The methodological cat

"Economics understands action as having the connotation of here and now, the proof being that it excessively uses, for explicative purposes, two limitations of sense: space is seen as the place with a private destination (through the cognitive dissonance of methodological individualism), and time is seen as the short term (through the dystopia of rational markets)."

The human condition finds itself under the influence of an undefined, yet unitary group of factors. Economic analyses bypass this cognitive difficulty by considering only a limited number of factors. Usually, the influencing factors are identified in correlation with the components of the human condition: labour, work and action. Their enumeration varies both thematically and according to the vision on the role of economic fundamentals. Because economic theories are concurrent in the creation of the premises on which political decisions are based, there isn't any unanimously recognised order of prevalence for the factors.

This manner of contextualization in the observation of an object of study does not formally differ from the cognitive experience of other sciences, where theories have alternative views. But in Economics it is almost impossible for certainty to exist when looking at the relevance of the factors taken into consideration. The credibility game being played by the economic theories is the direct expression of the preference for a hierarchy of factors; it is not an unravelling of some implacable mechanisms of reality. In fact, all that is weaved around the human condition – which includes its efficiency component – has the consistency of a vortex of influences. The deciphering of its mechanism is still to bring clarity, when Economics chooses to follow only a part of it, without the certainty of having chosen the right one. This brings to light the limitation of economic cognition in the observation of only certain trends – which can prove episodic, happenstance, partial, spatially and temporarily diversified – which are the unrepeatable cases and not the perpetual regularities.

The real challenge that Economics must face is to explain the economic performance by capturing all of the factors into a coherent explicative formula. Resorting to the method of the prime factor in explaining the creation of wealth, accredited with cognitive virtues, proved inefficient most of the time: the differentiation of economic theories according to the preference for the prime factor did not guarantee the necessary increase in knowledge. Their explicative models – particularly those of the theories which are interested in

the macroeconomic perspective – did not reach complementarity, but instead even forwarded mutually exclusive solutions. The truth is that the problem on which such a theory is focused does not have the necessary grounding demanded by the method of positive economics, but is constructed in a normative way, representing most of the time an ideological projection on the economic reality.

It is probably for this reason that the appeal to evidence mattered in economic thinking. What is seen and felt directly by the agent or the observer counted as a makeshift legitimacy of the theoretical approach, especially after the thematic beliefs or the conceptual affiliations. In a paradoxical way, the science of rationality in meeting the material needs – as Economics strives to be – bet on intuition in prescribing the recipe for success. In many ways, the theories choose to present recipes which include the use of the player's flair for winning a bluff, by resorting to any means – including those immoral or illegal – in exploiting opportunity. In a somewhat natural way, Economics has limited itself to the condition of a science for prescribing personalized recipes, which means that it does exactly what it claims not to: treating individual patients with different symptoms, instead of treating diseases, as phenomena with universal patterns. The prime factor, which is considered as the cause of the disease and represents the target of the treatment, is individually relevant.

This manner of configuring the cognitive structure of Economics leads to time being defined as Horace's *"seize the day!"*. Economics understands action as having the connotation of here and now, the proof being that it excessively uses, for explicative purposes, two limitations of sense: space is seen as the place with a private destination (through the cognitive dissonance of methodological individualism), and time is seen as the short term (through the dystopia of rational markets). In between these maximized contractions of intentions and randamental consequences, the living reality does not fit: the neurotic fixation on profit completely ignores the context. With the exception of the factor which is considered prime, the others which hold a causal or correlative role are being forced by the method employed to enter the black hole of *ceteris paribus*.

The exclusion of influences resembles the behavioural model of faith, with the economic knowledge abusing the reference to feelings based on trust and to expectations based on illusions. Economics admits in its epistemic substance the paradox of religious behaviour, as an operational meddling in configuring the context of wealth creation. The most accessible equilibrium in the universe of individual motivation is represented by the faith the divinity's power to solve everything. With this manner of understanding, problems tend to solve themselves, everything is simplified by the fact that they depend on the unique and unavoidable miracle of faith. On this path of surrenders and assimilations the

Credo came to be the stone in the alchemy of money and credit. Even methods like the targeting of inflation, or theories such as the one of rational choice, are built on the assumption of faith. Formulas for inducing faith have proliferated, as in the case of explaining the development function attributed to foreign portfolio investments or the effect of economic growth generated by stock market speculation.

Economics has constantly ignored the suggestion by other sciences to take into account elements from beyond the rational method of bigoted parsimony. Mathematics employed excursions outside the intellectual model established by Kant, accepting the counterintuitive determinist chaos in the understanding of complex systems, thus closing any breach for the insinuation of faith on the territory of reason. Quantum-level Physics has done the same when it accepted indeterminism and ubiquity as epistemic principles. Geometry broke through the artificiality of ideal forms by analysing non-Euclidian spaces or the rules of fractal reality. The structure of the universe has been reread within the methodological meanings of the anthropic principle, nuancing the mechanicistic perspective until the cosmic canvas could include the function of the one explaining it. All this epistemic boldness was a bet on the recharging of the particular meanings in the framework of the whole, of the totality. It was the only formula for insuring the validity of any theory, its concordance with complex reality.

Economics was predisposed to make an abstraction of the fixing of the human condition in the ineffable complex of the human nature. All the other functions of the individual human as a social being have been dissolved by the methodological isolation of the contents of labour, work and action and by reducing each of their meanings to a single element in order to enable the maximization of the yield function. On the other hand, in order for them to be efficient, the interstices of the actional complex are lubricated with the mass expectation for winning, apocalyptically possible through irrational exuberance.

Economics can escape this cognitive tight spot by returning to the Smithian sensibility with which it was born: that of seeing the totality, including thus the individual, in a fundamentally – and therefore unitary – anthropic perspective, with all the influences, with precise calculations and relevant approximations, with reason and sentiments. The existence of the parts of the whole must be understood as a functional unit, where the whole is represented by the lucrative mosaic of the human condition, contextualized in the pulsating nebula of human nature. The non-human universe of *homo economicus*, in which human nature gets expelled to the *ceteris paribus* desert, must remain – just like Schrodinger's cat – just a mental experiment.

Marin Dinu

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Assessment modalities of the Master Plan for the Romanian tourism development 2007-2026

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Abstract. *The complexity of a tourism destination such as Romania constitutes a prerequisite for organizing the marketing activity at the macro and meso level, in the context of the tourism development planning process at national level. An important document for the Romanian tourism development is the Master Plan, developed for the period 2007-2026, whose periodic evaluation is required.*
For this purpose, a quantitative marketing research has been conducted, on a sample of 107 young people, with ongoing economic higher education studies, which aimed at the knowledge of the opinions on the Master Plan for the Romanian tourism development, elaborated for 2007-2026, using as evaluation criteria, the knowledge gained from the Masters program. Thus, the opinions on the way of its organization, as well as its managerial implications have been analyzed, and

finally, solutions have been proposed in order to improve it. Also, for a more complex view, a qualitative marketing research has been conducted, on a panel of experts, representatives of the Ministry of Tourism, in order to capture, from an internal perspective as well, important aspects of the organization and coordination processes on which the Master Plan was fundamented.

Keywords: tourism planning; marketing planning; Master Plan; Romanian tourism.

JEL Classification: M3, L83.
REL Classification: 14F, 14G.

Introduction

The complexity of tourism, admitted by all the professionals in the field, is shown not only by the complexity of the supply, respectively tourism demand (premise of building diverse tourism products), but also by the specific nature of tourism as *"multi- and transdisciplinary science"*, implying the diversity of stakeholders and explaining their multitude, both at management and operational level.

Transforming tourism into a competitive advantage for the country's development is a complex and enduring process, to which all its supporters should attend constantly, considering its "roots" in the natural resources, while the economic multiplier factor is represented by its effective valorization, in relevant sequences of time, subordinated to its development objectives. Therefore, capitalizing tourism can be sustained only through a planned process, materialized in a development plan which "provides instructions and general concepts, identifying development opportunities, which could be analyzed in depth, by means of feasibility studies and cost-benefit analysis" (Mill, 1992, p. 388).

In this purpose, the Master Plan for the Romanian tourism development, for the period 2007-2026, has been elaborated, at the initiative of the National Tourism Authority, and respectively, of the Ministry of Tourism, by a group of international specialists, aiming to "formulate an general framework for the policies of the development and sustainable management of the tourism industry in terms of natural and cultural resources", representing" an umbrella-policy which includes various plans and strategies, described so as to optimize the sector's contribution to the national economy" (Master Planul pentru dezvoltarea turismului naţional 2007-2026, Part I, p. 1).

Conceptual framework

The multitude of Romania's tourism resources constitutes, in fact, a rich background of "raw materials", which can be used by marketing specialists within the process of creating new products; therefore, a differentiated approach, specific to the marketing vision, is absolutely necessary for Romania in order to be on a solid structure regarding tourism development, aiming, ultimately, the offering of tourism products in accordance with the needs, wishes and preferences of their customers.

For this reason, it is necessary for Romania to be seen from a homogenous organizational perspective, however through a decentralized strategic approach of each microdestination (as a strategic business unit, with its own identity, objectives and independent strategies), their cohesion constituting itself in a vital system for the country's tourism brand consolidation. Hence, the need for

elaborating a document by which the tourism activity in Romania to be planned, representing a sustaining element for channeling efforts within strategies at meso and micro level as well.

Admitting the supremacy of planning, in the context of tourism market, results exactly from "taking decisions based on knowledge, [...] setting targets and determining how they will be achieved" (Holloway, 2004, p. 24). Defined as "a complex process of establishing and maintaining the best relationship between objectives, employee training and resources of an enterprise, on the one hand, and the marketing mix on the other hand" (Stăncioiu (coord.), 2005, p. 13), the strategic marketing planning should be harmonized and framed within the tourism planning process, in fact, constituting the *"point zero"* of this activity.

Making a parallel between a tourism destination and an organization is extremely useful for the understanding and deconstructing of the marketing processes. In the case of an organization, organization the marketing department could be realized in four ways, namely, "in relation to the marketing functions, to the geographical position of markets, to the amplitude of the product range, to the served markets" (Holloway, 2004, p. 49). As a tourism destination's potential with a national area is relatively large and, thus, it benefits from a diversified offer, it is all the more required the need for "standardized, formalized procedures" (McDonald, 2008, p. 167). In the case of developing a long-term plan, this approach could become difficult, as the forecasts should take into account the expected changes, but also the inherent ones, which appear in the marketing environment. Therefore, a marketing plan should be flexible and should take into account the change in market circumstances (processing after Holloway, 2004, p. 26); moreover, previous research indicate the necessary conditions for a planned marketing system to function: the nature of open system, the integration with other functional areas at general management level, the coherence, the leadership and the time (McDonald, 2008, p. 173). In these circumstances, it appears increasingly obvious the need to assess the planning system (including the marketing one), respectively, the plan, at regular intervals, performing the necessary corrections, so that a balance is achieved between all tourism resources (which constitute the national tourism offer) and the tourists' expectations, materialized in wishes and preferences for tourism products (i.e. the tourism demand), built within the borders of the destination.

Operational framework

The need for the sections of the Master Plan to be cohesive, following the logic of marketing planning, results from the nature of the document, which, according to its definition, includes a marketing plan as well. In the first section, the situation

analysis, efforts are concentrated, according to the document, for the identification of differentiation elements in the tourism sector, highlighting the weaknesses of Romanian tourism and the opportunities in the reference period. The section regarding the policy, management and organization of national tourism provides a structured presentation of the existing law and policy, starting with the description of the National Plan of development and continuing with regulations for authorities, suppliers, products, brands, and, not least, for consumers. The following category is represented by the strengths and weaknesses of the tourism destination (Romania), which were organized, according to the document, using criteria such as: geography and environment, culture and cultural heritage, infrastructure, transport and communications, human resources, legal framework and organization, marketing and promotion, and more.

The stage of economic impact of tourism includes the analysis of relevant indicators to the tourism economy (e.g., the income from the foreign exchange and balance of payments, the revenues and expenses in tourism, tourism contribution to GDP, contribution to the state income, the multiplier effect and creating employment). The next stage consists in iterating the vision, objectives and targets for the reference period; the vision implies transforming into a quality tourism destination and achieving a sustainable development in terms of the environment, according to the document. The strategic initiatives, the next stage of the Master Plan, are conducted on the following axes: personnel and partnerships, market research, integrated planning, education and training, and marketing, later embodied in actions and proposals within marketing programs. The stage of implementation strategy, named so within the document, consists in composing specialized and multidisciplinary teams for the optimal functioning of the action plan, the Master Plan being ended with a section of demonstrative projects for certain micro-destinations (e.g., Mamaia and Sighişoara).

Methodological framework

In order to assess the main strategic document for the development of Romanian tourism, a quantitative marketing research has been conducted, on a sample of 107 young people with ongoing economic higher education studies, aiming at knowing the opinions on the Master Plan for Romanian tourism, developed for 2007-2026. Out of them, 21.5% are males and 78.5% are females. Of the 107 young people, 39.3% attend the Masters program in Tourism Business Administration and 60.7% attend the Masters program in Marketing Management[(1)]. Considered stakeholders of the Romanian tourism, but also future specialists for the approached field, young people's opinions regarding strategic documents at macroeconomic level are considered particularly relevant in the study, the evaluation criteria of the document

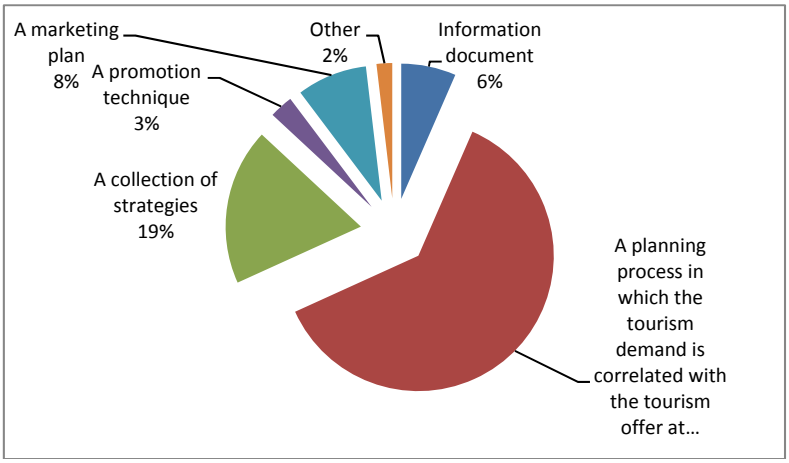
residing in the knowledge gained within the courses "Fundamentals of Marketing" and "Marketing Strategies in Tourism", which are in both Masters programs' curriculum. Thus, with the aim of knowing the opinions on the Master Plan for the Romanian tourism development, elaborated for 2007-2026, views regarding the integrity of the document's component sections were analyzed, as well as regarding the highlight of priorities, the managerial implications and, eventually, the solutions proposed for its improvement.

Moreover, within a comparative approach between the theoretical side, highlighted by the opinions regarding the Master Plan, reflected by means of the academic knowledge and the practical one, of the actual way of developing the Master Plan, a qualitative marketing research has been conducted, on a panel of experts, representatives of the Ministry of Tourism, directly involved in developing the Master Plan, aiming at capturing, from an inside perspective, aspects of the organization and coordination processes, that fundamented its development. The topics of interest include the knowledge of the general impression from a management and marketing perspective, specific considerations regarding the way of developing the entire process, opinions on the efforts and effects of the process, the theoretical and practical implications of the document, aspects relating to the organization, control and evaluation.

Research results

The first objective of the conducted quantitative research – starting point for data analysis – is represented by the identification of the way respondents define the Master Plan, vital information for the relevance and interpretation of the other objectives of the research. Important to mention is that the possible answers the respondents were given do not represent strict, general or exhaustive definitions and are not mutually exclusive, but highlight the way the representation of the Master Plan, based on the actual information contained within, is filtered, using the tourism marketing knowledge acquired in the aforementioned course. Thus, the majority of respondents (62 %) have considered that the Master Plan represents a planning process in which the tourism demand is correlated with the tourism offer at national level (Figure 1). This version is not only the correct version, but also the ideal version for a national document, other versions such as "promotion technique" and "information document" belonging to marketing tactics; versions such as "a collection of strategies" and "a marketing plan" are very important strategic elements, however not sufficient to establish an overall strategic framework, applicable to the macro-destination development, considering as well features that can result in competitive advantages for meso and micro-destinations.

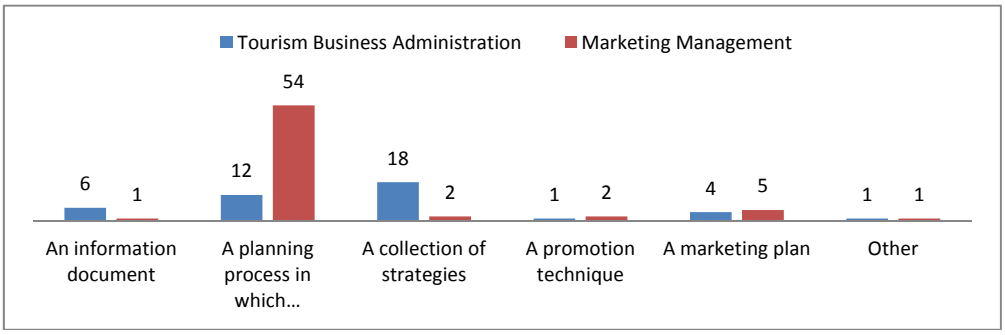
Figure 1. *The way in which the respondents define the Master Plan*



Source: statistical survey conducted by the authors.

Considering the specific of the ongoing studies as a relevant variable for the way the respondents analyze the Master Plan, by the perspective in which they study profile documents, it is noted that, of the respondents who have chosen the complex version of understanding the Master Plan, as a planning process in which the tourism demand is correlated with tourist offer at national level, most of them follow a study program at the Faculty of Marketing; of the ones who associate the Master Plan with a "collection of strategies", most of them belong to the study program Business Administration in Tourism (Figure 2). The specificity of both programs of study, although under the "umbrella of economic studies", indicates either approaches from different angles or in-depth study of secondary areas of a general subject. As a result, all the more for the development of a document of great complexity, with areas related to multiple economic competencies, which could be used at a national level, is necessary to create multidisciplinary teams in order to achieve a strategic instrument.

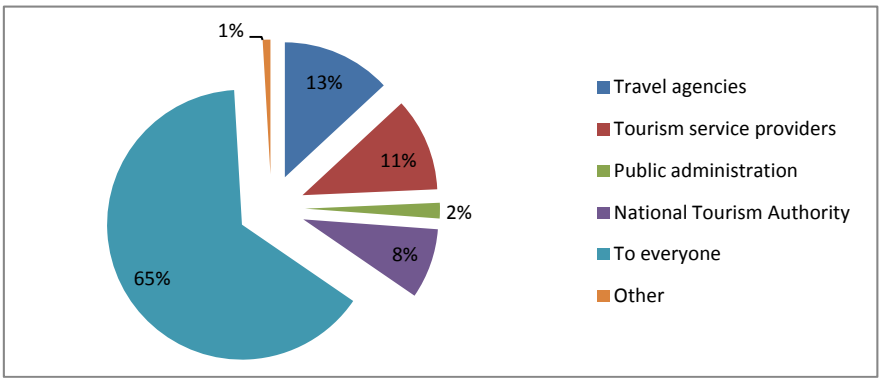
Figure 2. *The way in which the respondents define the Master Plan, by the Masters program they undergo*



Source: statistical survey conducted by the authors.

Regarding the applicability of this document, it was interesting to identify, from the respondents' perspective, the entities to which the Master Plan addresses. Thus, the majority of respondents (65%) consider that the document incorporates solutions at all three levels (macro, meso and micro), being useful for all the entities considered, i.e. travel agencies, tourism service providers, public administrations and the National Authority for Tourism (Figure 3); reduced shares were recorded wherein the Master Plan addresses only to travel agencies (13%) or tourism service providers (11%), incomplete variants, found at the micro level.

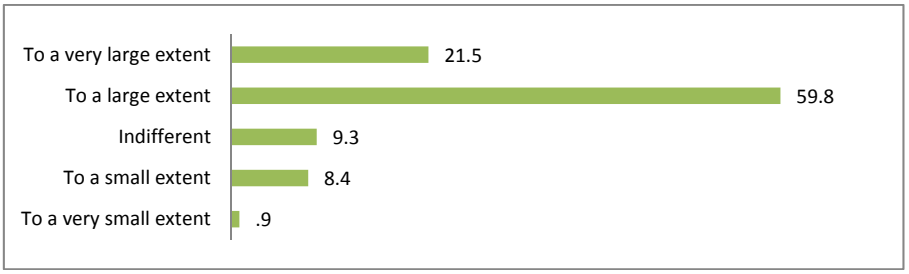
Figure 3. *The entity to which the Master Plan addresses, from the respondents' perspective*



Source: statistical survey conducted by the authors.

Considering the academic activity a relevant factor to reckon on the actuality of the Master Plan, 81.3% of respondents considered that Romania would need a new Master Plan to a large and very large extent (Figure 4). This result was predictable given that respondents, by the need to develop a new Master Plan (in relation to the obtained competencies), have perceived the need for strategic reformulation of the tourism activity.

Figure 4. *The degree in which Romania would need a new Master Plan*



Source: statistical survey conducted by the authors.

Given the purpose of the Master Plan (Table 1), while 18.7% of respondents believe that the Master Plan should contain solutions at a regional/destination level and 13.1% – solutions at a type of tourism level, most respondents consider that such a

strategic document should contain a combination between the proposed variants (59.8%). Thus, 27.1% consider as relevant a combination of two of the aforementioned solutions (a matrix' axes of building tourism products), and 11.2% add to these two options general solutions for tourism development as well.

Table 1. *Solutions necessary to be proposed within the Master Plan, according to the respondents*

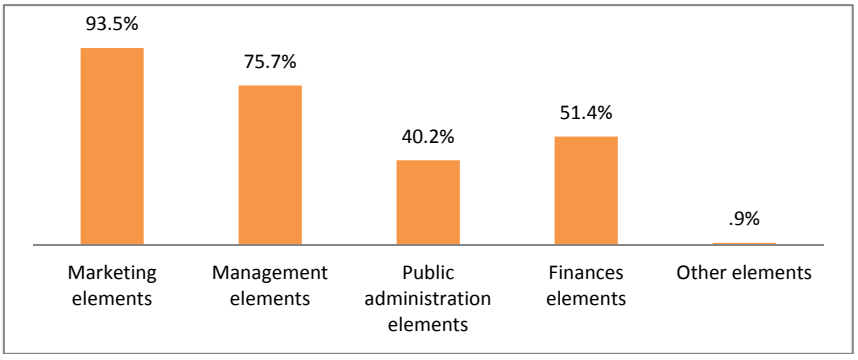
–% of total column–

Proposed solution	
General solutions	3.7
Solutions at regional/destination level	18.7
Solutions at type of tourism level	13.1
Specific solutions for travel agencies, investors, tour-operators etc.	4.7
Combination	59.8

Source: statistical survey conducted by the authors.

Opinions regarding the structure of the Master Plan, as well as its content, have represented main objectives of the research. As its constitutive elements, most respondents (93.5%) considered that the Master Plan – a strategic planning document, should be based on marketing elements, while 75.7% considered the management elements as primary (Figure 5). The sections of public administration and finances have been considered as basic elements at lower percentages (40.2%, respectively 51.4%). Therefore, in the case of elaborating a new Master Plan, the surveyed graduate students consider the marketing and management perspectives as being suitable approaches in which information from other areas should be used and analyzed.

Figure 5. *The constitutive elements, in the respondents' opinion, on which the Master Plan should be fundamented*

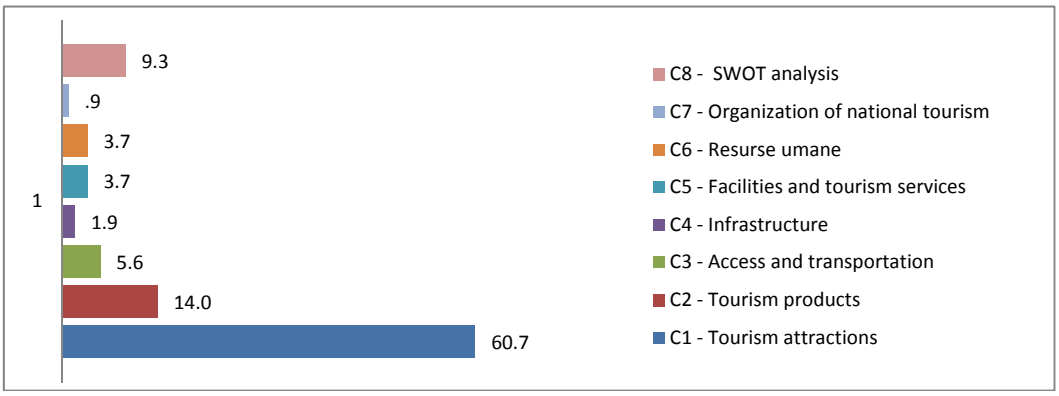


Source: statistical survey conducted by the authors.

A thorough analysis involved considering the Master Plan, both as a whole, and by means of each of its component parts, namely its chapters. Therefore, the best approached element of the Master Plan was, according to the respondents (60.7%), the one referring at the tourism attractions (Figure 6). In fact, this represents the most complex area of the Master Plan, representing an extensive

audit of Romania's resources, based on their specificity. The chapters referring to tourism products (central topic of tourism marketing) and SWOT analysis recorded significantly lower scores (14%, respectively 9.3%).

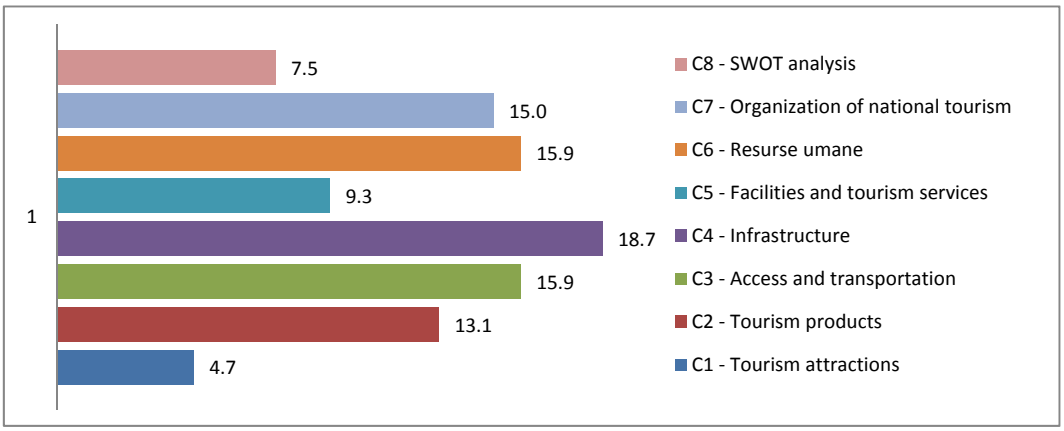
Figure 6. *The best approached element of the Master Plan, in respondents' opinion*



Source: statistical survey conducted by the authors.

In return, the least well approached element in the Master Plan (18.7%) is represented by the infrastructure (Figure 7), followed by human resources and access and transportation (15.9%).

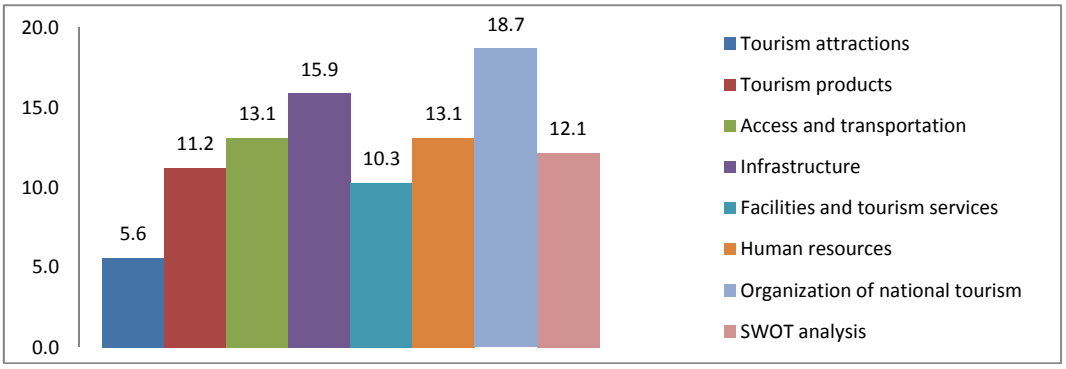
Figure 7. *The least well approached element of the Master Plan, in respondents' opinion*



Source: statistical survey conducted by the authors.

According to respondents, the Master Plan section which should be redone, in case of developing a new Master Plan (Figure 8) refers to the organization of national tourism (18.7%).

Figure 8. *The Master Plan section which should be redone, according to the respondents*



Source: statistical survey conducted by the authors.

In order to assess the actions proposed in the Master Plan, the respondents were presented, for analysis, the document objectives; stimulating development and consolidation and preserving the cultural heritage have been considered as the most important for the Romanian tourism development (Table 2), obtaining scores of 9.89, respectively 8.91 (on a scale of 1 to 10). However, according to the respondents, their implementation achieved significantly lower scores (6.40, respectively 6.62). Although most of the objectives were considered relatively important for the Romanian tourism development, obtaining scores above 7.60, their implementation, to the knowledge of the respondents, was uniformly low, none of the objectives obtaining scores (related to the knowledge of its implementation) greater than 5.88, fact which denotes a "rift" between strategic and tactical approaches.

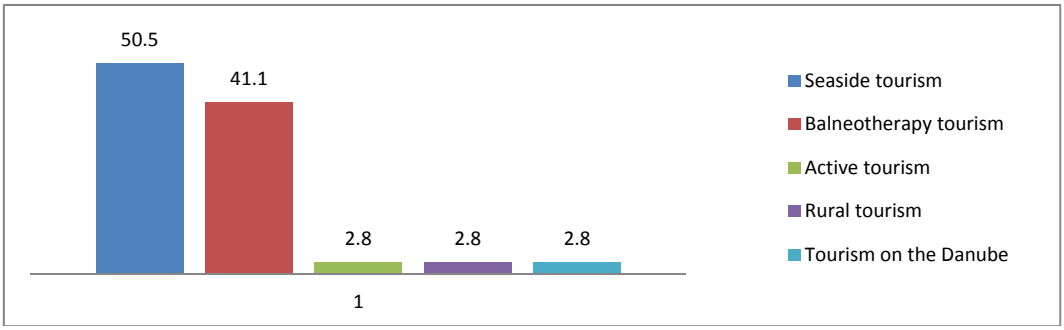
Table 2. *The degree in which the Master Plan's objectives are important for the tourism development in Romania and have been implemented or they are under implementation*

	Are they important for the tourism development in Romania?	**Have they been implemented or are they under implementation?**
Increase of the foreign exchange earnings	7.60	5.88
Bringing economy and Romanian society at a European Union level	8.74	5.84
Increase of life quality	8.58	6.06
Increase and encouragement of investments in all adjacent fields of tourism	8.55	6.22
Stimulation of employment	8.27	6.02
Stimulation of development	9.89	6.40
Consolidation of increasing and preserving the cultural heritage	8.91	6.62
Contribution to the development and conservation of material and natural resources from the entire country	8.88	6.20
Distribution of the benefits of tourism in all of Romania's regions	8.13	6.25
Means=1,10		

Source: statistical survey conducted by the authors.

The best approached type of tourism within the Master Plan, according to respondents, is the seaside tourism (50.5%), followed by balneotherapy tourism (41.4%), the other four types of tourism, considered tourism products relevant for the Romanian tourism, i.e. the active, rural tourism, tourism on the Danube and conference tourism obtaining insignificant scores (Figure 9). It is necessary that the level of detail of each type of tourism, presented as relevant, to match its importance for a strategic and sustainable development, in other words, to be able to generate products which bring to Romania a competitive advantage in the targeted markets. Therefore, it is necessary to have, for the main types of tourism, information regarding the resource background, the relevant economic indicators, the destinations and their corresponding targeted markets.

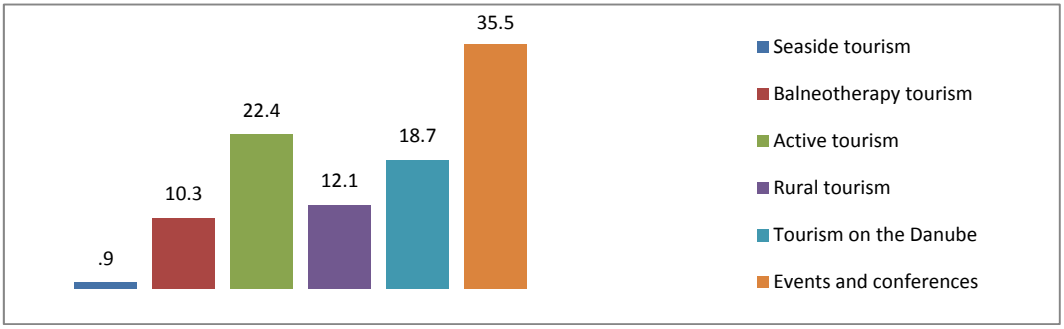
Figure 9. *The best approached type of tourism within the Master Plan*



Source: statistical survey conducted by the authors.

Considered one of the main types of tourism, tourism based on events and conferences, according to the respondents, is the least well approached one in the Master Plan (Figure 10). While the events and conferences crystallize a newer type of tourism, arising from the changes in the society, it is less studied and/or practiced over time in Romania.

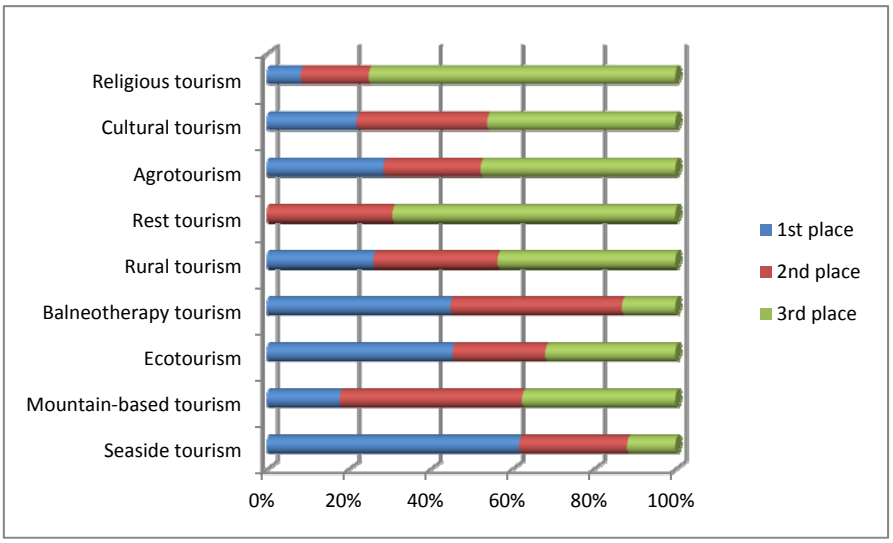
Figure 10. *The least well approached type of tourism within the Master Plan*



Source: statistical survey conducted by the authors.

As types of tourism necessary to be studied in the Master Plan, the majority of the ones who selected the seaside tourism, consider it the main priority (60%) – Figure 11, followed by other important types of tourism, namely balneotherapy tourism and ecotourism.

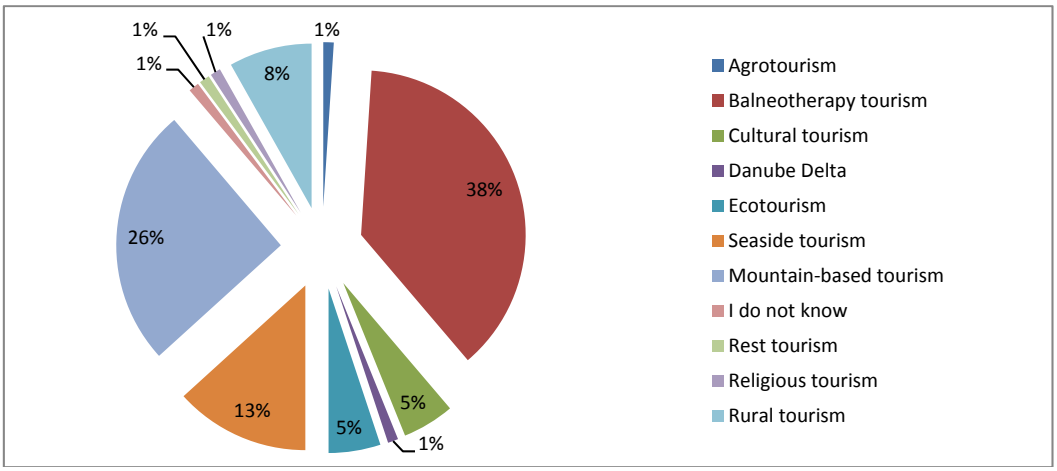
Figure 11. *The types of tourism necessary to be supported in the Master Plan, according to the respondents*



Source: statistical survey conducted by the authors.

Regarding the current tourism brand, the respondents (Figure 12) considered that balneotherapy tourism represents it best (38%), followed by the mountain-based tourism (28%). The result is all the more unexpected as Romania's tourism brand logo does not contain graphic elements that symbolize balneotherapy tourism! Ecotourism, instead, a type of tourism that can be associated with the graphic symbols belonging to the tourism brand, has recorded a relatively low score, of only 5%, as, besides, the rest tourism. These results demonstrate the need for greater attention to developing the country's tourism brand and, at the same time, to avoiding confusion between the thematic brand/brands and the national tourism brand!

Figure 12. *The type of tourism that best represents the current brand*



Source: statistical survey conducted by the authors.

The level of analysis addressed in the Master Plan (Table 3), according to the respondents, was structured as follows: referring to the destination (26.2%); a "combined" level, containing approaches from several angles, was noticed by 24.3% of respondents, most of these 24.3% choosing the product-market combination (representing 10.3% of all respondents). A small percentage, less than 1% of respondents, considered that the level of analysis included the destination, as well as the product and the market – necessary approaches in developing an overall strategic framework.

Table 3. *The analysis level approached in the current Master Plan, according to the respondents*

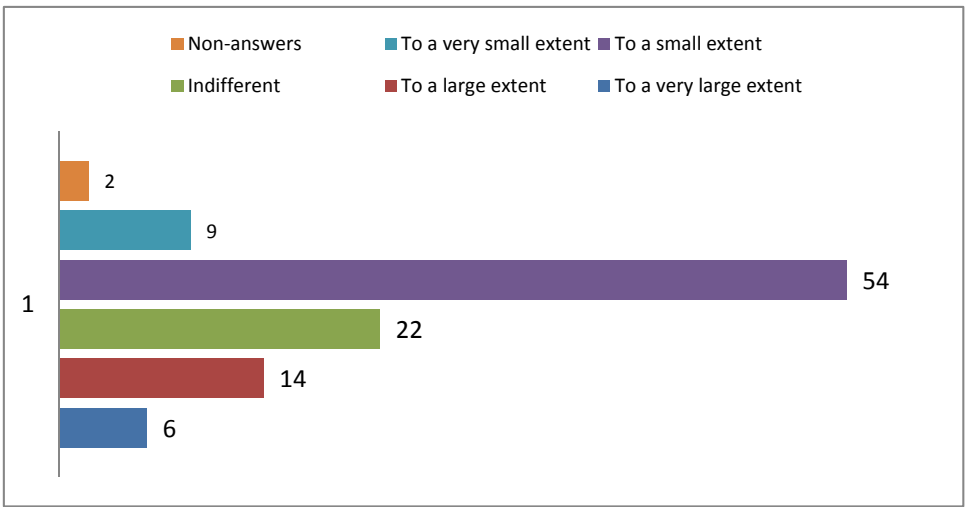
–% of total column–

Analysis level	
Destination level	26.2
Product level	10.3
Market level	5.6
All of them	31.8
Combination	24.3
None of them	1.9

Source: statistical survey conducted by the authors.

Although the destination level represented the level of analysis in the Master Plan for the majority of respondents (Figure 13), 54% of them consider that the Romanian regions can be developed in terms of tourism only to a small extent, using solutions of the Master Plan.

Figure 13. *The degree in which Romania's regions can be developed from a touristic point of view starting from the solutions proposed in the Master Plan*



Source: statistical survey conducted by the authors.

The most relevant information found in the Master Plan, considered by the respondents (Table 4), belong to the area of situation analysis (83% of respondents), area to which the chapter on tourism attractions belongs, considered the best approached chapter of the Master Plan. Information on statistics, objectives, overall strategy obtained higher scores (over 70%), while the tourism products, relevant types of tourism, implementation programs and complete activities/actions obtained lower scores, under 47%.

Table 4. *The degree in which relevant information are included in the Master Plan*

–% of total column–

Informations	
Situation analysis	83.0
Statistical data	69.8
Objectives	89.6
General strategy	71.7
Specific strategies	47.2
Tourism products	60.4
Relevant types of tourism	74.5
Implementation program	44.3
Complete activities/actions	13.2

Source: statistical survey conducted by the authors.

In a marketing approach, developing the types of tourism considered as principal, on consumer segments, according to respondents, are presented as follows: seaside tourism (83.7%), as well as active tourism (55.1%), especially for the young people segment and balneotherapy tourism for senior people (94%).

Although the document proposes an approach of all age segments for this type of tourism, balneotherapy tourism has obtained 94% of the responses for the senior people (Table 5). Interestingly, the respondents answered in high proportions, that rural tourism (46.9%), "Cruises on the Danube" (42%) and conferences and exhibitions tourism (38.3%) were attended undifferentiated, this information being relevant for structures at macro level, in order to identify market segments.

Table 5. *The degree in which the proposed tourism products have been developed until the present time, by age segments*

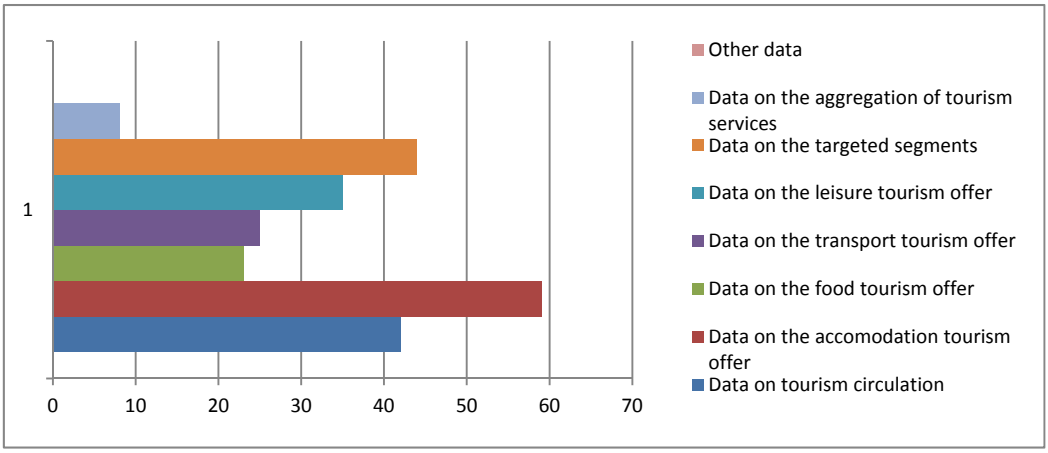
–% of total column–

	Young people	Adults	Senior people	Undifferentiated
Seaside tourism	83.7	28.6	6.0	24.7
Balneotherapy tourism	2.0	27.6	94.0	3.7
Active tourism	55.1	32.7	1.0	23.5
Rural Tourism	3.1	40.8	18.0	46.9
Cruises on the Danube	6.1	32.7	17.0	42.0
Conferences and exhibitions	2.0	55.1	5.0	38.3

Source: statistical survey conducted by the authors.

The key information regarding the description of tourism products is referring to the accommodation tourism offer (Figure 14), this being only one component of the tourism product (information on the food, leisure or transport offer existing data much lower rate, according to respondents). These results are expected, given the nature of a document such as the Master Plan, in which not all components of the tourism products specific to a destination should be included.

Figure 14. *Highlighted elements in presenting tourism products*

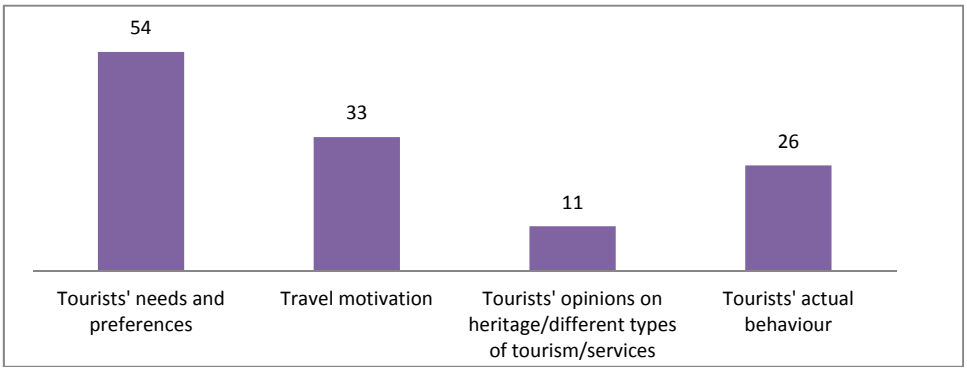


Source: statistical survey conducted by the authors.

For the identification of strengths (the the most correctly disseminated marketing information within the document), the respondents considered tourists' needs and preferences as the most correctly studied (54%), followed by travel motivation

(33%). Implicitly, the respondents consider that some areas of marketing, such as consumer behaviour and opinions on the heritage (Figure 15) do not fully correspond to the marketing theory.

Figure 15. *The most correctly disseminated marketing information within the Master Plan*



Source: statistical survey conducted by the authors.

The respondents' evaluation on the key priority actions, identified in the Master Plan, provides a positive result for increasing tourists' comfort (3.21), "protecting landscapes and the environment" (2.82), "enhancing the access road" (2.70) and "introducing new ways of entertainment" (2.98). (Table 6) represents actions considered by respondents not currently being tracked in the present tourism activities, achieving lower averages than 3.

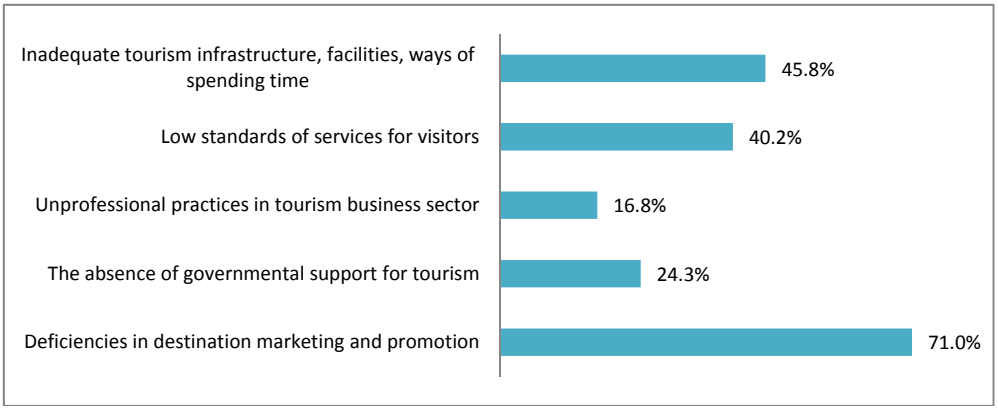
Table 6. *The degree in which the main priority actions are currently pursued, according to the respondents*

Priority actions	Means
Increasing tourists' comfort	3.21
Protecting landscapes and the environment	2.82
Enhancing the access road	2.70
Introducing new ways of entertainment	2.98
Other	4.75
Scale: 1-5	

Source: statistical survey conducted by the authors.

Instead, the problems identified in the Master Plan, considered to be solvable by means of it (Figure 16) largely subscribe in the area of deficiencies in destination marketing and promotion (literally takeover of the document) – 71% of respondents. However, the respondents consider other problems in document less likely to be solved (recording scores below 50%), normal situation given that once solved the problem of marketing, it entails the other components.

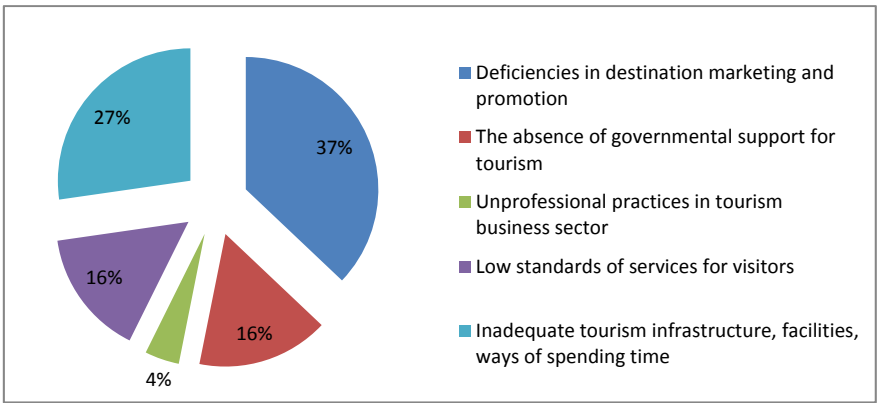
Figure 16. *Problems identified in the Master Plan, considered to be solvable by means of it, according to the respondents*



Source: statistical survey conducted by the authors.

Hence, the opinion of the respondents, according to which the deficiencies in destination marketing and promotion (considered as a solvable problem) are the most important (37%), with a close share to that of the other identified problems – Figure 17.

Figure 17. *The problem considered to be the most important of the identified ones within the Master Plan*



Source: statistical survey conducted by the authors.

Considering the weaknesses identified in the Master Plan, none of them was considered, to a large extent, to be countered by measures proposed in the document (Table 7), all of them achieving, on a scale from 1 to 5, averages under 3.46. However, the weak point which was countered by measures proposed in the Master Plan is represented by marketing, followed by education.

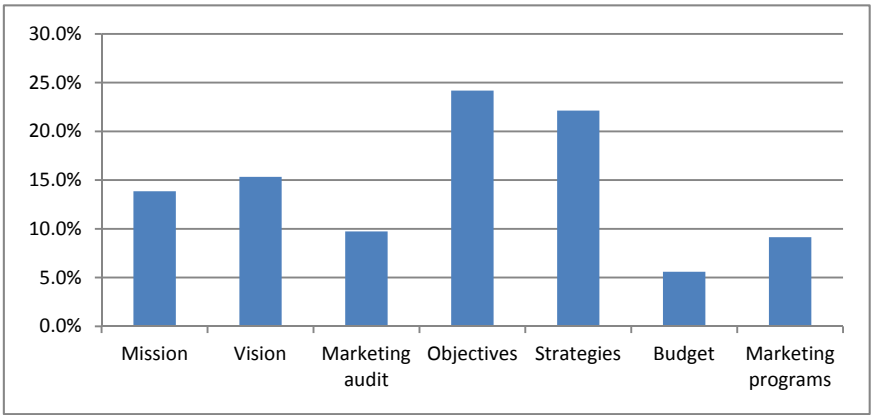
Table 7. *The degree in which the Master Plan comprises solutions for the identified weaknesses*

Weaknesses identified in the Master Plan	*Means*
Public-private partnership	2.66
Market research	2.78
Integrated planning	2.80
Education	3.34
Marketing	3.46
Scale: 1-5	

Source: statistical survey conducted by the authors.

In order to analyze the studied document from a "theoretical" perspective, it was subjected to a comparison with the marketing planning process, studied by the respondents during the 3 and, respectively 4-year study in the faculty. The fact that none of the elements of marketing planning has recorded a higher score in the responses (the objectives recording a score of 24.2% and the strategies, of 22.1%), indicates that between the theory and practice of tourism marketing – strictly referring to the Master Plan, there is, according to respondents, a significant difference, the strategic document not being "overlapped" on the "skeleton" of a theoretically correct planning – Figure 18.

Figure 18. *Stages of marketing planning, tracked in the Master Plan by the respondents*



Source: statistical survey conducted by the authors.

Regarding the entity/entities which should contribute to the creation of the Master Plan, and, deeper, the competencies and abilities that should be involved in order to compile a national document, the main actors were identified, who could provide results as competitive as possible. Thus, it can be concluded that most categories obtain an insignificant score, self-contained, the highest percentages belonging to combinations between them, fact which supports the need for collaboration between specialists, within a relationship marketing vision. The option chosen by most respondents (17.8%) was, thus, a combination (Table 8),

consisting of representatives of the Ministry of Tourism, tourism professionals and representatives of the academic environment.

Table 8. *The entity/entities which should contribute to the creation of the Master Plan*

–% of total column–

Entity	
Representatives of the Ministry of Tourism	3.7
Tourism professionals	10.3
Representatives of the academic environment	0.9
International specialized companies	2.8
Representatives of the Ministry of Tourism and Tourism professionals	14.0
Representatives of the Ministry of Tourism, Tourism professionals and Representatives of the academic environment	17.8
Representatives of the Ministry of Tourism, Tourism professionals, Representatives of the academic environment and National specialized companies	13.1
All the entities	5.6
Representatives of the Ministry of Tourism, Tourism professionals, Representatives of the academic environment and International specialized companies	.9
Representatives of the Ministry of Tourism, Tourism professionals and National specialized companies	8.4
Representatives of the Ministry of Tourism, Tourism professionals, National specialized companies and International specialized companies	2.8
Representatives of the Ministry of Tourism Tourism professionals and International specialized companies	3.7
Representatives of the Ministry of Tourism, Representatives of the academic environment and National specialized companies	1.9
Representatives of the Ministry of Tourism and National specialized companies	.9
Tourism professionals and Representatives of the academic environment	1.9
Tourism professionals, Representatives of the academic environment and National specialized companies	5.6
Tourism professionals, Representatives of the academic environment, National specialized companies and International specialized companies	.9
Tourism professionals and National specialized companies	.9

Entity	
Tourism professionals, National specialized companies and International specialized companies	.9
Representatives of the academic environment and National specialized companies	.9
Representatives of the academic environment, National specialized companies and International specialized companies	.9
National specialized companies and International specialized companies	.9

Source: statistical survey conducted by the authors.

Furthermore, with the purpose of identifying the "inside" opinions as well a qualitative research has been conducted. The first theme discussed in the in-depth interviews was the knowledge on the management and marketing perspectives which supported the Master Plan's elaboration. Firstly, following the logic of the development process, the Master Plan has been elaborated by the National Tourism Authority and by the World Tourism Organization, with an international consultant, the teams being established by the director together with the team leader of the World Tourism Organization. The collaboration perspective was supported by all the participants, the project being developed in partnership mainly with the private tourism sector, "with absolutely all the professional associations and employers in tourism", "travel agencies", "hotel managers" as well as the "representatives of ministries". The way of setting teams was established on fields, respectively, investments/economy, marketing, human resources, infrastructure, spatial planning, institutional development etc., consisting of international and national experts – representatives of the National Tourism Authority, universities. The controlling process was conducted by a World Bank expert.

The following topic was represented by specific considerations related to data analysis. Thus, data collection, mediated by the National Institute for Statistics, has been directly achieved, through meetings with organizations, central and local institutions and NGOs, but also from secondary sources, such as, "public policies developed by different ministries", "research studies", "local government documents", "analysis of ADR". It is important to mention that statistics at national and regional level have illustrated a concern of achieving a "correct image" as much as possible, however "not enough efforts related to marketing have been assumed". Data processing was performed by team members at various levels, their presentation taking place during the meetings with each working team.

A third theme consisted in identifying the theoretical implications of the Master Plan, emphasizing the role of experience use and learning in the strategy development process. The exchange of ideas is emphasized, based on the

comprised documents and on the thorough analysis of information, achieved in a relatively short time, for such a complex process, however collaborations such as "discussions with the private sector" have facilitated the assimilation of a large amount of information in a much shorter period of time. Besides, key-elements of finalizing the Master Plan have resulted, regarding the concept of organizing the structure of work (involving tasks and attributions) and the experience of experts, required to be used in the future for similar efforts.

A fourth theme focused on the practical implications of the Master Plan, in particular on the way in which the strategy provides solutions that meet the objectives, aiming at obtaining information regarding the use of the strategy in practice by the travel agencies and local authorities. The respondents have declared the fact that this document serves local and central public authorities at a destination level. At the same time, it does not provide many solutions to the private sector, to agencies, however it highlights the fact that Romania has a much greater potential than the one they have explored. It is noted that due to the very versatile external political, economic and social environment, the private sector is mainly concerned of surviving on the market, this being far more important than "implementing some recommendations". Also, the Master Plan had, as a practical implication, the status of starting point for developing the tourism brand strategy, as well as for ecotourism, respectively, health tourism strategies.

A final theme was represented by control and evaluation. Thus, the main topic discussed indicated the areas in need for reconsideration; assessing the level of implementation, training, investments, legislation has been mentioned as topics, emphasizing the marketing area. Given the fact that the respondents have admitted that the teams who worked for the Master Plan do not have the same composition currently, future research might focus on opinions on elaborating strategies among the current members.

Limits

The limits of the current research derive from the complexity of the studied subject itself, as a strategic document developed for the tourism sector has many "stakeholders". Since the implementation of the Master Plan could have effects for all audience categories, the opinions of each of them are necessary and could be used for its improvement. Therefore, quantitative and qualitative research is needed, with a similar purpose and among other market segments. In order to obtain a more complex image of the perceived consequences of the implementation of the Master Plan one should also periodically conduct studies and in-depth analysis within each chapter of the Master Plan.

Conclusions

Designed to be used by different actors in the tourism market, either in the public or private environment, the Master Plan, by implementing measures, has effects for the entire population of Romania, from local communities, professional associations, non-governmental organizations to potential tourists. Through its strategic nature, general and long-term, it indicates an extremely high stake, which requires the substantiation of marketing strategies, in a planned framework, which are primarily reflected in the development of the tourism destination Romania, following that for each micro-destination in Romania quintessential solutions are found, being "marketed" in accordance with the recommendations for a "business model" that has long-term positive effects on the local community, on tourism service providers, on intermediaries, amid meeting the needs of tourists.

Although it has been stated that among the specialists who developed the Master Plan existed a good collaboration, respondents among young people believe that developing such a strategic document, that meets the Romanian tourism possibilities, can only be achieved through a close cooperation between representatives of Ministry of Tourism, tourism professionals and representatives from the academic environment, for that matter, all of these being the only ones who know in detail the country's tourism potential, its weaknesses and its strengths.

Moreover, a series of discrepancies have been observed, between marketing theory and the way in which it has been implemented in achieving the Master Plan, especially referring to the marketing planning components, to the content of the main themes. Therefore, a collaboration covering all relevant points of view, whose materialization would lead to the development of tourism in Romania, complying with marketing requirements, should be based on "a map of skills and interests", respecting the scientific and legislative frameworks.

Note

(1) The questionnaires were completed by the students of Marketing and Commerce faculties, studying in Masters programs, of the promotion 2013/2014, within the Bucharest University of Economic Studies, whom we thank on this occasion.

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Frameworks for a sustainable development indicators system

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Abstract. *In present, the economic development is a key preoccupation of the policy makers and general public; the attention is focused not only to the economic growth, but to the ways of the development towards sustainable development. In the last time, considerable efforts have gone into work on Sustainable Development, including indicators to support analyses and policies in this field. The paper presents the framework of theoretical concepts and associated operational variable that form the very foundation of the sustainable development indicators system adapted to the particularities of the Romanian economy, which constitute the basis to monitor the efficiency of macroeconomic policies.*

Keywords: sustainable development, indicators system, measurement, national policies, strategy.

JEL Classification: E61.
REL Classification: 8E, 18F.

Background

The challenges of future developments and its longer term sustainability represent the problems of the present age of globalization. In the early past the biggest countries like China and India have been economically growing rapidly for some time, and some parts of Asia and Latin America are increasing their production more rapidly than most OECD countries. These processes are understood and welcomed by many people as a growth of the welfare per capita, but it is in the sometime a responsibility for the future use of the resources for this development. Global mechanisms and policies are necessary to secure long term sustainable development, i.e. a development path in which material welfare per capita can be enhanced without ruining or severely damaging the global environmental commons.

The most important policy measures that influence development processes are the responsibility of nation states, even if some global agreements are in place. National policies to enhance sustainable development, therefore seems both useful and necessary to reduce the risks of future threats to global sustainability. A main responsibility in this regard rests with developed countries which in most cases have reached high levels of Gross Domestic Product (GDP) per capita while being mainly responsible for the present stage of globalization. A number of European countries have recently established Sustainable Development Strategies to guide longer term policies in sustainable directions.

The strategy of sustainable development is seen as an integral part of longer term development policies, which grows out of neoclassical growth theory including recent additions and modifications. Development is based by real or man made capital. The capital could be the natural capital, human capital, social and political institutions and how well they function (governance) and provide welfare services (utility) to its population.

The concept of sustainable development

The World Commission on Environment and Development (WCED) created the political interest in sustainable development and introduced the concept in the public debate by the publication in 1987 of the report "*Our Common Future*". The Brundtland Commission, named after its leader, stressed that "*sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs*" (WCED, 1987, p.43). That means that economic development has to be sustainable environmentally and socially in the longer term.

The term "sustainable" means "enduring" and "lasting"; based on that, sustainable development (SD) is development that lasts. "Utility" or "well-being" (per capita) is the appropriate focus for analyzing the development and the extent to which it may last over the longer term.

The concept sustainable development may be understood intuitively, but in practice it proved more difficult to define precisely the content and to make it operational.

It seems reasonable to interpret sustainable development as developments that can continue "for ever", or at least until the end of the time horizon considered by policy. In addition, developments in question should have a positive quality; to deserve the term sustainable, the situation should not deteriorate. However, whether a given development is good or bad may be more difficult to judge and agree on. In the professional economic literature it is usual to define sustainable developments as developments where the level of welfare, or living standards broadly defined, are not decreasing over time.

The measurement of the sustainable development

Sustainable development can be defined and redefined in a number of ways. It remains central however, that sustainable development is about social welfare over time. Thus, the time dimension is crucial; sustainable development is a dynamic concept that relates to inter-generational issues. It is a development path that is or isn't sustainable. Any given single situation located in time (e.g. an intra-generational issue) is not possible to characterize as sustainable or not. The reason is that several alternative development paths may follow from a single situation.

On a global scale, the Sustainable development concept was launched at the 1992 Rio Summit as a four-pillar model with economic, social, environmental and institutional (governance) elements. Within the framework of the 2002 World Summit on Sustainable Development, the Johannesburg declaration and the plan of implementation reaffirmed and built upon the 1992 Rio commitments.

The EU is committed to translating these commitments into concrete actions. The main issues added here were sustainable production and consumption, corporate responsibility and participation. The European Commission translated the vision of sustainable development into an operational strategy in 2001, endorsed by the Heads of States or Government at Gothenburg in June 2001. The sustainable trends were identified, as:

- limiting climate change and increasing the use of clean energy;
- addressing threats to public health;

- managing natural resources more responsibly;
- improving the transport system and land-use management;
- combating poverty and social exclusion;
- the dealing with the economic and social implications of an ageing society.

The European Council, in 2002 at Barcelona, added an external dimension to the strategy, following three main objectives: (i) harnessing globalization — trade for sustainable development; (ii) fighting poverty; and (iii) promoting social development; and sustainable management of natural and environmental resources. In addition, the European Council made commitments in support of the Monterrey consensus on financing for development aimed at achieving the millennium development goals adopted by the UN in 2000.

Four years later, the European Commission commenced the review process of the Sustainable Development Strategy by publishing, in February 2005, a critical evaluation of the progress achieved since 2001and presented the directions for action for the future years: climate change, threats to public health, poverty and social exclusion, depletion of natural resources and erosion of biodiversity. Based on these directions, a Declaration on the guidelines for sustainable development, including the revised Lisbon Agenda for Growth and Jobs has been adopted in 2005.

In July 2009 the Commission adopted the new strategy at the European level, the 2009 Strategy. It underlines that in recent years the EU has mainstreamed sustainable development into a broad range of its policies. In particular, the EU has taken the lead in the fight against climate change and the promotion of a low-carbon economy.

Needs for indicators

Agenda 21 states in paragraph 40.4 that: "*Commonly used indicators such as the gross national product (GNP) and measurements of individual resource or pollution flows do not provide adequate indications of sustainability. Methods for assessing interactions between different environmental fields, demographic, social and developmental parameters are not sufficiently developed or applied. Indicators of sustainable development need to be developed to provide solid bases for decision-making at all levels and to contribute to a self-regulating sustainability of integrated environment and development systems*."

Based on that, it calls for:

- Development of indicators of sustainable development
- Promotion of global use of indicators of sustainable development

Since 1992 several nations and intergovernmental organizations have answered the call of Agenda 21 and developed sets of indicators of sustainable development. Some have even done so in several versions.

Hence, there has been a request for developing a conceptual approach to the topic of sustainable development indicators that could give direction to the work and provide a mean for greater harmonization in the international effort in developing sustainable development indicators (SDIs).

In particular, the indicators should provide information that direct attention to potential problematic issues, more than providing complete data for analysis of the problems. Use of indicators is thus more a way of communication concerning the sustainable development issue. The indicators should adhere to certain norms, like:

- The indicators should be transparent. That mean that the basis for the indicator should be easy to explain; preferably the indicators should be based directly on available data or statistics in order to avoid methodological discussions about weighting or other computational algorithms for construction of indicators.
- The indicators seen as a set should to be able to communicate a total picture with regard to whether the development is sustainable or not. This implies that the indicator set should not be too large, because large indicator sets are often incomprehensible, and thereby become irrelevant.
- The indicator set should be policy relevant, e.g. by providing guidance on what policies needs to be changed in order to secure a more sustainable development.
- The indicators should as far as possible be comparable across nations/regions in order to facilitate comparisons and identifications of good practices in policy areas of relevance to sustainable development

The indicators in the field of sustainable development are used, mainly, to monitor production processes or government policy. It is important to have good and compressive indicators, because it is possible to manage and to build a strategy only if it is possible that the phenomenon is measures. In that case, it is very important to be sure that the correct "things" are getting measured and therefore included as indicators.

Main approaches to establish SDIs

There have been two main approaches taken towards establishing sustainable development indicator sets. These approaches are; (i) the model-based approach and (ii) the policy-based approach. The model-based approach was used first

because some indicators sets were established before sustainable development policies had been developed by different governments

Model-based approach

The United Nations (UN) in 1996 used four pillars for development models: social, environmental, economic and institutional.

Based on this approach, the United Nation Commission on Sustainable Development (UNCSD) proposed about 130 indicators which were tested by a number of countries. Based on the test countries' experiences a new framework and indicator selection was developed (UN 2001) which reduced the number of indicators to 58. The UN has recently revised this list and has dropped the pillar framework since it was found that most of the indicators could be placed in more than one of the pillars.

A number of countries, following the UN experience, defined sustainability in terms of its different components, whether they call these pillars, axes, dimensions, or types of capital. Often, the countries used for organizing the framework for their indicator sets three categories: social, environmental and economic. Part of the countries, simply took the set of indicators and tested their data availability and quality at national level. But other countries, elaborated their own national processes of defining and developing a set of SDIs tailored to specific national needs and characteristics.

In the frame of national models to establish the SDIs sets, some countries mention the idea of capital. And also, international organizations, like OECD and the World Bank that have used the concept of capital as central to their approaches.

The OECD describes four types of capital in relationship to sustainable development:

- man-made capital, i.e. the produced means of production like machinery, equipment and structures, non-production related infrastructures, non-tangible assets and the financial assets that provide command over current and future output streams.
- natural capital, including the renewable and non-renewable natural resources which enter the production process and satisfy consumption needs, as well as environmental
- human capital, representing the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal well-being
- social capital, i.e. the networks of shared norms, values and understanding that facility cooperation within and between groups. (OECD 2001, 38)

Many countries used the capital approach in establishing the development indicators in a sustainable perspective. It could be stressed that these four types of capital are theoretically, perhaps the most robust way to look at sustainable development using a capital approach. It is also interesting to observe that these four types of capital are relatively close to the four pillars used by the United Nation Commission on Sustainable Development (UNCSD).

The positive aspect to the use of a model- based approach for the elaboration of the SDIs is the fact that from theoretical point of view this is a robust approach which does not change over time and offer the comparability over the countries. The definition of sustainable development may also be more comprehensive, but that of course depends on the model.

One of the negative sides to this approach is the risk that the indicator set will be less politically relevant and will not be used in connection with implementing any policies regarding sustainable development. The model may also have its limitations, since in the process to quantify sustainable development through the use of indicators certain assumptions are made when the indicators and related calculations are defined.

Policy-based approach

The second major approach being used to establish SDIs is based on the sustainable development policy documents developed by the politicians. These documents are used to define "sustainable development" and after that to choose the indicators which are in line with the policy statements. If there are specific numerical goals or targets mentioned in the policies then these targets and goals are used to a large extent to define specific, relevant indicators.

Sometimes, it happened that the policy statements in these documents for the sustainable development may not be clear. The ambiguities in the policy statements require interpretation in order to understand the meanings and to make them into concrete, measurable indicators.

Once the definition of sustainable development has been clarified, it is then necessary to identify the different policy relevant topics or themes. These themes are then used as the starting point for the selection of indicators which will provide relevant information that is connected to specific policy statements.

The European Union (EU) has also used a policy-based approach to establish sustainable development indicators that are relevant to EU sustainable development policy. One challenge in this work has been to identify the

sustainable development strategy since this strategy was not presented in a single, coherent document, but was rather spread across several documents.

The EU strategy sets out a coherent approach to how the EU will more effectively live up to its long-standing commitment to meet the challenges of sustainable development. The elaboration of the sustainable development indicators is based on ten themes, reflecting the seven key challenges of the strategy, as well as the key objective of economic prosperity, and guiding principles related to good governance. The themes follow a general gradient from the economic, to the social, and then to the environmental and institutional dimensions.

The themes are the following:
- Socio-Economic Development;
- Sustainable Consumption and Production;
- Social Inclusion;
- Demographic Changes;
- Public Health;
- Climate Change and Energy;
- Sustainable Transport;
- Natural Resources;
- Global Partnership;
- Good Governance.

They are further divided into sub-themes to organize the set in a way that reflects the operational objectives and actions of the sustainable development strategy.

This policy-based approach allows for an iterative development process, which can improve both the policy statements regarding sustainable development and their related indicators over time.

A particular strength of the policy-based approach is represented by the high correspondence between the indicators and the political relevancy. Another strength of this approach is that indicators can be created for multinational or geographic regions for which there is a policy document and a political cooperation, for example the European Union.

Both approaches have strengths and weaknesses. From examining the core essence of each approach, it does appear that similar sets of indicators are obtained. It also appears that the two different approaches have some specific characteristic weaknesses which need to be considered if it is use one approach or the other.

The sustainable development strategy in Romania

In Romania, like in other countries, a special attention is paid to ensure a sustainable development in the future. Each government was interested to elaborate a development strategy based on the actual level of the economy and its political objectives.

As results of a joint project of the Romanian Government, through the Ministry of Environment and Sustainable Development, and the United Nations Development Programme, through the National Centre for Sustainable Development in Bucharest a strategy for sustainable development was elaborated, approved by Government Decision HG No. 1216 of 4 October 2007 and published in the Official Gazette of Romania No. 737 of 31 October 2007.

The Strategy sets specific objectives for our country for moving, within a reasonable and realistic timeframe, toward a new model of development that is capable of generating high value added and improving the quality of life in harmony with the natural environment .The strategy includes objectives for the short, medium and long run, as following

- Horizon 2013: To incorporate the principles and practices of sustainable development in all the programmes and public policies of Romania as an EU Member State.
- Horizon 2020: To reach the current average level of the EU countries for the main indicators of sustainable development.
- Horizon 2030: To get significantly close to the average performance of the EU Member States in that year in terms of sustainable development indicators.

The implementation of the strategic objectives will ensure high rates of economic growth in the medium and long term and, as a result, a significant reduction of social and economic disparities between Romania and the other countries of the European Union.

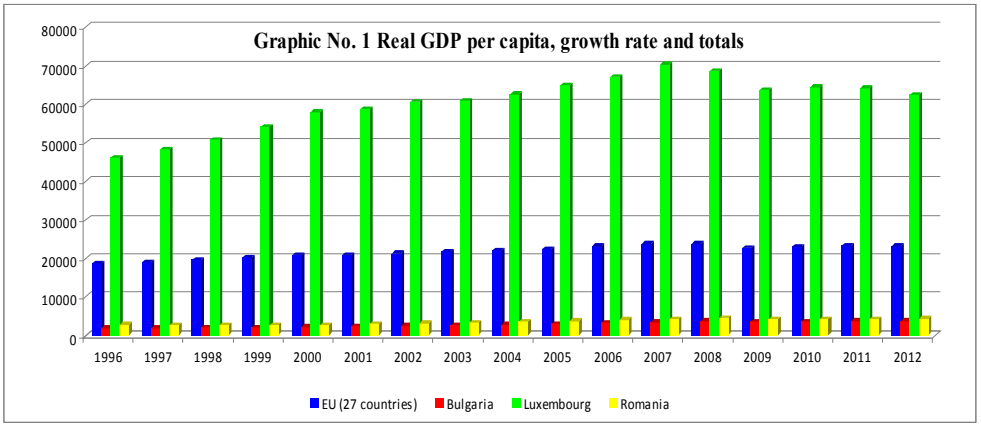
Rounding off the objectives included in national development strategies, plans and programmes, the Sustainable Development Strategy for Romania sets the main guidelines for action towards the adoption and implementation of the principles of sustainable development in the immediate future:

- Rational correlation of development goals, including cross-sector and regional investment programmes, with the established potential and sustaining capacity of natural capital;
- Accelerated modernization of the educational, training and public health systems with due consideration of the unfavorable demographic trends and their impact on the labour market;

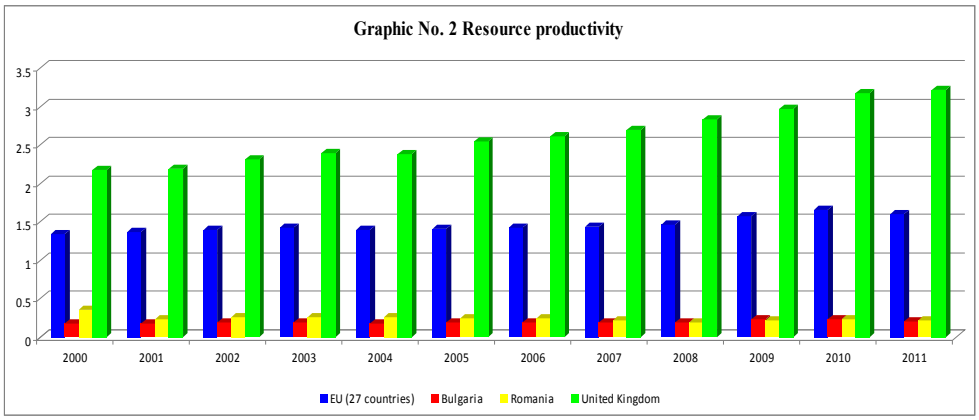
- Use of the best available technologies, by both economic and ecological standards, for publicly funded investments at national, regional and local levels, and encouraging the choice of such technologies on the part of private investors; entrenchment of eco-efficiency standards in all production and service activities;
- The ability to anticipate the effects of climate change, to prepare solutions for adaptation in the long run and to develop cross-sector contingency plans comprising portfolios of alternative crisis-management solutions in case of natural or man-made disasters;
- Ensuring food security and safety by turning to good account Romania's comparative advantages with regard to increased agricultural production, including organic farming; balancing the quantitative and qualitative growth of agricultural output for human and animal consumption with the higher demand for biofuel production without compromising the need to maintain and improve soil fertility, biodiversity and environmental protection;
- The need to identify additional, sustainable financial resources for large-scale projects and programmes, particularly in areas such as infrastructure, energy, environmental protection, food safety, education, healthcare and social services;
- Protection and promotion of Romania's cultural and natural heritage; efforts to meet the European norms and standards on the quality of life should be pursued together with the revival of traditional occupations and ways of life in a modern setting, especially in high mountain areas and wetlands.

The implementation of the objects and the results obtained can be analyzed based on the specific indicators of the sustainable development. The place of Romania in the European Union is analyzed further.

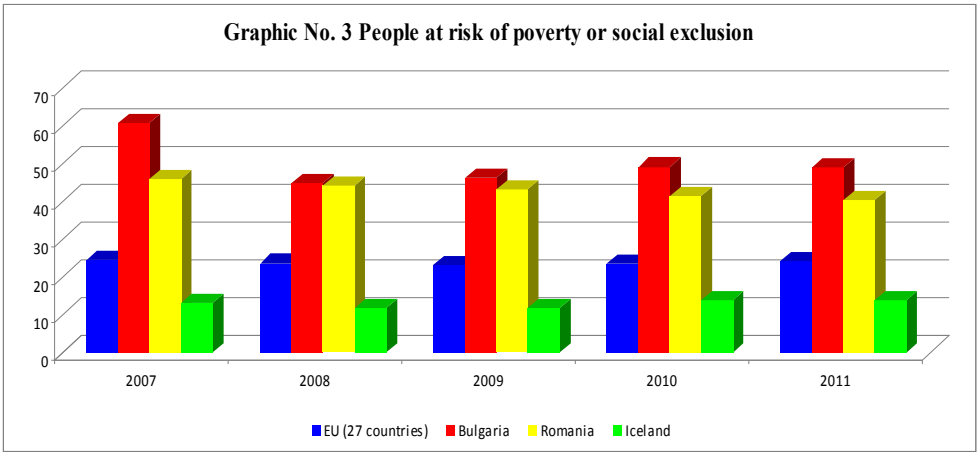
To realize the analysis of Romania's situation in relation with the European Union we have chosen 5 relevant indicators. We realized the comparison between Romania and the countries at the maximum and minimum limit of the indicators and the medium of the European Union (27 countries). The indicators were compared over the time interval for which there is information for all the countries taken to be studied(1).



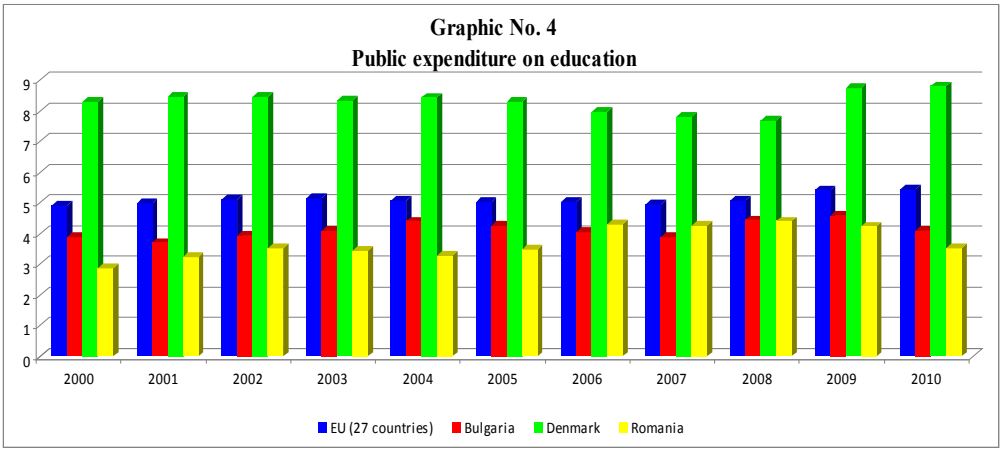
From the presented graph it can be observed that Romania has a reduced level of the GDP/capita being located as the second lowest after Bulgaria throughout the analyzed period.



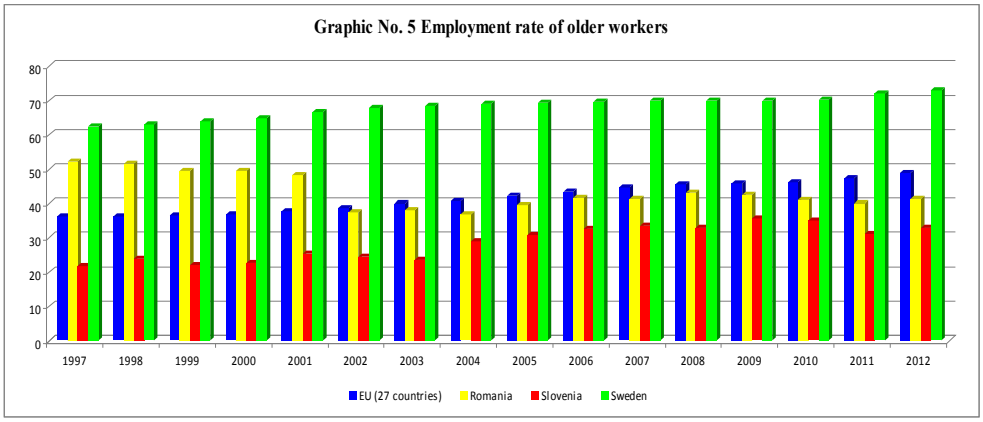
Regarding the indicator the resources' productivity, expressed in Euro/kg, Romania has a reduced level of 0.21 in 2011 being located still on the second place after Bulgaria, while the EU medium was 1.6 in 2011.



In Romania the population's percentage at a risk of poverty rise at a quite high level, being located at a level of about 40% being again close to Bulgaria's level but quite far from EU's medium.



The public expenses for education measure as a percentage of the GDP are decreasing, in some years they are lower than Bulgaria, while the EU medium remains relatively constant around 5% of the GDP, although an expressed objective of Romania is allocating 6% from the GDP, which would mean allocating over the EU level, approaching us to the Great Britain's level (6.22% in 2010). By allocating higher it would contribute to the growth of the public expenses' medium for education in EU.



The employment rate of older workers (55-64 years old) is lower in Romania than the EU medium which creates pressure on the public expenses with retirements, unemployment or social assistance. If in EU the tendency is the growth of the employment rate of the older workers, in Romania the rate is maintaining relatively constant, which imposes public politics for the growth of the active population.

Conclusions

From the comparative analysis of the 5 chosen indicators it is found that in terms of sustainable development Romania has many more steps to make to approach the EU medium. Being at the bottom of the list of all the studied indicators it appears as a relegation situation. If we analyze the evolution in time of the indicators it can be observed an improvement of their situation, but it is too reduced to be significant, and the other EU states are making progresses in the sustainable development domain.

By the conducted study we wanted to establish Romania's place and role regarding the sustainable development indicators in EU. We considerate, that by our presentation we have contributed at the process of awareness of the situation in which we find ourselves. The future research directions would assume a more detailed analysis of the other indicators and the realization on this basis of some predictions regarding the future tendencies of the sustainable development indicators, the analysis of the existing indicators' opportunity and the chance to propose other possible more relevant indicators on the sustainable development.

Note

(1) http://epp.eurostat.ec.europa.eu/portal/page/portal/sdi/indicators

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Sustainability of public co-financing of investment projects with EU financial assistance in Romania

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Abstract. *The public sector capacity of the EU Member States to access the European funds depends highly on the sustainability of their government budgets. According to the European Commission assessment, Romania is not facing a risk of fiscal stress in the short run. However the effects of the economic crisis and the vision with a predominantly social character regarding the public expenditures have contributed to the limitation of resources allocated for economic development. The low level of absorption of the European funds in Romania means implicit losses for the national economy, but a higher level could have been a cause for excessive budget deficit. In order to reduce the pressure on the state budget the government aims at being committed mainly in investment projects with EU financial assistance. This reflects the substitution of the state own financial resources with foreign funds, therefore the additionality effect initially wanted by the EU decreases. The paper evaluates the public investment effort in Romania under the Fiscal Pact limit on deficit and the conditionalities negotiated with IMF, as well as its effects on the economy and budget deficit.*

Keywords: additionality, public investment, co-financing of European funds, budget deficit.

JEL Classification: H54, H62, E65.
REL Classification: 20J, 18F, 13F.

1. Introduction

Additionality of funds within European Union means that the transfers from the central European authority to the national or regional authorities aim to supplement funds raised by EU countries to generate new projects in order to stimulate economic development. The financial implications of the transfer of additional funds in EU countries have been discussed in recent papers (Del Bo et al., 2011), in which are identified the effects of substitution of the public funds with the one transferred, effects of modifying the sectoral financial allocation from their own funds, plus tax effects.

Kalaitzidakis and Kalivitis (2008) pointed out that a high volume of financial assistance can be an impediment to growth in the economy due to the excessive taxation imposed by the need to co-finance the investment projects. Arpaia and Turrini (2008) examined the fiscal reaction functions and tested the hypothesis that governments will reduce public investment for fiscal consolidation and public debt reduction. Likewise, Missale et al. (2009) have argued that the new EU member states may substitute expenditures from their own resources and reduce the total investments. The authors show that in the case of an increase in the budget deficit and public debt, public expenditures on education and investment are reduced and the additionality effect is neutralized. The evidences show that EU countries were restricted from taking investment decisions because of the need to ensure debt sustainability rather than limiting within the values of the public deficit, according to the rules of the Stability Pact.

All EU countries are in a real competition to attract financing available in the market and pay an increased attention to investments that do not generate major imbalances on the budget deficit and public debt. Some vulnerabilities and difficulties in absorbing EU funds in Romania have been highlighted by Socol et al. (2011), among which there is the reduced fiscal space and the difficulties of increasing VAT to the companies that need to co-finance projects. Also, the lack of prioritization of public investment and multi-year budgeting identified until 2012 are considered challenges to the sustainability of public finances (Altăr et.al, 2012).

Sustainability of the public finances is closely related with the impact of the economic, financial and fiscal crisis, and with the indicator of population ageing. Fiscal sustainability refers to the ability of the government to assume all debts and financial expenses in the future. Fiscal policy is not sustainable if it involves high levels of public debt and government deficit. The overall assessment of the sustainability of public finances reveals that Romania does not face a fiscal risk on short-term. Sustainability gap of Romania reflects almost completely the long-term costs of population ageing (European Commission, 2012).

The paper highlights the investment effort financed from budgetary sources in Romania under the limits imposed by the budgetary constraints within the EU. One component of this budgetary effort is the co-financing of the EU financial assistance for investment projects. On the one hand, the low absorption rate of the Structural Funds calls into question the default losses of the national economy by not using the allocated funds. On the other hand, the co-financing effort allocation at the level of the programs may generate excessive budget deficits. This paper aims to analyze the increasing of the co-financing of the investment projects during the period 2013-2015 and the effects on the budget deficit, given the significant increase in the absorption of structural and cohesion funds.

2. Metodology and data source

The research is based on empirical analysis of the expenditures' structure of the consolidated state budget, which highlights the dynamic investment budget support, including co-financing of the European projects.

To determine the impact of investments on the economy the investment multiplier is calculated:

Investment multiplier (k) = ΔGDP due to investments / ΔI,

where:
ΔGDP = annual variation of GDP
ΔI = annual increase of investments *(*gross fixed capital formation*)*

The annual change in GDP due to investment is based on the annual contribution of investments to economic growth.

The data sources used are based on Eurostat database, data from the National Institute of Statistics regarding the national accounts published by the Ministry of Public Finance and Ministry of European Funds.

3. Investment ratio of budget expenditures and budget deficit

Empirical data show that the new EU countries have changed to some extent the structure of public expenditures. Budgetary constraints, imposed by the Stability and Growth Pact and more recently by the Fiscal Pact entered into force in 2013, create pressure so that the Structural Funds may produce substitution effect rather than additionality.

Before the year of 2008, countries with high levels of debt, most of them being the old EU countries with higher levels of development were characterized by a

low share of public investment in order to meet the deficit limit, especially if the debt exceeded 60% of GDP. This includes countries such as Belgium, Germany and Austria (European Commission, 2010, p.21).

In the latest period, analysis of the data on capital budget expenditure (Table 1) does not follow a clear relationship between the share of these expenditures in GDP and the budget deficit to GDP. The limit of 3% imposed by the Stability and Growth Pact does not seem to affect countries like the Czech Republic and Poland, which during the crisis have maintained a high share of budget expenditures for investments, above the EU27 average level, even if exceeding the 3% limit. This shows that a high deficit does not prevent countries to finance investments. For the support of the financial investment decision it is more important the level public debt. In Romania the share in GDP of the investments financed from the budget was high in the period of 2010-2012, comparable with Poland and Czech Republic and significantly above the EU27 average (Table 1).

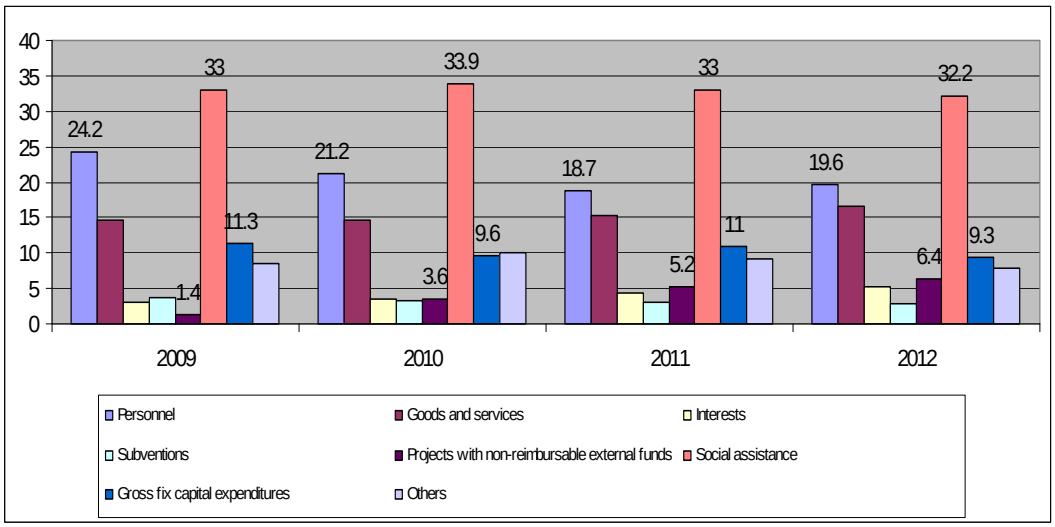
Table 1. *Government expenditures for investments versus budget deficit*

	Capital expenditure* from the consolidated general budget to GDP (%)			Deficit under the excessive deficit procedure (%)		
	2010	2011	2012	2010	2011	2012
UE27	4.3	3.5	3.7	<0.1	<0.1	-4.0
Bulgaria	5.0	3.7	3.9	<0.1	<0.1	<0.1
Czech Republic	5.7	5.1	6.2	-4.8	-3.3	-4.4
Cyprus	5.3	4.5	4	-5.3	-6.3	-6.3
Estonia	3.4	3.6	6.5	0.2	1.2	-0.3
Hungary	4.7	5.8	4.7	-4.3	4.3	-1.9
Latvia	7.5	6.8	4.7	-8.1	-3.6	-1.2
Lithuania	5.1	4.9	3.9	-7.5	-5.5	-3.2
Malta	3.5	3.1	3.8	-3.6	-2.8	-3.3
Poland	6.4	6.2	5.1	-7.9	-5.0	-3.9
Romania	6.5	7.9	5.6	-6.8	-5.6	-2.9
Slovenia	5.6	5.8	4.1	-5.9	-6.4	-4.0
Slovakia	3.7	3.4	2.7	-7.7	-5.1	-4.3

* Gross fixed capita formation,, including capital transfers

Source: Eurostat, Government Finance Statistics, Summary tables - 1/2013, 1997-2012 data and author calculations.

The structure of the budgetary expenditures in Romania in the period of 2009-2012 indicates a predominance of social spending (about 32-34%) and personnel costs (about 18-24%). During this period there is a gradual increase on budgetary expenditures on projects funded by external grants from 1.4% in 2009 to 6.4% in 2012, however, associated with a reduction in the share of capital expenditure incurred by the state budget from 11.3% to 9.3% during the same period (Figure 1).

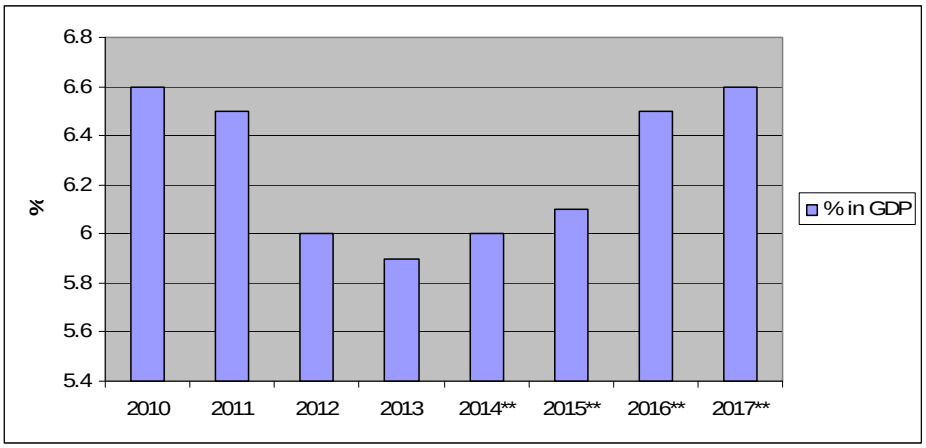


Source: Summaries of the general consolidated budget execution, Ministry of Public Finance.

Figure 1. *Structure of budgetary expenditures, 2009-2012*

The announced investment expenditure of the government for 2013 represents 16.3 % of total expenditures, being budgeted according to the efficiency criteria, following that in 2015 to reach 17.3% (Romanian Government, 2013). These levels appear to be significantly higher than in the past, but in fact include both capital expenditures and expenditures for projects funded by non-reimbursable external funds. Within the structure of these expenditures, the component "capital expenditure" falls starting with 2014 even in nominal terms compared to 2013 and increases the component of project co-financing. Expenditures for co-financing are fully assimilated to investments, although only some are for gross fixed capital formation.

A relevant picture of the evolution of the budgetary effort for investments is determined by economic classification (Figure 2). In fact only since 2015 it is noticed a revival of projected investment, broadly defined.



*Expenditures for investments include capital investments and expenditures for projects with non-reimbursable external funds

** Estimations

Source: Ministry of Public Finance, *Preliminary Report on the implementation of the budget for the years 2010, 2011 and 2012* and *Report on the macroeconomic situation in 2014 and its outlook for the years 2015-2017*

Figure 2. *Budgetary expenditures for investment* (% in GDP) during the period 2010-2013 and estimations for the period 2014-2017*

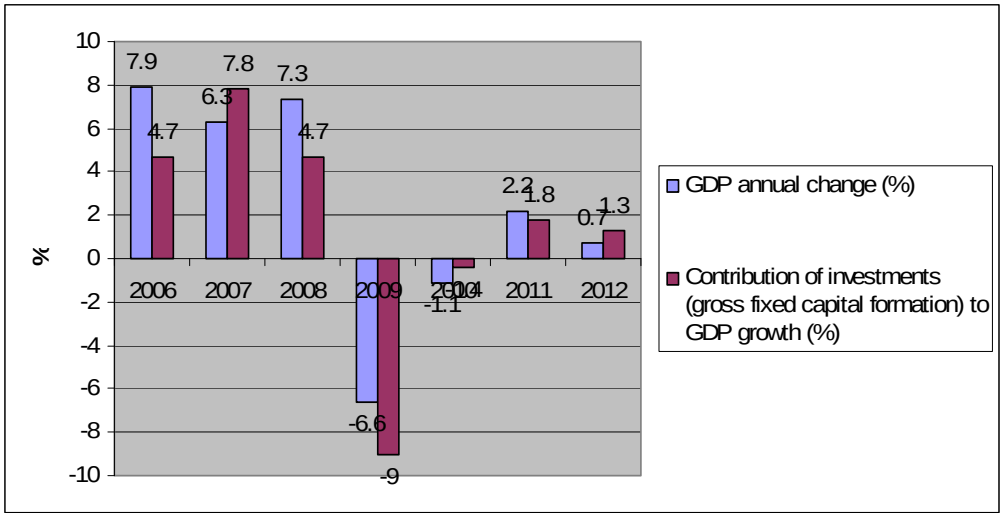
The public sector capacity and coherence in co-financing the EU projects depend primarily on the overall sustainability of public finances in Romania. Estimates for the period after 2013 provide a certain level of co-financing from the state budget, based on the projected growth in the optimistic scenario and adequate institutional capacity for ongoing projects.

4. The effect of public investment on economic growth

The potential of economic growth is higher in the new Member States than in the more developed EU as an expression of the difference regarding the reporting base and of the catching-up process. According to Eurostat, in 2007-2013 it is showed that most countries have a GDP/capita (in PPS) between 70% and 130% of the EU28 in 2012. Poland has recorded an increase of GDP/capita from 55% of the European average EU28 in 2007 to 67% in 2012 and GDP /capita in Romania during the same period increased from 42% to 50% of the EU28 average. The different evolution of new Member States is due to differences in the speed and results of reforms in the pre-accession to European Union and also to the specific orientation of the resources to investments and to the capacity to absorb European funds.

Public investments can play an important role, which stimulates economic growth. In a recent analysis regarding Romania (Altăr et al., 2012, p.86) it is stated that, if their funding would increase government debt, the effect on economic growth is negative. An increase in public debt leads to an increase in future interest costs, increase that has to be financed by raising taxes and dues.

From the analysis of macroeconomic data on the contribution of gross fixed capital formation (GFCF) to economic growth (Figure 3), it is pointed out that the variation in investments and GDP growth have been produced in the same direction.



Source: Data from National Institute of Statistics

Figure 3. *Contribution of investments (GFCF) to economic growth in Romania, 2006-2012*

Calculating the investment multiplier according to the methodology set out before, it appears that it was subunit in the post-accession (Table 2), indicating that the effect of driving investment in the Romanian economy was low.

Table 2. *Estimated investment multiplier in the Romanian economy*

	2006	2007	2008	2009	2010	2011	2012
GDP indices (to the previous year)	1.079	1.063	1.073	0.934	0.984	1.022	1.007
GFCF indices (to the previous year)	1.199	1.303	1.156	0.719	0.979	1.073	1.049
Annual variation of GDP (billion RON in 2005 prices)	22827.41	19642.27	24193.97	-23470.8	-5314.36	7190.328	2338.164
Annual variation of GFCF (billion RON in 2005 prices)	13636.79	24895.51	16701.19	-34776.6	-1868.65	6359.384	4580.238
GFCF contribution to economic growth (%)	4.7	7.8	4.7	-9	-0.4	1.8	1.3
GDP variation due to GFCF (billion RON in 2005 prices)	13580.87	6408.745	15576.94	-32005.6	-1328.59	5882.996	4342.304
Investment multiplier	1	0.26	0.93	0.92	0.71	0.93	0.95

Source: Author calculation.

Separating the impact of public investment on growth is methodologically difficult. It can be appreciated, however, that the low level of multipliers is primarily due to low efficiency of investments financed from public sources, many of which are unfinished or having less effect on output growth. Thus, with high probability, the public investments have a lower multiplier effect in comparison to that determined for total investment.

5. Implications of increased EU co-financing financial assistance for investment projects in Romania

According to the Strategic Report on the Implementation of EU cohesion policy (European Commission, 2013), Romania is ranked last in the European Union in terms of absorption of structural funds in the period 2007-2013 with a contracting rate in 2007-2011 by about 70% and a repayment rate of 20%. These rates have increased in the meantime, reached the end of 2013 to 91.78% and 20.12%.

Thus, an important issue that reflects poor absorption of European funds lies in the large differences between the contracting rate (scriptic money stipulated in the contracts signed with the beneficiaries) and actual payments reimbursed by the European Commission in each Operational Programme. In this respect, it is illustrative the Sectoral Operational Programme-Transport, where they made the fewest payments to beneficiaries, being obvious the weak implementation capacity, with very large delays to the beneficiaries.

Among the major causes of the low level of absorption of the European funds it can be mentioned:

- Poor budget strategic planning at the national level, one of the components being the ability to co-finance from the national budget. The effects of

incomplete integration of structural funds in the national systems of public finance, particularly in terms of financing the public investments and public procurement, are reflected in the lack of flexibility in funding the initial objectives which didn't take into account the impact of the economic crisis.

- The distortion effect generated by delaying the introduction of some provisions or financing mechanisms to fund projects from the state budget, and then to adjust the repayments with the European Commission, after verifying how the money was spent. This led to the insolvency/default of many beneficiaries because reimbursements from the European Commission were low.
- Unclear legislation on public procurement, which generated the initial approval of acquisitions that proved to be subject to breaches of Community principles transposed into Romanian legislation much later and thus of the financial corrections.
- Parallel implementation of funding from structural funds and agreement with the International Monetary Fund and the non-correlation between the two in terms of objectives and targets set (i.e. the deficit target would not have allowed the involvement of the state budget in financing the projects in advance and /or tensuring the co-financing).

Data analysis on providing domestic public resources scheduled to ensure co-funding received from the EU starting with the accession of Romania in 2007 reveals that the amounts budgeted were oscillating and the economic and financial crisis effects have passed on these co-financing also. In the first two years of the programming period 2007-2013, the absorption level was insignificant. After another four difficult years 2009-2012, when the budgetary expenditure for co-financing began to increase, the absorption level of structural funds only reached 11.4% in 2012. By September 30, 2013 the cumulative absorption rate reached 25% (Table 3).

Table 3. *Evolution of budgetary expenditure and absorption of European funds in Romania*

	2009	2010	2011	2012	1.01-30.09 2013
Budgetary expenditures for projects with funding from non-reimbursable funds post-accession * (million euro)	631.53	1737.17	2545.48	2966.32	1947.82
% of Total expenditure of GCB	1.4	3.6	5.2	6.4	5.5
% of GDP	0.5	1.4	1.9	2.3	1.4
Cumulative absorption level** of the Structural Funds (%)	2.0	8.62	9.4	11.47	25.0
EC reimbursement, cumulative (billion euro) for the period 2007-2013	0.58	0.87	1.06	2.2	4.8

* Author calculations based on annual average exchange rate.

** Calculated as rate of funds reimbursed by the European Commission to the total financial allocation for the period 2007-2013.

Source: Consolidated general budget (CGB), annual summaries, Ministry of Public Finance and data of the Ministry of European Funds.

An objective of the fiscal policy for the period 2013-2015 is the reform of public investments by substantially increasing of funds allocated to co-financing the European projects. Government aims to reach an absorption rate of 50-80% of the non-reimbursable structural and cohesion funds by the end of 2015, with reference to the used and returned European money by the European Commission (Government of Romania, 2013).

The state budget analysis for 2013 reveals that investment amounts are higher than the one budgeted for the year 2012, under the concept that the co-financing of the projects financed from European funds is assimilated to the investment notion. This means that the Romanian state will support investments primarily from the European funds. In 2013, the budgetary funding is directed primarily towards the investments that have high performance and that can be completed by 2014.

The negative factors that put pressure on the budget:

- The taking over by state budget of the corrections by the European Commission for failure to comply with the rules of using European funds. Romania will have to pay for the deficiencies in the system from 2009-2011 over one billion euro and the amount represents 5% of the current financial allocation. It is possible that the increased accelerated absorption level of the last year to generate unexpected new corrections within the budget under conditions of incomplete improvement of institutional capacity to support the process.
- Low multiplication of investments. If the investment multiplier remains subunit, the budget investment effort for co-financing European projects is not effective and does not generate the expected GDP growth. Thus, using European funds as a solution to boost the economy fail to meet its object and purpose.
- The overlap of the extension approved for the funds in the period 2007-2013 with the first two years of the next programming period 2014-2020 can generate major deficits or make it impossible to co-finance new projects. For the next financial year, Romania will have 39.5 billion European funds, 18% more than before. Annual allocation for 2014-2020 is not yet finalized, but insufficient capacity of the state to financially support an additional amount may compromise the delay in the absorption of the funds allocated for the next seven years.

Favourable factors which reduce the pressure on the budget deficit:

- Postponement of the deadline by three years of spending and repayment of amounts allocated during the programming period 2007-2013.

- Approval granted already by the EU institutions for the 2007-2013 programming period for the temporary reduction of co-financing from EU countries up to 5% in order to reduce their budget effort in times of economic crisis.
- Temporary enforcement by the European Commission of the investment clause for 2014 to the Member States which are not in the procedure of excessive deficit and which have a negative economic growth or below potential. In the case of Romania, which can benefit from this clause, the measure can contribute to reducing the co-financing and achieving sustainable economic growth.

The most-favoured factors indicate an opening of the European Union to increase the absorption capacity of the Member States through the provision of additional facilities. This reflects a deviation from the principles stated above. Creating favorable conditions for the budgetary construction does not solve automatically the problem of maintaining within the limits of the allowed budget deficit, as it depends largely on the quality of the absorption process.

Conclusions

The analysis performed in this paper leads to the following conclusions:

- To ensure the sustainability of the budget, the deficit may be accepted, but on condition of achieving expenditures which ensure healthy economic growth;
- It confirms the trend of substitution of the national budget effort for investments with European Funds;
- If the investment multiplier is continuously subunit, the investment effort from the budget for co-financing EU projects is not effective;
- Reaching an absorption rate of 50%-80% is not achievable unless obtaining the reimbursements for the years 2011 to 2013 and only after this process the new projects should be reimbursed, otherwise cash-flow problems may appear and can tend to block the implementation process;
- The overlap of the extension with the first two years of the programming period 2014-2020 can generate deficits or can make it impossible to co-finance major or new projects in the first years, with all the disadvantages of such delays already experienced;
- Implementation by the European Commission of the investment clause, as an exception measure to productive investment is an opportunity to be situated within the accepted deficit limit and at the same time to continue funding the projects from the state budget.

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Time series analysis in loan management information systems

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Abstract. *A loan management information system (for transaction processing in credit institutions) records data for given loans, returned sums for principal, interest and taxes. The purpose of this article is to accept or reject our assumption that the more loans are given, the more sums are returned by customers. The main methodology used is time series analysis. Data are analyzed in SPSS. The main proved conclusion is that incoming money flows in credit institutions do not depend on the amount of given loans. This article is published for the first time. This article gives notes for extending existing loan management information systems for loan management in credit institutions and banks in the direction of business analysis.*

Keywords: loan management information systems, time series analysis, SPSS, credit institutions, incoming money flows.

JEL Classification: E51.
REL Classification: 11B, 11C.

1. Introduction

Credit institutions use software systems or simply spreadsheets to record data about money flows between them and their customers. Outgoing money flows concern sums for given loans. Incoming money flow concerns principals, taxes and rates. Transaction data consists of the following data: number of contract, date, sum, customer, type of payment. Usual reports in loan management information systems are intended to give summarized information about: (1) money given for certain period of time, (2) money received for certain period of time, (3) transactional data, which may be filtered or sorted. Some loan management information systems have report generators which help credit inspectors to make Pivot tables on the basis of transactional data. Some reports are intended to get a list of customers: (1) who have to pay today, (2) who delayed their payment more than N days.

All these reports focus on transactional data. They are built by selecting data, filtering data with simple or complex criteria and grouping of data. These types of reports are simple but very useful. Extending the functionality of loan management information systems means that transactional data may be used for time series analysis. Since transactional data contain column date, we have data at uniform time intervals. That is why we have a time series. Time series analysis consists of methods for analyzing data. To get some knowledge from data it is recommended to use statistical methods.

Time series analysis is used mainly for forecasting. Trends in economics certainly exist. But by applying statistical methods for time series analysis we me check whether an economic phenomena is dependent by time. We can check whether time is an independent variable that mostly influences a certain economic phenomena.

Analyzing time series differs from other types of data analysis. Decomposition of time series, trend estimation, autocorrelation analysis and spectral analysis has to be made in order to analyze a time series. All these methods have a detailed description in books in Statistics. Before applying regression analysis separation of data is done. Trend, seasonality, slow and fast variation components are calculated. The trend is a long term direction. The seasonal component shows a systematic and calendar effect. The irregular component shows short-term fluctuations.

2. Literature review

Loan management systems are mainly used to store transactional data for given loans. They record data for given sums, returned sums for principal, taxes and rates. Some authors (Niţescu, 2012, pp. 53-62) focus on customer factors influencing a bank customer behavior and their impact on early repayment of

loans. Nițescu also analyzes the period of loan payment. Others (Kohler et al., 2012, pp. 8-20) connect the term "loan management systems" with libraries. Usually loan management systems operate with confidential databases. Thus they are usually not used in scientific research. Researchers prefer to use other forms of collecting data – for instance questionnaires.

Time series analysis is used mainly for forecasting (Box et al., 2013, Mastrangelo et al. 2013). Comparing modelled and monitored data and calculating errors in time series analysis is a usual technique (Butland et al., 2013, p. 136). Recent research articles focus on the implementation of time series analysis in medicine (Du et al., 2013, p. 296, Doshi-Velez et al., 2014, pp. 54-63). Times series analysis is a common technique used in banks (Faure, 2013, Ghassan et al., 2013).

A lot of articles give good examples on using time series analysis in SPSS (Ma et al., 2014, pp. 35-42, Damiani, 2014, p. 6). But a great deal of them is in the sphere of medicine and pharmaceutical business.

3. Collecting data

The use of a loan management information system records a lot of data. By exporting data from reports and sending them to an electrons spreadsheet (MS Excel) we have the following dataset.

Table 1. *A part of the Dataset for time series analysis of loans*

Year	Month	Given_sum	Returned_principal	Received_taxes
2010	1	920	31	1
2010	2	2256	513	51
2010	3	2078	1990	277

The dataset consists of 48 rows (records) starting from 2010, January, ending with December 2013. We have monthly data. So we may try to predict a trend and try to mark seasonal fluctuations.

4. Basic hypothesis

We assume that the more amount of money is given to customers, the more money is returned as principals, interests and taxes. Interests and taxes are combined in one column in our dataset. The less money is given as credits, the less money is returned. In the sphere of loans there is a lag effect. The loan is given during the current month but payments of taxes and the principal come later – in forthcoming months. We may aggregate the dataset for these three years and make the analysis on a quarterly basis. First, we start the analysis on a monthly basis.

5. Analyzing the dataset

SPSS may be used to solve different problems in economics. It is a powerful tool for wide variety of analysis including time series analysis. All the data in our dataset has numeric values. SPSS can process only numeric values. That is why our dataset is ready to be transferred in SPSS. In SPSS the following variables are defined: year, month, given_sum, returned_principal and received_taxes. All of them have a scale measure. It is very important to mark the type of measure for each variable. After defining the variables we transfer the dataset from Excel to SPSS by copy-pasting the dataset. We have to check if there is a trend. Since we have a time series dataset, we have to define dates (Data/Define dates).

We continue with making charts for each of the three columns with sums to check graphically if there is a trend.

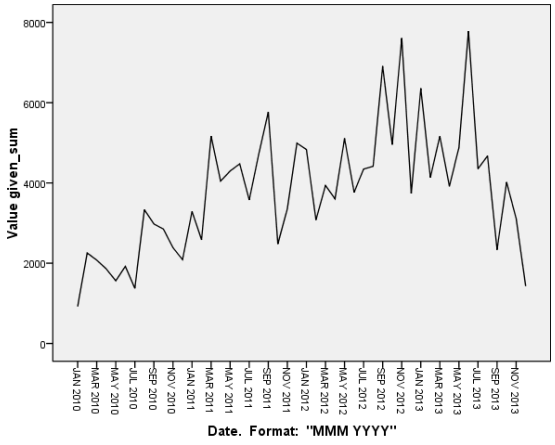

Figure 1. *Line chart of "given_sum"*

It is obvious that the value of given_sum increases during the time, but at the end of the dynamic row (the last four months) it decreases. So let's check what happens with the returned principal.

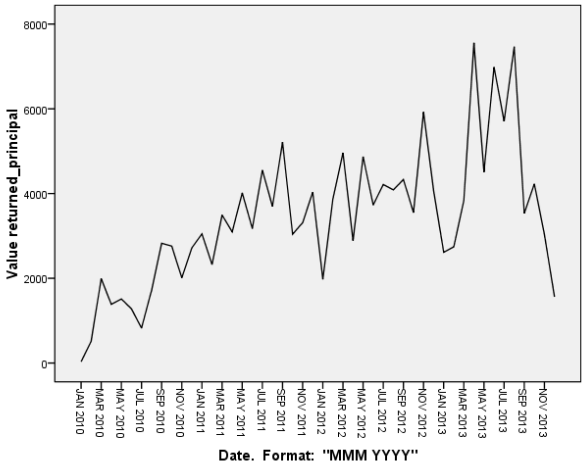

Figure 2. *Line chart of "returned_principal"*

The values of "returned_sum" also increase during the time, but during the last three months they decrease. What happens with received sums for interest and taxes?

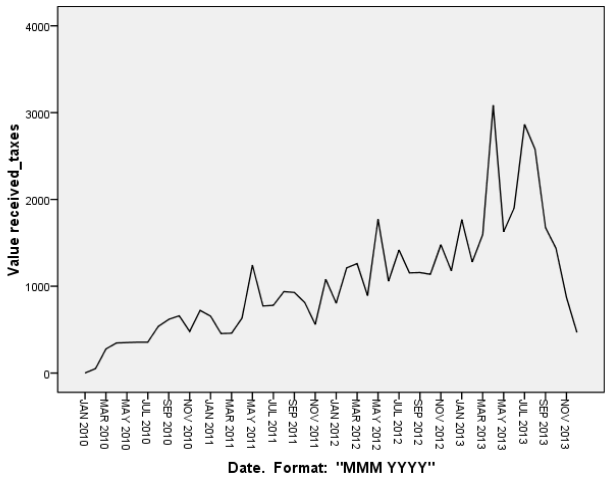

Figure 3. *Line chart for "received_taxes"*

The line chart of "received_taxes" shows that they increased 45 months, but the last 3 months they decreased. Surely there is an event in the summer of 2013 which influences the decrease in taking loans and their further payment.

If we omit the four months at the end of year 2013 the trend will show an increase in the three variables. We do not have values for 2014, so we make assumptions or forecasting. Later on the predictions may be checked whether they are correct or not.

It should be checked for correlations between the three time series (Analyze/Correlate/Bivariate). Since the values in the three time series are in cardinal scale, the Pearson correlation coefficient may be used. Two-tailed test of significance is made. The correlation between the "given_sum" and "returned_principal" is 0.692. The correlation between the "given_sum" and "received_taxes" is 0.555. The correlation between the "recived_taxes" and "returned_principal" is 0.845. The three correlation coefficients are significant at 0.01 level. They show that if a sum is given, there is a high probability for the loan to be returned and to get taxes and interest from the customer.

We start with curve estimation for the variable "given_sum" (Analyze/Regression/Curve estimation). We choose all possible models, we include constant in equation and we display the ANOVA table. The highest value of R-square (0.475) has the quadratic function. The unstandardized coefficient B (261.085) is statistically significant, but the constant (703.595) is not statistically significant. The very low value of R-square shows that other factors different from time affect the given sum of a loan.

Calculations may continue again with curve estimation but not including the constant in equation. The highest value of R-square (0.936) is for the power function. The ANOVA table shows that the power model is adequate. For the independent variable SPSS suggests ln(Case Sequence) and the dependent variable is ln(given_sum).

$$Ln(Y) = Ln(X)^{2.582}$$

Figures 1, 2 and 3 graphically show that the more sum is given, the more returned sums are received and the more taxes are received. During the first 44 periods (months) all values increase, but at the end – the last four periods (months) – the end of year 2013 all sums decrease. What will happen in 2014 we do not know but we may predict.

To make regression analysis we have to remove the trend and to make seasonal decomposition. We start with calculating a natural logarithm of the three series of data (Transform/Compute variables). We continue with seasonal decomposition (Analyze/Forecasting/Seasonal Decomposition) of the three data series. We use the additive model type.

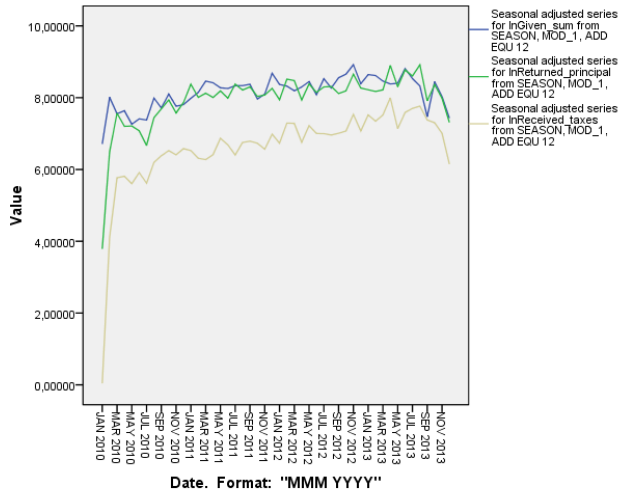

Figure 4. *Seasonal adjusted series*

We have cut off all peaks. Stochastic variations are removed. As is it obvious from Figure 4 some months the given sum is more than the received principal, other months – the opposite. The two data series behave like two vines.

By calculating natural logarithms of each value the dispersion is stabilized. A check for autocorrelations for the three seasonal adjusted series has to be made (Analyze/Forecasting/Autocorrelations). The partial autocorrelation coefficients (ACF) are within the upper and the lower confidence limit for the seasonal adjusted series "lnReturned_principal" and "lnReceived_taxes". For the seasonal adjusted series "lnGiven_sum" there are partial ACF which are outside the upper and the lower confidence limit. We have to create a time series by the using of the first order of the difference function for SAS_1 (Transform/Create time series). A new time series is created SAS_1_1. We check the partial ACF for SAS_1_1. The autocorrelation exists just for the first period (the first month of the time series).

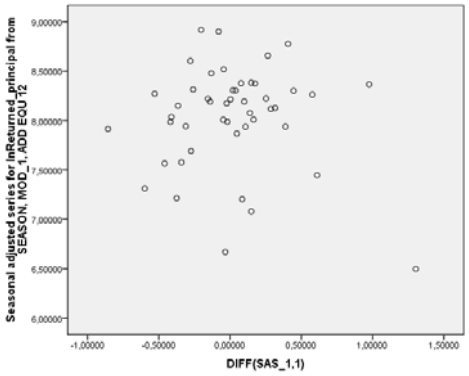

Figure 5. *A scatter graph between DIFF(SAS_1) and SAS_2*

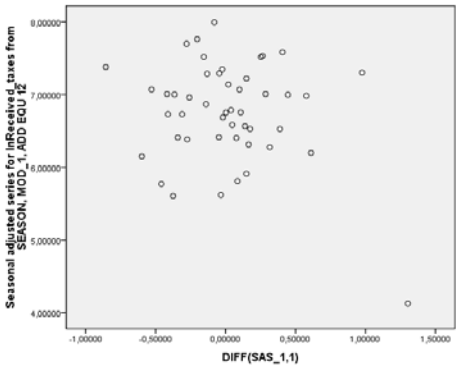

Figure 6. *A scatter graph between DIFF(SAS_1) and SAS_3*

The scattered graph 5 shows there is not a correlation between "given_sum" and "returned_principal". The scattered graph 6 shows there is not a correlation between "given_sum" and "received_taxes". Let's check the correlation between SAS_2 and SAS_3.

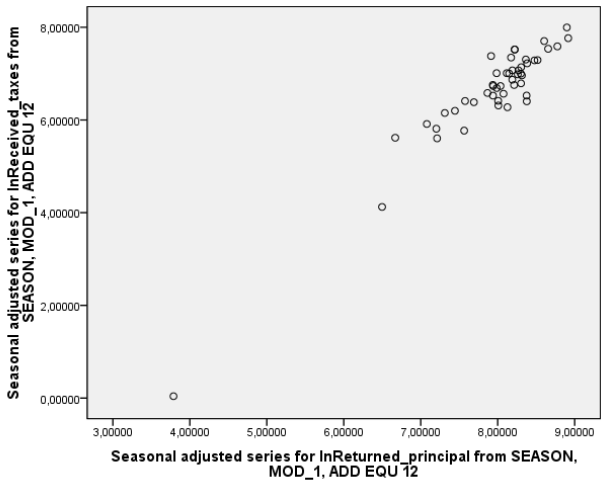

Figure 7. *A scatter graph between SAS_2 and SAS_3*

Figure 7 shows a great dependency between the seasonal adjusted values of "lnReturned_principal" and "lnReceived_taxes". The coefficient of Person is 0.955. It is statistically significant at the 0.01 level.

Now a regression model may be made. The dependent variable may be the SAS_2 or SAS_3. We choose SAS_2. The independent variable is DIFF(SAS_1 1). We check the correlation between the two variables. The Pearson coefficient is -0.075. Its sig. 2-tailed is 0.619. So the Pearson correlation coefficient is not significant.

There is not a correlation between DIFF(SAS_1 1) and SAS_2. Since we used logarithms of real values the model may be linear.

Y = B0*X + B1.

To analyze we choose linear regression (Analyze/Regression/Linear). To test residuals the Durbin-Watson coefficient is chosen. The R-square value of the liner model is 0.006. It is very low. It means that the returned sum and paid taxes do not depend on time. The ANOVA test has a significance of the model 0.619. It means that the linear model is not adequate. The coefficient B0 is -0.098 with significance 0.619. Thus B0 is not valid. The constant B1 is 8.036 with significance 0.000. The constant is significant. The calculations made show that the returned sums do not depend on the given sums. We reject the initially formulated hypothesis. The Durbin-Watson value is 0.672. It is outside the range 1.5-2.5. It means that there is autocorrelation in the dependent variable.

The calculations show that the returned sum does not depend on the given sum and time. We may check whether the returned sum depends on time. So the independent variable is the case number. A new variable in SPSS is added. The dependent variable is the SAS_2. The model type is linear. The R-square value is 0.325. The Durbin-Watson value is 0.745. It is outside the range 1.5-2.5. It means that there is autocorrelation in the dependent variable. The ANOVA test shows that the model is adequate. Unstandardized coefficients are statistically significant. The R-square value is 0.339. The model is the following

SAS_2 (predicted) = 0.033 * Case_number + 7.133

Our dataset consists of 48 cases. We may predict the returned sum for January, February and March of year 2014.
SAS_2 predicted for January 2014 = 0.033*49 + 7.133 = 8.75
SAS_2 predicted for February 2014 = 0.033*50 + 7.133 = 8.783
SAS_2 predicted for March 2014 = 0.033*51 + 7.133 = 8.816

Because we used the logarithm function, to predict real sums we have to do the following calculation in Excel:
Predicted returned principal for January 2014 = exp(1)^8.75 = 6310.69
Predicted returned principal for February 2014 = exp(1)^8.783 = 6522.42
Predicted returned principal for March 2014 = exp(1)^8.816 = 6741.25

The average returned sum for the last three months is 2941.67. The calculations show that there is a probability of 34% the returned monthly sum to be twice higher than the average returned sum during the last three months of the time series (Oct-Dec 2013).

6. Conclusions

The calculations and the application of statistical methods show that the returned principals do depend neither on time nor on the given sums. The received taxes and interest highly depend on the returned principal. The main hypothesis of the article (that the more sums are given the more sums are received as principals and taxes) is scientifically rejected. The time series analysis shows that incomes in a credit institution do not depend only on time. There are other factors that affect incomes in a credit institution. Future research may focus on other models which include other more appropriate independent variables.

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The impact of the image of the organization in terms of the online communication paradigm

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Abstract. *The impact of the image of the organization on the consumer of social media is growing strongly. Although, the release of a modern business pattern in the post-crisis economy leads to finding new interpretative ways of the relationship between the organization and the various categories of audience. The vision of building a successful organizational pattern, regardless of the domain of the organization revolves around the so-called "investments on communicative resource." The approach of the place, and the role of social media to develop global communication paradigm is the main part of our study. First, the existence of a firm on everyday life of the individual makes him/her to assume willingly or unwillingly a particular behavior as a consumer. To sell products and/or services requires the organization to provide to the customer an increasingly dynamic role, that he/she needs to do the purchase and consumption choices. Secondly, the latter is and will be influenced not only by classic marketing, but also by the digital one.*
In conclusion, to get a transparent communication with various audience organizations it requires the involvement of the social-media. Market monitoring through social media is extremely important. On the one hand, we investigate the on-line results regarding market trends covered by the organization and on the other hand, we "scan" the virtual trends of the customers of the targeted market.

Keywords: social-media, organizational image, organizational communication, marketing on-line.

JEL Classification: A1, L2, M3, O3.
REL Classification: 14G, 14K.

Introduction

The build up of the modern image of the organization improves every day with new ways of approach. For this reason, at present, it requires to talk about online communication paradigm.

The launch of a modern business, in the post-crisis economy, involves a multitude of strategies in order to attract customers. Bringing immediate major benefits to the business revolves around the relationship between customer-firm, and in the same time, it is more than necessary, in the context of global communication its impact on economic policies developed at a time. (Dobrescu, 2006)

The vision of building a successful organizational pattern, regardless of its domain revolves around the so-called "investments on communicative resource". The existence of a firm on everyday life of the individual makes him/her to assume, willingly or unwillingly a particular behavior as consumer.

The latter is and will be influenced by not only the classic marketing, but also the digital one. To sell products and/or services requires the organization to provide to the customer an increasingly dynamic role, that he/she needs to do the purchase and consumption choices. “That means always to talk to the one that we want to keep or to make him/her, our client, to give him/her new, interesting and useful things. (www.dakai.ro , 2010)

In the same time, the feed-back relationship between the organization and the various audience will have not the expected result, only if we know how to maintain a constant relationship with them.

The build up of the image of the organization in terms of online communication

However, the communicative core of the organization should aim the psycho-sociological implications of the target audience.

First, on further analysis, we notice that, it is necessary a meaningful assessment of the communication channels used and their influence on individuals in public space. We have to take into consideration three essential requirements: power, the attractiveness and credibility of the source of communication. (Hristache et al., 2009)

Secondly, planning the organization's communication strategy should be reflected not only in its off-line activity but, also in on-line activity. The impact of the organization's image on the web will be stronger, as the more effective is the communication. Adaptation involves effective communication, flexibility and dynamism of the organization. In addition, it implies the need to use one or more

types of communication, and to get into account the means used to get positive signals in the market (Crețu, 2004)

Making a transparent communication of the organization, with various audiences it requires the involvement of social-media. Market monitoring through social media is extremely important.

On the one hand, we investigate the on-line environment regarding market trends endorsed by the organization, and on the other hand, practically we "scan" the market trends of the buyers.

Knowing the hot side of consumers, to investigate trends and consumer purchase for a period, are essential in order to anticipate the preferences and demand for one or another product / service. Communication by social networks does not mean that companies only limited to individuals, but it also means the formation of opinions on products / services offer interaction. We consider that consumers are genuine social-media leaders who exhibit their preferences and needs to companies who want to listen to them.

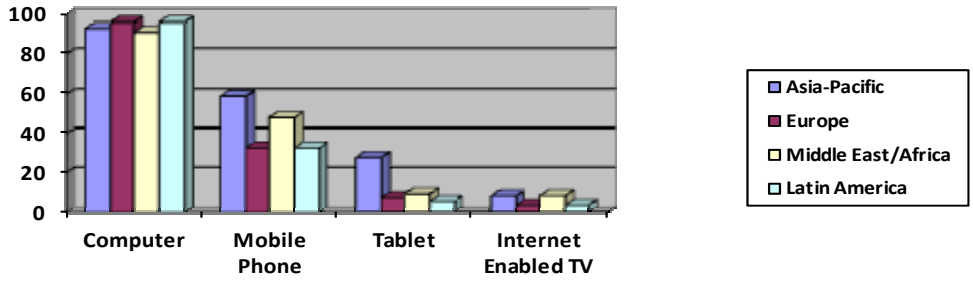
As Nielsen Company - the global market leader in research shows the social media is an extremely dynamic domain. The global communication moved in the private space of the individual, and it echoes in public space by satisfaction or dissatisfaction felt towards a purchased product.

The reactivity of these social channels is almost on real time. For example, the 2012 statistics from Nielsen Company shows that a percentage of 33% of social media users feel annoyed by aggressive advertising that are invading their virtual space.

On the opposite side is the "Ad Eaters", in proportion of 26%. The latter are the result of consumption online advertising, obtained and viewed by rerouting ads by a number of people in their group's network of friends. (Nielsen Company, 2012).

Therefore, purchasing decisions are based on the experience of the leaders working in cyberspace, but due on advance information of products / services or brands whose "story sites" browsing in online space. By analyzing a representative sample of 28,000 social media users of Nielsen study, it aims to study the "appetite" of the potential consumers.

So, one has to research the process of training and development of the subsequent acquisition of stereotypes, under the direct influence of social interactivity, and even under the pressure of specific virtual environment. (Chart 1)



Source: Adapted by Nielsen Company, State of the Media: The Social Media Report 2012.

Chart 1. *Share technologies used globally on social media for 2012*

From the point of view of online communication, paradigm the references can be made starting with what we call "conversational branding".

Here we consider that the target is the participative, democratic audience in order to achieve "affinities" with the brand of the organization. "The imaginative monologue" that was proposed by the traditional advertising must be turned on "dialogue". This explains the large number of accounts of the companies on social media sites, as - Facebook, Twitter, Pinterest, Instagram.

The dialogue created between the hard brands of the organization and the hard and simple product / service promoted for a while on social media and its fervent users must end. The consistency of the sent message, the power of creative action, all these must lead to the accomplishment of persuading the audience, in the target niche of the market at a given moment of the organization.

Communication on social media is unique. Cyberspace users need interactivity and curiosity, and on the end, they need practically to be seduced by "media storytelling" - visual interactivity and dynamic messages/video effects.

It can not be considered "snobbery" from the companies to act as do the general public on the virtual segment, but it represents a real opportunity to build up their image and strengthen its subsequent. Statistics are clear. 29% of North American consumers directly access on the Facebook, the companies pages, and bring into debate a number of issues related to the products and services promoted. (NM Incite, 2012). Therefore, we consider that the stream of opinion created around a theme of discussion, launched on forum by the potential customers subsequently it will lead to the consolidation of a favorable or unfavorable public opinion about one product or other.

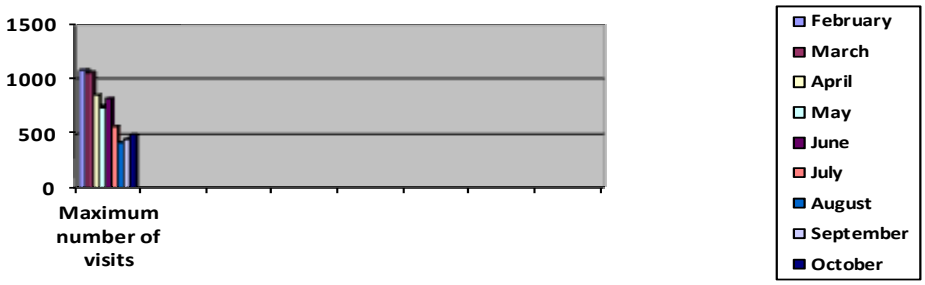
If we relate to brands, we assist to the building up of a genuine management of the message conveyed by it to the public. Many times the decisions and/or consumers

preference will be influenced by currents of opinion created by social media. Mass communication strengthens its social and it develops often on real time. The analysis of the online communication pattern and its social component activity is noted to be present at the level of small firms. The Romanian modern business site feels a growing need to interact with cyberspace. To find out in due time the consumers preference, but also the predisposition of individuals belonging to a social group or to the other, to get a "pattern" for the purchase, becomes indispensable.

The external communication is extremely dynamic. The adaptability to a preference or another segment of the targeted audience has as finality, especially on short and medium term, the success or failure in sales. In addition, we are the witness of the development of the online business that relates to a particular category especially, the targeted audience. Moreover, here we talk about those individuals interested in the handmade products. In the last years, this phenomenon has grown on Romanian cyberspace. The companies in the field monitor the appetites of buyers interested in suppliers for the handmade projects just because they can tailor their offer accordingly on request. A good example of this domain is the site "Breslo", in Romania. Beginning with 2008, the website Breslo hosts the creative community of Romania (www.breslo.ro, 2012).

This community brings together a series of small online businesses in the handmade domain from the selling of components to products. Its mission is as it declares, “to connect buyers with independent creators and shop owners, in order to find the best on what means handmade, vintage and supplies”. We consider, that the purpose to develop original projects and to put value on Romanian creative spirit is worthy. Therefore, Breslo’s reputation consolidated among traders and customers. If you browse cyberspace we notice that its Facebook’s page has gathered 14 508 likes and 1778 people talking about the community and the projects in which it is involved: Projects by People; Decorette (www.facebook.com/breslo). The impact study of on-line communication about the image of the company, in this domain, was based on a series of data processing. All these data were obtained by searching a medium on-line shop, whose main activity is the selling of suppliers for handmade jewelry. After monitoring six months, the online store we reached the following conclusions. A number of variables influence the interested buyer’s behavior of store supplies products, namely: hour, day, month specific to purchase product supplies. To the latter, we add an essential variable that plays an important role on the consumer’s persuasion. It is about the upload time of a new product, and it attracts instantly a greater number of visitors to store supplies. Thus, we found out that a significant presence on the first five pages loaded on the same day on Breslo’s site bring dozens of unique visitors in addition, on each work’s session. This process is

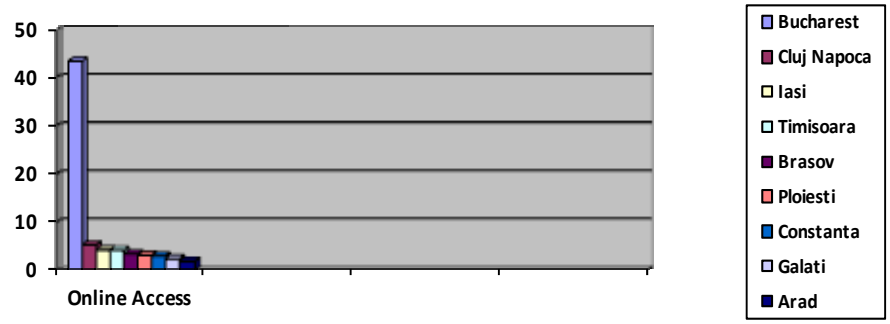
carried out at a certain time that has a maximum number of potential visitors highlighted by Google Analytics traffic. The purpose is embodied, most often by an order of supplies. (Chart 2)



Source: Adapted by Google Analytics 2013, www.google.com/analytics/web

Chart 2. *Statistics references regarding the maximum number of visits accessing an online store supplies of handmade products February – October 2013*

When we take into account the above mentioned, we notice that the shop managers chose to upload new products, to be always on the first page and to get maximum visibility. Thus, we conclude, there is a "top period" of purchasing, which is reached in accordance with a series of standard times of the day and, mostly, it is done to carry out orders to purchase products. In addition, here we talk about lunch, departure from work, and in the evenings - before 23.00 o'clock. We also noticed that the managers chose to upload the online store with new products, to be always on the first page and have maximum visibility on the Breslo's site. The importance attached by the would-be- customer to the online store will be the more the better the managers will optimize the upload of the products (Chart 3)



Source: Adapted by Google Analytics 2013, www.google.com/analytics/web

Chart 3. *Statistics on municipalities with access references to online store supplies of handmade products February-October 2013*

The would-be-customer's behavior is potentially influenced by other variables such as his/her psychological and financial availability to purchase products; preceding periods of secular and religious holidays.

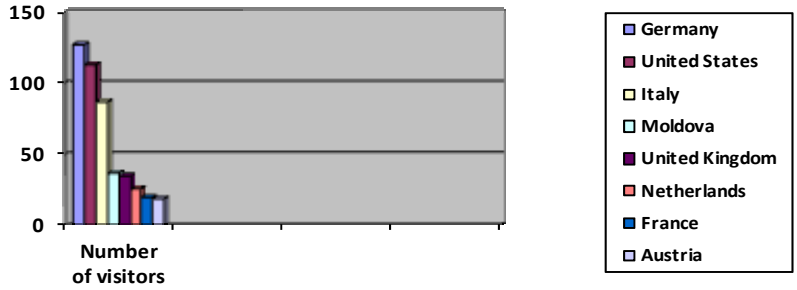
The analysis of consumer's behavior, when accessing the online store, is carried out by automatically monitoring the products, site's page, visit time / return time, the average duration of the visit, etc.

It is to be noticed that, according to the maximum number of the online home accesses, Bucharest leads in the way detached, with a percentage of 43.44% followed at an extremely high distance, by the second in line – Cluj Napoca (5.31%). When we refer to the whole country, with a regional coverage, and then come, the downward trend of home online accesses. Here, we must not neglect the fact, that on this market niche there are a great number of bigger competitors.

Because of multiple interactions generated by the social media, Breslo store supplies site is the online subject views for the abroad, and it managed to sell even to some clients from the European Community space.

Taking into account these parameters, optimize the flow of material supply was optimized as to avoid stock accumulation over long periods of time, financial merchantable assets of specific commodities in a certain time of the year.

Therefore, the evolution of visitors' number from intra and extra-EU space is highlighted on absolute values as follows (Chart 4)



Source: Adapted by Google Analytics 2013, www.google.com/analytics/web

Chart 4. *The evolution of visitors' number from intra and extra EU space in the shop supplies of handmade products February-October 2013*

Therefore, the fluency and efficiency of all these processes led to a doubled income and increased the financial performance of the store, and it strengthened its market position even on the expense of other larger stores. Therefore, we might

say that there is no need only of persuasion but we also need empathy. Only on this way, we get to the public's "soul". PR and the online media should represent the "basic ingredients" of the construction of the new pattern of business communication.

Conclusions

According to the results obtained in the online communication research, we can conclude the followings.

To interact and get the necessary and required feedback from the potential customer, it involves making investments in communicative resource coming from the companies. The communication channel created between organizations, with products/services and different categories of audiences should have the expected result.

The image and behavior of the modern organization are linked inextricably to the communication paradigm. Furthermore, the vision of a successful organizational pattern is built up today under the powerful impact of social media.

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Why liquidity interventions are they optimal in the case of Morocco for financial stability?

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Abstract. *In this paper a general equilibrium model was developed to simulate the impact of unconventional measures on macroeconomic and financial conditions in Morocco. The particularity of this model is that it includes most of the nominal and real rigidities, financial frictions, based essentially on BGG model (1999, 2001). The model also includes the possibility that the monetary authorities intervene directly in the balance sheets of commercial banks to financing a part of their assets (Gertler et al. (2011)). Through the inclusion of interventions by the central bank, a comparison was made. This is to compare two macro-financial environments. The first considers the absence of a proactive policy of the monetary authorities, while the second considers a passive situation where the central bank is neutral and only uses its key interest rate following a standard Taylor rule (financial stability function). The simulation results clearly show that monetary policy actions at the balance sheets of commercial banks have had a positive effect on macroeconomic and financial conditions. Thus, the use of balance sheet policy helped initiate the economic recession and reduce its duration and to give more impetus to the economic recovery. We conclude that the absence of such interventions, the banking sector and key macroeconomic indicators, including bank lending and economic growth, reportedly accused of a serious problem to threaten macroeconomic and financial stability.*

Keywords: Premium, interest rate, unconventional monetary policy, financial stability.

JEL Classification: C51, D58, E32.
REL Classification: 8J.

1. Introduction

Central banks normally use conventional instruments of monetary policy, in particular interest rates, to achieve its ultimate goals as awarded at their statutes. Through the policy interest rates, central banks tend to communicate on growth prospects trying to anchor expectations of economic agents and act on future inflation developments.

These decisions to the interest rate and the ensuing announcements affecting initially the money market (interbank) and when it operates efficiently, central banks have the power to govern effectively trajectories of short-term interest rates. In this context, the central bank intervention on the markets for the liquidity management with the objective to reduce the interest rate of short-term is considerate to able to maintain macroeconomic stability target. This injection of liquidity is then transmitted to several markets including the credit market and interest rates long-term are prominent elements for investment and consumption decisions in the economy.

Moreover, in times of crisis, the implementation of monetary policy is a more complex exercise because of the existence of financial frictions on the various markets. In fact, the drying up of liquidity and stop transactions on the interbank market may limit the ability of central banks to control the interest rate of short-term and at the same time reduce the effectiveness of conventional transmission channels monetary policy. Also, when a crisis breaks on other financial markets may prevent the transmission of monetary policy to asset prices.

The recent financial crisis (2008) has led most major central banks to cut key interest rates to stimulate growth. These actions were continued until the key interest rates have reached levels close to zero. For fear of tougher economic conditions, many central banks are devoid of their conventional instruments (interest rate) and have taken action based on the unconventional monetary policies.

On the theoretical level, there is no consensual definition of unconventional monetary policies, however, many theorists agree that these policies relate to interventions aimed partly to correct a malfunction in the mechanisms of transmission of conventional monetary policy and secondly to stimulate economic growth and hence aggregate demand and the price level. In this sense, are considered unconventional measures, all the provisions put in place during the financial crisis of 2007-2008 and addressed to solve the liquidity problems of banks and other financial institutions, notably through the purchase of private and public capacity and the adoption of specific forms of communication able to restore confidence in the different compartments of the capital market and

influence the expectations of economic agents regarding future paths of interest rates.

The central bank practice in the use of these measures are heterogeneous because of differences in the structure of financial systems, the severity of the impact of the financial market crisis and the perception and judgment made by the authorities money. This heterogeneity of the measures employed by central banks is also due to the lack of theoretical and empirical bases for the effectiveness of these measures (Trichet, 2010). It is only recently that empirical studies have been undertaken to achieve identify how these unconventional mechanisms affect economic conditions and help boost aggregate demand. On this record, it is noted that the actions of central banks developed and emerging ones were heterogeneous. Although the first have the ability to use interest rates accommodative manner their counterparts emerging could not follow the same strategy as a result of internal and external vulnerability of their economies and their dependencies of capital flows.

Unconventional policies are defined as the set of mechanisms that restore the effectiveness of the transmission channels of monetary policy(1) without having to use the guiding interest rates. Lorenzo Bini Smaghi (2008) defined the unconventional monetary policy as all measures to directly influence the cost and availability of external financing from banks, individuals and non-financial corporations. These sources may take the form of liquidity by the central bank, loans or securities. Generally, these policies are used in situations where the policy rate is near or equal to zero(2) describing a deteriorating global demand and a general decline in price levels (for example, the crisis in Japan).

However, Borio (2010) argues that this type of policy can be driven independently of the level of interest rates if two conditions are met: first, it is necessary that these operations are sterilized so as to ensure that the amounts of bank reserves are not affected by excess liquidity and inflationary pressures resulting like interventions on the foreign exchange market(3). Then, the central bank is allowed to ensure that these unconventional measures have no impact on the level of the reference interest rate because of changes in amounts of currency markets. As such, the compensation of excess reserves should help to achieve this goal because of the indifference of banks in relation to excess currency markets.

The lack of a theoretical consensus on forms of political balance has resulted in heterogeneous practices that have sometimes led to contradictory actions of central banks. However, Borio et al. (2010) proposed a classification of unconventional monetary policies by reference to two criteria: (1) the impact of these measures on the balance sheet of the private sector and (2) the target market. The first type pays more attention to the theory of imperfect substitutability of

financial assets (Tobin (1963, 1969), Friedman (1956)), while the second type focuses on the fact that it is not only changes in the composition of the balance that is important but also the way in which these operations are performed and communication strategies there to.

In fact, there are four types of unconventional policies namely the exchange rate policy, the policy of debt management, credit policy and policy management of bank reserves. In the case of exchange-rate policy the central bank tends to change the net foreign currency position of the private sector through direct intervention in the foreign exchange market. The intention of the monetary authorities is to affect the exchange rate, the level and volatility, some of the level of key interest rates(4).

Regarding policy debt management, actions by central banks aimed entirely the public debt market and affect the financial assets issued by the state and held by the private sector. The central bank commits this type of measures to alter the performance of government securities and therefore it is involved in changing the prices of financial assets in their entirety.

In the case of the credit policy, the strategies of the Central Bank target specific compartments of private debt. This is achieved by affecting the amount of private assets held by the monetary authority or otherwise through changes in public and private assets held by the private sector. This type of configuration can be adopted by using several approaches, including the extension of collateral relating to monetary transactions, the provision of loans to the private sector and the acquisition of the assets of the private sector.

Table 1. *Effect on private balance sheet*

		Net position of foreign currency	Change of composition of public debt in balance sheet	Change of composition of private debt in balance sheet
Market target	**Foreign currency**	*		
	Public debt		+	
	Private asset			•
	Bank reserve	x	x	x

Exchange policy (*); public debt policy (+); credit policy (•); bank reserve policy (x).

Source: Borio et al., 2010.

The arrangement proposed by Borio et al political balance. (2010) was used to analyze in depth the policies undertaken by several major central banks in response to the financial crisis. Indeed, quantitative easing employed by the ECB

and Japan during the crisis liquidity trap (1997-2006) is characterized by the definition of an explicit target for bank reserves, a conditional commitment to keep the reserve levels in the future and a massive purchase of government bonds. Therefore, the quantitative easing policy is a mixture of reserves and a policy of debt management with the use of a particular communication strategy in times of crisis with respect to future prospects. Other authors prefer to call this type of policy as policies aimed at reducing long-term interest rates via an expansion of liquidity reserves (Spiegel (2001)). During the current crisis, the Bank of England described quantitative easing as the purchase of assets from the public and private sectors using central bank money. This is basically the combination of the two policies for managing debt and reserves management (Auerbach and Gale (2009), Krugman (2009), Taylor (2009) and Kemp (2008)). In addition, all measures taken by the ECB since 2009 have aimed to ensure the flow of bank credit through long-term loans at low rates against a broad range of collateral. Given the emphasis on bank credit and the significant impact of these measures on the profile of the ECB balance sheet, these actions can be classified as credit policy.

However, the experience of the Fed is a little different, in the sense that Bernanke (2009) speaks more easing credit is to purchase securities lending programs by using central bank money. The distinction is that the relaxation of credit involves the purchase of private and public securities, thus representing a combination of policy debt management and credit policy without targeting bank reserves.

Staying out of the financial crisis in the beginning, Morocco has been affected by the economic downturn in Europe because of strong synchronization of the economic cycle. Thus, we have seen a slowdown in foreign demand and a decline in foreign exchange reserves. This has resulted in an increase in liquidity requirements by commercial banks to reach extreme levels during the years 2011 and 2012. These support measures in terms of liquidity have been undertaken in order to maintain the interest rate and the growth rate of credit to the economy through the management of long-term rates and risk premiums.

In the present paper, it is therefore necessary to examine the consequences of policies taken after the occurrence of the international financial crisis to enhance the liquidity of Moroccan banks and consider whether to continue to use these policies to balance to revive credit and therefore investment and production. It is in this work focus only on liquidity interventions made by the monetary authorities. In this sense, the other measures that have been undertaken have been neglected including political interest rates and reserve requirements.

This paper is structured as following. The next section focuses on empirical studies that have examined the effects of unconventional policies on the economy and in particular the risk premium on growth and inflation. The third section is

devoted to the presentation of the model to use in order to achieve enough to make a convincing answer to the question of the effectiveness of these interventions on the economic and financial plan. The last section, in turn, presents the results and recommendations to consider improving the balance sheet policies used by the Central Bank.

2. Empirical review

Although empirical work on the impact assessment of policies on economic conditions and their ability to stimulate economic growth as well as credit to the economy is very recent, they could say that the policies undertaken by central banks in recent years have helped to limit the effects of the financial crisis and prevent its escalation.

Most studies analyzing the macroeconomic effects of unconventional policies have focused on key variables that may be affected due to the use of these policies by drawing on the analysis of unconventional transmission channels. And interest has focused in particular on the analysis of the effects on long-term rates, investment, consumption, the economic growth rate and the exchange rate.

Empirically these studies adopt two approaches: a statistical and structural approach based on DSGE models and econometric macro models approach. Baumeister and Benati (2010) use a VAR and confirm that a shock to the long rate has substantial effects on economic activity in the industrialized countries. Gagnon and others (2010) analyze the effects of LSAP programs (large-scale asset Purchases) of the EDF and confirm that the programs undertaken by the latter have been able to prevent the occurrence of deflation and a collapse of rates interest.

Lenza, Pill and Reichlin (2010) also use a statistical model (VAR) to assess the impact of unconventional measures in the Euro zone. They estimate a Bayesian VAR model in which they argue that if the ECB interventions have not held the credit impairment would have been greater. Thus, they show that the growth rate of industrial production was 3 points lower in 2010 and inflation has fallen by 0.5 basis points over the same period. Adopting the same approach Giannoni, Lenza, Pill and Reichlin (2011) find that the measures taken have been very effective to mitigate the effects of the crisis on the monetary aggregates and credit.

Peersman (2011) used a structural VAR to identify the main stylized facts of the transmission of unconventional policies in Europe. The author included a new shock to the banking credits based on the assumption that the balance sheet policies impact the conditions for granting credit. On this note, the author

proposes that the transmission of unconventional policy to bank credit and to the same extent that the policy interest rate, but it remains longer.

Del Negro et al. (2010), using the second family of models based on structural general equilibrium models. They say with their model with financial frictions that extraordinary interventions (purchase of illiquid assets) of the Fed have prevented the collapse of interest rates and reduce the risk of deflation. According to their model, this decision is particularly effective when rates reach near-zero levels.

Chung et al. (2011) use the model of the FED, FRB/U.S. to analyze the effects of political balance. Model simulations have the advantage to consider not only the initial impact of purchases of illiquid but also the dynamic effects of programs EDF capital. Thus, they confirm that the LSAP program increases the yield of 3% above the steady state during the second half of 2012, increases the use of 3 million workers and stabilize inflation around 1 percentage point more high if n 'there was no intervention. The results obtained using these unconventional measures are equivalent to a reduction of 300 basis points in the benchmark rate since 2009. Fuhrer and Olivei (2011) using the FRB / U.S. model analyze the effects of the second easing program (QE2) and argue that these measures helped to increase 60 to 90 basis points in real GDP over two years and helped lower the unemployment rate of only 0.5 points.

Overall, studies on the macroeconomic effects of unconventional policy stated that the interventions by major central banks, including the Fed and the ECB, have been crucial to avoid a collapse in interest rates and helped to contain the risks deflationary. However, the results obtained using these works are to be taken with some caution for two reasons. First, most of the work considers the relationship between macroeconomic aggregates remained stable during the crisis, something that is not as evident when markets do not work in a normal manner. Then the evaluation of the effects of political balance may underestimated the actions of monetary authorities because of the importance of financial frictions that fuel rationing credit exercised by banks and also because of the failure to take into account the entire financial system in the formal modeling framework.

Like these works, the present paper is to evaluate the effectiveness of the monetary policy reaction in response to the increased risk both economically and financially. Thus, Morocco, against countries with flexible exchange rate regime and inflation targeting, he opted for policies other than quantitative easing to restore confidence and reduce the drying up of liquidity in different markets money. However, the uses of these measures since 2011 require an assessment to be able to describe their relevance.

3. Model

The model adopted in this paper, inspired by the work of Gertler et al. (2011), consists of five economic agents: households, financial intermediaries, producers of investment goods producers and retailers property. These are supposed to be in a monopolistic competitive market in order to facilitate the integration of price rigidity in Calvo. In this context, it is also assumed that the monetary authority is able to conduct policy rate (conventional) and political balance (unconventional).

3.1. Household

Households are presented through a representative household that consumes, saving and labor supply to financial and non-financial. In this sense, households may pay financial intermediaries and government. In the first case they are deposits in credit institutions and in the second they invest in treasury bills.

The household population is divided into two: workers from non-financial companies and other from banks. For this purpose, the sources of household income come from both their travails in productive enterprises and the management of banks. Thus, each time the proportion of households working with non-financial companies is "1-f" while bankers represent the fraction "f". Each time an individual can choose to transit from one situation to another. In this sense, it is considered that a banker can maintain its function during two periods with probability « Θ » And can change jobs with inverse probability of « 1-Θ ». For this purpose, the percentage of bankers who can change function is equivalent to « (1-Θ).f ».

The household thus maximizes its next objective function:

$$max E_t \sum_{i=0}^{\infty} \beta \left[\ln(C_{t+i} - hC_{t+i-1}) - \frac{\aleph}{1+\varphi} L_{t+1}^{1+\varphi} \right] \quad (1)$$

Note that:
C – consumption;
h – consumption habit;
L – work.

With $0 < \beta \; and \; h < 1$ and $\varphi, \aleph > 0$. Utility to maximize the household's standard form (see Woodford (2003)). Household incomes come from their work, rates of return on deposits with banks and dividends from various financial and non-financial. In this context, the household budget constraint is as follows:

$$C_t = W_t L_t + P_t - T_t + R_t B_t - B_{t+1} \quad (2)$$

W – salary;
P – profit of enterprise;

T – taxes;
R – deposit rate;
B – deposits.

The first order conditions obtained from this optimization program give rise to the following equivalences:

$U'_{ct}W_t = אL_t^{\varphi}$ (3)

With:

$U'_{ct} = (C_t - hC_{t-1})^{-1} - \beta h E_t(C_{t+1} - hC_t)$ (4)

And

$E_t \beta ב_t \mathrm{R}_{t+1} = 1$ (5)

$ב = \frac{\mathrm{U}'_{c,t+1}}{U'_{c,t}}$ (6)

3.2. Financial intermediation

The main function of financial intermediaries is lending to productive enterprises using household deposits. In this sense, their existence facilitates the optimal allocation of resources and reduces the agency problems between investors and depositors by tapping into their information superiority. Taking this role, banks are at risk of transformation by providing long-term loans through the use of short-term funds.

Consider the income of banks « N », Customer deposits (main resource banks) are noted « B » and the quantity and price of bank assets are « S » and « Q » respectively, then:

$Q_t . S_t = N_t + B_t$ (7)

With reference to this definition, $Q_t . S_t$ represents the total assets of banks and therefore the loans to the private sector. In this classic presentation, it is assumed that banks operate in a normal situation where the funds are intended for the private sector and funded entirely by households. In this context, the intervention of the central bank through a credit policy is currently neglected due to the maintenance of confidence in the intermediation system.

In this context, the income of the bank is its capital, while deposits are treated as debt. The income generated by the bank will be equal to the difference between the return generated and the cost of capital:

$$N_{t+1} = R_{t+1}^{k} Q_t S_t - R_{t+1} B_t = \left(R_{t+1}^{k} - R_{t+1}\right) Q_t S_t + R_{t+1} N_t \quad (8)$$

The future income generated by the bank is the difference between the returns generated through credit operations and returns paid to depositors. The premium $\left(R_{t+1}^{k} - R_{t+1}\right)$ describes the possibility of the existence of asymmetric information between depositors and non-financial companies and it also reflects the opportunity cost due to the use of external financing (Bernanke et al., 1999 (BGG)).

It should be noted that financial intermediaries choose to finance the economy if the current value of the risk premium is much higher than 0[(4)]. This implies that economic prospects are favorable and allow outperforming the cost of capital.

According to the relationship describing the determinants of income (equity) banks, it is clear that any increase in assets $(Q_t S_t)$ resulting in an increase in earnings. In a rational manner, the intermediate will be encouraged to increase their assets by lending to infinity. To highlight this strategy banks continue to borrow from households. However, banks need to ensure an optimal level of liquidity for depositors (for fear of a bank run). These to maintain and continue to provide funding to banks they may require that the income of the bank is greater than a specified fraction of the assets. Applicants are expected to recover any time this fraction. Then, the updated income (V) the banking firm must still meet the following condition:

$$V_t \geq \partial Q_t S_t \quad (9)$$

Based on this relationship, banks may continue to grant credit, as the income generated can satisfy this constraint.

Following the assumption of Gertler et al. (2011), the value of the bank can be written according to the expected rate of return due to a change in assets $Q_t S_t$ and changes in equity N_t.

Suppose that "v" is the expected return generated following a change in assets[(5)] of bank and μ the expected return following a change in equity. In this sense, the value (or income) of the bank is of the form:

$$V_t = v_t . Q_t S_t + \mu_t . N_t \quad (10)$$

With:

$$v_t = \beta\left(R_{t+1}^{k} - R_{t+1}\right) + \beta * x_t * v_{t+1} \quad (11)$$

$$\mu_t = \beta * z_t * \mu_{t+1} \quad (12)$$

Note that, $x_t = \frac{Q_{t+1}S_{t+1}}{Q_tS_t}$ and $z_t = \frac{N_{t+1}}{N_t}$. Depending on the condition set by depositors on funds to finance and the minimum liquidity to hold in this case, the value of the bank is equal to:

$$\partial Q_tS_t \leq v_tQ_tS_t + \mu_tN_t \qquad (13)$$

As such, the asset size of the bank or the amount allocated to finance investment is constrained by the following equation:

$$Q_tS_t = \frac{\mu_t}{\partial - v_t}N_t \quad (14)$$

Note now that:

$$\frac{\mu_t}{\partial - v_t} = \emptyset_t \quad (15)$$

This relationship describes the relationship between assets and equity held by the bank. In other words, this report is the leverage ratio (assets to equity). Thus, banks must ensure compliance of the relationship required by depositors. Indeed, the amount of credit granted is based on the income of the bank and the level of leverage ratio.

Explain this in detail: banks acting in an increase in credit to the economy contribute to increase the parameter "v" and thus increase the leverage ratio allowing them to generate more profit at the expense of depositors and their requirements in terms of liquidity. As such, the banker defined more expansionary strategies to increase the proportion of "v", the more it is facing a growing likelihood that depositors withdraw their deposits. In this situation the bank is forced to satisfy this condition and ensure that $0 < v_t < \partial$ to continue to meet the demands of depositors. In this context, depositors demanding to maintain fraction ∂Q_tS_t for their own liquidity needs can tolerate against by the bank uses in addition to a fraction vQ_tS_t, provided that the difference between these two proposals are less than the return on equity N.

Through what has been mentioned, the future income of the bank can be written in terms of the risk premium and leverage:

$$N_{t+1} = \left[\left(R^k_{t+1} - R_{t+1}\right)\emptyset_t + R_{t+1}\right]N_t \quad (16)$$

$$z_t = \frac{N_{t+1}}{N_t} = \left(R^k_{t+1} - R_{t+1}\right)\emptyset_t + R_{t+1} \quad (17)$$

$$x_t = \frac{Q_{t+1}S_{t+1}}{Q_tS_t} = \frac{\emptyset_{t+1}N_{t+1}}{\emptyset_tN_t} = \frac{\emptyset_{t+1}}{\emptyset_t}z_t \quad (18)$$

The income of the bank increased in function of leverage and the risk premium. Growth spread between lending and deposit rates used to increase the future income of the bank. Leverage occurs to increase the performance. The more the leverage ratio is more significant banking activity rises to generate more income.

3.3. Unconventional policy and bank assets

The discussion in the previous section returns to formalize joint credit for the private sector ($Q_t S_t$). To implement a credit policy and intervention by the monetary authorities in an unconventional way in the markets, it is assumed that the monetary authority is able to facilitate the granting of credit by intervening directly in the credit market.

In this context, suppose the fraction financed by the central bank's total assets is $(Q_t S_{gt})$[6]. To this end, total assets available to financial intermediaries will be as follows:

$$Q_t S_t = Q_t S_{gt} + Q_t S_{pt} \quad (20)$$

In this context the central bank finances a portion of bank assets through purchases of bonds issued by the government. The central bank using securities purchase strategies fueling financial intermediaries additional liquidity should necessarily increase their assets and therefore finance investment projects[7].

This part financed by the authorities will be equal to:

$$Q_t S_t = \omega_t Q_t S_{gt} \quad (21)$$

The parameter ω describes the extent of the credit policy of the central bank, the more it increases, the response of the monetary authority is expansionary and vice versa. And authorities involved in financial intermediation, not to replace the banks but to ensure financing of the economy, reduce risk aversion and restart lending.

The expected performance of these government operations is the difference between the expected rate of return on funded projects and the interest rate on bonds. Considering that the government is not obliged to comply with the requirements of depositors enjoying better quality borrower, the total assets of banks should be equal to:

$$Q_t S_t = \emptyset_t N_t + \omega_t Q_t S_{gt} \quad (22)$$

In this sense, the total assets from financial intermediation are equal to the income from private activities taking into account the leverage ratio and resources from public authorities. After a rearrangement of this equivalence, it is possible to consider that:

$$Q_t S_t = \frac{\emptyset_t}{1-\omega_t} N_t \quad (23)$$

From equation (23), it should be noted that the bank's assets is based on three parameters: the income or bank capital (N_t), the leverage ratio ($\emptyset_t$) and the share of assets financed by the government using strategies credit policy (ω_t).

3.4. Enterprises

The business sector is composed of three types of producer:

- producer of capital;
- producer of intermediate goods;
- and producer of final goods.

The first two contractors operate in a market of perfect competition, while the latter is considered monopolistic competition to include the possibility of price rigidity.
The company sells production of intermediate goods production companies' details. Indeed, the company operates in time "t" to acquire the capital K_t for use in the production will subsequently sell during the next period (t +1).

Thus, to enable him to produce the company is able to claim credits for financing from financial intermediaries. In this sense, the value of the company's capital should be equal to the assets of the banks.

$$Q_t K_t = Q_t S_t \quad (24)$$

Under this assumption, the flows of banks are used only to finance investment projects of companies. In this sense, the bank finances the entire loan application business. This is true under the assumption that there is no friction with respect to the financial information on the company. Thus, the bank is assumed to have perfect information about the company and its activity against his relationship with depositors.

In this context, the only constraints are those related to funds available to the bank, which in turn should affect the level of funding for companies and at the same time financing costs. Under these assumptions, the enterprise produce (Y) on the basis of two factors of production, capital and labor.

$$Y_t = A_t (U_t \, \Lambda_t \, K_t)^{\alpha} L_t^{1-\alpha} \quad (25)$$

With:
U_t – the rate of capacity of utilization;
$\Lambda_t \, K_t$ – the actual amount of capital[(8)];
L – the work.

The prices of production P_{mt} are equal to:

$$P_{mt}(1-\alpha)\frac{Y_t}{L_t} = w_t \quad (26)$$

Thus the return of enterprise is:

$$R_{kt} = \frac{\left[P_{mt}\alpha\frac{Y_t}{\Lambda_t K} + Q_t - U_t\right]\Lambda_t}{Q_{t-1}} \qquad (27)$$

Producers of capital operate in a market of pure and perfect competition. Their work focuses on the supply of intermediary companies' capital to carry out their operations.

Assuming that the stock investment is "I", "Iss" potential and "In" net capital investment created where, $I_{nt} = I_t - U_t\Lambda_t K_t$, In this case, the objective function of maximizing capital producers is as follows :

$$\max E\sum_{t:1}^{\infty}\beta\,\Lambda_t\left\{(Q_t-1)I_{nt} - f(\frac{I_{nt}+I_{ss}}{I_{nt-1}+I_{ss}})\right\}(I_{nt}+I_{ss}) \quad (28)$$

The first order condition is given by:

$$Q_t = 1 + f(.) + \frac{I_{nt}+I_{ss}}{I_{nt-1}+I_{ss}}f'(.) - E\beta\Lambda_t\left(\frac{I_{nt}+I_{ss}}{I_{nt-1}+I_{ss}}\right)^2 f'(.) \quad (29)$$

Regarding the third business details, it operates in a market of monopolistic competition to reflect rigidities in prices. Production is defined in terms of the total production of various companies:

$$Y_{ft} = \left(\frac{P_{ft}}{P_t}\right)^{-\varepsilon} Y_t \quad (30)$$

And

$$P_t = \left[\int_0^1 {P_{ft}}^{1-\varepsilon}\,df\right]^{1/1-\varepsilon} \qquad (31)$$

In this sense, the firm maximizes the following function:

$$\max E\sum_{t:1}^{\infty}\gamma\beta\,\Lambda_t\left\{\frac{P_t^*}{P_{t+1}}\prod_{k=1}^{i}1+\pi_{t+k-1}-P_{mt+i}\right\}Y_{ft} \quad (32)$$

γ is elasticity of rigidities of price, P_t^* is optimal price, P_m marginal cost[9] and π inflation rate. Thus the first order condition is given by:

$$\sum_{t:1}^{\infty} \gamma\beta\,\Lambda_t \left\{ \frac{P_t^*}{P_{t+1}} \prod_{k=1}^{i} 1 + \pi_{t+k-1} - uP_{mt+i} \right\} Y_{ft} = 0 \quad (33)$$

$$u = \frac{1}{1 - 1/\varepsilon}$$

In this sense, the commodity price changes according to the following equation:

$$P_t = [(1-\gamma)(P_t^*)^{1-\varepsilon} + \gamma(\pi_{t-1}P_{t+1})^{1-\varepsilon}]^{1-\varepsilon} \quad (34)$$

3.5. Monetary and fiscal policies

The overall output of the economy is composed of consumption "C" investment "I" budget expenditure "G" and government intervention in favor of the financial intermediary.

$$Y_t = C + I + G + f(\frac{I_{nt} + I_{ss}}{I_{nt-1} + I_{ss}})(I_{nt} + I_{ss}) + \omega_t Q_t K_t \quad (35)$$

Capital evolves according to the following equation:

$$K_{t+1} = \Lambda_t\, K_t + I_{nt} \quad (36)$$

Government spending and intervention in the banks' assets are financed by taxes and spreads over the intermediation of the government through emissions obligations.

$$G + \omega_t Q_t K_t = T + (R_{kt} - R_t)B_{gt} \quad (37)$$

Furthermore, we believe that the reaction function of the central bank and Taylor-type, including inflation, the output gap and inertia[(10)]:

$$i_t = (1-\rho)\left[i + \alpha_{inf}\pi_t + \alpha_{outgap}(logY_t - logY_t)\right] + \rho i_{t-1} + \varepsilon_t \quad (38)$$

While the reaction function of the monetary authorities is effective in normal times, in a regime of inflation targeting. In contrast, in the presence of crisis characterized by a deflationary spiral and very close to zero interest rates, it becomes inappropriate because of financial frictions and non-effectiveness of conventional transmission channels. In this sense, other unconventional policies are carried out. In fact, and as we have seen, using unconventional policies, the central bank uses a quantitative approach to increase the money supply and thus boost growth and reduce interest rate spreads and in particular those of long-term:

$$\omega_t = \widehat{\omega v}[(logR_{kt} - logR_t) - (logR_k - logR)] \quad (39)$$

In this context, the central bank injects liquidity in banks' balance sheets by referring to differences in interest rates and therefore it operates according to the levels of risk in the market. When the spread rate deviates from its equilibrium (steady-state), then the central bank injects liquidity to finance investment.

In times of crisis, the central bank should give the Taylor rule since the inertia of interest rates is insignificant. In this model, we consider the inertia parameter ρ is equal to 0 when we are in the presence of a financial or economic crisis. This leaves the central bank's scope to respond solely on growth and inflation in their future developments.

4. Simulation results

Inspired by the work of Gertler et al. (2011) should help to answer two key issues relating to the economic situation in Morocco. At first, taking into account that this model allows us to consider that the central bank can intervene through unconventional policies to support the economy and boost growth in response to unfavorable market conditions. We can check for the case of Morocco relevance use policies to allow assessments to boost economic growth and at the same time lending to the economy. In a second step, this model incorporating financial frictions should explain in a more rational way the current situation in Morocco.

4.1. Calibration

To meet the above objectives, the model was calibrated based on the Moroccan data using databases HCP[(11)] for the year 2013. Parameter calibration is performed in a standard manner. The discount rate is extracted from the risk-free rate of treasury bills. Thus, we consider that it is equal to 0.99. The elasticity of substitution is itself calibrated to 1. Moreover, the consumption patterns of households are approximated to 0.9. The inverse of the elasticity of labor is estimated at 0.2. For other parameters related to the household, they are considered standards. Moreover, the survival rate of households is almost 97%. The share of capital employed compared to work in the vicinity of 1/3.

However, for the parameters of the monetary rule, they are calibrated using two approaches; the first considers that normal economic conditions the interest rate is the only instrument to use. Moreover, in the second situation of crisis, the rate rule is abandoned and considers that the credit policy is the most effective. In this context, the setting of the inertia of the interest rate is in the first case and 0.8 in the second it is considered invalid. The coefficient of inflation embedded in the rule is considered in both cases equal to 1.5 and the output gap is -0.125.

In times of crisis, monetary authorities activate their credit policy to strengthen bank balance sheets and facilitate the granting of credits. In the model presented, we believe that the coefficient describing the response to a change in foreign exchange rate is equivalent to 8 calibrated through share of injections of the Moroccan central bank to total bank assets.

Table 2. Calibration

Parameter description	Value
Discount rate	0,99
Elasticity of substitution	1
Formation of habit	0,815
Inverse of work elasticity	0,276
Marginal elasticity of depreciation of salary	7,2
Probability of life	0,97155955
Rate of capital depreciation	0,025
Calvo parameter	0,779
Parameter of price index	0,241
Parameter of interest rate inertia	0 et 0,8
Inflation parameter	1,5
Output parameter	-0,125
Persistence of capital shock	0,66
Persistence of technological shock	0,95
Persistence du fiscal shock	0,95
Persistence of unconventional policy	0,66
Level of unconventional policy	8

4.2. Reading of the current situation: interpretation of the model

Morocco was immune to the global financial crisis in those early events. However, after the latter has resulted in a slowdown in the partner countries, particularly in Europe, Morocco was quick to see the situation more difficult.

Thus, we are seeing a slowdown in credit to the economy characterized by rising levels of growth rates in double figures, with growth rates of around 2% and 5%. Moreover, economic growth is regressed to about 2.7% in 2012. During the year 2013, the situation is even more worrying because of the decline in credit growth as well as the deterioration of the quality of bank assets since we are seeing a slight increase in rate of nonperforming loans.

The model with financial frictions expected to transcribe more pertinently this situation by giving more importance to imperfections in the credit market due to the integration of financial intermediation. By adopting the approach of BGG (1999), that the risk premium anchor agents' expectations and determine the choice of funding, we could say that the proposed model helps to explain the current situation in basis of existing economic and financial dynamics. Indeed, we

considered for purposes of illustration a productivity shock to reproduce the known Morocco following the decline in foreign demand by lowering the rate of economic growth and the level of the production and scenario. In addition, other additional shocks, monetary and bank asset quality policy have been developed to describe more dynamic transmission of shocks in the presence of financial frictions.

In what follows, we analyze the results from a standard DSGE model (without financial frictions) and another with financial frictions in BGG (1999). The productivity shock is intended to capture the decline in non-agricultural growth experienced by the country during the past two years. The classic real DSGE model cycle not including financial intermediation tends to minimize the loss of productivity due to the absence of financial frictions often contributing to amplify shocks in the economy.

Furthermore, the simulation through a model with financial frictions can describe with more rigors the effects of reduced productivity. In this sense, a 10% decrease in productivity leads to a slower growth up more than 10% compared to the equilibrium level. This decrease was partly due to a decline in investment and consumption coupled with a slowdown in asset prices. The decline in asset prices should more to lower investment and consumption resulting in higher risk-free rate because of the increased risk and lower banking income. Moreover, the rate of return on investment should respond negatively to down due to the contraction of production thereby resulting in an increase in the risk premium(12). The decline in productivity would also result in a decline in inflation to return to its equilibrium state due to the expected decline in interest rates. Regarding the banks' capital, they will have to record a decline in levels due to the increase in the risk premium and lower production and consequently investment banking.

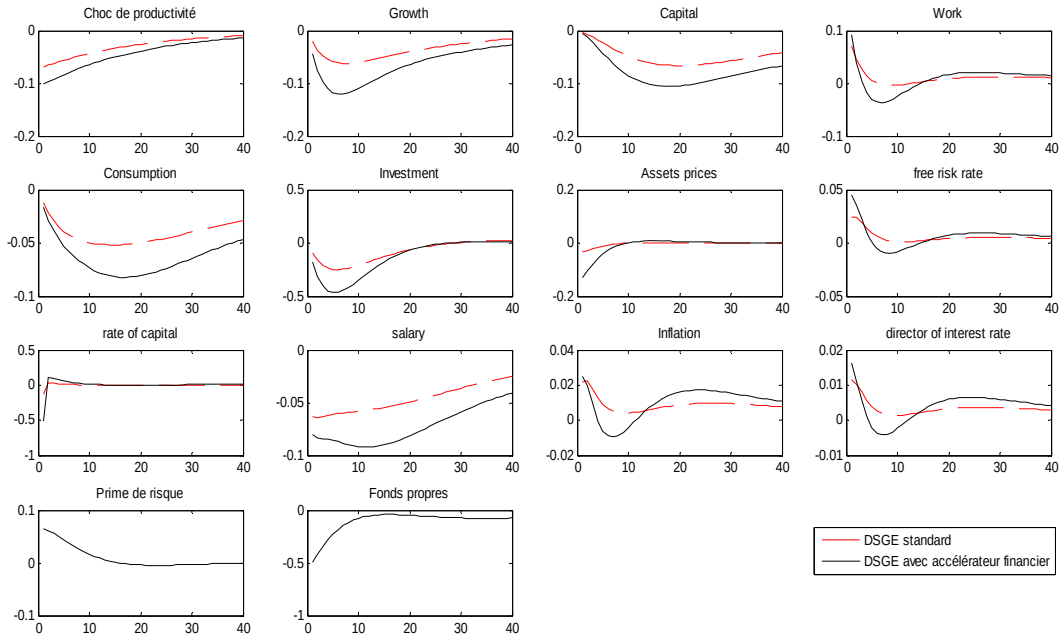

Figure 1. *Comparison between the model with and without financial frictions (productivity shock)*

The second shock was considered is on the decline in the quality of bank assets. The comparison between the model with and without financial frictions says that the integration of these improves the quality of the impulse responses of the macroeconomic model. The decline in the quality of the investment banking or capital assets is likely to reduce investment and therefore asset prices. These regressions are partly due to the decline in the quality of bank assets leading to distressed sales to meet the requirements of depositors and capitalists in connection with the leverage ratio imposed by donors. This results in the first place, depending on the model with financial frictions in lower bank capital due to losses on assets. Then distressed sales boost falling asset prices increasing thereafter the risk premium and lowering bank results. Companies in a situation of rising risk premiums will lower the investment and production and thus reduce their rate of return are a major determinant in the financing decision. In this situation, compounded by the existence of financial frictions, the return of macroeconomic aggregates to their equilibrium to soften the effect of the shock on the capital can only be done after 10 quarters. So, according to this analysis we expect a recovery in non- agricultural growth after about 3 years.

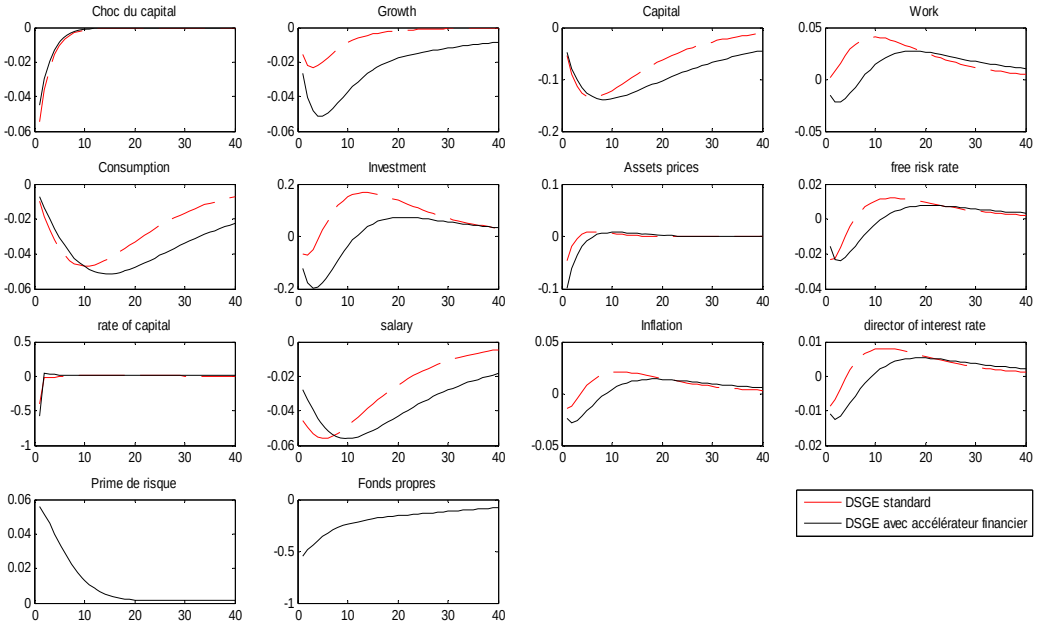

Figure 2. *Comparison between the model with and without financial frictions (impact on capital)*

As for the impact of monetary policy, an increase in interest rates was intended to analyze the effect of increased business by monetary authorities because of inflationary pressures in 2008 and 2009. The standard DSGE model indicates that this increase in key interest rates results in a decrease of growth more or less low, which restores the balance in six quarters. Also, according to this model without friction, lower inflation during the same period to return to its equilibrium state. It is the same for other macroeconomic variables.

In contrast, the model with financial frictions and taking into account the dynamics of the financial system can provide an even finer and closer to what is happening analysis. In this sense, the rise in interest rates Director is able to reduce the investment for a long time and integrating persistence after the existence of financial intermediaries actively analyze the increase in terms of its impact on premium risk. In this context, the increase in premium income reduces the bank and bank asset risk, thereby to raise the demand of depositors in terms of rates payable. The decline in bank assets resulted in lower asset prices that lead to an even sharper decline in inflation. Similarly, the regression of assets reduces the corporate finance indicating a lower rate of return on capital.

Ultimately, the effects of monetary policy shocks, productivity and quality of capital are reduced using models not incorporating financial frictions and lead to decisions underestimating the role of financial intermediation in maintaining

equilibrium macroeconomic. Furthermore, the use of models with financial frictions is able to provide a more appropriate framework for analyzing and describing the best conditions the actual developments of macroeconomic and financial aggregates Moroccan.

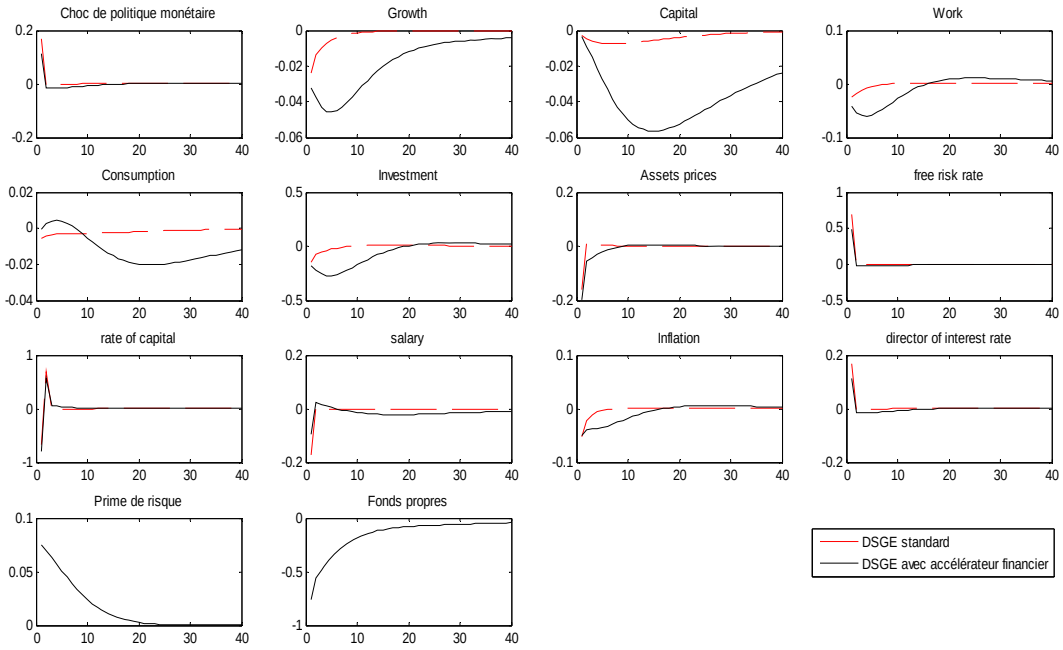

Figure 3. *Comparison between the model with and without financial frictions (monetary policy shock)*

4.3. Effectiveness of unconventional policy in Morocco

In response to the consequences that could not be detected using the models presence in Morocco and who were mostly inspired by the new synthesis and real business cycle theory, the central bank has begun easing liquidity to achieve reverse the effects of the liquidity crisis following the decline of foreign exchange reserves. Like many central banks in emerging countries were forced to use the same approach to avoid a systemic liquidity crisis, the monetary authorities have responded actively using two approaches:

- An expansion of assets eligible for Euro system counterparties in open market;
- An extension of the duration of these operations to achieve long-term maturities of three months;
- A loans secured by corporate loans to banks (funding policy for lending scheme).

These measures were aimed at addressing the problem of liquidity and intervene directly in the balance sheets of banks in providing liquidity to be able to restart lending to businesses and especially those of small and medium size.

To verify the relevance of these actions taken by the monetary authority, the DSGE model described above is used. Indeed, the intervention of the central bank aims to strengthen banks' resources enabling them to increase their assets and allocate more credit. Thus, the effectiveness of liquidity easing measures should help revive credit, reducing the risk premium and reduce the pressure on lending rates. In this context, two models are in competition. This is the model with financial frictions to describe the effects of economic contractions and the model including the ability of the bank to respond with unconventional monetary policy.

Thus, shocks previously reported are shown for both models to examine the effectiveness of interventions by the central bank. The productivity shock of magnitude of 10% is calibrated with the intervention of the Central Bank calibrated to 8% of total bank assets. This unconventional reaction through an easing of liquidity resulted positively in reducing the magnitude of the decline in productivity. Thus, economic growth down 10% in the model without intervention, while in integrating unconventional policy, the latter is limited to half to a contraction of only 5%. In the same vein, the use of the relaxation of liquidity is able to limit the extent of the productivity shock by almost half and also helps to stabilize the risk premium actively influencing asset prices and rates income (generally long term).

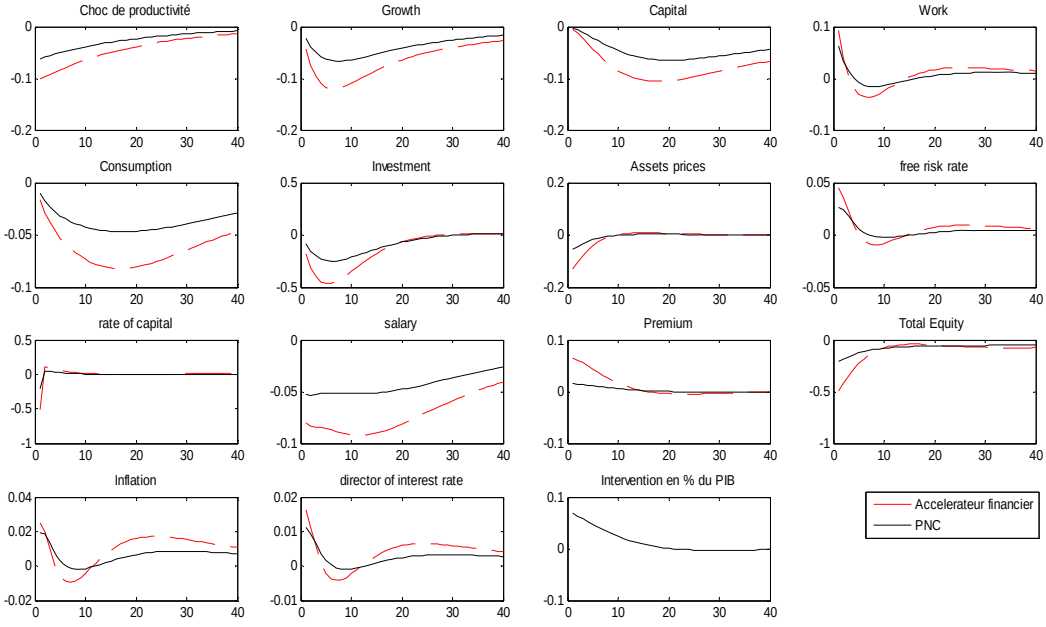

Figure 4. *Comparison between the model with and without unconventional interventions of the central bank (productivity shock)*

Similarly, the reaction of macroeconomic and financial aggregates experiencing decline in the quality of bank assets in the presence of a relaxation of liquidity is impaired. Thus, the reduction in the quality of banks' assets (which can lead to disinvestment "deleveraging") taking into account the intervention of the Central Bank can reduce the impact by restoring confidence in the banking assets. Indeed, the reactivity of the monetary authority is able to reduce the decline in asset prices by manipulating the expectations of economic agents (signaling channel). This will initiate the increase in risk premium and therefore its negative impact on investment and production. And also, these interventions have reduced the period of economic recession in facilitating economic recovery.

Thus, the positive effects of balance sheet policy can be summarized in their ability to restore confidence in the banking assets thereby restore confidence and limit the possibility of increased risk premiums negatively impacting the production, consumption and investment.

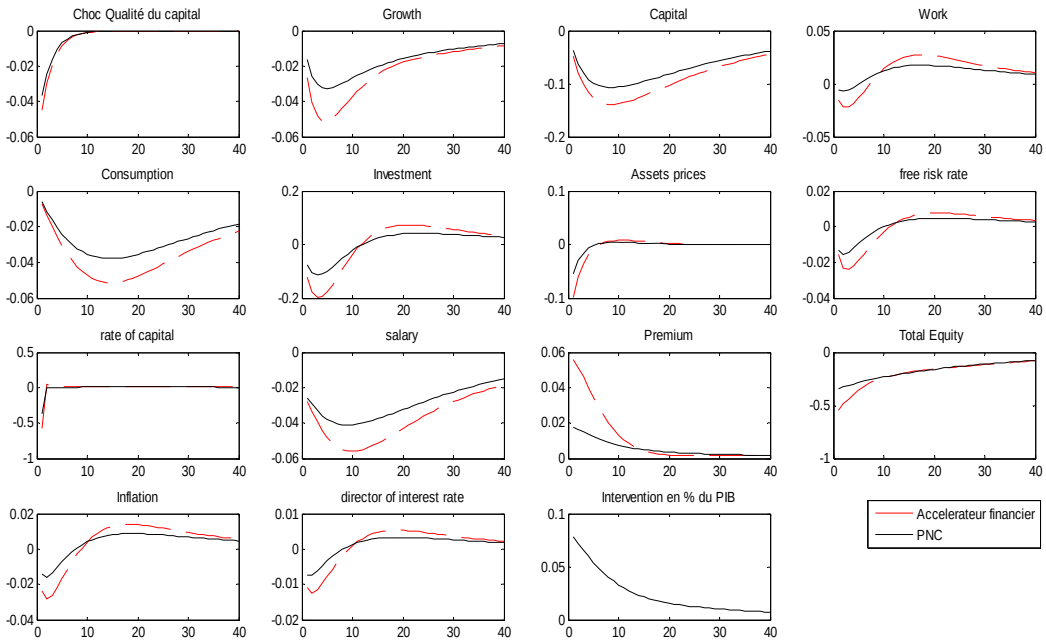

Figure 5. *Comparison between the model with and without unconventional interventions of the central bank (bank assets quality)*

Based on the results, we can say that the use of support measures by the monetary authorities to reduce the duration of the economic downturn and facilitate economic recovery in the best and faster way. Although these policies undertaken since the advent of the global financial crisis and particularly after its

transformation into economic crisis reduce liquidity risk and interest rate risk, however, their use should be more or less controlled. Thus, flooding the financial system of central liquidity can result in high inflation and fiscal slippage. In this sense, the monetary authorities will be required to use a more active policy of communication assuming a strong signal to the market describing their future intentions. In this sense, their intervention should be conditional on an inflation target to tolerate or achieve sales growth to allow anchoring agents' expectations and avoid deforming the budget deficit. Indeed, the actions of the monetary authorities may tax costs to consider; especially the increase in liquidity in the different compartments of capital markets can encourage fiscal authorities to keep an accommodative policy in terms of debt.

5. Conclusion

In response to the international financial crisis, central banks have taken steps to limit the same liquidity problems and help revive the economy. Thus, unconventional policies were undertaken in order to reduce the risk premiums on the types of assets and allowing private agents to rebalance their balance sheets and settle transactions on assets other than government bonds.

The actions of central banks have focused on their balance sheets and referred to allocate sufficient liquidity to banks to enable them to restart lending to businesses and households. This policy generally carried out in situations of close to zero, trying to meet two main objectives. First, reduce the duration of the economic recession and then send to mitigate these effects in different markets and economic and financial agents.

Morocco is affected by the effects of the economic and financial crisis in Europe, was quick to accuse liquidity problems at its various markets. To this end, several measures have been taken up to ease the conditions of eligibility of collateral repo the granting of long-term funding to finance companies.

Although these measures are very recent, an assessment of their effectiveness and relevance is needed. In this context, we have developed in this paper a general equilibrium macroeconomic model to simulate the impact of these measures on macroeconomic and financial conditions. The particularity of this model is that it includes most of the nominal and real rigidities, financial frictions based essentially BGG financial accelerator (1999, 2001). The model also includes the possibility that the monetary authorities intervene directly in the balance sheets of commercial banks in financing part of their assets.

Through the inclusion of interventions by the central bank, a comparison was made. This is to compare two macro-financial environments. The first considers

the absence of a proactive policy of the monetary authorities, while the second considers a passive situation where the central bank is neutral and only uses its key rate in a conventional rule.

The simulation results clearly show that monetary policy actions at the balance sheets of commercial banks (liquidity refinancing) had positive effects on macroeconomic and financial conditions. Thus, the use of a policy review by the central bank helped initiate the economic recession and reduce its duration and to give more impetus to the economic recovery. We conclude that the absence of such interventions, the banking sector and key macroeconomic indicators, including bank lending and economic growth, reportedly accused of a serious problem to threaten macroeconomic and financial stability.

Notes

(1) The credit channel example is ineffective in situations of recession due particularly to losses in the banking system, the blocking of transactions in the interbank market, deteriorating economic conditions and consequently a loss of confidence future prospects and increasing uncertainty and risk premiums.

(2) The interest rate channel may be blocked in two cases: firstly, when the policy rate reaches zero and can not fall, a situation particularly onerous if the expected inflation is negative and a second time when it may be impossible for the central bank to use the channel of interest rates when the economy falls into a situation of liquidity trap.

(3) According to Borio (2010) intervention in the foreign exchange market is an unconventional policy (balance) used by several central banks whose use does not cause a deviation from the target interest rate despite extensions of the central bank balance sheet using (see the experiences of Korea, Thailand and China).

(4) The Federal Reserve has established swap transactions with foreign central banks of Brazil, Korea, Mexico, Singapore and both with 10 developed countries, while the European Central Bank and the Swiss Bank provided the euro in Hungary and Poland. These swaps have facilitated the implementation of measures to relax exchange and helped to improve the liquidity in emerging markets.

(5) $E\beta(R^k_{t+1} - R_{t+1}) > 0$. In the particular case of a perfect market (no imperfection) the risk premium is canceled and the reason for financial intermediaries is dissolved.

(6) In the absence of market failure, banks will be encouraged to increase their assets by distributing funds until the rate of return is equalized with the deposit rates and tend therefore to v 0. In this situation the bank is characterized by a maximum mass where any increase in assets is reflected by more substantial profits. In other words, it becomes indifferent with respect to new investment projects.

(7) A basic assumption is to consider that the prices between the two asset types are similar.

(8) In other words, this policy is to consider that the government issued bonds to be purchased by households and the resulting liquidity will be used to finance investment projects.

(9) The parameter Λ_t is integrated to provide endogenous fluctuations in the amount of capital used by companies to describe the effects of the phenomena of credit rationing.

(10) We define the mark-up as the inverse of the marginal cost.

(11) Le taux d'intérêt est en relation avec l'inflation selon la spécification classique de Fisher.
(12) High Commission for Planning
(13) In case of lower profitability of capital, the contractor is no longer prompted to resort to external financing and at the same time the bank will impose an opportunity cost even more important (Bernanke et al. (1999, 2000).

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Global European economic model

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Abstract. *National identity is the paradigm of each country. Globally we try to integrate various challenges in new trends that tend to show a higher or lower economic competitiveness. We, as individual mobilizing global economic engine, want to find the various models that recreate human welfare. But beyond all the challenges that we are subject to, we must realize that the world we live in, works by some well defined patterns that outsource wishes and provide opportunities only to those who can prove they are strong. This article is to demonstrate the importance of integrating certain development patterns in global growth model, given primarily by the desire of the individual to maintain the integrity of the planet and human integrity.*

Keywords: globalization, economic growth, global economy, economic models.

JEL Classification: F62; O47; R11.
REL Classification: 20B; 10B.

1. Introduction

Globalization of the economy has led to the development of new technologies that increased competition and the pace of change.

Even if all this has led to growth and employment, it also led to significant changes for employees and businesses, which are forced to submit to the adaptability and flexibility to survive in this competitive global environment.

These changes have led to reforms aimed at creating a more flexible labor market, and the development of policies that capture both labor market flexibility and employment security involving security and social insurance.

Concerns related to the competitiveness of the European economy often raise European economic model.

European model concept was first used by Jacques Delors, at mid-1990s, used as an alternative to the American model of pure capitalism, as opposed to the model presented at the American or South East Asia with emphasis on development.

The main idea is that the European model of economic and social progress must operate by combining economic growth with social cohesion, characterized by extensive social protection and solving problems through democratic means. (Dumitrescu, 2007)

One of the first definitions of the European model are the social policy of the White Paper, prepared by the European Commission in 1994 and includes common values: commitment to democracy, personal freedom, social dialogue, equal opportunities, social security and solidarity with disadvantaged people (see Figure 1).

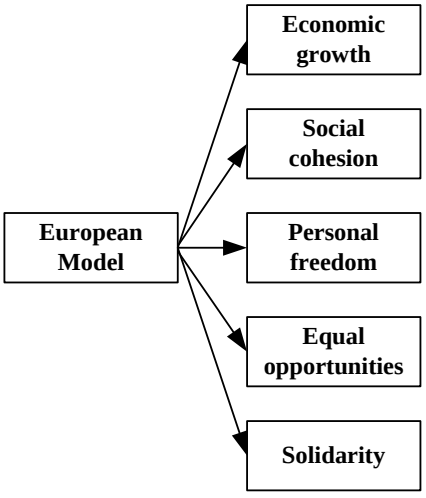

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Figure 1. *Characteristics of European economic model*

There are present a variety of country-specific models (Swedish, German, etc.), but they all meet common principles: economic growth, social protection; the focus on each of them is different.

All EU countries have three social common characteristics: *social citizenship* which has the equity principle, not in terms of income but in terms of equality before the law, *political, economic and social rights,* and *protection gap* against market; no individual have a higher position. Giving up the nature of the cargo of some goods, essential to a decent social life involves education and healthcare.

The European model seeks to prove the ideas of globalization by broadening the horizons of citizens, by creating some general individual freedom but not forgetting the identity of individual. Keeping this identity is actually the backbone of defining humanity.

2. Reorienting global model

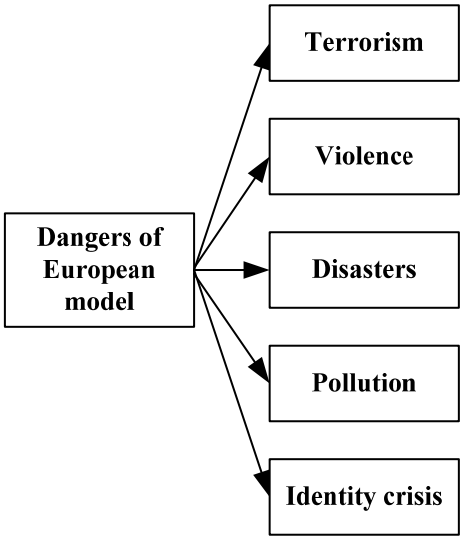
Globalization is not the only reason for diversion or reinventing the welfare state. To cope with globalization need to be refocused on the welfare state and should go beyond compensation for those who support the most cost increasing global competition. Responses basic social policy issues such as: education and training, immigration and integration policies, labor market reforms and welfare redesign to enhance its active role.

Modern society is the result of a long and successful which led to the institutional setup. This process reached its highest point in Europe ECE articulated in the early 1970s. In this space and time, the welfare state has shown that some features have inspired confidence: full employment, social services, universal and generous public and controlling poverty and marginalization. Since the crisis of 1970 some changes were very diverse, and there were eventually eroding the foundations of the welfare state. After this critical process especially severe intellectual change, where "the main social structures lose their authority, principal ideologies lose no longer mobilizes historical process, the social is nothing but prolong life." This era of hyper- modernity is the substance of the return to liberalism, a historical piece, both in thought and in practice, risk and unable to improve the achievements of modern times, the golden age is increasing, the mid-twentieth century.

From panoramic view of the European model, I was able to see how the historical process could not foster convergence of social systems of the EU-27, meanwhile continued expanding its borders. The current EU social dimension seems to have

been put in a second place after a peak in 2005, and after overcoming the institutional crisis in 2007. Perhaps we could emphasize that momentum to flexi-security concept should inspire Member States' employment policies for future work, an acrobatic exercise – both linguistic sense and in the political sense – for an executive who shares the same values and political community. Should also be noted the impulse in the social communication area to establish a renewed Social Agenda, built on three concepts: access, opportunity and solidarity. Europe as a homogenous entity is unthinkable values beyond universal human. Even so, we can build a dream project generator requiring high doses of both political and intellectual generosity in a time when they are not values that rise.

We should also note the challenges faced model in its current version, and the aim of preserving its most significant and identity: international terrorism and possible disasters, neoliberal logic and its effects on employment; in local, urban pollution, violence in marginalized neighborhoods, on a personal level issues that weaken the body and mental balance. Before this reality, it is required a theoretical discourse and smoothing. This is, as we know, demanding effort of social scientists, to which we are committed. The ability to enjoy life and civilization is at stake (see Figure 2).



Source: own processing

Figure 2. *Dangers of European model*

Structural reforms can help achieve two goals: restoring the main factors of growth and preventing or correcting imbalances as a key condition for growth. These reforms could boost labor utilization and labor productivity. Also, structural

reforms can help restore competitiveness and reduce external imbalances in the short term by reducing wage and price rigidity. Facilitate the necessary reallocation of labor and capital across sectors and companies are essential for growth and to reduce external imbalances. Although many structural measures could support both growth and macroeconomic adjustment, some of them such as school policies, needs more time to bear fruit and are more suited to unlock long-term growth drivers. However, this does not mean that action to strengthen these policies should be postponed.

In the absence of resolute policies, potential growth is likely to remain weak in the next decade. In the next period, the average potential growth rate is estimated at around 1½% in the EU-27, unless policy changes occur, as shown in Figure 3. This is much lower than the rates found in the last two decades in the EU which, in addition, were much lower than in the U.S. This was caused by enhanced labor underutilization from the crisis, combined with a shrinking labor force as the population at the end with a slight increase in productivity in the EU-27. Most Member States have been affected by the crisis, both in terms of capital accumulation and labor utilization, and is expected at the end of the decade, they will experience a reduction in their labor resources due aging.

Source: www.cnp.ro

Figure 3. *Potential output growth till 2020 in the EU 27*

Confirming previous trends, growth prospects are even weaker euro area. In the period 2001-2010, the average potential growth was 1.6% in euro area, down by 1.8% in the EU-27 (see Figure 4). In the following decade, the prospects for increasing production and productivity will be particularly grim in the euro area, as it is expected that both will reach an average of around 1¼%. However, using the estimated labor is very similar to that predicted for the EU as a whole.

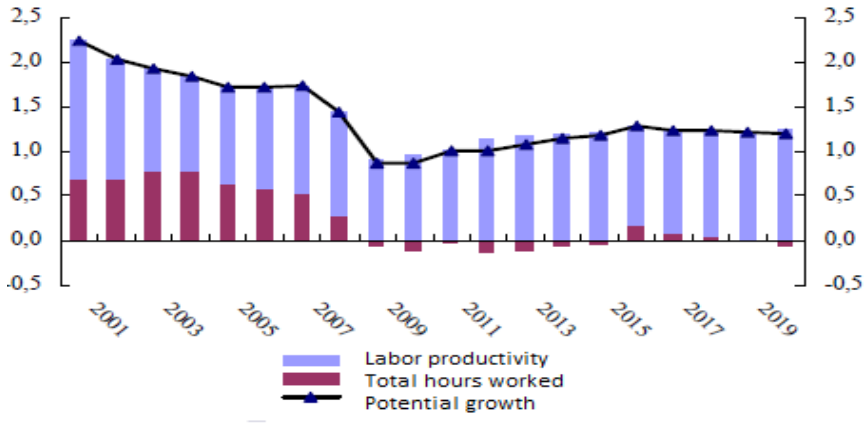


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Figure 4. *Potential output growth till 2020 in the euro area*

To address the challenges outlined above, in the next period must mobilize EU growth factors. In Member States with large current account deficits and high levels of debt, reforms aimed at wage setting systems and services markets are important for improving the adaptability of prices and wages. It will also help, improvements in the business environment by enhancing competition (e.g. through the Services Directive) and reducing administrative burdens. Measures are urgently needed to support the reallocation of resources across firms and sectors. These include legislation on employment protection that do not impede the reallocation of resources between sectors more attractive financial incentives for employment and active labor market, better targeting the most vulnerable. Measures to remove barriers to entry and exit (starting conditions) and investment barriers (such as harmonization of corporate tax base) will also be important in terms of facilitating sectoral reallocation to higher value added activities greater and faster growth.

Member States with large current account surpluses have identified and remedied causes weak domestic demand. These policies could include further liberalization of the services sector and improving conditions for investment. Member States should step up efforts in structural reforms that eliminate the major bottlenecks to growth in the medium term. Based on the National Reform Programme (NRPs) submitted by Member States, the measures provided appear to be insufficiently ambitious and therefore is unlikely to medium term, a tangible impact on growth and jobs. Member States in their National Reform Programme final plans must provide more precise in order to expedite and track key actions generally more ambitious.

3. European model enigma

European model include economic growth, political freedom and social cohesion; it is bivalent, both economic and social focus on public policies and the regulatory framework. In terms of political freedoms, both American and European model are based on individual discernment, characterizing a competitive social market economy, based on competitive market mechanism for resource allocation. Social cohesion is present in the Asian model with a social purpose. Model features are liberalized imports and exports subject (semi) cheap labor and capital expensive. It is also a transition model where the emphasis is on supranational processes, processes of convergence and integration.

The European economy is an economy product where the risk factor is calculated and minimized.

Thus, the European model of integration processes to generate multiple perspectives at all levels must be maintained primarily national identity.

The European economy as a strategic component supports, with the yield on the finality of transfers or social cohesion.

The model is bivalent, economic and social, and also multidirectional, targeting and what lies beyond and beyond the market. Does the ingredient for the expansion of the monetary economy relies on the real economy and real economy that generates consistency reliability, stability nominal economy: the European economy is built on the relationship between earnings and productivity, employment and places aspiring products, job security, and sustainable business products reliable, energy – savvy chain – resources – products – services – money mechanic resume, show compatibility processes (integration) is the economy where risk is calculated and minimized, is the economy product.

Symbolically speaking, the European economy type looks like a trapeze exercise performance; the athlete develops over a safety net that protects it from injury. From the point of view of European economic structures , operating in a different space, scale north (average associatively) – South (Family associatively) is based on a mixed system of companies, mainly medium unlike the American economy, which benefits natural resource trust that generates spontaneous associatively and rely on large enterprises.

Models act as poles of attraction (around models have emerged separate integration processes): American model of integration processes generate concentric version with majors with the benchmark U.S. territory. Strictly speaking, a typical model of integration is assimilation, even imitation of the

nucleus. The European model of integration processes generates multiple perspective at all levels, with a tendency to functionalize a combined regional and national decision -state.

The European model has been "exported" to other nations. In various regions were implemented initiatives to establish free trade areas and cross-border political alliances. The North American Free Trade Agreement (NAFTA), Mercosur in South America and the Organization of American States (OAS) tries to create a transnational political model to harmonize their markets and gain an advantage in global economies of scale through regional.

U.S. are so strong in relation to Canada and Mexico (two major trading partners) that it would be impossible to create an entity that would even resemble a partnership between relatively equal partners.

Perhaps the three North American countries will form a free trade area, but will not create any super state or a transnational political space.

China and India have to face even greater obstacles in a world where the nation-state model is increasingly less able to adapt to global trade and cultural forces.

The region is the most likely candidate to follow the example of the European Union's East Asian community, with or without China's participation. In 1967, Indonesia, Malaysia, Philippines, Singapore and Thailand have established the Association of Southeast Asian Nations (ASEAN), with the objective of deepening economic and social development in the region and the provision of collective security measures against external interference.

In 1998, the ten ASEAN member countries along with South Korea, Japan and China have formed a group for East Asian Vision (EAVG). In 2001, EAVG has issued a report entitled "Towards an East Asian Community: Region of Peace, prosperity and progress" The group made a number of proposals grouped into six categories: economic cooperation, financial cooperation, political and security cooperation, environmental cooperation, social and cultural cooperation and institutional cooperation. The authors report calls for the establishment of free trade area in East Asia (EAFTA) to promote development and technological cooperation between the signatory countries.

At the end of 2003, ASEAN was a historic moment. Already in an advanced stage by creating a free trade area in East Asia, countries have arranged for serious discussion regarding the prospect of creating an ASEAN economic community similar to the European Union in 2020.

In the book “The Geography of Thought” Richard Nisbett examined Asian mentality, presenting the idea that nations and Asian countries may be more suitable than European government to create a network, a transnational space and a global consciousness.

As shown Nisbett, attention to relationships makes Asians more sensitive to the feelings of others. American parents focus on objects and prepare their children to think in terms of expropriation, acquisition and ownership relations. Asian parents focus more on feelings and social relationships to help children to anticipate the reaction of other people who will have to coordinate their behavior. Because of the emphasis on harmonious relations and welfare of all, Asians are more interested in success than their private group. Thus, according to Rifkin Europe is best positioned among America's extreme individualism and extreme collectivism Asia.

To become universal European model will have to incorporate a new provision allowing individual behavior to understand how their personal behavior and choices affect the rest of the world.

The European model started to promote the cause of universal morality, but only at the experimental level.

For the European model to become global it will have to create a new story about human mission. A new meta-narrative that can unite mankind in a common journey and at the same time, can allow each person and each group to follow own way.

Europeans have drawn a visionary journey to a new promised land dedicated to reaffirm the indivisibility of life instinct and the Earth. Europeans have a model, want to live in a world where everyone is included and no one is left behind. They will also be integrated global without losing the sense of local identity and culture.

Europeans struggle for universal human rights and those of nature and are willing to obey the constraint rules for this purpose. They want to live in a world of peace and harmony and the majority supports a foreign policy and environmental policy to promote this goal.

Turbulent times we live European model make a beacon in a troubled world. This practical beacon calling us to a new era of inclusion, diversity, quality of life, universal human rights, rights of nature and peace on Earth.

Globalization has brought with it changes in the entire world economy and represents a promise for the future. The European Union is seen by many analysts as one of the most advanced forms of international integration and regionalization

of the world economy and consequently globalization. Globalization can be very advantageous for countries that have high economic competitiveness, that have advanced technology and efficient workforce brings greater labor productivity. In conclusion it may be added that all these things are there main source of capital. The sustainability of the model is closely related to the way in which moral rules are transmitted from generation to generation and to the way it spreads universally, especially through education (Rogojanu and Badea, 2011).

The result is the globalization of post-communist transition function only if democracy and social welfare will become universal values.

For our country, approximation of globalization comes first as an opportunity, which brings a gain of modernity. Vision specific European model of globalization encompasses our country and in this case there is a learning model values, knowledge is disseminated and internalized at the individual level of action and decision.

In the West, modernization has been accompanied by industrialization, but this process only nationally was triggered, and the effects were never full, and this is best shown in socio-occupational structure of the population still has some the pre-industrial economy. Modernity in our country but only recorded deficits of modernity.

For our country, the acceleration of globalization brings technology transfer and facilitating the capital injection time can lead to poverty reduction.

4. Conclusions

For European model to become universal it must incorporate a new standard of behavior that allows the individual to thoroughly understand how their personal behavior and choices propagate and affect the world. Universal human rights will be imposed only if morality and personal ethics are also universalized.

And for the European model to become global model , you need to create a new "story" about human mission – a new "meta-narrative" that can travel some humanity in a common and may enable every person and every group to follow own way.

The U.S. is caught largely in death instinct. They seek autonomy at all costs consuming, they satisfy any appetite and make waste "wasting wealth Earth". Place a high value on unlimited growth, reward the strong and marginalize the vulnerable. They are concerned about protecting their own interests, creating the most powerful military machine in history. They consider themselves a chosen

people entitled to a greater share of the wealth of Earth. Americans consume over a third of global energy and vast quantities of other resources, despite representing less than 5% of the world population.

Instead, Europeans wants to be globally integrated without losing the sense of cultural and local identity. They find their freedom in relationships, not autonomy and seek to live a quality life, which means to live in a sustainable relationship with the Earth to protect the interests of future generations.

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Evolutions and prospects in Romania's economy

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Abstract. *As an EU member, Romania is firmly anchored in the global economy, making it sensitive to its developments, but also to its regression. The current period is still quite cloudy; Romania is still subject to major risks. As a result of deepening economic and financial crisis macroeconomic indicators have not had the sustained positive development.*
Romania's GDP in 2009 declined from 7.3% to -7.1%, in 2010 the decrease was about 1.2%, as in 2011 and 2012 to record slightly positive developments of 2.5% and 0.3%. For 2013 it is expected an increase of 2% for Romania's GDP, while global economic growth is still quite slow.
Since 2010 inflation rate is decreasing, going from 6.09% to 3.33% in 2012 and by the end of 2013 it should be around 3.4% according to the Economist Intelligence Unit. In 2010 the unemployment rate in Romania was at 7.3% reaching to 7% in 2012.
We will try in this article to make a brief analysis of the current situation of Romania, but also to see what its prospects for development are.

Keywords: growth, inflation, unemployment, external debt, balance of payments.

JEL Classification: E24, F43, O4.
REL Classification: 8E, 8F, 8G.

1. Introduction

Romania joined the European Union since January 1st 2007. EU economies that make up the Union are strong connected, and that made the financial crisis started in late 2007 in the US to spread rapidly among them. As the crisis was amplifying, economies of all Member States faced with various difficulties both in the real economy and the banking system; but the crisis depended largely on the level of development of countries and their vulnerabilities.

Being a financial crisis in the first instance, the current international crisis broke in the real economy by affecting the basic structure of economic activity. The transition from nominal to real was made through banking channel. Decreased liquidity in the banking system lowers economic activity which will lead in turn to a decrease in demand for domestic non-bank loans which might reduce the supply of domestic non-bank loans. On the other hand, the banking system will try to compensate the lack of liquidity by encouraging attracting bank deposits on term, which will increase the cost of domestic bank loans. This vicious circle will be out only by reducing the interest rate that is by taking by the banking system of a part of the cost recovery growth (1).

Besides the contagion caused by external markets, Romania has been affected by an internal crisis, caused by a large external debt, a huge deficit of the current account and, last but not least, by delays in the implementation of any effective anti-crisis measures on short term with an immediate effect on the economy.

2. Romania's Macroeconomic Situation

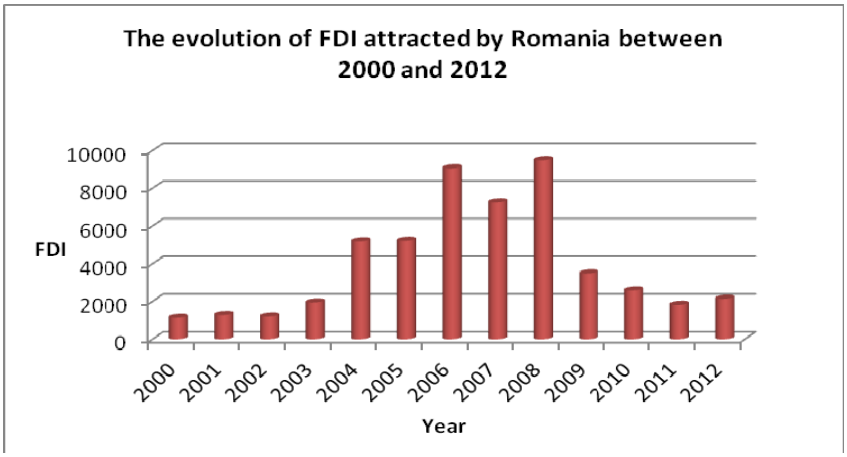
The crisis had a negative impact on the purchasing power of the population due to the depreciation of the domestic currency from 3.5 to 4.2 lei in a few months.

Another area affected by the crisis is that foreign direct investment, which reached from the level of 9496 million euro in 2008 to 2138 million on 2012.

Table 1. *The evolution of FDI and FDI stock in Romania period 2000-2012*

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
FDI	1147	1294	1212	1946	5183	5213	9059	7250	9496	3488	2596	1815	2138

Source: Annual Reports of the NBR.



For the first eight months of 2013 the situation is worse in comparison with the same period in 2012. Thus, the central bank reported a total of 1118 billion foreign direct investments, of which 339 million euro intercompany loans and 779 million as equity.

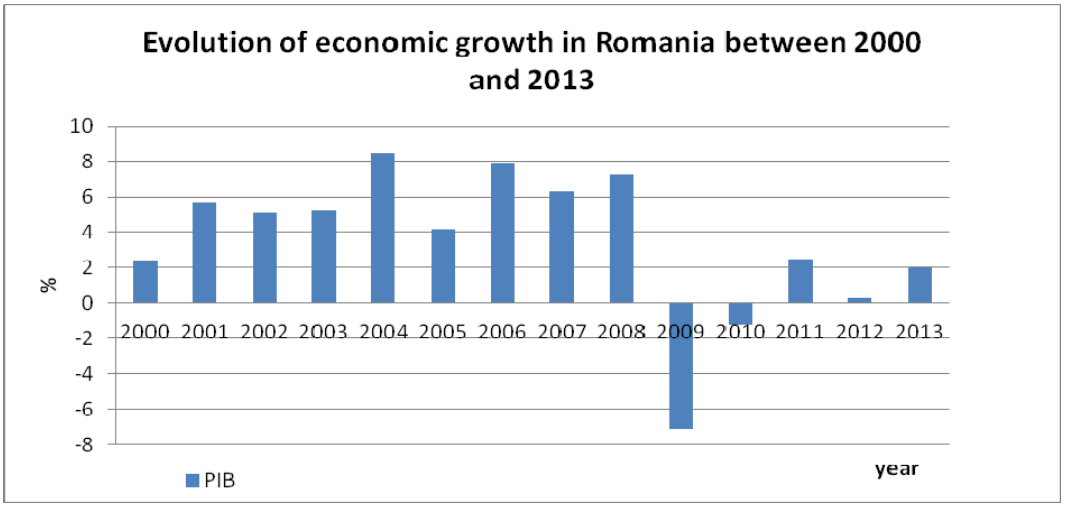
After three years of recession Romania has entered a period of growth, 2000 being the longest period of growth in Romania. However, until now, we have not seen a period of sustained growth to ensure the economic development that we need. Until the crisis Romania went through a period of economic growth, accounting for nearly 8% in 2006, but at the same time accumulating a huge external deficit of over 15% of GDP (in 2008).

Table 2. *Evolution of growth rates in Romania for the period 2000 - 2012*

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
GDP	2.4	5.7	5.1	5.2	8.5	4.2	7.9	6.3	7.3	-7.1	-1.2	2.5	0.3

Source: personal working after NBR reports.

The crisis was felt in Romania later than in other countries; in 2008 we had an increase of 7.3%. Only in 2009 Romania entered the recession, falling by 7.1%. The huge loan of 19.95 billion euro contracted by Romania in the spring of 2009 from the IMF, European Commission, the World Bank and the International Bank for Reconstruction and Development has helped to avoid falling back and to maintain closer to the flotation line in 2010. Romania's economy recovered slightly in 2011 due to a good agricultural year. For 2013 it was projected an increase of 2%, far below the level from 2008.



Financial stability is very important in price stability. However, the low level of inflation does not guarantee long-term financial stability. As can be seen from the table below, Romania recorded during 2000-2007 an average annual rate of deflation of 5.8 percentage points. However, Romania has had delays in disinflation.

Table 3. *Evolution of inflation rate in Romania for the period 2000-2012*

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Infl.	45.7	34.5	22.5	15.3	11.9	9	6.56	4.84	7.85	5.59	6.09	5.79	3.33	2.5*

* Partial data.

Source: www.insse.ro

Regarding the current period we are going through, we can observe that the inflation in Romania has decreased in the last three years. But even so remains one of the highest rates among EU countries. In terms of 2013, according to the latest report from the central bank (at November 2013) inflation in Romania stood at around 2.5%. On the other hand, the IMF estimates an inflation of 3.3% in 2013 for Romania, inflation that will continue to decline in 2014 until 3% and in 2015 until 2.9%.

Table 4. *Evolution of unemployment rate in Romania for the period 2000-2012*

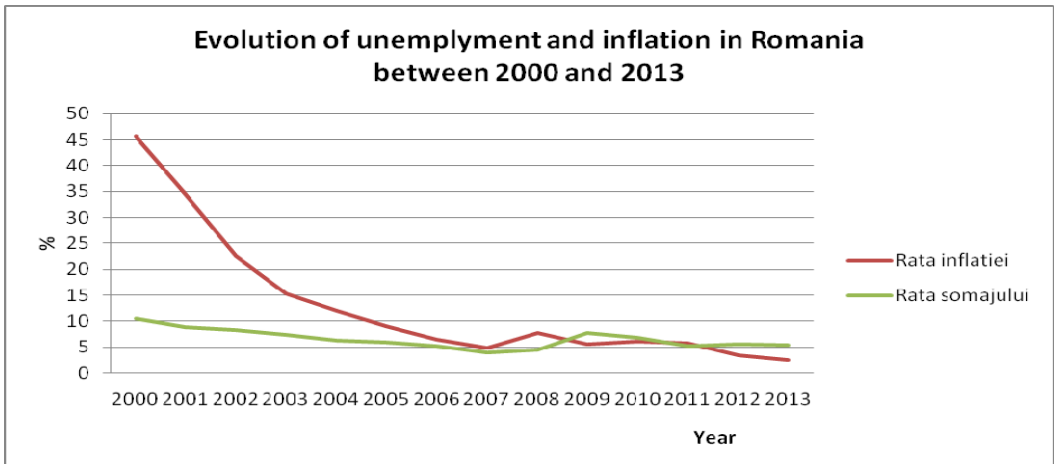
Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Unempl *	10.5	8.8	8.4	7.4	6.3	5.9	5.2	4	4.4	7.8	6.87	5.12	5.59

*The unemployment rate at the end of the year.

Source: www.insse.ro

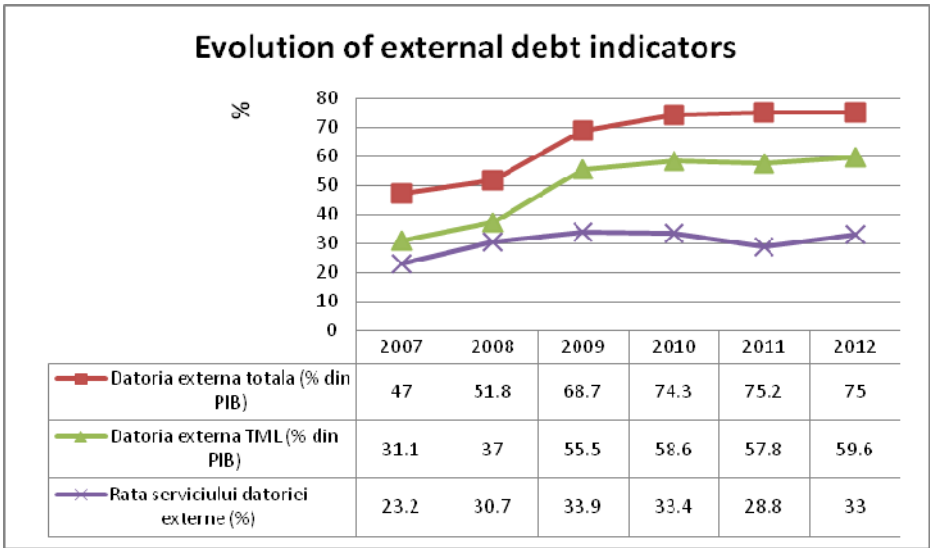
Unemployment is an imbalance in the labor market at national level, with causes both on microeconomic and macroeconomic level. Unemployment is one of the macroeconomic indicators reflected more directly in people's lives, compared to GDP, exchange rate or inflation. For 2013 the last time the NEA estimate unemployment at the end of October was 5.40%.

The rise in unemployment in Romania has been determined, on the one hand, by the demand for goods and services due to lower purchasing power of the population, and by the reduced domestic production in favor of (cheaper) products from import, on the other hand.



After 2005 Romania has returned to moderate growth accompanied by an annual inflation expressed by one figure and a falling unemployment rate, even though this is due, in large part, to the migration of Romanians abroad. According to statistics, more than a quarter of immigrants have higher education, which makes the negative effects of migration of Romanians abroad to be two: on the one hand the state loses the money he invested in the education of an immigrant and on the other hand he loses "a brain " that can make a significant contribution to the economic development of society. And labor migration may influence differently the quality of human capital in the country of origin and country of destination.

Another macroeconomic indicator affected by crisis is external debt. Romania's total external debt increased slightly in the last year to 101 billion euro (71% of estimated GDP for 2013), due to higher state external debt in the medium and long term.



Current account of payments balance recorded during January - September 2013 a deficit of 595 million euro from 4.8 billion euro in the same period a year earlier.

Table 5. *Current account of payments balance*

	January - September 2012*			January - September 2013p		
	CREDIT	DEBIT	NET	CREDIT	DEBIT	NET
CURRENT ACCOUNT (A+B+C)	44 883	49 683	-4 800	49 506	50 101	-595
A. Goods and servicies	39 482	44 387	-4 905	43 994	44 350	-356
a. Goods (export fob - import fob)	33 521	39 060	-5 539	36 480	38 962	-2 482
b. Servicies	5 961	5 327	634	7 514	5 388	2 126
- transportation	1 819	981	838	2 630	947	1 683
- turism - traveling	852	1 072	-220	923	1 143	-220
- other servicies	3 290	3 274	16	3 961	3 298	663
B. Income	1 050	3 500	-2 450	911	3 633	-2 722
C. Current Transfers	4 351	1 796	2 555	4 601	2 118	2 483

* provisional.

Source: http://www.bnro.ro

3. Challenges for Romania

The European Commission has assumed for the next period of time a strategy called "2020" which has three interlinked priorities:

- Increase should be based on knowledge and innovation. Innovative solutions are important to end the crisis because they stimulate competitiveness and employment growth.

- Increasing foster social inclusion by promoting an economy with a high rate of employment.
- Economic growth transforms the economy into a sustainable and competitive one. In a world with high prices for energy and resources, the EU should promote an increased competitiveness and productivity through a reduced but more efficient level of consumption of non-renewable energy resources.

The priorities proposed by Europe 2020 agenda for the EU are:
- Stabilizing employment rate of the population aged between 20 and 64 to 75%.
- Investments in R & D to reach 3% of EU GDP.
- Objectives "20/20/20" climate / energy targets should be met (including an emission reduction increased to 30% if the conditions permit this).
- The rate of early school leavers should be under 10% and at least 40% of the younger generation should have a tertiary degree.
- The number of people at risk of poverty should be reduced by 20 million.

Romania is still far from achieving these goals:
- Employment rate in Romania was still low in 2012, by 63.8%.
- Poverty reduction continues to be a challenge for Romania, in 2011 40.3% of the population being at risk of poverty and social exclusion - almost two-thirds more than the EU average of 24.2%.
- Romania does not have a system of education and training comparable to the EU. Early school leaving is at a level of 17.3%, higher than the EU average of 13.5%.
- Weak business environment and insufficient support of research and development accompanied by heavy funding of SMEs is another challenge for Romania.
- Economic competitiveness and productivity in industry and services remains low.
- The health sector is characterized by significant inequalities in terms of access to services and quality.

Conclusions

Romania has been less affected by the crisis than other countries due to its lower exposure to foreign toxic assets.

Romania still benefits from cheap and well qualified labor force in relation to other East-European countries, which may encourage investors either foreign or domestic. In the same time, Romania has to apply the principles of sustainable development by adopting a (more) rational use of resources to achieve a balance between economic growth and development and the natural environment.

In order to catch up with EU countries, Romania should enter on an upward trend based on performance and competitiveness in all economic sectors.

Note

(1) Ideas presented in the article „*Financial and economic crisis in Romania: vulnerabilities and opportunities for economic recovery"*, author Mihaela Daniela Niculescu, presented at The International Conference „Economics and business administration – economic of sustainable development. Economic forecast: the return of growth" organized by Ecological University from Bucharest, between 4 and 5 April 2013.

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Choosing the career path – An unemployment enhancer factor

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Abstract. *This paper aims to analyze the relationship between pre-university graduates, the employment rate for the age group of 15 to 19 year olds and the unemployment rate for the same age group. The analyzed period is 1997-2011. The data used is provided by the National Institute of Statistics. The share of university graduates in the pre-school population will be calculated and the existing links identified. The analysis of data shows that during the period under review the share of graduates fluctuates, dropping at the end of the period under review, as does the occupancy, accompanied by rising unemployment.*

Keywords: graduates, school population, employment rate, unemployment rate.

JEL Classification: A23, I21, J62.
REL Classification: 12G, 12I.

Introduction

This paper analyzes the macroeconomic imbalance that directly affects a part of the country population, including young people, namely unemployment, and the links between it and the professional route. It analyzes data on school population, number of graduates, the employment rate of young people and the unemployment rate in the age group of 15 to 19 year olds. It will draw graphs and indicate the links between these indicators.

"Unemployment is undesirable because it distorts the lives of people and is associated with an irreplaceable loss of real output." (Lipsey and Chrystal, 1999). This imbalance is a major topic of economic policy since the mid-1970s, affecting all walks of life. "Unemployment is an economic inactivity, full or partial, of those who do not have their own job, are looking for a new job, cannot find work as employees, have the status of employees but are employed only part time, with the corresponding decrease of wages" (Dictionary of Economics, 1999). JM Keynes addressed these issues of economic policy in his "General Theory of Employment, Interest and Money". From the perspective of the economist JM Keynes, unemployment occurs because of an oversupply of goods, that is why public intervention has to assist in the recovery of global demand, so that output and employment would increase. From his point of view, involuntary unemployment is the result of reduced demand for goods and services. The amount of work required by companies at balance does not allow for the employment of all the people who would agree to work at the market wage. Thus emerges a new concept of unemployment – ***involuntary unemployment***. Savings can be allowed to correct the demand, except that they operate slowly. A full employment of labor is possible by increasing the costs of investment and not those of consumption. Allowing economies to correct labor demand, makes unemployment inevitable and that is why JM Keynes suggested government intervention through three policies: monetary policy, fiscal policy and public investment. The government policies aimed at increasing the demand can reduce unemployment quickly. This imbalance is fed through the following channels: the demographic channel, which implies growing the number of people that reached the legal age for employment, so they increase the labor supply compared to existing demand; the education channel by which young generations acquire skills that do not always match the workforce demand on existing labor market, and the channel of the workforce released in the economy, due to the change in the structure of demand for goods and services. If we analyze the situation in Romania, we find that this imbalance – at least for the age group of 15 to 19 year olds – is being particularly fueled by the educational channel. This can be explained either by the educational supply and the demand mismatch in the labor market, or by the choosing of the wrong career path for young people. The

professional route involves identifying and choosing the steps to be followed over time. They are accompanied by training. "Training is a complex and lengthy process and is carried to every individual in its qualification for a profession in the wide range of professions in society" (Popescu, 2004). Training often does not meet the labor market needs. This is possible due to the fact that some students, up to the age they are admitted to high school, have not decided what field to choose or because the educational offer does not provide them with other choices.

Methodology

Since 1990, Romania has gone through a series of events that resulted in different levels of unemployment and different ways of organizing the education system. This has undergone over time numerous reforms that have brought changes in the organizational structure and the curricular level. The data used is the one provided by the National Institute of Statistics, AMIGO survey is the source of data for calculating the unemployment rate for the age group of 15 to 19 year olds (according to the International Labor Office – ILO), for the high school population, the number of graduates of the pre-university school and for the employment rates. The weights of high school graduates in the population of the pre-university educational system will be calculated and we draw graphs to reflect changes in these indicators and the correlation between them.

Table 1. *School population of high school education (number of persons)*

Years	Total	Male	Female
1997	765903	344968	420935
1998	718017	322533	395484
1999	694376	313147	381229
2000	687919	310983	376936
2001	710663	322177	388486
2002	740404	334147	406257
2003	758917	345004	413913
2004	773843	351822	422021
2005	767439	354634	412805
2006	780925	370577	410348
2007	791348	382158	409190
2008	784361	380190	404171
2009	837728	418249	419479
2010	866543	441438	425105
2011	888768	456167	432601

Source: National Institute of Statistics.

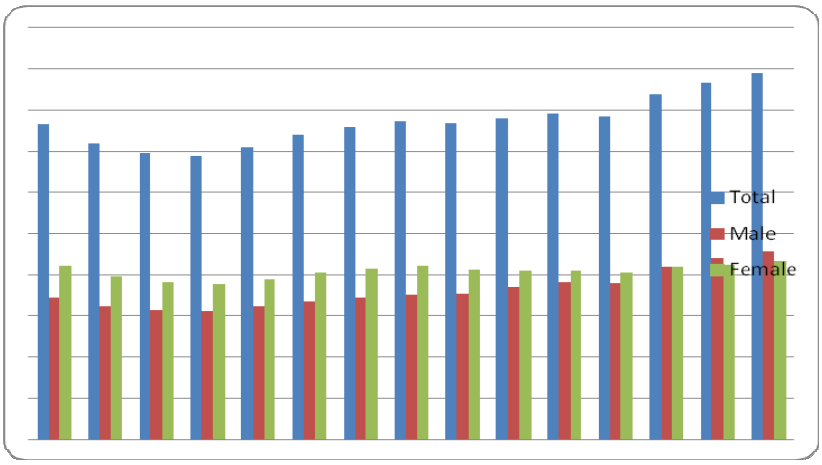

Figure 1. *Evolution of school population of high school education*

Table 2. *Number of graduates of pre-university education (number of persons)*

Years	Total	Urban	Rural
1997	527812	417210	110602
1998	571739	444440	127299
1999	567249	437564	129685
2000	574939	430950	143989
2001	554922	407015	147907
2002	589766	437232	152534
2003	569546	420295	149251
2004	614160	462330	151830
2005	583183	447490	135693
2006	553572	422907	130665
2007	552073	428036	124037
2008	524606	402680	121926
2009	512881	392629	120252
2010	487813	359138	128675
2011	400076	300315	99761

Source: National Institute of Statistics.

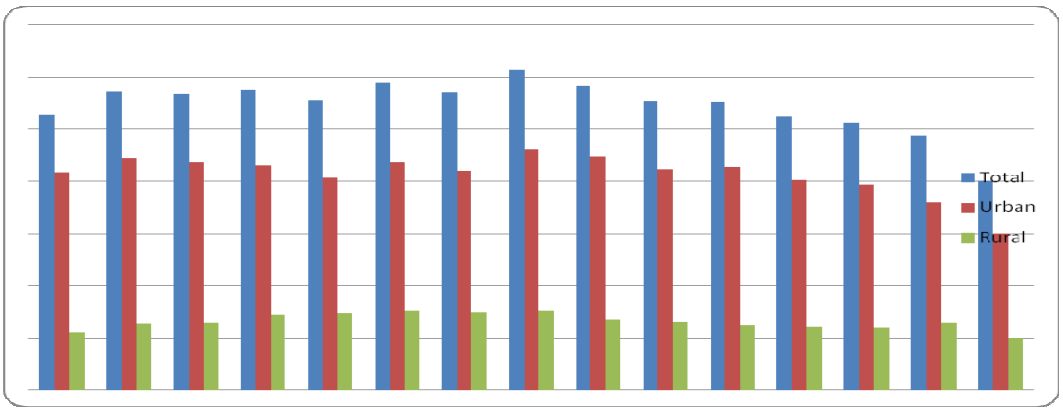

Figure 2. *Number of graduates of pre-university education*

Table 3. *Employment rate, 15-19 age group (%)*

Years	Total	Male	Female
1997	21,2	24,5	17,8
1998	19,9	23,3	16,3
1999	18,3	21,7	14,7
2000	18,2	21,2	15,1
2001	17,6	19,6	15,4
2002	14,6	16,8	12,3
2003	11,8	15	8,6
2004	13,3	16,5	10
2005	11,3	14	8,6
2006	10,8	13,4	8
2007	10	13	6,8
2008	9,2	12	6,3
2009	9,1	11,2	6,9
2010	8,4	10,2	6,5
2011	8	8,9	7,2

Source: National Institute of Statistics.

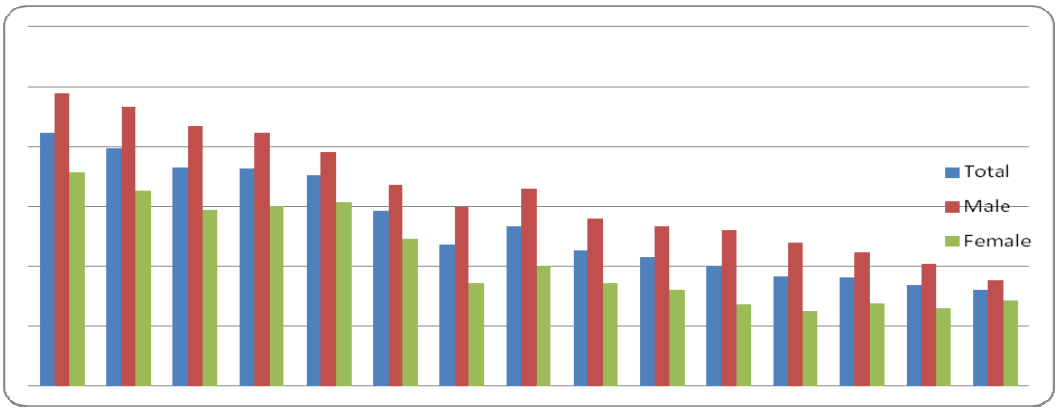

Figure 3. *Employment rate trend for the age group 15-19 years*

Table 4. *Evolution of unemployment rate for the age group 15-19 years*

Years	Unemployment rate 15-19 years (%)
1997	24,7
1998	24,0
1999	24,5
2000	23,0
2001	20,8
2002	27,4
2003	25,1
2004	28,8
2005	24,9
2006	24,8
2007	27,3
2008	29,6
2009	32,7
2010	27,0
2011	30,0

Source: National Institute of Statistics.

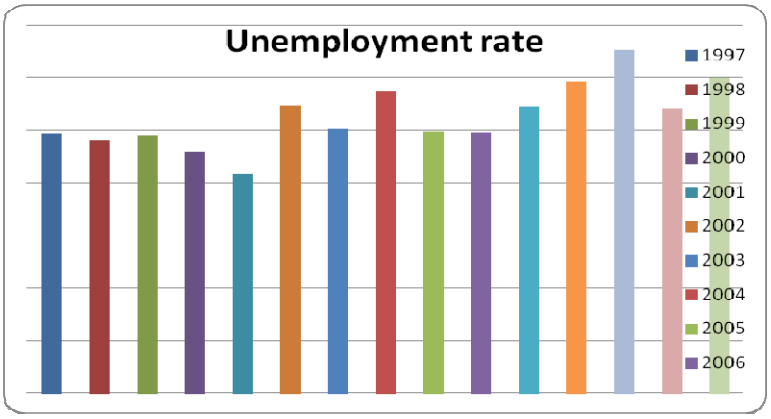

Figure 4. *Unemployment rate for the age group 15-19 years*

Results

Analyzing the data presented, the school population went through changes every year, reaching the minimum in 2000 (687.919 people), while at the end of the period (2011) it reaches 888,768 people. Changes are also present in other indicators. For instance, the number of graduates peaked in 2004 (614.160 people). According to data, the minimum level recorded is in 2011, decreasing from the peak reached in 2004 by approximately 214.084 people. Youth employment rate in the age group of 15 to 19 year olds went through changes: the highest percentage of employment for this age group was recorded in 1997 (21.2%) and the lowest in 2011 (8%). Analyzing the ILO unemployment rate for the age group of 15 to 19 year olds, there is an increase of it in 2011. In Table 4 we present the correlation coefficients between the percentage of pre-university school graduates in the total school population, the employment rate of young people in the age group of 15 to 19 year olds and the unemployment rate for the same age group. The coefficients reflect the positive relation between the share of graduates and the employment rate, but also the negative relationship between the share of graduates and unemployment.

Table 5. *The correlation between the pre-university graduates share of the total school population and the employment rate, the unemployment rate respectively for the age group 15-19 years*

Period	The correlation between the share of pre-university graduates in the total school population and employment rate for 15-19	The correlation between the share of pre-university graduates in the total school population and unemployment rate for 15-19
1997 - 2011	0,672	1. 0,613

Table 6 presents the evolution of the share of high school graduates in the total school population, the employment rate of youth and unemployment rate for the 15-19 age group, and figures 6 and 7 are the charts of these developments.

Table 6. *The evolution of high school graduates share in the total pre-university population, the employment rate and the unemployment rate, age group 15-19 years (%)*

Period	The share of pre-university school graduates in the total pre-university population	Employment rate, 15-19 age group	Unemployment rate of 15-19 age group
1997	68,91	21,2	24,7
1998	79,62	19,9	24,0
1999	81,69	18,3	24,5
2000	83,57	18,2	23,0
2001	78,08	17,6	20,8
2002	79,65	14,6	27,4
2003	75,04	11,8	25,1
2004	79,36	13,3	28,8
2005	75,99	11,3	24,9
2006	70,88	10,8	24,8
2007	69,76	10	27,3
2008	66,88	9,2	29,6
2009	61,22	9,1	32,7
2010	56,29	8,4	27,0
2011	45,01	8,0	30,0

Source: National Institute of Statistics.

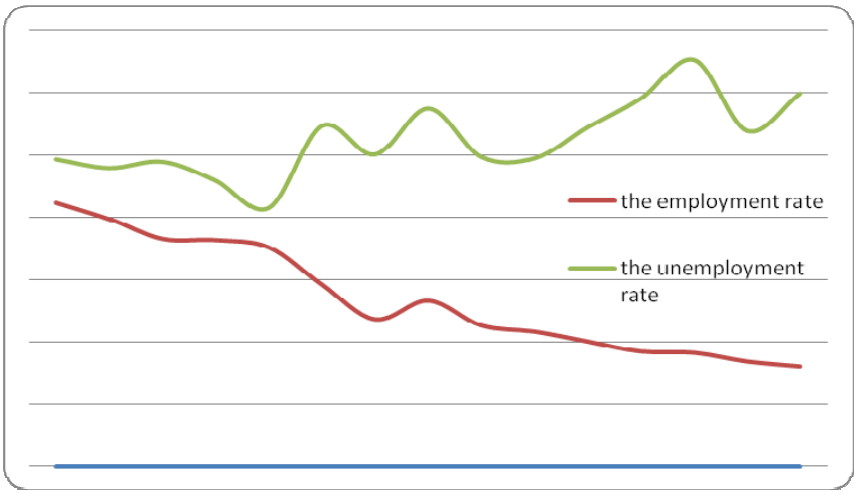

Figure 6. *Rate of employment and unemployment trends for the age group 15-19 years*

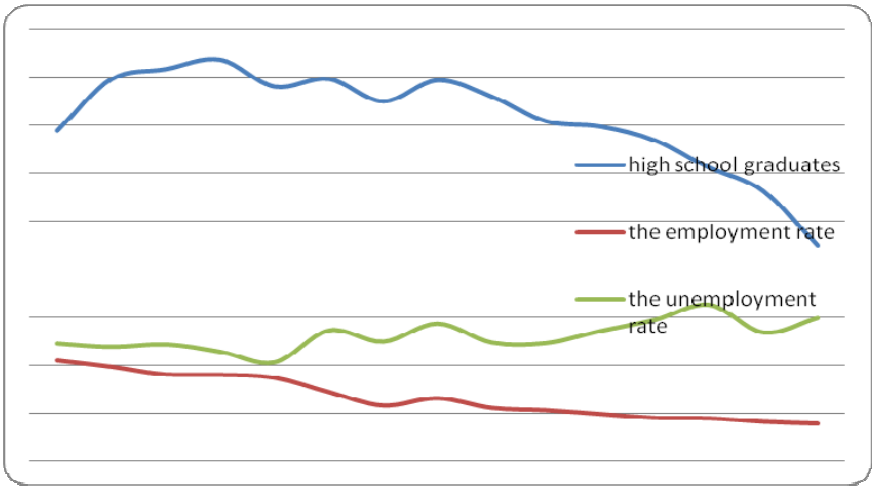

Figure 7. *The trend of high school graduates share, the employment rate and the unemployment rate for the age group 15-19 years*

Conclusions

Analyzing the correlation coefficients between the share of graduates, the young people employment rate and the unemployment rate for the age group of 15 to 19 year olds, we can find a positive correlation between the share of graduates and the employment rate and also the negative correlation between the share of graduates and unemployment. The graphs depicting the evolution of these indicators are also revealing. It is found that as the share of graduates is decreasing, the employment rate of young people is dropping, but the unemployment is rising. Also, following the modifications to occupancy, there is a decrease at the end of the period. Increasing unemployment for this age group is due to the non correlation of studies (educational offer) with the demand in the labor market, lack of internships in high schools and the poor material base in technological high schools which are supposed to provide a practical experience, as well as a lack of counseling of gymnasium graduates in choosing their career path.

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