

## ABSTRACTS, 1, 2009

**Professor Constantin MITRUT, PhD**  
**Professor Daniela-Luminita CONSTANTIN, PhD**  
**Department of Statistics and Econometrics**  
**The Bucharest Academy of Economic Studies**

### **QUANTITATIVE AND QUALITATIVE DIMENSIONS OF TOURISM CONTRIBUTION TO REGIONAL DEVELOPMENT IN ROMANIA. THE CASE OF CULTURAL TOURISM**

***Abstract.** This paper proposes a case study on Romania's tourism potential and competitiveness aiming to explore its capacity to significantly contribute to the economic growth and to a well-balanced regional development. A special emphasis is put on the integration of tourism in a clearly defined regional profile, able to turn to good account the endogenous potential of each area. The role of niche tourist markets is also revealed, especially in connection with cultural and cultural heritage tourism. The results of such strategies and policies are addressed in terms of regional employment and income, from the perspective of multiplier effects generated by tourist projects at regional and local level. The quantitative analysis envisages the Travel and Tourism Competitiveness Index released by the World Economic Forum in 2007 as well as a series of data and indicators which characterize the tourist demand and supply provided by the official statistics.*

**Key words:** *tourism, cultural resources, regional development, multiplier effects, competitiveness index, demand and supply.*

**JEL Classification:** R110, R580, Q300

**Lecturer Daniela MARINESCU, PhD**  
**Professor Dumitru MARIN, PhD**  
**Department of Economic Cybernetics**  
**The Bucharest Academy of Economic Studies**

### **RISK AND UNCERTAINTY: ANALYZING THE INCOME AND SUBSTITUTION EFFECTS**

***Abstract.** This paper presents a model of decomposing the price effect into the income and substitution effect when uncertainty is present. There are two distinct approaches in the classical theory of consumer: the first one – the consumption set – based approach is introduced in the first section. The second approach treats consumer's choices using the utility function; in the second section we present the most important concepts like uncompensated and compensated demands, expenditure function and indirect utility function, which we use in the last part of the paper. In the last section we show how the Slutsky equation can be adapted for the case when risk and uncertainty is present.*

**Key words:** *substitution and income effects, Slutsky equation, risk aversion.*

**JEL Classification:** D11

**Professor Ion DOBRE, PhD**  
**Adriana ALEXANDRU, PhD Candidate**  
**The Bucharest Academy of Economic Studies**

## **ESTIMATING THE SIZE OF THE SHADOW ECONOMY IN JAPAN: A STRUCTURAL MODEL WITH LATENT VARIABLES**

***Abstract.** The current study adopts an approach to the Japanese case that is based on the theory of unobservable variables. This methodology involves the estimation of structural models (MIMIC) which analyses a set of causes of the shadow economy while simultaneously taking into account its influence upon a series of indicators. The proposed model permits the determination of a relative evolution over time of the size of the shadow economy, which requires the calibration of the model with an exogenous estimation in order to obtain real values. The exogenous estimation is obtained by a monetary method based on a money demand function. The results show that the size of shadow economy measures between 8-11% of GDP in the period 1980-2008, and demonstrate that the shadow economy is significantly influenced by the tax burden and its components (direct tax, indirect tax and social contributions).*

**Key words:** shadow economy, MIMIC model, Japan.

**JEL classification :** C22, C51, C87, E26

**Professor Ion LUNGU, PhD**  
**Professor Manole VELICANU, PhD**  
**Lecturer Adela BARA**  
**Assistant Vlad DIACONITA**  
**Assistant Iuliana BOTHA**  
**Economic Informatics Department**  
**The Bucharest Academy of Economic Studies**

## **PORTAL BASED SYSTEM INTEGRATION – FOUNDATION FOR DECISION SUPPORT**

***Abstract.** In time, the integration needs of companies increased. Even though not taken very seriously, integration solutions in general, and portals in particular, slowly become leaders in turning new principles into practical experiences. In the beginning, portals focused on aggregating, organizing, and indexing unstructured data, but modern portals now do much more. Portal software continues to offer one of the few infrastructure frameworks that truly embrace open and flexible computing. A portal is a point of integration, useful to the organization by integrating internal business processes and by offering information to the outside world. We can use portals in decision making in two ways. One way is by enabling managers to access the data they require by using the portal's interface. Another way, which doesn't exclude the first, is by developing a distinct decision support application within the portal which uses scenarios using the data from the integrated systems to help managers make more well-founded actions.*

**Key-Words:** Portals, DSS, integration, dynamic reports

**JEL Classification:** P17, P47

**Professor Gheorghe SABĂU, PhD**  
**Associate Professor Mihaela MUNTEAN, PhD**  
**Lecturer Ana Ramona BOLOGA**  
**Lecturer Răzvan BOLOGA, PhD**  
**Economic Informatics Department**  
**The Bucharest Academy of Economic Studies**

## **ANALYSIS OF INTEGRATED SOFTWARE SOLUTIONS MARKET FOR ROMANIAN HIGHER EDUCATION**

***Abstract.** The paper will present the results of a first phase of a national research project, “Integrated Information Solutions for Competitive Management in Romanian Universities”. The objective of this phase was to perform a study about the current state of the Romanian universities in the process of data and information systems integration, at the end of 2007.*

***Keywords:** data integration, information systems integration, ERP system.*

**JEL classification: G1, I2.**

**Oana CALAVREZO, PhD Candidate**  
**Laboratoire d’économie d’Orléans, Centre d’Etudes de l’Emploi**  
**Florent SARI, PhD**  
**Université de Marne-la-Vallée, Centre d’Etudes de l’Emploi**

## **SPATIAL MISMATCH AND NEIGHBOURHOOD EFFECTS: AN ECONOMETRIC ANALYSIS OF UNEMPLOYMENT-TO-WORK TRANSITIONS<sup>1</sup>**

***Abstract.** This work aims at analyzing how urban organization affects unemployment-to-work transitions by considering spatial indicators. We can capture two effects: “spatial mismatch” and “neighbourhood effects”. We implement survival models on a sample obtained from the matching of three French databases. We analyze the duration of the first employment with spatial indicators and we control for three potential biases (endogeneity bias, selection bias and attrition bias).*

***Key words:** Survival analysis, unemployment-to-work transitions, spatial constraints, endogeneity bias, selection bias, attrition bias.*

***JEL Classification: C41, J61, J64.***

**Professor Radu SERBAN, PhD**  
**Department of Mathematics**  
**Assistant Daniela TODOSE, PhD Candidate**  
**Department of Statistics and Econometrics**  
**The Bucharest Academy of Economic Studies**  
**Lecturer Radu R. SERBAN, PhD**  
**“Spiru Haret” University**

## **ALGORITHM WITH RANDOM CHARACTER FOR NONLINEAR OPTIMIZATION**

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Data availability: Final database is available on request from the authors and the initial databases can be requested from the institutions which produce them.

***Abstract.**In this paper an algorithm for solving optimization problems is proposed. The algorithm, which follows in principle the general scheme of search algorithm has a strong random character. Therefore, the search directions are vectors having a density of repartition with uniextremal character (in this case, the multidimensional normal law) the algorithm steps are given and the numerical results are presented for nine test problems known in the literature.*

**Key words:** Nonlinear optimization problem; random search techniques; density of repartition.

**JEL classification:** C 61

**Professor Nicolae DARDAC, PhD**  
**Lecturer Bogdan MOINESCU, PhD**  
**The Bucharest Academy of Economic Studies**

### **THE THIRD WAVE OF THE FINANCIAL CRISIS AND ITS RIPPLE EFFECTS ON THE DETERIORATION RISK OF ROMANIAN BANKING SECTOR'S PERFORMANCE**

***Abstract.** In the first two stages of the international financial turmoil, the Romanian banking system was not directly hit by its ripple effects. The aim of this paper is to gauge the potential impact of risks induced by the likely worsening of the domestic economic environment on the Romanian banking sector stability as a result of the third wave of the global financial crisis. The analysis is centered upon an econometric model which quantifies the rating downgrade probability in respect of credit institutions. The results derived from the model pinpoint that, in 2009, even though the majority of Romanian banking system's assets is associated with a small rating downgrade probability, the expected dynamics of the weight of nonperforming banking assets slipped into positive territory towards the end of the period under review. Estimations for end-2010 prepared under a multifactor hypothetic scenario of a hard landing of the Romanian economy in 2009 show that the credit institutions' performance might turn bad enough so that approximately 12 percent of banking system assets could be subject to rating downgrades.*

**Keywords:** global financial crisis, banking sector stability, early warning systems, rating downgrade probability, Basel II.

**JEL classification:** G21, G32, G33

**Cristina Maria TRIANDAFIL , PhD Candidate**  
[cristina\\_triandafil@yahoo.com](mailto:cristina_triandafil@yahoo.com),  
**Professor Petre BREZEANU, PhD**  
[brezeanupetre@yahoo.com](mailto:brezeanupetre@yahoo.com)  
**Professor Catalin HUIDUMAC, PhD**  
**The Bucharest Academy of Economic Studies**

### **EMPIRICAL PERSPECTIVE ON CORPORATE DEFAULT RISK AT INDUSTRY LEVEL. CASE-STUDY ON COMPANIES LISTED ON ROMANIAN STOCK EXCHANGE**

***Abstract.** This paper focuses on applying Black and Scholes structural approach on credit risk in the case of the companies listed on Romanian Stock Exchange. We conduct a case-study on 35 companies belonging to 5 industries (energetic, materials, chemistry, pharmaceutical sand equipments during a period of 10 years in order to highlight out default point/threshold and its essential factors evolution across industries. Research approach is concentrated also on the specific*

*characteristics of the Romanian capital market (especially in terms of illiquidity and lack of transparency additional costs), macroeconomic environment and corporate finance decision process. We compute default point from the perspective of the arbitrage between assets and leverage; in accordance with the most recent theories on specific features corporate default within emerging countries (Galytskyy, 2006), a key element will be represented by the assets volatility which will be correlated with the country risk premium in order to highlight out a potential macroeconomic impact on corporate failure.*

*Key words: distance to default, default point, industry impact.*

**JEL Classification: G32**

**Professor Camelia RATIU-SUCIU, PhD**  
**Department of Economic Efficiency**  
**The Bucharest Academy of Economic Studies**

## **MATHEMATICAL INTERDEPENDENCES IN MANAGERIAL DECISION-MAKING FOR BUSINESS DEVELOPMENT**

***Abstract.** The management processes essence consists in making and applying decisions found in the forecasting, organizing, coordinating, training and control-evaluating functions.*

*In the competing economy, business is a very complex decisional act, with high implications and risks for the enterprising business men.*

*A mode of structuring the complex problems is their modeling. We refer to the informatic products WINQSB Microsoft Project and @Risk.*

*Finally, a business cash-flow projection as a practical method for a business scientific management and Business-Intelligence as a trend of a successful business management, are presented.*

*Key words: managerial decision, business, Markov model, Holt-Winters model, fuzzy model, WINQSB, Microsoft project, @Risk, business cash-flow, controlling, Business Intelligence.*

**JEL Classification: C53, C88, L21**

**Professor Liliana SPIRCU, PhD**  
**Department of Cybernetics**  
**The Bucharest Academy of Economic Studies**  
**Professor Tiberiu SPIRCU, PhD**  
**Department of Medical Informatics and Biostatistics**  
**“Carol Davila” University of Medicine and Pharmacy**  
**Professor Crisan ALBU, PhD**  
**Department of Cybernetics**  
**Mihaela BUJOR, PhD Candidate**  
**The Bucharest Academy of Economic Studies**

## **DESCRIPTIVE AND MULTIDIMENSIONAL INDICATORS FOR ORDERING EDUCATIONAL OFFERS**

***Abstract.** A classification of educational offers provided by 9 universities from Romania, by scores computed according to answers given by graduates is proposed. The questions investigate the adaptation to the workplace, the professional satisfaction, the quality and utility of acquired knowledge. Genuine statistical uni- and multidimensional techniques to process qualitative variables are used.*

*Keywords: educational process, score, educational offer, qualitative ordinal variable processing.*

**JEL classification: I 21, I 23, C 44.**

**Professor Tudorel ANDREI, PhD**  
**Professor Stelian STANCU, PhD**  
**Associate professor Monica NEDELCU, PhD**  
**The Bucharest Academy of Economic Studies**  
**Professor Ani MATEI, PhD**  
**National School of Political Studies and Public Administration**

## **ECONOMETRIC MODELS USED FOR THE CORRUPTION ANALYSIS**

***Abstract.** The article conveys a series of features of the public administration by using some econometric models. In order to estimate the parameters, we used a series of data registered from a illustrative sample of civil servants. With the aim of analysing the corruption, there are used various regression and simultaneous equation models. The corruption level is analysed depending on a series of factors such as the political system pressure, the administration transparency, the quality of the civil servants' job-related relationships.*

***Key words:** corruption, public administration, regression models.*

**JEL Classification: C20, H83**

**Professor Ion PURCARU, PhD**  
**Professor Gabriela BEGANU, PhD**  
**Professor Felicia ALEXANDRU, PhD**  
**Professor Ion VERBONCU, PhD**  
**The Bucharest Academy of Economic Studies**

## **INTERDEPENDENCE AND DIVERSITY MEASURES FOR A JOINT ECOSYSTEM WITH APPLICATIONS IN SYSTEMS MANAGEMENT**

***Abstract.** In this paper, using the well known classical concepts of the Shannon entropy and the Simpson diversity index, some interesting considerations on the measuring and on the measures of the interdependence and the diversity for a joint ecosystem are presented.*

***Key words:** entropy, diversity, interdependence, ecosystem.*

**MSC 2000: 62P10; 62P12; 62P20; 62P25; 91B82; 92D40; 94A17.**

**JEL Classification: C02, C44, C61, C63**

**Professor Maria CARACOTA-DIMITRIU, PhD**  
**Faculty of Management**  
**Olga Alexandra TERPEZAN TABĂRĂ, PhD Candidate**  
**Faculty of Management**  
**The Bucharest Academy of Economic Studies**

## **THE IMPORTANCE OF MARKET RISK MEASUREMENT OF TRADED INSTRUMENTS IN THE BANKING RISK MANAGEMENT**

***Abstract:** The article presents the methods of measuring traded instruments that are very important for the management of market risk within a bank institution. Beginning with the definitions of different types of banking risk, the evaluation of instruments that a bank trades is presented, such as: debts instruments, forward rate agreements, equities, foreign exchange, forwards, futures, swaps and options. A profound approach is given to the measurement of debts instruments and options, very important to a market risk manager. For debt instruments their main characteristics are detailed:*

maturity, issuer credit ratings, payment structure and currency. For options the evaluation concerns their type, examples of options, time of expiration and their risk measurement by Greeks methods. Thus, a banking institution must have an adequate management of market risk, to ensure an optimal profitableness.

**Key words:** banking risk management, debt instruments, measurement, market risk, options, equities.

**JEL Classification :** G24

**Tatiana MOSTEANU, PhD**  
**Andreea SEMENESCU PhD Candidate**  
**Department of Finance**  
**The Bucharest Academy of Economic Studies**

## **AN ALTERNATIVE METHODOLOGY OF ANALYSING PUBLIC INVESTMENTS EFFICIENCY**

**Abstract.** This paper introduces an alternative procedure of applying the multi-criteria analysis for estimating the efficiency of public investment projects. It allows considering correctly and completely the external effects associated to public investments and also introducing the intergenerational effect, the financing effect and the risk. The method is exemplified in the case of a local infrastructure investment project.

**Keywords:** H43 – Project Evaluation; Social Discount rate, H11 – Structure, Scope and Performance of Government, H21- Efficiency; Optimal Taxation, H23 – Externalities; Redistributive Effects; Environmental tax and subsidies, H54 – Infrastructures; Other Public Investment and Capital Stock.

**JEL Classification:** H54

**Professor Dumitru MIRON, PhD**  
**Associate Professor Alina Mihaela DIMA, PhD**  
**Associate Professor Cristian PAUN, PhD**  
**The Bucharest Academy of Economic Studies**

## **A MODEL FOR ASSESSING ROMANIA'S REAL CONVERGENCE, BASED UPON DISTANCES AND CLUSTERS METHODS**

**Abstract.** Accession into Euro Area for Eastern European Countries became a compulsory and a very demanding step. These new members should achieve specific condition that are called “nominal convergence” criteria and that are defined by Maastricht Treaty. The convergence level reflects how much these countries are prepared to face the challenges and threats of being included into a high competitive economic area. Many studies on nominal and real convergence have been developed lately. The present paper is aimed at testing the real convergence for selected Eastern European Countries, including Romania, based upon distances and clusters methodology.

**Keywords:** real convergence, distances, clusters, EMU.

**JEL Classification:** F15, F41, F36.