the argument for equivalence. With the first attack on Ricardian equivalence critiqued, he moves to the second assumption of imperfect capital markets. This he disposes of by arguing that the government may be a more efficient lender than the private market over a certain range of lending behavior. As a result, “at the margin, the net-wealth effect of government bonds would be zero, despite the continued existence of ‘imperfect private capital markets.’”⁵⁶

Given these findings, Barro is prepared to make strong conclusions about the overall public finance impact of debt issue by the government. He wrote that, “a change in the stock of government debt would have no effect on capital formation,” and “fiscal effects involving changes in the relative amounts of tax and debt finance for a given amount of public expenditure would have no effect on aggregate demand, interest rates, and capital formation.”⁵⁷ On this ground, Buchanan’s contributions regarding the burden of public debt appear outmoded because debt finance, absolutely or relative to tax finance, has little substantive impact on economic fundamentals. Its primary effect on behavior is simply to stir the reaction to equivalence so that no party is either better or worse off than under an alternative.

Barro did recognize that some of his underlying assumptions in modelling are fairly unrealistic. For instance, Barro concedes that, given the fact that households may not be identical, the impact of government debt issue depends on the preferences of the households and the relative share of each type of household in variable bequest motive scenarios.⁵⁸ Further, he argues that the equilibrium utility under his model of equivalence not only requires individuals to bequest optimization, but that all individuals “choose the same amount for their bequests.”⁵⁹ Nevertheless, he presented the model and its resulting conclusions with strength and chose to back them up further in subsequent articles.

One such contribution was the article “Federal Deficit Policy and the Effect of Public Debt Shocks” written in 1980. Here, he argues that the systematic parts of federal deficit policy

⁵⁵ Ibid, 1103.

⁵⁶ Ibid, 1112.

⁵⁷ Ibid, 1116.

⁵⁸ Ibid, 1104. “When households are not identical, the aggregate effect of government debt issue will depend on the fraction of households at a corner {where bequests are equal to 0}.”

⁵⁹ Ibid, 1109. “The equilibrium satisfies two properties: (1) each individual chooses his bequest optimally, subject to a given choice of bequests by all other individuals; and (2) all individuals choose the same value for their bequests.”

have been reasonable, given a government objective of “stabilizing anticipated overall tax rates over time.”⁶⁰ To summarize, he wrote as follows:

The major movements in privately held, interest-bearing federal debt can be explained as aspects of a policy for achieving an intertemporally efficient collection of net revenues in the face of fluctuations in government expenditures, national income, and inflation. There is also some indication that the (random) departures of debt changes from the regular pattern have contributed to movements in the unemployment rate and output. However, the fluctuations from this source that have presently been isolated are substantially smaller than those associated with monetary disturbances.⁶¹

As a result of this thesis, where government debt is understood to vary according to efficient and skillful policy-making with logical long-term objectives, Barro found the suspicion of the public debt size and process to be unfortunate. He remarked that it was “disturbing” to see a push toward a constitutionally mandated balanced federal budget because of the resulting inefficiencies that this would no doubt create for government financial officials in action.⁶² Buchanan was by this time involved in exactly the type of political action Barro was critiquing. Given his view of debt as burdensome to future generations, the former’s foundational work in the area of public choice economics and public finance naturally led him to the recourse of a balanced budget amendment and as something incentivized to current taxpayers of finite lives. Nevertheless, despite Buchanan’s clear authority, Barro carried forward his critiques on empirical grounds, arguing that policy of Buchanan’s mode,

[W]ould be expected to achieve some reduction in the size of the public sector at the expense of increased misallocation per unit of government spending. Such policies seem clearly to be dominated by direct restrictions on the amount of government expenditure, especially in the area of transfers, and by other direct limitations on the scope of governmental powers.⁶³

Barro seemingly preferred a focus on efficiency rather than limitation, and as his paper promoted the existing efficiency of government debt decisions, drastic action was unnecessary.

Buchanan’s Critiques of Barro

Buchanan responded sharply to Barro’s entrance into the dialogue over public debt with a number of individual and cooperative articles. When addressing Barro’s overlapping generations model, Buchanan first notes that Barro’s model of bond issue does not

⁶⁰ Robert J. Barro, “Federal Deficit Policy and the Effect of Public Debt Shocks,” *Journal of Money, Credit, and Banking* 12, no. 4, (Nov., 1980), 753.

⁶¹ *Ibid*, 760.

⁶² *Ibid*, 760.

⁶³ *Ibid*, 760.

establish a clear rationale for why the government would act as he proposes.⁶⁴ Questioning Barro's assumption that "the increase in B , [public debt] implies a one-to-one increase in the asset supply," given the naturally resulting reduction in private investment or consumption, Buchanan simply declared Barro's model "bizarre."⁶⁵

Buchanan continued with a number of further objections to Barro's presuppositions and conclusions on practical, not mathematical grounds. For instance, Buchanan critiques him as being too willing to generalize from the example of Social Security, leading to a flawed and restricted conclusion rather than a universally applicable model.⁶⁶ Buchanan's most powerful critique came on empirical examination of the behavior of public officials: "The proclivity of politicians to expand public debt in preference to tax increases" demonstrates an assumption against Ricardian equivalence.⁶⁷ While Barro might have been able to discern a rational official purpose behind the movement of the debt through mathematical regression, Buchanan saw a different relation in real-time. This difference marks Barro's model as improperly founded on incorrect premises regarding the behavior of households and politicians in the event of public debt issue. Further, Buchanan noted that Ricardian equivalence would predict no change in the savings rate as a result of Social Security, but this does not match the measured decrease in private saving in the United States.⁶⁸ If both government officials and private individuals do not act in accordance with Ricardian equivalence, then it should not be accepted. Despite the correlative evidence that Barro produced, his premises do not reflect reality. Therefore, his model does not hold over a large range of behavior. Buchanan thus held his ground in terms of the more technical elements of public debt analysis, as well as his constitutional conclusions in his initial response to Barro's arguments.

Buchanan continued his critique of Barro implicitly by examining the fundamentals of Ricardian equivalence in another article. While the overall topic of the article is Ricardian equivalence as such, Buchanan cited Barro on the first page as an example of the "surprising resurgence" in the idea's application to economic analysis, demonstrating the clarity of the debate taking place.⁶⁹ In rebutting Barro's use of the Ricardian equivalence theory here, Buchanan argues that Ricardian lump-sum taxation is not the conventional model and that proportional income taxes is more appropriate, which alters the basic analysis.⁷⁰

⁶⁴ "He [Barro] states ... 'It can be assumed, for simplicity, that the government bond issue takes the form of a helicopter drop to currently old (generation 1 households).' We are immediately prompted to inquire why any government would undertake such an activity." James Buchanan, *The Collected Works of James Buchanan, Vol. 14, Debt and Taxes*, "Barro on the Ricardian Equivalence Theorem," (Liberty Fund Inc., Indianapolis: IN, 1999), 385.

⁶⁵ Ibid, 386.

⁶⁶ Ibid, 389.

⁶⁷ Ibid, 390.

⁶⁸ Ibid, 390.

⁶⁹ James Buchanan, *The Collected Works of James Buchanan, Vol. 14, Debt and Taxes*, "The Logic of the Ricardian Equivalence Theorem," (Liberty Fund Inc., Indianapolis: IN, 1999), 392.

⁷⁰ Ibid, 396.

Further, Buchanan argued that the differing time-streams of income faced by different individuals in the economy would lead to different perspectives on debt issue. A boxer with substantial current-period income that tapers off later in life will favor debt financing, but a medical student with little income now but substantial increases expected in the future will prefer tax financing.⁷¹ Equivalency does not hold on this ground given that the time-stream of income is susceptible to individual responses to government policy. Buchanan argued that Ricardian equivalence mistakenly assumes only one type of taxpayer response to debt issue – saving more so as to be able to pay for the increased later tax liability. Nevertheless, on an individual level, assuming the usual income tax structure, taxpayers have an incentive to increase their income now and decrease their saving so as to pay less in the income tax later.⁷² Therefore, Buchanan argued, the individual very well may seek to shift income from future to the present. Ricardian equivalence is not a clearly commanding explanation of human behavior, and, as such, stands or falls on the empirical evidence, which Buchanan already critiqued directly.

Buchanan continued in this article by tying his arguments against Barro and Ricardian equivalence into his original public debt arguments.⁷³ He also critiques Barro's claim to have developed a "theory of public debt" as "a contradiction in terms if debt and taxes were identical."⁷⁴ Ultimately, Buchanan argued that equivalence fails because "Debt issue will tend to discourage savings and capital accumulation relative to that which would be generated under tax financing of the same public expenditures."⁷⁵ As a result, Ricardian equivalence is untenable and acts as a cautionary tale to economists "prone to advance hypotheses prematurely."⁷⁶

With his next critique, Buchanan and his co-author, Jennifer Roback, went even further, specifically addressing Barro's 1974 paper and seeking to rebut his work specifically and not just Ricardian equivalence generally. It becomes clear in this paper that Buchanan saw the implicit threat in Barro's work and did not simply dislike some of the underlying fundamentals on theoretical grounds. Buchanan writes "from this [Barro's] conclusion, the inference has been drawn that public debt issue, as such, imposes no net costs. As we shall demonstrate, such an inference is incorrect".⁷⁷ Coming in 1987, at over a decade's distance from Barro's original article, Buchanan's continued focus on it likely demonstrated a shifting of opinion in the field in favor of Barro.

Buchanan attempted to reverse this trend by arguing that Barro's Neutrality Theorem goes further than Ricardian Equivalence regarding the former's contention that debt issue has

⁷¹ Ibid, 396.

⁷² Ibid, 396.

⁷³ "the old Keynesian distinction between internal and external debt is not relevant here (as all parties to the debate agree)", Ibid, 398.

⁷⁴ Ibid, 402.

⁷⁵ Ibid, 406.

⁷⁶ Ibid, 407.

⁷⁷ James Buchanan, *The Collected Works of James Buchanan, Vol. 14, Debt and Taxes*, "The Incidence and Effects of Public Debt in the Absence of Fiscal Illusion," (Liberty Fund Inc., Indianapolis: IN, 1999), 408.

no effect on rates of consumption and saving.⁷⁸ This assumes that each individual's budget constraint remains identical under neutral, debt financing, and tax financing scenarios, yielding precisely balanced tax and debt liabilities for individuals. This full neutrality can only result if the actual transfers are "allocated so as to balance precisely their correctly assessed shares in the present value of the debt-induced liability."⁷⁹ Given this necessity, Buchanan argued that the debt-funded cash transfers in the present may not correspond exactly to the debt-induced tax liabilities in the future. In this case, the exact offsetting of the effects on consumption of the government operation will be unlikely. Further, if the government uses the present finances to provide public goods and services, Buchanan found it likely that the citizens will consider themselves better off or worse off, contrary to Barro's neutrality theorem.⁸⁰ Finally, the effects on consumption and saving from consumer perceptions of the government debt operation cannot be predicted without knowledge of each individual's intertemporal utility function.⁸¹

Nevertheless, despite his clear disagreements with Barro, Buchanan explicitly recognized their similar goal in critiquing the Keynesian macroeconomic perspective on public finance.⁸² Still, as pointed out above, Buchanan saw harmful conclusions that could be drawn for his own contributions to public finance if Barro's presuppositions were widely held. Buchanan wrote "Our analysis concentrates on the implications" of Barro's assumptions.⁸³ Therefore, in this article, Buchanan returns to the fundamentals of his earlier arguments, even citing *Public Principles of Public Debt* directly. This allowed him to establish a basic motivation for debt issue: "As borrowers, individuals are, in effect, drawing down the capital values of their expected income streams in exchange for enhanced levels of spending in the current period."⁸⁴ However, if Barro's premises hold true and citizens are indifferent between debt and tax finance, "there is no clear motivation for borrowing."⁸⁵ This would indicate a clear theoretical flaw in Barro's work, given the extensive public borrowing that does occur.

Therefore, Buchanan sought to explain government borrowing in terms specifically related to Barro's model. He wrote, "an increase in the national debt while holding private bequests constant is an exact substitute for a direct decrease in private bequests."⁸⁶ Barro's neutrality can hold if all individuals and family units seek to leave bequests to their descendants. However, Buchanan developed a more realistic framework which includes Ants – individuals whose utility equilibrium includes positive bequests to heirs – and Grasshoppers – individuals whose utility equilibrium includes no such bequests.

⁷⁸ Ibid, p. 409-410.

⁷⁹ Ibid, 412.

⁸⁰ Ibid, 412.

⁸¹ Ibid, 413.

⁸² "Hence, we have no quarrel with Barro's basic result, within the stylized distributional assumption of his model." Ibid, 414.

⁸³ Ibid, 414.

⁸⁴ Ibid, 415.

⁸⁵ Ibid, 415.

⁸⁶ Ibid, 415.

Grasshoppers will receive benefits from the present spending funded by government debt issue. Yet, they will refrain from issuing any bequests to heirs, preventing equivalence or neutrality from occurring. Thus, “public borrowing brings the possibility of making negatively valued bequests within the feasibility set, an alternative that is not readily available to people in their private economizing capacities.”⁸⁷ Barro’s results cannot hold, according to Buchanan, unless all benefits from lower present taxes and higher current government goods or services accrue to Ants.

Buchanan moves to consider several specific scenarios of cost and benefit incidence for the Ant and Grasshopper model, but the overarching point is that a mathematical analysis of utility in an overlapping generations model does not accurately or completely map human responses to debt issue possibilities. Thus, Barro’s neutrality theorem does not provide a motivation for the issuance of debt in a situation of Ricardian equivalence, but, rather, a more accurate understanding of the different individual responses to debt issue reveals the importance of individuals who may desire negative bequests. Further, if the Ants who do experience utility gains from positive bequests are faced with a political choice between debt or tax finance, they may be indifferent as Barro proposes. This means that the Grasshoppers have the only clear incentive for political action in this field, presenting them with a path to political dominance as an interest group.⁸⁸ Thus, “even in a situation where a large proportion of persons may prefer to leave positively-valued bequests to their heirs, the implied opposition to debt financing may be overwhelmed” because of “the influence of interest groups over and beyond the interaction of voters”.⁸⁹ Buchanan showed that the behavior of individuals according to Barro’s model and expectations mitigates the impact of debt finance, but it is improper to assume that all individuals will uniformly conform to those assumptions.

Buchanan Further Develops His Model – Public Choice

This demonstrates Buchanan’s increasing integration of public choice theory into his public debt articulation. Rather than responding to the equations that Barro presents, Buchanan presents a different model that focuses on the motives of government action, the role of individual and collective incentives, and the political process. In the later stages of the debate over public debt, this use of public choice became increasingly prominent in Buchanan’s writings relevant to broader questions of public debt than his contention with Barro alone.

Public Choice economics is very evident in one of Buchanan’s book-length works from this period, *Democracy in Deficit: The Political Legacy of Lord Keynes*. While he touched on several general critiques of Keynesian political economy, the title reveals Buchanan’s continuing mental focus on issues of public finance, as does the work’s contents. Indeed, he begins his critique of Keynes by quoting C.F. Bastable, a classical economist whose work

⁸⁷ Ibid, 417.

⁸⁸ Ibid, 425.

⁸⁹ Ibid, 425.

was cited in *Public Principles of Public Debt*. In this work, however, Buchanan relies on Bastable to elaborate the basic Smithian principle that expenditure and revenue should be analytically tied to prevent public profligacy.⁹⁰ While he still noted that debt shifts financial burden to future taxpayers, Buchanan also argued that deficit finance is unwise because it violates a fundamental decision rule: simultaneously presenting costs and benefits to the decision-maker.⁹¹ The technical arguments of Buchanan's earlier debate positions have been enriched by his integration of public choice to better understand and lay out the incentives facing voters and politicians in a democratic society.

When he moves to an explicit consideration of the issues of public debt, Buchanan begins his argument by summarizing and citing his arguments from *Public Principles of Public Debt*, which he continued to integrate throughout the rest of the book.⁹² Nevertheless, his original argument, that the analogy between public and private debt is fundamentally sound, significantly expands in *Democracy in Deficit* with a basic point: "A decision to 'purchase' these benefits [of government expenditure through debt finance] is presumably made through the political rules and institutions in being."⁹³ While this may appear simple in light of later public choice developments, it shifts the mode of analysis from the technical economics of debt to the different mechanics of the polity facing the present voting citizen who gains from debt finance. This demonstrates a clear contrast between public and private debt, which Buchanan unfolds as follows:

If an individual borrows, he incurs a personal liability. The creditor holds a claim...and the borrower cannot readily shift his liability to others...Compare this with the situation of an individual who is a citizen in a political community whose governmental units borrow to finance current outlay. At the time of the borrowing decision, the individual is not assigned a specific and determinate share of the fiscal liability that the public debt represents. He may, of course, sense that some such liability exists for the whole community, but there is no identifiable claim created against his privately owned assets. ... Because of this difference in the specification and identification of liability in private and public debt, we should predict that persons will be somewhat less prudent in issuing the latter than the former.⁹⁴

This comparison of public and private decision incentives is only the first of many key insights in public finance which Buchanan developed through public choice analysis. He calls another the "allocative bias."⁹⁵ This is basically the argument that "taxation and debt

⁹⁰ James Buchanan and Richard Wagner, *Democracy in Deficit: The Political Legacy of Lord Keynes*, (Liberty Fund, Inc., Indianapolis: IN, 2000), 11-12.

⁹¹ *Ibid*, 12.

⁹² *Ibid*, 16.

⁹³ *Ibid*, 17-18.

⁹⁴ *Ibid*, 19.

⁹⁵ *Ibid*, 101.

finance exert differing effect on observed political outcomes.”⁹⁶ Thus, under a regime of debt finance, individuals will tend to “purchase” more public goods and services through borrowing than they would through taxation. Further, Buchanan also notes an inflationary bias – individuals will borrow a higher percentage for government revenue than is optimal.⁹⁷ Buchanan’s public choice insights are not limited to comparisons of different methods of public finance but extend to the likely impact of changing political institutions on those methods. Thus, “Changes in tax institutions, for instance, will normally change the tax shares and tax prices assigned to different persons. This, in turn, will alter individual responses to particular budgetary patterns.”⁹⁸ The critique of Keynesian theory that the public choice analysis allows is powerful:

The direct effects of budget deficits are sensed only in terms of personal gains. The creation or increase of a deficit involves a reduction in real tax rates, an increase in real rates of public spending, or some combination of the two. In any event, there are direct and immediate gainers, and no losers, regardless of whether the economy suffers from Keynesian unemployment.⁹⁹

Not only does public choice strengthen and diversify Buchanan’s attacks on Keynesianism, it also provides a platform for further rejection of Ricardian equivalence. He argues first that the theorem embodies unrealistic knowledge expectations for its citizens. This does not address equivalence on technical grounds but rather the basis for decision by the relevant agents. Buchanan addresses incentives more directly as well, arguing that the taxpayer may not and need not consider long-run consequences of behavior.¹⁰⁰ In the long run, the taxpayer will have perished, receiving the benefits of the investment, hopefully without having to pay for it all. While the taxpayer may certainly consider the future costs for his descendants as taxpayers, he is not required to have enough virtue to do so. Because debt issue transfers burdens to the future, it “creates incentives for increased public spending” for which Ricardian equivalence fails to account.¹⁰¹

Another example of Buchanan’s use of public choice in the realm of public debt comes in his 1986 article “Public Debt and Capital Formation.” The public choice framework is clearly implanted throughout the article, such as when Buchanan simply states, “There is no difference between individual, firm, agency, or public borrowing.”¹⁰² Thus, Buchanan is able to move to the argument that government’s failure to use debt finance to fund long-term investments is analogous to individual borrowing for the purpose of consumption. In this case, “Debt issue becomes equivalent to the ‘eating up’ of capital value, pure and

⁹⁶ Ibid, 101.

⁹⁷ Ibid, 101.

⁹⁸ Ibid, 99.

⁹⁹ Ibid, 105.

¹⁰⁰ Ibid, 145.

¹⁰¹ Ibid, 145.

¹⁰² James Buchanan, *The Collected Works of James Buchanan, Vol. 14, Debt and Taxes*, “Public Debt and Capital Formation,” (Liberty Fund Inc., Indianapolis: IN, 1999), 368.

simple.¹⁰³ Even the counter-argument that government spending is not, in the period of incidence, necessarily wasteful, is answered by resorting to an analogy to the drunken spree of an individual who saw the benefits in the moment as worthwhile, but must still objectively face the burden of his actions in the future term.¹⁰⁴ The government officials who weigh costs and benefits in setting policy might not appreciate the comparison, but Buchanan is applying the same economic motivations to them as an economist would to individual behavior in the marketplace, which is the core of public choice.

Buchanan does not merely refer to the politicians' "natural proclivities to spend without taxing," but also relies upon constitutional remedies rather than advocating recourse to more efficient policy. The chapter, published in the year Buchanan won the Nobel Prize, demonstrates the peak of his public choice analysis uniquely applied to the field of public debt when most of his opponents, contemporary and historical, focus solely on macroeconomic theory. This is not to say that Buchanan moved away from his initial theoretical contributions to public debt in *Public Principles of Public Debt*. On the contrary, this chapter contains substantial critiques of Keynesian economics, considers the analogy between private and public debt legitimate, and presents debt as leading to a future burden.¹⁰⁵ By the late 1980's however, Buchanan's view of public finance in the specific area of debt issue had become methodologically and theoretically diverse, marking his contributions as stronger than his opponents. The Nobel Prize for Economics in 1986 brought the recognition of the field that this was the case.

The Modern Turn Away from Buchanan

Nevertheless, only a few years after Buchanan's completed exposition in the public debt debate, he received little deference from economists in the public choice tradition. The success of Buchanan's ideas had generated a school that followed in his footsteps and found his arguments wanting. One of his former graduate students saw Buchanan's work as in need of "a rational reconstruction."¹⁰⁶ A similarly oriented article came from Karen Vaughn and Richard Wagner in 1992. There, they argue that the earlier debate "is more a matter of analytical incompleteness than an expression of underlying analytical antagonisms. All sides to this controversy represent different incomplete descriptions of the same analytical elephant, so to speak, and do not represent conflicting portraits of three different animals."¹⁰⁷ When even economists from George Mason argue that Buchanan was only correct in "a sense," just as Barro and the Keynesian Lerner were, Buchanan's arguments have fallen out of favor.¹⁰⁸ The article in question criticizes Buchanan for over-aggregation in reference to generations, arguing that his distinctions are too sharp between one

¹⁰³ Ibid, 368.

¹⁰⁴ Ibid, 370.

¹⁰⁵ Ibid, 372-374.

¹⁰⁶ R.E. Wagner, "James Buchanan's public debt theory: a rational reconstruction," *Constitutional Political Economy*, (2014) 25: 253. <https://doi.org/10.1007/s10602-014-9161-3>

¹⁰⁷ Karen I. Vaughn and Richard E. Wagner, "Public Debt Controversies: An Essay in Reconciliation," *Kyklos* 45, no. 1, (1992), 38.

¹⁰⁸ Ibid, 38.

generation and the next, just as Lerner and Barro over-aggregate by ignoring individuals and focusing on national accounting.

In this presentation, Buchanan's work began to be considered one thought among many equally valid ideas contributed over a long history of the debate over public debt. His unique integration of Public Choice became less visible as a result of the attempt to synthesize and modernize more technical questions associated with public debt theory. Indeed, the authors of this particular article ultimately take positions that are at odds with Buchanan's fundamental arguments. They state "'we must owe debt to 'ourselves' and that Ricardian equivalence must hold.'"¹⁰⁹ While their article's title suggests a focus on reconciliation among the three schools of Barro, Buchanan, and Lerner-Keynes, their conclusion's acceptance of the presuppositions of only two groups suggests a severe disadvantage for Buchanan in their presentation. The article's unique contribution, using a model of the political process to suggest that debt finance amounts to transfers among present taxpayers according to their intergenerational altruism, seems closest to Buchanan in its orientation for policy. Nevertheless, as the authors' focused on the fundamentals of the debt debate and their conclusion favored the other schools and used Barro's model explicitly, this would signal a turn toward such modeling and fundamentals in the field as a whole.

Analysis of Current Literature

The pro-Barro modelling of the article by Vaughn and Wagner effectively foreshadowed what is seen in the field of public debt analysis today, which a review of a sample of modern articles in this field will suggest. The use of Barro's assumptions and modelling principles predominates, generating a focus on mathematics rather than human behavior. The conclusions vary, but the work resembles the Keynesian and Ricardian approaches far more than it does Buchanan's *Public Principles of Public Debt*. One example of such an article is "Impact of Public Debt on Economic Growth: Evidence from Indian States." The paper begins with an evident grounding in the generally Keynesian ideas that Buchanan critiqued, citing Paul Krugman and dividing debt categorically into the external and internal categories that the new orthodoxy of Buchanan's day emphasized.¹¹⁰ But, perhaps more importantly, the overall assessment of the literature as to the various schools, hypotheses, and conclusions formulated regarding the theoretical framework of public debt is inconclusive.¹¹¹ The authors do not find a particular viewpoint determinative for their own work.

The theoretical framework that Dr. Mohanty and Dr. Mishra do provide contains a restatement of the Keynesian perspective and the Ricardian Equivalence ideas of the Classical School, represented primarily by Barro. Completing this background, the paper

¹⁰⁹ Ibid, 46.

¹¹⁰ Asit Ranjan Mohanty, Bibhuti Ranjan Mishra, "Impact of Public Debt on Economic Growth: Evidence from Indian States," Vilakshan, *XIMB Journal of Management*, Vol.13 (2), (September, 2016), 1-2.

¹¹¹ Ibid, 1-2.

commences with a series of equations and procedures that culminate in a conclusion: “at State level, expansionary debt policy will be helpful for the economy in generating higher economic growth.”¹¹² As a result, the authors argue that the legislation limiting the ability of Indian states to issue debt should be reconsidered, precisely the opposite of Buchanan’s constitutional conclusion as a result of his work in public finance. The long-term consequences of such a change are considered only relative to economic growth and not to the alterations in the constitutional structure, individual behavior, and political outcomes that may result. In this paper, then, Buchanan’s thought is absent and his arguments are reversed. Given the ascendancy of his contributions to public finance only 30 years before, such an outcome should be considered a significant shift rooted in the public finance articles of the 1990’s, which evened the playing field between the various theories that competed for dominance in previous decades.

“Is Public Debt a Burden for India?” is another article that examines the impact of public debt. While these authors do consider the possibility that public debt may constitute a burden for a given public entity, they cite Franco Modigliani’s work rather than Buchanan’s.¹¹³ Further, Barro’s overlapping generations model is referenced in the context of Ricardian Equivalence with the suggestion that public debt may not be a burden for the economy. The Keynesian orthodoxy, associated with the work of Abba Lerner in this as in other papers, is expounded to the possible conclusion that public debt and future interest payments impose no economic burden.¹¹⁴ The authors directly reference Barro’s work as to the significance of Ricardian equivalence in understanding the neutral impact of public debt on the economy.¹¹⁵ Once again, though, the overall presentation of the competing theories is one of ambivalence. The major historical ideas in the field of public finance are footnotes to modern mathematical inquiry and are not authoritative analyses that command a response, either of deference or rejection.

The paper continues with a sophisticated application of mathematical techniques to the data in question. The relationships between public debt, interest payments, the gross primary deficit, development expenditure, and more were all examined, with the ultimate conclusion that “public debt is not a burden for India.”¹¹⁶ This paper is much more limited in the scope of its arguments regarding policy, noting only that “a better debt management framework” than India presently has could be beneficial to the nation’s economic growth.¹¹⁷ Nevertheless, this implies a criticism of the Indian Fiscal Responsibility Management Act, which currently stands in that country to limit the issue of debt, as Buchanan would have hoped for in the United States. Thus, his work is again ignored and his conclusions disputed in a recent article on public debt.

¹¹² Ibid, 15

¹¹³ Debi Prasad Bal and Badri Narayan Rath, “Is Public Debt a Burden for India?”, *Economic Society of Australia*, ECONOMIC PAPERS, VOL. 35, NO. 2, JUNE 2016, 184.

¹¹⁴ Ibid, 186.

¹¹⁵ Ibid, 186.

¹¹⁶ Ibid, 199.

¹¹⁷ Ibid, 199.

Another article that touches on the public debt is “That Squeezing Feeling: The Interest Burden and Public Debt Stabilization” by Xavier Debrun and Tidiane Kinda. Unlike the two previous articles, which were more concerned with economic growth, this one focuses on questions of governance and institutional responses regarding public finance. Indeed, the authors’ willingness to consider the business of government in light of particular actors making economic choices is clear from the introduction.¹¹⁸ This suggests a resemblance to Buchanan’s public choice integration in the field, even if only in the broadest terms. The article concludes that “a 100 basis-point increase in the effective interest rate leads to an average improvement in the primary balance of about 0.1% of GDP” for advanced economies.¹¹⁹ Further, governments with advanced and emerging economies respond differently to high interest payments, as the former have a threshold of 12% of government revenue which prompts debt stabilization, while in the latter, 26% is the threshold.¹²⁰ However, the applications of the data lead to political conclusions reminiscent of Buchanan:

[B]ecause rising interest payments appear to encourage fiscal prudence only when the crowding-out of socially useful public outlays is large enough, protracted periods of low interest rates could feed complacency in the face of already high debt levels. Specifically, economies whose central bank is stuck at the zero-lower bound – or actively engaged in quantitative easing – are more likely than not to continue navigating into high public debt territory for the foreseeable future. Reduced incentives to bring down public debt also cast doubts on the credibility of any political commitment to do so. This puts a premium on backing such commitments with formal fiscal frameworks aimed at enhancing discipline through fiscal policy rules or greater transparency.¹²¹

The authors’ focus on mathematics does not isolate them from the very real behavioral and institutional implications of their research. This paper therefore demonstrates that the field of public finance is not entirely lacking attempts to understand the political process, constitutional structures, and individual incentives that shape public debt policy. However, it does not necessarily provide evidence that Buchanan’s contributions are still recognized and integrated. It is perhaps more worrisome that this paper did not include any citations of Buchanan than that the other articles lacked such a mention. The latter were not necessarily focused in applications of public debt where Buchanan was primarily concerned, while here the main considerations are the future, public actors, and the debt as

¹¹⁸ Xavier Debrun and Tidiane Kinda, “That Squeezing Feeling: The Interest Burden and Public Debt Stabilization,” *International Finance* 19:2, (2016) 148. “Like all aspects of fiscal policy, however, governments view that trade-off in light of objectives other than just stabilizing short term growth, including the provision of a stable stream of public goods and services over time. These objectives motivate the quote reported above: debt service diverts taxpayers’ money from items governments consider useful, and because any new debt issued to fund present primary spending ultimately curtails future fiscal space, there is a limit to the annual debt burden a politician is willing to tolerate.”

¹¹⁹ *Ibid*, 162.

¹²⁰ *Ibid*, 171-172.

¹²¹ *Ibid*, 172.

burdensome. While Buchanan's ideas may therefore be supported by this paper as independently recognized and evidenced, it is problematic that his foundational contributions to work such as this are not applied to a significant degree in the recent context.

Another paper on the public debt is "The Behavior of U.S. Public Debt and Deficits," by Henning Bohn.¹²² While this article was written in 1998, it has been foundational to a number of the papers already mentioned.¹²³ Like the previous work on government responsiveness to interest rates, Bohn was primarily concerned with government responses in light of particular public finance dynamics.¹²⁴ As noted above, this is similar to Buchanan's work. Nevertheless, like many of the recent articles that deal with public debt, Bohn accepts the framework that Robert Barro established depending on Ricardian Equivalence.¹²⁵ As a result of these different presuppositions, Bohn is led away from Buchanan's concern with the difficulty of controlling a government that continually resorts to additional debt issue. Bohn writes, "Given the estimated positive response of primary surpluses to the debt-GDP ratio, the government budget identity implies that the debt-GDP ratio should be mean-reverting."¹²⁶ Thus, "U. S. fiscal policy has historically been sustainable despite extended periods of primary deficits."¹²⁷

Unfortunately, Bohn does not even feature a review of the theoretical assumptions that most later, similarly-patterned papers do. Now it must be noted that utilizing a sophisticated model such as Barro's or Bohn's because of its accuracy in reflecting and clarifying the relationships it measures is perfectly acceptable. If the overlapping generations assumption is accurate, then applying it is proper. But the accuracy of the assumption cannot be sufficiently established in a model where the assumption is taken as a given. Therefore, Buchanan was always focused on establishing the accuracy of the assumptions used by various schools. Bohn's unwillingness to consider Barro's model beyond its ability to correlate particular phenomena is improper in this light, and a departure from Buchanan's work in public finance.

¹²² Henning Bohn, "The Behavior of U.S. Public Debt and Deficits," *The Quarterly Journal of Economics*, August 1998, 949.

¹²³ Xavier Debrun and Tidiane Kinda, "That Squeezing Feeling: The Interest Burden and Public Debt Stabilization," *International Finance* 19:2, (2016) 148 and Debi Prasad Bal and Badri Narayan Rath, "Is Public Debt a Burden for India?", *Economic Society of Australia*, ECONOMIC PAPERS, VOL. 35, NO. 2, JUNE 2016, 184.

¹²⁴ Henning Bohn, "The Behavior of U.S. Public Debt and Deficits," *The Quarterly Journal of Economics*, August 1998, 949. "How do governments react to the accumulation of debt? Do they take corrective measures when the debt-GDP ratio starts rising, or do they let the debt grow?"

¹²⁵ Ibid, 950-951. "A univariate regression of primary surpluses on debt would fail to find a significant correlation between the two. But a more fully articulated equation for primary surpluses motivated by Barro's [1979] tax-smoothing model shows a significant conditional impact of debt on primary surpluses." "Because of the potential omitted variables problems, the empirical analysis is based on an explicit theoretical model of fiscal policy, Barro's [1979] tax-smoothing model."

¹²⁶ Ibid, 950.

¹²⁷ Ibid, 950. Bohn does note that "This has been controversial."

Nevertheless, Bohn does not rely on Barro's model to exclusion, so his paper cannot be considered a direct outgrowth of the latter's work.¹²⁸ His paper does note that U.S. fiscal policy since 1980 demonstrates a consistent, if not statistically significant, departure from previous, expected patterns.¹²⁹ This could be a result of changing views of governmental actors as policy impacts political incentives. Maintaining deficits over a long period of time may make the public and their representatives comfortable with debt, weakening the necessity of deficit reduction. However, Bohn does not accept this possibility, noting:

"frequent primary budget deficits do not provide convincing evidence against sustainability, because at low interest rates, a variety of sustainable policies will display primary deficits on average and potentially for long periods."¹³⁰ In Bohn's paper, and the articles that rely on it, Buchanan's methods are set aside, and his conclusions are therefore less likely to be confirmed. This trend is revealed in the modern literature on public debt. Despite the trend away from the work of James Buchanan in journal articles, a textbook analysis sends a somewhat mitigating signal. The book *Economics of the Public Sector* is an instructive example as its primary author is Dr. Joseph Stiglitz, an economist in the New Keynesian tradition who has done significant work on market failure. Interestingly, when Stiglitz discusses the burden of the public debt, he begins with some of the basic arguments made by Buchanan. For example, "By borrowing, the government places the burden of reduced consumption on future generations."¹³¹ This is a straightforward statement of Buchanan's basic argument in *Public Principles of Public Debt*, which indicates that even members of schools opposed to Buchanan's theory have accepted or conceded to this element of his thought.

However, when moving to different parts of the discussion of public debt that Buchanan developed, Stiglitz does not always align with his fellow Nobel prize-winner. For instance, Stiglitz discusses the Keynesian argument that "debt does not matter because we owe it to ourselves," but does not make use of Buchanan's discussion.¹³² Stiglitz refutes the Keynesian argument, but on grounds that the original Keynesians would have accepted, when he states "we do not, in fact, owe the money to ourselves. The United States is borrowing abroad and becoming indebted to foreigners."¹³³ Buchanan uses methodological individualism to differentiate bondholders and taxpayers to make an analysis that suggests debt issues is always a burden, while Stiglitz relies on the tenet of the new orthodoxy that differentiates internal and external debt which Buchanan also attacked.

¹²⁸ Ibid, 957. "The main difference between Table II and Barro's and Kremers' specification is that both Barro and Kremers use (scaled) changes in nominal government debt as the dependent variable and add a proxy for expected inflation as regressor. This suggests that their inability to find mean reversion is due to problems associated with estimating inflation. All the data in regressions 3 and 4 are taken directly from Barro [1986a] so that data differences cannot explain the different results."

¹²⁹ Ibid, 959.

¹³⁰ Ibid, 960.

¹³¹ Joseph E. Stiglitz, Jay K. Rosengard, *The Economics of the Public Sector*, (W.W. Norton and Company, New York: NY, 2015), 869.

¹³² Ibid, 870.

¹³³ Ibid, 870.

Stiglitz also discusses the Ricardian Equivalence arguments made by Robert J. Barro, rejecting them without incorporating Buchanan's critiques. As Stiglitz notes,

The evidence does not support Barro's theoretical contention. ...Statistical evidence from a variety of countries confirms the experience in the United States that private savings does not fully offset government borrowing. This is not surprising: individuals are not as rational as Barro assumes (fully taking into account public liabilities in current decision making), nor as altruistic (setting aside an additional dollar of bequests for their heirs every time public indebtedness increases by a dollar).¹³⁴

This refutation of Barro is certainly legitimate, but it does not reflect the influence of Buchanan, whose arguments, as noted above, often attempted to refute Barro's model on theoretical grounds. Stiglitz simply does not go that far.

Finally, Stiglitz critiques the idea of a balanced budget amendment, which Buchanan promoted. The former argues that a balanced budget amendment would "take away one of the main tools of economic stabilization. It would make it more difficult to maintain the economy at full employment, putting almost all the responsibility on monetary policy."¹³⁵ Thus, Stiglitz leaves aside the constitutional economics that Buchanan emphasized, which is only natural for a member of a different economic school. Overall, then, Buchanan's basic argument about the burden of public debt is presented directly, but the assumptions behind it and the corresponding commitments are not maintained. This suggests that Buchanan's fundamental contributions to public debt theory are recognized, if perhaps overlooked by more technical articles, even though his overall approach remains one of many in the field of public finance.

There are some articles in the recent literature that are more favorable to Buchanan's view of public debt. One example is "Living on Borrowed Time: The Trouble with Public Debt." Dr. Vito Tanzi argues that, in the past, debt would have been considered legitimate under certain extreme circumstances, but that recent economics has lost sight of the fact that some public debt is not productive. On Tanzi's view, debt is acceptable when, "(a) fighting legitimate wars; (b) dealing with the consequences of great natural disasters; and, in recent times, (c) public borrowing during severe recessions" but it is not "a miracle cure."¹³⁶ Further, significant, ongoing public debt is susceptible to corruption, as Tanzi gives Greece, Brazil, and Italy as examples.¹³⁷

Also, Tanzi does not see public finance theory as neutral. Neo-Keynesianism is harmful in that it creates arguments for debt spending in recession that are overwrought, promising

¹³⁴ Ibid, 872.

¹³⁵ Ibid, 875.

¹³⁶ Vito Tanzi, "Living on Borrowed Time: The Trouble with Public Debt," *Policy*, Vol. 33, No. 1 (Autumn 2017), 3.

¹³⁷ Ibid, 3

greater growth than makes sense on orthodox economic lines.¹³⁸ Tanzi further argues that intentional misperception of economic conditions can lead to continual debt financing, while Keynes himself saw debt financing as limited to times of severe recession to be offset during periods of growth.¹³⁹ Trends in public finance are dangerous as a result of poor theoretical assumptions, according to Tanzi.¹⁴⁰ These critiques are similar to those of Buchanan in that they focus on the significance of theoretical frameworks and the incentives of political actors. Indeed, Tanzi cites Buchanan and Paul Leroy Beaulieu whose work was fundamental to Buchanan's own foray *Public Principles of Public Debt*.¹⁴¹ Another current author whose work is more aligned with Buchanan is Alberto Alesina. In one article, Alesina begins by stating "Fiscal policy is the area of macroeconomic policy most directly intertwined with politics."¹⁴² This is certainly reminiscent of Buchanan's approach and is a strong contrast with other current authors tacking away from including political context in public finance analysis. Like many other recent papers, Barro's model of debt issue is of significant importance to Alesina, but, rather than taking it for granted, his paper seeks to examine whether or not the evidence of debt issue aligns with the model.¹⁴³ Given that the data seems to align only imperfectly with previous models, Alesina moves to consider different institutional contexts, arguments, and models which may provide an explanation. The lengthy discussion on balanced budget rules and other forms of budget institutions flows similarly to Buchanan's argumentation, although not drawing on it directly in most cases. However, when considering questions of "fiscal illusion" and the "origin of excessive deficit" that Alesina's models find, he directly references Buchanan, often with remarks to the foundational influence of his work.¹⁴⁴ This application of Buchanan, rather than assuming the models generated by competing theorists, is a strong contribution to the present public finance debate since 2008.

A final economist who has completed significant current work on public debt is Laurence Kotlikoff. Much of his work has been focused on developing an understanding of the consequences of the public debt, either in using more appropriate concepts such as the fiscal gap, or in modeling the long-run consequences to fiscal irresponsibility. At the heart of this approach lies the idea of generational accounting, which, "examines the impact that

¹³⁸ Ibid, 5. "As a result of the new theories, some research in the fiscal area has become more creative and less intuitive or convincing to those who do not share the same paradigm. Paul Krugman,¹² and to a more guarded extent Larry Summers and some others, have argued that traditional or orthodox economic rules no longer apply when economies are 'deeply depressed' and when 'liquidity traps' are present. Some empirical studies have generated results that orthodox economists find highly questionable and hard to accept. The latter have had increasing difficulties in understanding the channels and mechanisms that can create the huge multipliers and claimed large growth outcomes."

¹³⁹ Ibid, 5.

¹⁴⁰ Ibid, 6.

¹⁴¹ Ibid, 8.

¹⁴² Alberto Alesina and Andrea Passalacqua, "The Political Economy of Public Debt," in preparation for *The Handbook of Macroeconomics*, First Draft, (March 2015), 1.

¹⁴³ Ibid, 3-5.

¹⁴⁴ Ibid, 3, 11.

achieving fiscal sustainability has on particular generations.”¹⁴⁵ This very approach owes much to Buchanan’s refutation of Keynesian thought. If the future impact of debt operations is considered merely in terms of internal transfers which have no aggregated national impact then future generations are irrelevant to the public debt discussion. Kotlikoff, however, pursues studies of whether government debt issue creates productive assets or “an added burden that current and future generations must bear.”¹⁴⁶ This interest in burden is directly aligned with Buchanan’s initial focus in *Public Principles of Public Debt*, and Kotlikoff’s work thereby represents, to some extent, an extension of Buchanan’s thought into the current period. Kotlikoff has certainly adapted some of the modern techniques such as an overlapping generations model, a form which Robert Barro also utilized.¹⁴⁷ This allows Kotlikoff to avoid some of the criticisms of Buchanan, noted above, for excessive aggregation in his divided generations model. However, like Buchanan and in contrast to Barro, Kotlikoff sees institutional action as one way of addressing the challenges of current incentivization toward public profligacy.¹⁴⁸ Thus, Dr. Kotlikoff represents an influential current practitioner in the field of public finance whose mode of analysis and conclusions both resemble those of James Buchanan.

Conclusion

James Buchanan’s work on the public debt made major contributions to the field of public finance generally and enlivened heated debates about the appropriate theoretical approach and the most accurate empirical arguments. His arguments in *Public Principles of the Public Debt* led to a shift in the majority opinion among economists in some areas, particularly regarding the incidence of the debt’s burden on future taxpayers. Nevertheless, other elements of his work, such as the rejection of a categorical difference between internal and external debt, or the continual critiques of Ricardian equivalence, have not been widely incorporated into the economic literature. Current articles often depend on these very assumptions that Buchanan rejected. A revived understanding of Buchanan’s public finance work on public debt in particular will be valuable for precise study along those lines moving forward.

The current economic realities provide a wealth of opportunity for examining theories of public debt as the global economy and advances in information technology allow for more interconnected and deeper research more than ever before. Yet, economists must avoid the tendency to assume that all assumptions are neutral until associated with data. Without the correct assumptions, datasets may be extremely liable to misinterpretation. Therefore, a renewed engagement in the dialogue over an accurate framework for understanding the

¹⁴⁵ Laurence Kotlikoff, “Assessing Fiscal Sustainability,” Mercatus Center, December 12, 2013, 5.

¹⁴⁶ Ibid, 5.

¹⁴⁷ It should be noted that the formal similarity between Barro and Kotlikoff in modeling does not lead to particularly similar conclusions due to the different assumptions used.

¹⁴⁸ Ibid, 21. Kotlikoff supports the Inform Act as a way to promote accountability, much as Buchanan backed a balanced budget amendment, although the constitutional significance of each is different. Nevertheless, as noted earlier, Barro found any restrictions on government action a possible cause of inefficiency which would be sub-optimal.

entirety of public finance would be beneficial. Few of such all-encompassing frameworks exist, and Buchanan's exposition of a relevant alternatives, burden-incidence, public choice-integrating infrastructure must be considered a strong one. Increasing the applications of public choice to public finance decision-making only enhances the attractiveness of Buchanan's model. Thus, work along this line can aid not only the knowledge of particular problems in the field, but also encourage the move toward effective, systematic understandings of public finance phenomena.

Works Cited

- A.C. Pigou, *A Study in Public Finance*, (3d ed. London: England, 1949).
- Alberto Alesina and Andrea Passalacqua, "The Political Economy of Public Debt," in preparation for *The Handbook of Macroeconomics*, First Draft, (March 2015).
- Alvin H. Hansen, *Fiscal Policy and Business Cycles*, (New York: NY, 1941).
- Ansel Sharp, "A General Theory of Public Debt," *The American Journal of Economics and Sociology* 19, no. 1, 99-111, (Oct., 1959).
- Asit Ranjan Mohanty and Bibhuti Ranjan Mishra, "Impact of Public Debt on Economic Growth: Evidence from Indian States," Vilakshan, *XIMB Journal of Management*, Vol.13 (2), 1-21, (September, 2016).
- Earl Rolph, review of *Public Principles of Public Debt*, by James Buchanan, in *American Economic Review* 49, no. 1, 183-185, (1959).
- E.J. Mishan, "How to Make a Burden of the Public Debt," *The Journal of Political Economy* LXXI, no. 6, 529-542, (Dec. 1963).
- Debi Prasad Bal and Badri Narayan Rath, "Is Public Debt a Burden for India?," *Economic Society of Australia*, ECONOMIC PAPERS, VOL. 35, NO. 2, 184-201, (JUNE 2016).
- Henning Bohn, "The Behavior of U.S. Public Debt and Deficits," *The Quarterly Journal of Economics*, 949-963, (August 1998).
- James Buchanan and Richard Wagner, *The Collected Works of James Buchanan: Volume 6 - Democracy in Deficit: The Political Legacy of Lord Keynes*, (Liberty Fund, Inc., Indianapolis: IN, 2000).
- James Buchanan, *The Collected Works of James Buchanan: Volume 2 - Public Principles of Public Debt: A Defense and Restatement*, (Liberty Fund Inc., Indianapolis: IN, 1999).
- James Buchanan, "Confessions of a Burden Monger," in *The Collected Works of James Buchanan, Vol. 14, Debt and Taxes*, (Liberty Fund Inc., Indianapolis: IN, 1999).
- James Buchanan, "Public Debt and Capital Formation," in *The Collected Works of James Buchanan, Vol. 14, Debt and Taxes*, (Liberty Fund Inc., Indianapolis: IN, 1999), 368.
- James Buchanan, "The Icons of Public Debt," *The Collected Works of James Buchanan, Vol. 14, Debt and Taxes*, (Liberty Fund Inc., Indianapolis: IN, 1999).

- James Buchanan, "The Incidence and Effects of Public Debt in the Absence of Fiscal Illusion," in *The Collected Works of James Buchanan, Vol. 14, Debt and Taxes*, 408, (Liberty Fund Inc., Indianapolis: IN, 1999).
- James Buchanan, "The Logic of the Ricardian Equivalence Theorem," in *The Collected Works of James Buchanan, Vol. 14, Debt and Taxes*, 392, (Liberty Fund Inc., Indianapolis: IN, 1999).
- James Tobin, "The Burden of the Public Debt: A Review Article," *Journal of Finance* 20, no. 4, 679-682, (Dec., 1965).
- Joseph E. Stiglitz, Jay K. Rosengard, *The Economics of the Public Sector*, (W.W. Norton and Company, New York: NY, 2015), 869.
- Karen I. Vaughn and Richard E. Wagner, "Public Debt Controversies: An Essay in Reconciliation," *Kyklos* 45, no. 1, 37-49, (1992).
- Laurence Kotlikoff, "Assessing Fiscal Sustainability," Mercatus Center, December 12, 2013.
- Mary Sue Garner Staig, review of *Public Principles of Public Debt*, by James Buchanan, *The Southwestern Science Quarterly* 39, no. 3, 266-267, (Dec., 1958).
- R.E. Wagner, "James Buchanan's public debt theory: a rational reconstruction," *Constitutional Political Economy*, 253-264, (2014).
<https://doi.org/10.1007/s10602-014-9161-3>
- Robert J. Barro, "Are Government Bonds Net Wealth?," *Journal of Political Economy* 82, no. 6, 1095-1117, (1974).
- Robert J. Barro, "Federal Deficit Policy and the Effect of Public Debt Shocks," *Journal of Money, Credit, and Banking* 12, no. 4, 747-762, (Nov., 1980).
- Roger Spencer and William Yohe, "The "Crowding Out" of Private Expenditures by Fiscal Policy Actions," *Federal Reserve Bank of St. Louis*, 20-21, (October 1970).
- Vance Alvis, review of *Public Principles of Public Debt: A Defense and Restatement*, by James Buchanan, *Journal of Finance* 14, no. 1 124-126, (Mar., 1959).
- Vito Tanzi, "Living on Borrowed Time: The Trouble with Public Debt," *Policy*, Vol. 33, No. 1, 1-11, (Autumn 2017).
- Xavier Debrun and Tidiane Kinda, "That Squeezing Feeling: The Interest Burden and Public Debt Stabilization," *International Finance* 19:2, 147-178, (2016).