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Scientific Life

Jubilee Scientific Conference
 “Contemporary Problems of Economics of Defense and Security”, Dedicated to the 20th Anniversary of Establishing of Department “National and Regional Security” and Specialty “Economics of Defense and Security”

Articles

Screening Field of Dissertation
 Prof. Pano Lulanski, D.Sc.

This article (subject) attempts to summarize a possible screening monitoring of structural-functional correlations (a particular necessary consistency) in the dissertation research in the field of economic and management sciences based on identified basic macro- (general basics, developed system of main, accompanying, special correlations, contributory and additional correlations) and micro-relations (a mix of micro-consistencies). The methodology employed covers first of all the experience gained by the author and a content analysis of the theoretical and practical procedures for development and defense of a dissertation work. The main results from the research are: a) a summarized most general philosophy of the dissertation research in economics and management, and b) identified main macro- and micro-consistencies. Two main conclusions have been drawn: a) the diagnostics (by the author on a current basis and final one by the reviewers) of each dissertation work is an important aspect of the quality of its performance and assessment; b) this question has been permanently underestimated which is an obstacle to writing and defense of

interesting Ph.D. research that is useful for social practice and to the progress of young people in science.

Key words: screening, hypothesis, thesis, analysis, introduction, exposé, research, thesis abstract.

JEL: B41, C42, C82, O32.

Decomposing Change in Life Expectancy
 in Bulgarian Urban and Rural
 During 1984-2009 Period
 Assoc. Prof. Todor Kaloyanov, Ph.D.

The paper presents a study of life expectancy Bulgarian urban and rural population during 1984-2009 period. The study is realized on the base of method published by Edwardo Arriaga in 1984, which helps to explain the change in the life expectancy considering the changes in the age-specific mortality rates. This method can be applied for $x = 0$, i.e. for a newborn baby as well as for the life expectancy between two randomly chosen, definite ages.

Key words: life expectancy, life tables, age mortality, Arriaga’s method.

JEL: J10, J11.

A Conception for Performance Evaluation
 in Budgetary Management
 Assoc. Prof. Maya Lambovska, Ph.D.

This article represents a conception for performance evaluation of responsibility centers in budgetary control process of the organization. It is based on contemporary trends in manage-

ment and applied mathematics such as the theory of performance measurement, the theory of fuzzy subsets and the theory of fuzzy logic. The author's approach involves transformation of budgetary deviations described by fuzzy subsets into budgetary deviations described by fuzzy numbers and transformation of qualitative scales and evaluations of inputs, used in the conception, into quantitatively described resulting performance evaluations of responsibility centers. The article was worked out in three parts. Preconditions for elaboration on the subject of the article are systematized in the first part. The second part presents the essence of the author's conception for performance evaluation in budgetary control. The third part illustrates an application of the conception in four variants by example for a cost responsibility center operating in uncertain and stable/dynamic environment. Results show that the author's conception is applicable to uncertain environment with different dynamics (stable/dynamic) and budgetary deviations of responsibility centers described by mathematical tools of the theory of fuzzy subsets (fuzzy subsets or fuzzy numbers).

Key words: performance evaluation, budgetary management, fuzzy numbers, fuzzy logic.

JEL: M19, C65.

Modeling of Demand of Natural Gas by Households
Assoc. Prof. Yuli Radev, Ph.D.

Energy demand, like the most economic and institutional interrelations, is researched through the comparative analysis of observations across space or observation across time. Contemporary quantity methods allow the sensitivity of the dependent variable to be measured spontaneously over the two dimensions. Pooled (TSCS) analysis that combines time series for several cross sections probably is the most appropriate

approach to accomplish this purpose. The set of data is obtained by having repeated observations (most frequently years) on fixed units (most frequently states or economic societies). In this way it is combined cross sectional data on N spatial units and T time periods to obtain the set of $N \times T$ observations. Ordinary, the typical range of units to be analyzed is about 20, and each unit is observed over a long time period, between 20-50 years.

Key words: pooled (TSCS) analysis, ordinary least squares method, shrinkage estimators, bootstrap method for confidential intervals.

JEL: C33, Q32.

Law and Economic: Economic Analysis of the Origin and Effects of Legal Rules
Chief Assist. Prof. Teodor Sedlarski, Ph.D.

This article gives an overview of the main topics in the Law and economics research agenda. A brief summary of the major concepts developed in the works of Coase, Posner and Calabresi is presented. Introductory examples are used to illustrate the neoclassical approach to law and the most basic conclusions from its efficiency paradigm. Despite the obvious advantages that the economic analysis of law can offer in times of economic transition the insights from this interdisciplinary field of study are very little known in Bulgaria. Here an early attempt is made to outline possible applications of Law and economics to the Bulgarian economy. Limitations of the approach are discussed as well.

Key words: law and economics, economic analysis of law, Pareto efficiency, Kaldor-Hicks efficiency, equity, property rights, Posner's principle, mimicking the market, Coase Theorem.

JEL: B00, K00, K14.

The Failures of Credit Rating Agencies during the Global Financial Crisis – Causes and Possible Solutions

Chief Assist. Prof. Dimitar Rafailov, Ph.D.

The adequacy of credit ratings is crucial for normal functioning of debt markets. Failures of credit rating agencies have strengthened the negative effects of global financial crisis, generating additional systemic risk. The errors of the agencies can be explained by many reasons as business models, conflicts of interest and absent or ineffective regulation of their activities. To overcome these major problems, we can apply different approaches. The best solution is to improve regulatory practices, combining it with limiting the regulatory status of rating agencies.

Key words: credit rating, rating agencies, financial crisis, regulation.

JEL: G24.

Bulgarian Mining Industry in Terms of the World Economy Recovery from Recession

Chief. Assist. Prof. Veselin Mitev, Ph.D.

Main macroeconomic and price indicators of USA economy in the period of 1972 ÷ 1976 have been compared as well as the state of American, European and Bulgarian economics in the period of 2006 ÷ 2009. Decrease of real GDP of American, European and Bulgarian economies in the period of 2008 ÷ 2009 can be noticed. Increase of inflation and unemployment in Bulgaria and in the world as a whole have been reported in the current period.

The paper studies the change dynamics of average monthly market prices of crude oil and nonferrous metals. The volume change of industrial production and a production prices in mining production industry in the period of

beginning of 2007 till nowadays have been analyzed. As a result the main perspectives of mining enterprises in metal production and treatment energy and building raw materials have been outlined in terms of increasing prices of end products and decreased but increasing production plans because of the increasing consumption in world scale.

Key words: recession, inflation, unemployment, mining enterprises, nonferrous metals prices; crude oil prices.

JEL: E2, E3, J2, L6, N1.

Interaction and Harmonization in the Human Resource Management System

Assist. Professor Stanka Koleva

The human resource management systems in the big companies in our country function with insufficient positive effects. To a great extent this is caused by the dysfunctional interaction and lack of harmonization between the implemented actions and the key system components. The article presents the major methodological and methodical approaches for the analysis and improvement of the interaction between recruitment and selection, evaluation of job performance, training and development, and management remuneration. An attempt was made to enrich the scientific bases in the treated area as a prerequisite for their use in practice.

Key words: human resource management system, key components of the system, interaction in the system, harmonization profile.

JEL: M12, J24, L20, O15.

Opportunities for Modeling of the Municipal Budget by Applying Object-oriented Approach Katya Strahilova

In today's economic conditions for the development of local government is essential to financial stability at national and local level. It is directly linked to financial independence of municipalities, which can be seen first as the presence of revenue, including from major sources of revenue, on the other hand and as a way in which these revenues are generally planned, collected and reported. In this connection, essential for financial independence of the municipality is to rationalize formation of the municipal budget. The technology budget is legally established, but to address the various stages of it, namely: drafting and adoption, implementation, completion and reporting of the municipal budget,

they are represented as processes. For this purpose, apply object-oriented approach to building a complete model, in which result be drawn diagrams of the processes set up vulnerabilities overlapping roles of participants in these and other shortcomings, and generate recommendations for improving some of the processes.

Key words: processes, municipal budget, object-oriented approach.

JEL: H 61, H 71.

Contents and Article Summaries

Guide for Authors