Prediction of Optimal Cash Injection in Automated Teller Machines, ARMA Approach

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Abstract

The development of electronic banking services, in order to facilitate the monetary transaction viz-a-viz banking system, requires the scientific and efficient management. The Automated Teller Machines (ATMs) which are mostly deployed in various banks branches, and are subject to direct supervision of branches authorities, will not get cash optimally injected. This mode of liquidity management, of ATMs will not only distort the brand name of banking system in a psedue competitive market, but it may lead to inefficient management of liquidity through the cash injection more than the daily need of these machines. Hence in this paper an attempt is made to predict the optimal injection of cash to ATMs of Sepah Bank by using the daily time series data of withdrawing money from them. For this purpose, we applied two econometric methods of ARMA modeling techniques. The results prima facie indicate that, despite existence of certain constraints on statistical data due to non operation of ATMs, impairment of Shetab Network, and delayed feeding of cash, the lower range of prediction error, is about 1%. Thus, we conclude that, to optimize the cash injection process of ATMs, besides considering the human resources and required security measures, the application of above study is recommended.

Keywords: Automated Teller Machines, ARMA Method, Banking Network, Electronic Banking.
JEL Classification Codes: L64, G21, C53.

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Determining the Causal Relationship Between Exports of Agricultural Products and Agricultural Growth in Selected Countries

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Abstract

The foreign trade and it's relation with the economic growth is considered to be one of the most debatable issue specifically in choosing the development strategies in the developing countries. However, with respect to the research framework of this paper, an attempt is made to apply the research methodology of Hsiao- Granger Causality test to identify the relation between exports of agricultural products and agricultural growth in selected countries per se. Nonetheless the previous studies showed different and conflicting results about the cause and effect relationship between the growth of agricultural exports and economic growth, viz-a-viz estimating the bilateral causal relation, unilateral causal relation, vice versa and non existence of any causal relation between the two variables, in to to.

In this paper, we performed the causality test between the growth of exports, and the value added growth of agricultural sector for 12 countries, for the period of 1970-2012. In this context first we applied the VAR Techique for some countries which their respective variables were stationary I (o), and subsequently in those which bore two cointegrated variables with unit root of degree I (1), we used the Johanson- Jelisius method. Finally we utilized the Auto Regressive Distributed Lags model (ADRL) for certain countries, which had different degree of cointegration.

Thus, the finding of this paper prima facie indicate that Germany and Egypt have the unilateral causality relation from the exports of the agricultural sector to the value added growth of agricultural sector. However, for Iran, Algeria, Sweden, Canada, England and Jordan, no causal relationship has been observed between the two variables, while France and Mexico enjoyed the bilateral causal relations, but in Italy, this bilateral relation is from growth of value added of agricultural sector to exports of this sector, sine qua non.

Keywords: Agricultural Growth Rate, Agricultural Product Export, Bilateral Relation, Selected Countries.
JEL Classification Codes: O57, Q17, O13.

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The Investigation of Electronic Banking System Performance in Iranian Banks with Applying the Data Envelopment Analysis and Principle Component Analysis Methods

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Abstract

In this paper an attempt is made to study and analyse the performance of 18 Iranian banks through utilizing the conventional technologies in electronic banking system. In this context, we applied the combined methods of Data Envelopment Analysis and Principle Component Analysis to specify the variables affecting and determining the efficiency and ranking of the Banks under the review However the findings of this paper prima facie, indicate that out of 6 input and output variables, combination of 2 input variables of "operational costs" and " number of bank employees", along with 2 output variables of "operational Incomes" and "number of ATM transactions, POS and branches" are considered as most appropriate variables for analyzing the efficiency of banks under the study. Thus, Bank Meli and Bank Parsian enjoyed the highest efficiency level among the public and private banks which are reviewed in this paper respectively. Moreover all banks concerned in this study are classified into two groups i.e banks which are dealing with operational income and those which utilize the electronic banking in to to.

Keywords: Data Envelopment Analysis, Princple Component Analysis, Electronic Banking, Performance Assessment
JEL Classification Codes: C52, C44, E58, C88

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Evaluation of Income Redistribution Indices in Iranian Tax System

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Abstract

The redistribution of income is one of the most important issues in the evaluation of tax system in different countries. In the last decades, many studies have been devoted to expound the very nature of this phenomenon and sine qua non some indices are proposed to asses the redistribution of income. Hence, in this paper, an attempt is made to investigate the efficacy of tax system on fostering the distribution of income in Iran, viz-a-viz utilizing the redistribution indices. Nonetheless, we use the Gini index to measure the redistributive impact of income tax, and subsequently, we estimated the progressive index, vertical and horizontal equity for the period 1383-1392. However the results prima facie indicate that despite the relatively high progressive index, the redistributive effect of taxes is negligible, while the subsidies payable to households have greater impacts on reducing the inequalities of income distribution.

Keywords: Gini Coefficient, Redistribution of Income, Progressive Index, Vertical Equity, Horizontal Equity.
JEL Classification Codes: D31, D63, H23.

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Position of Electronic Banking and Mechanism for its Development in Iranian Economy

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Abstract

The increasing growth and expansion of information and communication technologies have paved the way for better developments of operation of financial organizations and institutions, and inturn have facilitated the emergence of electronic banking system in the world. The banking industry, in consonance with this innovation has already welcomed the utilization of new system per se. Hence, in this study an attempt is made to investigate the basic concepts and merits of electronic banking system in the Iranian economy. However , we observe that the lack of technical, legal and cultural infrastructures along with the imposed international sanctions on Iran, have impaired the proper activities of this system in the country. For this purpose, we have prompted, to expound the main set-backs for the developments of electronic banking and also diagnose the constraints and challenges emanating from the external environment, affecting on its existence, ipso facto. The results of this paper, prima facie indicate that, the growth of investment in communication technology and provision of infrastructure for dissemination of information and security are essential for deploying the electronic banking in the country. Meanwhile, compiling the strategic plans from each bank, and deepening the inerstrucure of electronic banking set-up, along with the formulating a sound and solid legal frameworks besides the propounding the public education and process of calturalization for its acceptance and wider use of E-Banking should be considered in to to.

Keywords: Electronic Banking, Development Strategies of E-Banking, Barriers in the Development of E-Banking
JEL Classification Codes: G21, G24, G38.

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Original Institutional Economics: A Theory for the 21st Century?

Translated By:
Mohammad Akhbari *

Abstract

Many years back , Thorstein Veblen introduced one of the most interesting economic thought of this age, in America, known as "Original Institutional Economics" (OIE). In the present paper, the main tenet of this strand of economic thought is reviewed pro rata. However, one has to submit that in many developing countries, this pattern of thought is sui generis ignored to great extent compared to the main stream economic thought. Hence, the main purpose of this paper is to reassess the basic contributions of some scholars like Thorstein Veblen, C.E. Ayres and John commons, who pioneered the core of institutional economics in the world. Therefore, it tries to convey to the current students of economics, the strengthened insight about the basic anomalies of mainstream economic theory and to enable them to examine the alternate paradigm Ipso facto.

Keywords: Original Institutional Economics, New Institutional Economics, Neoclassical Economics, Evolutionary Economics.
JEL Classification Codes: E11, E13, E19.

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Oil Shocks and Optimal Monetary Policy

Translated By:

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Abstract

In practice, Central Banks have been confronted with a trade-off between stabilising inflation and output when dealing with rising oil prices. This contrasts with the result in the standard New Keynesian model that ensuring complete price stability is the optimal thing to do, even when an oil shock leads to large output drops. To reconcile this apparent contradiction, this paper investigates how monetary policy should react to oil shocks in a microfounded model with staggered price-setting and with oil as an input in a CES production function. In particular, we extend Benigno and Woodford (2005) to obtain a second order approximation to the expected utility of the representative household when the steady state is distorted and the economy is hit by oil price shocks.

        The main result is that oil price shocks generate an endogenous trade-off between inflation and output stabilisation when oil has low substitutability in production. Therefore, it becomes optimal for the monetary authority to stabilise partially the effects of oil shocks on inflation and some inflation is desirable. We also find, in contrast to Benigno and Woodford (2005), that this trade-off is reduced, but not eliminated, when we get rid of the effects of monopolistic distortions in the steady state. Moreover, the size of the endogenous "cost- push" shock generated by fluctuations in the oil price increases when oil is more difficult to substitute by other factors.

Keywords: Optimal Monetary Policy, Welfare, Second Order Solution, Oil Price Shocks, Endogenous Trade-off.
JEL Classification Codes: D61, E61.

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