

ABSTRACTS

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Computing a Mixed Potential Output Indicator for Romanian Economy

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Abstract

Although widely used in modelling monetary policy, and generally, in macroeconomic policy analysis, potential output measurement methods as well as the theoretical concept behind it are still controversial (MR05, Monthly report - Economic and financial MARKET OUTLOOK, 368/2013).

Being unobservable and depending on the a wide range of institutional and economic factors, it can only be estimated with uncertainty, using several methods of estimating and comparing the results, in order to draw a pertinent conclusion on the pattern of evolution of this indicator.

In our previous works, Andrei et al (2009), Andrei, Paun (2011, 2013a, 2013b) we applied various methods for potential output estimate, such as: production function method, Hodrick- Prescott filter, Baxter –King filter, Christiano- Fitzgerald bandpass filter. In the present work, we try to improve the results, reducing the estimating errors by combining the results into a single indicator, using the model averaging techniques, principal component and other statistical methods.

Keywords: *potential GDP; output gap; production function method, Hodrick Prrescott filter; Baxter -King filter, Christiano- Fitzgerald bandpass filter.*

JEL Classification: E32

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Europe's Growth Determinants in the New Economy

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Abstract

Over the past several years economic growth determinants have attracted increasing the attention in both theoretical and empirical research. Buhol et al. (2008), in a study focused on the contribution of economic geography to GDP per capita across OECD countries, points out that spending on R&D and human capital might have a stronger effect on economic performance in countries with a higher degree of urban concentration. Furthermore, Fingleton and Fisher (2008) assume that the new economic geography has rivalled neoclassical growth theory as a way of explaining spatial variation in economic development.

In a recent report[†], IMF reveals that the global economic prospect have improved again, but the bumpy recovery and skewed macroeconomic policy mix in advanced economies are complicating policy making in emerging market economies.

By using econometric methods as two-stage last squares or panel-data regression, this paper examines the influence of economic growth determinants for European regions, like human capital variables, technological innovation variables, variables measuring sector structure and employment, infrastructure and socio-geographical variables, on the evolution of GDP per capita. In this setting, the results indicate that conditional income convergence appears as the most robust driving force of income across European regions.

Keywords: *growth determinants, European regions, two-stage last squares method, panel data regression*

JEL Classification: C33,F43

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[†] World Economic Outlook: Hopes, Realities and Risks, April 2013, www.imf.org/external/pubs/ft/weo/2013/01/

Some empirical evidence of the MM theorems for Romanian firms

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Abstract

In this paper we propose three methods to check the action of the MM theorems: Mahagaonkar- Qiu methodologies, an econometric model which highlights current and delayed effects of the debts on the value of the firm, the model for computing the optimal leverage and its effect on the market value of the firm.

To apply the Mahagaonkar- Qiu methodologies we identify and visualize six clusters of the 25 companies in agriculture chosen for analysis using Self-Organizing Maps and Viscovery SOMine 5.2. We selected five indicators for these companies: operating income, market value, profit, company's debts, and capital stock. After dividing the firms in clusters, we mixed market values and values of debt of the firms in the cluster using the equal weighted sum and unequal weighted sum, where the weights are computed as the contribution of each firm in the cluster to the total operation income of the group. Using the two models proposed by Mahagaonkar- Qiu, we check the action of MM theorems or the U shape cost of capital hypothesis regarding the influence of the capital structure on the market value of the firm.

The second model regresses the market value of the firm as the function of the current and two periods delay debts and also as a function of time.

The third model gives the optimum leverage of the firms and we use that leverage to compute the market value of the firm, computing also the gaps between the market values of the firms with leverage equal with the maximum debt in the value of shares established by the banks and the optimum leverage resulted from the model.

Keywords: *Miller Modigliani Theorem, leverage ratio, market value of the firm, capital cost, SOM*

JEL classification: C59, D53

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The Multilevel Modeling of Life Satisfaction in SPSS and STATA

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Abstract

Multilevel models assume that the data are hierarchical, with the response variable measured at the lowest level, and explanatory variables measured at all existing levels. Both the group and its members influence and are influenced by the group membership.

The data is a subsample of the 76.2 Eurobarometer database developed in September-November 2011. We developed a multilevel analysis of the level of satisfaction with life in general of individuals (first level) from Central and Eastern Europe that are grouped within countries (second level). We studied if the countries differ, on average, in the level of their inhabitants' life satisfaction and analyzed the relationship between the respondent's age and the life satisfaction level in Central and Eastern Europe.

The data is modeled with SPSS and STATA. We also develop a comparison between the results obtained using this two software.

Keywords: *multilevel models, life satisfaction, hierarchical data*

JEL Classification: J28, C32

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The Influence of the Economic Crises on National Economies

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Abstract

Business cycle theory has captured the attention of economists ever since the beginning of the Economy as a science and it can undoubtedly be affirmed that during the 60s existed a general opinion according to which economic crises and business cycles can be eliminated. This paper analyzes the macroeconomic fundamentals of business cycles between 2000 and 2012 and the correlation of business cycles between different European economies. An approach according to which business cycles are seen as fluctuations around a trend is taken into consideration. Moreover, econometric models are used to show strong cyclical regularities.

Keywords: *business cycles, econometric models, Romania, macroeconomic variables*

JEL Classification: E32, O11, C10

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The Analysis of the Risk and the Uncertainty of the Financial Market in Romania

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Abstract:

The increasing of the risk and the uncertainty led to accentuate of the disorder at the micro and macroeconomic level. These consequences were felt appreciably to the financial market specific parameters. It is therefore necessary a quantitative analysis of the impact of risk and uncertainty on financial market transactions in Romania. Results of the study are intended to offer an overview of financial market behaviour in Romania, under conditions of risk and uncertainty. The parameters considered in the analysis are: interest rate risk, currency risk, specific risk, liquidity risk, credit risk, etc.

Keywords: *risk, uncertainty, financial market, behaviour*

JEL Classification: C10, D81, G10, G11, G28

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Public Debt and Sovereign Default Risk in European Union Countries

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Abstract

The current crisis is perceived as one of the worst financial crisis after 1930. Development crisis led to disregard the European Union as a homogeneous area can be immune macroeconomic and financial stocks in each country. The present paper aims at observing the effects of the economic crisis by changing the degree of occurrence of sovereign default risk in the EU countries. A part of the paper is realized using multidimensional data analysis in order to identify the major interdependencies and correlations during the years 2007-2011. Using panel data analysis from the EU level we obtain information about general situation of public debt to the other five indicators and dependencies between them. Economic contagion helped change and critical observation gives us information about the place of occurrence of the economic crisis in the European Union. We present a multidimensional analysis of data showing the country's rating change with the advent of the crisis. We noticed that the most affected countries are Greece, Ireland and Spain emerged from the analysis results achieved.

Keywords: *public debt, crisis, European Union, economic contagion, sovereign default risk, panel data.*

JEL Classification: C16, C52, E69, H63

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Takeovers and Game Theory

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Abstract

Mergers and acquisitions market is one of the most dynamic markets and has been analyzed by many economists in order to create models that can be used in the business environment. During the time of economic crisis, the number of the transactions is strong related to information level of the companies planning or involved in an M&A action.

One of the most important types of merger or acquisition is a takeover, and in its case, the negotiation of the transaction price is based on the informational knowledge of the players regarding the market and targeted company.

The purpose of this paper is to analyze the models of takeovers and defining trends during the different economical periods.

Examining the types and the results of M&A, the paper represents a base of using game theory for takeover analysis, in which the companies are players of complete or incomplete games.

Keywords: *Mergers and Acquisitions, Game Theory, Takeovers.*

JEL Classification: C71, G34

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The Impact of Emigration on the Romanian Labour Market

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Abstract

The migration phenomenon in Romania is characterized by emigration; the number of Romanian emigrants skyrocketed after the Romanian accession to the European Union in 2007. With the economic and financial crisis outlook and with the expected liberalization of the labour market across the whole European Union for the Romanians starting next year the number of Romanian emigrants is expected to increase further. Against this background this paper analyses the effects of emigration on wages and unemployment in Romania.

Keywords: *Immigration, Emigration, Labor market, Average Wage*

JEL classification: F22, J61, J31

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Utilizing Neural Calculus in Quantitative Analysis of the Post-Crisis Effects on the Romanian Economy

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Abstract

Utilizing neural calculus in quantitative analysis represents a great advantage: the data processing is done using advanced algorithms and neural network structures thus ensuring a minimum redundancy and the integrity at the level of data. Quantitative analysis of the effects of post-crisis involves determining the model that describing the impact of the effects of post-crisis (represented by variables that describe relations of our country with another country) on the Romanian economy. Our study is complemented by achieving forecasts on macroeconomic parameters for coming years.

Keywords: *neural calculus, model, forecasting, post-crisis effects*

JEL Classification: B23, C63, E20, G01, G17

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Models and Methods for Determining the Market Equilibrium Energy in Romania

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Abstract

The introduction of competition in the production and distribution of electricity requires a rethinking of business activity in the energy system units. Claims liberalized energy market participants flexible behavior imposed by the existence of competition and the need to adapt to all the changes that occur constantly. Support competition in the production and distribution of electricity requires new changes by implementing policies in the energy system units.

Modern energy policies seek competitive energy market opening. In this context, we can say the energy sector need to adapt to the requirements of the changes taking place in Europe and worldwide. The energy sector must be placed in a new frame with the current energy policy.

Matrix was achieved national accounts for the base model and general equilibrium analysis of balances or imbalances can see considerable savings resulting from the input data analysis on demand, inputs, production and provision of goods and factors of production in the economy model. The analysis of general market equilibrium is observed that the market has values close to 1, which represents the equilibrium value, but it is recommended implementing energy policies to stimulate or reduce the effects of some components.

Keywords: *energy market, equilibrium model, energy policies*

JEL Classification: O13

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The Prediction of Auto Insurance Premium - an Approach with Generalized Linear Models

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Abstract

The main function of the insurance is to provide financial protection, offering a method of transferring or sharing the risk in exchange of a tariff. Considering that not all the risks are equal, it is evident that every insured will pay a premium or tariff corresponding with the gravity of the risk. A usual method to calculate the insurance premium is to multiply the conditional expectation of the claim frequency with the expected cost of claims. In this paper, Generalized Linear Models are used to estimate the two components of the premium given the observed characteristics of the policyholders. The approach is illustrated on the basis of a French auto insurance portfolio using the statistical software SAS.

Keywords: *insurance premium, frequency of claims, cost of claims, Generalized Linear Models*

JEL Classification: G22, C22

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Household Sector Risks to Financial Stability in Romania

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Abstract:

In the context of the international financial crisis, the household sector has put pressure on the financial stability. Financial liabilities have a higher risk profile, the debt service has increased in a very dynamic rhythm, the value of real estate assets grew almost exclusively due to the price, the foreign currency status has turned negative, and households turned into net debtors to the banking sector. Thus, the present study aims to capture, analyse and formulate solutions to limit the potential of macro-prudential risks arising from the household sector on the financial stability in Romania.

Keywords: *financial stability, loans to households, cointegration*

JEL Classification: E63, G32, H31

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Transmission Channels in the Global Economy

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Abstract

The commercial links and the foreign direct investments have long been recognized by the international literature as important transmission vectors of globalization, due to their capacity to generate strong connections between national economies.

The aim of the present study is to statically estimate the efficiency of the commercial and FDI transmission channels in Europe, in order to better explain different patterns of convergences, by using panel data analysis, on a two vectors (GDP, FDI_{in}, FDI_{out}) and (GDP, Imports, Exports).

The results underline the fact that the trade channel is much faster transmission path, although more volatile, while the FDI channel presents a lag between the investments and the output growth, but with lasting effects, as highlighted by the Granger causality.

The future study direction will aim to enlarge the sample, to include other variables in the analysis vectors, and also change the methodology towards using ARIMA, due to the fact that the data showed auto-regressive behaviors.

Keywords: *globalization, foreign direct investments, trade, panel data analysis*

JEL Classification: E24, E32, F44

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The Financial Benefits of Innovation in Telemedicine

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Abstract

In our current society, the healthcare system it's one of the most important domains for improving a country prosperity and economy. The development of techniques and technologies that could help in the process of achieving activity optimization is needed as a solution to overcome the global crisis. Therefore, the healthcare system it's being permanently adapted to the newest technologies which lead to quality and performance improvements of the medical processes and services due to IT industry. Its main focus is concentrated in finding economical alternatives with an important role in obtaining resources, their maintenance insurance, storage, retrieval and use of information in the clinical workflows.

This paper aims to examine in the context of global economic crisis, the situation and perspectives of the telemedicine market and its financial benefits. The medical care system confronts with a wide range of challenges, seeking to making difficult diagnosis, avoiding errors, ensuring highest quality of the provided services, maximizing efficacy and reducing costs. Information and IT technologies have the potential to reduce clinical errors and also to optimize the clinical processes and workflows with direct benefits on the global economy market. Telemedicine represents a key enabler that can improve the quality of care by enhancing operational effectiveness, delivering collaboration care for prevention and wellness and also achieving improved outcomes, all of them with an important contribution to economy prosperity.

Keywords: *healthcare, telemedicine, financial benefits, technologies, prosperity, global crisis.*

JEL classification: I11

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Regional Economic Divergence in Romania in the Context of the Economic Crisis

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Abstract

This paper addresses the question of convergence in relation to regional GDP per capita and proposes a spotlight on the current economic crisis, for its powerful negative impact on the regional development in Romania. Following the main methodological trends in the literature, various sigma and beta convergence methods were applied using spatial data sets. Our paper aims to single out the effects of the economic shocks by estimating the regional convergence models both in the pre-crisis environment and during the recent economic crisis. The empirical results from our analysis seem to provide support for absolute divergence in GDP/capita among Romanian counties on the long run.

Keywords: *convergence, GDP per capita, region, economic crisis, Romania*

JEL Classification: O47, J31, R15

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Frameworks for a Sustainable Development Indicators System

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Abstract

Theories of development go back long in time. In present, the economic development is a key preoccupation of the policy makers and general public; the attention is focused not only to the economic growth, but to the ways of the development towards sustainable development. In the last time, considerable efforts have gone into work on Sustainable Development, including indicators to support the development of policies in this field and the quantification of their economic and social impact. The translation of the conceptual framework of sustainable development into data and indicators ought to ensure comprehensiveness in measurement, or at least the goal of comprehensiveness.

All the relevant variables ought to be identified taking into accounts the goals of the development strategy. There is a widespread understanding that society needs a better statistical 'compass' to shift emphasis from measuring economic phenomena to measuring sustainable development.

The paper presents the framework of theoretical concepts and associated operational variable that form the very foundation of the sustainable development indicators system adapted to the particularities of the Romanian economy, which constitute the basis to monitor the efficiency of macroeconomic policies.

Keywords: *sustainable development, indicators system, measurement*

JEL Classification: E60, E61

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Analyzing Bernoulli's Decision Making Criterion, by Adapting the Utility Function to the Investor's Attitude toward Risk

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Abstract

Within the present economic reality, investors are confronted daily with the problem of choosing between more investing options, when acting inside a risky business environment. Thus, the problem of choosing between the existing investment options becomes a multi-criteria problem, within which the investor must take into account not only to maximize the profit, but also to minimize the associated risk. Eventually, the primary aim of any investor is to maximize the utility felt by choosing an investment option. But utility is not the same for every investor, depending on his attitude towards risk.

We consider a decision making criterion to be reliable if able to maximize the investor's utility function by taking into account his attitude towards risk. Therefore, we will analyze the decision-making criterion under risky conditions proposed by Daniel Bernoulli by adapting its utility function to the investor's attitude towards risk.

Keywords: *utility function, attitude towards risk*

JEL Classification: D01

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Software Testing, Cybernetic Process

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Abstract

The objective of this article derives from the need to analyse the importance of the testing process from the perspective of mobile applications, innovative applications, structured entities and collaborative security components. The software testing process is described in the context of software quality assurance. The necessity of software testing is illustrated and objectives and deliverables within the testing process are defined. Elements that determine the quality of testing processes are emphasized. A two-dimensional approach to software testing characterized by method and level is disclosed. The article is centred on a cybernetic approach, because the process structure depends on the software product's response to changes. Specific aspects of the testing process are identified for mobile applications, for widespread implementation of structured entities, for innovative software development projects and for developing collaborative security. Testing methods are submitted. The correlation between testing level and development stages of software application is illustrated.

Keywords: *testing, mobile applications, innovative projects, collaborative security, structured entities*

JEL Classification: L86

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Statistical Assessment of the Companies' Reaction to the Information Provided by Financial Market

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Abstract

Information provided by financial market to investors on the evolution of a portfolio return could have a significant influence on the profitability of firms. Using panel data analysis, this study aims to assess the companies' reaction to the information provided by financial markets, analyzing data on the changes in the share price of companies quoted on the Bucharest Stock Exchange (BSE) and economic and financial profitability recorded in financial exercises, in the period 2005-2012. The research results show that firms respond to information provided by the financial markets, both in the capital structure and the operating activity.

Keywords: *portfolio return, financial information, return on assets, return on equities, panel data analysis*

JEL Classification: D53, C32

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A Systemic Approach on Productivity. Generalized Coproduction

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Abstract

The paper aims at conceptually ÎNCADRA of value production, in the context of the economic process perceiving.

The organization of the economy in the generalized market system is approached as a serving system, in the view of functional economy.

The production theory is approached as a consume theory, by emphasizing the character of any producer of being a beneficiary (a consumer). The new concept of generalized coproduction is developed.

A few productivity assessing formulas are discussed in this view, following a certain literature in the field.

In the purpose of a more proper and plain defining delimitation, comparisons are made between this original way of approaching productivity and other indicators of performance in the economy.

The central place of intellect in production is pointed out, as a postulate. On this basis, correlations are made with a previously presented model (developed in a previous edition of the Economic Cybernetics Conference).

An original productivity approach results. The conclusions underline the need for a paradigmatic changing of the view concerning productivity.

Keywords: *productivity, generalized concept of service, servicity, coproduction.*

JEL Classification: D24, O44, H23

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Brand Promotion through Websites

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Abstract

Brands play an important role in a business life cycle, offering consumers the possibility of distinguishing the products/services of one producer, trader or distributor from the ones of the other competitors.

In the changing market economy of the 21st century, the number of companies that use the internet to present their products/services and own brands has increased by creating attractive web pages.

For a company, brand needs to be regarded as a strategic source, this approach having consequences on marketing and strategy.

This paper highlights the importance of using web pages by companies in promoting a brand, fact which significantly contributes to top positioning.

Keywords: *websites, strategy, promoting brands.*

JEL classification: C89; M21

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The Effect of Population Migration on Developing the Local Brand

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Abstract

Today, Romania is in the process of regionalization, primarily, and amid a regional development trends, the brand makes the difference. No less important, Romania is facing a major problem for any nation: the emigration of the population, or more pragmatically, Romania is facing emigration of professional people and specialized human resources.

If regionalization will make from each region a competitor, then a positive brand identity is no longer just an option. A city, a region, an area that is not engaged proactively in the process of branding, may be automatically positioned on the market at a disadvantage, by competitors and by the media. It requires the development of a comprehensive strategy that goes beyond the superficiality of a logo or an advertisement. Brand city/ region is seen through the unique characteristics. Similarly is seen humans. Through this study, the first of its kind in Romania, we intend to analyze the impact of population migration, regardless of its brands development has on local, regional, political and administrative regionalization in the context of Romania.

Keywords: *migration, local brands, administrative regionalization*

JEL Classification: O15

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The Challenge of Agricultural Labour Market in the European Union

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Abstract

Employment is a key element of the Europe 2020 strategy for smart, sustainable and inclusive growth. Reaching an employment rate of 75% of the population aged 20-64 is one of the targets to be achieved. In most of the EU's countries rural areas are crucial for the attainment of this headline target.

Agriculture is an important part of the European economy and society. The Common Agricultural Policy must be competitive providing a fair standard of living for the agricultural community. To achieve this objective, the Commission wants to integrate the CAP into the Europe 2020 strategy.

The objective of the paper is to highlight the main characteristics of the agricultural labour market for the EU countries such as the dynamic of the agricultural employment, the mobility of the labour force, types of the farms and their dynamic, investments and productivity.

Keywords: *Europe 2020 strategy, CAP, employment, agriculture labour market*

JEL Classification: O13, O15

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A Method for Estimate of the Risk Reserve

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Abstract

In insurance business, estimating the risk reserve is of theoretical interest too, mainly due to of the stochastic elements which should be considered. Compared to other calculation methods based mainly on the normal asymptotic behavior of sums of independent random variables, and on the well-known Chebyshev's inequality, we propose a new method that replaces the standard deviation with a large deviation. This method uses the exponential form of the Chebyshev's inequality, the Cramer transform of the distribution function, martingale inequalities and the martingale convergence. By analyzing the expected volume of claims and the number of observations, the proposed method is preferable when considering very small probabilities of exceeding the reserve.

Keywords: *large deviation, random walk, risk model, ruin probability, surplus process*

JEL Classification: C020, G220, G320

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Subjective Versus Welfare Poverty Concepts in Hungary

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Abstract

The paper analyzes subjective poverty in Hungary and compares it to welfare political poverty. Information about subjective well-being is collected with primary data collection (with interviews and questionnaires), using the method of systematic data collection. The paper focuses on Borsod-Abaúj-Zemplén county, Hungary.

Many studies have focused on the correlation between subjective indicators of poverty and material well-being. Less attention has been paid, however, on the relationship between subjective poverty assessment and welfare political poverty concepts. This latter one refers to the conditions that determine the eligibility for social aids and supports.

Comparison of subjective and welfare political poverty definitions is possible through income level, the number of children, old age and education level as eligibility for the welfare system is defined with these categories.

The paper concludes that subjective poverty thresholds coincide with the political ones in more than half of the cases. The welfare system could be improved by taking into account more components of poverty - like the age of founding a family or the comfort level of lodgings - in defining the eligibility.

Keywords: *subjective poverty, well-being, welfare political poverty*

JEL Classification: I32, D63

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Leading and Lagging Indicators of the Economic Crisis

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Abstract

The issues of business cycles assessment and most of all forecasting turning points represent crucial components in the game of crisis anticipation. The aim of this study is to statistically evaluate the predictive power of several macro economic variables in estimating economic changes and to classify them into either leading or lagging indicators. The importance thereof resides in the fact that, while the leading indicators are useful in anticipating downturns, a change within the structure or the dynamics of the lagging indicators could signal the beginning of an economic upswing. The detection of the turning points in the macroeconomic series, focusing exclusively on the US and the Euro Area, is performed by employing Markov chains switching models and the taxonomy of the indicators is awarded accordingly. Results show that the price of gold is a leading indicator, while unemployment is a lagging indicator of the crisis. Further research will include both an enlarged sample of variables and a wider array of countries in order to validate the results.

Keywords: *business cycle, unemployment, gold price, Markov models*

JEL Classification: E24, E32, F44

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The Impact of the Economic Crisis on Corruption within the European Social Models of Economy

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Abstract

Regardless of the phrase used, negative consequences of the corruption on the economic, social and political are huge, which is why the state institutions and nongovernmental organizations should develop strategies, policies, mechanisms and instruments to fight corruption.

Corruption is defined as an abuse of power in order to obtain certain benefits or advantages as a major threat to the economy, in the recent years the corrupt activities were the main trigger causes of reforming failures from transition countries or from the underdeveloped ones. Since ancient times, corruption was one of the worst and propagated behavior in the public system, with major influences on transition countries like Romania. Analysis of corruption has become an important area in contemporary social and economic research. In the last decade, the interest of international organizations in order to estimate the level of corruption and identifying its causes and mechanisms to prevent it increased significantly. In this research, an obvious problem is the measurement of the effects of corruption activities on the economic and social environment within a country. The collapse of the Romanian's public integrity climate was a result of the lack of coordination in legislative and institutional measures. The fierce struggle for public resources has led to inconsistent public policies and applying the institutional measurements for an insignificant period to be able to see positive results. This situation produced vulnerabilities in the combating system of corruption and in the public integrity. The lack of transparency in decisions, the unavailability of public institutions to make public communications on the subject, the lack of consultation initiatives with the business environment to encourage participation in the anti-corruption system led to distrust, suspicion and disappointment among the population, which determined the creation of a passive attitude towards encouraging corruption and more.

A sector plan anticorruption represents a necessity, it has being a support for authorities in assessing degrees of implementation of anti-corruption laws. The activities of monitoring the implementation of such plan by identifying the risks and vulnerabilities facing each public institution and identifying the measurements to address these vulnerabilities will lead to a more effective fight system against corruption.

The subject of this article is one current for all countries, the purpose in this paper is to report the development of corruption in Romania in comparison with the members of European social models in the period 1995-2012, to expose the positive and negative features of the phenomenon and to offer solutions and proposals for implementation of public policies in the field of anti-corruption mechanisms.

The study is a quantitative econometric research regarding the change of variance and Pearson correlation coefficient towards the decreasing growth rate of corruption in Romania.

I chose to make a comparison of these calculated indicators between Romania and each European social model and between Romania and each state member of these models to

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observe which countries have a corruption evolution in a similar manner and which are the countries that we are in a opposite relationship in this regard. The article ends by offering solutions and proposals in the field of public policies, policies that do not have registered significant results till now.

The conducted research led to the observation of several possible proposals that could succeed in the development of future public policies regarding the anticorruption struggle.

Keywords: *corruption, Pearson correlation coefficient, variance, the European Social Models*

JEL Classification: B23, C52

Interaction between Real and Monetary Sectors of the Economy in Terms of Economic Instability

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Abstract

The present paper is a continuation of the previous article, which was dedicated to the analysis of monetary policy shocks in the context of the interest rate channel operation in the Republic of Moldova during 2001-2012. The previous paper described the basic links between gross domestic product, the base rate, the rate on loans up to one year, the level of inflation and of the core inflation. This work represents the elaboration of the error correction model, which includes the relationship between the base rate and monetary aggregate M3 and inflation. The analysis, based on interaction and equilibration between the indicators in the real and monetary sector – is relevant in the current conditions of economic instability. As international practice of advanced economies show, there is strong correlation between the level of development of the (monetary) financial sector and economic growth, which is associated with such phenomena as: economic periodicity, inflation. The present paper proposes the analysis of some transmission effects of monetary shocks, in the context of interaction mechanism of real and monetary sector of the economy. The main analysis and conclusions are based on the implementation of correlation tests, analysis of variance decomposition of forecast and error correction model.

Keywords: *economic instability, the transmission monetary effects, potential GDP, lag, autoregression, impulse – response, vector error correction, forecast error variance decomposition.*

JEL Classification: E31, P24, C32

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Do Romanian Companies Follow Pecking Order Financing?

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Abstract

Capital structure represents the combination of certain types of instruments issued by a company in order to support its assets.

The main aim of our paper is to test if there is support for Pecking Order theory of capital structure for Romanian companies, through the relation between debt ratio and profitability. Secondary, we want to check if this relation is linear or non linear. In order to test these hypotheses we have employed large database, which contains first 2000 major and performance Romanian companies for period 2003-2011.

The results do not reject any of hypotheses. There is a non linear and negative relation between debt ratio and profitability, which support the pecking order theory.

Keywords: *Capital structure, pecking order theory, profitability, non linear, taxation*

JEL Classification: H25

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Prediction of the Employment Trends in Romania Using Numerical Simulations

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Abstract

In this paper we used numerical simulation and econometric estimation in order to predict the employment trends in Romania. In order to do that we considered the impact of various macroeconomic variables, such as labour cost and average gross earnings upon employment in Romania. The results of the econometric analysis were consistent with the empirical evidence and offered relevant information about the performances of the economic activities of the Romanian Industry.

Keywords: *employment, simulation, panel data estimation, industrial activities*

JEL Classification: C15, C23

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Empirical Study for Estimating the Influence of the Financial Factors on Stock Return. Obtaining a Deterministic Model for Companies Listed on Bucharest Stock Exchange

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Abstract

Increasing the opportunities offered by capital markets and the associated risks, causes investors to identify those stocks that can provide a higher return for a risk predetermined. Based on financial information provided by financial statements, investors are attempting to find the most important and significant information, regarded as financial ratios, which influence the stock return. This study aims to analyze the ability of companies to create value for shareholders through the stocks listed on a stock exchange, value measured by stock return. Processing and analyzing the data collected was carried with the statistical tool SPSS 20.0, using logistic regression analysis. The final sample submissive to analysis consists of a number of 59 companies listed on a regulated market of Bucharest Stock Exchange in the financial year 2012. The results show the significant influence of information from the financial statements, through the profitability and solvency ratios, on the likelihood of a company to be profitable in the capital market. The practical utility of the study is given by identification of the factors which influence the stock return, offering timely information to investors.

Keywords: *stock return, financial ratios, likelihood, logistic regression analysis.*

JEL Classification: C32

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Exploring the Migration of Healthcare Professionals in Romania: An Empirical Approach

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Abstract

In the last decade, but mostly after 2007 when Romania became a European Union's member, there was noticed a major out-flow of Romanian physicians and nurses to Western European countries that have generated severe shortages in national health system.

In this paper we exploit a dataset produced through an online survey on Romanian migrants, in order to provide a profile of Romanian health professional migrants and to analyze their intentions to return to the origin country. Our approach takes into consideration the two large professional categories existing in the healthcare system, namely physicians and nurses. The healthcare professionals are young, with a balanced gender distribution that follows the distributions of Romanian migrants and they live abroad for 7 years. The return intentions are significantly determined by the professional status, nurses being more willing to return to Romania compared to doctors. Among other significant factors there are the time living abroad and the presence of children in the household.

Keywords: *migration, Romania, healthcare system, return migration, public health policy*

JEL Classification: F32, I15

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Exchange Rate and International Trade Influence on Growth

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Abstract

Traditionally, economic growth is considered to depend on investments rates, consumption rate, government expenses, international trade or fiscal and monetary policies. There are few studies that analyze the influence of exchange rate and the exchange rate regime influence on growth.

Some studies show that fixed exchange rate regime is more efficient than a flexible exchange rate regime. Last global crises induce the hypothesis that under managed exchange rates the economies are better adapting to economic difficulties.

In our paper we study the exchange rate regime influence on economic growth for Romania between 2000 and 2012 years. We use a multiple loglinear regression model with three independent variables: foreign countries growth rates, Romania trade openness and exchange rate and as dependent variable log of Romanian growth index. The main results show that trade openness had a negative influence on growth and exchange rate (currency depreciation) and external growth rate had positive influence on Romanian economy growth.

Keywords: *growth, exchange rate, trade openness, econometric model.*

JEL Classification: F31, F43, C22

Developing Professional Personal Brand and Analysis of the Human Resources Market in the Global Crisis, with Specific Effects to the Romania

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Abstract

The financial crisis have the impact on the most areas related to carrying trade, whatever their nature, and that's why any professional, regardless of specialization, must build itself a powerful integrated communication and marketing campaigns to bring out and make him eligible to consumers in the area of services offered. Personal brand is what people wants to do to get out of the anonymity on his profession, to be noticed in a certain environment or for a particular cause.

The professional brand is getting power in personal marketing area, but the literature does not indicate till now the measure of influence of professional brand on the business. This is the reason and the objective of the paper: measuring the impact of professional brand influence human resources market in Romania, in times of crisis. The scientific value of the work which I bring to your attention results in the fact that the present research is on the first works that discuss this topic, and the findings can be used to create development strategies adapted to the occupational specificity Romanian markets.

Keywords: *human resources, personal brand, global crisis*

JEL Classification: O15, M31

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Numerical Results for the Algorithm of the Tangent Elipsa

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Abstract

The paper presents a new one-dimensional optimization algorithm. The algorithm is based on the tangent elipsa method, a method for solving a large class of equations without divergence points.

Key words: *nonlinear optimization, penalty functions method, multidimensional optimization, one-dimensional optimization*

JEL Classification: C20

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Institutions as Resources. State Intervention, Bureaucratism and Economic Performance

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Abstract

The study of business firm as a cybernetic system has a long and productive history. However, although not a tad less important for the economic environment, the government bureau has received much less consideration from economists and cybernetics analysts. In this paper, we employ the hypothesis that a governmental bureau can be viewed as a cybernetic system. We then proceed to present the main features of a macroeconomic environment in which governmental bureaus have much to say in resource allocation. Economic as well as legal institutions are considered the primary aspect of economic performance. We consequently present some recent attempt to quantitatively assess the macroeconomic environment in relation with the activity of governmental bureaus and to correlate the results with macroeconomic performance as measured by some usual indicators.

Keywords: *governmental bureau, institutional analysis, cybernetic system, economic freedom*

JEL Classification: B25, D73, H83

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Study on Self-adjustment at the Macroeconomic Level on Romania's Case

Authors: *Professor Stelian STANCU* , PhD., Alexandra Maria CONSTANTIN* PhD. Student, Associate Professor Corina PELAU* , PhD, Cristian BORDEA* PhD. Student The Bucharest University of Economic Studies, Romania*

Abstract

The macroeconomic system, complex adaptive system, must be analyzed in its relations with other components of the economic system to detect to what extent can self-regulate macroeconomic system in present. Thus, the study was done at the macroeconomic system level in Romania in order to determine the impact the effects of post-crisis trajectory on the macroeconomic auto-regulation, using data mining techniques. On the other hand, was realized an analysis on the relationship between short-run equilibrium and long-term balance at the level of the Romanian macroeconomic system. The variables considered in the study are the specific variables utilized in macroeconomic analysis : GDP, exchange rate, consumption, purchasing power parity, interest rate etc.

Keywords: *macroeconomic system, data mining, auto-regulation*

JEL Classification: E20, G01, G18, P0, R13,

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Cybernetic System of Vulnerabilities in Bank System

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Abstract

The objective of this paper work is to identify the factors that determine vulnerabilities, what damage is caused by those factors, the risk and impact level of the factors and the solution to diminish the factors in the bank system. The approach is from the point of view of costs caused by factors and the cost needed to diminish the impact and the probability to occur. The analyze present the benefit of diminish the factors by investing more in the bank system security and employees training.

Keywords: *bank system, vulnerability, cybernetic system*

JEL Classification: G32

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The Impact of some Game Theory Applications on Educational Methods

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Abstract

This study aims to highlight the importance of adopting policy measures in an educational context that involves conflict and cooperation using the tools of game theory. The paper is structured in three parts. The first part highlights theoretical aspects of game theory. The second part presents an application of game theory in a given educational situation. The third part analyzes the results of solving the problem.

Keywords: *game theory, educational methods, educational policies*

JEL Classification: C72, I21

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Managing risk in actual economic environments. How audit can minimise it

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Abstract

In recent years, companies have faced increased levels of uncertainty in their operating environments. After two bubbles (technology and housing), a financial crisis, a recession that approached Great Depression levels, lingering unemployment, wildly fluctuating raw commodity and oil prices, and unpredictable political upheavals, managers are seeking ways to control risk without missing opportunities that involve risk. This paper examines how such increased uncertainty gives the internal and external audit functions an evolving role in helping management identify and maintain appropriate levels of risk exposure.

Keywords: *audit, enterprises, risk, uncertainty*

JEL Classification: G32, M42

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Multiple Criteria Fuzzy Cost Transportation Model

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Abstract

The multicriteria optimization problems with fuzzy objective function coefficients are the most important, because of its often applications in the managerial decision processes. In this paper is presented an interactive solving approach of the multi-objective transportation problem with fuzzy cost coefficients and the time restriction. The approach is based on the interval presentation of each cost criterion coefficients. Finding the belonging probabilistic parameter for each cost value to its interval by every criterion, we can find iteratively the set of efficient solutions for the multiple criteria transportation model for every parameter value. The proposed algorithm was tested successfully on some examples.

Keywords: *multicriteria optimization, fuzzy functions, algorithm*

JEL Classification: C29, C70

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Labour Market Efficiency of the EU Member States

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Abstract

International literature offer different studies dedicated to assessing and comparing labour market performance across time or across countries, using different aggregate labour market measures. As the functioning of labour market is a complex process with many factors involved, we decided to analyze a wide range of macroeconomic variables, focusing on unemployment and GDP per capita, the key indicators of the fact that the labour market is efficient in providing jobs for most of the workers and a high living standard. We used the Data Envelopment Analysis as a multi-input multi-output nonparametric method in order to rank the Member States according to their relative labour market efficiency. The main objective was to identify the top performers, namely the countries that demonstrate effective labour market policies.

Keywords: *labour market performance, efficient labour market, unemployment, macroeconomic factors, econometric model*

JEL Classification: J21, C22

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