Stabilization paradox in agriculture and anti-protection effect of Wheat floor price policy in Iran

Mohammad Ghorbani , Sina Kohestani Asigh So[1]

Abstract

Nowadays, political and national requirements and concerns have caused governments to intervene extensively in the markets of agricultural products. Floor price is one of the policies that have been widely used in agriculture of developing countries and still remained common. Although, there was some criticism on application of floor prices in the past, but these criticisms often emphasized on allocative inefficiency. By providing a theoretical model and a concrete example of Iran's wheat market, present study introduces two paradoxes (paradoxes of stabilization and equity) challenging the efficiency of this policy, even in achieving the objectives of policy-makers and proponents of government intervention, i.e. increasing production, stabilizing the economy, and improvement of income distribution. For this purpose, initially a theoretical model has been proposed in spite of its simplicity provides some important and new predictions about the effect of floor prices on supply - price relation under price uncertainty in the presence of intermediate agents. Then, the model is tested empirically and various aspects of the subject are discussed. The results confirm that government intervention in agricultural pricing, is not advisable at least without considering market prices, price expectations, the role of intermediate agents, and some revision of the calculation and practice methods.

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Conflict Resolutions for Sustainable Water Resource Management; Case Study

Mahdi Taraghi, Majid Montaseri, Mahdi Zarghami, Hojjat Mianabadi [1]

Abstract

About 90 percent of water consumption is allocated to the agricultural sector in Iran. Obviously, the amount of agricultural benefit depends on the amount of water resource using. The farmer imagines that increasing the amount of cultivated area and irrigation will also increase amount of the crop and consequently his benefit. The assumptions of farmers lead to the destruction of the environment which finally will result in the tragedy of common pool resources. Preventing water resource overdraft in order to support sustainable development as the environmental object and maximizing the farmers' net benefits as the economic object, are in conflict in the short-term. It is necessary to find a balance between them. For this purpose, the optimum consumption of a water resource and farmers' net benefits are determined for the Urmia study region during the 2014-2015 crop year. This is done by using conflict resolution methods including a non-symmetric Nash, non-symmetric Kalai-Smorodinsky, non-symmetric area monotonic and non-symmetric equal loss solution in four crop pattern scenarios. The results revealed that increasing environmental weight decreases cultivated area and consequently agricultural net benefit in all crop scenarios. The fourth scenario is more reasonable and admissible due to its feasibility and acceptability by farmers. Also a comparison of the fourth scenario with the current situation in equal weights of environmental and economic objects and by assuming cultivation of major crops in the region showed that in this scenario the water consumption rate reduces 17% and the net benefit of farmers increases 10%.

JEL Classification: C61, C78, Q25

Keywords: Environmental Impacts, Crop Pattern, Conflict Resolution, Urmia, Water Resource Management.

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Study of Cropping Pattern Changes and groundwater Resources Extraction by Implementing Reduced Water Consumption Policies in Orzuiyeh Plain of Kerman Province

Mostafa Baniasadi, Mohammad Reza Zare' Mehrjordi, Hossein Mehrabi Boshrababdi, Hamid Reza Mirza'ee Khalilabad, Abbas Reza'ee Estakhruoiyeh, Maryam Hasanvand [1]

Abstract

With regard to the successive droughts in recent years in central and eastern regions of the country, including Kerman province, water is the most limiting factor for economic development and the most significant agricultural input. Therefore, management of water consumption as a precious resource is important. The aim of this study was to evaluate the reaction of farmers and simulate their behavior (cropping pattern) against the policies of reduced water consumption in Orzuiyeh County in Kerman province. These policies, including increased extraction cost, reduced access to water resources, deficit irrigation, and combined policies, were evaluated in the form of eight scenarios. For this purpose, the positive mathematical programming model was used to determine the optimal cropping pattern for each policy. The data of the study were obtained by completing 194 questionnaires and interviews with farmers as well as using the data of Agriculture Organization of Kerman province. The results showed that among the above policies, deficit irrigation with reduced access to water resources policies have had the best results. By applying this policy, despite a 26 % reduction in water consumption, the acreage increased 56 percent and gross margin decreased only 16%. According to the results, the policy of increased extraction costs was not much effective and only increased the pressure on farmers, but the policy of deficit irrigation is recommended as an effective policy.

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Household's Utility Fluctuations and Its Effects on Iran's Agricultural Sector: A Dynamic Stochastic General Equilibrium (DSGE) model Approach

Mahdi Khosravi, Hossein Mehrabi Boshrabadi,Azam Ahmadyan, Seyyed Abdolmajid Jalaei [1]

Abstract

The model of household behavior, derived from its utility and preferences, has a prominent role for the community to achieve development and economic growth. The aim of this study is to investigate the effects of household's utility fluctuations, in the form of preferences, money demand and labor supply shocks on Iran's agricultural sector. To do so, based on the theoretical principles of Keynesian school and realities of the Iranian economy, a Dynamic Stochastic General Equilibrium (DSGE) model emphasizing on agricultural sector was developed. The results of the simulation, using the calibrated and estimated parameters, indicate that a positive preference shock results in a rise in consumption, production, employment and prices indices in the agricultural sector, while investment, exports and the rate of real wage decline. Following a positive demand money shock, except agricultural price index, other variables declined. Positive labor supply shock, increased employment in the agricultural sector, however, the production, investment and exports decreased in the first period. In addition, in response to the shock, agricultural consumption and prices increase while real wages fall. The Comparison of the results show, in total, the effects of preferences and labor supply shocks are more persistent than those of money demand shock. In magnitude, on average, the effects of preferences shock, on agricultural variables, is higher than the effects of the other two shocks.

JEL Classification: Q10, C60

Key Words: Household's utility fluctuations, DSGE, Iran's agricultural sector

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Identification of Price and Non-Price Factors Affecting Willingness to Consume Fish Among Households of Urmia City: Application of Ordered Logit Model

Farrin Afham , Azadeh Falsafian[1]

Abstract

Marine and fish products are one of healthy foods that, unfortunately, its consumption in our society is negligible and there is less in the household basket. The main objective research is analysis and identify the price and non-price factors affecting willingness to consume fish among Households of Urmia City in 2016. In this context, the ordered logit model was applied and the required data were collected through a survey and questionnaire based on proportional stratified random sampling (220 samples). Results show that 20 % people were not willingness to consume fish, 9% of whom had little interest in fish consumption, and only 19% had a high tendency to consume it. The results of estimated ordered logit model implied that the living location close to fish shopping mall, existence of elderly people in the household and children under ten years old has a significant impact on increasing willingness to consume fish and also existence people with a specific disease in the household and the price of fish decrease the tendency to use it. The results showed that the people awareness of the benefits of fish consumption and general conditions of purchase (including price, taste, appearance package, easy access to shopping centers and freshness) are not desirable. While based on the results of estimated ordered logit model, the awareness of the benefits of fish and fish general conditions purchase terms effects significantly the frequency of households fish consumption, so that improving both indicators increased dramatically household's fish consumption. If the status of these two indicators are improved by one percent, the probability of more consumption of fish will increase by 2.02% and 645.2% respectively. Also, the results of the calculation of odds ratio criterion indicate that the presence of elderly people in the family and the age of the head of household are the highest (23.3%) and the least (0.977%), respectively, impacts on the probability of increasing the fish consumption. So it is recommended that the West Azerbaijan Fisheries and Agriculture Organizations has attempted to ameliorate status of these indices by effective planning and efficient advertising.

JEL Classification: C25 ٬D10 ٬Q13

Keywords: Consumption frequency, Fish, Health Indicator, Non-price factors, Ordered Logit Model

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The Effective factors on Food Demand: the Application of the Quadratic Almost Ideal Demand System with Age-Period-Cohort Variables

Esmaeil Pishbahar, Mohsen SalehiKamroodi, Mohamad Ghahremanzadeh [1]

Abstract

Few Studies have studied the role of generational change (cohort effect), as an important demographic variable, within demand system, whereas generational changes can impact on elasticities, expenditure share as well as expenditure level. Therefore, to examine the impact of the demographic variables in addition to the economic and social variables on purchase and consumption of the nine food groups, this study uses a censored Quadratic Almost Ideal Demand System (QAIDS) with age-period-cohort (APC) variables. For this purpose, the pooled data of 337151 urban households' and 330501 rural households' for years 1363-93 was used. The results show age (aging population), generational change and period shocks impact on both food adoption and food consumption.

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Identifying and Prioritizing Supply Chain's Risks in Agricultural Farms in Mazandaran Province

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Abstract

The variety of factors such as fluctuations in demand, rapid technological change, financial instability and natural disasters, cause increasing uncertainty and risks in the supply chain, especially agricultural products. Managing these risk is very important for decrease supply chain Vulnerability. In this regard, the aim of this article was identifying and prioritizing supply chain's risks in agricultural farms in Mazandaran Province. For this purpose, was used the 10 experts opinions, who they selected with target sampling and were been different aspects of the mentioned supply chain. For identifying risks was used Fuzzy Delfi process and for Prioritizing was used Fuzzy Hierarchy analysis. The result show, risk of product price with 0.094 standard weight and rising raw material costs with 0.091 standard weight and inadequate funding and projects financing with 0.083 standard weight stay on one to three ranking of supply chain's risks in agricultural Farms in Mazandaran Province.

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ABSTRACTS

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