

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

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Potential competing interests: No potential competing interests to declare.

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

The paper can be improved in the following ways.

- 1. I found the introduction to be rather short. In the introduction, it would be interesting to review other model of the optimal government debt as well as the main reasons public debt is useful.
  - a. The first reason that comes to my mind is that government debt is considered as "Safe Assets", and safe assets are required not only for saving but also for borrowing as they can be used as collateral. At least the treasury bills are accepted as collateral when commercial banks are borrowing the funds (Caballero, Farhi & Gourinchas 2017)
  - b. They are also useful for the management of the liquidity risks. (Benigno, & Nisticò, 2017).
  - c. However, there are also some articles claiming that public savings are optimal (Peterman and Sager, 2022). It wild be nice to mention tis article and outline the main difference in the assumptions that lead to the difference in results.

## 2. The model:

- a. The log- utility function does not capture substitution effect, for example, saving rate will be independent of the interest rate. Probably some CES utility can be more convincing
- b. There is no disutility from labour, and it is absolutely unclear how unemployment is modelled, and why labour demand is not equal to labour supply
- c. The only proposition is a consequence of formula 12, there is no need for anything else. In formula 12, n is population growth, but proposition is about "economy growth".
- d. The model is solved incorrectly, all chose variables should be functions of the state variables. The provided solution is done in assumption that a certain level of bequests must be left, the bequest is modelled as exogeneous variable rather that as a choice variable
- e. It would be fine to work with real economy, but since you have introduced the price, you need to have some kind of the equation for price and inflation
- f. Given that there is no nominal rigidities in the model, I expect money to be neutral



g. Formula (12) is also incorrect, because the real money are not the same as nominal money. With no government intervention, there will be constant supply of nominal money, but real money can grow with population, because of deflation.

## Bibliography

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