PUBLIC INVESTMENT, ECONOMIC GROWTH AND EFFICIENCY

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Abstract: The definition of public investment is not as clear and precise as it may seem. Often, public investments are described as public expenditures that contribute to the stock of physical capital, encompassing tangible assets such as properties (excluding land), buildings and other structures (e.g., roads, airports, hospitals, schools, telecommunication structures, government buildings, bridges, etc.), machinery, transportation equipment, and intangible assets like intellectual property (OECD, 2016). Therefore, public investment is the allocation of funds that result in the growth of the aforementioned items. Public investment can be viewed as a political tool in the hands of a government, capable of altering or determining the course that a country's economy and other aspects of life will take. Governments utilize public investments to respond to a variety of challenges over time, addressing global issues such as climate change and local problems like periods of economic decline, diverse demographic trends, rapid urbanization, or adaptation to new technologies. As emphasized by the European Investment Bank, "properly functioning infrastructure networks are the backbone of flourishing economies" (European Investment Bank, 2010). Public investments are integral for economic and social prosperity, contributing to the national capital stock by allocating resources to essential basic infrastructure, education, research and development, thereby leading to increased productivity and improved living standards. The aim of this article is to analyze the role of public investments in the economy in addressing contemporary challenges.

Keywords: Public investments, the role of public investments in the economy, etc

Introduction

In the 19th century, economists argued that public investment was important and critical for an industrialized economy seeking to develop further to compete with advanced economies. In that period, public investment was also seen as a basis for independence, national unity and a sense of common purpose. Later, in the first half of the 20th century, in the context of easing the effects of the Great Depression, the role of public investment was further expanded. This is also thanks to the ideology and contribution of the eminent economist John Maynard Keynes, who argued that in conditions of economic recession the market may not be able to self-regulate spontaneously to ensure full employment. Therefore, according to him, the government should intervene by borrowing to finance public investment, in order to give a boost to the economy through the multiplier effect on private investment, demand and consumer confidence. However, subsequent historical and economic circumstances again cast doubt on the dysfunctionality of Keynes's theory. Thus, in the second half of the 20th century, liberal voices re-emerged recalling the benefits of laissez-faire and arguing that public investment crowded
out private investment, and was therefore no longer efficient. The movement against public investments required the privatization of public assets, thus depoliticization would be achieved and economic efficiency and freedom would increase.

Discussions of this nature, enriched and with many other elements, according to the historical, cultural, geographical and demographic context, have continued and will probably continue for a very long time. What has been noticed since the 1990s, as an innovative public investment instrument, is the creation and growth of Public Private Partnerships (PPP). PPPs were introduced with the aim of strengthening efficiency and accountability in terms of public investments. PPPs have taken a variety of forms, from private sector ownership, state-owned firms, etc. The expected benefits of PPPs are efficiency, transfer of risk from the taxpayer to the private sector and more added value for each unit of money spent. However, risks are not completely eliminated, since, like traditional private investments, PPPs are delicate and complex instruments that, in the absence of integrity, can cause more harm than good.

The impact of public investments on economic growth, however, is not so clear and positive in all countries, since if this were the case, the world would have a guaranteed success formula towards economic growth. In fact, as it has been proven by many cases and in the literature, the nature of public investments makes the latter vulnerable and prone to corruption. Corruption is a major problem in the world and especially in small developing countries like Albania. According to the OECD Bribery Report, almost 60% of corruption cases occurred in infrastructure-related sectors. In addition to the obvious ethical problems, undermining citizens’ trust in government, corruption causes other obstacles and increases the cost of investment, weakening efficiency and reducing the quality of work and value for money paid.

1. Methodology/Method

The methodology of study is Survey Research is a quantitative research method used for collecting data from a set of respondents. It has been perhaps one of the most used methodologies in the industry for several years due to the multiple benefits and advantages that it has when collecting and analyzing data. Research questions and hypotheses are part of our study. We have combine quantitative research, quantitative research method used for collecting data from a set of respondents and qualitative Analysis. This involves gathering non-numerical data. It focuses on observation.

2. Purpose of the study

The main purpose of this study is to examine the impact of public investments on economic growth in Albania. For this reason, two components of public investment are examined: spending on government consumption and fixed capital formation. Meanwhile, the secondary objectives of the paper are:

- to analyze the trend of public investments in Albania,
- to clarify the effect that public investments have on real economic growth,
- to analyze the relationship between the size of the state (government consumption) and economic growth,
- to evidence the effect of public investments on private investments,
to assess the relationship between other variables: exports and labor force participation in economic growth, in the case of Albania,

to determine whether Wagner's law or Keynes' theory is proven for the case of Albania.

3. Research questions and hypotheses

After the overview is given and the problem is stated, it is appropriate to present the research question and the relevant hypotheses.

*Research question:* Does government spending (expenditure on government consumption and fixed capital formation) affect economic growth?

*Hypotheses:*

\[ H_0: \text{Government expenditures (expenditures for government consumption and fixed capital formation) have no impact on economic growth.} \]

\[ H_a: \text{Government expenditures (expenditures for government consumption and fixed capital formation) have an impact on economic growth.} \]

4. The study and their limitations

Originally, in order to evaluate the efficiency of public investments and the impact they have on private investment, it was thought to study the specific case of the promenade of the city of Vlora "Lungomare". In fact, attempts to find the necessary information on private businesses, their exact number before and after the investment made in this area, as well as the profit before and after the investment, proved unsuccessful. Thus, it was thought that this would be accomplished through a questionnaire that was sent to businesses in the promenade area. This too was not successful due to the low completion rate of the questionnaire. Therefore, the study took a different, more general direction for public investments in Albania and the impact they have on economic growth. It is expected that the results of the study will be quite valuable, since on their basis relevant recommendations can be made regarding the policies that can be followed towards an ever more healthy economic growth.

However, from conversations with business owners and managers in the Lungomare area, it was clear that the impact of the investment was quite positive. Many of them agreed that although the number of businesses (mainly bars and restaurants) had increased significantly since the inauguration of the new promenade, so had their profits. Even the administrator of one of the bars that was opened many years before investing in Lungomare said that after the stabilization of the promenade of Vlora as a new tourist attraction, the profit in his bar had tripled. Based on the testimonies of individuals engaged for years in the service industry and familiar with the area, it can be said that the case of investing in the promenade of Vlora is successful in terms of the impact on private investments.

5. The importance of the study

The importance of this paper lies in the fact that this study serves to fill a space in the existing literature in Albania regarding public investments and economic growth. This study aims to examine and reach a conclusion regarding the impact of public investment and government size, represented by government consumption expenditures, on economic growth, through a regression analysis.
6. The scope of the problem

The theoretical framework, research works and theoretical studies do not exhaustively conclude about the impact of public investments in the economy. A number of success stories can be found in the literature, but also full of ambiguous and unclear cases. Each country has its own dynamics and specifics that produce results quite different from each other, even if they have the same input. Thus, most economists would agree that there are situations in which little government involvement and low levels of government spending would be favorable to economic growth, just as they would agree that in other situations government intervention government and high public investment would bring higher economic growth.

Albania is a small country and rich in natural beauty, which preserved and exhibited in the right way can result in great benefits in the economy. In order to achieve this, the first investment is in infrastructure, roads, highways and public works. Recently, the current government has placed emphasis on large public investment as a path to development. However, there have been many controversies that have followed the public investments promised by the government, and there have been no shortage of doubts about investments with high amounts. Throughout the years, there have been no shortage of recommendations from the International Monetary Fund (IMF) to be careful with public investments, and that these appear "posted" in the relevant documentation, but leave much to be desired in reality, which in addition to damaging the credibility of the government, it also reduces the efficiency of investments and their effect on development. (Monitor, 2017)

In addition, in the last year, as a policy to get the country out of the technical review and economic deadlock it experienced during the period of the pandemic, the government sees fit to increase public investments. In line with the Keynesian ideology, which is detailed below in this study, the Minister of Finance and Economy has stated that the highest level of investments for Albania is planned in the 2021 Budget. This action, justified as an action that can be taken by a left-wing government, is seen as a way to recover the Albanian economy hit not only by the pandemic, like the rest of the world, but also by the earthquake of November 2019. However, in addition to the doubts related to the ability of an economy financed with extremely high budget deficits to afford investments in public works and Public Private Partnership contracts, in Albania there are also many doubts about the transparency and true purpose of these policies.

Therefore, there is a need to turn to figures and facts, in order to prove the connection between public investments and economic growth in Albania and to answer the question of whether it is appropriate to continue with high rates of public investments. Also, light should be shed on the efficiency of public investments and on the effect they have on private investments: do they attract more private investments, or drive them away, thus producing negative consequences for business in the country.

7. Literature review

Public spending allows governments to produce and purchase goods and services in order to fulfill their objectives, such as: providing public goods; or income redistribution. Throughout history, from the moment when the first notions of the state were thrown up until the last days, two opposing camps of thought regarding the position of the state in an economy have coexisted - and even collided. Thus, for example, Keynesians argue for the importance of
government in pulling an economy out of recession, while liberals believe that the state has no place in the economy and markets should be left free. Between these camps there is a wide spectrum of opinions and attitudes, and lately it is increasingly difficult to make a clear division of the percentage of a government's intervention in the economy.

This is, in a way, the starting point of the debates regarding public investments. The latter are directly related to the involvement of the government in the economic life and in the life of the citizens of a country. A government more involved in the decisions and economic life of the country is more likely to have greater public spending on infrastructure, goods and services in the field of social protection, education and health. The opposite can be said for a less involved government, which will seek to leave the solution to the "invisible hand of the market", the famous classic notion introduced by Adam Smith in 1759. As discussed below, this issue it has been analyzed and discussed in many different perspectives, including Keynesian ones. The Keynesian view is supportive of government involvement in the economy to give it a boost at critical moments. However, it seems that in recent decades most governments in the world decide to intervene in the economy precisely through public investment, regardless of the level at which they decide to be involved. The need for public investment, for example in health, was best seen during the pandemic that suddenly hit the globe and found even the most developed countries unprepared.

According to long-term data, the historical trend of the level of public investment, measured as a percentage of Gross Domestic Product (GDP), has changed drastically in recent centuries. Industrialized countries experienced a marked increase in public spending, especially in the 20th century. This increase was mainly attributed to the increase in public spending on health and education. According to Ortiz-Ospina and Roser (2016), world data on public spending show a heterogeneous composition of public spending levels from one country to another. States with high incomes spend more on public investments and especially for the category of social protection compared to countries with low incomes. Recent data show the trend of governments to rely on the private sector for the production and management of public goods and services. Also, there has been an increase in the popularity of Public Private Partnerships (PPP), as a mechanism for governments to finance, design, build and manage major infrastructure projects. In the period 2005-2010, the total value of PPP in low- and middle-income countries has increased by more than two times.

8. **Overview of the theoretical framework of economic growth**

The impact of public investments on economic growth is specific for each country, which means that each country has a different scenario regarding public investments. There are a number of channels through which economic growth can be influenced by public investment, and these conditions vary from country to country. Public spending can have contradictory effects on economic growth: can have a positive or negative impact. Initially, public investments cause an increase in production, which will consequently increase the amount of the product, the level of employment and give an impetus to economic growth. According to the Keynesian view, public investment is a valuable instrument that the government can use to increase production in certain difficult times for the economy. Public investment, through the mechanism mentioned above and the multiplier effect, will cause an increase in aggregate demand. (Blinder, n.d.) Whereas, from a neo-classical point of view, public investments are, in
a way, harmful to the economy, since they displace resources from the private to the public sector. This displacement has negative consequences on economic growth and creates a "crowding out" effect, which inevitably delays economic growth. The following paragraphs briefly and concisely discuss the main theories of economic growth and the differences between them.

Against the Keynesian point of view, Adolph Wagner (1835 - 1917), famous for "Wagner's Law", is often placed in the literature. In an observation made by Wagner in the 19th century, he observed that the percentage of the public sector in relation to GDP increased steadily over time. Wagner's law predicts this very fact: with the passage of time and more prosperity, the proportion of the public sector will continue to grow. This law is based on three claims: economic growth results in higher welfare and therefore the stage in which the economy finds itself requires the introduction of new laws and the development of the legal structure (ie more government spending); urbanization that comes with economic growth will cause more negative externalities, for which the government will have to intervene through subsidies or other forms; and third, the goods provided by the public sector have a higher income elasticity of demand. If the elasticity is greater than 1, public sector expenditures will increase proportionally with revenues. (Oxford Reference)

Therefore, many studies try to prove the relationship between economic growth and government consumption spending and the direction of this relationship. However, regarding the third point, there is no empirical evidence to support it. Both perspectives, however, agree that there is a clear relationship between economic growth and government spending. However, the two economists differ on the point where the direction of the connection of these variables is determined. Keynes argues, as described above, that the direction of the link follows from government spending towards economic growth, while Wagner argues the opposite.

Classical economic growth theory suggests that a country's economic growth will decline as its population increases and its resources become limited. This is because economists of the classical school believe that a temporary increase in real GDP per capita will inevitably lead to an increase in population and consequently limit a country's resources, ultimately reducing real GDP. Thus, the pace of economic growth will slow down. The classical theory of economic growth has many shortcomings, such as ignoring the role that technological progress has in the functioning of an economy.

Neoclassical theory is a growth model that analyzes how the three economic forces: labor, capital and technology combine to produce sustainable economic growth. Neoclassical theory sees output as a function of economic growth with the factors labor, capital and technological progress. In equilibrium, the growth rate of output is equal to the growth rate of the population or labor force and is not affected by the rate of savings. Whereas, in the long term, economic growth depends on the rate of technological progress.

The simplest and representative model of the neoclassical theory is the Solow-Swan model. In 1956, Robert Solow and Trevor Swan proposed a long-run economic growth model in response to the unsatisfactory results of the Harrod-Domar model. The Solow-Swan model is an exogenous model of economic growth that analyzes changes in the level of output in an economy in the long run as a result of changes in the rate of population growth, the rate of savings and the rate of technological progress. According to the model, if countries have the same population growth, savings rate and capital depreciation rate, then they are in the same
steady state, so they will converge. Along the convergence path, poor countries will grow faster. (Corporate Finance Institute, 2021a)

This economic theory suggests that investment can increase output, since it is a factor of production and can have an effect on the level or rate of growth, depending on the increasing or decreasing marginal return. According to the Solow model, the higher the rate of investment, the higher the level of output. However, the model predicts that the effect on growth will not be long-lasting due to diminishing returns. Beyond this effect on GDP, the main conclusion of the Solow model and the exogenous growth literature is that in the long run, assuming constant or increasing returns, economic growth is closely related to the accumulation of human and physical capital.

The exogenous theory of growth is a key doctrine of neoclassical theory. She states that economic growth is fueled by technological progress independent of economic forces. This theory considers output, diminishing returns to capital, the saving rate, and technological variables to determine the level of economic growth. Both theories, however contradictory to each other, the exogenous and the endogenous theory, emphasize the role of technological progress to achieve a sustainable level of growth. The main difference is that the exogenous theory sees technological progress as a factor that is determined by external, independent factors.

A theory of growth that contradicts the aforementioned theories is the endogenous growth theory, developed to fill gaps in the existing literature in the 1980s. This theory, unlike exogenous ones, sees economic growth as generated within economy. For example, government policies can increase a country's economic growth. According to endogenous theory, there are increasing returns to scale from capital investment in knowledge, for example in education, health, research and development and technology. Economist Paul Romer, who won the Nobel Prize in 2018, argued that technological change is not simply an exogenous product of independent scientific developments, but a consequence of government policies that include successive investments in research and development, intellectual property laws, which in the end serve as drivers of development and sustainable economic growth.

According to this theory, improvements in productivity and further in the final product of an economy are directly related to rapid innovation and more investment in human capital by the government and the private sector. Supporters of this theory urge the government to increase spending on human capital, in areas such as education, research and development, financing new projects and initiatives, etc. The idea behind this is that with a knowledge-based economy, the spillover effects from investing in technology will be large and will continue to bring benefits and generate returns. The foundations and hypotheses of this paper are laid on the endogenous theory. (Corporate Finance Institution, 2021b)

9. Analyses of the current situation in Albania

The pandemic, during the second quarter of 2020, hit consumption more than investments. According to INSTAT, the final consumption of the population fell by 7% compared to the previous period. While investments decreased by 11.1% compared to the first quarter, this decrease softened by the end of the year and is mainly attributed to the decrease in the volume of investments from the TAP gas pipeline. According to the Bank of Albania, the main reason why total investments fell was the decline in public investments and then the
decline in private investments, especially in the second quarter of 2020. However, at the end of 2020, public investments began to improve. In the period July - October 2020, government spending increased twice, from 28 billion ALL at the beginning of the period, to approximately 56 billion ALL at the end of this period. The figures of the Ministry of Finance testify to a 17% increase in investments in the first 10 months of 2020, compared to the same period of the previous year. Government capital spending is expected to continue in 2021 and is expected to be 7.2% of GDP, or about 1 billion euros, of which 225 million euros belong to the reconstruction program.

10. Albania's macroeconomic indicators compared to the region

Albania is a small country whose GDP reached $15.3 billion in 2019. To turn this into a more tangible figure, GDP per capita adjusted to purchasing power parity, an indicator of converted GDP, is used in international dollars (1 international dollar has the same purchasing power as 1 US dollar) using purchasing power parity rates and divided by the population. Albania's GDP per capita in 2019 was $14,648, a figure 2.7% higher than the previous year. Economic growth for 2019 was 2.24%. In the last decade, inflation in Albania has been stable and within the target set by the Bank of Albania, in 2019 annual inflation was 1.4%.

Graph 1: Gross Domestic Product. Source: World Bank

After giving a quick overview of Albania's economy, in order to put it in context and give more meaning to the figures, a comparison is made with the countries of the region, which have a similar development and history. As can be seen from the graph, the country of the region with the highest GDP throughout the period 1984-2019 is Croatia, followed by Serbia, Bosnia-Herzegovina. Croatia and Serbia stand far above Albania and other Balkan countries, with a very large difference in GDP in dollars. Albania is very close to Bosnia and North Macedonia, but higher than the latter.
In order to somehow eliminate the effect of population size, in order to make a fairer comparison between the countries of the region, the GDP per capita indicator (based on purchasing power parity) is used. This indicator divides the GDP by the number of the population and at the same time adjusts the amount in dollars to the purchasing power. Despite this adjustment method, Croatia remains the first country in the region, with about $31,000 per capita per year, for 2019. It is followed by Montenegro with $24,000 per capita per year, Serbia with $19,500 per capita, North Macedonia with 18,000 dollars per capita, Bosnia with 16,000 dollars per capita in 2019 and finally, Albania with close to 14,600 dollars per capita in 2019. As can be seen from the graph, the trend of this indicator seems constant throughout the entire period from 1990 to 2019 and there doesn't seem to have been any difference between the ranking of countries either.
Economic growth, measured by GDP growth, evident from the graph, reflects a somewhat more volatile situation than the two previous graphs. But, it should be taken into account that the time period since 1990 is a very long period and rich with historical and economic events, strong shocks and great growth. It is mentioned here, a well-known fact by Albanians, the year 1991 with political unrest due to the change of systems (which also marked the biggest economic decline for Albania and for the Balkans), the year 1997 with civil unrest reflected by a negative increase in powerful and the year 2009 with the consequences of the world economic crisis that affected all the countries of the region. At the beginning of the period, Albania is the country with the biggest fluctuations in terms of GDP growth. Another notable moment in the graph seems to be the year 1996 for Bosnia, which experienced the highest economic growth of the entire period, around 88%. Such an increase, which almost doubled Bosnia's GDP, came as a result of the end of the war in December 1995 and the recovery of the economy. The country with the highest economic growth in 2019 in the region is Serbia (4.2%), followed by Montenegro (4%), North Macedonia (3.2%), Croatia (2.8%), Bosnia (2.6%) and finally Albania (2.2%).

Regarding the structure of GDP according to the contribution of economic sectors, Services represent the largest share in the economy for 2019, similarly to previous years, with 48.4% of GDP. Then, the Industry and Construction sector constitutes 20.6% of GDP and the third sector, Agriculture, hunting and forestry with 18.4% of GDP. According to INSTAT, the main contribution to GDP growth for 2019 was the Trade, transport, accommodation and food services sector with 0.65%, while the Arts, entertainment and other recreational activities sector had the lowest contribution.(INSTAT, 2021)

To make up for the shortcomings of GDP as a measure of well-being, the Human Development Index (HDI) is also included in the analysis, which takes into account factors that affect well-being, such as education, health and standard of living. Albania, according to this index, is included in the group of countries with high human development and ranks 69th with 0.795 points in 2019.

Graph 4: HDI. Source: UNDP
In terms of human development, Croatia has shown a steady growth rate and a higher level than other countries in the region. After her, in recent years, Montenegro has performed better; Serbia, which had a distinct "boom" compared to other countries in the region in 1999; Albania; Bosnia; and North Macedonia.

11. The city of Vlora "Lungomare"

Our study in the same time was focused on efficiency of public investments and their impact with specific case in the city of Vlora "Lungomare". After analysis of questionary the estimation results show that government expenditure has a negative impact on economic growth. Specifically, the interaction between government expenditure and other factors for example corruption control can reduce economic growth. There is no relationship between the independent variables (fixed capital formation, government consumption expenditure, export and labor force participation) and the dependent variable - economic growth,

Conclusions and Recommendations

From recent discussions on the high level of government spending in Albania as a way to "medicate" the economy still reeling from the November 2019 earthquake and the pandemic that slowed down the whole world, space was created for such a paper on the occasion of Albania. In addition to the expenses conditioned by Covid-19, for example for economic aid packages, the Albanian government has considered reasonable a high level of investments in infrastructure and public works. Thus, also according to the words of the Minister of Finance and Economy, "Budget 2021" is the budget in which the highest level of public investments is foreseen, at least in recent years. In the view of the government and its supporters, this is a well-thought-out plan to stimulate and recover the economy. However, under another lens, a high level of public spending at such a moment for Albania is irresponsible and dangerous for the economy.

Since theoretically there is no widely accepted conclusion and the issue of public spending remains open for debate, this study aims to evaluate the relationship that exists between the level of public spending and economic growth, at least for the case of Albania. Thus, keeping in mind this primary goal, at the beginning of the paper the research question was asked if there is a relationship between public spending (formation of fixed capital and spending on government consumption) and economic growth. Next, the existing literature was browsed and relevant expectations were raised. The methodology that was chosen is simple and multiple regression analysis. The results and findings of the analysis were presented and elaborated in the chapter above. Finally, this chapter focuses on clarifying the conclusions reached from the work done, highlighting the contributions of this study, as well as making relevant recommendations.

At this point, H0 hypothesis is rejected. There is no relationship between the independent variables (fixed capital formation, government consumption expenditure, export and labor force participation) and the dependent variable - economic growth. The results of the regression analysis showed that there is a clear relationship between these variables, so since the basic hypothesis is rejected, its opposite, the alternative hypothesis stands. The main conclusions of this study on the relationships between the variables are discussed below.
The relationship between economic growth and the formation of fixed capital, which is the indicator of investment in public works and infrastructure, is a positive and important relationship. This means that higher levels of public spending on infrastructure projects are likely to translate into higher economic growth and development. In the case of Albania, the effect that the formation of fixed capital has on economic growth is especially noticeable in the strategic projects carried out within the framework of tourism development. The example taken by this study is that of the promenade of the city of Vlora, which, with the attraction it has made to private businesses in the area, the opening of new jobs and the increase in the number of tourists, especially in the summer season and at the weekend, significantly affects the increasing the well-being of the area and the city in general.

Spending on government consumption, which includes spending on defense, education, health, and social protection, has a statistically significant but negative relationship with economic growth. This result, in fact, is different from what was expected, based on theory and empirical literature. Theoretically, it was expected that the expenditures that a country makes at least on education and health, have a positive impact on economic growth. Education and health are two very important components of the human development index, an indicator of the well-being and development of a country’s society, therefore it is expected that investment in these areas will translate into stimulation of human well-being and economic growth.

However, such a negative result in the case of Albania may indicate more about the efficiency of these expenditures. According to reports, in Albania, corruption and lack of transparency in public procurement are very present problems, which damage the quality and efficiency of the latter. This may be one of the reasons why an increase in the level of government consumption expenditure is likely to result in a decrease in GDP growth.

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