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ABSTRACTS

The welfare effects of returning foreign migrants on Iran cheap food policy

S. Hosseini and S. Rezaei[*]

This study investigates welfare effects of out going migrants on consumers, producers, taxpayer's surpluses and government expenditures in wheat market (bread). Mathematical and graphical models in a comparative static framework were applied to evaluate surplus effects of guaranteed price and subsidized bread policy. Comparing those effects before and after leaving migrants show that consumer welfare and dead weight loss (DWL) could decline by 213.6, 573.3 and 474.4 billion Rials respectively, while taxpayers welfare would increase by 688.0 billion Rials and producers' welfare remains constant.

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Investigating the impacts of macroeconomic variables on rural and urban poverty rates in Iran

M. Zibaei and A. R. Shirvanian[*]

In this study, the association between poverty rates and macroeconomic variables and the possibility of asymmetric effects were investigated using a first-degree difference poverty function. Time series data covers 26 years (1978-2004) on macroeconomic variables and poverty rate. Results showed a completely inelastic link between poverty and wage changes. But, inflation and unemployment elasticity of poverty rate was positive and significant. Results also indicated that poverty is more elastic respective to unemployment rates than to inflation. The relationship between poverty and unemployment was not found to be asymmetric with respect to the unemployment changes. However, the association between poverty and inflation rate was found to be asymmetric as poverty declined more with falling inflation rate than it increasing with rising inflation

JEL Classification: E3, J3, J6, O18.

Keywords: Poverty Rate, Wages Level, Inflation Rate, Unemployment Rate, Iran.

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Estimating preservation Value of *Arasbaran* Forests Ecosystem Using Contingent Valuation Method

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Forests are one of the most important natural resources of economic development in developing countries, and helps socio-economic development by producing goods and services. But large part of these benefits becomes lost because of forests degradation and deforestation, finally ensuing to stimulate in preserving forests. The purpose of this study is to estimate preservation value of *Arasbaran* forests ecosystem by contingent valuation method. Data collected from 13 provinces of Iran using survey of 509 respondents. Results show that families willing to pay 112520 Rials annually to preserve *Arasbaran* forests ecosystem. Also, preservation value of each hectare of this ecosystem is 6709020 Rials per year. This amount can be used as estimation by policymakers to attract economic supports for preserving these forests.

JEL classification: Q23

Keywords: Arasbaran Forests Ecosystem, Contingent Valuation, Preservation Value Method

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Investigating Market Power and Efficiency of Concentration in Meat Sale Market in *Fars* Province

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Assessing market power and determining market structure of various agricultural as well as industrial products have always been considered as important issues in microeconomics. Different market structures can have major effects on levels of productions as well as on prices of various products. This study was conducted to determine the structure of meat sale market applying New Empirical Industrial Organization (NEIO) approach to a sample of meat prices, to investigate market power and cost efficiency of meat industry in *Fars* province. Date used in this study consist of sheep and cow and calf carrion price at the stockyard door, retail price of sheep and cow and calf meat, wage price index, energy price index and transportation price index in the industry sector. The results revealed that firms in sheep and cow slaughter industry have market power (market power effect for firms in sheep and cow slaughter are respectively 0.893 and 0.751) and can gain from collusions with each others to supply their products to the retailers with higher prices and therefore, decreasing concentration in this industry is suggested.

JEL Classification: C32, D21, D43, L11, L13

Keywords: Market power, cost efficiency, concentration, NEIO model, meat, Fars province

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Application of Multi Objective programming in Surface and Groundwater Resources Management in the *Savojbolagh* Region

S. Shirzadi Laskukalayeh and M. Sabuhi Sabuni[*]

One of the current challenges in water resource management is its optimum allocation among various sectors and consumptions. The problem is becoming worse due to the population growth and increasing demand, step by step. In this study, the management of water resources in *Savojbolagh* was examined using Multi Objective Programming Model. According to the model, the optimum allocation rate of water was specified, and its variation percentage was compared with the existing conditions. Results showed that, the optimum pumping level increases during the hot months of the year. Furthermore, the crop cultivated area showed a noticeable decrease in a dry year in comparison to a wet year. The optimum pumping rate was also less than the current pumping rate in different months of the year. On the basis of the findings, to avoid more damage to the groundwater resources level in the region, it is necessary that both the water management resources policies and the water management of supply and demand should be reexamined and be taken into consideration again, together.

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Artificial Neural Network (ANN) and Co-integration Methods (ARDL & Johansen-Juselius) Approach for Price Forecasting of Chicken in Iran

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Regarding the importance of price forecasting of the protein products including chicken, this research uses methods of ARDL, Johnson-Juselius and ANNs to forecast the chicken price in Iran for the various time paths consisting of one month, six months and twelve months. Accordingly, the main hypothesis relies on the more efficiently of the ANNs than those of the other econometric methods. Monthly data are collected for the domestic resources related to the agricultural sector for the period March-1991 to February-2006. The data from March-1991 to February-2005 is used for models estimating and networks training and the rest data is used to past prediction power evaluating. The empirical results obtained confirm that the performance of the three layers Elman ANN with eight neurons in input layers, three neurons in hidden layers and sigmoid activation function (for the time path of twelve months) and a three layers Elman ANN including seven neurons in hidden layers with hyperbolic tangent activation function (for the time path of one month) in forecasting has been more precise than that of the Co-integration methods. But in the time path of six months, ARDL method is more precise than that of the Elman ANN. Implication is that the use of modern methods such as ANNs in prediction of the chicken price is able to affect policymakers in the poultry industry toward making better decisions in the market.

JEL classification: C45, Q11.

Keywords: Forecasting, Chicken Price, Artificial Neural Network (ANN), Co-integration Methods.

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Surveying factor affected protect area in selected developing countries

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Protected areas are locations which receive protection because of their environmental, cultural or similar values. Different kinds of protected area exist which vary by level of protection and the enabling laws of each country or rules of international organization. Examples include parks, reserves and wildlife sanctuaries. In this study environmental Kuzents Curve (EKC) is used to test factors affecting protected area in the selected developing countries. The result reveals existence of an inverted U-shaped EKC for protected area in the mentioned countries. In addition, results showed evidence of significant relationship between protected area and population growth and corruption. Decreasing population growth and corruption via extension, regulation and cultural change will increase protected area in the developing countries.

JEL Classification: Q57

Keywords: Protected area, Kuznets Curve, population, corruption.

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Investigating the comparative advantage of bean production in *Zanjan* province

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This research was carried out in *Zanjan* province in order to study the comparative advantage of bean production. Required data were obtained through a survey research by interviewing 54 bean producers in the main regions of bean production in the province and completing pre-structured questionnaires during 2002-2003 crop years. Comparative advantage was calculated using Domestic Resource Cost (DRC), Social Cost Benefit (SCB) and Net Social Profitability (NSP) indicators using two absolute and relative Power Purchasing Parity (PPP) scenarios. In both scenarios, values of the DRC and SCB were calculated to be less than one and NSP to be greater than zero. Results indicated that *Zanjan* province has comparative advantage in bean production. Therefore, it is suggested that bean production in *Zanjan* province should be targeted to support so that the bean producers be able to compete worldwide in planning to join the World Trade Organization (WTO).

JEL Classification: F0, F1, F10, F14, F41

Keywords: DRC, SCB, NSP, Bean, Zanjan province

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Analyzing Trade off between Farmers and Policy Makers Objectives in Water Use: Case Study of *Fasa* District

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Objective of farmers and policy makers in using some resources including agriculture water may be different. Farmers commonly tend to use more water in order to reduce production risk and to increase their income, while policy makers are interested in to get sustainable use of scarce water resources. So in this study trade offs between decreasing water use and decreasing production risk, and increasing gross margin was determined, using the multi objective programming (MOP) based on data gathered throughout a randomly selected sample of *Fars* province (*Fasa* district) farmers. MOP approach generates a large number of solutions, so more desired solutions were recognized using fuzzy logic based criterion. The results showed a trade off among the goals. It was also revealed that lower water use as a goal results in considerable reduction in importance of present cultivation pattern. Coefficients of risk elasticity with respect to water and gross margin showed a more important role of gross margin in risk change as compared to water. The utility function consisting of the goals revealed the higher importance of gross margin in comparison with water and risk. The optimal solutions developed for three classes of farmers showed high ability of wheat and maize in providing the goals jointly compared to other crops.

JEL Classification: Q12

Keywords: Water, Risk, Gross margin, Trade off, Fars Province.

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Impact of Globalization on Iranian Income Inequality

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Globalization contains desired and undesired consequences, needing for reconnection of these consequences in order to lessen the undesired results and strengthen the desired ones. Regarding the case the main objective of this study was to investigate the effect of globalization on income distribution throughout Iranian households. To get the objective ratios such as trade to GDP, import to GDP, Foreign Direct Investment (FDI) to GDP, and lagged terms of FDI to GDP were used during 1991-2004 as criteria indicating globalization level. Based on the criteria, four equations were estimated for rural and urban households separately. In all estimations the sign of coefficients were found consistent with Kuznets hypothesis. Turning point is found to be between 6800-8540, and 7190-7520 thousand Rials for urban and rural households, respectively. Findings showed that there is no strong evidence indicating positive relation between inequality and globalization.

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