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Green Economy and Sustainable Development

Firm Model Design from the Perspective of Sustainable Circular Economy Paradigm

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Abstract: As well known the sustainable circular economy is a regenerative oriented paradigm for transforming the waste into a valuable resource. In this framework, the business model appears in the form of an network architecture design that relates product, service and information flows, various business actors and their roles directed to potential benefits and value meanings, taking into account the technology-push, market-pull and regulatory innovative drivers and the linear and non- linear approaches to emphasize the importance of the connections between intentions and consequences as well as the complexity of social relationships between firm, consumers, investors and public authorities.

Keywords: Sustainable Development; Circular Economy; Business Model Design

1. Introduction- The Perspective of Sustainable Circular Economy Paradigm

As well known, the sustainable development paradigm is related to the socio economic relationships determinism between natural environment, society and economy, meaning on one hand freedom and action on marketplace and its consequences (utility, efficiency profit but also greedy and environmental pollution) and on the other hand the social institutional construction defining the complex dynamics of human society system.

Thus, taking into account the Brundtland, Rio and Kyoto international conference documents, sustainable development requires a process of learning design based on a linear cost benefit as well as on a nonlinear multidisciplinary models at different society levels –public authorities and economic agents.

In the same time, from the perspective of some classical writers such as Georges Bataille, Kenneth E. Boulding, M. Braungart and W. Mc Donough the recent literature inspired by the Ellen Macarthur Foundation publications ,circular economy is an economic regeneration oriented paradigm for transforming the different categories of wastes(material, managerial, socio educational and spiritual) into a valuable resource taking into account three main characteristics- circularity, cascade effects, and the ideal of zero sum society. This is emphasized both through so called the Bio-Based Heliocentric

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Economy model and the Socio-Industrial Space Ship approach to Illustrate the importance of thinking about action spillovers consequences as well as to the behavioral nature of society habitus.

In this framework, the sustainable circular economy could be presented in the form of a possible conceptual network relationships model between economy, society and natural environment that relates some elements like **oikos** (techno-economic reality-utility, efficiency, profit, within the endogenous innovation black box model), **habitus**(official and non-official social norms within the adaptive complexity systemic approach), **paideia** (knowledge education and culture, within a continuous development process of human character and personality),and **noesis** (taking into account the psychological, philosophical and theological concepts of human being as an energetic center of character for the human personality (the Romanian psychologist Constantin Rădulescu Motru) a sincere searcher of truth (like in in the workings of Romanian philosopher Constantin Noica), to realize the importance of a deep ecology philosophic principle more important than the adaptive research principle "savoir c'est prevoir" (as stated the environmental Norwegian philosopher Arne Naess) and the last but not the least to consider the fundamental characteristic of nature and human being as an ex nihilo (from nothing) God's creation, within the Greek Byzantine Orthodox Church principle of Metanoia-a continuous immanent and transcendent restauration of human person's material somatic metabolism(soma meaning body), mind and conscience- within the Liturgy mystical path of katharsis- theoria and theosis as a way of respecting and working for a better understanding of relationships between different peoples and their economic, social and cultural specific pattern. (Bruce V. Foltz, 2014) (Gabriela Piciu, 2014).

On this basis, the sustainable circular economy takes a concrete form of 5 possible circles- natural-material, structural-economic, efficient-managerial, psyho-social and spiritual – emphasizing that the circle idea could be represented both as a successions of feedback flows- learning impulses between intentional rationality and their future consequences impact as well as a result of a repetition routine activities in the way of an social adaptive social learning process.

2. Firm Model Design

Thus the topic of the presentation is oriented to the specific managerial circle: to take care of so called managerial death wastes or to develop a business model design and its mission -to create the opportunities to transform a new idea in a marketable value, imagined as an "innovation flower" picture with concept, product organizational and marketing petals stimulated by the "water" of technology push, market pull and regulation stimulus.

This means a regeneration process of firm management in a complex network that implies relationships between various actors implied(employers, employees, investors, consumers, public authorities) their socio-economic roles, the potential of utility, efficiency ,financial benefits, and some cultural meanings, to create a new firm image - a professional brand product as well as a social actor picture implied into the triple bottom line or triple top line manifestation forms of global sustainable development strategy.

From this perspective the literature illustrates both conceptual and practical perspectives of model firm design related to the future development of firm, its tangible and intangible assets areas, taking into account both the quantitative cost benefit and qualitative socio cultural analysis, with the objective to stimulate mentality changing –to do better what the firm already knows, or doing what never did ever before.

In this framework from a theoretic point of view the business model design is centered on agent rationality but opened to social internal and external social cooperation networks as a necessity for surviving and development in a dynamic competition environment.

As mentioned by some researchers like Eric G. Olson (2010) or Hidde Statema (2011) the firm model design could mean a relation between creativity and a systematic work elements:

- analysis and documentation (collect, select and structure the most relevant information to deduct the possible direct or indirect implications but could appear failures due to a sub estimation of influence factors);

- genesis and modelling (meaning to create a radical or gradual mentality changing);

- synthesis, implementation and control (meaning a continuous improvement process of research and practical activities as well as the behavior internal rules).

From the practical point of view these aspects are illustrated in the linear model presented by Pahl and Beitz (1984) as well as in the social convergent synthesis activities model created by Roozenburg and Eekels (1998).

Based on this research, the business model illustrate in practice two different ways of classification.

On one hand is about the multiple forms of innovative methods related to the necessity of creativity and development of new products. In this framework as mentioned by A. Reinders, JC. Diehl; Han Brezet (2013) the business model developed some innovative methods such as:

- ***Platform-Driven Product Development*** with the main product platform characteristics of modularity, connecting interfaces, and common standards;

- ***Delft Innovation Model*** known as the innovation phase model, that combine the intrinsic value of technology with opportunities in the market within four phases: a strategy formulation stage, a design brief phase, a product development phase, and a product launch and use phase, as well as a matrix of internal strengths of technology and external opportunities related to the market subject or other stakeholders needs, dimension, segmentation, trends of atractivity;

- ***Technology Road Mapping*** as a correlation between identified market needs and trends with existing and emerging technologies for a specific industry sector to cover 3-10 years and are used in strategic product planning, research planning, and business planning (Deuten, Rip, & Jelsma,1997).

- ***Design and Styling of Future Products*** as an aesthetic measure of market tendencies;

- ***Constructive Technology Assessment*** as new related rules and standards, approved by authorities and must meet with acceptance from consumers;

- ***Journey Method of Analysis*** related to evaluate the potential of new products, new technologies, new situations as mentioned by A. Rip (2010);

- ***Risk-Diagnosing Methodology*** to identify and evaluate technological, organizational, and business risk in product innovation related to product family and brand positioning, technology, manufacturing, intellectual property, supply chain and sourcing, consumer acceptance, project management, public acceptance, screening and appraisal, trade customers, competitors, and commercial viability.

On the other hand is about the distinction between linear and nonlinear models, between deductive specialization and inductive multidisciplinary research. From this perspective it is to mention he difference between the linear Six Sigma model and multidimensional Triz method:

-in the ***Six Sigma model*** developed by Japan firm Toyota is important that the linear flow oriented to a zero waste ideal is based on the basic principle of Kaizen (mind changing) oriented to customer center of business activity and daily work improvement within a network algorithm relationships between so called DMAIC and DMADV matrixes (Define, Measure, Analysis, Improvement, and Control) versus (Define, Measure, Analysis, Design and Verification).

The Six Sigma model was lately applied to evaluation of environmental impact in so called Green Sigma to evaluate the firm performance potential from the perspective of environmental accounting flows related to so called direct , indirect, processual of environmental space characteristics oriented to apply the principle of traditional Six Sigma model in the environmental case - the transition from called LCV model (Listen to the Consumer's Voice) to the LEV(Listen to the Environment Voice) to expand the regeneration portfolio of natural resources or to diminish the sound pollution.

-TRIZ Model or so called the theory of theory of inventive problem solving based on an inductive analysis of multiple situations as well as taking into account an specific algorithm classification based on discovering the matrix of physical, technical and administrative contradictions related to physical inputs, technical parameters, or the difference between administrative bureaucratic necessity and possibility.

In conclusion firm model design illustrates a complex network of connections between internal and external firm environment, in the form of a managerial circle of a sustainable circular economy perspective, taking into account other possible circles that define this approach of economic sustainable development (material, structural, socio-educational and spiritual).

Finally I'd like to send all my best thoughts to the colleagues of my institute and especially from the department named "Financing of Sustainable Projects" coordinated by PhD Director Constantin Marin, and PhD Gabriela Cornelia Piciu for their precious professional and moral support.

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Corporate Social Responsibility Performance during Crisis. A EU Approach

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Abstract: This paper aims at analyzing the impact of the financial crisis on Corporate Social Responsibility (CSR) performance, emphasizing the case of companies from European Union (EU) countries. An empirical analysis is conducted using the database available on Global Report Initiative (GRI). For accomplishing this, we will use Wilcoxon signed rank sum test, in order to test the CSR performance evolution for period 2007 – 2015. According to the GRI reporting guidelines we transform the application level of report standards in a point score system. The results indicated increased CSR performance before, during and after the financial crisis except for 2015, which confirm the results obtained by other researchers. The present study is important both for managers and policymakers: for managers to continue their CSR actions because is demonstrated the positive relationship between CSR and financial performance; and for authorities who have to adopt more incentives for supporting companies involved in CSR activities.

Keywords: Responsible Finance; Global Reporting Initiative; GRI Guidelines; performance scale

JEL Classification: G01; G34; M14; O16

1. Introduction

There is a limited number of articles discussing CSR published in recent years in the top academic finance journals which suggests that this topic does not appear to be a main concern in the finance literature. Social activities or corporate responsibilities are discussed related to the impact on financial performance or shareholder value: “where CSR does not directly increase shareholder value, it is an inappropriate misallocation or misappropriation of funds” (Friedman, 1970).

CSR is about “doing good and doing well” (Margolis & all, 2009). There is a continuous debate regarding Corporate Social Performance (CSP) and Corporate Financial Performance (CFP) because the narrative reviews of the literature and the empirical evidence is too varied to allow for definitive conclusions. Orlitzky (2011) states, “Many academic researchers regard the business case for CSP as unresolved despite the more optimistic conclusions reached in several meta-analyses”. Margolis and Walsh (2003) also note: “A simple compilation of the findings suggests there is a positive association, and certainly very little evidence of a negative association between a company’s social performance and its financial performance.” Many scholars such as Margolis and Walsh (2003) suggest moving beyond the CSP/CFP debate and move on to new research into the relationship between business and society.

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The financial crisis is assumed to pressure companies into decreasing their investments in CSR activities. In this paper, we want to analyze if there are mutations of CSR performance before, during and after the financial crisis. There are also other papers evaluating this issue and in this context we want to mention the paper of Giannnarakis and Theotokas (2011) who found increased CSR performance before and during the financial crisis except for the period 2009-2010.

This paper has the following structure: section 2 reviews the literature based on previous studies regarding the CSR concept and also the relationship between CSR and the recent financial crisis. Section 3 describes the methodology used in order to highlight the impact of the financial crisis on CSR performance and section 4 provides the analysis of the results. Finally, we present the conclusions of our research.

This research, which is limited to companies listed on the GRI Report, has significant practical implications because it can motivate managers to continue their CSR activities even during periods of crisis and also can improve policymaking through appropriate policies or incentives for CSR activities. This paper is an original research that presents new empirical results and it adds to the literature on the field since the literature on the relationship between financial crisis and CSR is scarce.

2. Literature Review

CSR definition is both complex and complicate. Also, there is no consensus regarding the CSR concept between academics, researchers, managers or other interested parties and a universally accepted definition of CSR does not exist yet. Even so, we want to highlight a few approaches of the term in order to provide a better understanding of what CSR means.

There are institutions and organizations who tried to define CSR and from those we mention the World Business Council for Sustainable Development (WBCSD) and the European Commission (EC). The WBCSD (2000) consider that "Corporate social responsibility is the commitment of business to contribute to sustainable economic development, working with employees, their families, the local community and society at large to improve their quality of life".

Our analysis is based on EU companies and the EC definition of CSR is important. European Commission (2016) considers that "CSR refers to companies taking responsibility for their impact on society". Also, the EC believes that CSR is important for the sustainability, competitiveness, and innovation of EU enterprises and the EU economy because "it brings benefits for risk management, cost savings, access to capital, customer relationships, and human resource management."

From a definitional perspective, Osuji (2011) consider that "CSR is undeveloped with respect to its precise meaning, content and practice, definitiveness of relationship with the law and clarity of regulatory design and implementation". His paper submits that recognition and application of this "ethical" and "instrumental" CSR distinction is fundamental to the development of CSR and resolution of connected questions of regulation.

Sheehy (2015) provide a broad study regarding the CSR definition in order to identify the problems and to encounter the solutions. After reviewing different approaches of the concept from a multidisciplinary perspective, Sheehy (2015) define CSR as a particular genus, differentia and species of social phenomena, which consists in a form of international private self-regulation focused on the reduction and mitigation of industrial harms and provision of public good.

In his paper Carroll (1999) present the evolution of the concept and various definitions of CSR over time beginning with the 1950s, which marks the modern era of CSR, continuing with the 1960s till the 1990s. In his opinion, CSR is the decision-making and implementation process that guides all company activities in protecting and promoting international human rights, labor and environmental standards, and compliance with legal requirements within its operations and in its relations to the societies and communities where it operates.

In the field of CSR is very known the Friedman-Freeman debate on the social responsibility of the business. According to Friedman (1970), there is one and only one social responsibility of business - to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception or fraud. Friedman consider the corporation as an artificial person and in his approach only people can have responsibilities. In this sense, companies may have artificial responsibilities, but "business" as a whole cannot be said to have responsibilities, even in this vague sense. In contrast with this argument, Freeman and Elms (2011) consider that the social responsibility of business is to create value for stakeholders, not only for shareholders but also for customers, suppliers, employees, local community. Thus, the corporation serves a broader purpose, to create value for society. The explanation of Freeman (1998) consist in the fact that "managers bear a fiduciary relationship to stakeholders. Stakeholders are those groups who have a stake in or claim on the firm...[including] suppliers, customers, employees, stockholders, and the local community, as well as management in its role as agent for these groups". Porter and Kramer (2006) agree to Freeman approach by suggesting that "the purpose of the corporation must be redefined as creating shared value and not just profit per se, by at least implicitly prioritizing economic over social value and by proposing, shared value as "a new way to achieve economic success."

In this context, the United States social investment firm Pax World Investments (2011), one of the first investment firms to formally implement a stakeholder framework contend that "well managed companies that maintain good relations with employees, consumers, communities, and the natural environment, and that strive to improve in those areas, will in the long run better serve investors as well."

A company that treats employees well and works hard to maintain good community relationships would have numerous advantages over companies that do not make similar efforts, which consist in superior financial performance. That is why we propose to analyze the importance of CSR activities even during periods of crises.

Even if in the United State the first signs of financial crisis was noted starting with February 2007, when the price index ABX for credit default swaps started to decline and the drop has become more and more pronounced, in EU, a decrease of GDP is recorded from the second quarter of 2008, when GDP decreased with 0.4% for EU-27. Based on this information, we consider that the first signs of financial crisis for EU were noticed starting with the second quarter of 2008, and the biggest negative effect was felt in 2009, when the GDP drop over 4.5% (Dornean & Oanea, 2015).

In this circumstances, companies are compelled to restrict their expenses including withdraw from their corporate social responsibilities as it generates costs (Fernández & Souto, 2009). Njoroge (2009) concludes that CSR initiatives can be postponed or cancelled because due to the financial crisis.

Fernández & Souto (2009) analyzed the consequences of the recent economic and financial crisis on CSR and they concluded that CSR in crisis periods can be converted from being a threat to an opportunity. In their opinion, implementation of CSR needs financial funds because it generates costs and the consequence is evident: CSR in periods of crisis is a threat for firms' survival and such a strategy is not expected in these times of uncertainty. But each company has its own responsibility to redefine their essential business objectives. These objectives must be aligned with the strategy of the company and have to be coherent with the change in organizational culture that CSR represents. In this context, firms will be in a better position to overcome the turbulent situation of the economic and financial crisis, using CSR as a business opportunity.

In another study (Yelkikalan & Köse, 2012), the effects of the crisis on CSR activities have been evaluated in the light of the developments following the 2008 global financial crisis and the authors proposed a model. This model present two hypothesis regarding the perception of the crisis as a threat or opportunity for CSR activities. In their opinion, the crisis has different implications on different levels of CSR and they conclude that such a perspective could be useful for understanding the behavior of businesses that perceive the crisis as a threat to their economic activities and take precautions, but at the same time continue their CSR activities at the level of philanthropy without interruption in times of crisis.

As we could see, some researchers tried to identify a clear link between financial crisis and CSR. There are arguments to consider that companies engaged in CSR actions in financial crisis time would have to gain in a mid and long term basis. Our purpose is to demonstrate this fact based on CSR reports retrieved from Global Reporting Initiative.

3. Methodology

3.1. Global Reporting Initiative Report

The evaluation of CSR performance is based on companies that are certificated by CSR report standards. The GRI guidelines framework is considered the most complete framework concerning the CSR report. It is voluntary and presents reporting principles on an organization's economic, environmental, and social performance. A GRI-based report includes five sections named vision and strategy, profile, governance structure, GRI content index and performance indicators which are distinguished in three dimensions of economy, environment and society. An important aspect of GRI guidelines is the application levels which provide information to the reader concerning the extent to which the GRI guidelines have been utilized. There are five versions of the GRI Guidelines applied in the report: GRI – G1 (published in 2000); GRI – G2 (published in 2002); GRI – G3 (published in 2006); GRI – G3.1 (published in 2011) and GRI – G4 (published in 2013) which is currently valid.

The evaluation of CSR performance is based on annual corporate reports where the application level of GRI guidelines is modified in CSR performance. The annual report is considered as a methodological tool measuring CSR performance.

In order to convert the application level, three main levels are distinguished, named A, B and C which can be self-declared, third-party-checked and/or GRI-checked and each with the option of recognizing external assurance ("+"). This adherence levels reflects the extent to which the GRI Sustainability Reporting Framework has been applied to a report. In total, six reporting levels exist ranging from C to A+ (Table 1).

Table 1. The system score

Application level	Point system score
C	1
C+	2
B	3
B+	4
A	5
A+	6

3.2. Data and Research Description

The empirical analysis of CSR performance is based on companies from European Union countries (EU28) that are certificated by GRI guidelines in order to ascertain whether their performance has changed. The analysis period includes nine years from 2007, pre-crisis, 2008-2012, during crisis and 2013-2015, post-crisis.

The data are obtained from Global Reporting Initiative. A complete description of the data is available at http://database.globalreporting.org/search and in Table 2. The initial database is unbalanced and contains 223 up to 947 statistical observations, regarding the variables, referring to period 2007- 2015.

Table 2. Description statistics

Year	Observation	Mean	Std. Dev	Min	Max
2007	223	3.5291	1.5031	1	5
2008	356	3.5056	1.5282	1	5
2009	538	3.1598	1.6681	1	5
2010	712	3.0786	1.6584	1	5
2011	835	3.0742	1.6327	1	5
2012	947	3.0147	1.6151	1	5
2013	947	3.1351	1.5601	1	5
2014	714	3.1401	1.5612	1	5
2015	298	3.0134	1.5996	1	5

As we can observe in Table 2, during the period 2007-2012 the mean is decreasing as a consequence of the financial crisis and in the following years, 2013 respectively 2014, after overcoming the crisis we notice that mean is increasing Also, we have to mention that in the period 2007-2015 are 24 common solid companies and in their case the mean is increasing. Thus, a possible explanation can be that the other companies, the majority of the sample, presents a low scoring.

4. Results

In order to test the CSR performance evolution for period 2007 – 2015, we used Wilcoxon signed rank sum test. The outcome for each pair of CSR performance is presented in table 3.

Table 3. CSR performance

Hypothesis	Year	Sign	Observations		Mean	Std. Dev	Z	Asymp. Sig.
			By group	Total & Ties				
2007=2008	2007	Positive	26[a]	169	3.7100	1.4695	4.539	0.0000
	2008	Negative	2[b]	141[c]	4.0177	1.3114		
2008=2009	2008	Positive	39[a]	277	3.5848	1.5099	5.780	0.0000
	2009	Negative	2[b]	236[c]	3.8664	1.3936		
2009=2010	2009	Positive	59[a]	426	3.2629	1.6708	6.931	0.0000
	2010	Negative	4[b]	363[c]	3.5305	1.5853		
2010=2011	2010	Positive	66[a]	522	3.2720	1.6235	6.905	0.0000
	2011	Negative	7[b]	449[c]	3.4980	1.5318		
2011=2012	2011	Positive	73[a]	618	3.1650	1.6038	7.195	0.0000
	2012	Negative	8[b]	537[c]	3.3721	1.5687		
2012=2013	2012	Positive	52[a]	699	3.1688	1.5951	5.506	0.0000
	2013	Negative	9[b]	638[c]	3.2918	1.5460		
2013=2014	2013	Positive	32[a]	570	3.1964	1.5516	3.783	0.0002
	2014	Negative	8[b]	530[c]	3.2842	1.5674		
2014=2015	2014	Positive	2[a]	210	3.1047	1.6158	1.414	0.1573
	2015	Negative	0[b]	208[c]	3.1238	1.6144		

a. $CSR_{T(1)} < CSR_{T(0)}$, b. $CSR_{T(1)} > CSR_{T(0)}$, c. $CSR_{T(1)} = CSR_{T(0)}$,

Based on the results we are able to see that for each pair of years between 2007 and 2014, the CSR performance is statistical significant and different from one year to another. In the same time the mean value for CSR performance is increasing. Going further, we can see that only for year 2015 CSR performance is not statistically different by the value recorded in 2014.

5. Conclusions

This paper' objective was to analyze the effects of the most recent global economic and financial crisis on CSR performance. Our results confirm those obtained by Giannarakis and Teotokas (2011) which indicate increased CSR performance before, during and after the financial crisis except for 2015. Thus, we can conclude that companies increase their performance in order to regain the lost trust in businesses and CSR activities can be used as an opportunity for business. The reason for this increase is the companies' objectives for maintaining their brand value and previous gained assets. CSR is increasingly viewed as making good business sense and also contributing to the long-term prosperity of companies and ultimately its survival and taking into considerations our results, we consider that it is important for companies to continue their efforts in CSR direction. Our conclusion is that CSR activities must be developed during the financial crisis. We consider that the government should encouraged companies to continue their development and correct engagement in CSR actions through different incentives (e.g. reduce tax burden, fiscal measures) because on a mid and long-term this will advantage companies and also the society. There are two limitations to this paper: first, the analysis is based on companies that present available data during the period 2007-2015 of GRI listing and the number of observations differ every year of analyzed period, thus the database is unbalanced; and secondly, it is based on large companies and so does not study the behavior of small and medium enterprises (SMEs). Further research can extend the analysis including SMEs in order to see if we obtain the same results such as in the case of large companies. It would be interesting also to analyze the evolution of CSR performance only for the companies that are common to GRI listing during the period 2007-2015to the extent that more data will be available.

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THE 11TH EDITION OF THE INTERNATIONAL CONFERENCE
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REALITIES AND PERSPECTIVES

Factors Influencing New Business Formation

Andreea-Oana Iacobuţă[1], Mariana Hatmanu (Gagea)[2]

Abstract: The purpose of this study is to identify the factors that influence the creation of new businesses and to point out both the differences and the similarities existing between countries and groups of countries in terms of these influencing factors. We are mainly interested in the place Romania and Bulgaria have among the countries of the world from the perspective of entrepreneurial spirit and its influencing factors. To capture the level of business formation we use New business density from World Bank Doing business. Drawing on the existing literature we consider for our analysis several indicators related to economic environment such as GDP per capita, unemployment rate, inflation rate, the level of taxes, foreign direct investments and public debt and indicators describing the quality of governance. The research uses 2014 data for 67 countries, from all development categories, collected from Heritage Foundation database. The research results obtained with principal components analysis show that good governance results in higher levels of GDP per capita and income taxes and the increase of the level of business formation. Also, good governance leads to a decrease in inflation and unemployment. Furthermore, the hierarchical cluster analysis is used to identify groups of countries and to outline similarities and differences between them.

Keywords: entrepreneurship; business density; governance; economic environment; principal components analysis

JEL Classification: C38; E02; H20; M13; O11

1. Introduction

The relationship between entrepreneurship development and economic performance has been largely debated and unanimously acknowledged in literature and decision making.

At the same time, a wide range of psychological, sociological and economic factors are proven to impact upon the rate of entrepreneurship: from age, religion, experience, professional status, education to culture, trust and confidence, legislation, size of government, fiscal pressure, unemployment etc. The influence these factors have on entrepreneurial activity and the direction and the strength of this link vary depending on the country's level of development (Stel et al, 2005; Kuckertz et al., 2016).

A framework for analyzing entrepreneurship in the context of both its determinant factors and impact on economic performance is provided by Thurik, Wennekers & Uhlaner (2002, p. 163). The researchers present the causality and feedback between society-level conditions (technological, economic, demographic, cultural and institutional), the rate of entrepreneurship (nascent, start-ups,

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total business ownership) and, furthermore, economic performance (personal wealth, firm profitability and economic growth).

This paper focuses on the first side of the above framework, primarily on the influence of macroeconomic and institutional factors on entrepreneurship. The purpose is to verify by empirical research the factors that influence the creation of new businesses, in current economic and institutional climate. Starting from the premise that good governance and a higher level of development results in higher rate of business entries, we examine key macroeconomic and institutional indicators that might have an influence on new business formation. At the same time, we aim at identifying the place Romania and Bulgaria have among the countries of the world from the perspective of entrepreneurial spirit and its influencing factors.

The rest of this paper is structured as follows: in the second section we provide a review of literature on business formation in relation with institutions and macroeconomic environment. Section 3 briefly describes the research data and methodology. In Section 4 we present the empirical results and in the last section we draw and discuss the main conclusions.

2. Background

When addressing questions such as why some countries are rich and others poor, or why some countries benefit from entrepreneurial activity while others not, researchers find the answer in the quality of the institutional environment which provides incentives for entrepreneurial activity and behavior. Differences in institutional quality are proven to explain differences in entrepreneurial activity (Hall & Sobel, 2008; Diaz Casero et al, 2015). When exploring the institutional determinants of macro-level entrepreneurship, Valdez & Richardson (2013) conclude upon the relationship between a country's normative, cultural-cognitive and regulative institutions and entrepreneurial activity. Holcombe (2003, 25) shows that entrepreneurial activity is possible in an entrepreneurship supportive institutional setting, i.e. one which makes profit opportunities available to entrepreneurs. On the same line of argumentation, Sautet, (2005, p. 9) points out that "entrepreneurship is not dependent on the resources in an economy. Rather, the key is the quality of institutions that permit the exploitation of resources and opportunities". The existing rules of the game determine the payoffs which orientate entrepreneurs to a certain type of behavior. In Baumol's terms (1990) this behavior might take one of the following forms: productive, unproductive or even destructive.

Good institutions such as, stable and well enforced property rights, enforced contracts, free market, rule of law, political stability etc. have been proven as catalysts for entrepreneurial activity.

When analyzing the impact of institutional framework on entrepreneurial environment on a sample of 33 European countries using company-level data, (Desai et al., 2003, p. 31) prove that "greater fairness (i.e. low corruption) and stronger protection of property rights are critically important in encouraging both the emergence and the growth of new enterprises, particularly in emerging markets". Aiming at investigating the relationship between economic freedom and entrepreneurship, measured by the level of self-employment, Nyström's (2008) empirical findings show that a smaller government sector, better legal structure and security of property rights, as well as less regulation of credit, labor and business tend to increase entrepreneurship. Using panel data from 44 countries, Chowdhury et al. (2015) found that strong property rights and freedom from corruption are positively related to new firm start-up and nascent entrepreneurship.

Studies on the influence the level of taxes, considered by some researchers (Chowdhury et al., 2015) a formal institution, has on entrepreneurship reveal that higher taxes discourage entrepreneurial activity by weakening incentives and reducing potential gains for the entrepreneurs (Chowdhury et al., 2015). The empirical results obtained by Gentry & Hubbard (2000) point out an increase in entrepreneurial entry when tax rates are less progressive. On a sample of 118 countries over a period of six years, (Braunerhjelm & Eklunnd, 2014) found that the tax administrative burden significantly reduces the entry rate and that this effect is unrelated to general taxes on corporate.

The level of FDI inflows, also a reflection of a country's institutional framework, impacts upon all types of entrepreneurial activity. Some studies point to a negative connection (Chowdhury et al., 2015) while others show a direct and significant relationship between FDI and business development in emerging countries (Herrera-Echeverri et al., 2013).

Also, a number of studies analyze several economic indicators related to entrepreneurial activity. For example, considering the level of economic development, (Wennekers et al., 2005) find support for a U-shaped relationship between this indicator and nascent entrepreneurship. (Klapper et al., 2010) discuss about a significant positive correlation between the log of GDP per capita and entry density rates.

The next section of the paper presents the data and methods used in order to analyze the relationship between macroeconomic and institutional factors and new business formation and to characterize the countries included in our sample from the perspective of the considered variables.

3. Data and Methods

In order to explore the link between the rate of new business formation and economic and institutional environment we compile a database containing 2014 data on New business density and several macroeconomic and institutional indicators covering 72 countries.

New business density (*abbrev. NBD*) is calculated as the number of newly registered firms per 1000 working-age people (those aging 15–64 years). Country level data is available at World Bank Doing Business.

The data set covering the institutional aspects contains information on the six governance indicators, released by World Bank namely, Voice and accountability (*VAC*), Political stability and absence of violence (*PS*), Government effectiveness (*GovE*), Regulatory quality (*RQ*), Rule of law (*RL*) and Control of corruption (*CC*).

The macroeconomic indicators used in this paper are GDP per capita, Unemployment rate (*UR*), Inflation rate (*IR*), Income Tax Rate (*ITR*), Corporate Tax Rate (*CTR*) and FDI Inflow and Public Debt. They are drawn from Heritage Foundation database.

The methods used to explore the link between new firm formation and the influencing factors are Principal Components Analysis (PCA) and Hierarchical Clustering.

4. Empirical Results

The analysis is carried out on a sample of 67 countries, after eliminating the countries which showed extreme values with some variables: Qatar (extreme value for GDP per capita), Hong Kong (extreme value for New Business Density), Nepal, Senegal (Unemployment), Belarus (Inflation). The countries under analysis are as follows: 24 countries in Europe, 17 in Asia, 14 in America, 11 in Africa and 2 in Oceania. The New business density indicator is analyzed in relation to governance, GDP per capita, Unemployment rate, Inflation rate, Income Tax Rate, Corporate Tax Rate and FDI Inflow and Public Debt indicators.

After processing data by means of Principal Components Analysis, we decided to eliminate the FDI Inflow (Millions) and Public Debt (% of GDP) indicators from our analysis because of the fact that they behaved differently as compared to other indicators. Thus, we have reached results which support the adequate application of this method for the database we have created. Therefore, most of the absolute values of the coefficients in the correlation matrix are higher than 0.5, thus indicating significant correlations among variables. The value of the matrix determinant is very low, i.e. close to 0, and shows that there are strong correlations among variables. The New Business Density indicator shows significant direct correlations with all Governance, GDP per capita indicators and negative correlations with Inflation rate. The Unemployment rate is directly correlated with New Business Density while showing significant reverse correlations with some components of the Governance indicator, such as: Government effectiveness, Control of corruption, Regulatory quality, Rule of law, as well as with GDP per capita and Inflation rate. Consequently, we expect a negative influence of Unemployment rate on New Business Density due to these phenomena. We also note the existence of positive correlations among Income Tax, Governance and GDP per capita indicators, which points to the fact that developed countries, with strong institutions spend more and also levy a greater fiscal burden in order to support spending.

The presence of significant correlations among variables is also supported by the high value of the Kaiser-Meyer-Olkin (KMO=0.847) statistic, which indicates a good solution reached by means of the Principal Components.

The first two factorial axes account for approximately 71.18% of the total variance in the cloud of variables, each of them being higher than 1, 6.89 being the value of the first factorial axis and 1.66 - the value of the second one. According to Benzécri's and Kaiser's criteria (Pintilescu, 2007,pp. 59-61), the PCA results will be interpreted in relation to the first two factorial axes.

The first factorial axis is the most important, accounting for 57.38% of the total variance in the cloud of variables. The indicators which show the strongest positive correlations with the first factorial axis are New Business Density, Governance and GDP per capita as well as Inflation rate, though negatively correlated (figure 1.). The indicators which show a strong positive correlation with the second factorial axis are Income Tax Rate and Corporate Tax Rate. Unemployment rate shows a weak, negative correlation with both factorial axes.

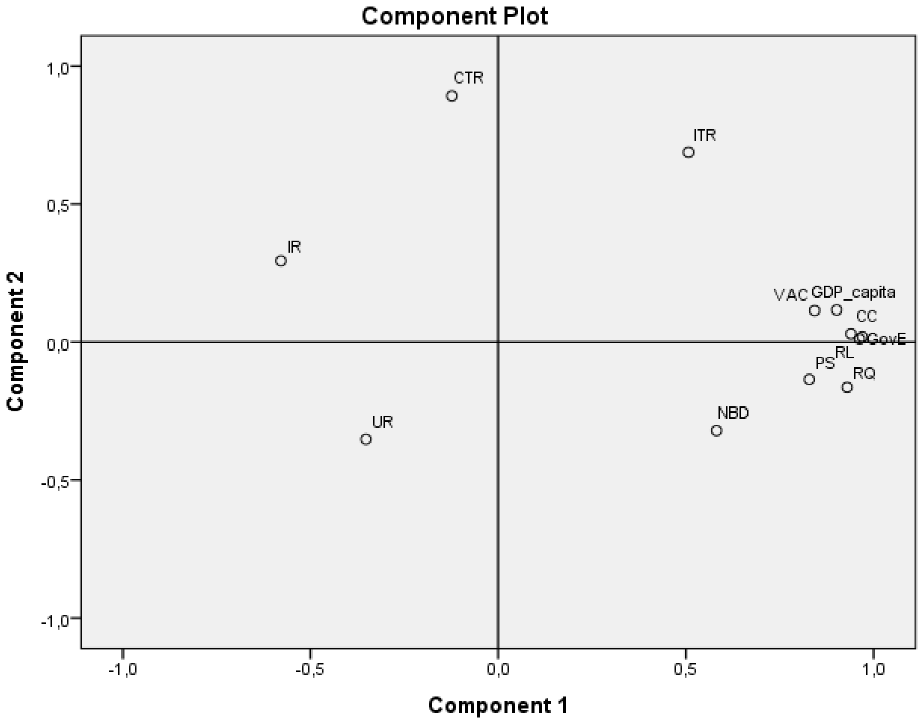

Figure 1. Representation of variables within the first two factorial axes system.

Therefore, the hypothesis according to which good governance results in higher GDP per capita, higher income taxes and New Business Density increase is confirmed. Also, good governance leads to a reduction in unemployment and inflation rates.

In order to identify the profile of the group of countries under analysis according to the analyzed variables, we will illustrate their position within the first two factorial axes system (figure 2). The relatively high number of countries under analysis makes it difficult to have them grouped homogeneously based on the graphic representation in the first two factorial axes system.

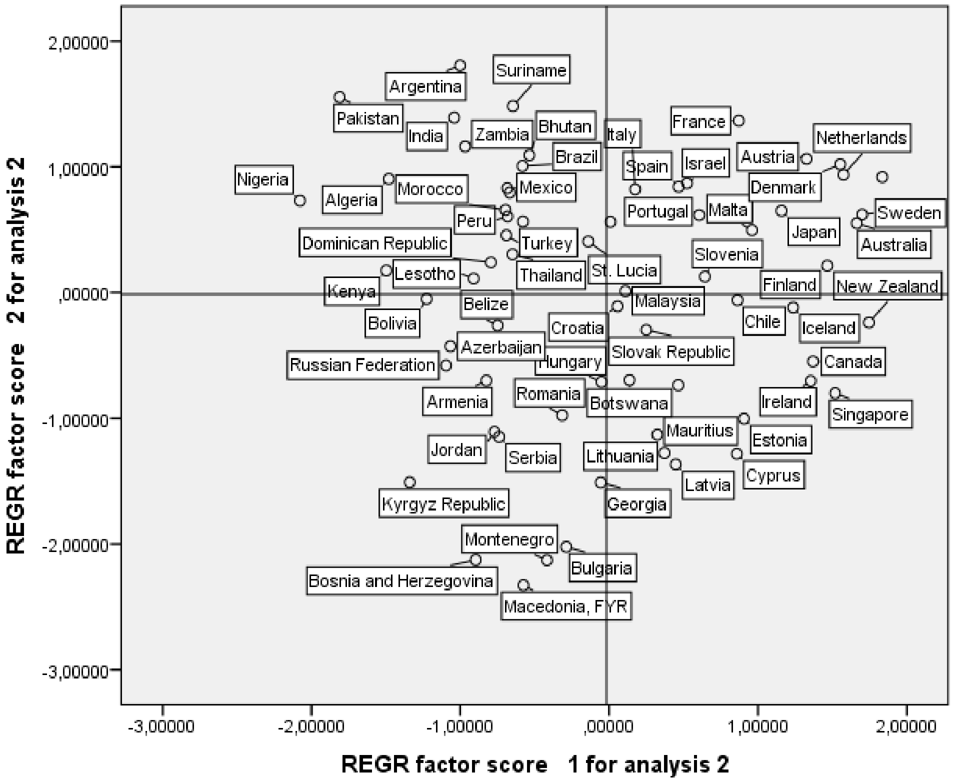

Figure 2. Representation of countries within the first two factorial axes.

Thus, for higher accuracy in grouping the countries, we have applied hierarchical cluster analysis. We found that there are no significant differences between grouping countries by means of the Principal Components Analysis or by Hierarchical Cluster. Consequently, we have identified the following groups of countries:

- the group of countries with high values in Governance, GDP per capita and NBD indicators and low values in Unemployment and Inflation rates, which gathers the following homogeneous subgroups: i) Denmark, Netherlands, Sweden, Norway, Austria, Japan, France; ii) Canada, Finland, Ireland, Chile, Iceland; iii) Australia, New Zealand, Malta;

- the group of countries with negative values in Governance indicators and very low values in GDP and NBD, respectively, and high Unemployment and Inflation rates: Algeria, Pakistan, Nigeria, Kenya, Bosnia and Herzegovina, Macedonia, Serbia, Montenegro, Georgia, Dominican Republic, Bolivia, Azerbaijan, Armenia.

- the group of countries showing average values of the indicators strongly correlated with the first factor axis: Spain, Israel, Italy, Portugal, Slovenia, Malaysia, Czech Republic, Slovakia, Hungary, Estonia, Latvia, Lithuania.

- the countries with good NBD, Governance, GDP per capita values and low Inflation and Taxes rates (ITR and CTR) are illustrated in sector IV of the first two factorial axes: Estonia, Latvia, Cyprus, Iceland, Botswana, Mauritius, Lithuania.

Romania's negative, though pretty low, coordinate in relation to the first factorial axis (the correlation coefficient is -0.316) places our country in the immediate vicinity of the second group of countries. Our neighbor country, Bulgaria (its correlation coefficient is -0.288), is also placed in the negative sector. Consequently, the two countries show very low or even negative values in terms of Governance, GDP per capita and NBD and very high Inflation values. Romania's coordinate in relation to the second factor axis is -0.976 while Bulgaria's is -2.022. These values indicate the fact that, compared to Bulgaria, Romania's taxes are higher and unemployment rate is lower.

5. Conclusions and Discussions

This paper aimed at identifying the factors that influence the creation of new businesses and to point out both the differences and the similarities existing between countries and groups of countries in terms of these influencing factors. The results of Principal components analysis showed a positive association between the rate of new businesses, institutional quality and GDP per capita. Good governance results in higher levels of development and an increase in entry rate. Our results are consistent with previous studies in the field (Klapper, 2010; Aidis, 2012; Chowdhury, 2015).

Entrepreneurship appears and develops within a rule of the law institutional framework which offers equal opportunities to all economic agents and warrants their freedom to appropriate the results of their work (Baciu & Botezat, 2013, p. 541). The quality of the regulatory environment and the government's ability to formulate and implement policies to support private sector influence a country's level of development and entrepreneurial activity.

That is how we can explain that the business entry rates are high in the developed countries like Denmark, Netherlands, Sweden, Norway, Austria, Japan, Finland, Australia, New Zealand. These countries are characterized by the best scores in terms of absence of corruption, business freedom, governmental performance (Baciu, 2014, p. 13).

The less developed countries such as Algeria, Pakistan, Nigeria, Kenya, Bosnia and Herzegovina, Macedonia, Serbia, Montenegro, Georgia, Dominican Republic, Bolivia, Azerbaijan, Armenia are suffocated by unemployment and inflation and perform very low in terms of institutional quality and new business formation.

According to our results, Romania is placed in the immediate vicinity of the above mentioned less developed countries, with very low institutional quality and low entry rate. The Romanian institutional framework abounds in rules and regulations and this complexity invites at non-compliance (Iacobuţă, 2009). According to the White Charter of Romania SMEs (2015), the major problems that affect Romanian entrepreneurs in their activities are: bureaucracy, excessive taxation, excessive controls and corruption. They are all consequences of the weak institutional framework, despite the progress Romania has made over the years.

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THE 11TH EDITION OF THE INTERNATIONAL CONFERENCE
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REALITIES AND PERSPECTIVES

Overview of the Main Theories on the Economic Effects of Public Indebtedness

Irina Bilan[1]

Abstract: The paper briefly reviews the main theories formulated over time on the economic effects of public indebtedness, with the aim to highlight their common and divergent points, the arguments they rely upon, as well as their relevance, given the current economic environment. Three major views are considered, namely the classical one, the Keynesian one and the view of neoliberal economists (monetarist economists and representatives of the school of rational expectations). The comparative approach of the different views allowed us to shape some criteria of decision which may prove useful for public policymakers in formulating public debt policies conducive to economic growth: public indebtedness should not become common practice but be reserved for those situations in which the economy is confronted with unusual phenomena, such as economic downturns; borrowed resources should be used especially on those destinations which create added value in the economy, such as public investment; public debt should not accumulate at a fast pace and should be kept within reasonable limits, to avoid possible side effects on economic growth.

Keywords: government debt; economic growth; classical theory; Keynesian theory; neoclassical view

JEL Classification: B10; B20; H63

1. Introduction

If an omniscient and objective witness of history was called upon to give a verdict on the rationality of states indebtedness, one thing would be certain: his task would be extremely difficult and his answer far from being categorical. The realities of different countries and different periods have shown that the indebtedness of public authorities can entail both positive and negative effects on various aspects of social and economic life (including on the economic growth rate of the country in question), the extent to which they occur and their proportions depending on numerous factors, some under the direct control of the indebted authorities (possibly the result even of their decisions), while others with a broader spectrum of action, the manifestation of which may sometimes be hardly anticipated.

Unfortunately, in the realm of economic theory things are not much clearer. The views of various economists, outlined in relation to the specifics of their times, oscillate between recognizing, in varying proportions, the need for public borrowing and the possibility of incurring beneficial effects on its account (for example when it is supported, in this way, the economy in recession), and blaming the state's right to use public loans, as responsible for many “bad things” in the economy and society (Bilan, 2015).

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Our paper aims to review the main theories formulated over time on the economic effects of public borrowing, highlighting their common and divergent points, as well as the arguments they rely upon. The comparative approach of different views and their analysis by reference to the current economic situation will allow us to shape some criteria of decision which may prove useful for public policymakers in formulating public debt policies ensuring favorable conditions for economic growth.

2 The Classical View on Public Indebtedness and its Economic Effects

From the standpoint of the classical doctrine (having as representatives the well-known A. Smith, R. T. Malthus, D. Ricardo, J.S. Mill or J.B. Say), the outlook appears to be predominantly unfavorable to public borrowing. Faithful to the principle of "laissez-faire" and the regulatory actions of market forces, the classics attributed to the state only the role of ensuring the smooth ongoing of economic relations, public authorities not being allowed to intervene in the economy. Arguing that public expenditure are unproductive, in relation to the traditional tasks undertaken by the state (public order, national defense, diplomatic relations, etc.), and that resources are managed more wastefully in the public sector compared to the private one, the classics blamed state indebtedness considering that it distorts private capital from its productive function to non-productive uses, thus affecting the accumulation (and hence stock) of capital and the growth and development of the economy, as a whole.

The vision of Adam Smith is relevant to this view, one of the arguments he puts forward to support the denial of the state's right to incur debt being that indebtedness delays the natural progress of a nation towards wealth and prosperity since, in this way, resources that would receive productive destinations in the private sector are diverted by the state to cover its unproductive expenditure, thus being wasted without any hope of future reproduction. The effects of contracting public loans in terms of capital accumulation (and thus, long-term economic growth) are considered to be even more harmful than those of taxes, since public borrowing leads to the reduction of existing production capacities through "the perversion of some portion of the annual produce which had before been destined for the maintenance of productive labour towards that of unproductive labour" (Smith, 1904). The negative effects on the accumulation of productive capital in the economy are also confirmed by David Ricardo, who states that "when, for the expenses of a year's war, twenty millions are raised by means of a loan, it is the twenty millions which are withdrawn from the productive capital of the nation" (Ricardo, 2005).

However, a different approach can be found at Thomas Malthus who, anticipating the possibility of imbalances under the form of overproduction of goods (entailing a gap between the supply and demand of goods), admits in this situation (subject to the lack of other possible alternatives) to use borrowed resources to increase demand for goods and services, thus making up for the economy's failure to self-regulate. Consequently, Malthus advocates for maintaining "an adequate level of public debt because otherwise the generalized overproduction of commodities from a mere possibility will become a harsh reality" (Tsoulfidis, 2007).

At the same time, continuing the approach of his predecessors but being concerned about a deeper analysis of the effects of public debt, John Stuart Mill identifies situations where it does not necessarily act detrimental to the accumulation of productive capital, for example when the state diverts, by giving them more advantageous uses, the savings immobilized in unproductive companies or to be placed outside the country, or when the borrowed resources come from abroad (Tsoulfidis, 2007). In such circumstances, Mill accepts that upward pressures on interest rates do not occur and, therefore, public debt is not necessarily accompanied by harmful effects on economic growth. Insofar as, by borrowing, public authorities do not limit themselves to raise in this way unused savings, but compete with the private sector for resources that would otherwise be invested productively, Mill believes that public debt becomes harmful for the economy, and so the use of borrowed resources is to be condemned.

Openness to state intervention and modernity is anticipated by some representatives of the German historical school who, unlike classical economists, assign to the state an expanded role, considering it an active agent of the socio-economic progress (Todosia, 1994), change which is also reflected in the modified optics on public indebtedness and its possible effects. Although he assimilates classical ideas, accepting that public indebtedness can divert capital from its productive uses in the private economy (the increase in the interest rate being the criterion for assessing the intensity of this effect), Adolph Wagner admits, just like Mill, that public borrowing is nevertheless to be accepted when, in this way, are raised unused resources available in the national economy or resources from abroad. Wagner's more substantial contribution to assessing the economic effects of public debt arises, however, from delimitating different public spending types based on the time framework of their effects, and associating them with appropriate funding sources. Thus, in the case of public investment expenditure (non-recurrent expenditure) debt financing is not only accepted but even preferable to tax financing, while government borrowing to cover normal public expenditure (recurrent expenditure) is completely prohibited, the disregarding of this rule leading to chronic budget deficits, “a path towards ruin, because the growing interest burden would throw public finance into the abyss” (Holtfrerich, 2013).

3 The Keynesian View on Public Indebtedness and its Economic Effects

A fundamental change of perspective, produced in the context of the extensive mutations and socio-economic and political challenges of the first half of the twentieth century, comes with the Keynesian doctrine, doctrine fundamentally attached to the ideas of J.M. Keynes, but also developed by other economists predecessors, contemporaries and successors of Keynes. Placed at the opposite side of the classical doctrine, the Keynesian doctrine alters the very liberal assumptions and principles that the former relies upon. Specifically, in response to the challenges of those times (in particular, the economic downturn), the new doctrine attaches great importance to the state, whose interventions in economy and society not only are no longer blamed, but are called to supplement the actions of the market and to correct its imperfections.

Regarding the economic effects of public indebtedness, the Keynesian view delineates fundamentally from that of the classical economists, as public borrowing ceases to be blamed for its damaging consequences, and is evidenced, on the contrary, in the foreground, its contribution to the smooth functioning (without major imbalances) of the economy. Two major arguments support this change of perspective.

First, by accepting the extension of the scope of the state, public expenditure (at the funding of which public indebtedness contributes) cease to represent, in their entirety, definitive and unrecoverable consumptions of resources, negatively affecting the national wealth and the prosperity of the nation as a whole. The involvement of public authorities in value adding activities (e.g. public works, which are recommended by Keynes) permits, on the contrary, to avoid negative effects as the above ones and contributes to economic growth and development.

Secondly, the reconsideration of the role assigned to public authorities, in the sense of assuming the task of countering disturbing economic and social phenomena, gives new meanings to public borrowing, as ways of intervention to correct imbalances and ensure an upward evolution of the economy.

From this perspective, it seems relevant to highlight the role assigned to public indebtedness by some adepts of the Keynesianism (A.H. Hansen, J. Hicks, P. Samuelson, etc.) in designing demand-side fiscal policies for relaunching the economy in recession or stimulating balanced economic growth. Inspired by the realities of the global economic crisis of 1929-1933 and based on the extensive theoretical construction of Keynes, such policies propose the engaging of the state, through its financial means, in supporting economic recovery and fighting unemployment, in times of recession, or in accelerating the pace of economic growth, when it is too slow or the economy is stagnant. More specifically, measures are adopted aimed primarily at increasing public consumption or investment spending, without excluding, however, tax measures (tax cuts, tax exemptions, etc.) (Filip, 2010). Such measures help increase overall demand and, in this way, stimulate the increasing of the supply of goods and services, the GDP growth and employment.

Most often, such measures involve accepting (as deliberately produced/ premeditated) imbalances between a lower level of ordinary budget resources (consisting mainly of taxes) and a higher level of budget expenditure, i.e. accepting budget deficits which are funded, along with other extraordinary resources, by means of public borrowing leading to higher public debt. Although, in the view of some Keynesians, inflationary currency issue is not to be avoided, public indebtedness would allow, in addition, bringing in this way into the economic circulation the unused revenue of certain social categories, namely those savings not materialized in investments, in order to finance public spending. On these grounds, public indebtedness appears in the Keynesian view as an indispensable tool to ensure the balanced growth of the economy.

Although, in general, the Keynesian view assigns positive connotations to public indebtedness, its use is subject to strict limits. Such limits result from the "controlled" promotion of negative budget balances, only in periods of economic recession or stagnation, without accepting them in periods of expansion (to become permanent). In this respect, it appears to be relevant the systematic deficit theory developed by W. Beveridge, based on Keynes's view that although it should be admitted that "getting out of the crisis is based precisely on public loans to finance an increase in public spending, and therefore a budget deficit", after the stagnating or declining economy is relaunched the public budget should return to equilibrium (Filip, 2010). At his turn, M. Duverger said that "the budget deficit (A/N and so the creation of new public debt) must cease as soon as the full employment is reached" (Duverger, 1975).

Reducing budget deficits and returning to budget balances are, in fact, possible precisely because of state's actions, resulting in increased production, incomes and thus fiscal resources. In an optimistic manner, Keynes said in this regard that it is enough "to deal with unemployment, because the budget will take care of itself (A/N and debt will reduce by itself) (Keynes, 1982).

4 Public Indebtedness and its Economic Effects in the View of Neoliberal Economists

The powerful resurgence of economic liberalism in the 1970s, through the representatives of the neoliberal doctrine, marked a new change of perspective reviving, according to the precepts of the "good" classical liberal doctrine, the disapproval of state's indebtedness. According to them, "whatever the relative position of the country in question, increasing deficits (A/N and public debt) express the promise of future economic difficulties (...) and reduced welfare" (Landais, 1998).

From the position of ***monetarist economists,*** as a counterweight to Keynesian solutions and therapies, they are denied the positive results of any budgetary measure aimed at stabilizing the economy, especially from the perspective of a longer period of time, and is therefore contested the ability of public authorities to act, by promoting budget deficits and financing them by means of borrowing, with the aim to relaunch the stagnating economy or in decline. In this regard, referring to the role of the public budget, Milton Friedman said that "far from being a balancing mechanism to offset other forces that ease fluctuations (...) it was itself a major disruptive factor and generator of instability" (Friedman, 1995).

The main argument to justify the disapproval of state's indebtedness arises from the emergence, when public authorities turn to public loans to finance budget deficits, of a negative effect called the "crowding-out effect". Looking at the market for loanable funds, the crowding-out effect broadly assumes that, when public authorities indebt themselves by raising public loans, the demand for loanable funds increases while the offer remains unchanged, which results in an increase in the interest rate on this market. This in turn reduces private investment (sensitive to interest rate changes), and so private capital funds "flee" towards the public sector to serve public expenditure financing. Overall, the monetarists emphasize that, in this way, it is possible that the anticipated positive effect on GDP growth produced on the account of promoting debt-financed budget deficits becomes very low, even null.

From the Keynesian position, this effect was, however, strongly contested. Keynesians especially invoked that, given the conditions of an economy that is not working at full capacity and where there is a significant amount of unused resources (as can be characterized the context of the Keynesian analysis), the debt financing of budget deficits, by means of public loans placed on the financial markets, helps draw these resources into the economic circuit. In this way, the offer for loanable funds grows equally to the demand and, thus, the interest rate may remain unchanged.

A different view on the economic effects of public borrowing is expressed by the representatives of the ***school of rational expectations***, in particular by R. J. Barro who, based on the theoretical grounds laid down by Ricardo, gives course to the Ricardian equivalence thesis. Challenging the Keynesian reasoning, Barro claims debt neutrality on the grounds of the equivalence, in terms of their effects, between the financing of a certain amount of public spending through the ordinary alternative of taxes or by public borrowing. Specifically, he believes that governments, by deciding to give up some taxes and resort to borrowing to finance resulting budget deficits, accumulate public debt that, just like privates, will have to repay in the future, and so will have to resort to future tax increases. This future "tax invoice" is considered to be perfectly anticipated by private agents and incorporated into their behavior, so they react by raising their present savings equally to the amount of future additional taxes. Thus, the additional private revenue generated on the account of tax cuts, instead of being used for increased consumption, investment and demand is found, especially, in increased savings for precautionary purposes (Caron, 2007). In this way, the possible positive effect arising, according to the Keynesian view, on the account of debt financed budget deficits is canceled, which therefore reveals the neutrality of public debt.

5 The "Conventional" View on the Economic Effects of Public Indebtedness.

The view currently assumed by most economists and even by some public policy makers, therefore called the "conventional" view (Elmendorf & Mankiw, 1998), combines classical (liberal) arguments and Keynesian ones, distinguishing between the effects of public debt on economic growth over the short-term and over the medium- and long-term.

From the perspective of a short period of time, the framework of analysis is considered to be Keynesian in nature, so the supply of goods and services and, therefore, the output appear to be determined by the level of demand, which at its turn can be influenced by public borrowing to finance increased budget deficits. So, public indebtedness can prove to be beneficial for the economy over the short-term, especially when the economy is in recession or confronted with weak growth rates, and when the actual GDP is well below its potential level.

Faced with the "painful" realities of the recent crisis, many economists argued for Keynesian therapies. Paul Krugman (Krugman, 2009) emphasized that "they (A/N the economists) have to admit (...) that Keynesian economics remains the best framework we have for making sense of recessions and depressions." This view was fully reflected into the public indebtedness policies promoted, with the onset of the global economic crisis, by the public authorities of the European Union Member States, many of them deciding to increase public spending or cut down taxes and therefore borrowing to support the economy and ensure an upward economic trend.

From the perspective of a longer period of time, the framework of analysis is considered to be classical in nature, so the impact of the demand becomes less relevant and what matters for economic growth, on the contrary, is the supply of factors of production. The indebtedness of public authorities, to finance budget deficits, is considered to result in the reduction of total (public and private) savings, the increase of the interest rate, decrease of investments and the reduction of capital stock. Thus, its effects on economic growth appear to be mostly negative ones.

6. Conclusions

The short overview of the most relevant theories outlined, along time, on the effects of public indebtedness on economic growth fully proves that a unanimous consensus in this regard does not exist, as the practice of various countries indicates uniform results. An extensive study of the International Monetary Fund on the current and past situation of various countries concluded that "there is no simple relationship between debt (A/N public) and growth" (IMF, 2012), as many factors affect the relationship of determination between them.

The identification of these factors and of the causal links that they mediate, on the realm of economic theory, allows us to outline some common generic landmarks, serving public authorities to fundament (on rational grounds) their public indebtedness decisions. In order to allow for positive effects of public borrowing on economic growth rates, or to limit any possible negative effect, public policymakers should consider, in our opinion, three fundamental aspects when deciding to incur debt:

a. ***The economic conditions*** - Public indebtedness must not become common practice but, on the contrary, this option should be reserved especially for those situations in which the economy is confronted with unusual phenomena, requiring large scale government interventions and important financial (public) resources. Going through a period of severe economic downturn is the best example in this respect, but can be assimilated natural disasters, transition to market economy, large scale structural reforms (e.g. the reform of the pension system to meet the challenges driven by aging population), etc.

b. ***The destination of borrowed resources*** – The financial resources raised by means of borrowing should be used, especially, on those destinations which allow creating added value in the economy, over the medium- and long-term, thus ensuring the prerequisites for future repayment, without major difficulties, of resulting public debt (borrowed amounts and interest expenditure). Such destinations mainly include investment expenditure, which Keynes himself recommended, although not any public investment should be a priori accepted, but only those with high economic and social efficiency. Investment in physical capital are added to those in human capital (such as those resulting from public spending on education or health care), with positive effects on economic growth and development over the long-term.

c. ***The dimensions of public indebtedness*** - By the dimensions of public indebtedness we mean both the rate at which public debt is accumulated and the overall size of the debt, given the amount of previous financial commitments. When public debt is large or accumulates at a very fast pace, the likelihood of possible side effects (interest rate increase, private savings increase, etc.) to occur increases and this may have negative effects on the economic growth rate.

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REALITIES AND PERSPECTIVES

Overviewing the Expenditures Structure in Local Self-Government Entities

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Abstract: The process of decentralization in EU countries is permanent in registration due the new entries in 2004 and 2007, which emphasizes on the one hand the major role of local governance for sustainable development, and on the other hand the challenges that local governments have in the management of local public funds. Thus, the structure of local public expenditures and their correlation with revenues, highlight the complexity of the duties of local government. The research paper will focus on the structure of local expenditures of the public sector, using the background offered by literature based on good practices and the analysis of official statics data for empirical evidences. We estimate the analysis to offer a viewpoint on the expenditures structure of local budgets with positive aspects, but also deficiencies that require some solutions and policy options. Thus, the paper can be a starting viewpoint which allows researchers to develop the domain in a much more complex research.

Keywords: local budget; local expenditures; local government; sustainable development

Jell Classification: H7; H72; H76

1. Introduction

Currently, expenditure incurred locally plays an important role in the functioning of the national economy. Thus, the delimitation of competences categories of local authorities and their scope is reflected in expenditures in local budgets are expected in order to provide local public services.

Given the diversity of local financial systems in the European Union, we find that there are general rules and basic principles (for example, the European Charter of Local Self- Government) that each state adapted to the particularities of that State. Thus, some financial systems fit into the general pattern of decentralization of the federal states (Germany), others are characterized by centralization at the national level where there are some weaker trends decentralization (Malta, Greece) or severe (Romania). Whatever form of decentralization that gets every country, it is important that each state establish more concrete and exact administrative powers of administrative-territorial units, so as to create a symbiosis with their financial capacity to develop sustainable local.

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2. The Subject of the Research, Methodology and Theoretical Approach of Local Public Expenditures

This study gives an overview of local public expenditure in the EU states, in relation to the theoretical interpretations and analyzes of indicators characterizing the local public expenditures. Theoretical sources are books, articles and other scientific materials, involves data processing and analysis of indicators presented in official reports and databases (i.e., Eurostat).

Theoretical approaches (Sauviat, 2004) based on the idea that after a long time was considered accessories of state finance, local finances have become an economic and political stake in all countries. Increasinglocal public expenditures and determining local resources is currently a major concern of all countries. Whatever would be the degree of decentralization of a country's, financial relations between the state and local communities are multiple and complex. They reflect the conflicting nature of the financial aspects of decentralization (or regionalization). Even at first glance, decentralization is accompanied by numerous advantages (it takes better account of citizens' needs better meet the demands of local democracy, to comply with local identities, improve the effectiveness of public action), we must recognize that the size of its financial dimension impose many nuances.

Local government expenditure is the local public administration's efforts to meet the cultural, social, economic, development of public services and other requirements of the inhabitants under the jurisdiction of local authorities (Voinea & Cigu, 2008).

The expenditures of the local budgets of member countries of the European Union depend on the powers of local authorities at every level of local government. Thus, local government expenditure means the activity of local government to fulfill the economic, social and cultural development of public services (Voinea, 2008; Oprea, 2011; Beer-Tóth, 2009; Petrișor, 2012). We can distinguish functional classification and economic.

In most countries of the European Union, local responsibilities have increased in recent years due to the decentralization of the public services and application of the principle of local autonomy. In general, local authorities carries different types of competence analyzed in different research (Bell, Ebel, Kaiser & Rojchaichainthorn, 2006; Cigu, 2011; Petrișor, 2012), but the most common classification is as following: own (exclusive), shared and delegated powers.

Own powers are also called exclusive powers and are assigned by law to local authorities for the implementation of which they are responsible. Local authorities have the right of decision and have the resources and skills needed to undertake compliance with rules, criteria and standards established by law. Shared powers are those powers exercised by local government authorities, together with other levels of government (central or county), with a clear separation of funding and decision-making power for each authority. Delegated powers assigned to local authorities by law, together with adequate financial resources by the central authorities to exercise them in the name and within the limits set by them.

Competences/powers of the administrative-territorial units are different from one country to another. In most EU countries, municipalities have exclusive responsibilities regarding rural development and urban planning, water and sanitation, and waste disposal, social services, sports and leisure. Sectors of education, health, culture, roads and highways, as well as economic development is generally responsibilities shared with other levels of government at the local and even central (Voinea, 2008; IPP, 2008; McLure, Vazquez-Martinez, 2005; Shah, 1994).

3. An Overview on the Structure and Dynamics of Local Expenditures

In European Union countries there is a concern from local authorities to substantiate expenditure on the basis modern methods and in particular on the programs.

Within expenditures are funded from local budgets included operating costs on account of current activity which ensures the supply of local public services and they hold a significant share in total local public spending in all EU states. Investment spending holding a certain share of local budgets due to the importance of investment to economic development and social-cultural development of administrative-territorial units.

Grouping expenditure on functions and departments allows to be more clearly identified costs of local authority policies. Presentation of expenditure according to the nature enable understanding orientation collection of resources and implementing policies. Their joints make possible to establish how resources are allocated between business areas and identify the type of resources allocated to each Member State of the European Union.

According to the functional classification in most EU states are classified by sector spending, while in Romania the parties. Sectors are relatively the same in all EU countries. There appear differences in the competences within sectors. The powers are greater, much larger amounts are allocated to these sectors, which translates into a greater financial autonomy.

In some EU countries, expenditure in local budgets have a higher share in GDP as an expression of widening the powers of local government. The evolution of local public expenditure in GDP for the period 2006-2014 do not involve significant fluctuations in the level recorded increases of about 9 states, including influencing EU average. A decline more obvious, but insignificant recorded in Ireland, Lithuania and Spain.

Table 1. Local public expenditures in GDP

GEO/TIME	2006	2008	2010	2012	2014
Austria	7,9	8,1	8,7	8,3	8,6
Belgium	6,9	6,8	7,2	7,6	7,4
Bulgaria	6,4	7	7,3	6,6	9
Croatia	11,9	11,6	11,7	11,8	12,5
Cyprus	1,8	1,7	2	1,8	1,6
Czech Republic	11	10,5	11,3	11,3	11,7
Denmark	32,5	32,2	35,9	36,1	36
Estonia	9,2	10,8	9,8	9,6	9,2
European Union (28 countries)	11,1	11,3	12	11,6	11,3
Finland	19,2	20	22,4	23,4	23,8
France	10,8	11,2	11,5	11,7	11,8
Germany	7,3	7,3	7,9	7,6	7,9
Greece	3,4	3,6	3,8	3,3	3,3
Hungary	12,7	11,3	12,6	9,3	7,9
Ireland	6,4	7	5,5	4,5	3,6
Italy	15,2	15,1	15,7	14,9	14,7
Latvia	9,9	11,8	12	10	10
Lithuania	8,4	9,2	11,1	9,3	7,9
Luxembourg	4,8	5	5,3	5	4,9
Malta	0,6	0,5	0,6	0,8	0,6
Netherlands	14,3	14,8	16,2	15,1	13,9
Poland	13,6	14,1	14,9	13,2	13,5

Portugal	6,5	7,1	7,4	6,2	6,1
Romania	8,6	9,7	9,5	9,6	9
Slovakia	6,5	6,1	7,3	6,4	6,7
Slovenia	8,6	9	9,8	9,5	9,8
Spain	6,1	6,5	7,1	5,9	5,9
Sweden	23,3	23,9	24,2	25	25,4
United Kingdom	12,4	12,9	13,4	12,9	11,1

Source: Computed by author using data provided by Eurostat.

Despite decentralization, local government expenditure is below 10% of GDP in 17 EU countries. This situation is explained by the fact that the countries where local budgets represent less than 10% of GDP are typically those in which local communities are not involved in the remuneration of teachers.

Table 2. Local expenditure by economic function in the EU countries in GDP (%) in 2014

GEO/TIME	Total	General public services	Defense	Public order and safety	Economic affairs	Environment protection	Housing and community amenities	Health	Recreation, culture and religion	Education	Social protection
Austria	8,6	1,4	0,0	0,2	1,0	0,2	0,2	2,0	0,5	1,4	1,9
Belgium	7,4	1,4	0,0	0,9	0,7	0,5	0,3	0,0	0,7	1,4	1,6
Bulgaria	9,0	0,8	0,1	0,1	1,0	0,6	1,5	1,0	0,6	2,5	0,7
Croatia	12,5	3,9	0,0	0,1	0,6	0,0	0,0	2,5	0,5	3,5	1,4
Cyprus	1,6	0,6	0,0	0,0	0,0	0,2	0,4	0,0	0,3	0,0	0,0
Czech Republic	11,7	1,4	0,0	0,2	2,2	0,9	0,7	1,4	0,8	3,2	0,8
Denmark	36,0	1,2	0,0	0,1	1,3	0,2	0,1	8,6	0,8	3,2	20,3
Estonia	9,2	0,8	0,0	0,0	1,3	0,3	0,4	1,5	0,9	3,3	0,7
European Union	11,3	1,6	-	0,4	1,4	0,6	0,5	1,5	0,6	2,0	2,6
Finland	23,8	3,6	-	0,3	1,7	0,1	0,2	7,0	0,8	4,2	5,9
France	11,8	2,3	0,0	0,3	2,2	0,9	1,0	0,1	1,2	1,7	2,2
Germany	7,9	1,4	0,0	0,3	1,1	0,3	0,3	0,2	0,5	1,2	2,6
Greece	3,3	0,9	0,0	0,0	0,6	0,6	0,1	0,0	0,3	0,3	0,4
Hungary	7,9	1,9	0,0	0,0	1,4	0,8	0,7	0,3	0,7	1,1	1,0
Ireland	3,6	0,2	0,0	0,1	0,9	0,3	0,5	0,0	0,2	0,4	1,0
Italy	14,7	1,9	0,0	0,3	2,0	0,9	0,6	7,0	0,4	1,0	0,8
Latvia	10,0	0,8	0,0	0,2	1,1	0,2	1,0	0,9	0,9	3,9	1,0
Lithuania	7,9	0,6	0,0	0,3	0,7	0,3	0,3	1,5	0,4	2,9	1,0
Luxembourg	4,9	1,3	0,0	0,1	0,7	0,6	0,2	0,0	0,7	0,6	0,6
Malta	0,6	0,3	0,0	0,0	0,1	0,2	0,0	0,0	0,0	0,0	0,0
Netherlands	13,9	1,0	0,0	0,4	2,0	1,4	0,4	0,3	1,2	4,4	2,9
Poland	13,5	1,4	0,0	0,3	2,2	0,7	0,6	2,0	0,9	3,7	1,7

Portugal	6,1	1,8	-	0,3	0,9	0,4	0,5	0,4	0,6	0,9	0,5
Romania	9,0	0,9	0,0	0,1	1,8	0,5	0,9	1,3	0,6	1,8	1,1
Slovakia	6,7	0,9	0,0	0,1	1,2	0,4	0,4	0,2	0,4	2,7	0,5
Slovenia	9,8	0,9	0,0	0,1	1,2	0,7	0,7	1,0	0,8	3,4	1,1
Spain	5,9	2,1	0,0	0,5	1,0	0,6	0,3	0,1	0,7	0,2	0,5
Sweden	25,4	3,0	0,0	0,2	1,5	0,2	0,7	6,8	0,9	5,1	7,0
United Kingdom	11,1	0,9	0,0	1,0	0,9	0,5	0,5	0,2	0,2	3,1	3,8

Source: Computed by author using data provided by Eurostat.

A high proportion of local public expenditure in GDP recorded in Denmark with a share of 36%, Sweden 25.4% and Finland 23.8%. 9 of EU countries have a share of local public spending between 10% and 15%. Local highest public expenditure in most EU countries are Social Protection Sector, followed by Education. Defense sector is established by law as partial responsibility of the local authorities only in Bulgaria (0.1%).

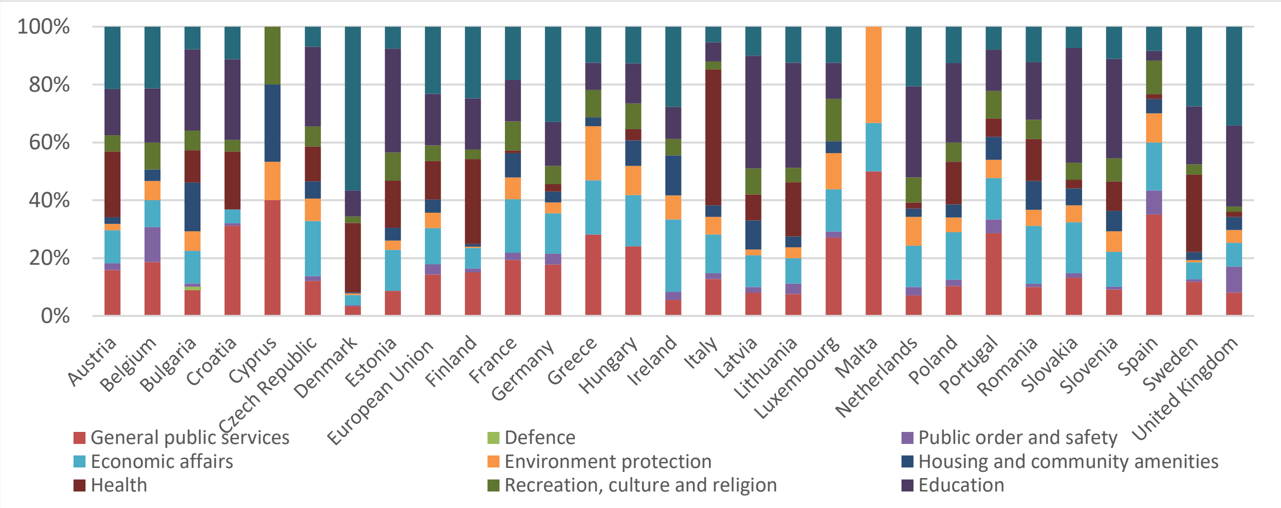

Figure 1. Local expenditure by economic function in the EU countries in GDP (%) in 2014

Source: Computed by author using data provided by Eurostat.

In terms of sectors, we find that the highest weight is registered by social protection and education. In the case of social protection, it can be seen that a high share is recorded in Denmark (20.3%), significantly ahead of other countries in the EU.

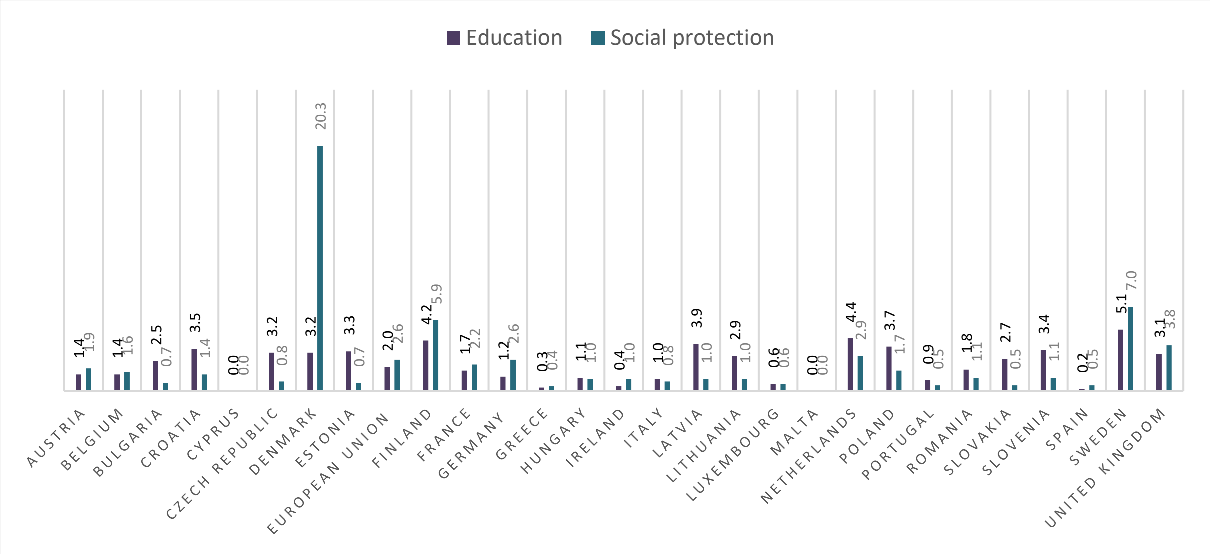

Figure 2. Education and social protection in GDP (2014)

Source: Computed by author using data provided by Eurostat.

4. Conclusions

Previously analyzed data can correlate them with information on the economic growth registered in the year 2016. On the first trimester first screened Ireland with a consistent growth of over 4% and in the next place is found Romania. Ireland becomes very interesting case in this situation which is by far the country reforming public spending in this segment of the local administration. We can make a connection between these measures and the increase registered in this country. In these circumstances there is a question that could make way for a next study in an extend analysis: "Economic growth is due restraining the role of local administration and the increasing role of central administration? It influenced so in a greater or less economic growth? "

On the other side is Romania which maintains relatively constant local government expenditure as a share of GDP but whose measures of central administration, among which we can mention lowering VAT and stimulating this kind of consumption, have led to a first quarter 2016 with consistent growth.

This study has successfully answered to the research paper question, respectively to examine the structure of local expenditures of the public sector in the European Union countries and as future research direction we intend to extend the analysis answering to the questions above.

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REALITIES AND PERSPECTIVES

General considerations on the population ageing

Alina Nuta[1]

Abstract: This article presents one of the most important issues of the current context, the ageing of the population, with major consequences on the financial stability of the nation. This restructure of the population (that change the shape of the population pyramid), as a result, on the one hand, of the reducing in the fertility rate, on the other hand, increasing in life expectancy and last but not least, due to migration, unbalance national budgets, generating negative effects in economic, financial and social terms.

Keywords: population ageing; fiscal policy; labour force

JEL Classification: E62; Q56; J22

1. Introduction

In the present context, demographic trend is pressing the decision making factors to find solutions to labour market integration of the elderly, given the fact that all the statistics show that the percentage of inactive old people in relation to the employee is constantly expanding. In Romania, the employment rate for the 55-64 years category, compared with the employment rate for the 25-64 years category is highlighted in the following way:

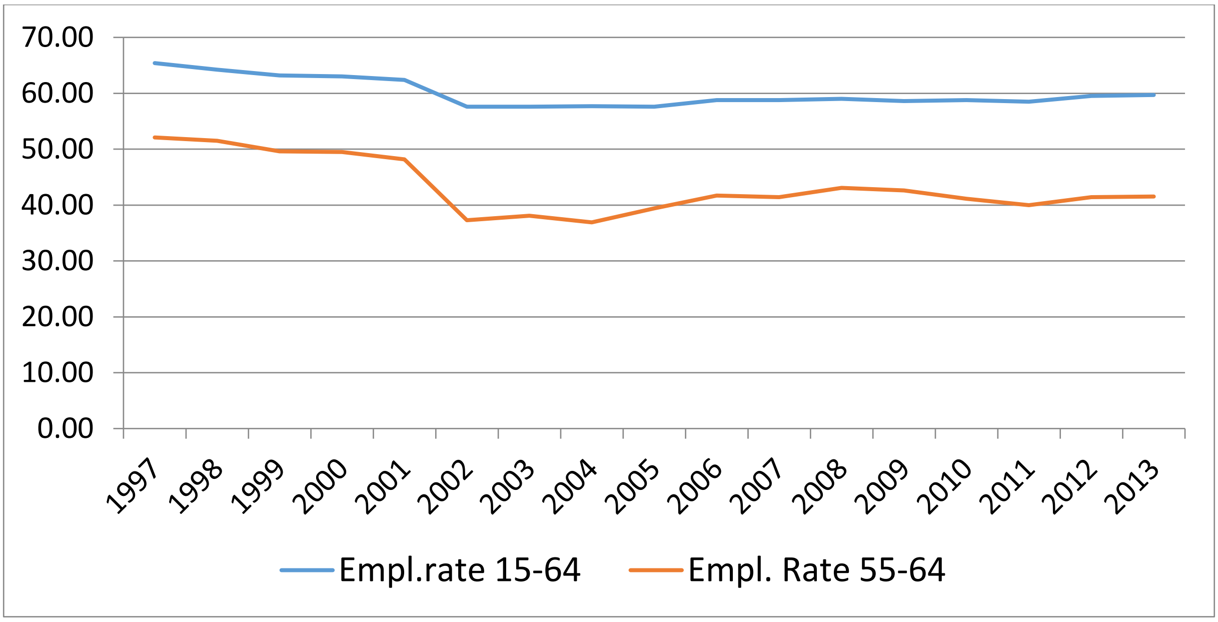

Figure 1. The evolution of the employment rate in Romania

Source: Eurostat

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In this respect, outlining a model for determining the link between skills and ageing will lead to important conclusions for taking an optimal public decision that would enable a restructuring continue of the competencies to requests for qualifications from the labor market on the one hand, and on the other hand, that could generate an extension of professional activity of older people.

We could say that in the absence of appropriate fiscal adjustment, additional reforms of pension and health care or structural measures to improve growth potential, future tax burden will increase significantly.

According to many studies, future changes on the level and structure of the population will have a direct impact on pension, health care, education and long-term care systems, not just in Romania and other countries. Demographic changes require structural adjustments discretionary public budget indicators. In turn, changing these fiscal indicators will have an impact on age-related indicators, such as poverty risk rates, severe material deprivation and social exclusion.

2. Demographic and Fiscal Indicator Analysis

Demographic indicators taking into account in our analysis mainly refers to the proportion of people aged 65 and over in total population, life expectancy at birth and life expectancy at 65 and over, at the rate of dependency for old (number of people aged 65 and over compared to the number of active persons) at fertility rate, etc.

Table 1. The evolution of age related indicators (Romania 1995-2013)

	1995	**2000**	**2005**	**2010**	**2013**	**2030***	**2050***
Prop. Of the population aged 65 +	**11.8**	13.2	15.1	16.1	16.3	**20.2**	**31.1**
Life expectancy at birth	**69.46**	71.16	71.88	73.46	74.69	**75.3**	**79.8**
Dependency ratio-old	**17.6**	19.3	21.8	23.4	23.9	**32.9**	**58.9**
Dependency rate of the system	**0.84**	1.32	1.31	1.38	1.21	:	:

Source: Eurostat

In the above figure we can see the evolution of the Romanian population structure:

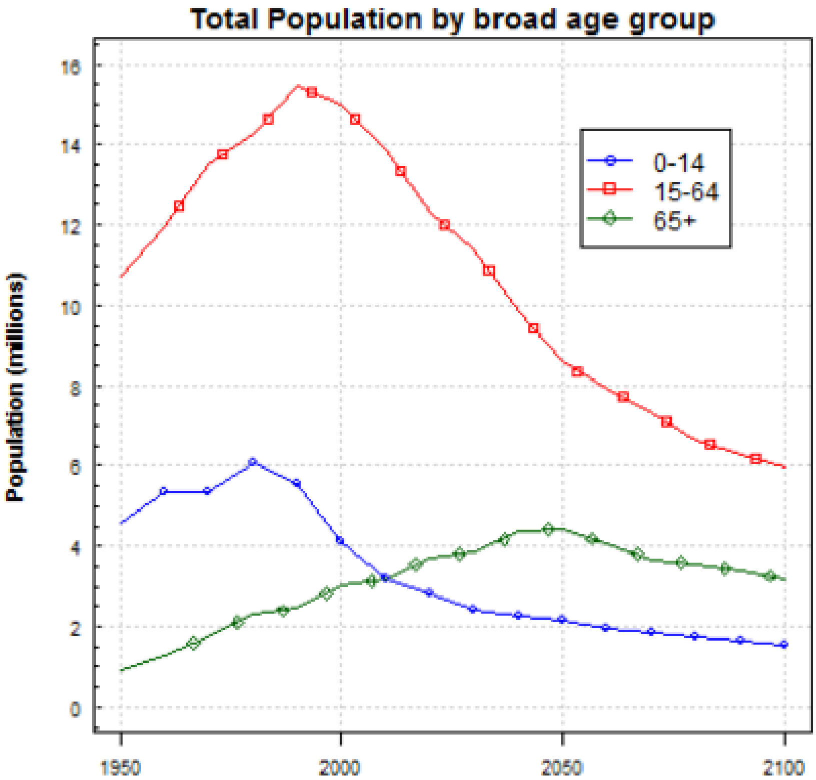

Figure 2. The structure of the Romanian population

Source: http://esa.un.org/unpd/wpp/Graphs/DemographicProfiles/

According to the table above, there is an increasing trend for Romania indicator of percentage of the population aged 65 and over in total population during 1995-2013 from 11.8 to 20.3, but, what is more important, this indicator will double the value in 2050, according to the estimates of the specialists, issue that will require an appropriate response by policy makers. Also, the indicator on the dependency ratio will undergo the same evolution, reaching to triple the amount until 2050.

Table 2. The evolution of fiscal indicators in Romania, 1995-2013

	1995	2000	2005	2010	2013
Public spending	34.1	38.4	33.4	39.6	35.1
Age related spending	12.9	15.1	13.8	18.5	16.5
Public revenue	32.1	33.9	32.4	33.3	32.7
Public deficit	-2.0	-4.7	-1.2	-6.6	-2.2
Public debt	6.6	22.4	15.7	29.9	37.9

Sourse: Eurostat

Closely correlated with the evolution of ageing indicators, fiscal indicators image for Romania in 1995-2013 period is however a more balanced one, just the level of the public debt knowing an ample increasing, but not to worry, from 6.6% to 37.9% of gross domestic product.

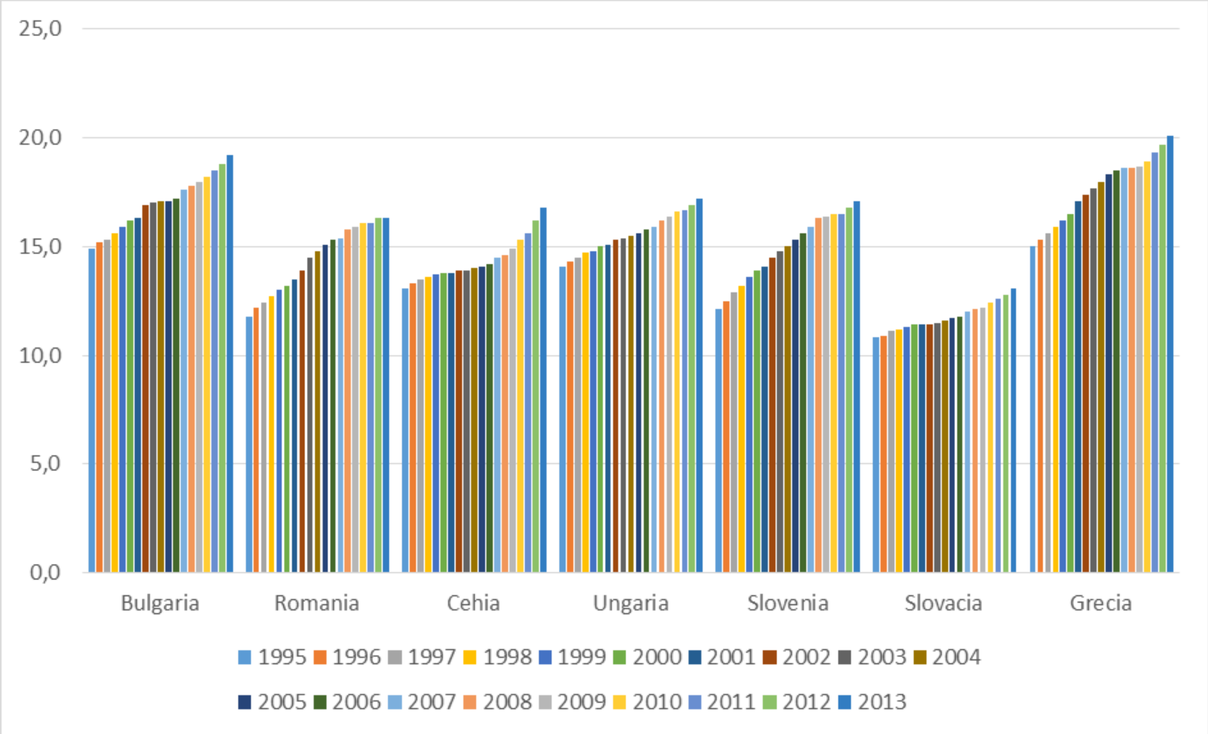

Figure 3. The evolution of the percentage of population aged 65 years and more for some countries from EU

Source: Eurostat and Word Bank

According to the figure above, in the period 1995-2013, it appears that, in terms of the indicator that refers to the percentage of population aged 65 years and more, we can see an increasing trend for all countries considered, the highest values of this percentage is found in countries such as Greece and Bulgaria, while the lowest levels are present for Slovakia.

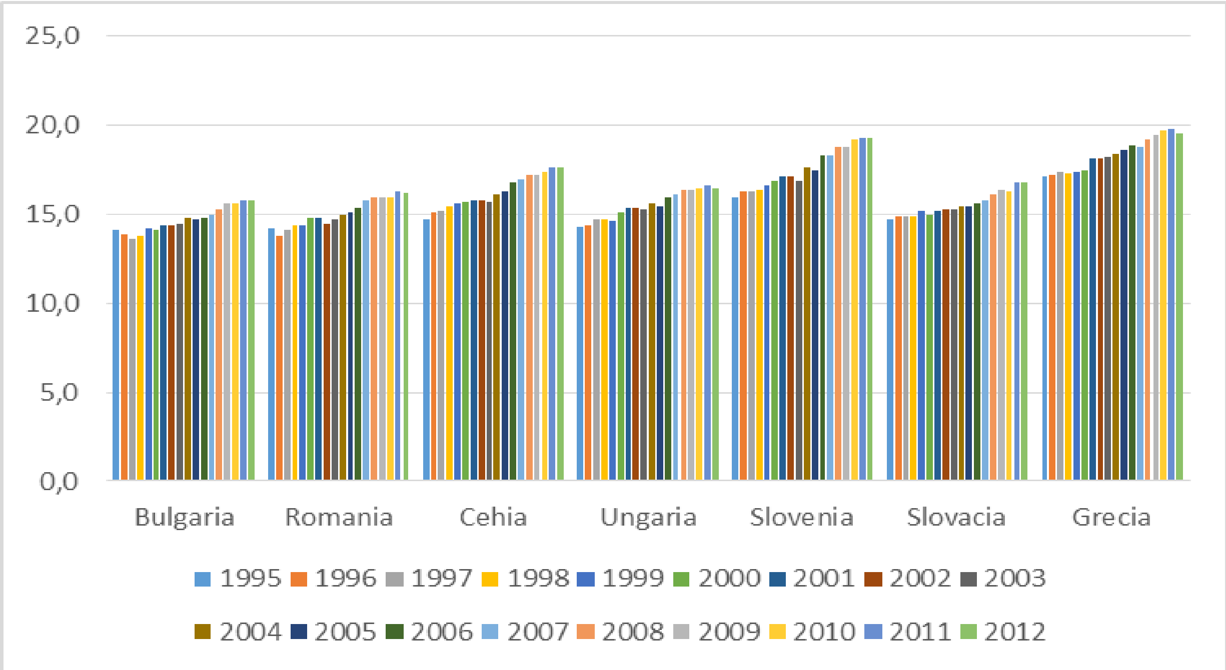

Figure 4. Life expectancy at age 65

Source: Eurostat and Word Bank

In terms of life expectancy at age 65, we can see an increasing trend for all seven countries analyzed in the period 1995-2012, distinguished higher levels in Greece and Slovenia.

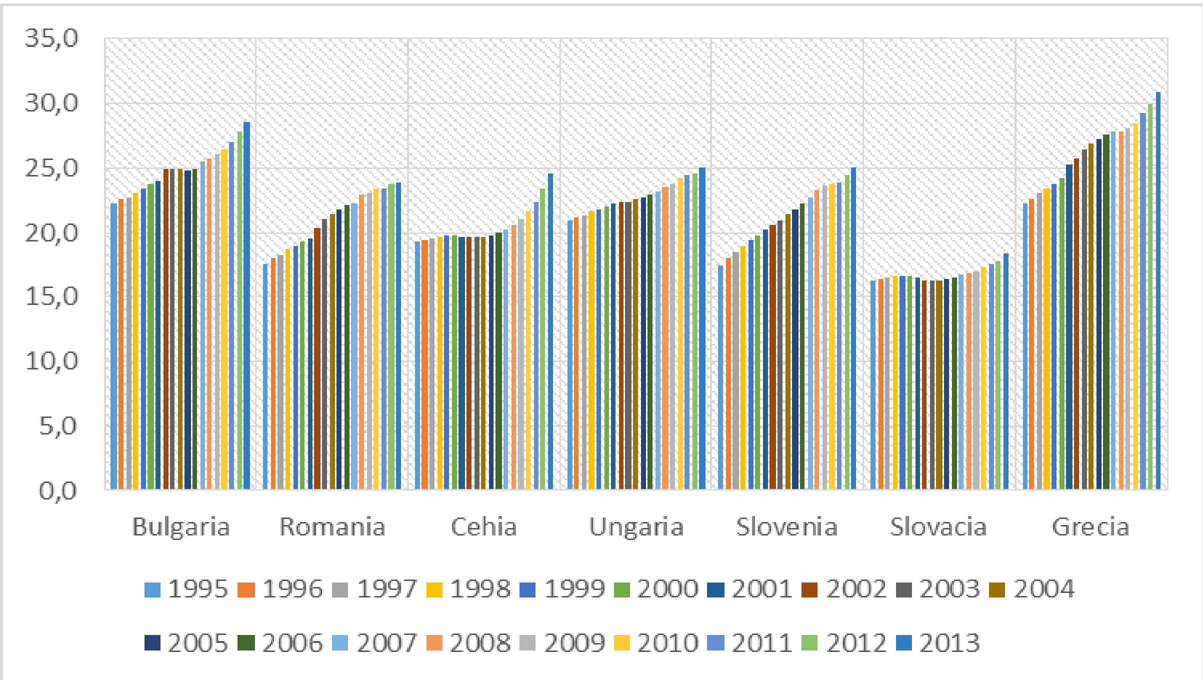

Figure 5. Dependency ratio for old-age (per 100 persons aged 15-64)

Source: Eurostat

The table above shows worrying levels of dependency rate for Greece, which exceeded 30% in 2013, and if corroborate data to the previous ones, in which Greece submitted the highest levels, we can see that, from the countries surveyed, the need of Greece for wider reforms to successfully manage the population aging problem, especially given the current sensitive financial situation. When public debt already exceeded the limits considered to be sustainable.

Romanian case: the table below includes estimates of the United Nations on Romanian population trends in next period. According to these estimates, we can see a clear downward trend in the total population (with 18% from 2013 until 2050).

Table 3. Romanian population, (thousands)

Age	1980	2013	2015	2030*	2050*
Total	22,400	21,699	19,511	17,639	15,207
0-14	6,196	3,272	3,028	2,406	2,172
15-59	13,222	13,865	11,720	9,976	7,503
60-64	641	1,282	1,385	1,423	1,085
65-69	930	943	1,071	918	1,008
70-74	694	818	743	1,064	1,132
75-79	433	752	758	922	977
80-84	206	467	492	552	773
85-89	63	224	237	240	323
90-94	14	67	68	113	178
95-99	1	7	8	23	49
100+	0	1	1	3	6

Sursa: UN, Profile of Ageing 2015

http://esa.un.org/unpd/popdev/Profilesofageing2015/index.html

In addition to that, the percentage of the population aged 65 years and over will increase in the same period from 10.5% to 29.2% in total population, according to the table below and this will lead to additional pressure on public finances.

Table 4. Population at older ages (%)

	Age	1980	2013	2030*	2050*
Total	**60+**	13.3	21.0	29.8	36.4
	65+	10.5	15.1	21.7	29.2
	80+	1.3	3.5	5.3	8.7

Source: UN, Profile of Ageing 2015

3. Conclusions

This leads to an increased need to engage old people in the labour market. Also, some studies show that in least developed countries the population aged 65 years and over who are active in the labor market is 31%, while in more developed countries are involved in labor market only around 8% (United Nations, 2013).

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