

Limitations of principle

“Antinomic expressions such as “exiting the crisis is done through more market/more state” point to the risk of measures which follow doctrinary preferences and ideological assumptions, meaning that exiting the crisis would be achieved by inventing the causes of another crisis.”

Methodological fixation has proven to be a quite obvious intellectual disease in academia. It wreaks cognitive destruction in most areas of study, though it seems more prevalent in the social studies. The causes are obscure, at least according to the quietness in the evaluations of educational strategies. In any way, the risk that whole young generations may know only one side of looking at things is real.

Passing on knowledge ordained by a single methodological principle is an efficient perspective in a reductionist sense, for the finality of intellectual formation. The results may be notable – in an actional way; they are surely so in the short term and punctually: fundamentalist actions prove this daily.

Despite the torrent of manifestations, which seem to represent the normality of the social phenomenology, the single-voiced preference for the methodological principle is still problematic in its area of inclusion and in the durability of its effects on the real world. The problem is especially felt in the consequences wrought upon the consistency of hominization – here in the spiritual sense of the idea of man and mankind – where the all-encompassing meanings should not be affected by cognitive partisanship and by methodological feuding.

Curiously for the intellectual world, the methodological reductionism in arranging the packets of information within the education and formation process constitutes a recipe for the undermining of the principal quality of the mind: its openness to diversity, which is also the only way to formulate adequate answers to the challenges of real life.

The closing of perspectives means less solutions and reduced freedom of movement in the area of affirmation – which is naturally situated beyond the limits of survival. In juridical terms, the single-voice-ness of methodological principles in the formative and cognitive approach can be viewed as an attempted crime on the spirit, a sequestration of personal reasoning, an attack on free-will.

The ravages are even greater as the involvement in social life increases, with the parti pris of the methodologically restricted vision determining the stunted actional schemes. The most dangerous consequence to the quality of the action is the loss of the spirit of criticism, which is the essential ingredient of social innovation.

In the absence of possible alternatives for the creation of actional channels, the pre-configuration of the acts and facts of society is done within the tight confines of thematic fixations and methodological habit. Out of what should be a natural and complex existential field, the societal system turns into an artificial one, with a selective function, deficiently combining factors of emergence and negatively coagulating the cohesive forces. The theory whose principles limit the perspective of actional options projects beams of stunted meaning over reality, instituting a mechanism for the recessiveness of the functions of evolution in all fields of creation, perversely more so in the case of reason.

What is truly a conceptual trap is the ignoring of the problems arising from the actual application of a theory. In practice, the rule is to solve the problems identified in its particular way by a single theory. In reality though, many more problems crop up, caused by the implementation of the ideas of a single theory. The overly dedicated advocates of this theory vow to disregard these problems as irrelevant.

Such problems are absent when disseminating knowledge, due perhaps to a bigoted mentality. The economic crises, for instance, seem to explain themselves quite well through effects which are inadequate to various equilibriums, as a result of the patterns recommended by mainstream theory for conceiving the combination of factors. The persistence beyond limits of the state of crisis is an explicit product of the persistence of the unilateralism of approaches, which was derived from theories adopted without criticism. Doctrinary dogmatism is the source of the failure to overcome the blockages.

Antinomial expressions such as “exiting the crisis is done through more market/more state” point to the risk of measures which follow doctrinary preferences and ideological assumptions, meaning that exiting the crisis would be achieved by inventing the causes of another crisis. The alternative option does not solve the true problem, it only creates a new series of problems whose real solutions could be found in the trans-alternative approach – an approach which somewhat naturally unfolds over a horizon (a Susskindian landscape!) which encompasses the perspectives, combines the forces and unifies the fields of thought.

The trans-alternative movement does not disturb the preference for the methodological principles, allowing them space to manifest. Except that the consequence-level antinomies do not compensate within the new horizon of understanding and action. The problems of economic, social and political life draw their solutions from completely unrestricted sources, which we could call holotropic sources.

The problems of self-learning complex dynamic systems, such as societal systems, can only be understood through the prism of the absolute principle of “nature does not make leaps”. The contingent sense of this principle is that development, in all its supposed diversity of quantitative and qualitative processes, keeps interior and exterior equilibriums - within the limits of the perpetuation of life – both with regard to space and time, and causality as well. Understanding the construction of this system is, thus, impossible: it guides thought on parsimonious principles.

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Aspects regarding the analysis of inflation evolution

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Abstract. *With this work, the authors are submitting the main theories, which led to the definition of the concept of “inflation”, pointing out the successive acceptations, which the economists – starting with classics, Adam Smith’s contemporaries – have granted, over the time, to this economical phenomenon. Thus, at a first phase, the term of inflation was connected to currency, later on to money while presently it is commonly used for describing prices. This change of paradigm seems to originate in a sequence of unhappy events, probably unavoidable.*

Keywords: inflation; prices; resources; indices; effort.

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During the 19th century, the inflation was directly connected to the currency devaluation not to the price increases. According to a statement issued in 1919 by the Federal Reserve, “the inflation is a process of additional multiplication of currency, unsupported by a corresponding increase of goods production”.

After about 60 years, the quotation taken over from the Federal Reserve statement ceased being valid so that, in 1978, the term of inflation indicated as causes: the foreign exchange rate evolution, the considerable increase of the labor cost, the weather conditions but not at all the excessive increase of money.

Consequently, the inflation definition became the victim of a theoretical “war” between the increase of the monetary mass and the increase of the price general level. What was formerly described as a monetary cause is now presented as a price effect. This change of sense let the position of anti-inflation supporter become more complicated, simply because the fact that inflation based on price levels may have, as already underlined, several reasons, which make difficult the identification of the issues meant to eliminate this phenomenon. When the inflation was a money cause with a single localization, namely the central bank, there was a single solution – the decrease of the increase rate of the monetary mass.

The classic economists, Adam Smith’s contemporaries, used to be very careful when defining exactly the economical terms since they were building up a language set to the basis of an emergent science construction.

Among their first contributions, there was also the distinction between the real and nominal prices, so that the real price (value) of a product was defined as the effort implied by its production, while in nominal terms (money) it was characterized by the cost money expression (fixed in terms of gold or other precious metals). Otherwise, the value of goods is given by natural laws – the labor effort – while the nominal price differs depending on the availability of precious metals and sovereign laws, which are defining a nation currency.

Although the classic economists believed that the fluctuation of the goods nominal price may have temporarily disturbing influences on the economy (such as occurrence of a versatile redistribution of resources between the parties in a contract of fix nominal price), at the end of the day these alterations served only to change the scale by which the real price was measured. The idea that the modifications arising at the level of money quantity are affecting the

goods nominal price only has been sustained by many of the early classic economists, out of them the most well-known being David Hume.

The theory has been more rigorously developed at the beginning of the 20th century, by the economist Irving Fisher, and became known as “the money quantitative theory”.

The first generation of economists, successors of Adam Smith during the 19th century, were very interested on paper money and their way to relate to the causes of the goods costs modifications was based on three distinct sources:

- the value modification which considered the real resource of goods costs;
- the modification of the money price (nominal), basically generated by the fluctuation of the currency metal content;
- the currency devaluation, due to the quantitative modifications of the currency as regards the metal which constituted the national currency.

The term of inflation has been initially described taking into account the source referring to the currency depreciation, but by the end of the 19th century, the distinction between the currency and money became more and more unclear. So that, at the beginning of the 20th century, the economists had the tendency to relate to the term of currency inflation using any surroundings of money circulation connected to a commercial demand. Nevertheless, a question mark has been raised on this change as to relating to the term of inflation as well. While the currency quantity related to the precious metal mass was easily quantified, things went complicated when somebody tried to quantify the quantity in circulation exceeding the commercial demand.

During the first decades of the 20th century, the economists seem to reach a definition allowing the excess existing within the surroundings of money circulation to be explained only through its effect on the price level. Thus, the notions as currency and price inflation became connected in an incomprehensible mode.

This change of rhetoric may have an insignificant impact on the theoreticians of the quantitative economy since it seems unlikely that they can remark an important difference between the two ideas. From their point of view, the increase of the currency quantity related to the commercial demand can have one single effect only – price increase, while the increase of the price levels can have a single origin – an increase of the currency quantity corresponding to their demand.

Nevertheless, a number of economists tried to maintain the distinction between an increase of the price levels based on the additional “printing” of currency corresponding to the commercial exchanges and an increase resulting from the diminishing of the commercial exchanges for a requested demand of money.

The connection between the inflation and the price level proved to be another significant crucial point for the humanity. The setting up of Keynes’s General Theory in 1936 has been considered as the very moment of the quantitative theory assault on the monetary theory, which dominated the macro-economy for a 40 years period of time.

Appealing to the conviction that the non-committed resources on a regular and persistent basis – an idea supported by the time of the Great Depression at a worldwide level – the Keynesian theory rejected the necessity of the connection between the quantity of money and the general level of price. Moreover, it sustained that the overall evolution of prices may be due to other causes than money.

Besides the separation of the price level from the monetary mass, the Keynesian revolution seems to separate the term of inflation from the money situation and to redefine it as a price description. In this way the inflation became synonym to any increase of price so that now-a-days there are very few situations showing a distinction between the price increase and inflation.

Referring to the inflation because of too many money, the economists have been forced to fight the operational issue; “how much is much?” The quantitative theory offered a clear answer to this question: “to much money” represents an increase of the monetary mass accompanied by an increase of the general level of price. When the Keynesian economic theory disputed the direct connection between money and price level, the inflation lost the association with money remaining, first of all, associated with the price situation.

Without being connected with the money offer, any increase of prices may be asserted by the term of inflation. In this respect, whenever this term is used for describing the level of prices, the anti-inflationist steps might be characterized as being against any increase of price whatsoever, including also the wage increases. According to the monetarists, this is unconceivable but an anti-inflationist strategy is concerned with a specific type of price increase – that particular increase resulting from an excessive issuing of currency. From this point of view, the forecasted target of a sustainable level of inflation became a more rational aim for the central banks.

The period of the great inflation of the years 1970-1980 has been considered, along with the Great Depression of the years 1929-1932, the biggest and most critical failure of the monetarist policies of the 19th century. During the respective period, the inflation exceeded the level of 10% for all the countries member of OECD, a notable exception being Germany.

Although the economic history was permanently confronted with periods of inflation and even hyperinflation, the economists consider the Great Inflation as a unique episode. If compared with the period of the Great Inflation, the other periods have been associated with the two world wars or other domestic events which led to major changes in one country economy and politics resulting finally in massive financings of the budgetary deficits in response of the governments needs, by monetary issues (seigniorial).

The negative consequences of the inflationist phenomenon of the years 1970-1989 had a major contribution to the changes within the perception on the inflation, from both the monetary policies makers' point of view and the individual level of the day-to-day living.

The opinion polls on the economic conditions emphasize the citizens' wishes as to living within a stable surrounding from the point of view of the price evolution. The price stability can be discussed when, as an average, the prices are neither increasing (inflation) nor decreasing (deflation) but stay stable in time.

The economic theory and literature are quite abundant in information concerning the importance and the benefices of price stability as well as the reasons at the basis of the price increases or decreases.

All the arguments submitted by the specialized literature suggest that a central bank which maintains the price stability is substantially contributing to the achievement of the economic targets concerning the economic growth and stability, the living standard and the labor occupation degree. That is why, during the decades following the Great Inflation, a remarkable convergence has been recorded as to the need to declare the price stability as main objective of the monetary policy. The price stability became the central point because, meantime, it is considered a medium term achievable objective as well as a pre-condition for the proper functioning of a market economy.

The European Union Treaty granted to the European Central Bank (ECB) the mandate of maintaining the stability at the European level, a target defined in quantitative terms as an annual average increase of the harmonized index of the consumption prices (IAPC), below 2%. The ECB Governors Council

assumed, as a master aim, to keep the inflation below but close to 2%. This target forecasts an adequate positive margin in order to avoid the deflation risk but large enough in order to settle the eventual implications generated by the differential existing between the Euro zone states so that no state can survive within the Euro zone with too low inflation rates or even deflation. Moreover, this target considering also the possibility of a slight overestimation of the real inflation measured by IAPC.

Despite this acknowledgement shown to the need for the price stability, the concept is subject of periodical debates, which lately led to a lack of consensus on what should be understood by price stability. This lack of consensus arouse between the academic environment and the central banks.

All these concerns regarding the inflation have influenced also the methodology of calculating the price indices. The Chicago University Commission, led by George Stigler, has submitted the subject of the inflation measurement errors for the first time in 1961, in the USA. The main recommendation of this Commission aimed the necessity to adopt a rigorous stochastic method as to set up the sample of shops and products but an even higher strictness as regards the setting up of the products specifications.

In December 1996, in the USA also, the Boskin Commission published its Report, whose impact is worldwide recognized by the academic world, statistical practice as well as within the range of central banks. The Boskin Commission pointed out a series of possible measurement errors as far as the consumption price index is concerned, such as: product substitution within the indices, shops change, difficulties as to an adequate measurement of the modifications of quality and the need to introduce new products. The analysis achieved by the Boskin Commission on the USA data evidenced the fact that the effect of such inadequate statistics may be a major one, leading to an overestimation of the inflation measured at the year level, with values estimated between 0.8 – 1.6 percentage points.

Besides these measurement issues, there is a general question mark concerning the covering sphere of the price indices used for the evaluating the price stability. There may be situations when a general price index is used – such as the GDP deflator – which includes the prices of all final goods and services produced within an economy and which may be considerably more relevant for investment and saving decisions.

The price index can be characterized as a factor through which the relative modification of this aggregated value is measured as a result of the price modifications is measured. Therefore, all the significant formulas of the

price indices measurement can be expressed as a weighted average of the relative prices whose weights are represented by the contribution of each product (item) within the total value. We have to remind here the most known measurement formulas for the price indices, expressed as weighted average of the relative prices: the Laspeyers index, Paasche index and Walsh, respectively Tornqvist indices. Expressed as a geometrical average of the Laspeyers and Paasche indices, the Fisher index can be also considered a function of the weights of the expenses arising from the total value.

The relations existing between the four most significant price indices are defined by their association with the centralized aggregates, as described by the National Accounts System (NAS). The National Accounts System is subject of periodical revisions, the last version being the one issued in 2008.

The resources and utilizations tables are helping the statistical and analytical objectives. They can cover the following main statistical requirements:

- identifying the gaps and incoherencies that affect the basic data;
- weighing and calculating the indices which are measuring the price and volume;
- getting the estimations in a residual way (in order to obtain a variable, one starts by estimating all the other variables, the unknown one resulting as a difference), mainly when considering the production and the final consumption of the specific products;
- checking out and improving the coherence, liability and exhaustively of the data contained by the tables of resources and utilizations as well as the secondary figures (such as, for instance, those relating to the production accounts).

The price indices have a long history and a large variety of utilization, from the adjustment of the wage level, pensions and payments included within a long-term contract, deflation of the national accounts aggregates up to macroeconomic policies making.

The more simple and earliest index example was the one proposed by William Fleetwood in 1707, who intended to measure the average modifications of the prices paid by the Oxford University students, over a two and half century period. Another example from the 18th century was the index calculated by the Massachusetts legislative body, which undertook to index the pay to the soldiers fighting the revolutionaries' war against England.

The 19th century counts for the most interesting moment in the indices theory history. In 1823, Joseph Lowe published a research concerning the agriculture, trade and financial services. In the frame of this research, the author developed the concept of price index as modification of the monetary value of a set, or classified list, of goods and services. This method is still in use nowadays. Diewert (1993) argues that Lowe can be considered as the father of the price indices. Later on, during the 19th century, other significant contributions to the indices theory have been achieved, including also those of Laspeyers (1871) and Paasche (1874), whose names are associated with the largest spread types of price indices. Marshall (1887) sustained the utilization of chain indices, where the indices measure the prices evolutions from one year to another, linked together in order to estimate the evolution of the indices over long periods.

In 1922, Irving Fisher published his work, considered as a monumental one by those concerned with the indices theory: *The Making of Index Numbers*. This work emphasized Fisher's interest on the inflation as well as his support for the money quantitative theory. Fisher investigated the properties of hundreds of types of possible formulas for measuring the price indices, off which, his favorite is the geometrical average of Laspeyers and Paasche' indices, known presently as Fisher index.

In 1924, Konüs published a work in which he submitted the foundation of the economic theory of the life cost index (COLI) that is elaborated with the purpose of measuring the cost modifications meant to maintain the same living standard (utility or welfare). In fact, the consumer is not buying the same set of products and services during different periods, adjusting his own expenses depending on the prices changes and other factors, which interfere in the economy. Counterparty for the COLI production is the goods fix cost index.

Another significant approach within the numbers theory was that of Divisia, in 1926, which is grounded on the assumption that prices and quantities can change over the time, in a continuous and instantaneous manner.

Consumption prices indices (IPC), which are the most known price indices, are measuring the goods and services price modifications from a consumer's point of view. IPC is based on the prices of those goods and services usually bought by households. In order to secure the consistency of the price indices at European level, the *Harmonized Index of Consumption Prices (IAPC)* has been drawn up, as a harmonized index of the consumption prices for all the EU countries that measures the inflation for the euro zone.

Production price indices (IPP), which measure the evolutions of the transaction prices of the producers as well as the monthly gross modifications in the trading price of the goods and services, on the domestic and international market.

Purchasing power parities (PPC) compare the prices levels between countries or regions. They are used in order to convert prices expressed in national currency into a kind of a common artificial currency, with the purpose to eliminate the differences between the levels of price among countries or regions and to calculate the present/real purchasing power of the resident population.

As an economic, monetary and social phenomenon, the inflation placed itself in the center of the researchers' attention, irrespectively the different historical periods and schools which get integrated in the Romanian monetary and financial thinking. The causes, intensity, occurrence forms but, mainly, the effects generated by the inflation cannot be identified, in their totality, with the same circumstances and expressions that this phenomenon faced within other zones and countries of the world.

We outline the inter-relations existing between the main types of price indices:

- IPC under the pressure of improvement – aspects concerning the utilization, calculation and measurement of the statistical impact on the administrated prices and tax modifications on the inflation;
- The statistical evaluation of the stage of nominal convergence of the inflation rate in Romania; proposes a model of statistical evaluation on the stage of accomplishment of the nominal convergence criteria as regards the price setting. The evaluation takes into consideration a theoretical synthesis of the Harmonized Index of the Consumption Prices, a statistical analysis concerning the inflation evolution in Romania and the existing gap as against the reference value for accomplishing the nominal criteria of convergence;
- IPC and the deflator – GDP – the main differences existing between the two types of price indices apply to the concepts and definitions, the covering sphere of the two indices and calculation formulas proposed for the two indices.

In conclusion, this work runs over the significant and relevant aspects for the statistical theory and practice of the price indices existing in the statistical system of prices. In order to understand fully and to evaluate with more

accuracy the factors that influence the prices and inflation, it is necessary to have an elaborate theoretical knowledge of the process that makes the basis of setting up the statistical system of prices.

The need of development of a coherent and consistent price system occurred by the time when the inflation phenomenon has been considered as a global one, with devastating effects on the world economy.

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A macroeconometric panel data analysis of the shaping factors of labour emigration within the European Union

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Abstract. *The research aims to identify and analyse the determinants and shaping factors of labour emigration within the European Union. The analysis is based on developing double-log macroeconometric models that combine cross-section and time series in a panel structure, by using a set of indicators specific for the emigration process, as well as for the economic activity, labour market and education, as main explanatory variables. The results show that high unemployment reduces the emigrant stock, mainly due to the loss of associated income and to the reduction of the migrants' capacity to move and establish into another country. At the same time, we identified a positive selection of emigrants at destination according to their educational level, while an increase in education in the source country downsizes the stock of emigrants mainly due to an improvement in employment perspectives.*

Keywords: international migration; labour market; unemployment; education; macroeconometric modelling.

JEL Codes: J01, J08, O15.

REL Codes: 12I, 8G.

1. Introduction – International labour migration in Europe

The technological progress has led to a downsize of geographical barriers faced by the labour force in the process of free movement, by facilitating the transmission of information concerning various job opportunities from a certain host country to various migrant sending countries.

Macroeconomic changes from the past 30 years, induced by globalisation, production rationalisation or increased sector differentiation, have shaped a different scenario for the European labour market, compared to the existing one in the 1960s and 1970s in Europe (Menz, Caviedes, 2010, p. 2). International labour migration is seen as a challenge in Europe, especially concerning the unskilled labour (Zimmermann, 2005). At the same time, human capital, especially the highly skilled labour, represents one of the main resources, developed countries facing a surplus of demand for skilled workers that can't be covered by the local labour force trained within the national education system. Thus, developing countries become extremely competitive in providing skilled labour to cover this gap. Nevertheless, unlike North America, Australia or New Zealand, Europe does not hold a certain specific place in the international labour market for tertiary educated workers.

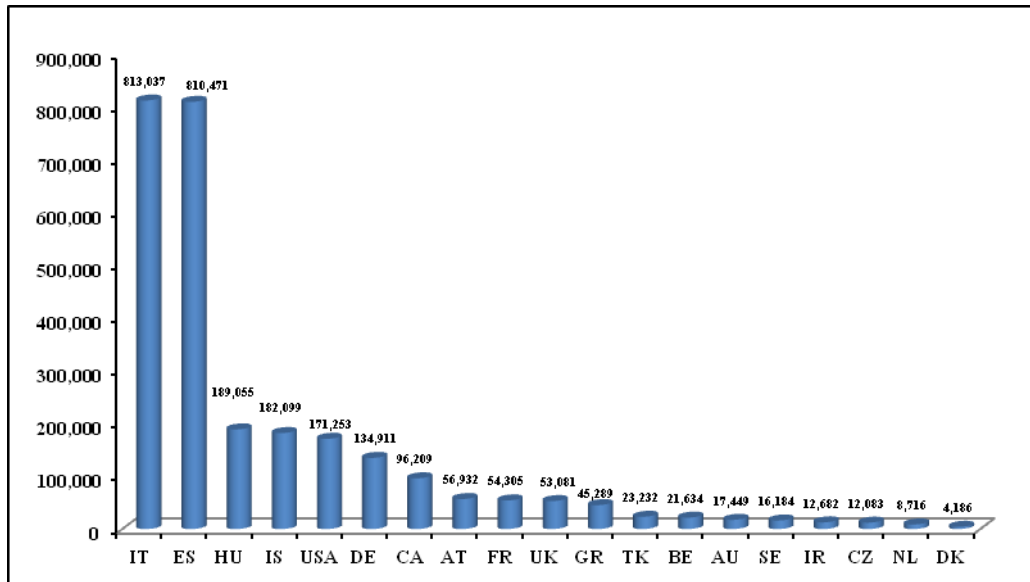
At the same time, unfavourable demographic conditions, the lack of skills, competencies, as well as the persistence of high unemployment have led to a reconsideration of restrictive international labour migration policies by the policy makers in Europe. Moreover, structural changes of the political European economy have a significant impact on international migration policies and strategies. The process of European integration generated various changes in the structure, origin and destination of the migrant flows, while the anxiety towards emigrants from Central and Eastern Europe highlighted the importance of a gradual approach of migration, focused on those issues that don't reveal controversies.

EU-15 net migration registered about 600,000 persons by year in the last five years of the twenty century, representing only half of the migrant flows registered in the US. Still, in the next five years, the amount doubled and, for the first time, the European migrant flows have become larger than those registered in the US (Menz, Caviedes, 2010, p. 129). In 2003, the net migration in Europe reached the stepping stone of 2 million people (Eurostat, 2009, p. 54). This increase in the migrant flows was accelerated by the European Union enlargements in 2004 and 2007. On average, between 2004 and 2008, net increase of immigrants in the EU-15 reached 250,000 people from the eight New Member States (NMS) in 2004, especially from Poland, and approximately 300,000 persons from the two New Member States in 2007,

mainly from Romania (Brucker et al., 2009, pp. 23-27). Thus, we can observe that the population increase from Central and Eastern Europe towards the EU-15 during the first eight years of the XXI century was robust and constant, taking into consideration that the Romanian emigrants were seven times larger in 2007 than in 2000, while the migrants from Lithuania and Slovak Republic were five times bigger than in 2000.

Overall, in 2007 the European Union (EU-27) hosted about 29.1 millions of foreign citizens, of which 10.6 million were intra-EU migrants (European Commission, 2008, p. 115). Approximately 40% of those migrants were citizens of the EU New Member States, mostly coming from Romania (1.6 million), Poland (1.3 million) and Bulgaria (310,000). These statistics point out that about 7.2% persons of the Romania's population, 4.1% of Bulgaria's population and 3.4% of Poland's population benefits from the free movement right to live in a different country than the origin one, as citizens of the European Union (Menz, Caviedes, 2010, p. 129). Emigration was also high in Lithuania and Cyprus due to the fact that more than 3% of the working age population moved from the origin country to the other EU Member States. These statistics undermine the real number of migrants, because they don't include temporarily or seasonal migration, or the migrants that frequently move from one country to another within the European Union, respectively from the origin to destination country. At the same time, these statistics don't include return migration or the persons that benefited previously from their legal rights as citizens of the European Union.

Concerning the receiving countries, about 70% of the citizens from the eight EU New Member States in 2004 (except for Malta and Cyprus), that migrated within the European Union, have established in the United Kingdom and Ireland, mainly due to their dynamic economies and to the open migration policies (Brucker et al., 2009, p. 23). On the other hand, the main destinations of the Romanian workers are represented by the South-European countries, especially Italy and Spain.



Source: performed based on World Bank Migration Database 2011.

Figure 1. *Bilateral estimations of migrant stocks for Romania, 2010*

The estimations concerning the emigration of citizens from the New Member States are being influenced by several factors, such as economic requirements (low wages, high unemployment rates, the decline of specific industrial sectors, labour market deregulation), as well as the migrants' general desire of improving life conditions and ensuring a better future for their family. The importance of motivations for improving the social or professional status varies largely among most of the workers from the New Member States that migrated in EU-15, while the economic reasons remain essential for most of them (Menz, Caviedes, 2010, p. 134).

2. Labour emigration literature review – a critical analysis

The economic approach of international migration theories highlights three guidelines for the analysis of the labour emigration/immigration, respectively the identification and assessment of the factors that shape the size and structure of migrant flows, of the way in which migrants adapt to the host country, as well as the migration impact of origin and host economies (Borjas, 1989).

The migration model represents a relationship that links international labour migration and the variables identified by the economic theory. The most

important migration models found in the literature can be grouped into two main categories: (i) models used for the analysis of the determinants and shaping factors of international migration and (ii) models which assess its impact on the labour market, as well as on the origin and host economies. The multiple regressions were mainly used in order to test different hypotheses developed starting from the fundamental international migration models and theories, based on a set of dependent variables (net migration, emigration rate, the number of immigrants) and explanatory variables (GDP growth, GDP per capita, education, wage differentials, unemployment rate, inflation rate).

The identification of the factors which generate and shape international labour migration represents one of the most debated research questions in literature, as well as among experts. Thus, there are several essential aspects required for the analysis and assessment of migration impact on sending and receiving countries referring to the determination of the size, structure, prevailing characteristics and of the way in which international migration contributes to socio-economic development (Fan, Stark, 2011).

The main migration approach in literature highlights that labour migration results from the inequalities or wage differentials between sending and receiving countries, generated by the discrepancy in the levels of socio-economic development (Goss, Lindquist, 1995). To this respect, migration is sometimes simply seen through labour movements, while the social, cultural, political and institutional dimensions of the phenomenon are subordinated to economic rationality (Schiller et al., 1992).

Fan and Yakita (2010) analysed the effects generated by an increase in wages for highly skilled workers on the decisions adopted by individuals within the origin country concerning emigration and education, respectively on the labour market equilibrium. The main results denote that an increase in wages in the home country encourages highly skilled labour emigration, generating major (negative) inferences on economic growth for developing sending countries (brain drain) (Miyagiwa, 1991), as well as positive effects on productivity and equality within the origin country (brain gain) (Mountford, 1997, Stark et al., 1997, Beine et al., 2008).

Recent studies on the determinants of labour emigration (Clemens, 2011, Kim, Cohen, 2010, Hoti, 2009) reveal the importance of demographic, geographic and social variables in the analysis of emigration rates, respectively of the predilection to emigration. Thus, Kim and Cohen (2010) quantified the determinants of migrant flows towards 17 industrialised countries from 13 countries during 1950-2007, using 77,658 observations from multiple sources in a panel data analysis. The variables were transformed by using their logarithm in order to build a quantitative model suitable for demographic

forecasts, the dependent variable being represented by the number of migrants, while the explanatory variables describe the population of both origin and host countries, population density, infant mortality rate and life expectancy, as well as the distance between capitals. The results point out the fact that social and historic determinants have a small influence on migrant flows, unlike the demographic and geographic factors, that have a major impact on shaping these flows.

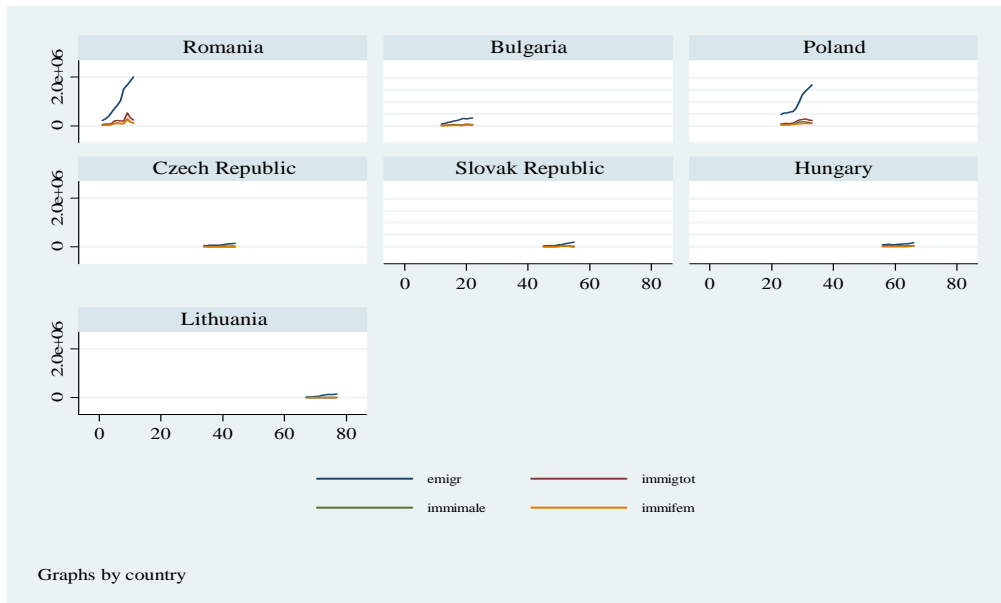
Taking into consideration all these aspects, the main objective of the performed research is described by the macroeconometric analysis of the shaping factors of labour emigration within the main sending countries from Central and Eastern Europe, members of the European Union. In order to accomplish this objective, the research is based on developing macroeconometric models that highlight, through the explanatory variables used within the analysis, the main determinants and shaping factors of labour emigration within a panel of seven countries from Central and Eastern Europe.

3. Methodology and developed models: equations, specifications, hypotheses and testing

Labour emigration from the New Member States of the European Union in Central and Eastern Europe towards the South-West Europe was emphasised by the enlargements in 2004 and 2007, free movement of persons, respectively of workers, being one of the four freedoms granted by the European Union through its essential treaties.

In order to analyse the determinants and shaping factors of labour emigration from the New Member States of the European Union we developed and tested specific models, using panel data during 2000-2010 for a group of seven Central-European countries, members of the European Union since 2004 (Poland, Czech Republic, Hungary, Slovak Republic and Lithuania) and 2007 (Romania and Bulgaria).

The main reasons for choosing the seven specific emigration countries from Central and Eastern Europe consist of significant evolutions of the process during the last decade, studies such as the one performed by Brucker et al. (2009) pointing out that by the end of 2007 the data on international migration captured from the host countries statistics reveal a stock of 3.8 million emigrants from the New Member States of the European Union that live in EU-15. The main sending countries are Romania (1.6 millions) and Poland (1.3 millions).



Source: performed based on panel data through Stata 11 econometric package.

Figure 2. Panel trends in the stock of emigrants and the flow of immigrants by citizenship, 2000-2010

The ratio of emigrants in the total population of sending countries varies largely accordingly to the level of income per capita: while emigration rates are relatively low in Czech Republic (1.0%), Hungary (1.3%) and Slovenia (1.8%), these are very high in the case of Romania (7.2%), Bulgaria (4.1%), Lithuania (3.8%) and Poland (3.4%). Thus, in order to analyse the determinants and shaping factors (*push factors*) of the emigration process for the seven origin countries from Central and Eastern Countries, we developed an econometric model based on panel data, which combines cross-sections with time-series, through a set of specific indicators. The emigration data are taken from a relatively new and complex set of indicators developed by Brucker et al. (2009), while for the other indicators regarding the economic activity and the labour market we used data series from Eurostat and the World Bank.

The model is developed as a multiple regression model, respectively a *double-log* and a *semi-log* regression model. At the same time, we used a *dynamic model* based on time lags of the dependent variable, focusing on *random* and *fixed effects* within the panel.

We performed a complex set of tests in order to verify the statistical significance of the coefficients and to validate the hypotheses of the model, thus: the differentiation of the coefficients estimated through both types of

models with random and fixed effects was performed by implementing the *Hausman* test; the hypothesis of no serial correlation of the residuals was performed through the *Wooldridge – Lagrangian Multiplier* test; the homoscedasticity hypothesis was validated through *Breusch-Pagan Lagrangian Multiplier* test for random effects models, respectively through the modified *Wald* test for group-wise heteroscedasticity in the fixed effects models; the assumption of no multicollinearity was tested with the help of the explanatory variables *correlation matrix* and by performing the auxiliary regressions, while the validation of individual and jointly influence of exogenous variables on the dependent variable was accomplished through *Wald, Fisher* and *t-statistic* testes, as well as through the analysis of variance (ANOVA).

The model and associated data were processed with the Stata 11 econometric package, using variables with panel data for the seven emigration countries and a time dummy variable (from 1 to 77) for the 2000-2010 period. In order to estimate the parameters of the random effects model we used the GLS method (*GLS - Generalized Least Squares*).

The main objective of the empirical regression analysis is to explain as much as possible from the variation of the dependent variable (a specific emigration indicator) through the variation of the explanatory variables used within associated models.

General form of the model

The model developed for the analysis of the determinants and shaping factors of labour emigration follows the research of Agbola and Acupan (2010) and has the general form of a multiple regression model with panel data. Thus, for panel data, the general linear representation of the model is described as follows (Baum, 2001, p. 219):

$$\begin{aligned}
 y_{it} &= \sum_{k=1}^k x_{kit} \times \beta_{kit} + \varepsilon_{it} \\
 i &= 1, \dots, N \\
 t &= 1, \dots, T
 \end{aligned}
 \tag{1}$$

where: N represents the number of panel units (countries), while T signifies the number of periods (time).

The general form of the developed model comprises several explanatory variables used within the analysis of the migration process for considered panel countries:

$$Y_{it} = \beta_1 \times X_{1it} + \beta_2 \times X_{2it} + \beta_3 \times X_{3it} + \dots + \beta_k \times X_{kit} + \varepsilon_{it}, i = 1, \dots, n
 \tag{2}$$

The proposed model uses the logarithm of the variables in order to capture a precise estimation of parameters, respectively of the influence of different variables on the emigration process, thus taking the general form of a *double-log model*, with the following configuration:

$$\begin{aligned} \log(Y_{it}) = & \beta_1 \log(X_{1it}) + \beta_2 \log(X_{2it}) + \beta_3 \log(X_{3it}) + \dots \\ & + \beta_k \log(X_{kit}) + \varepsilon_{it}, i = 1, \dots, n \end{aligned} \quad (3)$$

The model's general equation can be rewritten under the following form:

$$\begin{aligned} \log(EM_{it}) = & \beta_0 + \beta_1 \log(IRdef_{it}) + \beta_2 \log(UR_{it}) + \beta_3 \log(GDP_{it}) + \beta_4 \log(PD_{it}) + \\ & \beta_5 \log(LE_{it}) + \beta_6 \log(IMR_{it}) + \beta_7 \log(INEQ_{it}) + \beta_8 \log(EDUC_{it}) + \\ & \beta_9 \log(TERTed_{it}) + \beta_{10} \log(WGs_{it}) + \varepsilon_t \end{aligned} \quad (4)$$

where:

- EM = emigrant stock;
- $IRdef$ = inflation rate, GDP deflator;
- UR = unemployment rate;
- GDP = gross domestic product per capita;
- PD = population density;
- LE = life expectancy at birth;
- IMR = infant mortality rate;
- $INEQ$ = inequality – Gini coefficient;
- $EDUC$ = persons with upper-secondary and tertiary education;
- $TERTed$ = female to male tertiary education ratio;
- WGs = monthly minimum wage.

The developed model comprises, through its explanatory variables and accordingly to the literature, the determinants and shaping factors of the emigration process. Thus, within our empirical analysis, we focus on the sending country specific elements, by assessing the *push factors*, and to a smaller extent on the *pull factors*, as characteristics of the host countries. Nevertheless, our performed analyses take into consideration the particularities and characteristics of the economic activity, economic growth and the level of economic development and macroeconomic stability for considered panel origin countries, as well as the demographic aspects (population density) and labour market elements (unemployment, working conditions, wages), respectively the educational background. Thus, the explanatory variables include inflation rate and unemployment rate within the perspective of migration costs and macroeconomic stability, as well as demographic and socio-development indicators describing population health and overall life quality along with the wages, inequality and the educational level.

4. Results and discussions

Based on our specific methodology, we developed two multiple regression models with cross-section and time series combined on panel data, using random effects through least squares method (*GLS – Generalised Least Squares*). At the same time, we processed our developed models based on the fixed effects method, still, the Hausman test applied in order to choose between the two categories of parameters has validated the results of the random effects models.

The models have been tested and assessed based on their validated hypotheses, generating accurate conclusions adequate for identifying and analysing the determinants and shaping factors of the emigration process for considered countries analysed within the panel. The main results are detailed and presented in Table 1.

Table 1

Results of the developed models based on the logarithm of the emigrant stock as endogenous variable, random effects (RE), GLS method

	Model 1			Model 2		
	b/se	p	t	b/se	p	t
Log Inflation rate	0.174** (0.07)	0.009	2.613	0.171* (0.07)	0.011	2.531
Log Unemployment rate	-0.654*** (0.18)	0.000	-3.542	-0.565*** (0.15)	0.000	-3.882
Log GDP per capita	-0.346 (0.29)	0.032	-1.196	-0.446 (0.26)	0.092	-1.687
Log Population density	0.952* (0.40)	0.018	2.361	0.749* (0.36)	0.040	2.056
Log Life expectancy	32.337*** (6.04)	0.000	5.354	29.386*** (5.94)	0.000	4.950
Log Infant mortality	2.665*** (0.38)	0.000	7.093	2.768*** (0.32)	0.000	8.650
Gini Inequality	0.155*** (0.02)	0.000	8.220	0.166*** (0.02)	0.000	9.126
Log Education	-0.425 (1.71)	0.103	-0.249			
Log Gender tertiary ed	1.291 (0.70)	0.067	1.831			
Log Minimum wage	1.704*** (0.39)	0.000	4.415	2.061*** (0.35)	0.000	5.878
Constant	-150.168*** (25.71)	0.000	-5.840	-133.772*** (24.09)	0.000	-5.554

Adjusted R-squared 0.989 0.987
N observations 814.000 616.000

* p<0.05, ** p<0.01, *** p<0.001

Note: The standard errors are presented in brackets; the models are estimates through random effects for each country within the panel and comprise a time dummy variable.

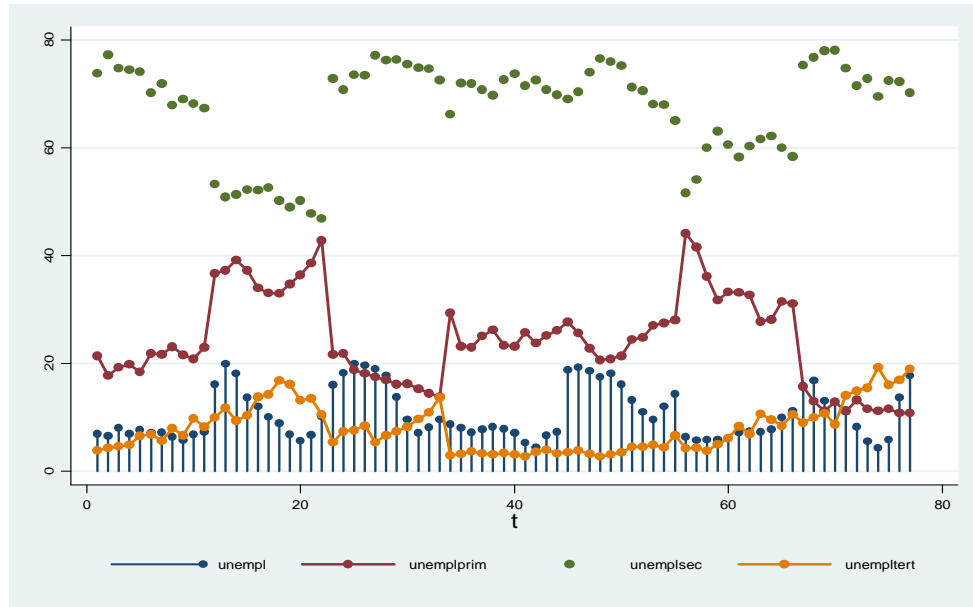
Source: own process of panel data with Stata 11 econometric package.

Both models highlight the major importance of considered explanatory variables in shaping emigration trends, the associated coefficients estimated by the random effects model (RE) being statistically highly significant, at 0.1% level. Thus, by analysing the obtained results we can observe that the major impact on emigration stock is generated by the labour market variables and inequality, as well as by the socio-demographic indicators. Within this context, the model estimates that a 1% increase in unemployment generates a 0.654% reduction of the stock of emigrants, the tendency being associated with a deepening of labour market pressures, as well as with the fact that the job loss implies the absence of associated income and, thus, an important reduction of the capacity and financial resources necessary for moving to another country, through emigration. Nevertheless, especially for persons with a low income, an increase in the monthly minimum wage can provide some of the resources required by the emigration process and, thus, an increase in the stock of emigrants (with about 1.704%).

Labour migration viewed as an investment in human capital is reflected by the obtained results that point out a reduction in the stock of emigrants with 8.565% when the number of persons with upper-secondary and tertiary education increases by 1%. At the same time, if the tertiary educational gap is being lowered between men and women, then, according to the RE model estimation, the stock of emigrants will decrease with 2.721% for the countries analysed within the panel.

High unemployment levels are mainly registered among persons with primary and secondary education, thus an improvement in the educational level of the labour force and its harmonization between men and women leads to increased employment opportunities and higher wages, being able to reduce the stock of emigrants for the considered panel countries.

The functional perspective on international labour migration focuses on microeconomic processes, especially on the decisional behaviour of individuals, which, in their desire to improve the living standard, react to perceived and real inequalities in the distribution of economic opportunities, by emigrating to a different country. The results obtained to this respect after processing the econometric model highlights the fact that a 1% increase in inequality measured by the Gini coefficient increases the stock of emigrants by 0.155%, while an improvement in the living standard reflected through the increase of GDP per capita reduces emigration by 0.346%.



Source: performed based on panel data through Stata 11 econometric package

Figure 3. Panel evolution of unemployment rate: total, primary, secondary and tertiary education, 2000-2010, %

The impact of demographic variables on the stock of emigrants is extremely significant (at 0.1% level), an increase in population density inducing a slight increase in emigration, while high infant mortality rates, an indicator associated with population health and life quality, intensify the emigration process.

5. Conclusions, research limitations and opportunities

By analysing the results obtained after processing the two double-log multiple regression models developed based on random effects (RE), we could observe that in the case of the sending countries considered within the panel we find several foundations of the *neoclassical perspective on international migration*. This theory analyses wage differentials and employment conditions between countries, as well as the costs associated with international labour migration, by approaching migration within the perspective of an individual income maximizing decision. Thus, migrants are searching for a country that will maximize their welfare (Borjas, 1989), but this searching process is limited

by the financial resources of individuals and by the immigration and emigration policies and regulations defined by host and origin countries. At the same time, the neoclassical approach of international migration highlights the fact that sending and destination countries have a major impact on the number of immigrants, as well as on the structure of associated flows, through specific policies and various changes in the economic activity.

The results reveal that income, wage differentials, working conditions and the real or perceived inequalities represent the main determinants of labour emigration for the considered panel countries, the emigration flows being largely shaped compared to associated costs. Nevertheless, losing the job and assimilated wage, reflected by an increase in the unemployment rate, a generalised increase in prices, reflected by an increase in the inflation rate, as well as the deterioration of the gender pay gap, living conditions and population health, implies the reduction of migrant's capacity to move and live in another country, thus significantly reducing emigration flows from the sending countries analysed within the panel towards the main destination countries in the European Union. On the other hand, a considerable improvement of the living conditions, reflected through an increase in GDP per capita, along with an increase of the life expectancy, could increase immigration flows, mainly due to a larger availability of financial resources needed in order to accomplish the process.

At the same time, the results highlight the main aspects of the *macroeconomic neoclassical theory*, pointing out that labour markets represent the most important mechanism through which international labour flows are induced. Also, the selection process described by Borjas (1989) is revealed by the results obtained after we introduced a new variable within the model represented by the upper-secondary or tertiary educational level of migrants. The results show that there is a positive selection of migrants, respectively an increase in highly skilled emigration flows, along with a significant reduction of this type of flows as the level of education increases for the entire population of sending countries. This is mainly due to an improvement in employment opportunities within these countries, by taking into account the fact that unemployment rate is extremely high for the population with primary and lower-secondary education.

The main limitation of the performed research is represented by the lack of comparable data concerning international labour migration, at a global level

and especially within the European Union. Concurrently, the research results have lead to identifying new opportunities and future research guidelines, through expanding the analysis of the labour emigration determinants and by analysing the economic consequences of the process, as well as the impact on labour markets in sending countries.

Acknowledgements

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Accounting's shift to decision-based costing

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Abstract. *Managers are increasingly shifting from reacting to after-the-fact outcomes to anticipating the future with predictive analysis and proactively making adjustments with better decisions. Despite some advances in the application of new costing techniques, are management accountants adequately satisfying the need for better cost planning information? Or is the gap widening?*

Keywords: management accounting; cost; decision; information; planning.

JEL Codes: M21, M41.

REL Cod: 14I.

1. Introduction

In this century where information plays a pivotal role in the success of a company, do management accountants provide the necessary information required by a company's managers?

There is a widening gap between what management accountants report and what managers and employee teams want and need. This does not mean that information produced by management accountants is of little value. In the last few decades, accountants have made significant strides in improving the utility and accuracy of the costs they calculate and report. The gap is being caused by a shift in managers' needs – from just needing to know what things cost (such as a product cost) and what happened in the past – to a need for detailed information about what their *future* costs will be and why.

Despite the accountants advancing a step to catch up with the increasing needs of managers to make good decisions, the managers have advanced two steps. Managers already recognize that projections of future outcomes must recognize which resource capacity expense. In order to understand this widening gap, and more importantly how accountants can narrow and ideally close the gap, let's examine the broad landscape of accounting.

2. The conceptual approaches of management accounting

Management accounting historically evolved as the production of goods and competitive market economies developed. In the earlier conditions where the market was only producers satisfying a scarcity of goods demanded by consumers, the role of management accounting could be summarized as to provide cost information which permits the manufacturer to adjust prices to improve profit margins. With time, due to intensified competition, there have been changes in economic markets. Economic power shifted from producers to consumers as a result of the emergence of new management models, technical progress, the Internet etc. These influenced the evolution of accounting systems with a shift in emphasis to forecasting and planning.

In countries with a developed market economy, management accounting is considered an information system that integrates business applications with specific techniques and concepts that make up the entity's overall management system.

For Anglo-Saxon economies, for instance, management accounting includes all of the "valued" information that managers need, and not only the information on costs. It recognizes that the purpose of management accounting is related to the capacity of economic resources supplied and not just in their consumption.

In France the management accounting is defined as an "analysis technique" of the work activities of an entity and its manufactured products to *control* internal production conditions through the use of cost information.

The National Council of Accounting in France since 1996 defined the management accounting thus: "*management accounting is designed primarily to the needs of the enterprise; it constitutes a part of its information system, providing an economic modeling of the enterprise in order to meet the objectives of measuring performance and aid in decision making*". The process constituted part of the performance measurement and methods in support of their decisions.

Henri Bouquin (2004) defines the management accounting as: "*an information system which is aimed at helping managers and influence behaviors through modeling the relationship between resources allocated to the goals pursued and consumed*".

The definition given to management accounting by the National Association of Accountants (NAA), which is now the Institute of Management Accountants (IMA, 2008), in the USA is: "*the process of identification, measurement, analysis, collection, processing, transmission and interpretation of information used by the management of a financial undertaking for planning, evaluation and monitoring of appropriate and responsible use of its resources*".

Management accounting, whose initial goal was calculating costs, considerably expanded its role by providing information systems for routing dynamic supply-production-sales receipts with regard to *their impact on costs and outcomes*.

Management accounting's main objectives are: *cost calculation, establishment of results and profitability of products manufactured, work performed and services rendered, forecast of expenditures and incomes through the establishment of an internal network of budgets, control of costs and budgets through the deviations and providing the necessary data to the grounding decisions on the management of the entity*.

In the market economy, formation of prices according to supply and demand causes producers to pay particular attention to the actual cost of products compared to the sale price in order to show their effectiveness or inefficiency of their work and as a result, the level of competitiveness.

3. What is the purpose of management accounting?

Contrary to beliefs that the only purpose of managerial accounting is to collect, transform and report data, its primary purpose is first and foremost to influence behavior at all levels – from the desk of the CEO down to each employee – and it should do so by supporting decisions. A secondary purpose is to stimulate investigation and discovery by signaling relevant information (and consequently bringing focus) and generating questions.

The widening gap between what accountants report and what decision makers need involves the shift from analyzing *descriptive* historical

information to analyzing *predictive* information, such as budgets and what-if scenarios. Obviously, all decisions can only impact the future because the past is already history. However, there is much that can be learned and leveraged from historical information. Although accountants are gradually improving the quality of reported history, decision makers are shifting their view toward better understanding the future.

This shift is a response to a more overarching shift in executive management styles – from a command-and-control emphasis that is reactive (such as scrutinizing cost variance analysis of actual versus planned outcomes) – to an anticipatory, proactive style where organizational changes and adjustments, such as staffing levels, can be made before things happen and before minor problems become big ones.

There is an issue with managerial accounting. There appears to be competing costing methods (e.g., lean accounting, activity-based costing, throughput accounting), each with passionate advocates. As a result, there is some confusion as to which one to use; or alternatively, can two or more methods co-exist despite calculating different costs for the same item? A purpose of this article is to discuss the various situations, conditions and types of decisions that can use different types of cost information.

4. An accounting framework and taxonomy

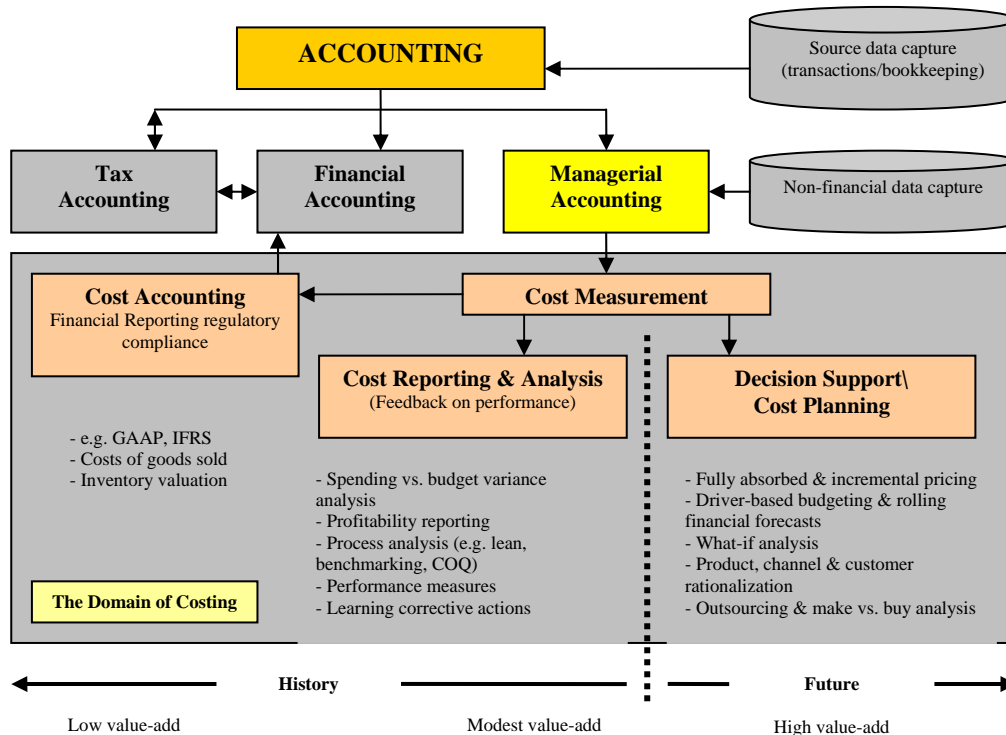
Figure 1 illustrates the large domain of accounting with three components: tax accounting, financial accounting, and managerial accounting. There are two types of data sources displayed at the upper right. The upper source is from financial transactions and bookkeeping, such as purchases and payroll. The lower source is non-financial measures such as payroll hours worked, retail items sold, or gallons of liquid produced.

The financial accounting component is intended for external reporting, such as for regulatory agencies, banks, stockholders and the investment community. Financial accounting follows compliance rules aimed at economic valuation, and as such is typically not adequate or sufficient for decision making. And the tax accounting component is its own world of legislated rules. Financial accounting reflects *the consumption of resources by their nature*, presents through the synthesis statements the results of the entities as a whole, without ensuring cost calculation of work, services, products, and does not allow any analysis of their results.

Whereas financial accounting does not deal with the use of resources, the transformation after their destination for the resolution of these aspects shall be involved in management accounting.

Financial accounting lost “*the informational war*” inside business, because it is considered to be much “too slow” and irrelevant, seeking of this cause the development of new channels of information to solve these disabilities of financial accounting (too slow and way too general). In addition, financial accounting has created a highly developed mechanism of conventions that try to present economic situation through the prism of such conventions.

While financial accounting assumes a passive information role, management accounting in exchange provides tools for the control of microeconomic processes by allowing its use in managerial decision everyday. Our area of concern – the management accounting component – can be broken into three categories: cost accounting, the cost reporting and analysis, and decision support with cost planning. To oversimplify a distinction between financial and managerial accounting, financial accounting is about *valuation* and managerial accounting is about *value creation* through good decision making.



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Figure 1. *The managerial accounting component*

The managerial accounting component in Figure 1 is comprised of three parts that are all recipients of inputs from the “Cost Measurement” procedure of transforming incurred expenses (or their obligations) into calculated costs:

- *Cost accounting* represents the assignment of expenses into outputs such as the cost of goods sold and the value of inventories. This box primarily provides external reporting to comply with regulatory agencies.
- *Cost reporting and analysis* represents the insights, inferences, and analysis of what has already taken place in the business in order to track performance.
- *Decision support with cost planning* involves decision making and taking. It also represents using the historical cost reporting information in combination with other economic information, including forecasts and planned changes (e.g., processes, products, services, channels) in order to make the types of decisions that lead to a financially successful future.

It will be apparent that the key differentiator between cost accounting and the other two uses of “cost measurement” is that cost accounting is deeply constrained by regulatory practices and describing the past in accordance with principles of financial accounting. The other two categories offer diagnostic support to interpret, and draw inferences from respectively what has already taken place, and what can happen in the future. Cost reporting and analysis is about explanation. Decision support with cost planning is about possibilities.

The message at the bottom of the diagram is the value, utility and usefulness of the information increases, arguably at an exponential rate, from the left-side to the right-side of the diagram.

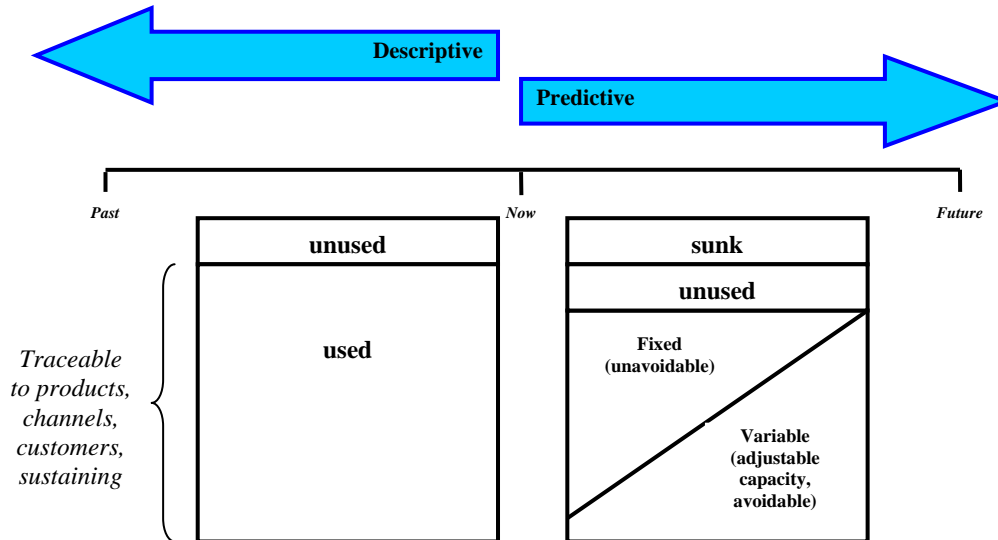
5. What? So what? Then what?

Figure 1 also illustrates that the degree of value-adding information for decision making increases from left to right. The *cost accounting* data establishes a foundation; it is of low value for decision making. The *cost reporting for analysis* information converts cost measurement data into a context. It is useful for managers and employee teams to clearly observe outcomes with transparency that may have never been seen before, or is dramatically different from their existing beliefs derived from their firm’s less mature cost measurement method. Cost reporting displays the reality of what has happened, and provides answers to “What?” That is, what did things cost last period?

However, an obvious follow-up question should be “So what?” That is, based on any questionable or bothersome observations, is there merit to making changes and interventions? How relevant to improving performance is the outcome we are seeing? But this leads to the more critical, and relatively higher value-added need to propose actions – to make and take decisions – surfaced from *cost planning*. This is the “Then what?” question; for example, what change can be made or action taken (such as a distributor altering its distribution routes), and what is the ultimate impact? Of course, changes will lead to multiple effects on service levels, quality and delivery times, but the economic effect of profits and costs should also be considered. And this gets to the heart of the widening gap between accountants and decision makers that use accounting data. To close the gap, accountants must change their mindset from managerial accounting to managerial economics – nicknamed here as “decision-based costing.”

There is a catch. When the Cost Reporting and Analysis component shifts rightward to the Decision Support with Cost Planning box in Figure 1, then analysis shifts to the realm of decision support via economic analysis. For example, one needs to understand the impact that changes have on future expenses. Therefore, the focus now shifts to resources and their capacities. This involves classifying the behavior of resource expenses as fixed, semi-fixed, variable, etc. with changes in service offerings, volumes, mix, processes and the like – which gets tricky. A key concept is this: The “adjustability of capacity” of any individual resource expense depends on both the planning horizon and the ease or difficulty of adjusting the individual resource’s capacity (i.e., its stickability). This wanders into the messy area of marginal cost analysis that textbooks oversimplify, but is complicated to accurately calculate in the real world.

Figure 2 illustrates how a firm’s view of its profit and expense structure changes as analysis shifts from the historical *cost reporting* view to a predictive *cost planning* view. The latter is the context from which decisions are considered and evaluated.



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Figure 2. Accounting treatments and behavior of capacity (expenses)

In the figure's left-hand side during the historical time period, the resource expenses were incurred. The capacity of these expenses were incurred for were *supplied*, and then they were either (1) *unused* as idle or protective capacity; or (2) they were *used* to make products, deliver customer services or to internally sustain the organization. This is the *cost reporting and analysis* component from Figure 1 that calculates output costs. The money was spent, and costing answers where it was used. This is the *descriptive* view of costs. Accountants refer to this as full absorption costing when all the expenses for a past time period are traced to outputs. It traces expenses (and hopefully does not allocate expenses on causal-insensitive broad averages) to measure which outputs uniquely consumed the resources, including individual output costs. Full absorption costing uses direct costing methods, which are relatively easy to apply, and supplements the reporting with activity-based costing techniques for the indirect and shared expenses – which are trickier to model, calculate and report.

In contrast, Figure 2's right-hand side is the *predictive* view of costs – the *decision support with cost planning* component from Figure 1. In the future, the capacity levels and types of resources can be adjusted. Capacity only exists as a resource, not as a process or work activity. The classification of an expense as fixed, semi-fixed or variable depends on the planning horizon. The diagonal line reveals that, in the very short term, most expenses are not easily changed;

hence, they are classified as fixed. As the time horizon extends into the future, then capacity becomes adjustable. For example, assets can be leased, not purchased; and future workers can be contracted from a temporary employment agency, not hired as full-time employees. Therefore, these expenses are classified as variable.

In the Predictive view of Figure 2, changes in demand – such as the volume and mix of products and services ordered from customers – will drive the consumption of processes (and the work activities that belong to them). In turn, this will determine what level of both fixed and variable resource expenses are needed to supply capacity for future use. For purchased assets, such as retail store display shelves or expensive equipment, these costs are classified as sunk costs. Their full capacity and associated expense were acquired when an executive authorized and signed their name to the purchase order for the vendor or contractor. Some idle capacity (such as staffing a customer call center) is typically planned for. This deliberately planned idle capacity is intended to meet temporary demand surges, or as an insurance buffer for the uncertainty of the demand forecast. Its cost is justified by offsetting potential lost revenues from unacceptable, low service levels to customers.

Since decisions only affect the future, the predictive view is the basis for analysis and evaluation. The predictive view applies techniques like what-if analysis and simulations. These projections are based on forecasts and consumption rates. However, consumption rates are ideally derived as calibrated rates from the historical, descriptive view – where the rate of operational work typically remains constant until productivity and process improvements affect them. These rates are for both direct expenses and rates calibrated by an activity-based costing model for the indirect and shared expenses. And when improvements or process changes occur, the calibrated historical consumption rates can be adjusted up or down from the valid baseline measure that is already being experienced. Accountants refer to these projections as marginal expense analysis. For example, as future incremental demands change from the existing, near-term baseline operations, how is the supply for capacity affected?

Various costing techniques, to be discussed following the next section, rely on these costing principles.

6. What types of decisions are made with managerial accounting information?

There are hundreds of pages on managerial and cost accounting within university textbooks. Let's try to distill all those pages to a few paragraphs.

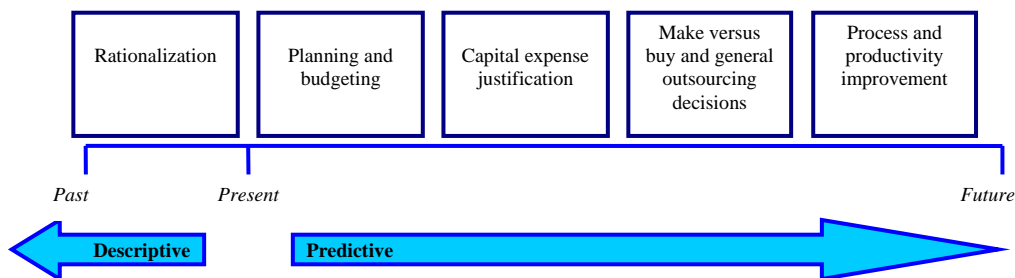


Figure 3. Decision-making categories for applying managerial accounting

The broad decision-making categories (Figure 3) for applying managerial accounting are:

1. *Rationalization* – Which products, stock keeping units (SKUs), services, channels, routes, customers, etc. are best to retain or improve? And, which are not and should potentially be abandoned or terminated?

Historical and descriptive costing (the left side of Figure 2) can be adequate to answer these questions. In part, this explains the growing popularity in applying activity-based cost principles to supplement traditional direct costing. There is much diversity and variation in routes, channels, customers, etc. that cause a relative increase in an organization's indirect and shared expenses to manage the resulting complexity. IT expenses are a growing one. Having the direct and indirect costs become a relevant starting point lets you know what the variations cost. This answers the "What?" question. It is difficult, arguably impossible, to answer the subsequent "So what?" question without having the facts. Otherwise, conclusions are based on gut feel, intuition, misleading information or politics.

2. *Planning and budgeting* – Based on forecasts of future demand volume and mix for types of services or products, combined with assumptions of other proposed changes, how much will it cost to match demand with our supplied resources (e.g., workforce staffing levels)?

When questions like these and many more like them are asked, one needs more than a crystal ball to answer them. This is where the *predictive* view of costing (the right side of Figure 2) fits in. This is arguably the sweet spot of costing. On an annual cycle, this is the budgeting process. However, executives

are increasingly demanding rolling financial forecasts at shorter intervals. This demand is partially due to the fact that the annual budget can quickly become obsolete and future period assumptions, especially sales forecasts, become more certain. At its core, this costing sweet spot is about resource capacity planning – the ability to convert and reflect physical operational events into the language of money – expenses and costs.

3. *Capital expense justification* – Is the return on investment (ROI) of a proposed asset purchase, such as equipment or an information system, justified?

If we purchase equipment, technology or a system, will the financial benefits justify the investment? A question like this involves what microeconomics refers to as “capital budgeting.” Capital budgeting analysis typically involves comparing a baseline, reflecting business as usual, with an alternative scenario that includes spending on (i.e., investing in) an asset where the expected benefits will continue well beyond a year’s duration. An example would be investing in an automated warehouse to replace manual, pick-and-pack labor. Some refer to the associated investment justification analysis as “same as, except for” or comparing the *as-is* state with the *to-be* state. A distinction of capital budgeting is it involves discounted cash flow (DCF) equations. DCF equations reflect the net present value (NPV) of money, incorporating the time that it would take for that same money to earn income at some rate if it were applied elsewhere (e.g., a bank certificate of deposit). The rate is often called the organization’s cost of capital.

4. *Make versus buy and general outsourcing decisions* – Should we continue to do it ourselves or contract with a third party? If we choose to have a third party make our product or deliver our service instead of ourselves – *basically outsourcing* – (or vice versa by bringing in-house) then afterward, how much of our expenses remain and how much will we remove (or add)? This type of decision is similar to the logic and math of capital budgeting. The same description of the capital budgeting method applies – measuring “same as, except for” incremental changes. Ideally, activity-based costing techniques should be applied because the primary variable is the work activities that the third party contractor will now perform, which replace the current in-house work. Since cost is not the only variable that shifts, a service-level agreement with the contractor should be a standard practice.

5. *Process and productivity improvement* – What can be changed? How to identify opportunities? How to compare and differentiate high-impact opportunities from nominal ones? Some organization’s operations functions are focusing on reducing costs and future cost avoidance (Strategic profitable revenue enhancement is addressed with managerial accounting for

rationalization). These operations functions are tasked with productivity improvement challenges, and they are less interested in understanding strategic profitability analysis – which of our priced products and services makes or loses money – and more on streamlining processes, reducing waste and low-value-added work activities, and increasing asset utilization. This is the area of Six Sigma quality initiatives, lean management principles and just-in-time (JIT) scheduling techniques. Examples of these types of costs are:

- Unit costs of outputs and benchmarking.
- Target costing.
- Cost of quality (COQ).
- Value-adding attributes (such as non-value added vs. value-added).
- Time-driven activity-based costing (TDABC).
- Resource consumption accounting (RCA).
- German cost accounting (*Grenzplankostenrechnung* [GPK]).
- Accounting for a lean management environment (also Kaizen costing).
- Theory of constraint's throughput accounting.

The term “cost estimating” is a general one. It applies in all of the decision-making categories above. One might conclude that the first category, rationalization, focuses only on historical costs and thus does not require cost estimates. However, the impact on resource expenses from adding or dropping various work-consuming outputs also require cost estimates to validate the merit of a proposed rationalization decision.

7. Managerial decision and the role of management accountant in making decision

Managerial decision must rely on relevant costs, recognizable by their forecast features that include hidden costs, social costs and external costs. Because decisions aimed at future action management requires detailed information on future costs, some of these are not included in the data collection system of managerial accounting.

Management accountant must take into consideration only those predictions or estimates of the costs that is relevant to decision making. Relevant making decision information is data on costs, revenue and future resource consumption which are different for each analyzed alternative. In general, managers follow a making decision model to choose the direction of action such as: obtaining information; making forecasts; choosing an alternative; implementation of the decision; performance evaluation.

In making decision, the role of management accountant is to provide accurate, timely, and in useful form information. In other words, the

management accountant shall discharge to collect relevant information and to report them in a manner relevant to management. There are many general techniques of making decision, which helps management accountants to generate this information and related reports, such as: Activity-Based Costing, Direct Costing, marginal and incremental expense analysis, etc. Each of these techniques offers specific reporting format and applies information relevant to a specific decision in the making decision process.

The role of management accountant is to provide management the necessary information for making decision and to reflect both the effects of the risk in conditions of uncertainty, and the most likely outcomes (results). In this context, decision makers require the types of information considered relevant for assessing decisional alternatives, but they should not be "overloaded" with a very large volume of data. The cost data that remains the same without being impacted for all alternatives are not relevant (Needles et al., 2000). The role of the management accountant is to collaborate with the managers, analyzing and presenting information in a particular format and helping them to finalize their decisions.

8. Concluding remarks

In our introduction, we described the purpose of this article as "to discuss the various situations, conditions and types of decisions that can use different types of cost information." Confusion can arise because some of the methods calculate and report different costs that are not just variations in cost accuracy, but are also different costs altogether.

For example, the method of accounting for a lean environment violates the accounting principle of causality. This raises the question, "Is lean accounting a viable replacement for, complement to, and/or supplement for current and evolving management accounting approaches, such as activity-based costing?" Another way of asking this question is "Should there be two or more different, *coexisting* cost reporting methods that report dissimilar numbers?" For example, one tactical costing method is used for operations and making short-term decisions; another strategic costing method (for planning, marketing, pricing and sales analysts to evaluate profit margins) is used for longer-term decisions.

There will be debates, but eventually some form of consensus will triumph within an organization. The underlying arguments may be due to the inappropriate usage of standard costing information – and the potential inappropriate actions that may result. But there may be a deeper problem: Cost accounting system data is *not* the same thing as cost information that should be

used for decision making. The majority of value from cost information for decision making is not in historical reports – the descriptive view. Its primary value is in planning the future (such as product and customer rationalization), marginal cost analysis for one-off decisions, or trade-off analysis between two or more alternatives.

Therefore, key tests for deciding which costing method to use should be: How does it handle economic projections? Can it accommodate classifying resource expenses as variable, semi-variable, fixed, or as unavoidable or avoidable (i.e., allowing for capacity adjustment decisions)? Does it isolate unused/idle capacity expenses?

The good news is that organizations are challenging traditional accounting. So, in the end, any accounting treatments that yield better decision making should prevail. The coexistence of two or more costing approaches may cause confusion over which one reports the correct cost. But that is a different problem. What matters is that organizations are seeking better ways to apply managerial accounting techniques to make better decisions.

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The Anglo-Saxon model of employment in the current economic context. The case of United Kingdom

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Abstract. *The Anglo-Saxon model of employment has certain features that derive from the specificity of the political and economic system of Great Britain. The labour market policies in the United Kingdom were different depending on the historical and political period; however, the Anglo-Saxon model is characterized mainly by high flexibility but low security. This paper presents the main features of the Anglo-Saxon model of employment, compared to the Nordic and the Mediterranean model and shows Britain's economic situation before and after the crisis.*

Keywords: employment; the Anglo-Saxon model; labour market; crisis; United Kingdom.

JEL Codes: E24, J24.

REL Codes: 8G, 12G.

1. A little history

Great Britain is a strong economy, which is characterized by a political system based on constitutional monarchy and has some specific features in the labour market.

The United Kingdom labour market has undergone periods of stability, but also challenging times, with high unemployment, strikes and economic instability. However, the policies adopted on the labour market have been different depending on the historical and political period.

In the early 20th century, the British labour market was conditioned by institutions and traditions that had developed gradually, in some cases over several centuries, and these governed wage levels and differentials, work practices and relationships and employment contracts. Institutional arrangements interacted with short-term economic influences, which varied considerably throughout the period. In the interwar years full employment and labour scarcity between 1914 and 1920 was followed by two decades during which chronic unemployment persisted (Glynn, Booth, 1996).

In 1920-1930, unemployment was an important issue faced by England, being an element of the Great Depression of the '30s, characterized by a fall in the economic activity, lower consumption, investment, increased instability and macroeconomic imbalances.

The period 1950-1960 was characterized by stable labour market, unemployment was low, the period following after the Second World War, when the economy was in recovery. During the 1950s and 1960s, while the economy as a whole continued to grow, industrial investment rose as a share of GDP and productivity growth started to accelerate. Between 1948-1968 UK annual unemployment rate averaged 1.8% and never exceeded 2.6%. In the next two decades, it increased considerably, especially in 1980, when it reached 11% (1986). Of course, not only in United Kingdom there was an increase in unemployment during the 80s, but in most industrialized countries, except Japan. The difference consisted in the fact that Japan applied flexible wages, meaning that they were changed depending on the productivity and profitability of each company. Basically, United Kingdom chose a policy that meant high wages but reduced employment, as a combination in the labour demand curve, while Japan chose higher employment even if it meant lower wages.

In the literature, some English authors consider that there were two periods in which unemployment rose because of the economic policies adopted in the United Kingdom: the first, in the 1980s – as a result of the monetary and fiscal policies that aimed to reduce inflation but increased the unemployment record, and the second in the 1990s, by applying a monetary policy that

assumed the increase in the interest rate. Thus, after a decrease in unemployment to 5.8% in the early 90s, unemployment rose again to 10.3% in 1993 (Artis, 1996).

The growth of the British workforce during 1971-1995 was therefore due almost entirely to a greater participation in the labour force of female workers. (from 36% in 1971 to 44% in 1995). Explanations are related to three causes; first of all the high demand for labour in 1960-1970 led the employers to seek extra-labour. Secondly the real wage growth made many women to get a job, to increase family income, and thirdly, in search of cheap labour, employers saw an opportunity to hire part time, which was especially suitable for women with families. This explains the strong growth of the activity rate among women in that period.

The period 1979 -1990 was marked by the reforms adopted by Margaret Thatcher, who brought England long-term benefits, but they were very tough in the short term. They promoted the free private initiative, reduced government intervention in the economy, and achieved the privatization of state enterprises. Some of her actions were unpopular, especially reducing government spending on social services, health and education and limiting union power. The Thatcher government promoted competition rules and free market regulation, so that only the competitive companies remained on the market. Even if these measures reduced inflation and increased productivity, unemployment rose sharply, social tensions and strikes appeared, increasing poverty and inequality. The system of taxes was also subject to reform, it was simplified in 1988, and the maximum charge was reduced. This made the United Kingdom an attractive landscape for foreign investment that flourished in this period.

The policies applied by the UK since 1996 in the labour market have focused on labour market flexibility, considering that it provides increased labour productivity, by the fact that it leaves the market forces free, and supply and demand self-regulate effectively.

The labour market policies applied in England after 1996 are very different from those applied by M. Thatcher in 1979. Developments in employment, unemployment and wage behaviour in recent years suggest that the policy changes since that time have created a more flexible labour market, particularly if one means by this the greater ability of employers to hire and dismiss and greater relative wage flexibility (Buxton, 1998).

In 1997-2007, the internal policy of the government led by T. Blair assumed significant increase in public spending on health and education and introduction of reforms based on the market economy in these areas. Blair's mandate led to the introduction of the national minimum wage, taxes for higher

education and constitutional reforms; his policy focused on the initiation of a social reform called New Labour and the openness to the European Union.

Currently, the labour market in Britain is facing some problems under the current crisis, the most important being related to high youth unemployment and the effects of applying the austerity program.

Britain adopted as austerity measures to overcome the current crisis the increase in the VAT rate from 17.5% to 20%, the reduction of the budgets of ministries, the reduction of the public sector jobs.

The largest economic English field, namely services, has recorded losses in recent years due to the crisis. The greatest losses occurred in manufacturing and construction.

British pound has risen against the Euro, which is a problem, because of weaker demand and also a loss of competitiveness of British exports in the Euro zone, the destination of 47% of British exports.

Unemployment has increased and, according to CEBR Centre forecasts (Centre for Economic and Business Research), it will continue to grow until 2016, the most affected area being North East of Great Britain, where there is a 12% unemployment.

Current employment policy is based on labour market flexibility, which means greater freedom of action for employers, but no support from the unions.

2. The Anglo-Saxon model in employment

The Anglo-Saxon system in employment is characterized by high flexibility but low security. This model assumes a lower level of spending than the other models (e.g. compared to the Nordic one). Its main particularity is its social assistance of last resort. Subsidies are directed to a higher extent to the working-age population and to a lower extent to pensions. Access to subsidies is (more) conditioned to employability (for instance, they are conditioned on having worked previously).

Active labour market policies are important. Instead, trade unions have a smaller decision-making power than in the other models; this is one of the reasons explaining their higher income dispersion and their higher number of low-wage employments.

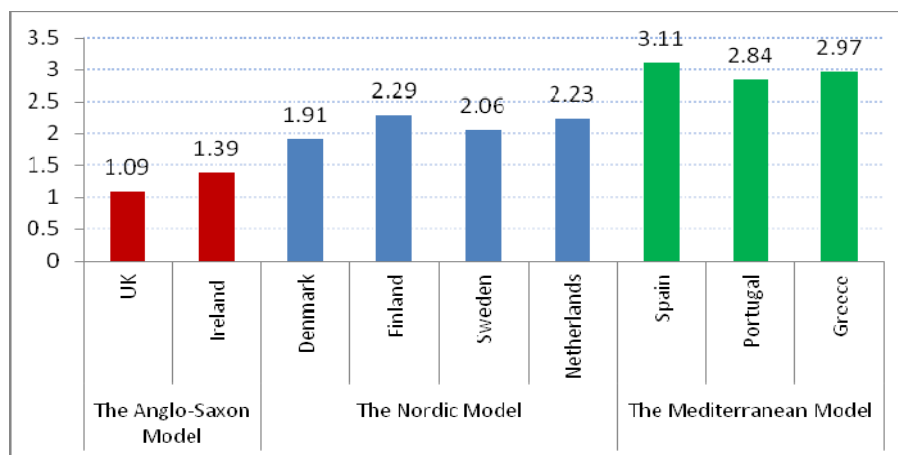
Taking into account the main elements of the analysis of the occupational model flexibility, the difference between the model applied by Britain and the other countries consists of the following aspects:

- employment protection is low;
- unemployment benefits are not generous;

- public spending on labour market are among the lowest in OECD countries;
- level of taxation is very high.

If we look at each element in the characterization of occupational models, namely employment protection, the generosity of unemployment benefits, expenditure on labour market policies, especially with active policies and the tax burden we can see the Anglo-Saxon model features in relation to other two major occupational models – the Nordic and Mediterranean one.

In terms of *employment protection*, United Kingdom records the lowest values of the European Union, which means that there is no major state involvement in regulating rules for redundancy and fixed-term contracts. In this way, companies act quickly to market changes and adapt easily to any shocks, but some employees may lose their jobs easier. This flexibility of employment and dismissal agreements is considered a necessary element in the current labour market reforms in England.



Source: Danielle Venn (2009), Legislation, collective bargaining and enforcement: updating the OECD employment protection indicators, www.oecd.org/els/workingpapers, <http://www.oecd.org/dataoecd/36/9/43116624.pdf>

Figure 1. *Employment Protection Index (OECD, 2009)*

In the chart above (Figure 1), one can observe the differences between the Anglo Saxon model and the other two models captured in the analysis. The Nordic countries have higher employment protection, but the highest one is recorded in the Mediterranean countries that are the most affected by the current crisis in terms of the size of unemployment and other labour market imbalances. This can be explained by the fact that the existence of market

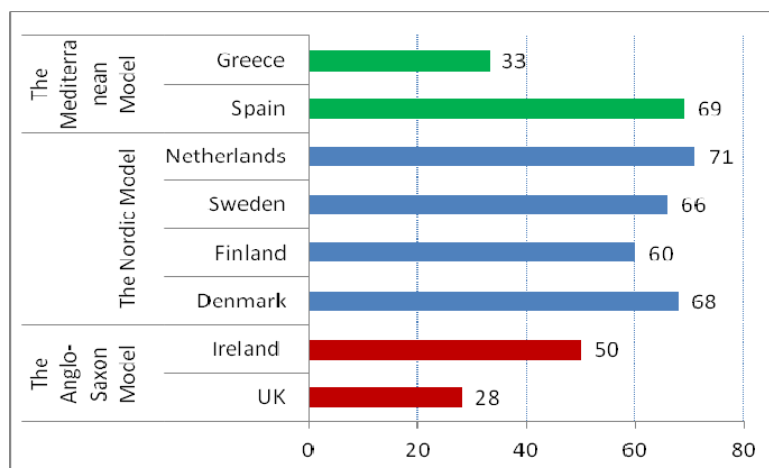
rigidities in employment and redundancies makes employers to be reluctant to hire, thereby reducing the flow of jobs, with negative effects on employment.

Thus, the Anglo-Saxon model is based on rather flexible rules of the labour market, in the absence of protection for unemployed people. In this model, the growth of flexibility endangers the safety of employees. Considering that now, the demand for skilled workers increases and the demand for unskilled workers decreases, the wages of unskilled workers decrease to the minimum wage, regulated by law. Nevertheless, productivity is insufficient to compensate for wage costs precisely because of the target set for the minimum wage, which leads to fewer unskilled workers. Therefore, persons without qualifications get to face strong barriers in the labour market integration, which leads to the lack of work and income security.

The generosity of unemployment benefits is reduced in the United Kingdom, which is observed in the chart below (Figure 2). And in this respect the UK registers the lowest values in relation to the analysed countries.

In the UK unemployment benefit is granted when the solicitor has worked 12 months in the last two years, the maximum grant being of six months. It is established in a fixed amount, 10% of the average wage. At the completion of a grant of unemployment benefits, unemployment assistance is granted, for an unlimited period, in a fixed amount (10% of the average wage), but without exceeding the sum of 3,400 pounds per year.

The highest levels of unemployment benefits are recorded in the Nordic model of employment.

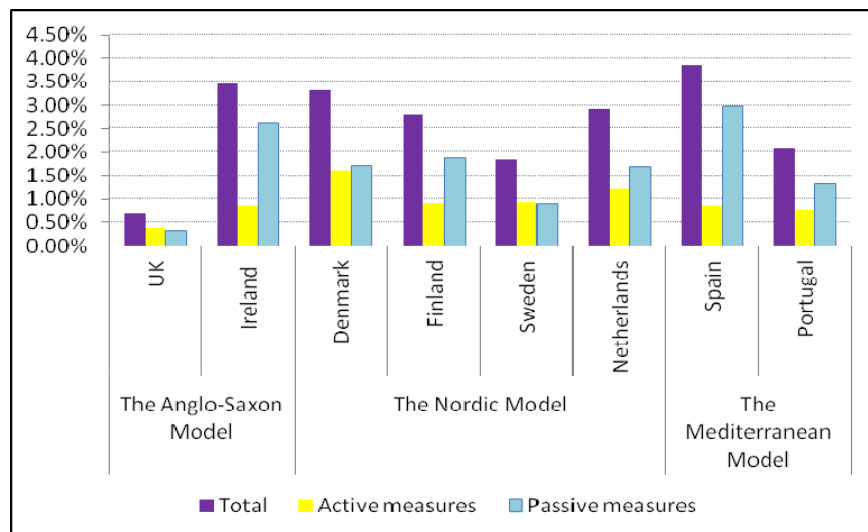


Source: OECD Employment Outlook, 2009,
<http://www.oecd.org/dataoecd/49/31/43728718.pdf>

Figure 2. *Unemployment benefit generosity (for the first year replacement rate)*

Active Labour Market Policies – ALMPs have the role to help unemployed people go back to work and include job placement services, benefit administration and labour market programmes such as training and job creation.

The Anglo-Saxon model is characterized by low involvement in public spending on active or passive labour market policies. Great Britain has the lowest expenditure on labour market policies (in 2009) than most European countries. Public expenditure on active policies is of only 0.38% of GDP and 0.32% for the passive ones. The Nordic countries have among the highest expenditure on labour market policies, both with the active and passive ones. The Mediterranean countries have high expenditure, particularly on passive policies; the explanation is related to the fact that these countries face high unemployment and try to reduce social tensions through passive policies.



Source: Public expenditure and participant stocks on LMP (Labour Market Policy), 2010, <http://stats.oecd.org/Index.aspx?DatasetCode=LMPEXP#>

Figure 3. Public expenditure on Labour Market Policy (% GDP), 2009

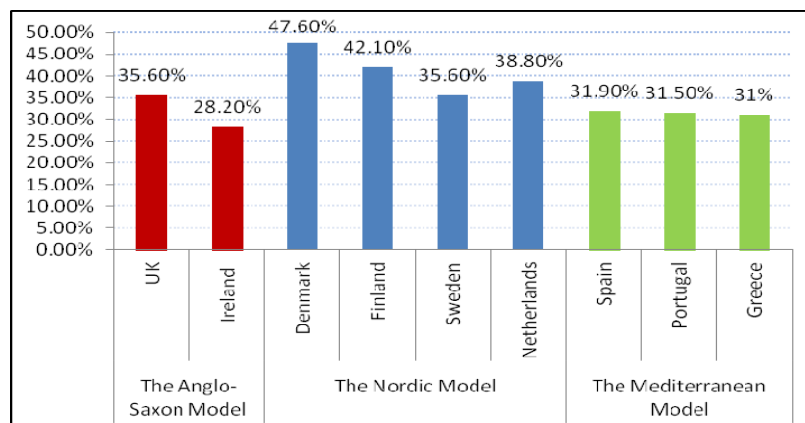
The tax burden is not very high in the Anglo-Saxon model, compared to the Nordic model, but it is higher than the Mediterranean model. The United Kingdom is a highly centralised country in terms of tax collection, with 94.1% of revenues accruing to the central government.

In 2010, the tax burden as a percentage of GDP was of 35.6%, up by 0.8% compared to 2009, but lower than in 2008, when it reached the record size of 37.9%.

The tax structure shows a comparatively high weight of direct taxes (at 15.8 % of GDP, the fifth highest ratio amongst Member States). Direct taxes represent the primary source of revenues (44.4 % of the total taxes, the second level after Denmark), markedly larger than indirect taxes (36.9 %), and far outweighing social contributions (18.7 %). Revenue from personal income taxes at 10.1 % was at the lower end of a range of just under 11 % over the last decade. Regarding property taxes, they get to 4.2% of GDP and register the highest level in OECD countries (Taxation Trend in the EU, 2012).

Indirect taxes have a share of 13.2% in 2010, up from the previous years, the largest share in indirect taxes having the VAT, 6.6% of GDP.

Social security contributions represented 6.7% of GDP in 2010, being divided into contributions incurred by employers – 3.9% of GDP, contributions incurred by employees – 2.6% of GDP and contributions incurred by self and non-employed – 0.2% of GDP. These contributions differ on six classes, depending on income and activity.



Source: Taxation trends in the European Union, Eurostat, 2012, http://ec.europa.eu/taxation_customs/resources/documents/taxation/gen_info/economic_analysis/tax_structures/2012/report.pdf

Figure 4. Tax burden - total taxes as % GDP (2010)

Analysing the four pillars that distinguish the occupational patterns from different countries, we can say that the Anglo-Saxon model focuses on the extension of the internal market of the European Union based on social protection at minimal level, and flexible labour markets.

Based on this analysis, the main features of the Anglo-Saxon model are shown in the figure below.

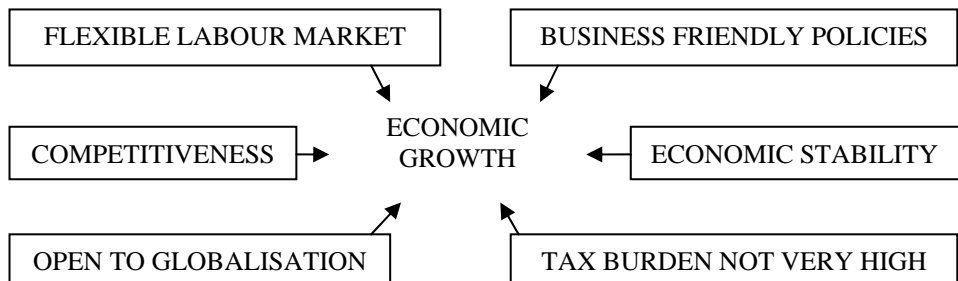


Figure 5. The main features of the Anglo-Saxon model

These can be considered strengths of the Anglo-Saxon model, in comparison with other models. The main weaknesses of the Anglo-Saxon model are high unemployment among youth, labour productivity lower than in the Nordic countries, income inequality, both regionally speaking and on types of work (jobs).

3. Employment and actual economic context in UK

Britain's economic situation is now influenced by the current crisis. Britain has been through periods of recession, which were typically exceeded in 3-5 years from triggering. In times of recession there is rising unemployment, a fall in economic activity, lower GDP, lower investment, increase in public debt.

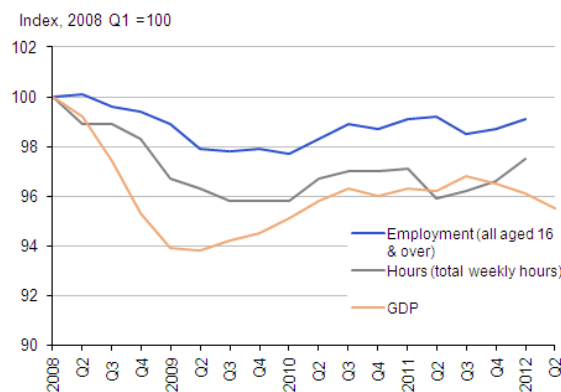
Pasquale Tridico (2012) believes that this crisis is mainly financial and explains labour flexibility by the fact that with the massive shift from the industrial sector to the service sector, technology and innovation bring about rapid structural changes, which demand quick responses from firms. Therefore, labour should adjust to the firms' need.

According to *National Institute of Economic and Social Research*, the current crisis is deeper than others are (1929-1934, 1973-1978, 1979-1984, and 1990-1994) because the economy's progress since the start of the recession has actually been significantly worse than the four years after the Great Depression that began in 1930. Some economists believe that England can enter a *double-dip recession*, meaning that the economy goes back into a recession before it has had a chance to recover its previous high of economic output.

Real GDP growth rate (as percentage change on previous year) was in 2007 of 3.6%, 1% in 2008, and in 2009 dropped to 4%. In 2010, economy registered a slight recovery, the GDP growth rate being of 1.8%, but increased slightly in 2011, being of only 0.8% and 0.5% in 2012. Forecasts for 2013 have announced a return to 1.7%.

UK Office for National Statistics reflects the evolution of GDP, employment and hours worked presented in the chart below, which highlights the effects of the crisis on these indicators.

As seen from the graph (Figure 6) during the crisis the three indicators fluctuated a lot, knowing a decreasing trend in 2008-2010. The number of hours worked per week and employment record a comeback after 2011, but GDP experiences a further decline starting with the third semester of 2011.



Source: Office for National Statistics, UK, 2012.

Figure 6. GDP, employment and hours worked (2008-2012)

Unemployment rate in United Kingdom was of 8% in 2011, below the EU average compared with 9.7%, as the EU average was. However, a major problem that exists not only in England but also in many European countries is youth unemployment rate, which is 21.2% in the United Kingdom, very close to the EU average of 21.4%. Some studies of the ILO consider that high youth unemployment in the EU is determined by the skills gap between what schools provide and what labour market requires.

UK unemployment rate varies depending on the studies completed so it is lower for higher education graduates, reaching 5.1% against 17.1% for graduates with primary education (2010). This evolution of unemployment rate is recorded in other European countries, because educated people are more likely to adapt to the labour market and contribute to increase productivity. Moreover, the participation in lifelong learning has positive values in the United Kingdom, being of 15.8% in 2011, above the EU average of 8.9%.

The average time of transition from school to work also differs depending on the level of education. In the United Kingdom, higher education graduates find jobs on average three months after graduation, those with secondary education, 3.3 months, and those with primary education 6.4 months. These periods are among the lowest in the European Union, which shows a good correlation between

education and labour market programmes in United Kingdom. There are currently concerns at the EU level to analyse the connection between completed studies and qualifications required to work, to identify inconsistencies that may arise in the labour market; they can be *vertical mismatches*, when the level of education is above or below the level required to work or *horizontal mismatches*, that arise when the level of education is suitable for the requirements of the job, but the type of education, of expertise is inadequate. These discrepancies may reveal the impossibility of education to prepare graduates with the skills demanded by the market, the lack of demand for certain skills or the existence of discrimination. From this point of view, according to the study *The European Higher Education Area in 2012* conducted by Eurostat, in the UK there is a high percentage of graduates of higher education, but employed in areas that do not require tertiary qualifications. They may be considered overqualified and account for 26.5% of the graduates of higher education in the United Kingdom, aged 25-34 years, exceeding the EU average of 20.6%.

According to OECD studies, Britain ranks among the top countries in terms of welfare and quality of life (OECD, Better Life Index, 2012). With a population of 61.4 million inhabitants and a life expectancy at birth of 80 years, Britain has good results in many of the indicators of quality of life.

In general, people in the United Kingdom are more satisfied with their lives than the OECD average, with 75% of people saying they have more positive experiences in an average day (feelings of rest, pride in accomplishment, enjoyment, etc.) than negative ones (pain, worry, sadness, boredom, etc.) (above OECD average). English people rate their life satisfaction with a score of 6.9 out of 10, above the OECD average.

In the United Kingdom, the average income per person is of 26.552 USD per year, above the OECD average (22.387 USD per year). There is a big difference between rich and poor. For example, the top 20% of the population earns six times as much as the bottom 20%. Regarding wages, British people earn 44,008 USD dollars per year on average, higher than the OECD average of 34,033 US dollars. Nevertheless, here are also large differences between the rich who get to be paid over 80,000 dollars per year and the poor who receive only 18,000 USD per year.

People in the United Kingdom work 1,647 hours a year, less than most people in the OECD who work 1,749 hours and spend 14.8 hours a day for personal care and leisure. 12% of the UK employees (above the OECD average of 9%) work over 50 hours per week, which affects the ratio work-life (family).

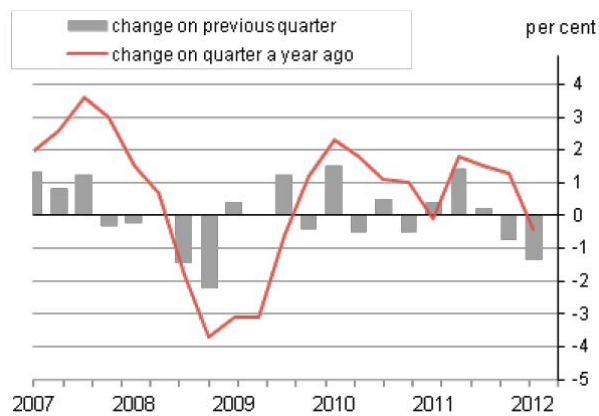
The minimum wage was introduced in the UK in 1999 and varies depending on the age of the employee. The initial level was set at £3.60 an hour (the adult rate) for those aged 22 and over, with a lower level of £3.00 an hour (the youth development rate), being set for those aged 18 to 21. Those under 18 were not covered until October 2004 (Butcher, 2005). Starting with October

2004, the minimum wage was introduced for the age group 16-18 years too, being of 3 pounds, while the other steps of the minimum wage increased by 35%. From October 2010 a new level of minimum wage for apprentices was also introduced (apprentice rate). Currently the minimum wage (gross per hour) is £ 6.08 – adult rate (£5,87 net value, for workers aged 21 and over), £4,98 – youth development rate, £3,68 – 16-17 year old rate (for workers above school leaving age but under 18) and £2,6 – apprentice rate (for apprentices under 19 or over and in the first year of their apprenticeship). The minimum wage is recalculated annually based on inflation.

The introduction of the minimum wage has been much discussed in terms of the impact it has on employment, by its reduction. *National Minimum Wage, 2012* analyses the impact of applying the minimum wage on the economy and concludes that overall this impact was not strong, employment being affected only for certain groups and periods. However, Bryan, Salvatori and Taylor (2012) found that there was some evidence that minimum wage upgrading had a negative impact on hours worked, particularly for younger workers.

In September 1998, before the introduction of the minimum wage, the low paying sectors accounted for 32% of jobs. In September 1998 - September 2011, the low paying jobs increased only by 5.2% due to the total employment higher by 6.4%. In 2010, there was an increase in low paid jobs while, because of the crisis, total employment fell. In 2011, most low paying jobs were recorded in areas such as hairdressing, childcare and cleaning, most employees in these conditions were unskilled workers.

Labour productivity has seen a decline in the period 2007-2009 in all sectors, because of the crisis, followed by a period of fluctuations, as observed in the chart below.



Source: Office for National Statistics, Labour Productivity Q1, 2012 (29 June 2012)

Figure 7. Whole economy labour productivity (output per worker)

After the sharp decline in productivity in 2009, its growth follows, until 2010. After 2010, decreases in the evolution of productivity were not strong, usually remaining at positive values by 2012. In 2012, there is a slight decrease in labour productivity per worker, together with a slight increase in labour costs per hour.

Conclusions

Analysing these characteristics of the labour market in United Kingdom, we conclude that the English economy is affected by the crisis and is facing some gaps in this regard. However, these imbalances are of lower intensity than those produced by the crisis in other European countries. On the other hand, many macroeconomic indicators show that the English economy is strong and through adequate policies can overcome recession without large losses.

Labour market flexibility is a broad political discussion at European level, usually considered to have positive effects to overcome the crisis. Nevertheless, certainly one should consider the type of flexibility according to each economy. For example, there is the most flexible labour market in terms of fixed term contracts in Spain (having the most fixed term contracts of the EU) and yet is facing the highest unemployment. The explanation is related to other labour market rigidities, namely wage rigidity, internal mobility and legislative rigidity. In other economies labour market is considered to be rigid because there are not enough fixed term contracts. Therefore, its flexibility and success depend on the characteristics and features of each economy.

The labour market in Britain is in a process of flexibility and openness to the European Union, supported by several strengths: economic and political stability, unemployment below the EU average, competitiveness, business support. Weaknesses affecting the United Kingdom economy are related to high unemployment among young people, anti-crisis measures unbearable for some taxpayers, increasing debt, concerns about rising inflation.

In the present context, all economies are more or less affected by the crisis, with greater or lesser effects on the labour market, so that restoring labour market stability and the economy as a whole require joint efforts and appropriate policies.

United Kingdom experience gained by overcoming other recessions, through economic stability and by achieving a high level of quality of life can be a useful model to address economic policy, even if this economy has some features specific to its political system.

Acknowledgements

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The economic analysis of bureaucracy and government growth

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Abstract. *In this paper we analyze the problem of government size and growth and its relation with the size of public bureaucracies. The paper is organized as following: first, we present some factual data which confirm government size and growth for the western democratic world; second, we analyze the theories which identify the causes of this phenomenon. In this line we use Halcombe's (2005) taxonomy and shortly discuss, at first, the rational choice and path dependency theories of government growth. Further, we focus on budget maximization theories. This class of theories explains government growth and size by state's internal factors, bureaucracy (in the case of Niskanen's models) and bureaucracy and politicians (in the case of the Leviathan model). We conclude the paper by presenting the Armev curve and the hypothesis of state's underdevelopment as applied to the problem of the Romanian public administration.*

Keywords: government growth; public choice theory; bureaucracy; budget maximizing; Leviathan.

JEL Codes: F43, H41.

REL Code: 8E.

1. Public choice theory and the government growth and size

In 2008 Tollison wrote that public choice “emerged from the maximizing paradigm of modern microeconomics, and it remains to this day within that approach” (Tollison in Rowley, Schneider, 2008, p. 192). This definition highlights the fact that public choice theory is a branch of modern (neoclassical) economics and that it imported its methodological core from the mother discipline. This means that, in order to have a public choice style theory, one must: adopt the principle of methodological individualism, use the formal rationality assumption of utility maximization and a compatible operationalization (usually instrumental rationality), and employ a deductive style of reasoning and a formal language. The subject matter, political behaviors and institutions, stands on top of these characteristics. Public choice theory is, therefore, “economics approach to political institutions” (Mueller, 2003, p. 501).

1.1. Empirical evidence of government growth in the democratic world

Using this methodological core, a subject which received a great deal of interest from public choice scholars was the government size (the government size compared with that of the non-governmental sector) and growth (the process by which the government seize a continuously growing part of a country resources). The starting point of this field of research is the factual observation that the size and the scope of governmental functions are growing. This trend is depicted in Table 1, below.

Table 1

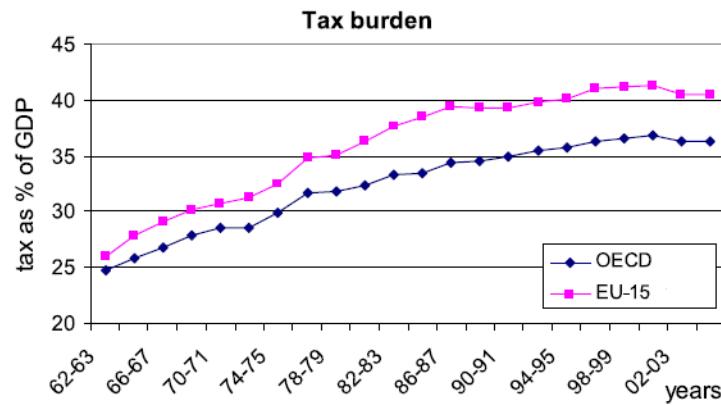
The growth of general government expenditure 1870-1996 (% of GDP)

General government	≈ 1870	Pre-Post World War I		Pre-Post World War II				
		1913	1920	1937	1960	1980	1990	1996
Australia	18.3	16.5	19.3	14.8	21.2	34.1	34.9	35.9
Austria	10.5	17.0	14.7	20.6	35.7	48.1	38.6	51.6
Canada	-	-	16.7	25.0	28.6	38.8	46.0	44.7
Switzerland	16.5	14.0	17.0	24.1	17.2	32.8	33.5	39.4
France	12.6	17.0	27.6	29.0	34.6	46.1	49.8	55.0
Germany	10.0	14.8	25.0	34.1	32.4	47.9	45.1	49.1
Ireland	-	-	18.8	25.5	28.0	48.9	41.2	42.0
Italy	13.7	17.1	30.1	31.1	30.1	42.1	53.4	52.7
Japan	8.8	8.3	14.8	25.4	17.5	32.0	31.3	35.9
Norway	5.9	9.3	16.0	11.8	29.9	43.8	54.9	49.2
New Zealand	-	-	24.6	25.3	26.9	38.1	41.3	34.7
UK	9.4	12.7	26.2	30.0	32.2	43.0	39.9	43.0
USA	7.3	7.5	12.1	19.7	27.0	31.4	32.8	32.4
Sweden	5.7	10.4	10.9	16.5	31.0	60.1	59.1	64.2
Average	10.8	13.1	19.6	23.8	28.0	41.9	43.0	45.0

Central government for 1870-1937, general government thereafter								
Belgium	-	13.8	22.1	21.8	30.3	57.8	54.3	52.9
Netherlands	9.1	9.0	13.5	19.0	33.7	55.8	54.1	49.3
Spain	-	11.0	8.3	13.2	18.8	32.2	42.0	43.7
Average	9.1	11.3	14.6	18.0	27.6	48.6	50.1	48.6
Total average	10.7	12.7	18.7	22.8	27.9	43.1	44.8	45.6

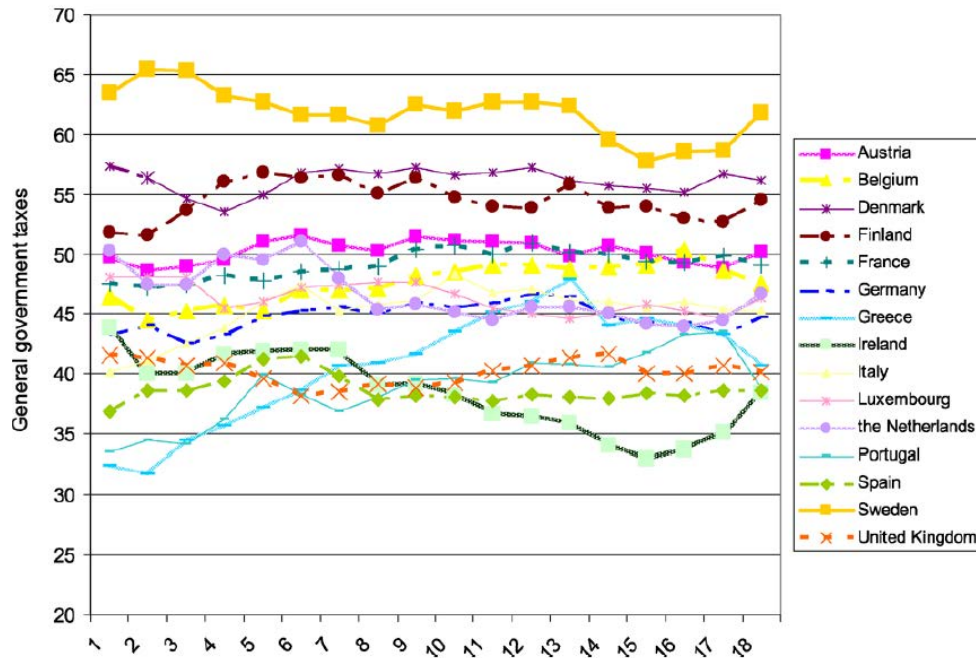
Source: Tanzi and Schuknecht (2000, p. 7).

As Mueller (2003, p. 503) noted, the accelerated government growth could be observed (in the case of the selected states - from Table 1) especially beginning with 1960. The trend is clear: in 1937 the average growth was 22.8%; in 1960 it was 27.9% and in 1980 it was almost twice than in 1937. Of interest are also the values for some states. For example Sweden's government size was 64.2% in 1996 and France's was 55.0% in the same year. Moreover, it is also interesting that after the great leap between 1960 and 1980, the growth is slower but it doesn't stop. (total average of 43.1% in 1980 and total average 44.8% in 1990). In 2010 Witte and Moesen support these conclusions for the period between 1962-2000 with data covered by Figure 1 and Figure 2.



Source: Witte, Moesen, 2010, p. 40.

Figure 1. Taxes burden for the time interval 1962-2003



Source: Witte, Moesen, 2010, p. 40.

Figure 2. Tax burden for some OECD countries

The two above figures confirm government size and growth using, this time, the amount of taxes as percent of GDP and a slightly different sample of countries. So, these are the facts: in the case of democratic western world, the government grew and it has now a considerable size. This undisputed fact was explained in various ways and we review some of these in the following section.

1.2. Theories of government size and growth

In 2003 Mueller argued that there are two classes of theories of government growth. In the first class the source of the government growth and size are the citizens (bottom-up pressure). In this class could be included the theories about: government as a provider of public goods and eliminator of externalities; government as a redistributor of income and wealth; and about pressure groups as inducers of government growth. In the second class the source of government growth is identified inside states' own political and

administrative organizations (the pressure is top-down). Theories about politicians and bureaucrats seen as having some degree of discretionary power to impose their interests against citizens' interests are included in this second class (Mueller, 2003, p. 530). In 2005 Halcombe formulated a different taxonomy of theories about government growth and size. First, public choice explanations differ on two dimensions: one of them is focused on government growth while the other deals with government size.

Second, there are at least three classes of explanations of government growth and size: rational choice models, path dependency models and budget maximization models (Halcombe, 2005, p. 96). For the goals of this paper Halcombe's taxonomy is more suitable. Therefore, in the following section we shortly discuss the first two classes of theories and in a separate section we analyze the third one, which is of our main interest here.

Rational choice and path dependency models

Rational choice models starts with the citizens as the source of government growth. In Halcombe's words, "many public choice explanations of government growth rest on a model that depicts the size of government as a collective choice of its citizens" (Halcombe, 2005, p. 96). The result which is the foundation for this class of theories is the median voter theorem, formulated by Duncan Black in 1958. The theorem says that: "If an alternative x_{med} is a median position for the society, then the number of votes for x_{med} is greater than or equal to the number of votes for any other alternative, z " (Hinich, Munger, 1997, p. 35). In other words, a median position cannot lose a majority rule election. Using this result, Peltzman (1980) wrote that „the leveling of income differences across a large part of the population – the growth of the “middle class” – has in fact been a major source of the growth of government [...] This leveling process [...] created [...] a broadening of the political base that stood to gain from redistribution generally and thus provided a fertile source of political support for expansion of specific programs" (Peltzman, 1980, p. 285). A similar explanation (this time explicitly about voters as the source of government growth) was published by Meltzer and Richard in 1981. The two researchers used a general equilibrium model in which there are only two governmental activities, taxation and redistribution, the budget is balanced, voters has perfect information and the majority rule is used. The conclusion of this model is that the median revenue voter is decisive. In the authors' own

words, “The spread of the franchise in the nineteenth and twentieth centuries increased the number of voters with relatively low income. The position of the decisive voter shifted down the distribution of income, so tax rates rose” (Meltzer, Richard, 1981, p. 924). As an effect of these redistributive pressures, the government began to grow. Another theory (with a more restricted domain than Meltzer and Richard’s theory) was formulated by Lott and Kenny in 1999. They explain a part of government growth by women suffrage. This institutional factor along with the preferences of women for redistributive public policies and their increased appetite for voting (Lott, Kenny, 1999, p. 1.165) explains (in part) government growth and size especially for the first period after adopting universal suffrage.

The second class of models, the path dependency models, starts with the ratchet hypothesis. In Halcombe’s words, “the theory is that government responds to crises like wars and depressions by ratcheting up expenditures, and then, after the crises pass, expenditures fall somewhat but remain above their pre-crisis level” (Halcombe, 2005, p. 100). This is the ratchet effect of government growth: once the level of government expenditure increased, it will never be set back to its original (before crisis) level. This hypothesis was first formulated by Peacock and Wiseman in 1961. Their central argument is that government expansion in the XX century had a faster pace than economic growth. This was caused by crisis episodes which justified tax increases. Rasler and Thompson (1985) had a similar argument. In their view global war was the major crisis factor which explains government growth (Rasler, Thompson, 1985, p. 491). In the same line of thought, Higgs (1987) designed the crisis hypothesis (Higgs, 1987, p. 17). Another explanation of government growth and size was Olson’s (1984) argument about the decline of nations. Starting from his logic of collective action Olson (1965) argued that long periods of political and economic stability are a suited soil for the growing of redistributive coalitions. These are pressure groups which succeed in creating privileged links with the government and redistribute state’s resources in their private interest and against public interest. Their success means lower economic growth and bigger governments. As Halcombe (2005) argue, all these theories suggest that the actual level of government expenditures or of government size “is not the result of some process that responds only to current conditions, but rather is dependent upon historical circumstances” (Halcombe, 2005, p. 101). For this reason they could be classified as path dependency theories.

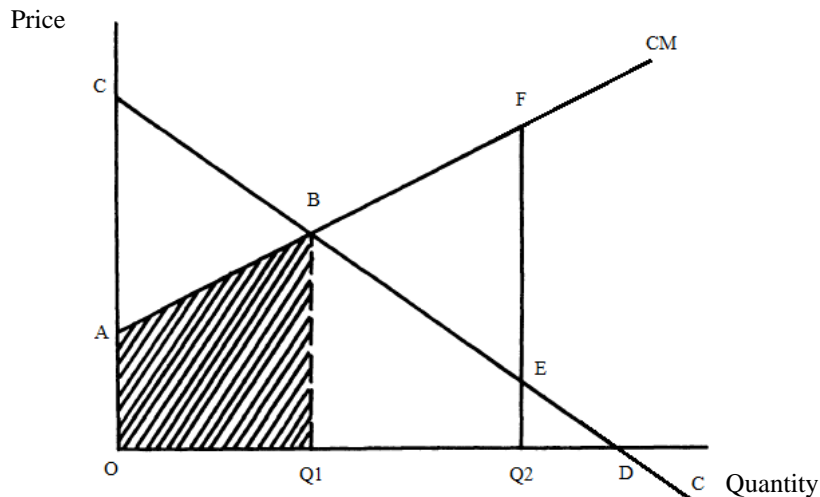
2. Budget or revenue maximization – bureaucracy and Leviathan

The third class of theories of government growth and size are those of revenue or budget maximization. In their case the growth is not caused by citizens' demand (voters or pressure groups) or by a historical context in which the government gains bigger role and budgets. This time, the source of growth is caused by government's internal and present circumstances. In this section of our paper we analyze two types of models from this class, the bilateral monopoly model of budget maximization and the monolithic model of revenue maximization. Both models have state's own agents, bureaucrats and politicians as main actors.

The bilateral monopoly model of budget maximization

In 1968 and 1971 Niskanen published a new explanation of government size and growth. This explanation became one of the most cited results from public choice literature. Niskanen's model starts with the standard neoclassical economics behavioral assumption, that all actors are utility maximizers. This assumption is operationalized in the form of budget maximization. "The bureaucrats maximize the total budget of their bureau" (Niskanen, 1968, p. 293). This is further operationalized as things that bureaucrats might appreciate: salary, perquisites of the office, public reputation, power, patronage, ease of managing the bureau, and ease of making changes. "All these variables are a monotonic function of the bureau's total budget" (Niskanen, 1968, p. 294). The structural assumptions of this model along the behavioral assumption about the financing organization's representatives (the sponsor in Niskanen's terms) are more clearly presented in 1971. First, the sponsor's representatives are politicians, therefore they maximize their re-election in public office (Niskanen, 1971, p. 29). Second, the relation between the bureau and the sponsor is described as a bilateral monopoly (Niskanen, 1971, p. 25). In this relation the bureau has no more than one source of money (sponsor's monopsony position) and the sponsor buy public services form a single source, the bureau (bureau's monopoly position). The bureau's negotiation power is, though, bigger. This is because, by assumption, bureaus are in a position of informational superiority (information asymmetry assumption). The sponsor has no knowledge about the real bureau's production costs. On the other part, the bureau's representatives know the sponsor's utility function. This information asymmetry prevents the sponsor to use its monopsony position.

From this, the conclusion is that the bureau will obtain a larger than the necessary budget. This conclusion is depicted in Figure 3.



Source: modified version of Breton, Wintrobe 1975.

Figure 3. *Bureau's production*

In the above figure, the sponsor's demand curve (C) is equivalent with society's demand, and the marginal cost curve (CM) intersects in point B. At this point the marginal cost of bureau's production is equal to the marginal revenue for society/sponsor. Assuming perfect competition, bureau's production should stop at the Q_1 quantity because at this point Pareto optimality is attained. In Niskanen's model we have a bilateral monopoly market and the sponsor cannot use its monopsony position. This implies that the production will extend to the Q_2 quantity with a budget equal with $OAFQ_2$. This budget-quantity combination is though bigger than the one produced in conditions of perfect competition. The conclusion is that bureaucratic production is inefficient. This conclusion was slightly modified in the 14th chapter of Niskanen's (1971) book. Here, Niskanen introduced the mechanism of committees, aimed at assessing costs and activities. Despite this new assumption, Niskanen maintained that the budgets would be larger than necessary and they would over produce public goods. This was, as Niskanen, concluded, a major source of government growth and size.

Niskanen's model received a great deal of attention in public choice literature. It was criticized and reformulated in several other important

researches. For example, in 1973 Thompson considered Niskanen's model as empirically unreasonable (Thompson, 1973, p. 952) and criticized it for several reasons. First, informational asymmetry has nothing to do with who gets to choose the production level and the price. Relative returns and costs of making bargaining commitments are of importance here (Thompson, 1973, p. 951). Since the same group of trustees (sponsor's representatives) generally deals with many different bureaus and a bureau deals with only one group of trustees, the returns of making commitments are higher for the sponsor than for the bureau chief. Additionally, in Thompson's words, "Furthermore, a commitment of a single bureaucrat, the bureau chief, to withhold output is essentially meaningless because he controls no resources vital to the production of the bureau—he will simply be replaced if he refuses to produce the output that the trustees want at any price they set which is not below the supply price" (Thompson, 1973, p. 951). Thompson further argues that a necessary assumption for Niskanen's model would be that bureaucrats are able to misrepresent their costs at outputs other than their desired output to the extent that the sponsor's representatives are induced to choose bureaucrat's ideal budget. This misrepresentation is though, implausible.

Another critique of Niskanen's model was published by Migué and Bélanger in 1974. They argue that bureau managers are not total budget or production maximizers. First, "if any one of the large number of conceivable other expenses do provide any satisfaction to the manager, he will never seek to reach the maximum output attainable. At some point on the budget line, the utility generated by one dollar of other desirable expenses is bound to become greater than the utility obtained from allocating this dollar to increased output. This is all the more so that by virtue of the budget line being concave to the origin, the cost of increasing output in terms of sacrificeable expenses rises as output rises" (Migué, Bélanger, 1974, p. 33). Second, the manager is not a budget maximizer. He/she will actually want to maximize his/her discretionary budget (the part of the total budget which he/she is able to use in no pre-fixed ways).

Another important critique of Niskanen's model belongs to Breton and Wintrobe (1975). They proposed two arguments about Niskanen's model. First, they notice that the tax rises necessary to support bigger budgets and outputs will eventually result in losing the next election for the ruling political party. The new party will also be in an inferiority position towards the bureaus and will have the same fate as its predecessor, and so on. This "doesn't seem to be supported by facts" though (Breton, Wintrobe, 1975, p. 198). Starting from this observation, the main problem of Niskanen's model is the assumption of sponsor's passivity, its incapacity to use its monopsony power). The next step

is to replace this assumption with a more realistic one. This new assumption states that “the bureau managers are subjected to the control – by penalties and rewards – of the governing political party” (Breton, Wintrobe, 1975, p. 199). In other words, “even if the bureau has a monopoly position, the individual bureaucrat is not in the same position” (Breton, Wintrobe, 1975, p. 199). The implication is, therefore, similar to Thompson’s critique: The Niskanen’s model conclusion depends on the bureau’s manager capacity of hiding relevant information about real costs and budgets. To reduce this effect the sponsor has to employ monitoring devices. “The systematic and rational use of control devices implies that the preferences of sponsors, and possibly those of citizens, are reflected in the supply of public output” (Breton, Wintrobe, 1975, p. 203). In addition to this first argument, Breton and Wintrobe formulated a second one. It refers to the absence of a positive monotonic relation between bureaus. In other words, the salaries and other benefits which bureaucrats enjoy by being members of a bureau could be bigger in smaller organizations. These smaller organizations, though, could have bigger budgets than large organizations. Further, personnel mobility in governmental organizations is relatively high and many bureau chiefs use to raise their salaries (and other benefits) by moving from bigger organizations to smaller ones (if the salaries are bigger). In authors’ own words, “this would seem to indicate that a different (from Niskanen’s) objective function is being maximized” (Breton, Wintrobe, 1975, p. 204). Therefore, “we would expect to observe the kinds of behavior associated with budget maximization only where mobility is relatively restricted” (Breton, Wintrobe, 1975, p. 206). From this, the budget maximization assumption has a domain limited to certain contexts.

Starting from some of the critiques reviewed above, Niskanen (1975) suggested a modified model of bureaucratic production. Amongst the modified assumptions are: the maximization of a discretionary budget (from Bélanger and Migué suggestions), and the active sponsor assumption (from Thompson’s critique) capable to use monitoring devices (from Breton and Wintrobe’s model). These modified assumptions have impact on the over production conclusion (modifying it in underproduction) but not on the higher than necessary budget conclusion. Niskanen maintained that monitoring activities will be undersupplied (Niskanen, 1975, p. 627). From this, bureaucrats will maximize their discretionary budgets up to a level above the median voter and median legislator ideal budgets.

In 2001 Niskanen further modifies its model assuming a different budget reversion level. At Romer and Rosenthal (1978) suggestion, Niskanen wrote that “one implicit assumption of my initial framework is that a bureau and its sponsor bargain over the whole range from a zero budget to the bureau’s

proposed budget” (Niskanen, 2001, p. 265). Starting from this idea, Niskanen explicitly states a new assumption: “The reversion-level budget is very dependent on the institutions of the budget review process but, in general, is not zero. In the limiting case, the reversion level is that for which the benefits to the sponsor are so low that the sponsor exercises its authority to replace or otherwise discipline the bureau” (Niskanen, 2001, p. 269). The main conclusion of this modified model is that depending on the reversion-level budget, the discretionary budget maximizing bureaucrats will ask for bigger or smaller budgets. But in reality the bureaus and the monitoring committees usually have the same interests and this will imply a relative passivity of the sponsor. This will immediately result in an excess budget. Therefore the conclusion is maintained: bureaus are an important source of government growth and size.

2.1. The monolithic model of revenue maximization – government as Leviathan

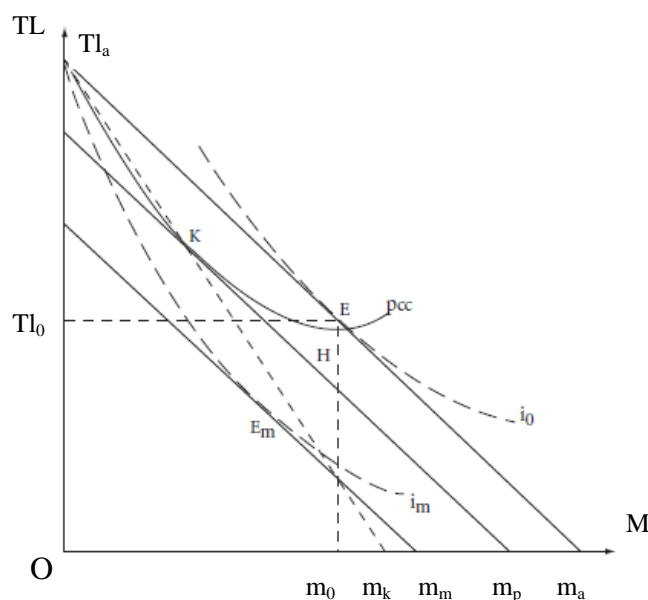
All the budget maximization models presented above assumed to a certain degree a form of differentiation between bureaucrats and politicians. The clearest form of this separation was the bilateral monopoly assumption from Niskanen’s model. This differentiation is eliminated in the Leviathan models of government growth. This tradition started with Brennan and Buchanan papers from 1977 and 1980. The Leviathan model could be described in several simple steps. First, there is a distinction between constitutional and post-constitutional choices. Second, the government is pictured as a non-benevolent despot who needs to be constitutionally constrained. Third, the problem of taxation and the necessity of a tax constitution are being analyzed. Fourth the monitoring capacities of citizens are scrutinized. We discuss all these in the following lines.

The Leviathan model starts from a distinction between constitutional choice and post-constitutional choice. To describe this distinction, the authors use an analogy with a game and its rules: “A game is described by its rules its constitution. These rules establish the framework within which the playing of the game proceeds; they set boundaries on what activities are legitimate, as well as describing the objects of the game and how to determine who wins. It is clear intuitively that the choice among alternative strategies that a player might make in the course of a game is categorically quite distinct from his prior choice among alternative sets of rules. After hitting a particular shot, a tennis player may reasonably wish that the net was lower, yet prior to the game he may have agreed to a set of rules in which the height of the net was specified.” (Brennan, Buchanan, 1980, p. 5). Starting from this analogy, it is argued that

every individual is confronted with a constitutional choice which will constrain his and others behavior in the post constitutional phase.

In this model of constitutional choice “the individual must know the pattern or distribution of positions under several rounds of play under all sets of rules, while remaining ignorant about his own position under any one of these patterns” (Brennan, Buchanan, 1980, p. 5). Further, the model assumes state to be a non-benevolent despot (Brennan, Buchanan, 1980, p. 17). In authors’ own words, “Those who might argue that governments should be analyzed on such a presumption of agent benevolence are denying the legitimacy of *any* constraints on government, including electoral ones. There is no logical basis for a constitution in this setting” (Brennan, Buchanan, 1980, p. 8). Here, the government is defined as a monolithic actor, a collective actor formed by bureaucrats and politicians, which unitary acts as a revenue maximizer using its tax collecting power. In the authors’ words, “the simplest version of the model presumes that governments maximize revenues from whatever sources of taxation are made available to them constitutionally” (Brennan, Buchanan, 1980, p. 33). This premise is supplemented by another: „Specifically, we assume that the political process, as it operates post constitutionally, is not effectively constrained by electoral competition as such, and that the electoral process can appropriately constrain the natural proclivities of governments only when it is accompanied by additional constraints and rules imposed at the constitutional level” (Brennan, Buchanan, 1980, p. 18). Finally, the last essential premise of the Leviathan model is the information asymmetry assumption. The monolithic politicians-bureaucrats actor is in an information superiority position when facing the citizens. The latter are depicted, in Downs (1957) tradition as being rational ignorant. First, the information about government actions is a public good. Second, there are costs of acquiring such information. Third, the benefits of acquiring such information are not fully appropriable by the informed voter. Therefore, all voters will rationally choose to be under informed. On the other side, bureaucrats and politicians have lots of incentives to produce information. All these imply the conclusion of information asymmetry: “the necessary asymmetry between information held by the electorate as distinct from the politician-bureaucrat offers scope for misleading the electorate, and a differential power which can within limits be exercised by politicians-bureaucrats in whatever way they choose” (Brennan, Buchanan, 1980, p. 25). Resuming the argument: the government is a monolithic revenue maximizer. Compared to it, citizens are in a position of information inferiority. From this, the usual electoral process won’t efficiently constrain the government. This implies that government will grow at the expense of its citizens. Therefore we should limit government’s capacity to

extract resources. This is to have a tax constitution to limit government's power to tax. This argument is depicted in Figure 4, below



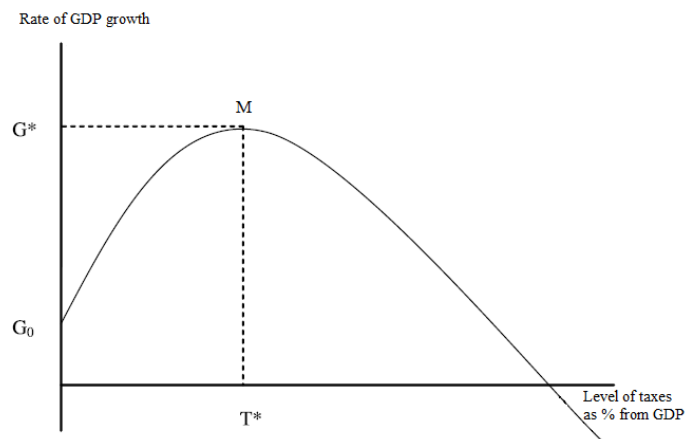
Source: Brennan, Buchanan, 1980, p. 50.

Figure 4. *The power to tax*

In Figure 4 are depicted the indifference curves (i_s). They stand for individual preferences between labor activities (M) and leisure activities (TL). The figure indicates several states of the world: a state E (tl_0, m_0), which is prior to the existence of a tax imposed by the government, a state in which the government has access to a comprehensive tax base and one in which the government's power to tax is restricted to income taxation (money income). By construction, if the government has access to a comprehensive tax base, then total taxation is possible, from O to m_a . Further, by the construction of the model, if the tax base is limited to an income one, it is to be expected that the government will employ a regressive tax system to avoid the case in which citizens stop all labor activities and move to the Tl_a point. In this case the equilibrium point is E_m . The conclusion of this figure is that government will tax in constitutional limits. If these limits are absent, it is to be expected, given voters' rational ignorance, that the government will extract as many resources as possible. So if these constraints are missing, the government will grow.

3. Bureaucracy and government growth. Discussion

In the above sections we presented some of the most important theories about government growth and size. We also presented some of the critiques of one of the most cited theories of government growth, namely Niskanen's model of bureaucratic production. Of course, all these theories could be criticized. For example, a systematic problem of all public choice models is the pervasive use of uniformity assumptions. When these assumptions are in the causal core of the model world (Ungureanu, 2011, 2012) they are unsuitable for policy use. Another important argument against public choice models attacks its core value, efficiency. In public choice theory considerations about efficiency are the only guiding values for policy use. This could be criticized on normative grounds because many things we value won't satisfy an efficiency criterion (for example culture or egalitarian based medical assistance). Although valid, we will not use these arguments here. Rather we employ a third argument which maintains that the undisputable growth of the government from the XX century is not a problem per se. This argument is built on Armeij's (1995) theory and it starts with the economic theory of state. This theory no matter its form – at Buchanan (1975) or Olson (1993) – argues that the existence of state will produce economic growth. This observation is explicitly formulated by Witte and Moesen (2010) and it is depicted in Figure 5, below.



Source: Witte, Moesen, 2010, p.40.

Figure 5. Armeij curve

“If the government has no resources (i.e., zero taxation level), the growth rate of the economy corresponds to C_0 . In a world without rule of law, private agents have to protect their own property rights. The establishment of a government skims some income, but creates a higher growth rate by introducing the provision of public goods and services which increases overall economic efficiency” (Witte, Moesen, 2010, p. 42). Starting from this observation, Armeij’s argument is that we can think about government growth as a U shaped curve. This curve is named after its author, and it explains that we cannot talk about government growth as being a negative phenomenon per se. It also shows that there is an M point and until this point government growth is a positive phenomenon. After this point, the tax distortive effect will generate economic inefficiency.

Starting from Armeij’s argument and applying it the Romanian case, we design the underdeveloped state hypothesis. (UDSH). We formulate it only for the case of Romanian public administration. In this restricted domain form, UDSH means that the level of growth of Romanian public administration in terms of number of employees and allocated budget is underdeveloped. In other words, apart from being a burden on economy’s shoulders (as it has been argued in public discourses in the past few years) the administrative system didn’t reach the point of its maximum efficient growth. This means that bureaucracy is underdeveloped and it should grow to reach the point M from Ffigure 5. We will not present a test for this hypothesis here. This will be done in another paper.

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Correlating stock exchange indices under both normal and financial crisis conditions

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Abstract. *Until the years 1980 the financial crisis were considered as being limited to the level of the capital market (individually), without bearing a systemic character. If considering the intensification of the globalization process, we attended at the increase of the degree of commercial and financial integration of the states all over the world. Thus, gradually, the local financial crisis have propagated at the level of the world financial system. The consequences of these financial crisis did not limited to the markets of the countries where they launched, but spread rapidly on the world markets – an effect known in the literature as contagion. In this article we have tried to evaluate the importance of the contagion effects on the capital markets, by utilizing certain econometric methods, from the correlation tests, to the co-integration tests. Meantime, we have tried to show that during the period of the most severe financial crisis from the Second World War up to date, the degree of correlation of the markets amplifies.*

Keywords: financial crisis; capital market; contagion; correlation tests; stock exchange indices.

JEL Code: G11.

REL Code: 11B.

1. General notions

But, during the years 1990 we have faced major financial crisis: the European Monetary System (1992), Mexico crisis (1994-1995), Asia (1997-1998), Russia (1998), Brazil (1999), Argentina (2001) and the most significant after the second World War – the financial crisis launched in the United States in 2007.

There are several difficult episodes which confronted the capital markets, mainly after the years 1980, to be mentioned in this respect: the European Monetary System (1992), the Tequila crisis (Mexico, 1994-1995), the Asian crisis (1997-1998), the Russian crisis (1998), the Brazil crisis (1999), the Argentina crisis (2001).

There are a series of important reasons to mention when talking about the research of the phenomenon of the international transmission of the financial shocks.

First of all, the contagion phenomenon may have significant implications for the process of the assets portfolio management, mainly as far as the international diversification of the risk is concerned.

On the other hand, the significance of researching this phenomenon is strengthened by the tendency of integrating the financial markets at the world level. The technological revolution, corroborated with the liberalization of the international financial markets have generated the significant increase of the international flows of capitals, which allowed the world-wide shocks transmission.

The last but not the least, the study of the contagion phenomenon is important in order to establish the role and efficiency of the international financial interventions under crisis circumstances.

We have utilized the MetaStock data base in order to get the evolution of the Dow Jones (United States), DAX 30 (Germany) and BET (Romania) stock exchange indices. We have calculated the monthly yields of these indices during the period from 1998 up to date (148 observations). We have applied the E-Views econometric software.

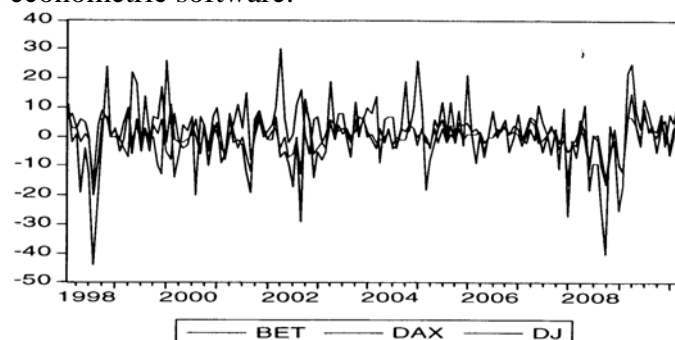


Figure 1. The monthly yields of the Dow Jones, DAX 30 and BET stock exchange indices

The diagram of yields for the three indices allows us to observe the fact that the Romanian market – defined by BET in our analysis, shows larger amplitudes comparatively with the American or German markets.

	BET	DAX	DJ
BET	1.000000	0.304010	0.304419
DAX	0.304010	1.000000	0.798272
DJ	0.304419	0.798272	1.000000

Correlation matrix

The high degree of correlation between the Dow Jones and DAX indices over the period 1998-2010 (80%) is to be noted. The low degree of correlation between the BET and DAX indices or between the BET and Dow Jones indices is explained by the specific evolution of the BET index during the last decade (the degree of under-evaluation at the beginning of the interval, significant acceleration during the years preceding the crisis launched in 2007 and severe decline afterwards). As we shall notice further on, the degree of correlation of the BET index with the indices Dow Jones and DAX increased significantly over the crisis specific period.

The graphic representation of the indices BET-DAX and BET-DJ will indicate a lack of correlation between them, a conclusion arising also from the values indicated by the correlations matrix. As to DAX-DJ, the cloud of points is going to concentrate around a line, which indicates a high degree of correlation between the two indices.

2. The utilization of the Kolmogorov-Smirnov test

The test Kolmogorov-Smirnov is suited to the ordinal variables when the hypothesis of the normal distribution is not plausible or in the situation when the variables are numerical but the samples are small and information about the distribution is missing. In this case, the tables of incidence $2 \times n$, namely two lines and n columns, are to be applied.

The test is based on a statistic calculated in several steps, which is compared with a theoretical statistic, which is not taken from tables but is calculated according to the formula:

$$D_1 = K \sqrt{\frac{n_1 + n_2}{n_1 * n_2}}$$

where n_1 and n_2 are the volumes of the samples and K is a constant depending on the desired threshold of significance. The values of this constant are given by the following table:

Table 1

**Values of the coefficient K for calculating the theoretic threshold
of the Kolmogorov-Smirnov test**

Threshold of significance	Threshold value for p	K value
Significance (S)	0.95	1.36
High significance (HS)	0.99	1.63
Very high significance (VHS)	0.999	1.95

Source: authors' processing.

The following steps are to be run through:

- Groups are fixed as in the case of drawing a histogram, by dividing into equal segments the difference between the minimum and the maximum values between the two series of cumulated data;
- Then, the relative frequencies are calculated for each and every class out of the two series of data;
- The relative frequencies cumulated for the two series of data are calculated;
- The differences between the cumulated relative frequencies of the two series are calculated, separately for each class;
- The largest difference out of those calculated as per the previous point is chosen.

This is the test statistic.

- Then there is the theoretic statistic of the test to be calculated, that is the equivalent of the threshold value which is taken over from tables in the case of the other tests. This statistic is D_t above.
- If the test statistic is higher as against the theoretic one, the difference is significant; otherwise it is not significant. The following step of the analysis consists of the application of the Kolmogorov-Smirnov (non - parametric). The results shown in the diagram show a distribution close (similar) to the yields consigned by the indices Dow Jones, DAX 30 and BET over the analyzed period. If the distributions of the series on the axis of abscise and ordinates coincide, the graph should have a linear trend. We state out that the three cases are emphasizing the fact that BET, DAX and DJ follow the normal distribution.

The graphs of QQ type (Quantile – Quantile) for the three stock exchange indices are disposed approximately in a straight line, excepting the left end, which is sloping down ward. The graphs of QQ type that follow linear trends in the middle zone, but slope up ward at the left end and down ward at the right end are an indicator of the fact that the distribution is leptokurtic and has a thicker tail than the normal distribution. If the graph is sloping down ward at the left end and up ward at the right end, it means that the distribution

is a platikurtic one and has thinner tails than the normal distribution. The graphic representation of the three indices leads to the conclusion that they are platikurtics.

Among the notable differences we have to mention the different amplitude of the evolution of these stock exchange indices. Thus, the saying "... When America sneezes, Europe catches a cold and the rest of the world dies of pneumonia.." gets a confirmation. It can be observed that a variation of the Dow Jones index implies a larger amplitude of the German DAX 30 index and a still higher amplitude of the BET index (when the Dow Jones index decreased by 16%, the DAX 30 index lost 30%, while the BET index consigned a decline of over 40%). In order to identify the relation existing between the three stock exchange indices we shall apply the Granger causality test, as well as the Johansen test of co-integration.

3. The utilization of the Johansen test of co-integration

The discovery that un-numbered time series of the macroeconomic variable type may have a unit root overthrow the theory of the non-stationary time series. Engle and Granger (1987) have shown that a linear combination of two or more non-stationary time series may be a stationary series. If indeed this linear combination exists, it is said that the non-stationary component series are co-integrated. The stationary linear combination is called the co-integration equation and is interpreted as a relation of equilibrium on long-term basis between the variables.

The purpose of the co-integration tests is to establish whether a group of non-stationary series is co-integrated or not. Eviews assumes co-integration tests based on autoregressive vectors (VAR), starting from the methodology developed by Johansen (1991, 1995a). Considering an autoregressive vector of order p :

$Y_t = A_1 \times y_{t-1} + \dots + A_p \times y_{t-p} + B \times x_t + \varepsilon_t$, where y_t is the vector of dimension k of the non-stationary variables $I(1)$, x_t is the vector of dimension d of the exogenous variables and ε_t is the innovative vector.

The equation can be re-written as follows:

$$\Delta y_t = \Pi y_{t-1} + \sum_{i=1}^{p-1} \gamma_i \Delta y_{t-i} + Bx_t + a_t, \text{ unde}$$

$$\Pi = \sum_{i=1}^{p-1} A_{i-1}, \gamma_i = \sum_{j=i+1}^p A_j$$

The theory alleges that if the coefficients matrix Π has the rank $r < k$, then there are the matrices α and β of dimension $k \times r$, each of the rank r , so that $\Pi = \alpha \beta'$ and $\beta' y_t$ is $I(0)$ – integrate of order 0, r is the number of co-integration relations (rank of co-integration) and each column of β is the co-integration vector. The elements of the vector α are known as adjustment parameters.

The Johansen model assumes the estimate for the matrix Π starting from an auto-regressive vector, without restricted auto-regressive vector and testing whether the restrictions required by the reduction of the matrix Π rank can be rejected.

The outcomes of the Johansen test of co-integration are shown in the tables below:

Date: 04/22/10 Time: 07:18
 Sample(adjusted): 1998:04 2010:04
 Included observations: 145 after adjusting endpoints
 Trend assumption: Linear deterministic trend
 Series: BET DAX DJ
 Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	5 Percent Critical Value	1 Percent Critical Value
None **	0.441187	176.5435	29.68	35.65
At most 1 **	0.317155	92.16217	15.41	20.04
At most 2 **	0.224396	36.84643	3.76	6.65

*(**) denotes rejection of the hypothesis at the 5%(1%) level
 Trace test indicates 3 cointegrating equation(s) at both 5% and 1% levels

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	5 Percent Critical Value	1 Percent Critical Value
None **	0.441187	84.38131	20.97	25.52
At most 1 **	0.317155	55.31574	14.07	18.63
At most 2 **	0.224396	36.84643	3.76	6.65

*(**) denotes rejection of the hypothesis at the 5%(1%) level
 Max-eigenvalue test indicates 3 cointegrating equation(s) at both 5% and 1% levels

Unrestricted Cointegrating Coefficients (normalized by $b'S11*b=I$):

BET	DAX	DJ
-0.075887	-0.102769	0.404222
0.064223	0.148017	-0.041733
0.071500	-0.294334	0.328840

Unrestricted Adjustment Coefficients (alpha):

D(BET)	D(DAX)	D(DJ)
4.585432	-1.661444	-2.570538
-5.586877	-3.826045	-2.437943
-2.357205	1.879751	0.014809

1 Cointegrating Equation(s): Log likelihood -1422.633

Normalized cointegrating coefficients (std.err. in parentheses)

BET	DAX	DJ
1.000000	1.354243	-5.326642
	(0.43087)	(0.64743)

Adjustment coefficients (std.err. in parentheses)

D(BET)	D(DAX)	D(DJ)
-0.347974	0.126082	0.195070
(0.07850)	(0.05187)	(0.03339)

2 Cointegrating Equation(s):		Log likelihood	-1394.975
Normalized cointegrating coefficients (std.err. in parentheses)			
BET	DAX	DJ	
1.000000	0.000000	-11.99024	
		(1.18846)	
0.000000	1.000000	4.920531	
		(0.70214)	
Adjustment coefficients (std.err. in parentheses)			
D(BET)	-0.706783	-1.298193	
	(0.09150)	(0.16585)	
D(DAX)	-0.119640	-0.395573	
	(0.05986)	(0.10850)	
D(DJ)	0.038497	-0.096684	
	(0.03866)	(0.07007)	

The first part of the outcomes is correlated with the number of the co-integration relations. The technique offers two statistics: Trace Statistic and Max-Eigen value. The conclusions are shown at the bottom of each table, so that each test indicates the fact that there are three co-integration relations between the indices.

One of the conclusions of the test is that the three stock exchange indices are co-integrated through three co-integration equations, a stationary series resulting.

4. The utilization of the Granger test of causality

The correlations are not necessarily assuming relations of causality as well, as there is a multitude of correlations meaningless such as, for instance, those between the wages in the education system and the alcohol consumption. The Granger approach (1969) in connection with this issue of the causality relation $x - y$ consists of establishing how much from the submitted values of y can be explained by the past values of y and, then, whether by adding belated values (with different lags) of x , the connection can be improved. It is stated that y is caused Granger by x if x helps to estimate y or, in other words, whether those coefficients of the belated values of x are significant from statistical point of view. To keep in mind the fact that the statement „ y Granger caused by x ” does not assume as well that y is the effect or the result of x . Meantime, the Granger causality test is acting in double sense, meaning that y is Granger caused by x and x is Granger caused by y .

The starting regressions are the following:

$$y_t = \alpha_0 + \alpha_1 y_{t-1} + \dots + \alpha_i y_{t-i} + \beta_1 x_{t-1} + \dots + \beta_i x_{t-i} + \varepsilon_t$$

$x_t = \alpha_0 + \alpha_1 x_{t-1} + \dots + \alpha_i x_{t-i} + \beta_1 y_{t-1} + \dots + \beta_i y_{t-i} + u_t$, for all the pairs of the analyzed variables. For F-calculated the Wald statistic having a null hypothesis is used:

$$\beta_1 = \beta_2 = \dots = \beta_i = 0 \text{ for each equation.}$$

The null hypothesis is that y is not Granger caused by x , for the first regression and x is not Granger caused by y , for the second regression.

The outcomes of the test application are shown in the table below:

Pairwise Granger Causality Tests
Date: 04/22/10 Time: 07:30
Sample: 1998:02 2010:04
Lags: 2

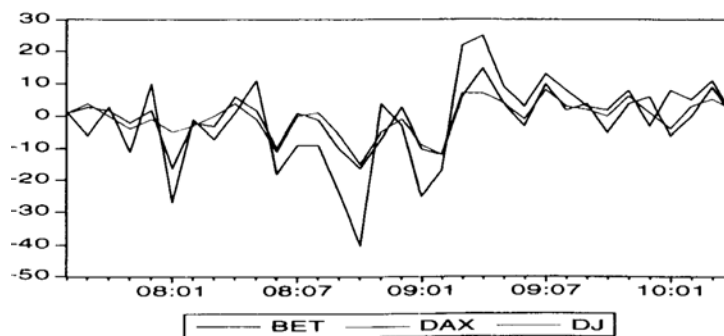
Null Hypothesis:	Obs	F-Statistic	Probability
DAX does not Granger Cause BET	145	0.26636	0.76655
BET does not Granger Cause DAX		1.07904	0.34273
DJ does not Granger Cause BET	145	2.16455	0.11863
BET does not Granger Cause DJ		0.48383	0.61745
DJ does not Granger Cause DAX	145	1.68844	0.18855
DAX does not Granger Cause DJ		0.31703	0.72883

As to the causality relation between DAX and BET, the null hypotheses will be accepted, since the errors assumed by the rejection of the null hypothesis are very large (77%, respectively 34%). Therefore, BET is not Granger caused by DAX, neither is DAX a Granger caused by BET.

The causality between DJ and BET goes to a single direction only, according to the test outcomes, namely that the American market is the cause for the Romanian market. The error implied by the rejection of the non-causality between DJ and BET is of 11% and, thus, accepting a level of confidence counting for 89%, it can be concluded that BET is Granger caused by DJ, but not the vice-versa.

In the case of DJ and DAX, the null hypotheses cannot be rejected hence there are no relations of causality between the two indices, according to this test.

Applying the same method for the period August 2007 - April 2010 the graphic below results:



The correlation matrix set up by calculations is submitted below:

	BET	DAX	DJ
BET	1.000000	0.824211	0.807312
DAX	0.824211	1.000000	0.890824
DJ	0.807312	0.890824	1.000000

To observe that during the period of the economic and financial crisis the degree of correlation between the markets increased significantly. The evolution of the BET index became more closely correlated with the evolution of the Dow Jones and DAX 30 indices within that period.

Out of the graphic presentation it results that the outcomes of the correlation matrix are concentrated around a line.

By applying the Kolmogorov-Smirnov test we state out a close (similar) distribution of the yields consigned by the Dow Jones, DAX 30 and BET indices over the analyzed period.

If the distributions of the series on the axis abscise and ordinate coincide, the graph will emphasize a linear trend. It is clearly noticeable that the three graphs indicate the fact that BET, DAX and DJ follow the normal platikurtic distribution.

As well for the new time horizon considered, among the notable differences we take into account the different amplitude of the evolution of these stock exchange indices. The variation of the Dow Jones index generates the same amplitude of the German DAX 30 index and a still higher amplitude for the BET index (when the index Dow Jones dropped by 16%, the index DAX 30 lost 16%, while the index BET recorded a decline of over 40%).

Out of the calculations performed it is resulting that the co-integration test for the period of crisis shows the presence of three equations of co-integration for both the critical level of de 5%, and 1% according the Trace Statistic while the Max-Eigen value Statistic suggests the existence of three equations of co-integration for the critical level of 5% and one equation for 1%.

Pairwise Granger Causality Tests

Date: 04/22/10 Time: 07:39

Sample: 2007:08 2010:04

Lags: 2

Null Hypothesis:	Obs	F-Statistic	Probability
DAX does not Granger Cause BET	33	0.80365	0.45775
BET does not Granger Cause DAX		6.13101	0.00619
DJ does not Granger Cause BET	33	0.56619	0.57405
BET does not Granger Cause DJ		2.33066	0.11581
DJ does not Granger Cause DAX	33	3.22331	0.05497
DAX does not Granger Cause DJ		0.30916	0.73654

The Granger test of causality, submitted above, suggests that DAX and DJ are caused by BET. Meantime, there are relations of causality between DJ and DAX as well, namely the German market is caused by the American market.

To note the fact that the relations of causality are more pronounced under conditions of crisis on the considered markets, so that the three stock exchange indices appear in the relations of causality of Granger type, either in one sense, or another (according to the outcomes from the outputs, the causality is not mutual in the present case).

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Improving public sector performance by strenghtening the relationship between audit and accounting

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Abstract. *If twenty years ago the financial activities of any Romanian enterprise were the sole responsibility of the accountant, nowadays the relationships of the economical entities within theirselves and with their environment are too complex to be handled just by accounting departments. Around accounting there have appeared a significant number of activities like Controlling and Auditing which are meant to link Accounting with the strategic management. In this regard the paper approaches the relationship between internal public audit and accounting which improves decisions making process in public sector. The research methodology aims to study these relationships and determine how they can work to the benefit of increasing public sector performance. The conclusions of the research shape aspects of accounting and auditing improvement as main strategic components for insuring performance in the public sector.*

Keywords: audit; controlling; accounting; public sector performance.

JEL Codes: 13G, 14I, 14J.

REL Code: H83.

1. Introduction

Modern management is more and more influenced by the need to build an integrated model of leading an economical entity, best described by *Management by Systems*. In its quality of a „complex, dynamic, open, autonomous, market oriented, productive and social system” (Thommen, Archleitner, 2001, p. 38, Evans, Davis, 2005, pp. 758-775) the economic entity is composed of several subsystems having determined actions and relationships between them, exchanges resources with its environment and is disturbed by internal factors (unsatisfied employees, damages to equipment) and by external factors (legal environment). We speak here of economical entities and not enterprises because the systemic definition from above can be extended to public institutions, non-profit organizations and so on.

The concept of *management by systems* implies the leading of an entity by determining the relationships between these subsystems and of the relationships of the entity as a whole with its environment, in order to reach its function optimum (Thommen, Archleitner, 2001, p. 824).

The essential assumption or reaching this optimum is that the processes and relationships within the entity and of the entity with its environment are measurable, and that the measurement can be carried out with an accuracy as good as needed. This function is mostly taken by the financial and accounting department, thus building a subsystem of its own, with the purpose of measurement.

There are two main critics to the concept of “management by systems”. One of them regards its applicability: economic entities are too complex to be described by an “equation”, and the IT infrastructure has not yet evolved to be able to give the necessary support for managing an entity by the laws of the *theory of systems*. The second critic regards the fact that measuring the relationships mentioned above cannot always be carried out with a sufficient accuracy.

However, it is this author’s opinion that the concept of Management by Systems is a matter of the future. The ERP (Enterprise Resources Planning) and CRM (Customer Relationship Management) software that is being developed gets stronger and stronger and the hardware support for these software is getting more and more powerful by the day. Measuring and modeling an economic entity will be eventually carried out with accuracy close to the needs and rigors of management by Systems. This paper proposes a model of the financial department in its role of measurement subsystem. Also, this paper introduces the notion of Controlling to public institutions in Romania, as a mean to interpret accounting reports and give to the public management the necessary decisional infrastructure.

2. The difference between accounting and audit

Accounting represents the recording, classification and synthesis of economic events in a logical manner, with the purpose of giving financial information as a support for the decision process (Arens, Loebecke, 2006, pp. 13-14). In order to be able to give relevant information, which is always of a quantitative nature, the accountant must know very well the principles and rules on which the processing of the supplied information relies in order to build up a system that insures the correctness, promptitude and efficiency of the recording of facts and events. Thus, accounting must be regarded as a tool of management which follows internal processes in all their stages starting with conception.

Also, in auditing accounting data it is most important to determine whether they accurately reflect the economic events that have produced during the financial exercise (Arens, Loebecke, 2006, p. 14). It is required also from the part of the auditor to perfectly understand the principles and rules that the accounting records rely on, because the audit really verifies the compliance of the records with these rules and principles.

This is only the first of three stages of public audit mission complexity (Pollitt, Bouckaert, 2011, p. 86). Extending the approach to verifying not only accounting data, the second stage complexity turns to some issues of public sector performance like efficient use of resources (Jaliu, 2009, pp. 12-13). The third stage lives the field of accounting addressing the mechanism which generate performance in public institutions.

Next to a very good understanding of accounting, the auditor has got to have the experience of gathering and interpreting evidence. It is exactly this experience that differentiates auditors from accountants. The auditor's activity reflects into identifying adequate auditing procedures and testing parameters.

3. Accounting, Controlling and Audit

The measurement of system performance (Iancu, 2012, pp. 103-124) is in the case of social and economical systems a permanent and indispensable function for assuring the fulfillment of entity objectives (for public administration, Iancu, 2012, p. 110). We will now try and define each of the components of the measuring subsystem of the entity, namely, accounting, controlling and audit.

Accounting is a permanent activity within the system, supplying information at regular time intervals about the performance of the system, its finality being the balance sheet. In evaluating the activity of the system, accounting suffers from legal constraints and therefore is not suitable for the processing of the supplied information (Dillard, Yuthas, 2002, pp. 49-64). Accounting gives quantitative

information about incomes and expenses applying to the studies period of time for companies in the private sector, and about the taxes to pay according to the fiscal result. Information given by accounting is of an objective nature because of their quantitative character and of the legal constraints.

On the other hand, *Controlling* (Horvath, 2007) is a permanent activity of evaluation of the data supplied by accounting and by the environment. From the point of view of the system behavior the functions of Controlling are:

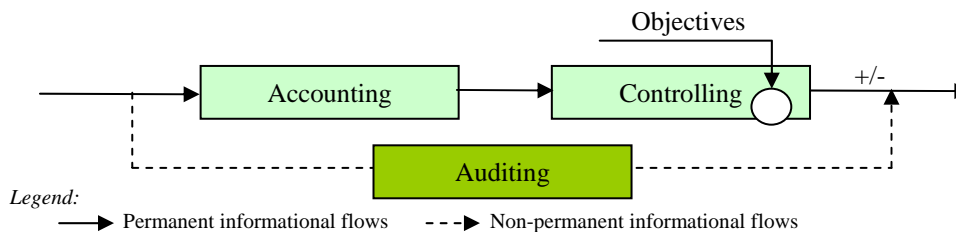
- establishing analysis and synthesis methods of data;
- analysis and synthesis of the data supplied by accounting or by the environment, their comparison with the objectives of the entity and offering coherent reports to the strategic management in order to sustain its planning activity;
- reevaluation of data for determining and preventing abnormal or anti-systemic events, and data processing errors.

As a general rule we can say that it is the goal of Controlling to define, build up and verify the system. The results of the Controlling activities are, in distinction from accounting, both quantitative and qualitative, and they are not constrained by legal aspects, but by aspects of a mathematical and procedural nature. Controlling is an activity covering the entire entity, and is part of the strategic management, having among others the function of supplying coherent information.

Controlling does not refer to the characteristics of the product, but to the concordance between planned activities and the progress of their implementation, using as metric the financial and accounting support of the organization (Brătianu, C. in Foerword to Horvath & partners, 2007).

Also, *audit* is an activity of a permanent or non-permanent, periodical or non-periodical nature, of gathering information about the system and evaluation according to a well-defined set of criteria (Arens, Loebecke, 2006). Establishment of the optimal moment of auditing is a very important issue of the system, but it is not the central issue of this paper. Within the measurement subsystem of the organization, the audit has two very important functions:

- Verifying the conformity of analysis and synthesis methods used by the controlling department with the actual state of the system and reaching verdicts about their validity and opportunity in order to insure the coherence of its conclusions with the process that they refer to;
- Verifies the legality of accounting records, as basis and information source for controlling. Fiscal control has the same function. The difference relies in the fact that observations of audit are relevant only to the organization and are being directed only to the strategic management and controlling, while observations made by the fiscal control regarding possible nonconformities of records are being sanctioned.



Source: Dumitrescu (AMIS, 2010, pp. 337-343).

Figure 1. The relationship between accounting, controlling and audit

We can thus say that the audit is a sort of “over control” for the organization. The audit needs to assure the objectiveness of controlling and report to the strategic management the possible nonconformities in the elaborated methodical approach. The conclusions of the audit are almost always of a qualitative nature, trying to determine from a causal approach the relationship between the effects of different existing states of facts to the procedural errors of the measurement subsystem.

Any system formed of accounting, controlling and audit which works according to the diagram from Figure 1 can contribute to the improvement of management performance in public institutions. Such systems are being successfully implemented in large private owned companies and multinational corporations. Accounting measures events taking place within the public entities. The quality of this activity is crucial, not only from a legal point of view, for the sake of financial statements, but also because measured data is used by controlling for the financial reports it makes for the hierarchically superior levels. These reports aren't written according to legal requirements, as they must describe as exactly as possible the processes taking place within the entity. This is why controlling is using its own set of procedures and methods. Audit must thus verify the basis by which both accounting and controlling are working. For accounting it must ensure that the measurement is carried out as exactly as possible, and for controlling both the correctness of the used methods as well as their application.

4. Conclusions

Although accounting, controlling and audit are very often mistaken one with each other they have very distinct function within the organization. Accounting gathers information, controlling processes them and audit verifies the coherence of the accounting and controlling activities with the processes within the organization. We consider that audit activities should cover not only the aspect of legality of accounting records, but especially the conformity of the

methodical approach of controlling in order to insure that the management decision and planning functions have the right basis for their activities.

It must be mentioned that the sphere of interest of the internal public audit is not limited only to verifying financial statements, but includes according to the law of internal public audit (Law no. 672/2002 republished, MO no. 953/2002) all fields where malfunctions can occur, which can lead to a decrease in performance. However, for the purpose of this paper, it is exactly the financial aspect of internal public audit, which is relevant.

This paper is especially useful for public institutions in Romania, where the procedures and methods controlling have not yet been institutionalized, and audit procedures apply only on accounting records. This paper is intended to be the basis for a larger study of the role of audit and controlling in Romania's public institution of today and tomorrow.

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Corporate social responsibility, a strategy to create and consolidate sustainable businesses

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Abstract. *To highlight the strategic importance of CSR, this paper starts with a study of specialized literature in order to identify the role of these strategies in the creation and strengthening of sustainable business. Using Dunphy's model as a start point, we attempted to draft typologies for social responsibility strategies that support organizations in creating and strengthening sustainable business. An empirical study of the European automobile industry has sought to highlight the impact CSR strategies have on sustainable business. Selection and implementation of appropriate social responsibility strategies are important in achieving added value through the creation and strengthening of sustainable business.*

Keywords: corporate social responsibility; social responsibility strategy; sustainable business; corporate sustainability.

JEL Codes: M14, M21, I62.

REL Codes: 7L, 10B, 10H, 15D.

1. Introduction

The global economy requires organizations to clearly define their role and reconsider their economic, social and environmental objectives, "transforming business models faster, more frequent and more extensive than in the past, to demonstrate their capacity to develop sustainable business through clearly stated and transparent strategies"(Doz, Kosonen, 2010).

Business sustainability objectives have become increasingly more important for companies, but also for stakeholders. Such an attitude of businesses, focused on strengthening fair relationships with stakeholders, meets the following requirements: "addresses allegations from international bodies which perceive globalization as a cruel, exploitative, no rules phenomenon, linked to indifference of entrepreneurs towards losses caused by corporate social responsibility and socio-competitive scepticism "(Cismas, Stan, 2010, p 150).

Corporate strategies should be drawn to meet stakeholder requirements. Formulating and implementing strategies should be a more proactive, rather than reactive process, an emblem of corporate conscience and management. Each organization must follow the wording of those long-term winning strategies, "giving equal importance to human resources, societal balance society, and the environment" (Lepineux et al., 2010) and realizing the importance of building sustainable business.

Specialized literature tried to highlight in multiple ways the importance of corporate social responsibility in business strategy. Some authors even consider that "corporate social responsibility initiatives must be integrated and internalized by an organization so as to be placed in the heart of the organization" (Dey, Sircar, 2012), to obtain benefits such as: improved corporate reputation, increased confidence of customers, increased employee motivation and market share. Businesses should be aware that the inclusion of social responsibility objectives in the strategy of the organization must be triggered not only by the desire to build a positive image, by operational efficiency or the prospect of competitive advantage, but as a condition of building sustainable businesses.

The research proposes a classification of corporate social responsibility strategies involved in building sustainable business. We aim to answer the question whether the implementation of certain social responsibility strategies leads to building sustainable business. Through a study of corporate social responsibility strategies used by companies operating in the automotive industry, we intend to demonstrate that corporate social responsibility strategies are key factors of sustainable business on the following levels: social and societal, ecological and environmental, supply chains and suppliers, corporate

image, position in relation to competitors and financial performance. We view business sustainability as a consequence of the application of corporate social responsibility strategies. The results of the study show that there are six types of CSR strategies that have a significant impact on business sustainability.

2. The significance of the concept of corporate social responsibility strategy

CSR strategies are opportunities offered by the development of business strategies aligned with business goals, deeply rooted in the principles and values of corporate social responsible. Specifically, corporate social responsibility objectives are integrated into business strategy and become a driver of its development.

In literature there is a varied array of social responsibility and sustainability strategies, such as: "resign strategy, defensive strategy and offensive strategy" (Van Bommel, 2011). "Resign" strategy is used when, due to lack of pressures and incentives, but also based on the capacity of innovation of the organization, it is decided not to begin the implementation of sustainability. Businesses can choose a defensive strategy for specific products or services, and, at the same time, an offensive strategy for other categories of products or services. In addition, organizations can choose different strategies for different aspects of sustainability (Kogg, 2009). Organizations with a low level of innovation will choose a defensive strategy, while organizations with a high level of innovation are able to implement offensive strategies. Other research on social responsibility strategies identifies four categories of strategies: "obstructionist, defensive, accommodative and proactive" (Carroll, 1979, Wartick, Cochran, 1985, Carroll, Buchholtz, 2000, Fisher, 2004, Sauser, 2005). Companies that adopt an obstructionist strategy reject any form of ethics or social responsibility that does not meet the economic interest, companies that choose a defensive strategy reject only ethical responsibilities and protect their own interests within the legal framework; companies that adopt an accommodative strategy support certain ethical responsibilities, particularly those of stakeholders, without initiating voluntary actions for the common good; proactive companies distinguish themselves by fully recognizing social responsibilities and by an active engagement to minimize their negative impact and meet stakeholder needs.

Choosing the right social responsibility strategy impacts business by: "reducing costs and risk, maximizing profits and competitive advantage, increasing reputation and legitimacy and creating synergistic value" (Kurucz et al., 2008, p 86). "By building a business strategy to align economic, social and environmental performance to long-term business values, corporate social

responsibility becomes part of the business and adds long-term value for both the company and the society" (Rochlin et al., 2005, p. 8).

One of the major dilemmas of a manager concerns choosing the right business strategy to ensure its sustainability. Some studies analyse the factors that affect the choice of the most appropriate strategy and indicate the level of development a company aims to achieve (Van Marrewijk, 2010, pp. 85-96, Van Bommel, 2011, pp. 895-904). Van Marrewilk integrated the Four Phase Model created by Teun W. Hardjono in 1995 and Spiral Dynamics created by Don Beck and Chris Cowen in 1996 in the organization. Thus, in determining the strategic guidelines he identified challenges that exist within the organization (Van Marrewijk, 2010, p. 91).

Many studies analyse why companies that are comparable in terms of size and power, and are influenced by the same external conditions, choose different social responsibility strategies. This choice may be influenced by various pressures and incentives, which generate innovation pressure, as a first step in implementing the strategy (Van Bommel, 2011, p. 900) or even by local or national perception of the impact of these strategies.

In our view, structuring corporate social responsibility strategies involved in building sustainable business, based on the level at which they operate, produces the following categories: social and societal strategies, ecological and environmental strategies, strategies responsible for distribution and supply chain, strategies to build corporate image, strategies to create competitive advantage and strategies to obtain added value. Based on the attitude of the organization towards sustainability values and on the degree of implementation of these values, strategies are: passive (defensive), reactive and proactive.

A careful selection of corporate social responsibility strategies could ensure business sustainability by delivering benefits to the organization (improving corporate image and reputation, increasing operational efficiency, sales and customer loyalty, gaining competitive advantage, providing benefits to shareholders, increasing financial performance), to the employees (increased motivation, improvements in team unity, reduced internal conflicts, elimination of unethical practices, more developed social solidarity), to society (promoting social inclusion, improving cooperation with non-governmental organizations, state institutions, customers, suppliers, competitors) and benefits to the environment (reducing the impact of economic activity on air, water, soil, non-renewable natural resources, reducing energy consumption, promoting recycling and reuse).

3. Creating and strengthening sustainable business – a priority of contemporary organizations

The concept of sustainable development is steadily extending its applicability from society to organizations, being called corporate sustainability. There are also some skeptics who question if and how this concept is applied at organizational level (Gray, 2010). Since sustainable development issues concern us all, citizens, businesses and governments need to cooperate to establish sustainable consumption as a common goal of society (Malovics et al., 2008).

In literature there is no universally accepted definition for corporate sustainability, this concept can mean "applying business strategies and activities that meet the needs of today's organization and stakeholders, while protecting human and natural resources that will be needed in the future" (International Institute for Sustainable Development, 1992); "meeting direct company needs and indirect stakeholder needs (shareholders, employees, customers, pressure groups, communities) without compromising the ability to meet the needs of parties who will become interested in the future" (Dyllick, Hockerts, 2002), "proving that social and environmental objectives are integrated into business operations and are in interaction with stakeholders" (Van Marrewijk, 2003), in an attempt to demonstrate that corporate sustainability and corporate social responsibility are synonymous. A supporting fact of this idea is that both concepts focus on three dimensions of corporate performance: economic, social and environmental (Steurer et al., 2005).

Progress towards sustainability in organizations is undergoing a series of phases, defined by Dunphy's model (Holton et al., 2010, p. 155): rejection, ignorance, compliance, efficiency, proactive strategy, corporate sustainability (Table 1). These steps demonstrate how organizations treat people and natural resources they use in their activities. Basically, going through these stages, organizations progress from rejecting the idea of corporate responsibility to indifference, and then to strategic adoption of sustainable development values.

Table 1

Phases in the development of corporate sustainability		
Phases	Treatment of human resources	Treatment of natural resources
Phase 1 Rejection	Employees and subcontractors are exploited; the organization has no responsibility regarding health and work safety or employee development.	Organization doesn't assume responsibility for the impact of its activities on the environment. Natural resources and environment can be exploited freely and with no costs.
Phase 2 Ignorance	Technological and financial factors dominate business strategies. The most important aspects of human resources management are excluded. Social responsibility is ignored.	Technological and financial factors dominate business strategies and environmental objectives are excluded.
Phase 3 Compliance	Technological and financial factors still dominate business strategies. Compliance is achieved only as a risk reduction exercise.	Environmental abuses are eliminated, but environmental issues with smaller impact on the community are ignored.
Phase 4 Efficiency	Steps are taken to integrate HR functions into a coherent system of human resources management to reduce risk and increase efficiency. Community projects are carried out only if funds are available and if they bring real benefit.	Environmental issues that generate costs are regularly reviewed to reduce costs and increase efficiency.
Phase 5 Proactive strategies	Intellectual and social capital is used to obtain a strategic advantage. The effects on the community are taken into account and programs to reduce these effects, integrated into business strategy, are carried out.	Proactive environmental strategies are valued as sources of strategic business opportunities and competitive advantage. Steps are taken to enforce those production processes that will produce ecologic products.
Phase 6 Corporate sustainability	The organization adopts clear and strong ethical practices based on the respect for stakeholders' needs, influencing market operators and society in general to comply with human rights, to adopt fair social practices, to develop human capital.	The organization is an active promoter of sustainability values and seeks to influence market players and society, in general, in this respect. It adopts best environmental practices, as the company is aware that it must act responsibly.

Source: adapted from Holton, Glass, Price, 2010.

Organizations differ substantially depending on their attitude towards the implementation of CSR strategies and on speed in changing ethical behaviour (Piercy, Lane, 2009). In our opinion, companies in phases 1 and 2 apply passive sustainability strategies (defensive), companies across phases 3 and 4 implement reactive strategies and those in phases 5 and 6, proactive strategies.

Globally, corporate sustainability has become a particularly important aspect for both organizations and their stakeholders. Thus, in recent years, sustainability-reporting indicators have become a particular concern for many organizations. Basically, sustainable performance management is viewed from several perspectives: on the one hand, it links environmental and social

management with the business strategy, and, on the other hand, it integrates environmental and social information into sustainability reporting (Schaltegger, Wagner, 2006).

Basically, adopting responsibility strategies provides organizations the ability to create and grow sustainable business, bringing competitive advantages and added value. In fact, organizations have the resources, technology and motivation to implement sustainable development values. Numerous studies address the motivation of organizations to involve in social responsibility activities, the ways of implementation (Smith, 2003), the issues of sustainable supply chain management (Seuring, Muller, 2008), CSR codes of conduct (Bondy et al., 2008), organizing the standardization system (Castka, Balzarova, 2008) or even issues relating to sustainability reporting in organizations (Roca, Searcy, 2012).

Measuring corporate sustainability is one point of great interest to researchers. A study from 2011 forayed into literature published between 2000 and 2010, providing a basis for structuring a set of 65 key questions for future research (Searcy, 2012). The analysis on 17 corporate sustainability reports of Greek companies (Skouloudis, Evangeline, 2009) studied how economic, environmental, and social performance was presented and identified the most commonly used metrics (total sales, cost of materials, raw materials and services, benefits, donations and philanthropy, water and energy consumption, CO₂ emissions). Other studies showed how 19 companies from Spain apply GRI principles (Gallego, 2006) and identified commonly used indicators.

Developing a referential of extra-financial indicators suited for a particular organization is a long and complex process (Baret, 2011). Baret's study led to a five-step methodology: he started with an analysis of GRI and sustainability reports of the banking sector in France, stakeholders were identified, a hierarchy of extra-financial indicators was created and the referential of indicators operationalized.

According to Afgan and Carvalho (2008), the creation of a sustainability index involves several steps: acquire and record data for each x_i indicator (determine, for each indicator, the minimum $\text{Min}_{(i)}$ and maximum $\text{Max}_{(i)}$ values); identify the values of the $q_i(x_i)$ function to assess whether it is decreasing or increasing depending on the behaviour of the x_i argument, normalize and obtain the index value. Obtaining values for analysed indicators allows the formation of aggregate functions as a weighted arithmetic average of the values obtained for each individual variable, after determining the weighting coefficient.

Another study (Mocanu-Perdichi, 2009) focused on measuring sustainable development in Romania at regional and county level, and obtained

a composite indicator of sustainability comprising of 19 indicators, grouped into four dimensions (environmental, institutional, economic and social), with emphasis on the last one.

Another study conducted in 2007 (Nordheim, Barrasso, 2007) aimed to create a set of 34 indicators of sustainable development of enterprises in the European aluminium industry, covering 800 factories and measuring the evolution of these indicators between 1997 and 2002.

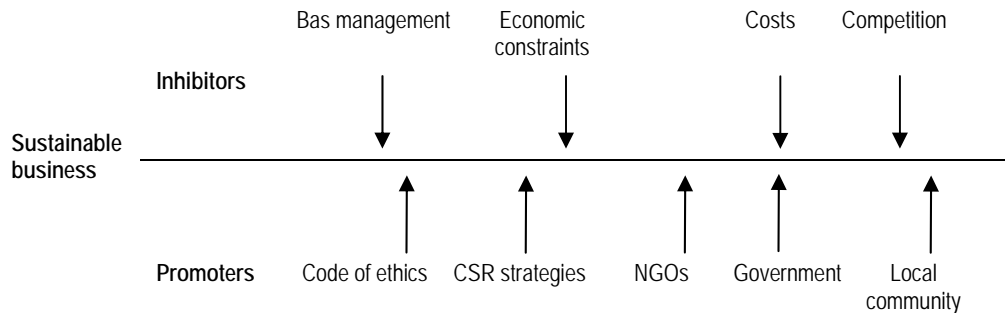
Another study creates a framework of sustainability indicators, comparable with the general indicators proposed by the GRI, as a tool to evaluate the performance of mining companies (Azapagic, 2004).

Another attempt to create a set of indicators to assess sustainable production practices belongs to Veleva and Ellenbecker (2001). The authors suggested a new methodology based on 22 key indicators (quantitative and qualitative) to assess sustainable production and a guide to implement it, along with strengths and weaknesses of the suggested methodology.

4. The role of CSR strategies in creating sustainable business

To fulfil their purpose, social responsibility strategies must be integrated into the overall business strategy (Dey, Sircar, 2012). In literature, special attention is given to the relationship between corporate social responsibility strategy and social capital (Spence et al., 2003), between social responsibility strategies and branding (Popoli, 2011) or to the connection between social responsibility strategy and business model (Teece, 2010).

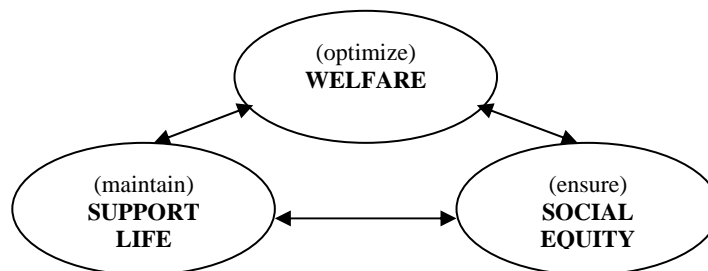
In building sustainable businesses, organizations are constantly under the influence of many forces (Figure 1), which fall in two categories: promoters and inhibitors of sustainable business. Promoters are forces that favour sustainable business and are structured as follows: corporate code of ethics and ethics committee, corporate social responsibility strategies, sector operators, government pressure, local communities, non-governmental organizations. Inhibitors are another class of forces that stop organizations from conducting business based on sustainability values: bad management, economic constraints, high costs of social responsibility programs, and competitive environment.



Source: by author.

Figure 1. Analysis of sustainable business forces

We believe that the objectives of sustainable business creation and consolidation are: optimize welfare, maintain the capacity to support life and ensure social equity (Figure 2).



Source: by author.

Figure 2. Objectives of sustainable business creation and consolidation

Selecting and implementing appropriate social responsibility strategies is important in achieving added value through the creation and strengthening of sustainable business on several levels: at stakeholder level (investors, customers, suppliers, communities, NGOs, partners and distributors), on organizational level (market share, sales, intellectual capital, reputation, brand), and on environmental level.

Problems generated by not integrating socially responsible practices into the business strategy can be noticed when assessing the costs and benefits of implemented projects, in the selection of technology, in the relationship with community, and in the structure of incentives for performance (Slack, 2012).

5. Methodology and results

The aim of the research is to highlight the fact that social responsibility as a strategic option significantly influences the creation and strengthening of sustainable business, and of corporate sustainability in consequence. The research hypothesis is the following: *CSR strategies have a positive impact on the creation and strengthening of sustainable business.*

The analysed community consists of 13 enterprises operating in the automotive sector in Europe, selected from the database of the European Automobile Manufacturers' Association. A complete picture of the companies selected for this study is presented in Table 2. Companies are listed in alphabetical order to avoid creating a preferential image for some of them.

Table 2

Analysed European carmakers		
Company	Country of origin	Countries with production and / or research centers
Renault Group	France	France, Romania, Russia, Spain, Portugal, Morocco, Slovenia, United Kingdom, Brazil, India, Turkey, South Korea, Morocco, Algeria, South Africa, Argentina
Daimler Group Mercedes- Benz	Germany	Germany, Spain, France
BMW Group	Germany	Germany, Austria, United Kingdom, South Africa, China, USA
DAF Truks NV	The Netherlands	Netherlands, Belgium, United Kingdom
FIAT Group Automobiles	Italy	Italy
Ford	USA	USA, Venezuela, Brazil, Mexico, South Africa, Japan, Vietnam, India, Russia, Philippines, Thailand, Taiwan, Romania, United Kingdom, Spain, Turkey, Germany, France
GM	USA	U.S., Brazil, Argentina, Mexico, Canada, Germany, Hungary, China, South Korea, Australia, South Africa
Hyundai	South Korea	Czech Republic, Russia, Turkey, India, China, USA, Canada, Venezuela
Jaguar Land Rover	United Kingdom	United Kingdom, Kenya, Malaysia, Pakistan, Turkey
PSA Peugeot Citroen	France	France, Slovakia, Spain, Portugal, China, Brazil, Argentina
Toyota	Japan	Japan, Canada, USA, Argentina, Mexico, Brazil, Venezuela, Czech Republic, France, Poland, Portugal, Turkey, United Kingdom, Russia, Kenya, South Africa, China, Taiwan, India, Indonesia, Malaysia, Pakistan, Philippines, Thailand, Vietnam, Australia, Bangladesh
Volkswagen AG	Germany	Germany, Belgium, France, Spain, Portugal, United Kingdom, Netherlands, Denmark, Sweden, Switzerland, Czech Republic, Hungary, Austria, Poland, Russia, Bosnia-Herzegovina, Slovakia, Italy, South Africa, India, China, USA, Mexico, Brazil, Argentina
AB Volvo	Sweden	Sweden, Norway, Sweden, France, Russia, Belgium, Poland, India, China, Australia, Japan, South Africa, USA, Brazil

Source: by author.

We used research methods such as content analysis (the study of sustainability reports, annual reports and CSR reports for 2010, published on their sites by sampled organizations) and statistical correlation method (to highlight the intensity of the relationship between variables).

To assess the ability to create and strengthen sustainable business, the corporate sustainability index was determined, as a dependent variable, based on content analysis of reports published by the companies for 2010. The corporate sustainability index was determined based on an analysis of 10 indicators belonging to three dimensions: economic dimension (3 indicators), social dimension (3 indicators) and environmental dimension (4 indicators). To analyse the economic dimension of sustainable development we used the following indicators: total revenue, number of vehicles sold, and research and development costs incurred in 2010. The social dimension included the following indicators for 2010: share of women in total number of employees, number of hours of training per employee and frequency of work related accidents. To analyse the environmental dimension, we monitored the following indicators: CO₂ emissions in g/km, water consumption per vehicle, energy consumption per vehicle and waste in kg/vehicle. A score from 0 to 1000 was set for each organization and each indicator, values were normalized, weighting coefficients were determined and we obtained the aggregate for each of the 13 organizations.

Based on their ranking (Table 3), analysed organizations can receive an importance code that certifies their corporate sustainability performance: very good (1-0.75), good (0.75 to 0.5), satisfactory (0.5 to 0.25), and unsatisfactory (below 0.25).

Table 3

Ranking of organizations according to the corporate sustainability index

Company	Economic dimension	Social dimension	Environmental dimension	Corporate sustainability index
Toyota	954.48	523,18	788	0.755
Volkswagen AG	817.10	581,23	672	0.690
Ford	567.46	629,41	779	0.659
PSA Peugeot Citroen	349.47	662,74	779	0.597
GM	779.30	440,84	543	0.588
BMW Group	298.38	636,89	799	0.578
Daimler Group Mercedes- Benz	497.71	713,56	399	0.537
Renault Group	247.36	551,32	756	0.518
Hyundai	272.29	642,96	621	0.512
Volvo	115.65	601,77	638	0.452
FIAT Group Automobiles	195.33	110,79	614	0.307
DAF Truks NV	2.23	344,45	521	0.289
Jaguar Land Rover	36,96	89,32	487	0.205

Source: calculated by author.

To assess corporate social responsibility strategies we used four criteria: reducing costs and risks, maximizing profits and competitive advantage, reputation and legitimacy, and creating synergistic value (Kurucz et al., 2008, p 86). To assess codes of ethics we used three criteria: principles of ethics, standards of conduct, main responsibilities. We calculated individual scores for the two independent variables by dividing the number of criteria met by the total number of criteria for each variable (Vintilă et al., 2012).

The model that validates the set hypothesis is the following:

$$CS_i = \alpha_0 + \beta_1 \times CSRS_i + \beta_2 \times CE_i + \varepsilon_i \quad (1)$$

where:

CS = corporate sustainability; CSRS = corporate social responsibility strategies; CE = code of ethics; ε_i = error margin; i = corporation (1- 13).

Table 4

Results table

Regression Statistics	
Multiple R	0.705
R Square	0.498
Adjusted R Square	0.397
Standard Error	0.127
Observations	13

ANOVA					
	df	SS	MS	F	Significance F
Regression	2	0.159	0.080	4.954	0.032
Residual	10	0.161	0.016		
Total	12	0.320			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95%	Upper 95%
Intercept	0.594	0.190	3.120	0.011	0.170	1.018	0.170	1.018
CSRS	0.427	0.158	2.705	0.022	0.075	0.779	0.075	0.779
CE	-0.493	0.223	-2.209	0.052	-0.991	0.004	-0.991	0.004

The multiple correlation coefficient (r) of 0.705 is greater than 0, which means that there is a direct relationship between variables. The RSquare determination coefficient is 0.498 and shows that 49.8% of the variation in corporate sustainability can be explained by the variables taken into consideration. The adjusted correlation report shows that 0.397 of the total variance is due to the regression line given the number of degrees of freedom.

The F test shows the role of independent variables in explaining the evolution of dependent variables. The F test value (4.954) and that of the significance threshold ($0.032 < 0.05$) show that the regression model is valid and can be used to analyse the dependence between variables.

The free term, coefficient $b = 0.594$, is the point where the explanatory variable is 0. Since the statistic $t = 3.120$ and the P-value = $0.011 < 0.05$, it means that the coefficient is significantly different from 0, given a confidence interval $[0.170, 1.018]$. The coefficient for the Corporate Social Responsibility Strategies variable is 0.427, which means that an increase by a unit of the Corporate Social Responsibility Strategies variable will generate an increase by 0.427 of the Corporate Sustainability variable. Because the P-value = $0.022 < 0.05$, the coefficient is significantly different from 0. The confidence interval for the Corporate Social Responsibility Strategies variable is $[0.075, 0.779]$. The corresponding coefficient of the Code of Ethics independent variable has a value of -0.493, and an increase of one unit of the Code of Ethics will decrease the Corporate Sustainability variable by 0.493. Since the P-value = $0.052 > 0.05$, the coefficient is insignificant in the confidence interval of $[-0.991, 0.004]$.

The analysis of coefficients produced the following regression model:

$$CS = 0.594 + 0.427 \times CSRS - 0.493 \times CE \quad (2)$$

Results (Table 4) show that the study hypothesis is valid: CSR strategies have a positive impact on the creation and strengthening of sustainable business.

6. Conclusions

This study shows that corporate sustainability strategies can be significantly influenced by social responsibility strategies. Analysis of data reported by companies operating in the European automotive industry indicates that organizations that understand the strategic importance of corporate social responsibility can create and strengthen sustainable business.

The study allows us to show that organizations aware of the role of social responsibility have opportunities for sustainable growth. We highlighted a number of corporate social responsibility strategies involved in building sustainable business: social and societal strategies, ecological and environmental strategies, strategies responsible for distribution and supply chain, strategies for building corporate image, strategies for creating competitive advantage and strategies for obtaining added value. Depending on

the attitude of the organization towards sustainability values and on their degree of implementation, strategies are: passive (defensive), reactive and proactive.

In building sustainable businesses, organizations are under the constant influence of many forces, which fall into two categories: promoters and inhibitors of sustainable business. In fact, the objectives of creation and consolidation of sustainable business are: optimize welfare, maintain the capacity to support life and ensure social equity.

Selecting and implementing appropriate social responsibility strategies is important in achieving added value through the creation and strengthening of sustainable business on several levels: on stakeholder level (investors, customers, suppliers, communities, NGOs, partners and distributors), on organizational level (market share, sales, intellectual capital, reputation, brand), and on environmental level.

Problems generated by not integrating socially responsible practices into the business strategy can be noticed when assessing the costs and benefits of implemented projects, in the selection of technology, in the relationship with community, and in the structure of incentives for performance.

Measuring corporate sustainability is done in different ways, and literature abounds in methodologies and indexes that enable organizations to determine where they are on the winding road towards sustainability.

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The political economy of women's professional basketball in the United States: A structure-conduct-performance approach

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Abstract. *This study examines the political economy of women's professional basketball in the United States, including both the American Basketball League (ABL) and the Women's National Basketball Association (WNBA). To do so, we employ the structure-conduct-performance paradigm (hereafter SCP) from industrial organization. In addition to the importance of television revenues and corporate sponsorships to the success of the leagues, we find evidence of economies of scope, bilateral monopoly issues, and reverse causality in the SCP paradigm as applied to women's professional basketball in the United States.*

Keywords: structure-conduct-performance paradigm; economies of scope; bilateral monopoly; pro sports.

JEL Codes: L1, L2, L4, L83.

REL Codes: 7E, 7H.

1. Introduction and background

Women's professional basketball came into existence in the United States in 1978, with the advent of the Women's Professional Basketball League (WBL). After experiencing success in its first season, and then expanding to six teams at the beginning of its second season, the league's financial burden grew, causing it to fold in the middle of the third season (Grundy, Shackelford, 2007).⁽¹⁾ The void created by the fall of the WBL in 1981 again meant that American collegiate stars faced the prospect of relocating overseas after college in order to continue participating in their sport at the professional level. However, this prospect was viewed as inferior, by many players, to that of a professional basketball league in the United States due to the psychic and other migration costs associated with moving to another country to pursue one's profession. Such costs were expressed by star player Lisa Leslie, when she stated simply, "[i]t's hell being overseas" (Grundy, Shackelford, 2007).⁽²⁾

The American Basketball League (ABL) filled the void left by the closing of the WBL, when, in 1996, it kicked off its inaugural season with women's professional basketball teams in eight cities. These were Atlanta, Hartford (CT), Columbus (OH), Denver, Portland, Richmond (VA), San Jose and Seattle (Grundy, Shackelford, 2007). The ABL was developed by people who wanted to change women's basketball. Its three founders – Steve Hams, Gary Cavalli and Anne Cribbs – all held a personal interest in the success of the league. These founders wanted the league's culture to be fan friendly, leading them to choose smaller cities and arenas that would create an intimate, family-oriented atmosphere (Schumacher, 1996).

The ABL would not, however, be alone for more than one year. Soon after the fall of the WBL, the National Basketball Association (NBA) began exploring its own options with regard to women's professional basketball. The NBA saw potential for women's professional basketball in the United States, but believed, during the 1980s, that a move to establish a new league was premature. That belief began to change during the 1990s, particularly in 1996, when corporations began lining up to sponsor the United States' 1996 Olympic women's basketball team. As Val Ackerman, the first president of the WNBA, recounted, "[t]he interest of corporations is not only [a sign of financial stability] but in general convinced us there was a market [for a women's professional basketball league in the United States] (Grundy, Shackelford, 2007)." It was then, in 1996, that the NBA decided to charter its own women's professional basketball league – the Women's National Basketball Association (WNBA). The eight host cities for the WNBA's inaugural season in 1997

included New York, Charlotte, Cleveland, Houston, Phoenix, Salt Lake City, Sacramento, and Los Angeles (wnba.com).

Following the line of research including Cain and Haddock (2005), which examines the economic histories of various sports leagues, this study, like that of Edelman and Harrison (2010), examines the political economy of women's professional basketball in the United States, including both the ABL and WNBA. To do so, we employ the structure-conduct-performance paradigm (hereafter SCP) from industrial organization (Tirole, 1988). Application of this paradigm to women's professional basketball is covered in the next section of the study. The three subsequent sections apply each portion of the SCP paradigm to each women's professional basketball league. The final section of the paper offers concluding comments.

2. Structure-conduct-performance in women's professional basketball

The "standard approach" to industrial organization "decomposes market structure into *structure*, *conduct*, and *performance* of the market (Shy, 1995, p. 2)." Based on work dating back to Mason (1939 and 1949) and Bain (1956 and 1968), *structure* covers aspects characterizing market structure, such as the number of buyers and sellers in the industry, including how each of these (i.e., each buyer, each seller) interacts with the others, the degree of product differentiation, the cost structure, and the degree of vertical integration (Tirole, 1988, Shy, 1995, Cabral, 2000).⁽³⁾ The second element, *conduct*, includes the typical conduct of the firms, involving variables such as pricing, advertising, product positioning, investment, research and development (Tirole, 1988, Cabral, 2000). Finally, *performance* relates to the social welfare aspects of market interactions within the industry – i.e., how competitive and efficient the industry is relative to others (Shy, 1995, Cabral, 2000).⁽⁴⁾

As Cabral (2000, p. 12) summarizes, and as depicted by Figure 1, the structure-conduct-performance paradigm "is best thought of as a guide that allows one to analyze and understand the workings of different industries." Although other models have gained prominence in the industrial organization literature in recent years, SCP has proven useful as a guide for examining auto insurance (Liebenberg, Kamerschen, 2008), banking (Aguirre, Lee, Pantos, 2008), democratic institutions (Myerson, 1995), international economies (Choudhury, 1996, Naha, Roy, 2011), and other aspects of the economy (Caves, 1992, Weiss, 1992, DeLorme, Kamerschen, Klein, Voeks, 2002, Bellandi, Ruiz-Fuensanta, 2010) over the past two decades.

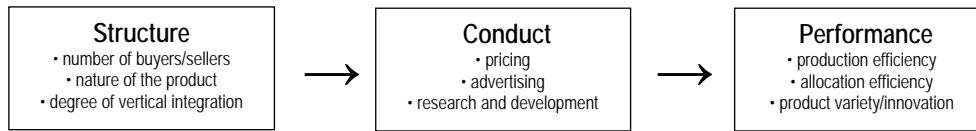


Figure 1. *The structure–conduct–performance paradigm*

The US women’s professional basketball industry is easily amenable to analysis via the SCP paradigm. The industry is relatively young, dating back to the mid-1990s. It has been characterized by one or two, depending on the time period, leagues or coalitions of firms (teams). As such, it has involved various elements of cartel arrangements, as have other types of sports enterprises throughout history (Fleisher, Goff, Tollison, 1992, Mixon, 1996, Adams, Brooke, 1997, Kahn, 2007, Grant, Leadley, Zygmunt, 2008, Dabscheck, 2008, Branch, 2011, Quinn, 2012). The leagues involved – the ABL and WNBA – have also utilized varying approaches to product quality and placement/promotion, providing additional avenues for comparison and contrast. Such an analysis is covered, using the SCP paradigm, in the sections of the study that follow.

3. Industry structure

The eight-team ABL opened its inaugural season in 1996 with teams from cities of varying size, including Atlanta, Hartford (CT), Columbus (OH), Denver, Portland, Richmond, San Jose and Seattle (hoopedia.nba.com, Edelman, Harrison, 2010). None of the ABL teams was independently owned (Edelman and Harrison, 2010), and all of the financial gains and losses of the league’s teams were absorbed by the ABL league office. A general manager was assigned to each team (organization), and his or her main job responsibility was to expose the local population to the ABL and women’s professional basketball. Players’ salaries, teams’ marketing budgets, and arena contracts were decided and/or negotiated by top management in the ABL. The eight-team WNBA opened its first season in 1997 with teams from select cities – New York, Charlotte, Cleveland, Houston, Phoenix, Salt Lake City, Sacramento, and Los Angeles (wnba.com). At the start of the league, all WNBA teams were owned and operated by the NBA. In fact, the eight WNBA teams were placed in cities where there were existing NBA franchises, thus creating organizational synergies in each case, such as use of a common arena or stadium. Each team was assigned a general manager, whose duties encompassed decisions regarding the team’s local appearances, local marketing, and

building/sustaining a stable fan base. All financial decisions were to be made from top management at the NBA level. Finally, any losses from the league were to be absorbed by the NBA.

The ABL offered player salaries averaging \$70,000-\$80,000 per season (Horovitz, 1996; Edelman, Harrison, 2010). Foreign competition played some role in salary determination, as ABL salaries were comparable to those paid to women's professional basketball players in leagues overseas (Ginn, 1997). ABL players also received year-round medical insurance and stock-purchase options (Grundy, Shackelford, 2005). The competitive salaries and compensation packages drew much of the best American talent to the ABL. After the first season, the ABL held nine of the twelve 1996 Olympians, more than the WNBA's three (Edelman, Harrison, 2010; Ginn, 1997). Salaries for the ABL's former Olympians were set at \$125,000 per season, while the league's minimum salary was set at \$40,000 per season (Edelman, Harrison, 2010). The ABL also held its annual draft prior to that of the WNBA, giving college players time to select an agent and determine which league they wanted to join (Ginn, 1997). Most WNBA players were paid \$30,000 to \$35,000 per season, and were offered few benefits. These salaries were about two-fifths those being paid by the ABL at the time, a consideration playing some role in WNBA holding only three of the twelve 1996 Olympians at the beginning of the 2007 season, compared to the ABL's nine (Horovitz, 1996, Ginn, 1997, Edelman, Harrison, 2010). However, the WNBA's main stars were paid higher salaries.⁽⁵⁾ Los Angeles Sparks star Lisa Leslie earned the highest salary, \$91,000 per season, during the league's first season (Yuille, 2010). As Alm (2007) indicates, the league did not want to exhaust its resources in expensive player contracts, and instead opted for a system with affordable talent that also allowed its players to compete overseas or in the ABL during their off season (Ginn, 1997).⁽⁶⁾ ABL players were not allowed to play overseas or in the WNBA (Ginn, 1997).

Many players chose the ABL because it played its 40- and 44-game seasons during the traditional fall-winter (October-February) season for basketball in the United States (Deeb, 1996; Edelman, Harrison, 2010).⁽⁷⁾ A lengthy (up to nine months) offseason posed greater challenges for players seeking to retain their strength and conditioning for the subsequent season, and the ABL's schedule structure produced an offseason of only three to four months. By contrast, the WNBA's season was structured to contrast that of the NBA. The WNBA played a 10-week, 28-game season during the summer, which encompassed the offseason of the NBA (Corrigan, 1997).⁽⁸⁾ The story of Michelle Marciniak highlights some of the concerns faced by women's professional basketball players in determining which league to join. Marciniak

originally signed up to play with the ABL, but she withdrew her contact after the NBA announced the launch of the WNBA. She later signed to play with the WNBA, but shortly after returning home from playing professionally in Taiwan, Marciniak withdrew from the WNBA and joined the ABL, citing concerns over the lengthy period between WNBA seasons (Deeb, 1996).⁽⁹⁾

Although the structure elements appear to have given the ABL an advantage, in terms of a business model, over the WNBA, some of the elements in the conduct portion of the SCP paradigm, as applied to women's professional basketball in the United States, worked more to the advantage of the WNBA. These elements include the securing of lucrative television contracts and larger corporate sponsorships, as explained in more detail in the section of the study that follows.

4. Industry conduct

The ABL sought to capitalize on markets where women's college basketball held a strong following, but because it played during the traditional basketball season in the US, there was tremendous competition for television contracts. The ABL secured television contracts with SportsChannel, Fox Sports and BET (Bartlet, 1996, apbr.org/abl9699.html). Fox Sports agreed to broadcast 14 regular season games and select playoff games. However, none of the ABL games was broadcast nationally or on prime television channels for basketball (Bartlet, 1996). On the other hand, the NBA secured television contracts with NBC, ESPN, and Lifetime for most WNBA games (Edelman, Harrison, 2010). These audiences spanned the entire country, reflecting the NBA's belief that playing on large, nationally-broadcasted television stations added legitimacy to the WNBA (Bartlet, 1996). Each contract specified televising one WNBA game per week (Curtis, 1996). NBC's contract specified a broadcast every Saturday afternoon, ESPN's provided a broadcast on Monday or Tuesday night, and Lifetime would show a game every Friday night (Curtis, 1996). Thus, there would be at least three televised WNBA games every week.⁽¹⁰⁾ The TV contracts allowed the WNBA to average about 413,000 viewers per game.

Likewise, the ABL had difficulty drawing corporate sponsors to the league. Nike was originally in talks to be a sponsor of the ABL but withdrew after the NBA announced its women's league (Horovitz, 1996). Rebook and other smaller sponsors joined forces with the ABL, but their offerings amounted to only about \$4 million per year. Being unable to lock down large corporate sponsors, the ABL focused its marketing strategy on growing and developing interest and sponsorship opportunities at a local level (Carter, 1996).⁽¹¹⁾

By contrast, promotional marketing of the WNBA was first broadcast during NBA games. This marketing campaign prompted the slogan, "We Got Next."⁽¹²⁾ Sears, Coca-Cola, McDonald's, Anheuser-Bush, General Motors, Nike, American Express and Lee Jeans all signed on as corporate sponsors of the WNBA (Corrigan, 1997, Edelman, Harrison, 2010). These sponsorships were worth as much as \$10 million each over three years (Corrigan, 1997). At least \$70 million was guaranteed to the WNBA from its corporate sponsors over its first three years. Thus, a large influx of capital was granted to a league that already had a large financial backing from the NBA.⁽¹³⁾ There were also product tie-ins associated with the sponsors, such as Coca-Cola's Powerade serving as the league's official sports drink (Corrigan, 1997).

The ABL's marketing strategy was aligned with its efforts to raise awareness in cities showing prior support for women's college basketball. The grassroots strategy implemented by the ABL encouraged the league's players to integrate into their communities in order to more effectively promote the sport of women's basketball and their respective teams (Newberry, 1996). This strategy was essential given that the ABL's marketing budget was only \$1.5 million its first season (Crawford, 1997). Of course, this strategy also required a year-round commitment to the league, leading to restrictive contracts for players. The teams' general managers also played a similarly large role in community relations (Spenser, 1996). To combat its inability to secure large corporate sponsorships, the ABL secured the services of Jackie Joyner-Kersey, a nationally-recognized US track star, who became a member of the ABL team in Richmond (Editor, 1996; Knott, 1996; Edelman, Harrison, 2010). ABL officials hoped Joyner-Kersey's participation with the Richmond Rage would add legitimacy and lure additional fans to the newly formed league (Editor, 1996). Joyner-Kersey provided some national recognition for the ABL, which otherwise was known mainly in local markets where the teams were located.⁽¹⁴⁾ Gary Cavalli, a founder of the ABL, recognized her importance in stating, "[w]e're bringing aboard certainly the greatest women athlete of our time, maybe the greatest women athlete of all time... Jackie gives the league instant credibility, instant stature; it guarantees our games will have much greater exposure (Editor, 1996)."

The WNBA began with a \$15 million marketing budget (Crawford, 1997). This provided the teams with eye-catching uniforms, in-game promotions and entertainment, and extensive marketing campaigns in selected markets.⁽¹⁵⁾ The initial marketing campaigns were so effective that the WNBA's debut game on June 21, 1997, was played by the New York Liberty and the Los Angeles Sparks in front of a crowd of 14,284, and the average attendance that first season was almost 9,000 (Edelman, Harrison, 2010).⁽¹⁶⁾

The marketing effort expanded past television commercial and print ads. For example, the WNBA Barbie was introduced in December of 1998 (Greenberg, Hepp, 1998). The toy reached young girls and their families, all of whom were part of the target audience for the WNBA. The experience at a WNBA game was also far different from the NBA. WNBA players are known for being friendly and approachable (Petrecca, 2000), thus creating an organizational culture within the WNBA that fostered the family environment the league wanted to promote.

Finally, the ABL coupled its strategy of locating in smaller cities where college basketball is popular by keeping players near regions where they went to school and where they lived (Smalley, 1996). Having local college stars come play professionally in that same environment partially mitigated its relative lack of capital and smaller marketing budget. As a result of this strategy, the average distance between ABL players' professional homes and their collegiate homes was only 1,119 miles. By contrast, the average distance for their WNBA counterparts was 2,193 miles. These figures were, however, the likely result of the ABL's inability to secure *national* television contracts. Unlike the situation facing the WNBA, which secured television deals with NBC, ESPN and Lifetime, the ABL's limited national television exposure necessitated the fielding of teams with local stars. Thus, roster management strategies of this sort across the two leagues were *jointly determined* with their efforts to attract television contracts and corporate sponsors.

Despite the appeal of its "local stars" strategy, the ABL's inability to secure lucrative television contracts or large corporate sponsorships meant that it faced an uphill battle in an already thin women's professional basketball market in the United States. The outcome of that battle is covered by the performance portion of the SCP paradigm, as explained in the section that follows.

5. Industry performance

Although there was not a large marketing campaign during the first ABL season, its locations in strong women's college basketball markets helped it gain local interest. The choice to locate in relatively small markets led to use of smaller arenas.⁽¹⁷⁾ As a result, the first ABL game, between Colorado and Seattle, was played in front of a crowd of only 5,513 (Edelman, Harrison, 2010).⁽¹⁸⁾ Consequently, the ABL collected only \$1.4 million in ticket sales its first season, when average attendance was 3,536 (apbr.org/abl9699.html). As 1997 approached, the ABL geared up for competition from the WNBA. It doubled its annual marketing budget to \$3 million, and touted its independence

as a league not having to be backed by the NBA. The ABL marketed itself as *the* women's professional basketball league, solely concerned with providing a high-quality product. This notion was backed by the relative concentration, favoring the ABL, of America's top women's basketball talent. Still, the league expected that its first season would result in a loss of \$3 million, while its second season would produce a loss of \$2 million (Knott, 1996).

Not unexpectedly, there was instability within the ABL, as teams within the league either relocated or folded after the first season of competition. For example, the team in Richmond relocated to Philadelphia after only one season, while Atlanta's ABL franchise – representing the largest market for the ABL at the time – folded after only its second season (Greenberg, Hepp, 1998).⁽¹⁹⁾ ABL experienced most of its success in smaller markets that had a history of supporting women's basketball. Although some teams were not doing well, average ABL attendance grew by 20 percent in the second season (Edelman, Harrison, 2010), and the ABL also saw expansions into Nashville, Chicago and Long Beach (CA) before its third season, the latter of which developed through the assistance of two new private investors who added \$6 million in capital to the league during its second season (Greenberg, Hepp, 1998, Ginn, 1997). However, as the WNBA started its season in 1997, it tied up most of the large corporate sponsors who were interested in women's professional basketball, creating a financial situation wherein the ABL's founders continued to inject capital in order to extend the life of the league.⁽²⁰⁾ That life ended during the middle of the ABL's third season in 1998, when, facing \$25 million in debt, the league ceased operations and filed for bankruptcy (apbr.org/abl9699.html, Edelman, Harrison, 2010).

Although the WNBA also experienced financial obstacles, its large amount of capital propelled it to push through the difficult years. After its first season only two teams of the WNBA made a profit, and the league as whole incurred a loss (Alm, 1997). Still, the WNBA collected \$5 million from ticket sales, which came from an *average* attendance of about 9,000, during its first season (Alm, 1997, Edelman, Harrison, 2010). Thus, there was reason for optimism among the league's supporters, and, as time progressed, NBA owners were anxious to have a WNBA team in their city. Philadelphia 76ers president Pat Croce expressed, "I want a [WNBA] team here [in Philadelphia]. Val [Ackerman] knows I want one bad (Greenberg, Hepp, 1998)." As a result, two additional franchises in Detroit and Washington were added for the second WNBA season, when average attendance rose to 10,869 (Edelman, Harrison, 2010), and two more in Orlando and Minnesota for the third WNBA season.⁽²¹⁾

NBA owners recognized that having a women's team presented the possibility of increased efficiency, through economies of scope, for the NBA

owners. For example, during the off season, major arenas needed upkeep and maintenance. However, their use throughout the year, with NBA teams operating during fall, winter and spring, while their WNBA counterparts operate during the summer, represents a more efficient employment of staff and other resources for NBA owners. This type of scope efficiency could also be recognized in other areas, such as in finance, marketing, and transportation services.⁽²²⁾ This notion can be expressed using quantities of two different “professional basketball goods” produced in Houston, Texas, q_{Rockets} and q_{Comets} , where, for a strictly subadditive cost function,⁽²³⁾

$$C(q_{\text{Rockets}}, 0) + C(0, q_{\text{Comets}}) > C(q_{\text{Rockets}}, q_{\text{Comets}}). \quad (1)$$

As indicated in equation (1) above, a single entity producing the two “goods” (i.e., NBA basketball and WNBA basketball) is technologically more efficient than two separate companies each specializing in one of the two products (Tirole, 1988).

Clearly, the national marketing approach, accomplished through pairings with existing NBA franchises, played a major role in the survival of the WNBA, which, after 2008, became the only women’s professional basketball league in the United States. The strategy provided not only increased revenues through lucrative television contracts and large corporate sponsors, it also opened an avenue, through economies of scope, to lower the costs of providing this form of entertainment on a national stage.

6. Reverse causality in SCP for women’s professional basketball

Early work on the SCP paradigm recognized that each of the elements of SCP influenced the others, a facet of the paradigm that modern researchers are typically careful to accommodate. Conduct, for example, influences structure perhaps as easily as structure influences conduct. These types of what Cabral (2000) refers to as reverse causal links in the SCP paradigm are depicted in Figure 2.⁽²⁴⁾ They are also represented in some of the later history of women’s professional basketball in the United States. Some of that history is presented in this section of our study.

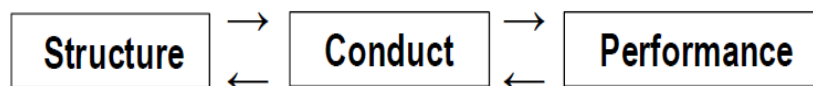


Figure 2. Reverse causal links in the structure–conduct–performance paradigm

Given that the NBA has established relationships with network television worth billions of dollars, it has tremendous market power within the television market. Thus, although Cavalli and the ABL offered several million dollars to obtain television contracts, none were interested (Babcock, 1998). The same type of result occurred with the ABL's attempt to secure a sponsorship from Nike. Nike was in talks with sponsoring the ABL, but as soon as the NBA revealed the establishment of WNBA, Nike, citing disorganization within the ABL, was no longer interested in sponsoring the ABL. As a result, an antitrust lawsuit was filed against the NBA (Cavalli, 1999). The lawsuit alleged the NBA used its dominance in the sports industry to exclude the ABL from opportunities like sponsorships and television opportunities (Mullen, 1999). The NBA, which had been in existence for more than 50 years, recognized that the market for women's professional basketball was slim. Moreover, the NBA had previously dealt with competition between men's leagues when, up until 1976, it had been in competition with American Basketball Association (ABA). In 1976, the NBA merged with the ABA. This experience led to the NBA taking a strong position with the ABL to eliminate bidding wars between the two professional women's leagues. The ABL's antitrust lawsuit against the NBA was ultimately dismissed.

The early struggles of both leagues during 1996 and 1997 led others to also conclude that the market for women's professional basketball was not large enough to fully support two leagues. Given that the WNBA had a stronger backing and the ABL had the better talent (Robbins, 1997), a merger seemed to some like the best option for both leagues.⁽²⁵⁾ The NBA, which managed the WNBA, was experienced in matters involved in league mergers. The NBA and the ABA had once had a partial merger. However, this experience also prepared the NBA to establish a women's professional league such as the WNBA to compete with the ABL. The WNBA's ownership structure, summer schedule, and low salaries put the league in a position to be able to withstand a financial burden. Thus, any impetus for a merger between the leagues was short-lived.⁽²⁶⁾

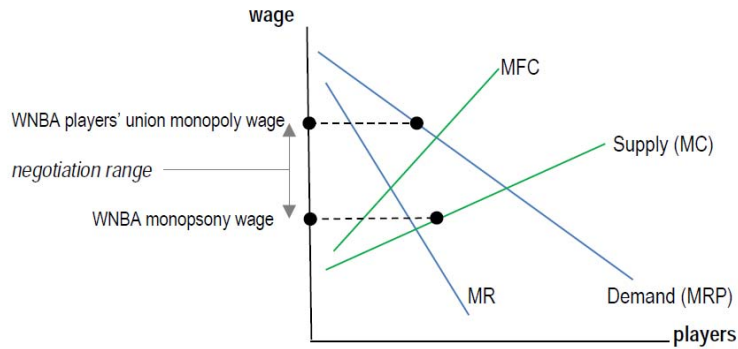


Figure 3. *Bilateral monopoly and the WNBA*

Failing a merger with the WNBA, the ABL ceased operations in the middle of its third season. The WNBA was excited to have its rival league cease operations and provide an opportunity for much needed talent to join the league. However, the WNBA's players were not pleased that the ABL's former players began entering the league and competing for roster positions. The result was a labor dispute between the players and the league that threatened to delay the WNBA's 1998 season (Lister, 1999). WNBA players formed a players' union, or a women's professional basketball talent monopoly, and sought to negotiate a collective bargaining agreement with the league's owners, who represented a monopsony buyer of women's professional basketball talent.⁽²⁷⁾ The main focus of the agreement was the relatively low salaries offered by the league, a bargaining problem often faced in a bilateral monopoly, a situation most commonly found in factor markets, such as the one that developed between the WNBA and the WNBA players' union. The WNBA bilateral monopoly is represented by Figure 3, which shows the wage indeterminacy encountered in factor markets where a profit-maximizing monopoly seller of a productive factor (the WNBA players' union), which charges a high price (wage), faces a profit-maximizing monopsony buyer of a productive factor (the WNBA). Consequently, the two participants must engage in a negotiation process centered on what is referred to in Figure 3 as the negotiation range, one that is limited by the monopoly (WNBA players' union) wage on the upper end and the monopsony (WNBA) wage on the lower end.

Negotiations between the WNBA and the WNBA players' union were contentious, and at one point the WNBA postponed its 1999 draft and threatened a lock-out unless the WNBA players' union agreed to its collective-bargaining proposal (Hubbuck, 1999; Edelman, Harrison, 2010). Ultimately, the league was able to come to a four-year agreement with the players' union in April of 1999 (Edelman, Harrison, 2010). The agreement set salaries for the

players guaranteed a percentage of the league's royalties to the players, granted players a 401K plan, along with full health and dental insurance plans, and paid maternity leave (Editor, 1999). The collective bargaining agreement raised minimum rookie salaries from \$15,000 to \$25,000 per season, while minimum veteran salaries rose from \$15,000 to \$30,000. Minimum player salaries were also scheduled to increase to \$30,000 for rookies and \$40,000 for veterans by 2002 (Gustkey, 1999).

As stated above, another concern of the WNBA's players union was the number of players from the now-defunct ABL who began joining the WNBA following the fall of the ABL (Lister, 1999). WNBA players believed that the league should be loyal to the legacy players who had played for less money during the start-up period (Lister, 1999). The agreement also stipulated that ABL players were allowed to be drafted into the WNBA for the 1999 season, however a minimum of three ABL players per roster was set during the 1999 draft. The union originally wanted two players per roster while the league wanted five (Gustkey, 1999). The WNBA agreed to let up to 40 ABL players enter directly into the WNBA to play during the 1999 season. Finally, the WNBA announced it would add four expansion teams for the 2000 season and that there would no longer be a limit on the number of ABL players per roster (Gustkey, 1999).

The first collective bargaining agreement was followed by a second in 2003 and a third in 2008. The first of these created a free agency system for WNBA players and a return of player group licensing rights to WNBA players (Edelman, Harrison, 2010). However, these player gains came during a period when the WNBA monopoly was losing its cachet with fans. Average attendance had fallen below 10,000 fans per game in 2000. By 2003, average attendance dipped below 9,000, and by 2006 average attendance stood at about 7,500 per game (Edelman, Harrison, 2010).⁽²⁸⁾ In 2003, during this period of declining fan interest, the WNBA decided to abandon the central-ownership structure and turn to an independent team ownership model such as those in the NBA, NFL, NHL and MLB. According to Edelman and Harrison (2010), the impetus for this decision was the judgment of the United States First Circuit Court that the central-ownership structure did not shield sports leagues from antitrust liability.⁽²⁹⁾ This move left WNBA franchises free to pursue their own deals with corporate sponsors, although the collective-bargaining agreements continued to govern over-arching activities involving the WNBA and its players (Edelman, Harrison, 2010). Still, by 2007 many WNBA players began spending their off-seasons competing in overseas leagues, with some American players choosing full-time or exclusive employment in foreign (non-U.S.)

professional basketball leagues, in an effort to address the WNBA players' union's salary concerns (Edelman, Harrison, 2010).⁽³⁰⁾

Unlike the ABL, the WNBA ultimately succeeded, and today it is still the only league to offer women's professional basketball in the United States. Salaries have increased, to an average of \$72,000 per season, while the minimum and maximum salaries have risen to \$36,570 and \$105,000, respectively, per season (Steele, 2012). The league has also introduced a bonus system associated with various player awards, such as the league's most valuable player (MVP) award (\$15,000 bonus), while the WNBA champions are awarded per-player bonuses of \$10,500. In 2010, one player, Lauren Jackson of the Seattle Storm, was awarded bonuses of \$15,000 (WNBA MVP), \$10,500 (member of WNBA championship team), \$10,000 (First Team All-WNBA) and \$2,500 (WNBA All-Star). These bonuses totaled \$38,000, and when added to Jackson's salary of \$101,500, produced a total compensation of \$139,500 (Dorish, 2011). Still, the lure of playing overseas, where salaries are relatively high, remains a threat to the WNBA's future success. Playing overseas allows the typical player to earn at least \$40,000, and as much as \$600,000, per season. Three WNBA players earned, including bonuses, \$1 million from overseas play during the 2011-12 season (Steele, 2012).⁽³¹⁾ Whether, and how, league officials and the WNBPA address such issues will play a large role with regard to the league's future.

6. Concluding comments

Economic analyses and histories of professional sports leagues, such as those by Cain and Haddock (2005) and Edelman and Harrison (2010), are important industry studies that add to our understanding of firms and industrial organization. This study has examined the political economy of women's professional basketball in the United States, including both the American Basketball League (ABL) and the Women's National Basketball Association (WNBA). Use of the structure-conduct-performance paradigm from industrial organization highlights the importance of television revenues and corporate sponsorships to the success (or failure) of the leagues. In this particular case, we also find evidence of economies of scope, bilateral monopoly issues, and reverse causality in the structure-conduct-performance paradigm as applied to women's professional basketball in the United States.

Notes

- (1) The Ladies Professional Basketball League (LPBL) debuted in 1980, but folded within months (Edelman, Harrison, 2010).
- (2) A few regional leagues, such as the Women's Sports Association Professional Basketball League (WSAPBL), the Women's World Basketball Association (WWBA) and the Liberty Basketball Association (LBA), attempted in the early 1990s to fill the void left by the WBL, but failed to do so (Edelman, Harrison, 2010).
- (3) As Tirole (1988) indicates, the structure–conduct–performance paradigm is often associated with what is called the “Harvard tradition” of industrial organization.
- (4) Tirole (1988) adds product variety, innovate rate, and other elements to this particular list.
- (5) The three main stars at the time had all participated in the 1996 Olympics, and included Lisa Leslie, Cheryl Swoopes and Rebecca Lobo. These three stars played collegiately at the University of Southern California, Texas Tech University, and the University of Connecticut, respectively. Swoopes and Texas Tech won the NCAA title in 1993, while Lobo and Connecticut captured the 1995 NCAA title.
- (6) The WNBA spent \$5.2 million on player salaries (Alm, 1997). Average salaries in the WNBA were below those of the ABL. The WNBA also imposed a salary cap of \$50,000 per season (Edelman, Harrison, 2010).
- (7) In terms of other professional sports, the ABL was in competition with the NBA, NFL and NHL. These leagues offered significant competition, in terms of television viewership and fan interest, to the ABL. Evidence of the significance of the competition offered to the ABL by the NBA, Edelman and Harrison (2010) report that when NBA players went on strike during the first half of the 1998-1999 season, national television networks televised ABL games for a brief period. When the NBA strike ended, so did national broadcasting of ABL games. The ABL filed for bankruptcy on December 22, 1998.
- (8) In terms of other professional sports, this period put the WNBA in competition with Major League Baseball, and, to a lesser extent, professional golf and tennis. This meant that the WNBA faced a relatively lighter menu of competition relative to that faced by its competitor, the ABL.
- (9) The WNBA's brief 10-week season resembles that of a “summer league.”
- (10) As these television contracts were being developed by the WNBA, the ABL's television coverage was limited to 12 games on SportsChannel (Edelman, Harrison, 2010).
- (11) Reebok was eventually joined as an ABL sponsor by First USA Bank, Lady Foot Locker and Baden (Edelman, Harrison, 2010).
- (12) This was coupled with a ten-page full color promotion piece in *USA Today*.
- (13) WNBA sponsorships produced roughly \$25 million in the first season (Alm, 1997).
- (14) Joyner-Kersee played limited games with the league, in order to fulfill her track obligations. She was the only player allowed to participate in sports activities outside of the ABL (Editor, 1996).
- (15) The women featured in the promotional ads were the well-known standouts from the Olympic championship team.
- (16) Other opening-night WNBA games in Cleveland and Salt Lake City produced crowds of 11,455 and 8,915, respectively (Edelman, Harrison, 2010). The league's success continued as the first season progressed, with attendance at games tallying twice the projected number. The image and brand the NBA created for men's basketball helped propel the WNBA into the spotlight.
- (17) Most ABL teams played in arenas seating about 4,000 (Newberry, 1996).

- ⁽¹⁸⁾ Meanwhile, however, an opening-night game between New England and Richmond was played before a sellout crowd (in Hartford) of 8,767 (Edelman, Harrison, 2010).
- ⁽¹⁹⁾ Interestingly, after winning more than 50 percent of its games, the Richmond Rage reached the ABL Championship Finals at the end of its first and only year in existence.
- ⁽²⁰⁾ As Edelman and Harrison (2010) point out, the 2007 decision by Nikki McCray, the ABL's Most Valuable Player (MVP), to leave the ABL for the WNBA, is perhaps the most prominent symbol of the ABL's struggles to contend with the WNBA. In making this move, McCray's salary fell from \$150,000 per season to \$50,000 per season. McCray credited the decision to her belief that the WNBA's relative exposure advantage would lead to greater long run stability (Edelman, Harrison, 2010). Supporting McCray's belief, seven of the eight collegiate All-America women's basketball players chose the WNBA over the ABL in the spring of 2008 (Edelman, Harrison, 2010).
- ⁽²¹⁾ All of the teams that participated throughout the histories of the ABL and WNBA are listed in the Appendix.
- ⁽²²⁾ NBA owners also understood that full-time use of facilities for professional basketball would translate into greater tickets sales for both sets of professional teams, given that basketball would be advertised throughout the year.
- ⁽²³⁾ The economies of scope example described here, involving the Houston Rockets NBA franchise and the Houston Comets WNBA franchise, follows closely that in Tirole (1988, p. 20). There, $C(q_{\text{Rockets}}, 0)$ and $C(0, q_{\text{Comets}})$ are referred to as stand-alone costs.
- ⁽²⁴⁾ In explaining reverse causality in SCP, Cabral (2000, p. 157) refers to a hypothetical example, wherein British Airways prices aggressively low in the London-New York route, conduct that lowers Virgin Atlantic's profits enough to induce the latter to exit the industry altogether. In this hypothetical, conduct has an effect on structure. For empirical studies using SCP, reverse causality introduces a simultaneity consideration.
- ⁽²⁵⁾ Before talk of a merger developed, the ABL proposed to the WNBA various joint marketing ventures, including a plan for an inter-league all-star game. The WNBA rejected these ventures (Edelman, Harrison, 2010).
- ⁽²⁶⁾ As Edelman and Harrison (2010) point out, the failure of the ABL-WNBA joint ventures and merger left the ABL in direct competition with the WNBA, a result that meant that the ABL was in the undesirable position of having to maintain higher salaries in order to prevent additional player defections.
- ⁽²⁷⁾ The WNBA players' union, or the Women's National Basketball Players Association (WNBPA), became the first labor union ever comprised entirely of professional female athletes (Edelman, Harrison, 2010).
- ⁽²⁸⁾ By 2009, WNBA attendance climbed slightly, to an average of just over 8,000 fans per game (Edelman, Harrison, 2010).
- ⁽²⁹⁾ The precedent cited in this instance by the federal court was *Fraser v. Major League Soccer* (Edelman, Harrison, 2010).
- ⁽³⁰⁾ In 2007, WNBA star Tina Thompson told sports media that exclusive employment in the Russian professional league, where she had played part-time from 2006-2007, offered the potential of tripling her WNBA salary (Dixon, 2007, Edelman, Harrison, 2010). Although she contemplated such a move yet did not realize it, Thompson did return to overseas competition in 2010 after a three-year absence by joining a Romanian professional league.
- ⁽³¹⁾ According to Steele (2012), the three most popular overseas destinations for WNBA players are Turkey, Israel and Russia, respectively.

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Appendix

Women's professional basketball teams in the ABL and WNBA

ABL	WNBA
<i>Atlanta Glory</i>	Atlanta Dream*
<i>Columbus (OH) Quest</i>	<i>Charlotte (NC) Sting</i>
Chicago Condors	Chicago Sky*
<i>Colorado Xplosion</i>	<i>Cleveland Rockers</i>
Long Beach Stingrays	Connecticut Sun*
Nashville Noise	Detroit Shock
<i>New England Blizzard</i>	<i>Houston Comets</i>
Philadelphia Rage	Indiana Fever*
<i>Portland Power</i>	<i>Los Angeles Spark*</i>
<i>Richmond Rage</i>	Miami Sol
<i>San Jose Lasers</i>	Minnesota Lynx*
<i>Seattle Reign</i>	<i>New York Liberty*</i>
	Orlando Miracle
	<i>Phoenix Mercury*</i>
	Portland Fire
	<i>Sacramento Monarchs</i>
	San Antonio Silver Stars*
	Seattle Storm*
	Tulsa Shock*
	<i>Utah Starzz</i>
	Washington Mystics*

Notes: Original members of the ABL and WNBA listed in *italics*; * denotes current (2012) members of the WNBA.

Social cohesion – a post-crisis analysis

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Abstract. *Social cohesion is a complex notion, subject to various different approaches that we set out to analyse. Thus, the article presents the scientific views regarding social cohesion, both at an individual or group level and at a macro-social level. The concluding section presents the consequences for public policy of a pluralist approach to defining social cohesion, while underlining the importance of a bi-dimensional view – disparities/inequality/social exclusion and social relations/social bonds/social capital – in order to achieve a comprehensive vision of a society's social cohesion.*

Keywords: social cohesion; social exclusion; social capital; solidarity.

JEL Codes: A13, I31, H80.

REL Codea: 13A, 18A, 5J.

1. Conceptual framework

Social cohesion is a trait of a society based on links and connections among social units like individuals, groups, organizations and territories (McCracken, 1998). The sociologist Emile Durkheim used the notion of social cohesion as the foundation of social order and defined it as a bond created by loyalty and solidarity among individuals. Describing social cohesion is often a discussion about strengthening social relations, shared values and a common basis of relating to the world, adhering to a common identity and a sense of belonging, as well as trust among society members (Jenson, 1998).

While most of the literature analyses multiple aspects of cohesion, such as trust among individuals that make up a society or involvement in the decision making process, some aspects are found less often among the definitions – sharing common values or the economic dimension of cohesion. In fact, some authors consider a generous conceptual framework of social cohesion to have some limitations; thus, Green and Janmaat (2011) identify four difficulties with the way the notion of social cohesion is used: the normative approach to social cohesion, to identify a goal that must be reached, raises some concerns of how objective such an analysis is and ignores the potential side-effects to a highly cohesive society – social insularity and backwardness, “economic sclerosis” (Banfield, 1958, Olson, 1971 – in Green and Janmaat, 2011); using the term social cohesion to identify a set of desirable social outcomes, such as trust, tolerance, involvement in the community – characteristics that are not always correlated and do not clearly identify a framework for the analysis of social cohesion; defining social cohesion through its determinants (welfare state, equality) and/or through its consequences (quality of life, economic growth), thus limiting the scope of a broader analysis; the use of the same notion of social cohesion for different levels of analysis – national, regional, individual, interpersonal, trans-national or in the sense of social control/social bonding, i.e. a sense of belonging to a group, identifying with and adhering to its values and its norms (Hirschi, 1969).

Chan et al. (2006) identify two main approaches to social cohesion: one originating from sociology and social psychology and one that has its roots in the political discourse, the latter referring to both the analyses that define social cohesion through a means-end approach (they consider social cohesion a desirable outcome but define it through the policy goals that might, in those authors' view, realise or enhance social cohesion) and to broader analyses that

don't try to set one definition of social cohesion but rather consider the value of pluralist definitions contextual to the scope of the analysis or of the policy document that addresses it.

2. A microsocial approach to social cohesion

Jenson (1998) studies five dimensions for the concept of cohesion: belonging, participation, legitimacy, recognition and inclusion. Thus, we can define social cohesion in five ways: shared values and a sense of belonging to a community; society's ability to promote equality among individuals and to prevent marginality; patterns of participation to the decision-making process that include democratic, efficient and inclusive institutions such as political parties, unions and governments; society's capacity to mediate conflicts over access to power and resources; society's ability to mediate different political views.

Social cohesion is also considered to regard the following three dimensions: values, identity, culture that define a certain community; discrepancies and divisions: inequalities and lack of equity, cultural diversification, geographic divisions; networks and associations and infrastructure (O'Conner, 1998).

Chan et al. (2006) put forward a minimalist definition of social cohesion, justifying it by a functionality reason in the sense that any inquiry is best served by a concise and exclusive definition rather than just to equate social cohesion with a desirable or good society. Hence, they consider that:

“...people in a society are said to be «sticking» to each other only if the following three criteria are simultaneously met:

(1) they can trust, help and cooperate with their fellow members of society;

(2) they share a common identity or a sense of belonging to their society;

(3) the subjective feelings in (1) and (2) are manifested in objective behaviour.

[...]Social cohesion is a state of affairs concerning both the vertical and the horizontal interactions among members of society as characterized by a set of attitudes and norms that includes trust, a sense of belonging and the willingness to participate and help, as well as their behavioural manifestations.”

(Chan, J., To, H.-P, Chan, E., 2006, p. 289, 290)

For the authors, “members of society” denotes not just individuals but also groups, organizations and institutions that make up a community and the interactions within society take place on two levels: vertical (between individuals and institutions) and horizontal (among individuals and among groups within the community).

3. A macrosocial approach to social cohesion

Berger-Schmitt (2000) identified social cohesion among the main goals of the European Union, as presented in the European Commission’s reports (1996, 1997, 1998, 2000). Subsequently, the Council of Europe (2005) published a Methodological guide for the concerted development of social cohesion indicators. For these international organizations the discourse regarding social cohesion originates in the need to respond with adequate measures to the existent disparities and the social cleavages. Therefore, the constituents, the causes and the effects of social cohesion are frequently used in contextualised definitions of cohesion.

The main aspects regarding social cohesion are social inclusion/social exclusion, social capital, quality of life. The distinctions and definitions of these notions can be found in the policy documents that underpin the European Union’s actions in this respect.

Social exclusion is a side of the first dimension of social cohesion. With the increasing efforts to diminish social exclusion within the European Union, the notion of social cohesion was brought to the public’s attention and the European Commission funded a series of studies and analyses relating to poverty and social exclusion. Social exclusion can be understood as deficiencies in the functioning of the following systems: the democratic and legal system that promotes civic participation; the labour market, which promotes economic integration; the welfare system, which promotes social inclusion; the family and community system that promotes interpersonal bonds.

Regarded at an individual’s level, social exclusion denotes low welfare (economic disadvantage) and inability to participate in the social life (social and political disadvantage). As a society trait, social exclusion refers to a deterioration of social cohesion related to the institutions’ rules for distributing wealth.

The notions of social cohesion and *quality of life* are strongly connected and there are a number of ways to analyse this relation.

First, one must consider that although social cohesion can be regarded at a macrosocial level, it is manifested in individuals' behaviour and attitudes. Social cohesion is based on the social capital created through social bonds and it is set, maintained and experienced through individuals. However, when we consider a community's social cohesion, it implies aspects regarding real-life cases and are therefore components of a individual's quality of life.

Secondly, one's quality of life can be directly influenced by social cohesion elements, as cited in many empirical studies and it is explained through the impact of social capital on the economic or other welfare dimension. Conceptually, social exclusion seen as a process originated in inadequate functioning of institutions manifests through a relative deprivation of individuals.

A third approach to the relation is the opinion that social cohesion impacts one's quality of life in all aspects. Social cohesion can be regarded as a societal attribute experienced in everyday life, be it through perceived inequality or through the social climate at the workplace, at school or in relating to neighbours, hence relating to the individual's quality of life. Such a view considers social cohesion an inherent part of the life of every member of society and it is a plea for a general approach of the quality of life concept, referring not only to the individual attributes of a life situation but also to the societal characteristics. In this regard, quality of life is one of the main goals social cohesion policies.

The notion of *social capital* is another dimension that can be used to describe a society's cohesion. This notion includes aspects like density and quality of links and interactions among individuals and groups, shared feelings regarding trust and involvement as a consequence of a common set of norms and values, a sense of belonging and solidarity that is fundamental to a society's internal coherence (McCracken, 1998, Jenson, 1998, O'Conner, 1998): "The social capital of a society includes the institutions, the relationships, the attitudes and values that govern interactions among people and contribute to economic and social development. Social capital, however, is not simply the sum of the institutions which underpin society; it is also the glue that holds them together. It includes the shared values and rules for social conduct expressed in personal relationships, trust, and a common sense of «civic» responsibility that makes society more than a collection of individuals. Without a degree of common identification with forms of governance, cultural

norms, and social rules, it is difficult to imagine a functioning society.” (The World Bank, 1998)

There are studies that regard social capital as one dimension of social cohesion. Thus, in the proposal for measuring social cohesion, Berger-Schmitt (2000) considers that social cohesion implies two distinct dimensions of social outcomes: reducing disparities, inequality and social exclusion and strengthening social bonds, links and interactions, the latter including the constituents of social capital.

In the working papers of the World Bank the notion of social cohesion takes precedents over the one of social capital as it is believed that social capital can be confusing when translated to a social science study since many of the characteristic of capital in the traditional sense are not applicable. Hence, the World Bank uses social cohesion distinctly from social capital.

The World Bank’s experts rely on a specific conceptual framework to implement social cohesion. Thus, social cohesion is seen both as a driving force for political change and as a mechanism that consolidates the democracy embedded in a society’s institutions. Social cohesion is also a contributor to the effectiveness of the rule of law and makes armed or social conflicts less likely. Functional, effective institutions are both determinants and resultants of social cohesion and that has an impact on the economic well-being of a society (Easterly, et al. 2006).

4. Consequences of a pluralist approach to social cohesion

Policymakers regard social cohesion beyond its social or political implications. International institutions such as The World Bank, OECD and the European Union are also concerned with the economic returns of a highly cohesive nation and take into account the importance of social determinants of economic growth. Thus, for the European Union, social cohesion is largely concerned with unemployment, poverty, exclusion and reducing development disparities. As a general overview, economic and social cohesion of the social structures in the European space means analysing aspects with regards to income distribution disparities, population below the poverty line, social exclusion (through income, discrimination with regards to access to goods, access to education, cultural services and civic implication). The Council of Europe’s approach to social cohesion includes issues regarding the democratic principles and human rights, be they civil, political, social or economic.

The structural changes subsequent to globalization and the social consequences of the current economic crisis raise a series of issues concerning the deepening cohesive cleavages and regarding social cohesion as a process rather than a state of affairs broadens the horizon for public policy to complement the tradition welfare economic policies with measures aimed at promoting trust and solidarity; thus, the principles of social economy: „solidarity, responsibility, freedom, equal chances for all organization members, the interweaving of member interests with general interest and participation of all to the decision taking process, in a democratic way” (Vírjan, 2012) may become relevant.

To conclude, we can state that cohesion among a system’s elements is what underpins the system’s efficient functioning and in order to have a comprehensive view of a society’s social cohesion one must take into consideration two dimensions: disparities/inequalities/social exclusion as well as social relations/social bonding/social capital.

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