

## INEFFICIENCY OF PUBLIC INVESTMENT IN ROMANIA

### **Abstract**

According to Keynes, increasing of the public investment is one of the best solutions to economic recovery, since it causes strong effects upon the economic growth. However, according to recent studies, public investment expenditure generates less effect in the short term, due to the lags associated with the achievement of new project, but a larger long-term impact by stimulating potential GDP through increase of the capital stock and of total factor productivity. In this study I have aimed to analyze the influence of public capital spending on economic growth and to explain how it could generate sustainable recovery of the Romanian economy. My conclusion is that increasing of the public investment, which took place during the economic expansion of the Romania has generated a little effect, given that many of the projects started in one year were not funded in the following financial years.

**Keywords:** public investment; economic growth; fiscal multiplier

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# INEFICIENȚA INVESTIȚIILOR PUBLICE ÎN ROMÂNIA

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### **Rezumat**

Potrivit lui Keynes, creșterea investițiilor publice este una dintre cele mai bune soluții pentru redresarea economică, deoarece generează efecte semnificative asupra creșterii economice. Cu toate acestea, conform studiilor recente, cheltuielile de investiții publice generează mai puține efecte pe termen scurt, din cauza lagurilor asociate noilor proiecte, având însă un impact mai mare pe termen lung, deoarece stimulează PIB potențial prin creșterea stocului de capital și a productivității totale a factorilor. În acest studiu mi-am propus să analizez influența cheltuielilor de capital publice asupra creșterii economice și să explic modul în care aceasta ar putea genera o redresare durabilă a economiei românești. Concluzia mea este că o creștere a investițiilor publice, care a avut loc în timpul expansiunii economice din România a generat un efect puțin semnificativ asupra PIB, din cauza lipsei unei programări bugetare multi-anuale.

**Cuvinte cheie:** investiții publice; creștere economică; multiplicator fiscal



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## 1. INTRODUCTION

In the Keynesian economic theory, the public spending have a higher impact upon the GDP, if compared to the transfers or to the level of taxes, as the latter ones do not generate a direct influence upon output, but they initially influence the available income and afterwards the level of the private consumption, to a lower extent. According to this approach, the multiplier of the government spending is improper, being higher for the countries which record a lower tendency towards import and for those which have a fixed rate of exchange.

Theoretically, the public investments have a great short-term multiplying effect upon the aggregate demand and a long-term multiplying effect upon the aggregate offer, especially when they determine the decrease of the transaction costs. However, there are also other conditions which may influence the greatness of these spending' impact upon economy, in their absence the multiplier of the public investments being insignificant. *Firstly*, the government should make sure that will allocate sufficient financial resources for achieving the settled investment projects. Moreover, the local authorities should benefit from the central government's support whenever certain local projects may cease due to the lack of funds. Any cessation / blockage of the projects which are financed from the state budget would only generate temporary effects upon output, and the long-term multiplier will tend to zero or it will even become negative. That is the reason why the economies which are characterized by a lack of multi-annual schedules for the investment spending or by radically changing the destination of the public funds depending on the election cycles will record a limited multiplying effect, and the state's investments will be perceived as a waste by the private economic agents. They will not desire to increase the taxes contribution level for their future projects, and any decision to increase taxation will result in the increase of tax evasion. *Secondly*, the public investment projects should be transparent when referring to the spending and they should not be affected by the corruption spectrum. Its perception will result in losing the internal support for achieving any project of the state, but it will also block the achievement of efficient public-private partnerships for great projects.

## 2. THE EFFECTIVENESS OF PUBLIC INVESTMENT ACCORDING TO ECONOMIC LITERATURE

The public investment is one of the solutions promoted by the government which are in a recessionary gap because they generate multipliers effects in the economy. However, the decision of governments to allocate more capital expenditure is influenced by their financing capacity. In general, economies with

infrastructure gaps will allocate more budgetary resources for capital expenditure this fact increasing the budget deficit and the external debt. If these economies should adopt a restrictive fiscal policy then will reduce the budgetary spending for investment and not the current ones (Roy, Heuty and Letouze, 2006). Regarding the impact of public investment on economic growth, empirical evidences are different. Thus, one of the studies IMF (2004, 2005) showed that there was no significant relationship between two variables, so that government investments have been regarded as unproductive. According to Eastary and Levine (2001), public investment is important not by capital accumulation, but by the positive impact on total factor productivity. The same conclusion is sustained in the Herman model of the European Commission, which assesses the impact of structural funds, including those for infrastructure, on the beneficiary countries. Thus, a 1% increase in infrastructure spending causes increasing of the output by about 0.25%, reducing of the production costs of firms with 0.19% and growth of the total factor productivity by 0.33%. Pereira (2000, 2001) estimated in a VAR model on U.S. that public investment positively affects both private investment and domestic production and employment, all public investments being considered as productive.

A World Bank study (2007) has concluded that there is a positive impact of capital spending on economic growth, particularly for infrastructure spending, education and health. Growth and Development Commission Report (2008) shows that the fastest growing economies have in common the existence of at least 7% share of GDP spent on investments. An IMF study made in 2011 for 48 OECD and non-OECD economies has shown that during 1960-2000 there was a positive elasticity of economic growth based on public capital. Developed countries are characterized by a share of public investment in GDP of around 3% in 2000 year compared to 4% at the beginning of that period, while in developing economies the share of investment in GDP has doubled during 1960-1980 then it has reduced to 4% in 2000 year.

The multiplier of the capital public spending is considered to be lower on a short term as a result of the temporal lags induced by the approval and the implementation of the new investment projects and it is considered higher on a long term as a result of the increase of capital stock and of the increase of the potential GDP (Roeger and Veld, 2004). According to Romp and DeHaan (2005), the impact of the public investments is not linear, being generally lower in the developed economies and higher in the developing economies. According to the estimates made in a OECD study, based on the DSGE model (2009), the multiplier of the public investments is proper on a short term in most of the analyzed countries (0.7 in Belgium, the Netherlands and Ireland, 0.8 in Germany, France, Italy and Great Britain, 0.9 in USA) and improper on a medium term in Germany, France, Italy, Spain and Great Britain. The multiplier of the public investments in the Eastern and Central Europe, such as the cases of the Czech

Republic, Hungary, Slovakia and Poland, is 0.7 during the year when the investment takes place. Although it is proper on a short time within all OECD countries, the multiplier of the investments is the highest among the fiscal multipliers. According to OECD, the GDP reacts the least to the decrease of taxes, especially of the indirect ones and to the increase of transfers, and this is absolutely natural during a period when the pessimism is dominating the economic agents' mentality. Although the increase of the public spending represents the Keynesian solution to re-launch an economy which is in a deep economic crisis, the effects expected in that economy are not always obvious. Japan's experience shows that the public investment programs implemented during the last 20 years have not generated but temporary effects upon economy, although they contributed to the increase of the public debt. Brückner and Tuladhar (2010) estimated that, in the case of the regions in Japan, both the investments made by the local authorities and also the total investments were characterized by proper multipliers (0.49, respectively 0.25).

The main conclusions drawn from the economic literature which has made researches for the impact of the public investments are the following:

- a) there have not been checks for the existence of an improper multiplier of the public investments, as it would have been normal according to the economic theory;
- b) although on a short term the effects of decreasing the taxes are lower than those recorded in the case of increasing the public spending, they are not necessarily proven on a medium term;
- c) the investment multipliers are extremely variable among countries, according to the situation of the public finances, to the development level, to the rate of exchange or to the economy's opening degree.

### 3. THE ANALYSIS OF THE BUDGETARY CAPITAL SPENDING IN ROMANIA

Currently, the Romanian economy has to face two major challenges. The first one refers to the deep recession encountered by the Romanian economy starting with quarter IV of 2008, which determined the GDP contraction by 7.1% in 2009 and by approximately 2.6% during the first quarter of 2010. The Romanian exports to EU countries increase was not accompanied by rise of the private consumption and investment, so that the economy only increased by 0.6% in the first half of 2011. The second challenge refers to the achievement of the fiscal consolidation process assumed by the government authorities along with the conclusion of the agreement with IMF in March 2009. According to this

agreement, Romania committed to decrease the level of the budget deficit from 8.3% in 2009 to 6.8% in 2010 and to 4.4% in 2011.

On the one hand, the implementation of a restrictive fiscal policy may be considered to be totally inapplicable during this period of decrease of economic activity, as it will delay the economic re-launching. On the other hand, implementing such a fiscal policy is necessary due to the errors made during the strong economic expansion years (2005-2008), such as the increase of pensions in a rhythm which was superior to the increase of wages, the increase in the number of employees in the public sector, the increase of social assistance during the election years, which have generated an accumulation of higher and higher budget deficits. In order to implement a restrictive fiscal policy, the government has two major options: the increase of taxation and the decrease of the public spending. The increase of taxation might not generate additional revenues to the state budget due to the tax evasion and to the economic agents' tendency to re-locate in countries which have a lower taxation, so that the decrease of the state's spending seems to be the only valid choice to decrease the budget deficit on a long term. However, what type of spending should the government reduce so that it would not generate the medium-term extension of the recession? Considering the economic theory, the social transfers generate a lower impact upon economy, if compared to other types of spending, such as the procurement of goods and services by the state and the public investments, so that the decrease in the case of the firstly mentioned category could constitute a variant chosen by the Romanian authorities.

However, the economic reality may contradict the above mentioned conclusion, especially within the economies which are characterized by a high corruption in the case of the projects financed by the state (such as in Romania) or in the economies in which the absence of multi-annual budget programs may result in the definitive blocking of some investment projects, as in the case of Romania. That is the reason why, this study will make estimates for the impact of spending for public investments upon output (industrial output and GDP) in order to check to what extent the obtained results are in compliance with the theoretical approaches.

Considering the state budget, Romania is an economy which is quite different from the rest of the European Union. Thus, in 2009, Romania was characterized by the lowest percentages of the GDP both in the case of the spending and also in the case of the budget revenues within EU. The budget revenues were 32.1% of the GDP, compared to an average of 44% within the European Community, and similar levels were also recorded during the years preceding the economic crisis. The budget spending' percentage of the GDP was 40.4% in Romania, related to 50.7% of the GDP in EU-27; the budget spending increased in Romania from 33.5% of the GDP in 2005 to 37.6% of the GDP in 2008,

although the economy recorded one of the highest increasing rhythms of the GDP within EU during this period. Out of the increase by 4.1 percents of the state's spending, 1.6 percents were represented by the increase of the spending for the state's investments, this aspect being normal under the terms of an economy characterized by a less developed infrastructure, if compared to the European average. If we take into consideration the spending for public investments, Romania is the first in the top of EU countries, if taking into account both their percentage of the GDP (5.4% of the GDP in 2009, compared to an average of 2.9% of the GDP in the European Community), and also their percentage of the total state spending (13% in 2009, if compared to an average of 6% of the GDP in the European Community).

According to the 2010 State Budget Law, a percentage of 6.5% of the GDP was settled for the public investments, 60% of their sources being represented by the internal resources included in the budget, and the rest of 40% being represented by the pre-adhesion funds, the post-adhesion funds and the external credits. The objective of the financial allocation was to limit the rhythm of economic decrease and to partially compensate the decrease recorded in the private sector activity. For the purpose of consolidating the role of the public investments, they were almost exclusively directed towards infrastructure works for transport, environment, rural regions, education and health and the investments in auto-vehicles and other facilities were significantly restricted. However, directing more resources towards infrastructure may only generate a limited multiplying effect and not a long-term effect, as the entailing effects upon the private sector are also conditioned by other factors (the quality of the business environment, the commodity market development rhythm, etc.). Moreover, impact differences will appear depending on the destination of the capital spending: for example, 100 Euro granted for the repairs of a school could generate a lower impact than 100 Euro granted for the transport infrastructure. Also, 100 Euro granted for projects which will be financed in the future will generate a higher impact than 100 Euro granted for projects which will be blocked due to the lack of finances.

Romania is characterized by a paradoxical situation in terms of public investment in that it has the highest allocation in the EU-27 in this field, but shows a poor performance of infrastructure (transport, education, health) according to the Global Competitiveness Index. Thus, capital expenditures in GDP accounted for 5.7% of GDP in 2008 and 5.3% of GDP in 2009, while the European average was 2.7%, and respectively 2.9%. Ratio of public investment in GDP has increased since 2005 year from a previous value less than 4% of GDP. The emerging EU countries (including Romania) is characterized by greater public investment rate volatility compared to developed economies, since they lower their financing capacity, especially during periods of higher budget deficits. Only countries with more prudent fiscal policies during periods of economic expansion (such as the Czech Republic and Poland) have registered an increase of public investment in 2009 compared to previous years (Figure 1).

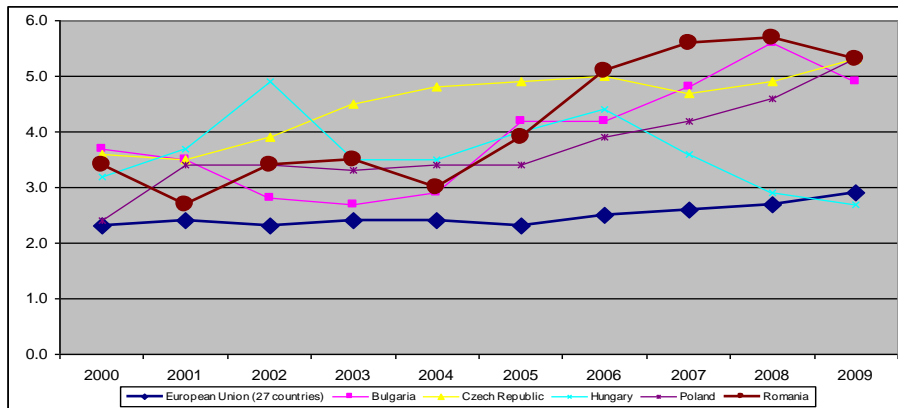


FIGURE 1 - THE EVOLUTION OF THE PUBLIC INVESTMENT SHARE IN GDP  
Source of data: Eurostat, 2011

The increase of funds for public investment has coincided with a more seasonal phenomenon in the use of these amounts. The presence of seasonality is evident in investment spending in context of the yearly and not multi-yearly budgetary programs (Figure 2). Unspent amount in the first three quarters (due to delays in implementation of certain investment projects) were used in the fourth quarter, most often to other destinations than the initial budget planning. This situation has increased since 2005 once with increase of the budgetary resources allocated to investment. For example, in 2006 and 2007 years, in the fourth quarters were spent almost with more 50% than in the previous three quarters, the amounts exceeding 10% of the quarterly GDP. This tendency has decreased in intensity since 2008 year, once the investment spending fell in real terms even. For example, in 2010, the public investment decreased by 11.7% yoy. To eliminate the influence of seasonality we have used the econometric procedure TRAMO / Seats, public investment data series being expressed in millions of lei, at the prices of 2000 year. Therefore increase budgetary resources for investment not guaranteed neither increase of their efficiency and nor a higher impact on the real economy.

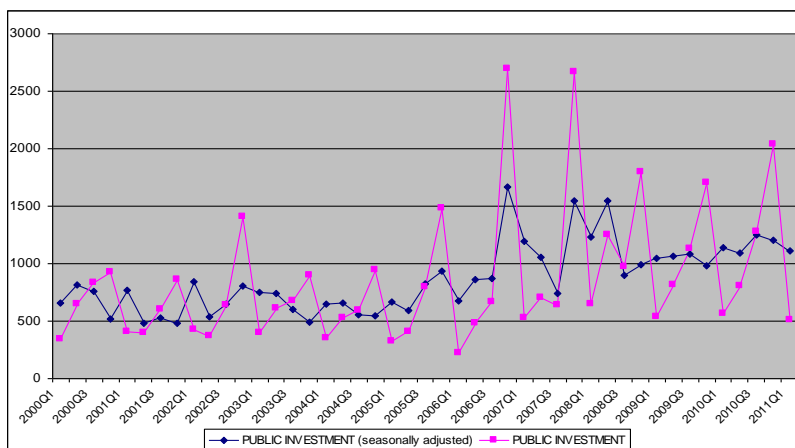


FIGURE 2 - THE EVOLUTION OF THE PUBLIC INVESTMENT BETWEEN 2000:1-2011:1  
Source of data: Eurostat, 2011

In Romania, public investment is considered a panacea for economic recovery, although as I have argued in this paper, the increasing amounts for budgetary capital spending do not generate necessarily and automatically any positive effects on the domestic production. In terms of Keynesian theory, private investment will decline in periods of economic recession because of increasing distrust for the private agents and state must to compensate it though more investments. In Romania, do not check this hypothesis, given that public investment declined in real terms from the previous period, while private ones were reduced by 36% in 2009 compared to 2008 (figure 3).

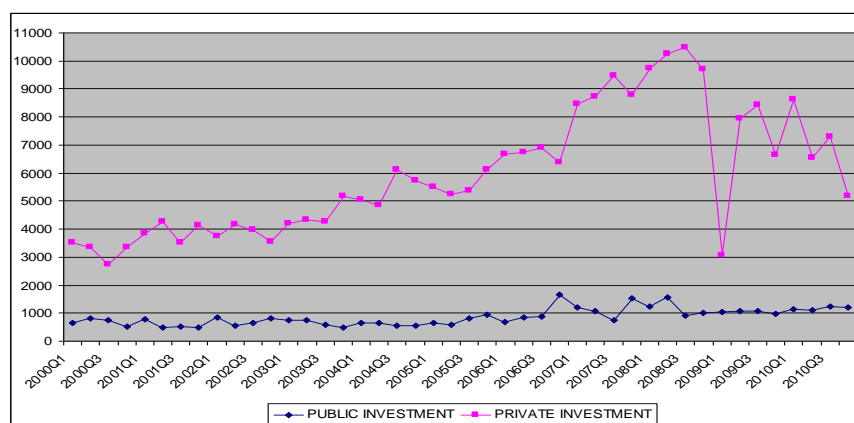


FIGURE 3 - THE EVOLUTION OF THE PRIVATE AND PUBLIC INVESTMENT IN ROMANIA  
 Source of data: Eurostat, 2011

#### 4. CONCLUSIONS

This study has been included in the larger theme referring to determining the fiscal policy tools for stimulating an economy which is affected by the economic crisis. Subsequently to performing this study, I believe that the main reasons for a smaller impact of the public investments in Romania are the follows: (1) the absence of a multi-annual budget schedule which blocks the achievement of great projects or the completion of the projects which have already been started; (2) the dependence of the projects' objectives on the election cycle, as it generates a "new" prioritizing of the investments; (3) the money which has not been spent for investments according to the budget granting settled at the beginning of each year; most of the amounts have been wasted by using them during the last quarter of each year during the period 2005-2008; (4) the absence of medium- and long-term entailing effects upon the real economy; normally, these spending are mostly important for their long-term role upon the potential GDP; (5) the absence of transparency in the case of the public money, this fact determining budget allocations which are higher than the actual spending for the achievement of the projects; (6) directing a part of the state's spending towards the procurement of imported production factors, and this fact has generated a lower impact upon the national output.



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