The Impact of Public Debt on Economic Growth

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Abstract. One of the main areas of inquiry nowadays is how government debt influences the growth of the economy. Researchers have come to different conclusions regarding the manner in which public debt consequences growth in the economy. As a result, this essay examines how public debt affects an economy or a group of economies' ability to grow. The paper examines the effect of the federal debt on commercial growth by compiling and evaluating relevant research from 2018 to 2023. Threshold is a crucial piece of reference information for examining the process by which public debt has influenced expansion in the economy. The objective is to evaluate the consequence of debt incurred by governments on the development of the economy, determining whether it is favorable or adverse. If the ratio of debt to GDP falls below a certain threshold, it indicates that the public economy is positively contributing to economic growth. A higher threshold value also suggests that the economy can handle additional public responsibilities, increasing the likelihood of popular support for economic expansion. This implies that there exists a complex and nonlinear relationship.

Keywords: Public debt, economic growth, threshold effect.

1. Introduction

Public debt is an indispensable element of a country's economic development, and it can help the State to intervene in and regulate the growth of the economy. With the continuous development of society and economy and the expansion of the functions of the State, public debt is no longer a debt of financial difficulties, but an important macro-control tool that can be utilized by the Government. The fourth industrial revolution is currently changing the economic structure of the world, and nations will invest in critical areas like equipment for artificial intelligence technologies. The use of public debt can not only help the country to quickly invest in intelligent research and development but also for private investors' well-known investment direction. Thus, driving the economic growth of the whole country. However, the negative aspects of public debt cannot be ignored. For some domestic and international trade pressure on the country, in their carrying capacity is not enough and in the case of public debt being too high, the development of science and technology will be limited. Economic growth can also be slowed down by debt servicing.

Economic expansion and public debt do not simply correlate linearly. There are three broad conclusions: debt will either have a positive growth or a negative growth on the economy. Based on an investigation of South Africa's public debt service and economic development from 1970 to 2017, it was determined that public debt is harmful to economic growth [1]. It was determined that public debt does, to some extent, contribute to economic growth by looking at how it affected it in the Republic of Congo from 1997 to 2012. Additionally, it provided the government with some ideas on how to create a strong national commitment to managing debt and keeping an eye on external debt ratios [2]. It is not uncommon for there to be a favorable, detrimental, or chaotic connection that exists between public debt and the development of the economy. Different nations should establish their own fiscal strategies to solve the problems of rising public debt and encourage financial growth. [3].

This research paper's goal is to determine what effect public debt has on a nation or a collection of nations' economies' rate of economic expansion. The study uses the literature review methodology and is based on a selection of works published between 2018 and 2023. When it comes to mobilizing public liabilities, the government can use this page as a resource. The study examines the unforeseen link between public debt and growth and additionally addresses both the beneficial and detrimental impact of the government's debt on the health of the economy. It ends with three recommendations for reducing the risk of public debt.

The government can compare the required relevant data with the threshold that applies to their nation depending on its economic climate. Fiscal actions that support economic growth in their nations can be taken.

2. The Beneficial Influence of Public Debt on Economic Growth

Public debt can contribute to economic growth in developing economies. Governments in developing countries must utilize loans effectively, meaning that they should be used for high-priority projects [4]. The utilization of public debt in the early of economic development can effectively stimulate investment in fixed assets and infrastructure construction, thereby expediting export promotion and industrialization. Consequently, this will propel per capita income and output levels to achieve rapid growth of the national economy. Compared with developed countries for developing countries, backward infrastructure construction limits the country's economic growth. The Keynesian effect suggests that public debt is an effective means for countries or economies to stimulate economic development by expanding demand. By utilizing the Keynesian effect, developing countries can quickly break through the bottleneck of infrastructure construction. Excessive public debt has very significant constraints on the economic activity of an economy.

Public debt can guide the economy. Public debt has a guiding role for private investment. Funds raised through public debt can be used by Governments to invest in business transformation and correct market failures. At the same time, increased investment leads to increased social output. Investment in construction will provide jobs for more people. Rising employment will drive up the level of production and consumption of the whole society. The rate of economic growth will also increase. The government's main economic sources have two parts, which are public debt and tax. An increase in public debt or an increase in interest rates encourages countries to bring in more and more financing to service the interest on their debt, consuming resources that could have been invested in different sectors of the economy of a given country, with the aim of achieving growth and economic development in that country [5]. However, there is a limit to the amount of money that can be captured by taxes, and it is not desirable to raise money by increasing taxes. So public debt is the only way for a country or economy to raise funds. And only public debt can help governments steer a market economy.

Public debt is an important vehicle for fiscal regulation of the economy. When the economic cycle is in a downward spiral or the economy encounters major shocks, the treasury can raise debt to reduce taxes and increase transfers in order to promote the growth of aggregate demand and maintain economic equilibrium. For example, during the Xinguang epidemic, the Chinese government supported affected firms and individuals by increasing debt, both as a social insurance function and to help prevent the economy from being destroyed. Public debt not only promotes long-term economic growth but also reduces the risk premium for society as a whole.

3. Negative Effects of Public Debt on Economic Growth

Economic growth may be negatively impacted by excessive public debt. The implications of unsecured debt on growth in the economy change throughout time and in tandem with the quantity of debt that is taken on [6]. At the stage of development, when infrastructure development is inadequate, public debt can help economies break through bottlenecks in social development. However, as the economy progresses towards a mature phase. In the eyes of the public, public debt is the safest debt investment. Individuals and businesses often have optimistic expectations about public debt. An increase in credit drives up the cost of capital, and an increase in capital costs drives up credit even more. There is an upward spiral as a result. The findings from the empirical analysis indicate that there exists a noteworthy inverse association between the proportion of debt to gross domestic product and economic growth, especially in developing nations above a certain threshold level [7]. High public debt puts an economy under extreme pressure to service its debt. When the government should

expand the demand for investment or construction costs to repay debt and interest, the economy's economic development rate will be largely limited. This then leads to capital outflows, lower technology levels, and less efficient development. The higher the proportion of public debt to assets, the greater the financial risk to the economy. Controlling debt risk through debt servicing will definitely slow down a country's economic development, especially slower than the pace of the world economy. Furthermore, excessive amounts of debt owned by the public affect the capacity of an administration to take action competently during times of crisis or recession. With limited fiscal space available due to heavy indebtedness, policymakers may be constrained in implementing necessary stimulus measures or providing support to struggling sectors of the economy.

Public debt has certain financial attributes. Private investment will experience some crowding out. The severe suppression of personal investment in the framework of elegant growth theories by debt levels [8]. Considering the safety, banks prefer government financing. With limited loanable funds, government debt reduces the supply of capital funds to banks and pushes up interest rates. It also increases the cost of private investment. When the cost of capital for private investment is squeezed, any industry in the economic system will suffer. The rate of economic growth is bound to slow down.

Excessive public indebtedness can lead not only to stagnant economic growth but even to recession. When the country is unable to bear the interest on its debt, all public infrastructure will be greatly restricted. Fiscal pressure increases, and the government cuts taxes and fees for years, if it encounters a setback in economic growth, leading to a slowdown in revenue growth. The imbalance in economic development caused by public debt becomes more evident. When the goal of a given economy is to pay off debt rather than to build the economy, economic development is bound to regress. Even if the economy recovers later, the effects of the recessionary period will inevitably lead to a level of economic development that lags behind the world's average level of economic development.

Any kind of debt carries certain risks. When public indebtedness exceeds what the Government can afford, the economic development of the society as a whole is affected by the debt. The higher the average amount of public debt far exceeds this point, the more detrimental its impact on economic growth becomes, whether it hampers economic progress or instigates a socioeconomic downturn.

4. The Hyperlink Regarding Public Debt And Economic Expansion.

The hyperlink between debt creation and investment in the economy is complex. There are other factors besides the general debt affecting the economic growth of a nation. Depending on the specific country. The low-income and non-resource-intensive nation sample has not ignored the linear relationship connecting public debt alongside development [9]. Among other things, it is impacted by the availability of labor, market demand, and productive investment. The consideration of the threshold effect is crucial in evaluating the correlation. The threshold for each nation is determined by the time frame, methodology, and proxy used to assess the link, as well as by the country's present economic status [7]. Significant differences can be seen across different nations and eras in both public debt and economic development. Different areas and nations have different interactions regarding the public the proportion of debt and economic growth., and it is mostly influenced by the variety and caliber of the institutions and public policies that make up the socioeconomic environment [10]. As a result, the assessment of economies differs since each has its own set of economic metrics and elements that contribute to its overall rating. When this ratio crosses a certain threshold, there are concerns about the country's borrowing burden's sustainability. Excessive government borrowing may necessitate allocating a considerable amount of the budget to debt servicing through interest payments. As a result, there is less room for investment in infrastructure or social welfare programs that could spur economic growth. It is crucial to highlight that governments may require some degree of public credit to finance necessary projects or to offset adverse circumstances such as recessions.

5. Coping Strategies for Public Debt Risk

5.1. Asset Replacement

In the case of steady economic growth, funds can be obtained by restructuring the debt, debt enforcement, or selling government assets. Thus, reducing the government's debt service pressure. Reduce the financial risk of high financial leverage on the economic growth of the economy. Public debt swap not only effectively promotes debt marketization, but also standardizes the government's local debt management. Moreover, debt swaps can clear some of the outstanding project payments of government platform companies, and also indirectly solve the problem of unpaid wages of enterprise employees, which has a positive impact on maintaining social stability and social and economic development. Debt swaps can help alleviate local government debt risk and solve the economic growth problem. On the one hand, existing public assets can be revitalized through the public raising of real estate investment trusts and asset securitization. For example, through asset securitization, we can improve the liquidity of many fixed assets of local governments. On the other hand, we should continue to promote reform, introduce more market funds, revitalize the assets of state-owned enterprises, raise the return on capital, and increase local fiscal revenue. We can also obtain funds by transferring the property rights of some state-owned enterprises in accordance with laws and regulations to ease debt pressure.

5.2. Change the Capital Structure of the Economy

The percentage of public debt in an economy's capital structure is an indication of the risk associated with public debt. The higher the proportion, the higher the financial risk to the economy. For most economies, public debt and taxes form a major part of their capital structure. If the capital structure is changed through taxation, then the distorted tax rate will definitely hit social productivity and directly affect social and economic development. To reduce the impact of public liabilities on their leverage. Through the improvement of production efficiency-oriented fiscal, financial, social security, income, distribution and so on. To carry out comprehensive reforms in all areas. To increase the comprehensive income of the economy. This can provide the economy with the ability to withstand financial risks to a large extent.

5.3. Adoption of Specific Debt Risk Mitigation Mechanisms

Debt structures as well as national economic conditions are different under different economies. The thresholds derived through the threshold effect are also quite different. Therefore, a uniform approach cannot be used to address the public debt risk of individual economies. The concerned nations should think about institutional changes and oversight procedures that explicitly account for potential effects on future economic growth [11]. Specific debt risk resolution mechanisms should be used to address public debt risks in different regions based on geographical characteristics and administrative constraints. This requires policymakers to anticipate in advance the amount of local public debt financing and their own capacity to service the debt. To mitigate the worst-case scenario, experts emphasize the importance of effective management of public debt, given its detrimental consequences when it becomes excessive. Countries should therefore formulate comprehensive strategies for debt and public debt management. This entails prudent spending practices, broadening the tax base where necessary, of key growth sectors like minerals to generate substantial revenues. Additionally, rational planning should be employed to minimize operational costs for companies, digitizing tax revenues and moderately reducing exemptions. Furthermore, significant investments should be directed towards sectors that contribute to revenue generation and economic growth.

6. Conclusion

Thresholds are a crucial point of reference for figuring out the manner in thereby government obligations contribute to the upsurge in the economy. Each country's threshold is heterogeneous

depending on the region and the period. For the purpose of examining the impression of debt from the government on employment growth, it is necessary to know the threshold of the country in the study period. And calculate the ratio between public indebtedness and the country's GDP. When the proportion falls below the specified threshold, there is a favorable implication of public debt on expansion in the economy. Currently, most nations have transitioned from the growth phase of economic development and progressed from a period of rapid economic expansion fueled by public debt to a stage characterized by sluggish economic growth. But for some developed countries where demand is close to saturation, In comparison with emerging nations, the effect of employing public debt to boost development in the economy is less clear and carries a higher financial risk. The paper also concludes that the larger the threshold, the more public liabilities the country can afford to incur within the context of economic growth. The favorable function of public debt in encouraging economic growth should be highlighted. If government debt encourages long-term economic growth, it can be both more efficient and more egalitarian.

In order to assist fiscal policymakers in making decisions concerning public debt, the main contribution of this article is to highlight the significance of thresholds while analyzing how public debt affects the expansion of the economy. Future research should examine the causal association with regard to public debt while participating in the growth of the economy whilst preserving the same levels of additional economic growth-influencing variables, as this study did not examine it.

References

[1] Cheng Qiyun, Sun Caixin, Zhang Xiaoxing, et al. Short-Term load forecasting model and method for power system based on complementation of neural network and fuzzy logic. Transactions of China Electrotechnical Society, 2004, 19 (10): 53 - 58.

[2] Antoine N., Stanislas E. B., Rollfe N. A. Effects of External Public Debt on Economic Growth: The Case of the Republic of Congo. Open Journal of Business and Management, 2021, 9 (4): 1997 - 2012.

[3] Dombi A, Dedak I. Public debt and economic growth: what do neoclassical growth models teach us? [J]. Applied Economics, 2019, 51 (29): 3104 – 3121.

[4] Hilton S. K. Public debt and economic growth: contemporary evidence from a developing economy. Asian Journal of Economics and Banking, 2021, 5 (2): 173 - 193.

[5] MUÇO K. THE PUBLIC DEBT IN ALBANIA AND ITS ROLE IN THE ECONOMIC DEVELOPMENT OF THE COUNTRY. Review of Management & Economic Engineering, 2023, 22 (1).

[6] Abate C. A. The nexus of public debt and economic growth in Ethiopia: Is it symmetric? Cogent Economics & Finance, 2023, 11 (2): 2231226.\

[7] Law S. H., Ng C. H., Kutan A. M., et al. public debt and economic growth in developing countries: Nonlinearity and threshold analysis. Economic Modelling, 2021, 98: 26 - 40.

[8] Dedák I., Dombi Á. A Closed-Form solution for determining the burden of public debt in neoclassical growth models. Bulletin of Economic Research, 2018, 70 (1): 88 - 96.

[9] Ndoricimpa A. Threshold effects of public debt on economic growth in Africa: new evidence. Journal of Economics and Development, 2020, 22 (2): 187 - 207.

[10] Gomez-Puig M., Sosvilla-Rivero S., Martinez-Zarzoso I. On the heterogeneous link between public debt and economic growth. Journal of International Financial Markets, Institutions and Money, 2022, 77: 101528.

[11] Asteriou D., Pilbeam K., Pratiwi C. E. Public debt and economic growth: panel data evidence for Asian countries. Journal of Economics and Finance, 2021, 45: 270 - 287.