

Government Spending and Economic Growth: Contemporary Literature Review

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Abstract

This article reviews the theoretical and empirical literature on the relationship between government spending and economic growth. The article aims to add to the current debate on this relationship. The article finds that neither the theoretical literature nor the empirical literature provides conclusive evidence about the nature of this relationship. The theoretical literature can be divided into six schools of thought: the neutral impact (Ricardian Equivalence Hypothesis), the impact runs from the economic growth to government spending (Wagner's Law), the positive impact (Keynesians School), the negative impact (Neo-Classical School), the positive effect under condition (Barro's School), and the nonlinear impact. Although the majority of empirical studies support the positive impact, there is a growing of empirical evidence of the nonlinearity. Overall, the theoretical and empirical literature yield inconclusive results due to a set of various factors such as the selection of the sample of countries, the level of development of countries, the time frames, the control variables included, the methodology used. Thus, the most advanced methods should be employed in future research to reach more reliable results.

Keywords: Global economics; Empirical literature; Government; Consumption; Economics policy

Introduction

The recent global economic crisis and the wide variation in levels of economic growth across the world's economies have led to renewed debate about the government's role in the economy. The impact of government interventions on economic growth through fiscal policy instruments such as government spending, taxation, and public debt remains a significant economic policy issue in the global economy. The debate on the relationship between fiscal policy (government spending, taxation, public debt) and economic growth dates back to the 18th century. However, the debate on this issue still continues in both theoretical and empirical literature. This, in turn, is reflected in the increasing disparity between policy approaches across countries. This article reviews the theoretical and empirical literature on the impact of government spending, as one of the most important instruments of fiscal policy, on economic growth [1-4].

The rest of this article is divided into three sections. While the first article reviews the theoretical literature on the relationship between government spending and economic growth, the second section reviews the empirical literature on this relationship. The last section concludes the article.

Theoretical Review of Government Spending and Economic Growth

As mentioned above, the relationship between governments spending and economic growth was and still is not the subject of agreement among economists. From the theoretical literature side, we can state that there are several different schools of thought.

Neutral impact of government spending on economic growth: ricardian equivalence hypothesis

According to the Ricardian school of thought (the Ricardian Equivalence Hypothesis), the effect of government spending, whether financed by government debt or tax revenues, on economic growth is neutral. In other words, this relationship between government spending and economic growth does not exist. The main reason behind this neutral effect of government spending on economic growth, according to supporters of the Ricardian school, is the consumer expectations about future tax increases. If consumers expect future tax increases, they will increase their savings by reducing current consumption, which in turn neutralizes the government spending multiplier mechanism [5-8].

Impact runs from the economic growth to government spending: Wagner's law

There are other schools of thought disagree with the Ricardian Equivalence hypothesis that the effect of government spending on economic growth is neutral. Wagner argues that there is a relationship between spending government and economic growth, but the impact runs from the economic growth to government spending. In other words, Wagner's Law assumes that the increase in government spending is the result of economic growth [9,10].

Positive impact of government spending on economic growth: Keynesians school

The Keynesians agree that the relationship between government spending and economic growth does exist, but the effect runs from government spending to economic growth. Keynes, the pioneer of this school of thought, argues that the expansionary fiscal policy will inject money into the economy, which in turn boosts aggregate demand and

thus enhances the output and economic growth. Moreover, the increase in aggregate demand leads investors to be optimistic, encouraging them to invest more. The supporters of this line of thought believe that the effect of government spending on economic growth is positive through the multiplier effect. Therefore, they advocate for expansionary fiscal policies, especially in recessionary periods. Generally, this line of literature is based on the idea that the government has a significant role in correcting market failures and providing public goods [6,11-18].

Negative impact of government spending on economic growth: Neo-classical school

The neo-classical school agrees with the Keynesian school on the existence of the relationship between government spending and economic growth, but disagree with it in the direction of this relationship. While the Keynesian argue that the impact of spending government on economic growth is positive, the supporters of the neo-classical school suggest that the relationship between the two is negative. From the point of view of the neo-classical school, the expansion of government spending leads to the competition of (crowding-out) the private sector by increasing domestic interest rates and increasing tax rates with distortionary effects on the allocation of resources [19].

Conditional Positive impact of government spending on economic growth: Barro's school

However, many theoretical models that follow Barro, such as Futagami, Morita, & Shibata, Cashin, Ghosh & Roy, suggest that when government spending is directed towards public investment and public services that are used as inputs for the production of finished goods, the increase in public spending leads to long-term economic growth. For example, increased spending on infrastructure and education leads to increased private sector productivity and thus increased economic growth [6,20-22].

Nonlinear impact of government spending on economic growth

Another view is that expansion in government spending has a positive effect on economic growth up to a certain threshold, and then the impact will be negative beyond that threshold [6,23].

Empirical Review of Government Spending and Economic Growth

As mentioned earlier, the theoretical literature is inconclusive about the relationship between government spending and economic growth. Likewise, the empirical literature is also indecisive about this relationship. The empirical literature provides various results, such as the positive, negative, or non-linear impact of government spending and economic growth.

While Esen and Bayrak, Choi and Son, Acikgoz and Cinar, Meyer, Manete, and Muzindutsi, Campo and Mendoza, Dudzevičiūtė, Šimelytė, and Liučvaitienė, Hyer and Kulkarni, Laboure and Taugourdeau, Mazorodze, and Abdullah, Yien, and Khan, to name a few, observe the positive relationship between government spending and economic growth, Laboure and Taugourdeau find the negative impact of government spending on economic growth. On the other hand, Facchini and Melki, Christie, Hajamini and Falahi, Ono, Lupu

and Asandului observe the non-linearity relationship between these two variables (government spending and economic growth). For more details, we review these empirical studies closely as follows [24-38].

Empirical studies observe positive impact of government spending on economic growth

Starting with empirical studies that observe the positive effect of government spending on economic growth, we can find some studies (as mentioned before) such as Esen and Bayrak, Choi and Son, Acikgoz and Cinar, Meyer, Manete, and Muzindutsi, Campo and Mendoza, Dudzevičiūtė, Šimelytė, and Liučvaitienė, Hyer and Kulkarni, Laboure and Taugourdeau, Mazorodze, and Abdullah, Yien, and Khan [24-33].

The study of Esen and Bayrak titled "The relationship between government expenditure and economic growth: An application on Turkish republics in transition process" investigates this relationship in Azerbaijan, Kazakhstan, Kyrgyzstan, Uzbekistan, and Turkmenistan (5 Turkish Republics) in 1990-2012. They employ the panel unit root, panel cointegration, panel causality tests related, panel data analysis, and long-term coefficient. They also find the positive and statistically significant relationship between public spending and economic growth in the long-run [24].

Choi and Son, in their research titled "A note on the effects of government spending on economic growth in Korea", examine the effect of government spending shocks on economic growth in Korea since the 1980s. Using the time varying parameter structural vector auto regression (TVP-SVAR) method, Choi and Son find that the impact of government spending is positive and statistically significant on economic growth [25].

In the same manner, Acikgoz and Cinar study titled "Public spending and economic growth: An empirical analysis of developed countries" focuses on examining the impact of government spending on economic growth in 21 developed countries in 1990-2013. To that end, Acikgoz and Cinar apply the Autoregressive Distributed Lag (ARDL) and Dynamic Fixed Effect (DFE). They find that government spending has a significant role in economic growth [26].

Moreover, Meyer, Manete, and Muzindutsi apply their study that titled "The impact of government expenditure and sectoral investment on economic growth in South Africa" to South Africa during the period 1995-2016. They employ the VAR model and the Vector error correction model (VECM) using quarterly time-series data. They find that the effect of government spending on economic growth in the long-run is positive but minimal [27].

Also, Campo and Mendoza observe a positive relationship between government spending and economic growth via their work titled "Public expenditure and economic growth: A regional analysis for Colombia, 1984-2012". They employ the causality test and the co integrated panel data model to determine whether the Wagnerian theory or the Keynesian theory would hold. They find that their study is in line with the Keynesian theory [28].

Likewise, Dudzevičiūtė, Šimelytė, and Liučvaitienė, in their research titled "Government expenditure and economic growth in the European Union countries", study the effect of government spending on economic growth European Union during the period 1995-2015. They employ the Granger causality test and find a positive and statistically significant relationship between government spending and economic growth [29].

Hyer and Kulkarni conduct a study titled "Government expenditure and economic growth: US fiscal policy making". They notice that the effect of government spending on economic growth is statistically small but still positive in the USA [30].

Also, Laboure and Taugourdeau, in their research titled "Does Government Expenditure Matter for Economic Growth?", apply the dynamic panel GMM estimators to 31 low, 69 medium and 47 high-income countries, i.e., 147 countries depending on their level of development, in 1970–2008. They find the positive and statistically effect of government spending on economic growth in low-income countries [31].

The study of Mazorodze titled "Government expenditure and economic growth in Zimbabwe" uses the ARDL, DOLS, FMOLS and CCR methods to investigate the relationship between government spending and economic growth in Zimbabwe during the period 1979-2017. Mazorodze find a positive and statistically significant causal effect between both government spending and economic growth in the long term in Zimbabwe [32].

Abdullah, Yien, and Khan, in their study titled "The impact of fiscal policy on economic growth in ASEAN-5 countries", use the Autoregressive Distributed Lag (ARDL) to investigate the effect of government spending as a fiscal policy instrument on economic growth in ASEAN-5 countries during the period 1970-2016. They find that the result is statistically significant in all ASEAN-5 economies, excluding Indonesia [33].

Empirical studies observe negative impact of government spending on economic growth

Some empirical studies observe the negative effect of government on economic growth (as mentioned before) such as Laboure and Taugourdeau. As mentioned before Laboure and Taugourdeau, in their research titled "Does Government Expenditure Matter for Economic Growth?", apply the dynamic panel GMM estimators to 31 low, 69 medium and 47 high-income countries, i.e., 147 countries depending on their level of development, in 1970-2008. However, they notice the negative and statistically effect of government spending on economic growth in both middle-income countries and high-income countries [31].

Empirical studies observe nonlinear impact of government spending on economic growth

Some other studies focus on the non-linearity relationship, as mentioned before, such as Facchini and Melki, Christie, Hajamini and Falahi, Ono, Lupu and Asandului [34-38].

A study that confirms the non-linearity relationship between government spending and economic growth is the study of Facchini and Melki titled "Efficient government size: France in the 20th century France". They apply their research to France in 1896–2008 using time-series data. The finding reveals a co-integration nonlinear relationship and suggests that efficient government size measured by government spending is around 30 percent of GDP [34].

Another study that confirms the non-linearity relationship between government spending and economic growth is the study of Christie titled "The effect of government spending on economic growth: Testing the non-linear hypothesis" investigates the non-linearity relationship between government spending and economic growth. Christie uses a cross-country growth regression, threshold analysis, a sample-splitting

framework, and a strategy for identifying and testing changes in the slope. The result supports the non-linear hypothesis [35].

In their research titled "The nonlinear impact of government consumption expenditure on economic growth: Evidence from low and low-middle income countries", Hajamini and Falahi examine the relationship between government spending and economic growth in the developing countries. They use a sample of 21 low-income countries and 11 low-middle income countries during the period 1981-2007 and the threshold panel model. The result is that the effect of government spending on economic growth changes from positive and statistically insignificant to negative and statistically significant. That is, the finding confirms the non-linearity relationship [36].

Lupu and Asandului analyze the effect of government expenditure and economic growth rate in their study titled "The nexus between economic growth and public spending in Eastern European countries". They apply the ARDL model using a sample of 8 Eastern-European countries for the period time from 1995 to 2014. The findings show that there is a non-linearity relationship between government spending and economic growth, and the optimal government spending varies between 37 percent and 41 percent [38].

Conclusion

Government spending is one of the most important instruments of fiscal policy. However, the effect of government spending on economic growth was and still is debated. Neither the theoretical literature nor the empirical literature provides the bottom line of the relationship between government spending and economic growth. This article reviewed this relationship and found that the literature can be divided into six groups: (1) the neutral impact of government spending on economic growth (Ricardian Equivalence Hypothesis), (2) the impact runs from the economic growth to government spending (Wagner's Law), (3) the positive impact of government spending on economic growth (Keynesians School), (4) the negative impact of government spending on economic growth (Neo-classical School), (5) the positive impact of government spending on economic growth, but under condition (Barro's school), and (6) the nonlinear impact of government spending on economic growth.

This review finds that most of the studies support the positive effect of government spending on economic growth. However, it seems that the results of the literature on government spending on economic growth is subject to a set of various factors, including the selection of the sample of countries, the level of development of countries, the time frames, the control variables included, the methodology used, among other factors. Therefore, none of the views on the relationship between government spending and economic growth can be wholly relied upon. Thus, the most advanced methodologies should be employed in future research.

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