

ABSTRACT

Placed in the background of research topics in times of respite and regularly returning to the forefront of debates in more difficult times, the issue of public indebtedness is one of general and permanent interest and concern. In particular, the international developments of recent years, during the global economic and financial crisis, consisting in unsustainable public debt growth paths of many developed countries, confer to the research topic we addressed additional relevance.

The *aim of our research* is to perform a deep analysis of the issue of public indebtedness and its effects on various aspects of the economic and social activity. From this aim derive *several objectives* that we intended to address, namely:

- to clarify the content of involved concepts, public indebtedness and public debt;
- to identify the organic connections established between public indebtedness, public debt and public borrowing;
- to highlight the points of consensus and divergence on the issue of public indebtedness and its implications reflected in the views expressed by pre-classic, classic and modern economists;
- to identify the particularities regarding public debt's dynamics, structure and its specific implications, for country groups and representative individual countries;
- to evaluate the contribution of various factors to the change in annual public debt levels, for country groups and representative individual countries;
- to analyze the mutations produced with respect to public debt's dynamics and structure, as well as to impact factors and specific implications, for representative periods in Romania's modern history;
- to qualitatively and quantitatively examine the main economic, financial and social effects of public indebtedness, in different countries;
- to empirically investigate the impact of public debt on economic growth, for the EU member states and the candidate countries for EU accession.

In shaping out our scientific approach we determined a specific *research methodology*, by selecting those methods and techniques that we considered to be most relevant, both for our objectives and the particularities of the research field. More important are the descriptive analysis, the comparative analysis, the exploratory analysis and the quantitative research techniques. As empirical research method we employed the generalized method of moments.

Throughout the whole paper we combined relevant theoretical and practical issues, thus providing our scientific research with unity, consistency and validity by continually confronting relevant theories with economic reality. The positivist scientific approach was complemented with critical and interpretativiste approaches.

The quantitative analyzes were performed based on collecting and processing data from official sources, both national (institutes of statistics, ministries of finance, central banks) and international (IMF, OECD, World Bank, European Commission etc.). Usually, the period

covered was 1990-2012, but in some specific cases the analysis was generously extended in time.

Given the complex nature of the research topic, the approach has proved to be, at some points, an interdisciplinary one. Although our research essentially is one of financial nature, to ensure the depth of analysis extensions were required towards legal, national accounting and economic doctrines fields.

Our research approach was planned in several stages, with correspondence in the four main chapters of the thesis. The fifth chapter summarized the main conclusions and opinions expressed throughout the paper, revealed the personal contributions, limitations and possible directions for further research.

In *the first chapter of the thesis* we delimited the content of public indebtedness, by resorting to representative public finance studies. Our personal contribution consisted in formulating our own definition of the concept, reflecting some aspects that we considered to be most relevant: the financial content of the concept; the quality of the state, in its plurality of forms of manifestation, as (direct or indirect) debtor; the objectives pursued by the state, namely to meet public (national or local) needs.

We also highlighted the close connections between public indebtedness and public borrowing, showing that public authorities' direct borrowing is the main channel through which public indebtedness occurs. We found, however, that the two concepts only rarely overlap, being frequent, for example, the practice of granting public guarantees for private loans. With regard to the connections established between public indebtedness and public debt, we shown that the formation and existence of debt appear to be an expression and, also, a result of public indebtedness, thus justifying the approach reflected throughout this paper, consisting in analyzing indebtedness by referring to public debt indicators.

We further evaluated the alternative definitions given to the concept of public debt and its scope of coverage in national legislation or by international institutions and organizations (IMF, World Bank, OECD, and European Commission). The conclusions were that, although remarkable efforts have been made, we still can't talk about worldwide consensus on the notion of public debt and its scope of coverage, three main criteria of differentiation being more relevant: the nature of public debtors, the actual or potential/contingent nature of debt liabilities and the range of liabilities considered when determining the size of public debt.

A distinctive part of our research concerned the content of views expressed by pre-classic, classic and modern economists with regard to public indebtedness and its socio-economic effects. These were followed in their succession in time, focusing on highlighting the mutations that occurred (relative to the development of the economy, society and conceptions on the role of the state), the points of consensus or contrary opinions expressed and arguments that these views relied upon. The approach was a critical one, constantly assessing the viability and applicability of these conceptions to contemporary realities.

Finally, in the first chapter of the thesis we also delimited the main forms of public debt by considering different criteria of structuring, we identified the potential factors with impact on the level of public debt and succinctly presented the content of most relevant indicators used in analyzes on the size, dynamics and structure of public debt and on the financial effort that it requires. A more significant personal contribution can be revealed when we presented the forms

of public debt, where we did not simply limit to their inventory but we revealed their particularities with respect to the conditions of incurrence and potential specific implications.

In *the second chapter of the thesis* we highlighted, based on the analysis of some relevant indicators, the particularities registered with regard to the dynamics, level and structure of public debt as well as its specific implications, by different country groups (developed and developing countries), sub-regional groups and even individual countries. We also revealed the factors affecting public debt annual level and assessed their comparative contribution at different moments in time. We insisted on budget deficit's contribution and identified the factors determining its dimensions, by influencing the volume of public revenue and expenditure. A particular importance was given to the developments occurring once the global economic and financial crisis emerged.

We showed that in developed countries public indebtedness has a long history, of over three centuries. Significant increases in public debt were recorded in these countries, in the past, especially in times of war, afterwards high inflation regimes mechanically bringing down the debt to a more manageable level. Although more recently, public indebtedness occurred in developing countries too. Their public debt massively increased in the '70 – '80s, as these countries carried out massive development programs trying to fill out the economic and social development gaps separating them from the developed ones, growth that was perpetuated until the middle of last century's last decade. Once the effects of the recent economic and financial crisis occurred public debt massively increased, especially in developed countries, both because of the negative impact of the crisis on the budgetary revenues and expenditures sensitive to the economic conjuncture and because of the extensive package of measures adopted by national governments to boost economic recovery and help banks and other financial institutions in distress.

With regard to public debt's dimensions, we found that although developing countries were previously considered to know higher public debt levels compared to the developed ones, the situation presently looks reversed. At the end of 2011, the average public debt of developing countries was about 35% of GDP, compared to over 90% of GDP for the developed ones. However, the situation of developing countries may not be considered without any risk. Their past experience showed that, due to the high volatility of the economy, the lower quality of the institutional system and the lower credibility they benefit of, developing countries can record problems at lower levels of public debt.

The public debt of developing countries differs not only in level but also in structure from that of the developed ones, although significant differences could be observed between different country subgroups. Unlike the public debt of developing countries, the debt of developed ones is contracted mostly from domestic sources and, to a lesser extent, from foreign creditors. As they have developed and diversified economies, developed countries benefit from large domestic capital markets, where they can procure most of the debt resources, in national currency. Also, public debt in national currency accounts, in most developed countries, for over 90% of the total public debt, thus being protected against the foreign currency risk, that largely affects developing countries (with non-convertible currencies).

The analysis conducted on the factors of impact on the annual level of public debt revealed that negative budget balances were the main channel through which the growth of debt was fueled in modern economies, although the causes of such deficits were not the same. As

general causes we identified the high costs with government apparatus, the large amount of interest expenses and economic recessions. As particularity for developed countries, we found that budget deficits were mostly determined by massive increases in budgetary expenditures (mainly the socio-cultural ones), faster than GDP and budgetary revenues growth. On the contrary, in less developed countries, the specific causes are especially related to the low level of development, leading to smaller budgetary revenues as well as to the need to support, thorough specific public spending, the private sector of the economy. The contribution of taxes to budgetary revenues is, in these countries, a smaller one, due to the small size of the tax base and the low effective tax rates, on the background of inefficient tax systems, numerous tax facilities and sizeable proportions of tax evasion.

Although, the recent period excluded, public debt dynamics in developed countries proved to be mainly driven by budget balances, in developing countries significant was also the influence of other factors, such as the depreciation of the national currency, the positive real interest rates or the costs of solving banking crises.

In *the third chapter of the thesis* we analyzed public debt's dynamics, structure and the factors with influence on its annual level, in Romania. Considering the particularities of the domestic and international socio-economic and political environment, three different periods of time were taken into consideration, namely the one before 1989, the one of transition to market economy and preparation for European integration (1990-2006) and the one in which Romania has the status of European Union member country (2007-2012). In order to get to relevant conclusions, Romania's situation was permanently compared to the one of other Central and Eastern European countries.

The indebtedness of public authorities has a long and tumultuous history on Romania's current territory. Before World War I public debt experienced a general upward trend, as public authorities incurred debt in order to finance large-scale infrastructure or social investments, to modernize the economy and ensure its capitalist basis. However, important public debts were also contracted to cover increased current or military expenditures, such as those arising from the involvement in the War of Independence. On the contrary, the evolution of public debt in the period 1915-1947 was found to be a sinuous one. Public debt rose sharply during the two World Wars and the economic crisis of 1929-1933, as a result of both public borrowing to cover increased military spending or to mitigate the effects of the crisis, and of the takeover of debts of the territories annexed at Romania or of the recognition of war debts towards the Allies.

The socialist period, at its turn, was marked by contrasting trends. Romania gradually accumulated (external) public debt in the 70s, by massively borrowing from abroad to conduct extensive industrial development programs. However, in the early 80s, as the borrowing conditions imposed by international financial institutions were tightened, it was decided to redeem the entire external debt before maturity. This rapid redemption required for important foreign currency resources to be made available, by widening the gap between exports and imports, with obvious adverse effects on the economy.

With the change of political regime in December 1989, Romania engaged on a path of comprehensive economic and social reforms and, thus, public indebtedness was relaunched. In the context of important and chronic budget and current account deficits, as well as of an inefficient and loss generating public economic sector, the use of indebtedness resources was permanent during the transition period and the ratio of public debt to GDP registered an overall

upward trend until 1999. Further developments highlighted the reversal of this trend, on the background of significant positive GDP growth rates and of the progresses achieved in diminishing budget deficits, imposed, at some extent, by existing funding constraints.

The analysis of the factors with influence on Romania's public debt, in the period 1990-2006, led to the conclusion that, together with general factors (such as the incurrence of budget deficits, public guarantees granting to various economic and social agents and the dynamics of GDP), some other factors subsisted, specific to developing countries (such as national currency depreciation) or to transition economies (such as raising significant revenues from privatization or the takeover, by public authorities, of the assets of banks and state enterprises in distress). At its turn, the budget balance, which continuously registered negative values after 1992, was found to be the result of numerous factors with impact on the size of budgetary revenues and expenditures, including: the repeated and important annual decreases of GDP in the early years of transition; the proliferation of tax evasion; the low ratio of taxes and contributions collection, especially for state-owned enterprises; the important social transfers, subsidies and interest spending.

With regard to public debt structure, it resulted from our analysis that, just like in other developing countries, the share of external public debt to GDP exceeded, without exception from 1990 to 2006, the one of the internal debt, due to the insufficient development of the internal capital market, to the mistrust in national currency, subject to continued and enhanced depreciation, to the lower borrowing costs on foreign markets and to the permanent need to procure foreign currency resources for covering the deficits of the balance of payments. As specific to the early years of transition, external borrowing resources came mostly from international financial institutions, thus increasing the dependence of our country on foreign economies.

On the background of deteriorating macroeconomic conditions, the period from 2007 to 2012 was characterized by resuming the upward trend of ratio of public debt to GDP. The increase was found to be concentrated at the level of central government debt, due to both the reduction of local authorities' access to bank loans and the internal capital market and to the legal conditions imposed to them on contracting and guaranteeing new loans, conditions that became tighter as a result of the austerity measures launched in 2010. Further analyzing local government debt, we revealed the existence of a lower access of villages and small urban communities to borrowed resources, as well as large differences in this respect between various development regions.

Relative to the factors that influenced on the level of Romania's public debt, during the 2007-2012 period, we found that public debt's growth, prior to 2009, was mainly due to the pro-cyclical budgetary policies promoted by public authorities, based on successive increases of public expenditures, mainly of the current ones (with public sector employees). After 2009, however, the growth of public debt was found to be attributed to the economic and financial crisis, the effects of which translated to budgetary aggregates sensitive to economic situation, so that budgetary revenues diminished and budgetary expenditures increased. Other factors, such as the low efficiency of tax collecting, the high expenditures with interests on public debt, the contraction of GDP, the depreciation of the national currency or the provision of government guarantees contributed, at their turn, to the accumulation of public debt.

The *fourth chapter of the thesis* was devoted to a thorough analysis of the most important effects that public indebtedness can generate at different levels of the economic and social life, namely on economic growth, inflation, the equilibrium of the balance of payments, human development or future generations. We sought to highlight both the theoretical content of these effects, on the basis of some benchmarks established in the literature, and how they are reflected in the practice of various countries, Romania included. The approach was a proactive one, seeking to identify solutions to limit the negative effects and enhance the positive ones and formulating public indebtedness policy proposals.

An important contribution of our research to the advancement of knowledge comes from the empirical study of public debt's effects on the economic growth rate of a country, on the example of the 33 EU member states and candidate countries for EU accession, during 1990-2011. The elements of originality differentiating our work from recent empirical studies treating similar issues consist in: different control variables, expressing the impact of other explanatory factors of economic growth; assessing public debt's impact on economic growth on both the short and medium term (three years); extending the analysis to developing countries.

Our results indicated the existence of a nonlinear relationship, of "inverted U" type, between public debt and GDP growth. In other words, when public debt ratio to GDP is quite small, the effects of an increase of public debt on economic growth may be positive; however, these effects gradually decrease as the debt becomes more important and there is a certain level of debt beyond which they become negative. The level of debt allowing for the maximum economic growth resulted to be, on average, of about 80-90% of GDP. However, the level was found to be much higher in developed countries than in developing ones.

With respect to the practical applicability of our results, we considered that, when promoting public indebtedness policies, governments shall ensure that public debt is kept below the identified thresholds, although they should not be considered as absolute benchmarks, but interpreted with caution. We also questioned the viability of establishing a unique public debt threshold, of 60% of GDP, for all European Union member countries, disregarding the significant differences recorded among them with regard to their level of development, which would impose to differentiate this limit for developed and developing countries.

As concerns the monetary impact of public indebtedness, we determined that in some cases public debt can lead to a higher amount of money in circulation and, thus, to increasing inflation, as when it is accepted for the central bank to directly lend money to governments, by means of short-term loans to finance treasury deficits, or when commercial banks act as lenders for governments. The assessments made with regard to Romania's situation revealed the existence of a potential contribution of public authorities' indebtedness to the proliferation of inflation during the first decade of transition, leading us to the conclusion that a more rapid establishment of a rigorous regime for the (direct and indirect) access of public authorities to the National Bank of Romania's resources would have had positive effects on ensuring the necessary premises for monetary stability.

Referring to the social effects, we insisted on the impact of public indebtedness on human development (evaluated by the human development index – HDI) and on future generations. In this last regard, noting the superficial treatment of the issue in the literature, generally limited to asserting that future generations are burdened as they have to repay the debt, we brought some clarifications by integrating into the analysis the phenomena that give rise to public debt and

whose positive effects may, sometimes, be expanded into the future. We showed that, depending on the destinations given to borrowed resources, the "net burden" passed on to future generations could, in fact, represent a "net benefit".

Our research approach was not an easy one, the *main difficulty encountered* consisting in obtaining a set of comprehensive, reliable and comparable across countries statistical data. This indicates the need to accelerate worldwide efforts towards improving the quality and availability of statistical data in the field.

As *future research directions*, we propose ourselves to:

- identify, for EU member states and candidate countries for EU accession, the channels through which the effects of public debt are transmitted on economic growth;
- empirically test the impact of public debt on inflation, highlighting possible particularities for different groups of countries;
- analyze the options available for public policymakers when shaping public desindebtedness strategies and their applicability for different countries, taking into account their socio-economic particularities and the dimensions of desired adjustments;
- further analyze the social effects of public debt, an issue which, up to present, was not the subject of separate and in depth treatment in the literature.