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## ***Journal of Applied Economic Sciences***

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The journal seeks to promote the best papers and researches in management, finance, accounting, marketing, informatics, decision/making theory, mathematical modelling, expert systems, decision system support, and knowledge representation. This topic may include the fields indicated above but are not limited to these.

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## DOES THE ECONOMIC CRISIS AFFECT OLTENIA'S ENVIRONMENT (II)?

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### **Abstract:**

*Economic development means creating something in one place and destroying something in another place. The crisis started in the middle of 2007 rapidly developed and spread into a global economic shock, resulting in a number of European bank failures, declines in various stock indexes, and large reductions in the market value of equities and commodities. The financial crisis is also felt in Romania. In the current macroeconomic context, Romania is exposed to the effects of economic and financial crisis, which may materialize in the plan of real economy, by slowing down the economical growth and reducing the number of work places. In the event of a financial or economic crisis, environmental concerns are put on the back burner. One factor driving this behavior is the perception that the decline in production will automatically lead to a lower level of pollution, but the reality shows that the pollution problem may become worse during the crisis period.*

*The analysts have made several predictions about crisis. It's been two years since the crisis began in Romania. Predictions came true? Environmental degradation and economic crisis are urgent global issues that have a lot in common. Was the crisis bad or good for the Oltenia's environment?*

**Keywords:** economic crisis, environment, social life, Romania

**JEL Classification:** K4, O1, O2, Q5

### **1. Introduction**

In the 80s capitalism triumphed over communism. In the 90s capitalism wins over democracy and market economy. For those of us who grew up in the idea that the foundation of democracy and free market is capitalism, the realizations of the fact that under capitalism, democracy is sold to the one the market who pays more and that the market is planned by corporations that are bigger than most states, was a cruel awakening. Freed from the control of public opinion, capitalism is the disease of democracy and market economy (Korten 2003).

Despite the optimistic expectations and the international community's decision to act together in order to decrease the crisis, this has expanded more and more, affecting mostly the emerging economies, such as those in Eastern Europe.

The last statements made by world leaders tend to confirm the expectations of the international community. Americans, Europeans, Russians and Asians have come to a common denominator – the need for reform of the global financial system, so as to create protection mechanisms.

After the beginning of the New Year brought an avalanche of negative news concerning the evolution of global economy, the latest period brought the first positive signs. The most interesting information comes from the United States, the place where, in fact, the crisis began. After pumping hundreds of billions in the banking system and launching a new anti-crisis plan, valued at 787 billion dollars, Americans now speak of the 'light at the end of the tunnel.'

Global economy could gradually recover, beginning with the second semester of 2010, the first signs of recovery being expected in the U.S., later this year. The effect of the hundreds of billions of Euros pumped by authorities in the economy can already be seen, the big problem being the further crisis of confidence, as experts say (Negrescu 2009).

The negative impact of the crisis on the environment is more obvious: First, participants fear that the momentum in the global environmental movement has been diverted amid the economic crisis. As attention is elsewhere, government policies will prioritize quick economic development and employment fixes. Second, there is the fear that approved policies will be shelved because of cost. Third, although the effect of the regime's stimulus investment in major industries has yet to be

measured, participants predict that heavy pollution, heavy energy consumption and weak regulatory oversight will likely occur (Zhang 2009).

Despite the fears relating the deepening recession, encouraging signals also come from Europe. According to an EU document quoted by Reuters, more states will begin to recover towards the end of and others a year later. European ministers are decided, once the economy will give the first positive signs, to take measures of tightening the budget, so as, in the future, Europe to be much better protected against crises.

Beyond the necessity of changing the international regulations regarding the movement of capital, the world leaders have already decided what measures will be taken to help the economies strongly affected by the crisis, such as the emerging markets.

Being dependent on trade with industrialized countries, these currently feel the crisis most powerfully, as the blocking of markets and of the access to funding collapse the emerging economies. In the context of the global financial blockade, the main solution became external borrowing, and the IMF became 'the world savior', as it was referred to by the Financial Times.

For the poor, their economic crisis didn't start because rich banks made risky bets. The poor have known little other than a constant economic crisis, but they have never received a bail-out. As banks and insurance companies are saved at public expense, capital and currency is transferred from the non-rich to the rich, accentuating the gap between the rich and the poor (Chronic 2010).

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## BASES FOR MANAGERIAL ACCOUNTING AND COST CALCULATION

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### Abstract

*Modern society, that constantly go through now, requires companies to act in an unstable environment more complex and risky. These features, not encouraging for 'health' of economic agents acting on the market, is due to structural changes affecting transactions, accelerating technical progress especially through automation, competition between economic blocs, changing consumer preferences with sufficient speed, reducing the average life cycle for some products. The changing environment in which evolving, requires companies, through the pressure they bring, to improve their ability to respond to external factors, in order to ensure maximum security.*

*In these circumstances, managers are first called to assume responsibility browsing paths as sinuous, more flexible, but also calculated best so expensive and limited resources to achieve maximum results. One of the major orientation, effective leaders have successfully used this fluctuating environment, it is analytical or management accounting, whose main component is information on costs. This presents three elements, related in an inseparable unity, as a result of objective conditions of society: costing, information circulated in the management and economic decision - first task of any manager.*

**Keywords:** costing, management, economic environment

**JEL Classification:** M41, L60, L66.

### Information and enterprise information system

The starting point in defining the concept of information must be represented by the notion of time. Data is defined as 'groups of symbols that represent quantities, events, actions or things'.

Information is processed in date which has been a certain way so that it can be understood by its users.

Information appears as the result of a complex process by which certain data are given meaning state or dynamics of an object, phenomenon or event in the formal processing procedures. Is the element that binds the different phases of the process makes rational coordination and control, adds uncertainty increases the knowledge of the individual in relation to the environment

Information is the basis of information, which is a complex of knowledge, investigation and analysis of the objectives, phenomena and processes occurring in nature and society. Information is a characteristic of all areas of activity, being present in the thinking process and creativity in the process of systematic training and updating knowledge in basic and applied research.

In terms of cyber information can be viewed under three aspects:

- semantic meaning based on information transmitted signal;
- pragmatically, taking into account the scope or use the information to the receiver;
- syntactic, appreciating the extent to which signals received by the receiver eliminates the uncertainty and indeterminacy.

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# THE COMPARATIVE ANALYSIS OF THE MONETARY POLICY STRATEGIES BEFORE THE ADOPTION OF THE EURO CURRENCY AND THE IMPACT UPON THE MAASTRICHT CRITERIA

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## Abstract

*In the way towards the euro, the monetary and exchange rate policy must follow, in parallel, the achievement of the nominal and real convergence. The purpose of this work paper is the analysis of the monetary policy strategies in Slovenia and Slovakia before the adoption of the euro on two periods: pre-ERM II and ERM II.*

*On the one hand the two forms of the inflation targeting strategy have been efficient in the pre-EMU period through the adjustment of the interest rate so that the real rate would not stimulate the crediting, while on the other hand the monetary authority has followed the reduction of the interest rate differential in order to assure the stability of the exchange rate.*

**Keywords:** monetary policy strategy, euro, interest rate differential, exchange rate, inflation

**JEL Classification:** E31, E52

## 1. Introduction

The achievement of the nominal and real convergence in the candidate countries to the euro zone represents a difficult task of the monetary and exchange rate strategies, the nominal and real convergence being two processes that influence themselves reciprocally. Thus, finding the balance between economic growth and the disinflation represents a challenge for the candidate countries (Nerlich, 2002, 17). But, this isn't the only contradiction between the convergence criteria, the price stability criteria threatening the fulfilment of the other nominal convergence criteria. The greatest challenge in the acceding countries to the EMU is simultaneous achievement of the price stability and exchange rate criteria.

The management of the monetary policy in the euro adoption process is analysed in two stages:

- the post-accession and before the participation to the Exchange Rate Mechanism II and
- the second stage which starts from the ERM II entry until the euro adoption.

Some of the countries which acceded to the European Union on 1<sup>st</sup> of May 2004 (Slovenia, Estonia and Lithuania) have expressed their option to join the euro zone as soon as possible, which means that they have joined ERM II immediately after the accession (28<sup>th</sup> of June 2004).

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## ON RESERVE HOARDING IN EMES: THE CASE OF TURKEY

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### Abstract

*The aim of this paper is to investigate the motives behind the accelerated reserve stockpiling in Turkey. To that end, the paper investigates the long-run equilibrium relationship and Granger causality for the periods of 1974-2009 between international reserves of Turkey and a set of variables put forward by the models of reserve demand. The results of the bounds test for cointegration within the ARDL modelling approach of Pesaran et al. (2001) reveal level relationship between international reserves of Turkey and trade openness, exchange rate volatility, real exchange rate appreciation, financial development, domestic financial development, financial openness, current account volatility, export volatility, public debt, opportunity cost, foreign liabilities and short term debt. Granger causality tests display bidirectional causality between exchange rate volatility and reserves and also unidirectional causality that runs from financial openness, short term debt and domestic financial development to reserves. In addition to the Greenspan-Guidotti rule of short term external debt, the 'Financial-Stability Model' seems to better explain the accelerated demand for reserves in Turkey.*

**Keywords:** international finance; open economy macroeconomics; central banks and their policies; bounds test; granger causality

**JEL Classification:** F30; F41; E58; C22

### 1. Introduction

The international foreign exchange reserves of the world economies were rather steady after the collapse of the Bretton Woods system and throughout 1980s. The international reserves in the emerging market economies (EMEs) accelerated sharply after the financial crisis in Mexico (Cruz and Walters, 2008) and the 1997-1998 Asian crises further sped up reserve hoarding in the Southeast Asian countries. Since 1990s reserves to gross domestic product (GDP) ratios of EMEs have increased from 4% to more than 20% levels, whereas that of advanced countries continued to be steady at the levels of 4% (Obstfeld et al., 2008). Initially, the main reason behind the increase in reserve accumulation was the capital inflows to EMEs from industrialized countries that carried the risk of crises. However, the accelerated international reserve hoarding during the past decade affected also the direction of capital flows that started to run this time from EMEs to developed countries, fuelling the global imbalances.

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## LINGUISTIC GLOBALIZATION CONSEQUENCE OF ECONOMIC GLOBALIZATION

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### **Abstract**

*Economic globalization has been a much debated phenomenon with consequences at all levels - social, economic, technical, scientific, cultural, every day life, in a word.*

*Linguistic globalization, obvious more and more all over the world, manifested itself by Anglicization or Americanization of most current languages which, at least in what concerns their basic stock of words, allowed English and American loans to enter their vocabulary.*

*The paper tackles the problem of linguistic globalization in Romanian and the reactions of the Romanian linguists and men of letters towards this phenomenon.*

**Key words:** globalization, linguistic globalization, Anglicism, Americanism, English, loans

Globalization - outcome of the spread of capitalism after the Soviet Union's dismemberment and the end of the cold war - that entailed political, economic, cultural, environmental consequences, generated numerous debates. The fact is supported by the very many definitions of the complex term and international phenomenon.

In the field of language study, the phenomenon of globalization points to the link existing between the dynamics of society and the need for communication in the framework of economic, political, cultural international contacts.

The use of English has lately spread so much around the world that it undeniably has become the tool for global communication. The phrase 'global English' is being used increasingly nowadays. English is a global, international language because the language of global politics, economy, academic life is English. The unparalleled achievements that science - computer science in particular, technique, economy knew in the last decades occurred in English speaking countries and they represented the reasons that imposed the use of English in every part of the world.

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# FINANCIAL MARKET SIMULATION BASED ON INTELLIGENT AGENTS – CASE STUDY

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## Abstract:

*We implement an agent-based financial market model simulation in which agents follow technical and fundamental trading rules to determine their speculative investment positions. We consider direct interactions between speculators due to which they may decide to change their trading behaviour. For instance, if a technical trader meets a fundamental trader and they realize that fundamental trading has been more profitable than technical trading in the recent past, the probability that the technical trader switches to fundamental trading rules is relatively high. In particular the influence of transaction costs is studied, which can be increased by the off-market regulation (for example in the form of taxes) on market stability, the overall volume of trade and other market characteristics.*

**Keywords:** agent-based, financial market, netLogo, direct interactions, technical and fundamental analysis, simulation

**JEL Classification:** G12; G14; G15; C63; C88

## 1. Introduction

This paper describes a multi-agent model of the transaction costs influence on the financial market. The transaction costs on the financial market are mainly the costs of the obtaining and the interpreting of the information, the time required for decision making, various types of fees, etc. Transaction costs according to (Burian 2010) are often viewed as negative phenomena, but there are cases where the increase in the transaction costs can be viewed positively and can contribute to the stability of the market. The increase in the transaction costs may also occur in the form of non-market regulation such as the taxes. In the early seventies the Nobel laureate in the economics James Tobin drafted the regulation of currency markets. Tobin suggested that all short-term transactions should be taxed at a low fixed rate (the proposal was later identified as the so-called Tobin tax). The results according to Tobin would avoid short-term currency speculation and stabilize the market. Currency speculation can lead to the sudden withdrawal of the currency from the circulation in order to artificially increase the price. The consequence for the economy of the countries that use this currency may be a temporary reduction in liquidity, problems in obtaining loans and other phenomena that can lead to the reduced growth or even to the recession.

Tobin tax was never implemented. Against introducing a Tobin tax, however there are number of arguments. First, it would be very difficult to implement, since it would have to be introduced in sync throughout the world, because otherwise the market would be relocated to the tax-free exchange. Another argument is to reduce the volume. Finally, some authors argue that financial speculators, whose activity would be substantially reduced, are doing useful work, for example, they seek new possibilities to invest in emerging markets. There are also opinions that stability problems can be solved by improving the macroeconomic policies of central banks.

The model described here, however, need not be interpreted as a model for the introduction of taxes, but in general, as a model of the transaction costs influence on the market. The aim of the model described in this article is to explore the dependence market stability to the extent of transaction costs.

This paper is structured as follows. Section 2 briefly informs about the behaviour on real financial markets and introduces the agent-based methods for modelling and simulation. In section 3 the original agent-based model of financial market is presented. In section 4 we enhance the original model with transaction costs. Section 5 presents the original simulation results of the agent-based model of financial market.

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## METHOD OF SUPPLY CHAIN OPTIMIZATION IN E-COMMERCE

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### **Abstract**

*E-commerce systems are tools meant to support the supply chain (SC), the quality of which as well as other parts of the e-commerce system largely depend on management processes representing supply chain management (SCM). The optimal way to ensure the success of SCM is to use the methods of modelling and simulation based on appropriate models and mathematical representation of a real SC. Such models are constructed with the use of process and value-chain oriented approaches or based on the concept of multi-agent systems. Different types of models in conjunction with a suitable mathematical representation allow us to perform the simulation process which outputs can help managers make suitable decisions. The paper aims at presenting contemporary approaches to the supply chain modelling within e-commerce systems. Moreover, the case study emphasized hereby is oriented to present the sample simulation approach in order to find the optimal allocation of resources which are meant to minimize shipping costs.*

**Key Words:** e-commerce system, supply chain, supply chain management, warehouse, allocation of resources

**JEL Classification:** C02, C51, C61, C69, M29

### **1. Introduction**

Electronic commerce (e-commerce) has become an essential support for business activities carried out between all types of chain store operators. In a simplified form e-commerce is just buying and selling products online. In fact, it encompasses the entire online process of developing, marketing, selling, delivering, servicing as well as paying for products and services purchased by internetworked, global marketplaces of customers with the support of the worldwide network of business partners (Sachenko 2011). Essential support for electronic commerce is understood as the so-called e-commerce system. E-commerce systems are, by their very nature, systems that allow quick and inexpensive entry of company doing business in the domestic and foreign markets. One of the key areas that could have a significant impact on cost is a supply chain (SC) and in particular its part focused on warehouses location. General objective is always to determine which warehouses to open and which of these warehouses should supply the various stores such that the sum of the maintenance and supply costs is minimized. Management of any flexible system including delivery routes is possible by means of a heuristic approach. Economic profits are generated by minimizing losses (Bucki 2010). In case of transportation goods, it is necessary to minimize the length of the defined delivery routes. The process of stocking with setting the locations for more distribution centres becomes even more complex by adding new limitations (Antonyová; Bucki 2010).

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