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Monetary Policy with Constant Real Stock of Bonds Policy

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Abstract:
Starting with the 1990s, when Giavazzi and Pagano noticed expansive effects for contractive fiscal policies, several authors have concentrated on these issues.
In this paper we studied the consumption channel of the non-Keynesian effects using the Romanian economy data. The considered consumption function with variable coefficients was inspired by Graham (1993), Ho (2001) and Johansson and Johnson (2003). It is given by the following formula:

$$\Delta C_t = \beta_{0t} + \beta_{1t}\Delta Y_t + \beta_{2t}\Delta G_t + e_t$$

where denotes the real consumption, denotes the real GDP and stands for the real government spendings, quarterly data, respectively.
In order to estimate the variable parameters we used the Kalman filter and the state space representation proposed by Johansson and Johnson (2003).

Key words*: Keynesian and non-Keynesian effects, consumption, investments, Kalman filter, fiscal impulse,*
Jel Classification: E12, E21, E62, C54

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Growth-Inequality Relationship Analysis. Empirical Evidences for Eastern Europe

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Abstract:

In the economic theory, the economic inequality is defined as the discrepancy between poor and rich in terms of the distribution of wealth, education, employment, standard of living in a country, between countries and between geographical areas.
In this paper we apply Self-Organizing Maps, in order to cluster the Central and Eastern European countries according to poverty and economic inequality indicators. Our intention is to analyze the socio-economic inequality in this space, to set the position of Romania in this context and to study the influence of the socio-economic disparities over the economic growth.
We obtain a division of 24 Central and Eastern European countries in 5 clusters with respect to 11 attributes and we characterize each cluster.
Finally for the clusters with the most equitable, respectively the less equitable income distribution, we apply Principal Component Analysis in order to derive socio-political inequality composite indicator and its influence on the rate of economic growth.

Key words*: economic growth, economic inequality, Gini coefficient, income distribution, SOM, Principal Component Analysis*
Jel Classification: D63, E01, E10, F63

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Consumption and Economic Growth in CEE Countries – A GMM Dynamic Panel Estimation Model

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Abstract:
The relationship between economic growth and energy consumption are capturing the attention of economists and nowadays they are more and more attracted by this topic. Thus, many studies try to establish relationships and causalities between energy or components environmental indicators and their role in the enhancement of economic development of a country. Recently, economists have proposed several models to estimate the relationship of economic growth, energy use and CO_2 emissions and the main conclusion is that for the developing countries there is a relationship between economic growth and energy consumption but there is causation in both directions. The purpose of this paper is to estimate a GMM dynamic panel data model for some of the CEE countries between 2000 and 2013 in order to establish the relationship between GDP per capita growth and energy use. The results indicate that for CEE countries higher levels of GDP per capita growth are associated with higher levels of energy consumption rather than vice versa.

Key words: *economic growth, energy consumption, CO_2 emissions, GMM, dynamic panel data*
JEL Classification: O47, C33, O11, Q43

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Assessment of the impact of EU adhesion upon countries' productivity and economic growth-a DEA approach

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Abstract
Over the past decades, the importance of the efficient use of resources and qualitative policies for economic growth and stability has captured the attention of many economists. The purpose of this article is to calculate input and output efficiency scores and discuss the performance and efficiency analysis after the adhesion of some countries to the EU.
The DEA approach is used for evaluating the performance of a set of countries by converting multiple inputs like population, labour, research and development and investments indicators into one output which is the GDP. We use Data Envelopment Analysis to analyze the efficiency and productivity in some EU member states in the first two years after EU accession. The main interest in this paper is the possible impact of the EU accession on the economic growth of the countries.
We expect the results to show that the EU integration has positive effects upon country performance and growth, regardless of the country. This is considered to be a plausible result because through EU accession the countries should get access to a highly qualitative R&D and investments systems. But we should also take into consideration the national public support that in some cases may reduce the efforts, implying greater waste of resources leading to the countries being located further from the efficient frontier.

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Forecasting Romanian migration flows using agent based modeling

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Abstract
At the moment, none of the currently existing theories is able to fully explain the migration phenomenon. Moreover, the traditional theories of migration cannot be used directly in the development of reliable models of migration projection, either due to the lack of appropiate mathematical formalization or due considerable number of variables involved. In this context, agent-based models (ABM) could represent an alternative. In our approach, the future migration flows were forecasted using a model with a population of agents which live in a simulated environment that reproduces the real social, economical and political conditions from the country of origin (Romania), and also from the potential destination countries. A formal conceptual framework and potential avenues for further research were highlighted as well.

Media Channels Mix Modeling: Comprehensive Model for Romania

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Abstract

The paper analyzes a number of competing approaches to media channels mix modeling and their impact on brand indicators and over time. The main aspects that will be clarified are regarding certain myths existent on marketing practice: the belief that there is a solid know-how in Romania by which the money is allocated between communication channels. Another myth to be removed is that a small media budget does not give any result. Here we'll show how big the budget should be for one could get increasingly difficult, and what if the media stops for a while. Other insights are regarding the effectiveness of communication media channels: e.g. nobody reads print media, so it worthwhile to use this channel; Internet grows, so let's take from the TV ads budgets and put to online, it is even cheaper.

The analysis is based on 660 Romanian brands organized in different categories (FMCG - food, beverage, care and cleaning, shops - including online stores, electronics, health services) and their monthly investments in advertising during 2011 to 2014 on various media channels (TV, internet, print, radio). In addition, we added data regarding brand and advertising indicators (brand awareness, trial, usage and how much the ad was appreciated) from a survey conducted on a nationally representative sample.

Keywords: *Modeling with Large Data Sets, Model Evaluation, Validation, and Selection Advertising, Marketing*
JEL Classification: C55, C52, M37, M31

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Smart Reform of the Health System, the Rural Space and the Cybernetics

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Abstract:
After two successively health systems, starting with the midd-eighteenth century up to the fall of the communist regime in 1989, the health sector reform in Romania consisted essentially in the full privatization of the primary medical assistance and the switching from the Semashko model with full free healthcare to the Bismarck model with social health insurance system.
This lead to an intentional abolition after more than 100 years of very good results, of the general practitioner, the state medical dispensary and the medical constituency, standing providers of essential field information about the health condition in a designated area and also, in the same time the first suppliers of free, primary and emergency medical care and public health for poor people, especially in the rural space. The reform was completed in the coming years by several steps for decentralization of the remaining components of the former health system.
Today, after almost 20 years of these major decisions, I consider that it is absolutely necessary to restore in Romania these three old, but essential, institutions together with the physician's rightful social identity, using cybernetic rules and models, in the effort to build a performing health system.

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Price modeling for Mergers and Acquisitions

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Abstract
As the merger and acquisition market is continuously decreasing, the need for analytical models for determine the evolution of transaction planning is significant. The article formulates a theoretical approach on this market using game theory. The game theory model used establish the mechanism of setting the closing price of the transaction, which is very different from the original planned price. Finding the right price from the beginning of the game is hard to forecast by the game players, but one of those models can help both the acquiring company and the buyer.

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The Effect of Female Labour Market Participation on Fertility by Welfare State Models, in the European Union

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Abstract
Recent decades have been characterized by an increase in female labour market participation rate and a decrease of fertility rate, in the most of developed countries. On one hand, female labour market is important in helping to pay pension obligations to current retirees which averting poverty, especially among women, while on the other, the declining population levels make it less likely that the current European pension systems can be sustained.
This research assesses the effect of the evolution of female employment rate on the variation of total fertility rate. The research was performed applying panel data analysis.
The data treatment was carried out using SPSS and E-Views software. The data which was collected for the member countries of the European Union corresponds to the time period 2002-2012.
The results show the existence of the relationship between the female employment rate and the total fertility rate. The relationship between the two variables behaves differently among the EU countries due to the welfare state model adopted, specific labour market characteristics, including political regimes and geographical aspects.

Keywords: *Welfare State, Female Employment Rate, Total Fertility Rate, Panel Data Analysis*
JEL Classification: J13,J21

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The impact of high school population reduction in Arges county's development for the period 2010- 2020

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Abstract
Over time, early school leaving has slowed economic and social development, representing an obstacle to the European Union objective of smart, sustainable and inclusive growth. Currently, over six million young people in the European Union leave education and training with lower secondary level qualifications and primary education. They face increasingly severe difficulties in finding a job, becoming unemployed and often depending on the social security system.
This paper tries to identify an evolution and develop a forecast of the high school population indicator which will characterize the Arges county's social development for the next period.

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Medical, social and financial needs of the elderly in rural areas in Romania

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Abstract

Objectives. In Romania, the elderly population in rural area is growing and the care must be provided in accordance with their needs, which are complex and medical, social and financial.

The objectives are: a) identifying the needs of the elderly in rural areas; b) creating a "model" of the needs.

Methods. This is a pilot study, observational and descriptive with a transversal approach. The target population was represented by 245 elderly people in 8 villages from Botoşani, Sălaj and Tulcea counties. The quantitative method was based on the needs assessment questionnaire. The multivariate analysis (SPSS) used factor analysis and principal component analysis to create a model of the needs of the elderly.

Results. The main needs of the elderly population in rural areas are social needs as well as help in household chores, medical needs such as family medicine and home healthcare services, economic needs like financial aid for monthly expenses.

Conclusion. For the elderly population in rural areas of Romania, it will be necessary to develop the legal framework for the delivery of integrated medical and social services and financial support at Community level, in accordance with its needs.

Keywords: *healthcare, public health, elderly, rural areas.*
JEL Classification: I18

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Applications of the Erlang B and C formulas to model a network of banking computer systems

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Abstract

This paper surveys the contributions and applications of queueing theory in the field of banking data networks. Starting with a background of the network technologies used in Economics, the focus will be on the queueing theory, describing and giving an overview of the most important queueing models used in economical informatics. While the queueing theory is characterised by its practical, intuitive and subtle attributes, the queueing models are described by a set of 3 factors: an input process, a service process and a physical configuration of the queue or the queueing discipline.

The Erlang B and C mathematical definitions of formulas for a specific number of s servers, at the λ arrival rate, and the ζ average service time will be described, used and confirmed by computer simulations of real queues usually found in the banking computing systems.

The goal is to provide sufficient information to computer performance analysts who are interested in using the queueing theory to model a network of banking computer systems using the right simulation model applied in real-life scenarios, e.g. overcoming the negative impacts of the European banking regulations.

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Statistical assessment of the quality of preschool education in Iasi County

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Abstract
The aim of this paper is to assess the quality of preschool education according to the main dimensions of quality. Many researchers have shown that early years are very important in the children's development, and in their later performance. It was shown that investments in quality preschool education had long-term benefits as it contributed to increasing both social inclusion and employment and to reducing poverty.
In this paper we analyze a set of indicators of the quality of preschool education that reflect several dimensions (human resources, equipment, and funding). The concerned population consists of 450 kindergartens from Iasi County, both from urban and rural area. The data are obtained from the publications of the Regional Office of the National Institute of Statistics of Romania.
In order to analyze the relationship between the dimensions of the quality of preschool education we apply the Correspondence Analysis, while for assessing the preschool enrollment under the influence of determinant factors we use the Regression Analysis.
The results of this study show that better educated teachers and better equipment explain a higher level of preschool enrollment, thus reflecting a higher quality of education in the concerned kindergartens.

Keywords: *preschool education, statistical analysis*
JEL Classification: I21

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The effects of the crisis on insurance market. Austerity, development or stagnation?

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Abstract

Mortgage loans given to people with high financial risk has led to an unprecedented global, systemic, deep and lasting crisis and also revealed shortcomings in the regulation and supervision financial services. In this crisis insurance companies have played more the role of witnesses than direct participants. The main weaknesses in this sector occurred due to falling financial markets, reduced interest rates, slowdown in economic growth and also as their direct and indirect exposure to financial institutions that went bankrupt. Insurance had a stabilizing effect due to sector specific particularities such as long-term investments and prudent investment policies. In addressing this issue we have to look on both : the direct effects(decline in sales due to lower income population; termination or redemption of the insurance contracts; increasing reputational risk) that the crisis has had on insurers and indirect effects(sudden and drastic reduction in the value of assets and solvency position companies) on them. The conclusions that can be drawn after an analysis refers to the potential of the insurance sector to create a systemic risk in the financial world. All this will depend on the financial stability of insurers provided by future legislative.

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Stages in economic and social development and austerity as the solution to economic crisis

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Abstract:
During the recent global crisis the austerity policy has been widely promoted in many EU countries as one possible solution strategy. Her promotion was based on the concept that only anti cyclical policies can resolve the crisis. According to the economic theory this applies only to block the advance state of crisis and to create the premises of economic recovery. For the visions refused in terms of applied public policy precisely this kind of crisis policy multiply the negative effects. The purpose of this analysis is to investigate, besides positioning priori from the left and the right of political arena, if not the type of policy: the crisis resolved through even more austerity than she can create, versus crisis solved by relaxing and stimulating; must correlate with the stage of development reached in every member state of the European Union. I intend to investigate the effects of stimulate investments to resolve the crisis.

Key words: *economic crisis; development; investment*
JEL classification: H54, O25

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Influence of Social Networks Communication in Education: A Grey Perspective

Authors: *Elisabeta IOANAS, Camelia DELCEA, Ioana BRADEA, Nora CHIRITA*[*]
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Abstract
The development of social networks has led entering a new era of communication. This was helped by information technologies. Companies and users trying to learn to adapt to new challenges that implies social media. Companies are in constant search of strategies to attract users on their pages and their websites order to become their customers. Several studies have shown that users are becoming more educated and informed; they consider that the information is vital both for shopping and for education. Currently the online platform is huge informational and social networks are perceived by users as connection with other users thus creating strong ties depending on area of interest, hobbies but the exchange of information and education by using special online courses. In this article we aimed to see the methods that companies use to attract potential customers but also the factors that influence consumers of information on social networks.

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The role of monetary policy in the context of the macroeconomic policies mix –A Bayesian approach for Romania

Author: *Georgiana-Alina IONIȚĂ*[*]
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Abstract:
The main object of the research is to analyse and identify an optimal monetary and fiscal policy model that responds to the economic problems of the countries from Central and East Europe and, mainly, of Romania, using the Bayesian approach.
Given the vulnerabilities of the Central and Eastern Europe region at the beginning and during the recent global economic and financial crisis, there is an increased interest to identify the models that can explain the main features of the Central and Eastern Europe macro data: GDP, inflation rate (measured based on the GDP deflator), the nominal interest rate, the weight of governmental expenses and public debt in GDP.
Moreover, due to the importance of the uncertainty in modelling the monetary policy and to the increasing attention that central banks should pay to the anticipation of the future macroeconomic conditions, another objective of the research is to identify the significant shocks that influence the macroeconomic environment, such as: productivity (technology) shock, world output shock, mark-up shock, interest rate shock, tax shock and spending shock.
As a result, the main object of the research is to identify and analyze an estimation methodology in order to approach an optimal monetary and fiscal policy model that complies with the post-crisis macroeconomic context and responds to the financial and economic problems of the Central and East Europe countries, such as Romania.
In this purpose, I have used the Bayesian approach (using Matlab program), as an estimation method, that offers the opportunity to take into consideration the quantification of the uncertainty in a system through the analysis of the economic environment shocks (as proposed in the research, through the interpretation of the impulse response functions, variance decomposition and of the stochastic dynamic of the model).

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Is Romania ready for a woman president? A statistical – territorial approach of the results of the presidential elections in 2014

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Abstract

After the fall of communism, in Romania, as in other Central and East European countries, there have been major social and economic changes that were reflected in the way citizens take part in the political life. Women's involvement in politics is a complex and multidimensional phenomenon which follows very contradictory and sinuous trends: starting from a high rate of female participation in the politic life during the communism (only as representatives, but not as decision-makers), to an abrupt drop in the 1990s when politics was dominated by men, to, finally, a rise of female presence in this field, especially after Romania became part of the EU.
Given these premises, the authors applied a methodology used in the study of regional convergences and disparities. Therefore, the study aims at analyzing the results obtained by the two female candidates at the presidential elections in November 2014. Another aim of the research was to identify a profile of the electors according to where they live (urban or rural), education, age, gender, ethnicity and religion, based on data from BEC, INS and the Population Census in 2011. The outcomes prove that Romania has entered a new demographic, economic and politic paradigm and that the Romanians are more and more receptive to women involved in political life, especially those living in cities, even if gender equality is admitted in theory rather than practice.

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Study on using Markov chains in brand forecasting

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Abstract
The Markov chains model is frequently used in forecasting in order to predict the future situations. Most often, this model is applied in marketing for dynamic forecast of the market quota in case there is a close rivalry between brands. It has a finite number of states and every individual state depends only on its previous states.
The purpose of this paper is to apply Markov chain theory for the ice-cream market to see what market impact will certain competing ice-cream brands achieve and to measure customers brand loyalty, because it is a well-known fact that brands play an important role in the consumer decision process. This paper analyzes relevant samples to build Markov transition probabilities matrix and forecasting model, and then make calculations and analysis
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Keywords: *brand forecasting, market share, Markov chains, transition probability matrix*
JEL classification: C53, M31

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The Role of the Existing Networks on Romanian Migration

Authors: *Ioana MANAFI*[*], *Daniela Elena MARINESCU*
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Abstract
Why do people migrate? How do they choose the residence country? This papers aims to determine how the existing networks influence the migration in Romania and to test the importance of the community networks in providing information on the labour market.
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Keywords: *networks, migrations, labour market*
JEL classification: F22, E24

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Variants of the VR problem

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Abstract
Case solved the in classic VR problem is quite special, not appropriate into many of the actual situation and, more, it cannot be adapted to those cases. It implies a fixed starting point, for all cars involved in transport, the same for all of them. But there are many situations in which the problem cannot be reduced to this situation. So it is necessary to find alternative heuristics for those cases and this is the purpose of this paper.

Keywords: *VRP, heuristics, optimization*
JEL classification: C61

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Risk management in accounting and the true and fair image of financial statements

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Abstract
The economic financial crisis, the complexity and multitude of transactions in the world have diminished the chances of accomplishing managerial objectives in organisations all over the world. The risks are varied, and their decrease is a strategy matter of governance / management. The efficient decisions of an entity are drawn by that entity's capacity of producing cash, its safety and continuity. These decisions have to be made in the context of risk evaluation and management in accounting. It is our scientific endeavour both from a theoretical and practical stand point to reveal and develop risks management in accounting through their reasonable evaluation, while upholding a true and fair image of the financial statements, whether we use the European Directives or IFRS or another accounting referential. The article shall be followed by an empirical study on 70 Romanian enterprises, with regards to the impact of risks in accounting and their consequences on the financial statements. The process of identifying the accounting risks is a management issue, enforced today by the economic crisis, the complexity of the transactions, the selection and the adequacy of accounting policies.
The reason for choosing this theme is the economic recession period, which is a real time of review of the activity in an economic entity, of investigation and of finding opportunities for diminishing the effects of the factors which raise serious issues in attaining managerial objectives. The thorough analysis of the data reflected in accounting and performing various scenarios may lead to minimising the effects specific to the economic crisis period.

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Using cloud-based GIS for competitive intelligence

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Abstract
Competitive Intelligence is a way of thinking professional about the business in a digital, global and dynamic economy dominated by the Internet and the mobile communications. The purpose of this paper was to investigate how Geographic Information Systems (GIS) and cloud computing could be used together to provide competitive intelligence. Currently, 80% of business data has a location component. Although, the spatial element is omnipresent in data and information relevant to organizations, is underused in decision-making processes within organizations. In this context, the paper will present also, an example of business spatial analysis in cloud that provides decision makers the ability to quickly make decisions that influence performance in business. The combination of cloud computing and GIS can provide a more flexible GIS solution that aligns with business objectives. Cloud computing has the potential to help GIS to become GIS for everyone.

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The customer perspective – an effective and efficient way to differentiate during economic crisis

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Abstract

Anywhere in the world and in any market, the firms are facing more and more a major challenge to meet growing customer demand towards addressing specific business or operational needs of their customers. Due to the economic crisis, a firm's customers are more oriented on how to create value for their own customers and such they are looking for an approach shift from their providers. Nowadays, the customers are expecting from their providers to better understand the value creation process in their organization. Through knowledge combination, the provider and the customer are acting like partners in the co-production of a customer solution to solve a specific customer business requirement. The customers are expecting from their providers not to be considered any longer as consumers but rather co-creators of customer value. The expected approach is for the provider to create value not for the customer but together with the customer. Due to the specificity of the customer business requirement that needs to be addressed, not only the firm and its customer should be considered, but also a broader network of other parties that could potentially influence or be influenced by the customer solution over its complete lifecycle. These parties get together for sharing and integrating resources towards the common purpose of value co-creation. The interaction between all these players with multiple objectives – that are different and not rarely even conflicting – involves a high degree of intensity, complexity and reciprocity. Much more, it is not sequential and it does not take the form of value chains but the form of business networks to develop value propositions. Even though a number of driving forces requires the shift of a firm's focus towards taking the perspective of the customers of that firm, the multi-objective optimization of the value creation process in the context of the business networks is not an easy task for any firm. But this shift could represent one effective and efficient way for the firm to differentiate in the market and to be rewarded with achieving a competitive advantage to be sustained over a longer period of time.

Keywords: *value co-creation, business networks, evolutionary multi-objective optimization*
JEL Classification: E21

The specificity of the development strategy and it's impact over the company's functionality and performances

Author: *Robert Constantin PANAIT**
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Abstract
The development strategy is the strategy that is used in SME's and in whose elaboration and implementation, the entrepreneur plays a decisive role, strategy focused on identifying and valuing the opportunity to develop a long term vision.
Addressing to the development strategy, has a special importance, which comes from the following:
• The functionality and performance of each company, regardless of size, depends largely on the ability to anticipate and prepare for the future and primarily the ability to develop and implement strategies.
• Small and medium enterprises represent 99% of all firms in the EU and other developed countries in the world and in Romania
• Development strategies have certain features, generated by the specifics of small and medium enterprises and their focus on the opportunity of development, whose consideration conditions the quality and performances of the SME's.
• According to a comprehensive study on SME's in Western European countries, conducted within the project STRATOS, only a small and medium enterprise of a number of six, developes and operates strategies.
• The recent researches revealed that a increasing share of SME's feel the need to develop formalized development strategy.

Keywords: *strategy, SME, performances*
JEL Classification: L21

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Methods for Estimation of Inflation Persistence Degree in Republic of Moldova

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Abstract
Central banks which seek to implement effective and credible inflation targeting regime are supposed to know some important properties of inflation such as persistence. The degree of persistence of inflation is of particular importance because this inflation property determines the necessary intensity and timing of monetary policy measures in order to return inflation to the target in the case of existing or anticipated deviations. This paper presents the estimation of the degree of inflation persistence by expressing it as an univariate autoregressive process, but also by studying the property of inflation to return to its average long-term equilibrium. Both procedures revealed a higher degree of persistence of core inflation than headline inflation. This is caused by the fact that the headline inflation consists of some volatile components such as food, fuel and regulated prices. Besides knowing the degree of persistence of inflation, for policymakers it is important to know how it changed over time.

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Modelling Stochastic Volatility Using Expectation-Maximization Algorithm with Particle Filters and Smoothers

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Abstract
Predicting financials markets returns in present became practically impossible, and investing in any type of products became an art more than a science. The return of an investment at some point in future became a random variable.
This variable can only be fully characterized by a distribution function or, more exactly, by a density function. The most important feature and maybe the single predictable one of the density is the mean value or expected value representing the location of the density. Around the mean is the uncertainty or the volatility. It is already demonstrated by many scientific papers that all financial markets volatility is mean reverting.
Stochastic volatility (SV) models have become very popular for explaining the behavior of financial variables and their popularity has resulted in several different proposed approaches to estimating the parameters of the model. An important feature of financial data, which is commonly ignored, is the occurrence of irregular sampling because of holidays or unexpected events. I will present a method that can handle the estimation problem of SV models when the sampling is somewhat irregular. The basic idea is to combine the expectation-maximization (EM) algorithm with particle filters and smoothers in order to estimate parameters of the model. I will present simulation studies and real data analyses to establish the viability of the proposed method.

Keywords: *financial markets, model*
JEL Classification: G11

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Why investment in human resources is needed to sustain development and growth?

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Abstract
The paper present the importance of the investment on human resources and also the directions that can be used to realise an effective investment. Different indicators are analyzed in order to identify evidence of why investment in human resource sustain growth and also the approaches used in different industries and countries.

Keywords: *human resources, investment*
JEL Classification: J24

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Crude Oil Market's After-Crisis Evolution through Game Theory Analysis

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Abstract
The financial crisis has led to changes that can be observed in every domain, even in the energy sector. In this paper there will be applied, on the international market of crude oil, two theoretical models from game theory on four international powers during the period following the crisis. After applying these models, it will be noticed how close to reality are the data obtained, being known the fact that the price is not influenced by the quantity on the international market of crude oil but there are other factors more important than this in terms of quality, but hardly surprised through econometric modelling. Through this paper there have been introduced new reasoning of analysis that can be used on international energy markets because applying two models from game theory on the crude oil market led to expressing theoretically the market share held by each of the four powers considered for analysis.

Keywords: *game theory, crude oil market, market share, oligopoly*
JEL Classification: C73, O13, D43

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A decision support system to predict the risk of financial failure using CHAID models

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Abstract
In the context of economic instability we argue that a decision support system that could predict the risk of financial failure of a company one year before actually turning to insolvency could bring true benefits to a company by helping it take early measures to prevent such a misfortune. Thus, the aim of this paper consists in developing a decision support system to predict the risk of financial failure using CHAID models on a set of Romanian companies listed on the Bucharest Stock Exchange. A practical solution for predicting financial distress with one in advance is presented and the results of the model's prediction accuracy are encouraging us to believe that these models can actually improve the strategic management and planning departments in a company.

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Credit and economic recovery in Romania

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Abstract
The paper investigates the empirical relationship between credit and output in Romania and the possible disruptions caused by the global crisis. The methodology employed includes breakpoint regressions and vector autoregressions (VAR) models. The results are used to test the "Phoenix Miracle" hypothesis (Calvo, Izquierdo and Talvi (2006)) which states that after financial crises economic activity recovers with a rebound in credit. It is shown that the rebound in output is highly correlated with the rebound in the flow of credit, even if it is poorly correlated with developments in its stock, i.e. the flow of credit is more important for understanding the business cycle.

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Austerity vs. Development, a False Dichotomy of Economic Policies?

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Abstract
Large scale fiscal programs have been the main tools used to fight the greatest recession of the post-war period. The result was a short period of growth recovery, accompanied by an extraordinary increase in public debt.
Deficit spending during the critical stage of the recession has been followed by austerity programs, implemented in order to safeguard the financial stability. These programs have been met with widespread criticism, not only in the economic literature, the general opinion being that such programs will be a strong obstacle in the way of subsequent development.
This paper aims to contribute to the dispelling the myths surrounding the apparent dichotomy between austerity and development. The last four decades have been a period of growth fueled by an explosion of debt and the ever increasing share of the financial sector in the economy.
As a result, the structure of the national economies, complex systems by their nature, has been profoundly distorted, especially following the increasing scope of central banks intervention, that worked as a breaking mechanism of the feedback loops in the economy.
Austerity at the government level does not hinder economic development, if accompanied by a fiscal policy focused on tax relief and a balanced budget. As constructed today, the fiscal packages are backward looking and represent a major obstacle for most needed structural reforms.

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Exchange rate influence on growth. Case study on some European countries

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Abstract
The real exchange rate problem is important especially during crisis periods. The exchange rate over-evaluation are dangerous for national economies in global competition. If in national economy exists protection systems for some economic sectors then adjustment costs will be supported by unprotected sectors. This sectors will utilize informal imports in order to compensate the loss of competitiveness. In this paper we use a panel data model to evaluate the influence of exchange rate under-evaluation on economic growth for 8 European countries. Other variables included in our model were trade openness, investment level, interest rate, unemployment rate or real exchange rate. The main conclusion of our study was that exchange rate under-evaluation has negative effects on growth and trade openness has positive effects on growth.

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Business Failure Prediction: Study of the relevance of Altman model applied to Romanian SME's

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Abstract
This study aims to review the current status of studies relating business failure, and describe the current situation, at global level and Romanian level. Then I will analyze how a prediction model will work on a sample of Romanian Companies, SME's elected from construction sector.
The objective is the research, based on financial data, using quantitative models of the extent to which the Altman Z score is reliable for Romanian reality. I intent to study 15 successful SME's and 15 bankrupt Companies and try to establish the extent this model applies to financial results of the Romanian Companies. My principal concern relates to the fact that SMEs in Romania have different standards of reporting than US standards on which Altman considered his study and this can alter the results. The second concern is about the size of the Companies, since SMEs are more flexible and create working places, however, the principal critical feature is that they have a weaker financial situation leading to bankruptcy, more often than the big size Companies.
The question laying behind these figures is: are these enough to predict failure? The answer seems to be yes, however, the principle behind these models are that the figures are analyzed after the events have already occurred. The purpose of the models is to prevent more likely the events and not to confirm the status of a Company.

Keywords: *business failure, prognosis, SME*
JEL Classification: G32

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The resilence of Romanian agro-food sector to critical situations

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Abstract
The modern food sector faces a number of challenges, caused by trade globalization and by the rapid evolution of trade techniques, by the global climate changes, by resource limitation and the need for thorough information about food products. Critical situations and the agro-food chain preparation in order to cope with some crisis situations/critical incidents represented a concern for companies, consumers and government authorities. In Romania, no studies regarding food chain resilience related to critical incidents has been conducted. This research is original and absolutely novel for the Romanian economy. It has been used a qualitative method for the survey and a number of 428 organizations were interviewed, chosen with duties in the food production and distribution, transport, packaging domains, mainly on the SE Region of Romania. The results of the study could be useful for academics and domestic agro-food market.

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How will the conflict between Russia and Ukraine impact the European gas market? A game theoretical approach

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Abstract

Large consumption of natural gas, accompanied by decreasing domestic production makes Europe heavily dependent on imports. Given the current situation between Russia and Ukraine, the supply route that transits the latter is considered a dangerously unstable one. In this paper I analyze bargaining power of four important players and the impact of the potential cut off between Russia and Ukraine. I address the gas supply and demand as if the transit through Ukraine has been stopped and new solutions have to be found. I establish the bargaining power of the major players using cooperative game, by computing a form of the Shapley Value. Moreover, given the network structure of the gas pipelines I apply a Network Game Model, where pipeline networks are modeled as graphs. The empirical results show that Germany is an important player on this market and that the bargaining powers of Ukraine and Russia are similar, which might be the cause of the existing conflict. Based on the findings I drew the conclusion that Norway would be a good alternative for gas supply towards Ukraine and also that Norway has the potential to increase its power by developing a larger pipeline network with the rest of Europe.

Keywords: *Gas Market, Game Theory, Shapely Value*
JEL Classification: C71, C78, Q31, Q37

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Customer solutions – new sources of sustainable competitive advantage in times of global economic crisis

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Abstract
The global economic crisis changed the competition game in any marketplace. Faced with increasing competition, declining margins or decreasing demand due to crisis, the firms are looking for new ways to compete across industries and countries. Considering Peter Drucker's argument that the reason the firms exist is to satisfy the customer, they are trying to differentiate themselves by moving their focus from simple stand-alone products and/or services and instead developing customer solutions. They are defined in the extant literature as a combination of goods and services designed to satisfy a customer's business needs and therefore they are difficult to imitate and thus they have the potential to be used as a source of sustainable competitive advantage. Much more, the customers themselves are pushing them in that direction, as their needs become more specific as a response to address new business requirements imposed by the economic crisis. But the shift towards developing, selling and implementing customer solutions is not an easy journey. The firms have to transform many aspects of their business. The reason is that the customers are not being consumers anymore, but co-creators of value together with the firm through knowledge combination. External partners to the firms often participate to design customer solutions requiring to redefine the firm's borderlines and to consider a broader business network of such complementary partners. Not rarely they could even be competitors of the firm. The design and the implementation of such customer solutions requires the optimization in the same time of the objectives – sometimes contradictory – of all the partners that are actors in the value-creation process. Based on these considerations, the question that arises is what are the major challenges firms are facing in creating effective customer solutions to achieve sustainable competitive advantage and how they could address these challenges.

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Network goods markets

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Abstract
We mush distinguish between direct and indirect network effects, compare effects to switching costs and report a number of empirical studies regarding the importance of network effects for various products. In network markets, direct network affects can be seen as a cause of switching costs. When groups of users make sequential choices, early choices tend to commit later users, creating a form of "collective switching costs". On the other hand, indirect network markets effects may be seen as a consequence of switching costs. When choosing between competing systems, consumers tend to privilege the one offering the largest availability of applications. While characterizing demand and supply in network markets, the goal is to predict demand decisions that may lead to multiple equilibria, leading to potential coordination problems, while supply decisions crucially depend on the level of compatibility between competing goods. Due to network effects that affect consumer's utility differently, there often exist multiple consumer equilibria for given price of the network industry.

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An econometric model for pricing Romanian paintings at auction

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Abstract
Compared to countries with a long tradition in organizing art auctions, such as France, the UK and the US, the art auction market in Romania is very small, but judging by the number of art auctions held in 2013 (EUR 15.1 million), it would seem that Romania is starting to develop a scene. This paper shows that despite the global economic crisis, art market is viewed as a great and profitable opportunity for investments. Under conditions of uncertainty, the inverstors' interest migrates form stocks and bonds to fixed assets, fact that conduces to a demand increase. Nowadays, Internet trade is one of the most successful forms of e-Commerce. The trend shows a more versatile character over the online shopping nature since the internet becomes more and more involved in the daily activity. For this purpose, the focus of this paper is to provide appropriate models of painting prices during auctions using data from the Lavacow's website, the first Romanian online auction house, launched by Artmark, the top-player in the Romanian art market. Using a Heckit model (1979), this paper estimates a calculation procedure for the price of the painting and another one for the painting's probability to be sold. The results highlight the fact that the painting price is highly dependant on variables such as the physical, artistic and sale characteristics. Last but not least, the analysis shows that the Heckit model is the appropriate tool to be used in auctions or pre-sale evaluations and proves to be a decisive factor for this particular sales process.

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Romanian patterns of economic development and resources usage

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Abstract
The economic development is very influenced by the way resources are used, especially if we take into consideration the investments in different industries. From this point of view, each country manages its own resources in order to have a high economic growth or an output that is within certain accepted limits.
Each country has its own budget and expenditures planning that make a country be more developed than another one. Taking into account the economic results, the investments, the resources, the population and different expenditures of each country, the purpose of this research is to group countries in classes of economic development and to identify the patterns of economic growth and resources usage.
Once the classification of countries is complete, it is easy to identify a profile of each development class and to estimate the linear discriminate functions. Using these functions, we estimate the degree of correct classification and then we calculate the classification score for Romania.
Finally, the conclusions reveal both the economic growth profile and development degree for Romania, comparing to the rest of the worldwide countries and propose several solution for economic improvement.

Keywords: *development, resources, classification*
JEL Classification: O11

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The use of Path Analysis in the study of factors effects on market capitalization

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Abstract
In the case of listed companies, the position and the financial performance influence their market value. The financial position of a company reflects in principal the type of funding and of capital structure and it is assessed by the financial leverage (FL – indicator of indebtedness). The financial performance indicates the efficiency of the assets used in operating activities in generating future economic benefits, based on different types of funding. Investors are interested both in the efficiency of operating activities assessed by the return on assets (ROA), and in the extent to which they will be rewarded for the invested capital assessed by the return on equity (ROE). The aim of this paper is to identify a set of models regarding the influence of the position and the financial performance on the stock prices. The correlation between the variables included in the models is estimated by the Pearson correlation coefficients, and the effects of FL, ROA and ROE on the stock prices are estimated using the Path Analysis applied on the data for a sample of 67 listed companies at Bucharest Stock Exchange (BSE) during the period 2011-2014.
The results of this study highlight a direct influence of the position and the financial performance on the stock prices. Moreover, the FL and the ROA have an indirect influence on the stock prices, through the mediation of ROE. In conclusion, the investors are interested in both the structure and the ways of using the capital they invested in a company, and in the extent to which their effort is rewarded.

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