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

Kcodgoh Edgeweblime[1]

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Potential competing interests: No potential competing interests to declare.

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

### Yasuhito Tanaka

Faculty of Economics, Doshisha University, Kamigyo-ku, Kyoto, 602-8580, Japan.

E-mail: yatanaka@mail.doshisha.ac.jp, ochibocho@gmail.com

**Review KL Edgeweblime**

1. **General comments**

The author explores the possibility of substitutability between budget deficits and money holding and bequests as a policy tool for achieving full employment in a growing economy where consumers derive utility not only from consumption but also from money holding and bequests. The overlapping generations model in which consumers bequeath to their descendants and hold money and the Barro-type utility function, in which people include the utility of their children in their own utility. Using algebraic equations only , the author hopes to show that the budget deficit is necessary to maintain full employment at constant prices in a growing economy. Also, he thinks that a balanced budget would not allow to reach full employment at constant prices. Similarly, the author tries to show that if the real budget deficit is lower than that which is necessary and sufficient for full employment at constant prices, a recession would occur, if not inflation in the opposite case.

Insofar as the utility function of Robert Barro (1974) is concerned, the author refers to the Ricardian equivalence principle, which presupposes that economic agents have an infinite life horizon, and does not seem to consider the case of transitory, but rather permanent, public spending. Because of the rationality of economic agents (Ricardian equivalence), fiscal policy is totally inefficient. It will leave the aggregate product and the money market unchanged. In this respect, only a Bennett Mac Callum and John Whitaker (1979) style policy surprise could have a small effect on the aggregate product and the money market. Therefore, the following equation, in particular, cannot be obtained:

$$G_t - \tau w_t L_t^f = M_t - M_{t-1} = m_t L_t^f - m_{t-1} L_{t-1}^f = n m_t L_{t-1}^f. \qquad (12)$$

In the case of a political surprise, the increase in income would cause an increase in the demand for active cash holdings. The rise in interest rates would lead to a fall in the demand for idle cash (purchase of securities by households from the government to finance its budget deficit). There would be a crowding-out effect, the magnitude of which would depend on the elasticity of demand for active LQ balances to changes in income, where only a sharp increase in interest rates could restore equilibrium in the money market) and the elasticity of investment to changes in the interest rate.

1. Proposal for discussions: Growth models with consumer optimization (The Ramsey model)

The reasoning is based on infinitely long-lived households that choose consumption and saving to maximize their dynastic utility, subject to an intertemporal budget constraint, a key element of the Ramsey model (1928), refined by Cass (1965) and Koopmans (1965) being the precursors of sustainable economics or steady state. One of the most important conditions of the sustainable growth or steady state, (is that) each generation has to satisfy its own needs without mortgaging the capabilities of future generations to overcome their needs. In this model, the saving rate is no longer constant, but is determined by the per capita capital stock, k. Therefore, the average level of the saving rate is not fixed, so it can rise or fall as the economy develops. The saving rate is also determined by interest rates, tax rates, and subsidies. The Ramsey model still has a convergence property under general conditions, so that the Solow-Swan Model (SSM), with a constant saving rate, is treated as a special case. Bajona and Kehoe (2006) have developed a similar model in an infinitely long-lived consumers on the overlapping generations basis. I pointed out several problems in these kinds of analysis: the absence of technological progress in the model implies that intergenerational trade has many problems: 1) The constant returns production function at the aggregate level can reflect learning-by-doing and spillovers of technology but is not Pareto-optimal; 2) There is no attempt to internalize (within generations and countries) spillovers of technology; 3) Convergence to steady states and price equalization indicates that countries and generations are strictly identical and, therefore, intergenerational and international trade is impossible; 4) The picture of properties of a dynamic model (HO) poses the problem of dynamic inefficiency. Fundamentally, we should admit that the first generations impose externalities (positive or negative) on subsequent generations. Bajona and Kehoe model ignores intergenerational and international trade interferences. Intergenerational trade is one of the main reasons why some countries are developed and others are not. The hypothesis of fixed endowments for consumer-workers cannot be stated. Several other hypotheses of this model should be revisited.