



## Determination of Feasible Commodities for Futures Trading (A Study of Iranian Agricultural Commodities)

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Received: 4-10-2008

Accepted: 20-11-2010

### Abstract

In this paper an attempt is made to determine the most suitable agricultural commodities to be adopted for establishing a futures market in Iran. Two different approaches are adopted: the first involves identifying factors that contribute significantly to the success or failure of existing agricultural commodities futures contracts in established futures markets. The second involves simulating the hedging performance of potential commodities to determine the optimum contract choice. According to the results of this study, commercialization rates, cash market size and spot price fluctuations of commodities have the greatest effects in the success of their futures trading. Also, although some of commodities have acceptable levels of the necessary conditions for entering them into futures market, they don't have enough attraction for their use as futures contracts in terms of producers' hedging effectiveness. The results suggest that saffron, pistachios and rice are the three most feasible commodities to be adopted in order to establish commodity futures trading in Iran.

**Keywords:** Futures Contracts, Commodity Specifications, Hedging Performance, Agricultural Commodity Exchange, Iran

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## Estimation of Excess Water use in Agricultural Sector (Case study: Cultivation part of Boshruye Province)

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Received: 15-11-2008

Accepted: 19-1-2011

### Abstract

The existence of various perceptions related to the efficiency of water use in agricultural sector can hamper the development of appropriate water resource conservation policies. Particularly, when there has been an emphasis on increasing water use efficiency by improvement in irrigation systems. The main purpose of current study is to estimate excess water use for a sample of 15 farms by simple stochastic sampling, located in southern Khorasan province during 2000-2006 by Data Envelopment Analysis (DEA). Results showed that, there is a very weak association between irrigation systems and the level of excess water use. Management had an effective role in water use efficiency. There was a positive and negative relationship between age, size of farms and excess water use, respectively. Also differences in the amount of excess water use between farms located in two different locations (eastern and southern) were also shown. According to findings, the efficient farmers can be considering as a measure for improving water use efficiency in the area under study.

**Keywords:** Excess water, Data envelopment Analysis, Water Resources Management

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## Investigation Viewpoint of Border Cooperative Society Members about Activity of These Cooperative Societies (Case study: Khorasan Razavi)

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Received: 6-12-2008

Accepted: 3-2-2011

### Abstract

This study has been investigated viewpoint of border cooperative society members of their activities in Khorasan Razavi, first step was evaluated satisfaction's member of performance indicators cooperatives, Next step each of the indicators were prioritized according to members satisfaction using entropy method. Finally, the results of these two methods have been compared together. Data are obtained from 382 questionnaires which were completed by border cooperative society's members in 2008. Results showed satisfaction's member of economic indicators has been at a lower level compared to other functional aspects of cooperative. However, maximum satisfaction is for directorial performance of these cooperative. Ranking results using entropy method has confirmed results of CSM method. Finally, recommendations to improve performance of these cooperative Societies were supplied.

JEL: F13, F19, J54, R11

**Keywords:** Borders cooperative Society, Khorasan Razavi, Satisfaction

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## Forecasting Meat Prices: An Inverse Demand Approach

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Received: 6-4-2009

Accepted: 19-1-2011

### Abstract

In Agriculture, there is a lag between planting decision and supplying the produced commodity to the market. This makes the marketed commodities as predetermined variables and prices as market clearing factor. Under such a condition, the inverse demand function in which price is a function of quantity is an appropriate tool for forecasting price responses to the injected quantities to the market. In this study, a system of prices equations is estimated for three meat commodities namely; beef, lamb, and broiler, using time series data over period 1985-2006. Results of the estimated own-quantity elasticities (price flexibilities), indicate that a one percent increase in quantities of each of these meats, injected to the market, will cause, a decrease of 0.86, 0.76, and 1.03 percent, respectively, of the prices of beef, lamb, and broiler. The estimated cross-quantity elasticities revealed that beef and lambs are not good substitutes for the broiler. Thus, it is not expected to notice a considerable decline in the price of the latter commodity by injecting more beef and lambs to the market.

**Keywords:** Inverse demand, Quantity elasticities, Forecasting prices, Beef, Lamb, Broiler

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## Study and Determination of Optimal Portfolio for Stock of Active Food Industrial Company in Tehran Stock

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Received: 1-8-2009

Accepted: 19-11-2010

### Abstract

Portfolio definition is the most important decision for individuals and legal persons that invest in stock. The main objective of this paper is study and determination of optimal portfolio for stock of active food industrial company in Tehran stock based on value at risk (VaR) index. For this purpose, we used weekly static of stock of active food industrial company in Tehran from Bahman 1387 - Tir 1389. Also for analysis of static and data, we used mathematical programming with integral number. The results show that the stock of Salemin and Magsal farming and animal husbandry are exist in all optimal portfolio that with increasing VaR, the stock of Mino industrial company is also introduces in optimal portfolio. Other results of this paper show that there is a direct relation between VaR and return expected of investors and also there isn't a specified relation between VaR and kind of optimal portfolio (number of stocks in portfolio).

**Keywords:** Optimal Portfolio, Tehran Stocks, Food Industrial Company, Value at Risk Index

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## Measuring the Willingness of Farmers To Pay for Groundwater (Case Study of Ramjerd) District: Using Parametric Mathematical Programming Approache

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Received: 9-12-2010

Accepted: 20-12-2010

### Abstract

Water pricing is a policy instrument for improving water efficiency, reducing water demand, management of the irrigation systems and recovering costs. The underlying principle of water pricing is that it should reflect the opportunity cost of water. In this study, Parametric Mathematical Programming approache were used to estimate the willingness of farmers to pay for groundwater under different conditions of water supply and crop patterns and during different time periods. Required data were obtained from a random sample of 190 farmers in Ramjerd Plain using Stratified Random Sampling. The results provided indicated that the average WTP value varies between 427 to 562 Rials/m<sup>3</sup>. So, farmers are willing to pay at least one and half times the prevailing price of water. The WTP of farmers who use groundwater and surface water conjunctively was less than the WTP of farmers who use only groundwater. The results also showed that water demand is elastic in wet seasons ( $\eta=1.37$ ) but it is inelastic in dry seasons ( $\eta=0.39$ ). Finally, farmers tend to use deficit irrigation strategies and to improve water efficiency when water price increases.

JEL classification: C13, C14, Q25, Q28

**Keywords:** Water pricing, Willingness to pay, Valuation, Parametric Mathematical Programing, Ramjerd Plain

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## Incentive Policies Executing in International Project of Carbon Sequestration in Iran for Empowerment of Local Communities

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Received: 9-12-2010

Accepted: 31-1-2011

### Abstract

This paper carried out to study of incentive policies for empowerment of local communities using a cross sectional data of 210 member of carbon sequestration project in South Khorasan province and applying entropy method. Results showed that development and extension policy to using novel energies for cooking, bath and ect to reducing the destruction of pastures (organization-oriented) is in first priority. Policy of fine for rural households to removing of shrubs and carrying of pastures over critical range (organization-oriented) is last priority. Also, educational oriented policy introducing facilities and train to woman and poor propels and organization-oriented policy introducing services and facilities to replacement of light animals instead of heavy animals have the most and the least effect on improvement of household situation. Regard to results, use of suggestion policies to creating necessity incentives in local communities to success of carbon sequestration project suggested.

**Keywords:** Feasibility, Incentive policies, Carbon sequestration, South Khorasan, Entropy method

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## Investigation of The Market Power Structure in The Pistachio Domestic Market in Iran

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Received: 7-4-2010

Accepted: 19-12-2010

### Abstract

Efficacy of encouraging and punishing policies of government in different markets is related to market power. Study of market behavior is also important for efficient structuring of tools such as commodity exchanges and cooperatives. In this study, market power structure of pistachio domestic market in Iran was investigated. Sample was 343 pistachio producers and 252 pistachio traders from 5 provinces; Kerman, Fars, Khorasan, Tehran and Yazd. Two methods of Structure- Conduct – Performance Paradigm (SCPP) and New Empirical Industrial Organization (NEIO) were used for measuring market power. Results indicated that competitive market is proved in level of local buyers according to structure, conduct and performance investigations. But, for pistachio exporters, although market structure is competitive, conduct and performance show oligopsony behavior. The results, also, show that in some situation (local buyers' level); Structure- Conduct – Performance Paradigm (SCPP) is acceptable. But it is not acceptable in all levels. Thus, it is suggested to conduct and performance criteria should be considered in measuring pistachio market power.

**Keywords:** Pistachio market, market power, Structure – Conduct – Performance Paradigm (SCPP), New Empirical Industrial Organization (NEIO)

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## Comparative Analysis of Farmers' Behavior In Terms of Agricultural Loans' Spending (Case Study: Khoy County, West Azarbaijan)

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Received: 11-4-2010

Accepted: 12-12-2010

### Abstract

Although farmers always have been seriously depended on the banks for their capital formation, but the more important issue, which has been less considered, is to investigate how the agricultural loans are spent by farmers and to explain principles of productive use of the loans. The present research aims to investigate how different groups of farmers spend the loans and to explain the related discriminatory variables. The sample (n=120) was selected through stratified sampling method, from a population including Khoy County farmers who had borrowed agricultural loan during 2002-2007 at least once (N=4592). The results showed that farmers were different from each other in terms of loans' spending behavior because of variables including "type of agricultural loan, use of crops insurance, monitoring times on the quality of loan use, loan amount, and educational level".

JEL classification: Q14

**Keywords:** Agricultural loans' distortion, Spending, Experts' monitoring, Crops insurance

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## Investigating Determinants of Adopting Diversified Activities by Dairy Farmers in Shiraz and Marvdasht: A Choice Modelling Approach

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Received: 27-4-2010

Accepted: 22-12-2010

### Abstract

The industrial dairy farms in Iran are facing several economic problems and about six percent of these farms were shut down in Fars province due to low profitability. Despite such problems and availability of other enterprises in the region, farmers do not switch to other farm activities. In this context, the factors affecting acceptance of diversification options were investigated in this study applying a choice modelling, data collected randomly from a sample of 100 dairy farms in Shiraz and Marvdasht. The results indicate that profit maximizing and production risk are key elements in acceptance of diversification options. Based on the findings, only a few farmers choose these options, revealing that dairy industry is still the preferred activity, hoping that market conditions will improve.

**Keywords:** Dairy Cattle, Diversification, Choice Modelling, Shiraz, Marvdasht

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## Determination of Energy Use Efficiency and Productivity in Tomato Production (Case Study from Marand Region)

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Received: 28-4-2010

Accepted: 19-11-2010

### Abstract

The aim of this study was to determine the input–output energy consumption in different levels of tomato production. The data used in the study were obtained from 140 tomato growers in different villages of Marand Township by using a face to face questionnaire. The results showed that the amount of energy consumed in tomato production was  $65.2 \text{ GJha}^{-1}$  which about 51% of this was generated by chemical fertilizers and 21% from water for irrigation. Energy ratio and productivity was found to be 0.59 and  $0.74 \text{ KgMJ}^{-1}$ , respectively. About 30.9% of the total energy inputs were renewable while about 69.1% were non-renewable. The results showed that medium farms were more successful in energy use efficiency and productivity, too. It was concluded that energy use management by using livestock manure, proper using of machines and reform culture at farm level could be improved to give more efficient use of energy in region.

**Keywords:** Energy ratio, Energy productivity, Tomato

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## Economic Advantages of People Participation in Irrigation and Drainage Network Development

(A Case Study of Band-E-Amir in Fars Province, Iran)

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Received: 10-5-2010

Accepted: 22-12-2010

### Abstract

Investigating economic advantages of people participation in irrigation and drainage network development in fourth area of Band-E-Amir region was the objective of this study. That area is 3950 hectares. Case study was the research method. Those farmers who participated and benefited of the project and experts and executors of the project were statistical society of this study. Findings revealed there were several economic advantages in project implementation through beneficiaries' participation. The most important economic advantages were: a) Those farmers who some parts of their lands were allocated to water transferring channels, did not claim for such damaging. Therefore, a large amount cost of payment for land damaging was canceled in the project. b) Project's cost for supplying soil was canceled, because local farmers undertake supply the necessary soil for project from their lands. c) The cost of modification of project execution through delaying was canceled because there was no any delaying according to people participation in project implementation. It is anticipated there will some extra economic advantages in the project implementation in the future, because of the irrigation and drainage network will be compatible with beneficiaries' circumstances.

**Keywords:** People participation, Irrigation and drainage network development, Economic advantages, Fars province, Band-E-Amir

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## Threshold Price Transmission Model in Iranian Chicken Market

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Received: 22-5-2010

Accepted: 19-11-2010

### Abstract

Asymmetric price transmission through extending marketing margin generates rents for marketing and processing agents and affects the consumers' welfare. Because of this reason, price transmission analysis in agricultural markets is important both in economical and political aspects. This paper conducted with the aim of analyzing price transmission in Iranian chicken market. In this study, using weekly data for farm and retail prices for chicken during 1381-1388 and Threshold Model, price transmission analysis is done. Results show that price transmission in Iranian chicken market is asymmetric and farm price increases transmit to the retail level more and faster than price decreases. Also, market adjustment policy has not had any significant effect on price fluctuations. We believe that asymmetric price transmission in Iranian chicken market is generated for the reason of high inflation rates and non-competitive structure and existence of market power in slaughtering industry. Thus, we suggest government to choose protection policies concerning private sector for investing on slaughtering industry in those provinces that have insufficiency slaughtering capacity.

**Keywords:** Chicken, Iran, Price Transmission, Threshold Model

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## The Impact of Exchange Rate Misalignment on Wheat's Producer Support Estimates

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Received: 14-12-2010

Accepted: 31-1-2011

### Abstract

Main objective of this paper is to investigate the impact of exchange rate misalignment on wheat's producer estimates (PSE), using the 1989-2007 period's data. For this purpose, Vector Error Correction Model (VECM) along with the use of real exchange rate based on purchasing power parity (PPP) was applied to estimate nominal equilibrium exchange rates. Then, by using market price support percentage (MPS%) and producer support estimate percentage (PSE%) measures, impact of exchange rates misalignment on wheat's support measures were evaluated. The result of the paper show that specific sector policies had positive impact while, exchange rates polices counteracted specific sector polices. Meanwhile with approaching the exchange rates toward its counterpart of the equilibrium exchange rates, specific – sector polices had a significant effect on MPS% and PSE% of wheat.

**Keywords:** Exchange rate misalignment, Support measures, Wheat, Real exchange rate, Equilibrium exchange rate

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