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PUBLIC EXPENDITURE POLICIES AND THEIR IMPLICATIONS

Summary of the PhD thesis

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ABSTRACT

We consider as being particularly important and at the same time of topical interest the research on "*Public expenditure policy and their implications*", a problematic of general interest, with influences over economic and social life in Romania, in the European Union and in the world.

The fundamental aim consists of deepening research on the approach from the point of scientific bases, as well as of solving the problem of public expenditure policies, from the point of optimization and effectiveness of public expenditure, with resonance in the decisions undertaken by the government, highlighting their implications in the economic and social field.

In respect to *specific objectives*, have been taken into account: conceptual delimitation of the public expenditure, starting from the views presented in the literature, as well as of the doctrinally alternatives of approaches, to highlight changes which have occurred in the context of concepts about the state; highlighting the concept of public expenditure policy, in order to identify the specificity of phenomena dealt with in accordance with the theme; identification of the factors that influence options on allocation on the basis of rational criteria of public expenditure; outlining the specific frame of rational sizing of public expenditure, from the point of scientific bases and efficiently spending of resources; highlighting the implications for public expenditure policy of using classical and modern methods of sizing public expenditure; identification, on the basis of the existing literature, of the categories of public expenditure that influence positively, directly or indirectly, the economic and social development and support the development of society and thus, the implications for public expenditure policy; comparative analysis of public expenditure policies in different countries, after 1990, with the aim of identifying changes on the guidelines of policy in the field public expenditure of the governments of various countries that have conditioned the provision of public utilities in the period of economic expansion, in comparison to the period of economic and financial crisis; testing the applicability of Armey's model with the purpose of identifying the optimum level of public expenditure to which economic growth is maximized, for the group of Member States of the European Union-27, but also individually, in some countries; analysis of public expenditure policies from the point of view of their structure and dynamics in the conditions of Romania, in the period 1950-2010, in order to identify changes generated by the real socio-economic environment on public spending policy decisions assumed by the Government; testing the applicability of two multiple linear regression model to identify the relations existing between the various categories of public expenditure of Romania (according to their functional

and economic structure) and economic growth, and on their basis to identify the implications for public expenditure policy.

As primary methodological approach has been used *quantitative analysis*. *Qualitative research* has also been used, following the compared analysis on public expenditure policies in different countries.

The method applied in starting the specific research has been in the first place a *statistical-mathematical* one, such as testing econometrical models, taken into acount the field of research, with guidance in particular to quantitative analysis. In order to test the applicability of different models has been used, in particular, *the least squares method*. The technique used, as a component of the method, was represented by the *time series analysis*. The process used has been *statistical grouping* of the variables of public expenditure and GDP. The research instruments consisted in indices, statistical program Eviews 7, tables of statistical data and graphs.

According to the existent literature, ***the first chapter*** covers the concept of public expenditure as a field of manifestation for financial policy, on the basis of the economic content of public expenditure according to two ways of defining, in a broad sense and in a narrow sense, continuing with the interpretations of this concept from the classical and modern opinions on public spending.

While classics economists expressed their opinions for limiting public expenditure to national defense, administration of justice, public works and public institutions and for a primary education, public expenditure being regarded as a consumption of values, in the modern approach, their significance is of processes of reallocation of resources. To support the above ideas have been made references to the works of Adam Smith (1965), David Ricardo (1959), Karl Marx (1959), J. M. Keynes (1970), P.A. Samuelson (2000), W. J. Schultz and W. L. Harris (1954) etc.

On the same line, in a general note, the structure of PhD thesis addresses in the first chapter the concept of public expenditure policy, as an integral part of fiscal budgetary policy and of financial policy, by applying deep implications on economic policy.

Reviewing the literature on public expenditure policy has revealed a restrictive approach of the concept of fiscal policy, with reference to financial public resources policy, which affects to a large extent the field of taxes, and also has been found the same approach of the concept of budgetary policy, designed often as a policy of public expenditure. Our opinion is that in addressing the concept of fiscal policy we need to be taken into account both the problematic of procuring tax resources, but also their allocation in order to meet public needs, including the component of the public expenditure, given the fact that the dimensions of public expenditure shall determine the size of fiscal resources

necessary to be procured. Similar to the concept of budgetary policy, we believe that the reference area must include decisions relating to the procurement, allocation and use of the financial resources, including the budget balance and the terms and conditions of its financing, in order to be consistent with the content of the public budget.

Through the content and instruments used, public expenditure policy consists in options/decisions on structuring, sizing, and establishing the details of their funding, choosing the methods, forms, tools and operational techniques which are used in the processes of allocation the financial resources.

In order to make a global characterization of public expenditure as an economic and financial phenomenon, ***chapter II*** starts with the presentation of the set of indicators used for comparative analysis of public expenditure policies for different countries, in different periods of time. Of these indicators, we mention: the specific weight of public expenditure, the index of nominal change, as well as the index of real change of public expenditure, in absolute and relative terms, the percentage change of government expenditure in GDP, the level of public expenditure per capita, as well as elasticity of public expenditure in relation to GDP.

From the above indicators, has been carried out an analysis for the period 1913-2009, for a group of industrialized countries, which showed significant changes in public expenditure policies, due to the influence of a multitude of factors: military, economic, political, social, demographical, globalization, the aims of policies promoted by the governments which are on board, etc.

Deepening study on financial policy in the field of public expenditure has focused on extended studying of the specific coordinates, respectively proper structuring of public expenditure, the sizing and effectively use of financial resources and influencing economic and social processes and supporting the development of society.

In respect to a proper structuring of public expenditure in accordance with the public needs to be satisfied and the existing priorities, we *agree with the results obtained by the various empirical studies* (Tridimas G., 2005; Potrafke, 2006; 2010; Busemeyer, M.R., 2009 etc.), *according to which political factors exert a significant impact on the allocation of public expenditure*.

From the perspective of rational sizing of public expenditure, we have insisted on the idea *that through the options relating to financial policy is required, and also much more relevant, determinating the amounts in absolute terms of public expenditure and of their weights in total public expenditure, and not just fixing their shares in GDP*, given the fact that in the period of economic and financial crisis, higher shares of public expenditure in GDP were sometimes justified by decreases in GDP, and not by the increase in absolute terms of public expenditures.

Rational sizing of public expenditure concerned the study of classical and modern methods of sizing public expenditure, with the presentation of their advantages and disadvantages and applicability in different countries and periods of time. *From the point of view of policy implications on public expenditure, using of modern methods facilitates implementing the budget programs, with advantages in terms of efficient use of resources.*

We believe that *ensuring a high degree of socio-economic efficiency always require the analysis of connections existing between the rate of growth of public expenditure, on the one hand and the increase in GDP, on the other hand, by calculating the elasticity coefficient, counting on the increase of labor productivity which is obtained by financing public expenditure, which will be found in a higher GDP*.

Another major coordinate of public expenditure policy over which we have expanded the research was using public expenditure as ways of positive influencing the economic and social processes. Having as support the results of the different studies existing in the literature, *we expressed the opinion that policy options facing toward financing the investment exercise positive effects in the economy, directly, through the creation and development of the economically public sector, by financing scientifical research and technological development, by protecting the environment, and however, indirectly, by financing, in particular, expenditures for social-cultural actions, by granting of subsidies in priority branches of economy etc.*

Chapter III presents a comparative analysis of public expenditure policies and their implications in different countries. Judging by their share in the GDP, the analysis revealed high levels for the euro area, in the period 1991-2010, by almost 50% of the gross domestic product (according to Eurostat), lower in the developing countries of the European Union (below 40% of the GDP) and less than 30% of GDP in India, Argentina, Tunisia, Egypt, Chile.

In developed countries, but also in developing ones of the EU and in Tunisia, the high weights in GDP of public expenditure in the last few years are justified by the increased sizes of absolute expenditure, as a result of government intervention through fiscal instruments of the type of grants and other categories of transfers for economic recovery, but also were justified by the decrease in GDP in 2009, compared with the year 2008.

Unlike the previous period of the economic and financial crisis, during 2008-2009, *governments from developed countries, but also from developing countries have opted for keynesist policies, assuming increased public expenditure, as a method to stimulate consumption, to influence total demand and to contribute to economic recovery*. American federal government has been among the first which

has adopted an economic recovery plan, which assumed exceptional public expenditure to avoid bankruptcies of the banking sector.

After analyzing the economic structure of expenditure from consolidated general budgets, in the period 1991-2010, it has been found that both in developed countries, but also in the developing countries, *the political decisions on public expenditure have been directed prioritary to current expenditure, and within these, social benefits have had the highest weight during the entire period, highlighting as policy priorities*, followed by expenditure on comsumption of employees and expenditure on goods and services. Unlike developed countries, at which the share of gross capital formation in total expenditures has been a reduced one, in developing countries, their specific weight has been much higher, exceeding for specific countries 15% of total expenditure.

In the period 1991-2010, in what concerns the functional structure of public expenditure in developed countries, but also of those in developing from the EU, the analysis has found *the highest weights in GDP and also high specific weights in total expenditure for social security, highlighting as an essential priority of the public expenditure policy*. In contrast to these countries, in India, the options of public expenditure policy have concerned prioritary the group of general public services and national defense, justified by employing in military modernization programs. On the other hand, in Chile, Tunisia and in developing countries of the EU, funding the economic affairs plays an important place, whereas the private sector is well developed, which justifies state intervention to lay the foundation of economic development.

Another important contribution of the research to the current stage of knowledge consists in *the estimation, through the econometric modeling analysis, of the optimal level of public expenditure of a percentage in GDP at which economic growth is maximized, suggested by Armey's model, for a group composed of the 27 Member States of the European Union, but and individually, in certain countries*.

The result of testing the Armey's model *suggests an optimum size of public expenditure in the EU-27, including both developed and developing countries, of approximately 31% of the GDP* (by 14 percentage points less than the level recorded by these public expenditure in the period 1995-2010, of approximately 45% of the GDP), *at which the maximum growth rate of GDP would have been 3.81%/year.* The analysis has revealed that the estimated optimal level of public expenditure in GDP has been exceeded by all countries and its interpretation should take into account the limits of the model, resulting from ignoring some factors with impact on the rate of economic growth, as foreign direct investments, which are a key pillar, but also budget revenues.

Also, deepening testing has identified different optimal levels in the countries analyzed individually, higher in developed countries, while in developing countries are lower (this is the Bulgaria's case). Testing has shown in the UK an optimum level of 40.22%, in Belgium of 49.88%, in Ireland by 47.62%, in Finland 34.28%, in Spain, of 40.56%, in Poland, of 44.70%, in Bulgaria, of 35.94%, in Cyprus, of 39.70%, in Estonia, of 34.59 %. The explanation *lies in higher possibilities for the redistribution of GDP in developed countries, as a result of different sizes of the GDP necessary to carry out public expenditure, which justifies the higher levels of public expenditure.* Also, *differences are susceptible from the perspective of the structure of public expenditure, whereas in developed countries policy options are oriented toward financing social protection, in contrast to developing countries, at which policy decisions require increased expenditure with economic affairs*.

We express our opinion that an optimal level lower than it is the average for these countries may not require reducting their level as a percentage of GDP, *whereas in developing countries it is still necessary the state intervention to lay the foundation of economic development, which means increased public expenditure, which financed even in the way of public loans, but directed to support productive investment in infrastructure, in human capital, can generate beneficial effects which could compensate the lack of private capital and may exceed the potential reduction in the rate of growth of GDP, suggested by Armey's model.* In contrast, we believe that *in certain developed countries, a low level of public expenditure, close to the level of optimal estimated, might be justified by the fact that they have carried out extensive reforms of reduction of public expenditure yet since the beginning of the 1990s.*

In ***chapter IV***, the analysis of the functional structure of public expenditure in the socialist period highlighted *the policy options facing priority to funding to national economy, justified by the centralized way of financing investments by the public sector*, with an upward trend during the period 1950-1980, while in the year 1989 recorded declines, in the background transition to a market economy and reducing subsidies to public enterprises.

In contrast, after the analysis carried out in the period 1990-2010 it was found that *policy options in the field of public expenditure have imposed as priorities, financing, in particular, of the social-cultural actions*, explained by increases in absolute sizes for insurance and social assistance, while the proportion of economic affairs has been significantly reduced, as a result of retightening state actions in the economic field.

We believe that introducing compensatory payments, as a tool for public expenditure policy objective, at the level of 1997, has generated a substantial increase in social protection expenditures and proved a costly instrument, which highlighted the inefficiency in spending financial resources.

Also, in what concerns the political decisions adopted by the Romanian Government during the period of economic and financial crisis, we expressed the opinion that the measure of reduction with 25% of the wages of state employees (measure adopted in July 2010), without a differentiation in terms of performance of public institutions may have negative implications on the efficiency of the public sector.

Another important contribution of this research concerns *the empirical testing, under the conditions of Romania, of the impact that public expenditure (by functional and economic classification), may have on the growth rate of the GDP and the implications related to the policy on public spending, by using two models of multiple linear regression*.

Testing the applicability of the multiple linear regression model using public expenses, according to their functional classification, in the period 1995-2010, highlighted positive and significant correlations from statistical point of view with economic growth for education (education, culture, recreation and religion), health (SAN), economic affairs (AE) and general public services (although initial the hypothesis has been of negative connection with GDP), and negative for insurance and social assistance (AS) and expenses for services and public development, housing, water and the environment (SDP), while for defense (AP) the coefficient was not statistically significant.

Table no.1: Testing the applicability of the multiple linear regression model using categories of public expenditure according to their functional classification in the case of Romania

Dependent variable: PIB			
Method: Least Square			
Period: 1995-2010			
Independent variables	**Coefficients**	**Independent variables**	**Coefficients**
C	-22,55500** (7,305182) [0,0215]	AS	-2,352057*** (1,205003) [0,0988]
EDU	5,286981*** (2,465582) [0,0757]	SDP	-17,81878** (5,385766) [0,0162]
SAN	6,746676** (2,358731) [0,0288]	AE	3,575376** (1,168968) [0,0223]
SPG	2,965407** (1,001200) [0,0252]	AP	1,997352 (2,510323) [0,4565]
R-squared	0,773555		
Adjusted R-squared	0,509369		
F-statistic	2,928073		
Prob(F-statistic)	0,105822		

Note: In () are standard deviations of coefficients; in [] are highlighted the associated probabilities; * - statistically significant to 1%; ** - statistically significant to 5%; *** - statistically significant to 10%

Source: own calculations according to data from Eurostat 2012 and The Conference Board Total Economy Database, 2011

The equation of model 1 is: PIB=5.28*EDU+6.74*SAN+2.96*SPG-2.35*AS-17.81*SDP+3.57*AE+1.99*AP-22.55.

On the basis of the results of empirical testing, *we believe that policy options on public expenditure should impose intense financing of education and health care, which are policy instruments for promoting sustainable economic growth, but also on economic affairs, as a result of their stabilization impact on the economy, directly, through creation and development of economic public sector, but also indirectly, by granting subsidies*.

The second testing on the applicability of a multiple linear regression model using public expenditures, according to their economic structure, in the period 1995-2011, in Romania, highlighted positive and significant connections from a statistical viewpoint with economic growth, for compensation of employees (CP), intermediate consumption (CM), subsidies (SB) and transfers (TRANSF), while

for investment expenditure (IK) and interests paid (DOB), correlations with GDP were negative.

Table no. 2: Testing the applicability of the multiple linear regression model using categories of public expenditure according to their economic classification in the case of Romania

Dependent variable: PIB			
Method: Least Square			
Period: 1995-2011			
Independent variables	**Coefficients**	**Independent variables**	**Coefficients**
C	2667,512 (1908,477) [0,2049]	SB	13,09388* (2,529342) [0,0013]
CP	9,396611* (1,575083) [0,0006]	ALTE	3,228566*** (1,667415) [0,0941]
CM	2,326216* (0,437979) [0,0011]	DOB	-9,922052** (3,014760) [0,0133]
IK	-5,033538** (2,048269) [0,0436]	TRANSF	3,829914* (0,559774) [0,0002]
R-squared	0.975077		
Adjusted R-squared	0.950154		
F-statistic	39,12370		
Prob(F-statistic)	0,000043		

Note: In () are standard deviations of coefficients; in [] are highlighted the associated probabilities; * - statistically significant to 1%; ** - statistically significant to 5%; *** - statistically significant to 10%
Source: own calculations according to data from Eurostat 2012

The equation of model 2 is: PIB=2667.51+9.39*CP+2.32*CM–5.03*IK+13.09*SB+3.22*ALTE-9.92*DOB+3.82*TRANSF.

Positive connections between economic growth and public expenditure for compensation of employees, goods and services, subsidies and other components of transfers are justified by the fact that are components of aggregate demand and exert influences over the aggregate supply, with role of facilitating economic growth.

We believe that policy options on public spending may not impose unreasonable financing of current expenditures, given the fact that these resources are final consumptions and not support the sustainable development of the society.

We express the opinion that from the perspective of public expenditure policy, funding the activities or objectives of public investment should be an important task in the current context to contribute to economic growth.

As a first ***future direction of research*** we consider of interest extending the analysis of multiple linear regression model to all Member States of the European Union in order to identify the implications that correlations between public expenditure (according to their functional and economic structure) and economic growth have on public expenditure policies. ***A second direction of research*** to which we turn our attention is expanding the applicability of Armey's model to specific categories of public expenditure for the same group of countries of the European Union, in order to identify the optimum level for public expenditure on education, health and social protection, economic affairs, which will contribute to economic growth.

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