

# Review of: "Necessity of budget deficit in a growing economy where people hold money and leave a bequest"

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The article presents an analysis of the existence of budget deficits in a growing economy where consumers hold money and leave bequests to their descendants. The main argument put forward is that budget deficits are necessary to achieve full employment under constant prices in such an economy. The author uses an overlapping generations model and a Barro-type utility function to support their claims.

The author emphasizes that people save their income primarily through capital but also hold money for reasons such as liquidity. He argues that if people desire to hold money, budget deficits become essential for maintaining full employment. The paper further suggests that if the actual budget deficit is smaller or larger than what is necessary for full employment, it can lead to a recession or inflation, respectively.

The author also discusses the relationship between money production and a budget deficit. He argues that if money circulates with a value greater than its production cost, a budget deficit is necessary. The budget deficit in the model is financed by seigniorage, and a moderate seigniorage is deemed necessary for economic growth, unless money production is costly.

The Barro-type utility function is used in the analysis, primarily known for demonstrating the neutrality of government debt or budget deficits. However, the authors state that their aim is different, as they utilize a similar utility function to prove the essentiality of budget deficits in a growing economy.

The paper assumes that the budget deficit is financed through seigniorage and does not consider government bonds. The introduction of government bonds would add complexity to the analysis, although they acknowledge that government bonds could be considered somewhere between money and capital (stocks).

Overall, the article presents a theoretical argument supporting the necessity of budget deficits in a growing economy with money holding. The use of an overlapping generations model and a Barro-type utility function provides a framework for analyzing the role of budget deficits in achieving full employment. However, without a detailed analysis of empirical evidence or real-world applications, it is challenging to assess the practical implications of the findings.

The article under review should explicitly mention the three conditions that are necessary for the results presented in the study. These conditions are as follows: (1) the presence of individuals' desire to hold money, (2) a growing economy with a positive growth rate under constant prices, and (3) the consideration of consumers deriving utility from both money

holding and bequests. Explicitly stating these conditions will enhance the clarity and comprehensibility of the article, ensuring that readers can fully grasp the specific factors that contribute to the necessity of a budget deficit for achieving full employment.

An additional point to consider is the strong language used in the article regarding the terms "recession" and "inflation." The author categorizes any level of employment below full employment as a "recession," and any price level above that required for full employment as "inflation." It is important to note that these terms have generally accepted definitions in economics, and their usage in the article may not align precisely with those definitions.

The implied definition of "recession" in the article deviates from the standard understanding, which characterizes a recession as a period of economic decline marked by reduced economic activity. Consequently, it may not be appropriate to classify a slight deviation from full employment as a recession. The author should be cautious in the terminology and clarify the specific thresholds or criteria they are using to define recession and inflation within the context of their analysis.

By addressing these concerns, the article will achieve greater precision in its language and ensure that readers have a more accurate understanding of the economic conditions being described.

An additional point to consider is the structure and presentation of the article. It would be beneficial for the author to place more emphasis on explaining the intuition behind their results, while considering moving the detailed proofs to the appendix. By doing so, the article can strike a better balance between providing a clear understanding of the underlying concepts and avoiding excessive technicality in the main text.

The intuition behind the results is often crucial in conveying the key insights to readers. By focusing on the intuition, the authors can enhance the accessibility and readability of the article, making it more appealing to a broader audience. Moving the technical proofs to the appendix allows interested readers to delve deeper into the mathematical details without overwhelming the main text with extensive equations and derivations.

This approach will help readers grasp the main arguments and implications of the study more effectively, while also ensuring that the supporting mathematical analysis is available for reference. Providing a balance between intuitive explanations in the main text and more technical details in the appendix will enhance the overall quality and accessibility of the article.