UNIVERSITY OF CRAIOVA

FACULTY OF ECONOMICS AND BUSINESS ADMINISTRATION

SUMMARY

Of the Ph.D. Thesis

"PUBLIC DEBT IN ROMANIA"

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rating; Fisher's test; Durbin - Watson test; Jarque- Bera test.

C.   REASONS FOR APPROACHING THE THEME

The research theme is extremely topical in the evolutionary context that followed the recently ended global recession of financial origin, given its increasingly extensive international impact and the general dynamics of public debts worldwide.

Another aspect that highlights the acuteness of the problems of public debt in the European area is revealed by turning public debt into a key landmark of the economic convergence of the European Union member countries.

The Maastricht Treaty, in compliance with the actual economic laws that generate admissible threshold that are required to the European Union Member countries and to those in the European area, select public debt among the basic criteria and formulate indicators based on the volume of the public debt converted into restrictions and significant limiting indicators. The convergence to the European and Monetary Union also measured by means of the impact of the public debt, with the details concerning the nominal, real, institutional and structural convergence, but also with the details related to convergence β (conditioned by the initial state), σ (GDP similarity /capita), γ (synchronisation of the business cycle), δ (similarity of the convergence factors), α (similarity of the structure of the economy) became the most important real problem of the economical evolution of the contemporary Romania with continuous resets of temporal limits for the fulfilment of criteria that can bring the national economy in the European space or area, which is the ultimate target of the whole transition, adhesion and integration approach.

The problems of the public debt fluctuate between to major approach limits, the (internal and external) public debt being constituting both the price of the freedom of an economy as well as an essential resource of the change, modernization and sustainable development of a country.

Development programmes and strategies, forecasts and simulations, related to the development of the Romanian economy in the European Union, together with the recommendations of the same European Union and with the models for the adaptation to the European space or area highlight the timeliness and the major impact of the public debt problems, and the actual initiatives, policies and models of economic evolution of our country in order to implement the recommendations of the European Union establishes it as one of the critical topics of our decade, and also of the development of the national

economy for the 2020 and 2030 time horizon.

D.   SUMMARY OF THE CHAPTERS OF THE PH.D. THESIS

Chapter 1, entitled *"Multi-paradigm of debt in the modern economic science and public debt"* starts from the classical paradigm whose role established in the science and the scientific research is exposed in order to highlight the meta- or multi-paradigm of debt in the contemporary economy and implicitly in Romania's economy. A brief analysis of Romania's indebtedness phenomenon throughout one and a half century of national economic history is made in the second sub-chapter. General conceptualizations, distinctive meanings, typologies and solutions for the economic quantification of debt are synthetically presented given the scale of the scientific treatment of this phenomenon and the importance attached to it in the recent decades. Some of the most important economic theories directly related to public debt, presented depending on the pros and cons of the collective indebtedness process, close the firs chapter of the thesis.

Chapter 2, "Impact of the budget deficit and public debt in Romania's process of convergence to the European and Monetary Union", encloses and delimits the importance of the public debt in the context of the convergence of the European Union, the criteria substantiated into indicator systems of the access in the Eurozone, as ultimate target of the adhesion and integration of Romania by its initially monitored entrance and its subsequent sustainable development in the European Monetary Union space. A necessary and original simultaneous approach of the budget deficit and of the public debt outlines an essential financial and statistical o correlation between these economic variables. The final accent of this second chapter is laid on the two components: the cyclical and the structural one of the budget deficit and how it is turned into economic and financial information with a monitoring role at the level of the European Union, and especially by anticipating the budget deficit variable, statistically built in an innovative manner with a gap, as the main explanatory factor of the debt.

Chapter 3, "The management of the public debt of Romania, a source of improving the public indebtedness process", makes a summarised passage from the general functions of the classical management to the specificity of the public debt management that reunites both the operational management and the strategic one but mostly highlights the management of the characteristic risks of monitoring and managing public debt, identifying the main risks associated to the decision-making in the complex public debt management. "Results and limitations of the public debt management programmes in

Romania" ends this chapter in an applicative manner, reaffirming that the administration of the public debt by the Ministry of Public Finance and the use of a consistent decision-making strategy require observing certain structural limits, in orfer to maintain a prudent level in terms of main risks related to public indebtedness. The last sub-chapter has an important theoretical and practical contribution identifying the trend correlated to a dynamic economic increase of the public debt and of the public debt interest rate.

Chapter 4, "Temporal, territorial and structural analysis of the foreign and public debt" starts from the description of the main reasons of the selection of the division into periods and specific analysis of the temporal indicators, it then continues by detailing the main methods of investigating debt-generating deficits and the specific indicators of these methods, and it ends the highly applicative investigation with the temporal analysis of the debt by means of the chronological indicators together with the spatial and structural analysis of the debt by means of adequate indicators. The characteristic of this chapter is the originality of the final system of indicators proposed and also the innovation of the application of methods in an insufficiently explored financial system, and of the methods of establishing a hierarchy and identifying the concentration/diversification of certain structural components of the public debt.

Chapter 5, entitled "Econometric modelling of public debt" represents a complex financial econometric modelling approach, revealing initially briefly, by synthesizing the domestic and international econometric literature, the option for certain principles, stages and specific tests in modelling public debt. Then the databases that are used are presented (some of them being mentioned in the annexes of the thesis) as well as the variables characteristic to the modelling of the public debt, studied in a correlative manner, and in the end it specifies, sets parameters and validates/invalidates the main functional models of the public debt in Romania's economy, which models are original and have a n applicative impact in simulating and assessing public debt in our country. The sub-chapters "Mono-factorial econometric models of the public debt" and "Multifactorial econometric models of the public debt" define the two classes of models resulted from the financial econometric modelling process.

A number of conclusions and proposals, which are also resumed in the final part of the thesis, can be drawn from its content.

We can say, following the econometric demonstration, that the budgeting and monitoring of the public debt became increasingly focused on the past, on the fact that the determining factor of the budget for the current year is the budget of the previous year,

which in its turn represents the product of much earlier decisions in this respect, the programming of a sustainable level of the debt on the current year being essentially determined by its value from the previous year, correlated with the primary budget deficit.

The incremental nature and the evolutionary inertia, marked by a two-year gap, specific to the correlation of the public debt with the budget deficit dominates the econometric modelling of the phenomenon of public indebtedness of the Romanian economy. The paper proves that, by resorting to an original and comprehensive range of explanatory variables, we can build functional models of the formation of public debt that should provide on short term (2014 - 2015), estimated or forecast values (also useful in various simulations with fiscal and economic impact in general) close to the official forecasts of the European authorities in the field.

Among the competitive models described herein, the model with the estimated values that are the closest to the Eurostat forecasts (approximately 40% of GDP) remains the multifactorial one whose formula contains the explanatory variable budget deficit (that takes into account the aforementioned gap) and the variable named country rating (having the advantage that it turns to good account complex statistical data).

The paper also proves that there is a statistical link between the budget deficit, the public debt and the economic growth that can be suggestively called a triad of convergence, defined by two correlations, the correlation between debt and deficit being on the first place in the version with a gap, while the inverse correlation between debt and economic growth is on the second place, suggesting an opposite link both of the real GDP and of the fiscal policy with the public debt in Romania's case.

The complexity of the economic phenomenon of public indebtedness is highlighted by Romania's current situation, which viewed from the perspective of its relative level in GDP does not seem to be one of the most delicate ones, however, due to the share of the public debt in the budget incomes and the share o the interests of the same public debt in GDP, it provides a more realistic image or in other words a less optimistic one compared to the previous ones. In my opinion, these two latter indicators should enter the cone of light of the economic criteria of convergence in the European Monetary Union, for which thresholds or limits are set because they could set other attitudes in the governmental policies, both in relation to Romanian's economy, as well as the economies of the other European Union member countries.

The scale of the approach for conceptual clarification and econometric modelling of the public indebtedness phenomenon predisposes this thesis to being subsequently

completed in theoretical and applied articles starting from data related not only to Romania's economy but to other European or international economies as well, with various degrees of development, through the elaboration of multiple statistical - mathematical relationships with financial and economic support among all the types of macroeconomic deficits (of the trade balance and of the current account of the external balance of payments and the external debt, comparing them with the relationship between the budget deficit and the public debt).

Until the completion of such exhaustive study, from the analysis of the economic theories and the evolution of the phenomenon of Romania's public indebtedness throughout one and a half century of economic history presented in the thesis, the conclusion that is drawn is that, in order to monitor and increase the efficiency of the public debt, bringing it as close as possible to the private debt, it is necessary to have a logical and natural approach, or that its level should truly be the lowest possible level, in order to diminish the waste and inefficiency that are sometimes present.

At the same time, the presentation of the modern public debt management system supports the conclusion that its efficient monitoring and management should allow, at the same time, for: a controlled variation of the government public debt, the development of the government securities market, the improvement and optimization of the composition of the debt, the decrease of the costs accompanied by the decrease of the risks by increasing prudence for each and every risk, the relatively even distribution of the public debt service at increasingly optimised intervals of the maturities, an increase in the role of rigorous confrontational statistical analyses of the advantages in order to select loans in an optimal manner, achieving the public debt's role of resource for Romania's change, modernization and sustainable development in the case of certain strategic projects of public interest.

The final conclusion of the thesis is the finding that not to resort to public debt actually becomes a liberty equivalent to a luxury provided for a too high price and to the detriment of the general welfare of a country's inhabitants, while using it excessively leads to a high public debt that is often associated low economic growth rates on long-term, and the concern of the contemporary theories and of the unique approaches among which the present thesis, is to realistically identify the variables that have an impact in the formation of public debt in order to set its distinctive thresholds as percentages of GDP specific to the level of development of national economies.