

Three Essays on the Political Economy of Livestock Sector in Turkey

I study three issues that relate to animal products consumption and are relevant to the welfare of livestock producers. First I investigate the importance of consumption from home produce (self-provisioning) and conclude that studying food consumption decisions in isolation from production is not warranted for Turkey. I develop a testing procedure incorporated to linear approximation of the almost ideal demand system (LA/AIDS) model to formally test the relevance of food self-provisioning. Studying consumption in isolation from production leads significant overestimation of rural households' responsiveness to price and income signals especially for dairy and egg products. Second I investigate the contribution of consumption from home produce to poverty alleviation in rural areas. I find level and intensity of poverty is least among rural households who engage in food self-provisioning. Moreover, food self-provisioning is concentrated in expensive calories from vegetables and dairy so self-provisioning rural households also have a more balanced diet. Finally I investigate whether the intermediaries – milk processing firms – abuse their oligopsony power to excessively profit themselves to the expense of milk farmers and final consumers. I look for evidence whether the speed of adjustment of processed milk price is same when farm-gate milk prices increases and decreases. I find no evidence that will point out any price gauging on the part of milk processors to benefit themselves. Actually I detect a long-term downward trend in processed milk prices coinciding with new major entries to milk processing industry. The dissertation consists of three essays. A brief description of the essays follows:

Chapter title: Testing Separation of Food Consumption and Production Decisions

Abstract: Complete markets imply a separation of the decisions of food production and consumption such that they can be modeled independently. Such separation is often assumed in empirical studies of food demand. This study develops a procedure to test for separation of household food production and consumption decisions. If there is separation, then food production within the household should not affect consumption. The testing procedure is incorporated into the linear approximation of the almost ideal demand system (LA/AIDS). Applying this test to Turkey using the Household Consumption and Expenditure Survey from 2003, I conclude that separation assumption is unwarranted. The results are robust to different specifications of consumption. The study then investigates the extent of misestimation of price elasticities of demand caused by assuming separation when it is not warranted. The policy implication is that ignoring nonseparation can lead to overestimation of the efficacy of policies that seek to increase food consumption by augmenting market supply.

Chapter title: Importance of Food Self-provisioning for Food Security of Rural Households

DISSERTATION ABSTRACT
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Abstract: I construct a poverty line based on two alternative criteria: to attain a minimum amount of calories and alternatively to attain a certain amount of calories while achieving a balanced diet. I find significant differences for prevalence and severity of poverty depending on whether households have ability to self-provision for food or not. The difference is even starker when the benchmark is not simply attaining minimum calorie requirements but also to achieve a balanced diet. I find that self-provisioning is concentrated in more expensive calories, especially vegetables and dairy products. Food self-provisioning is especially crucial for low income rural households in achieving the minimum food requirements. I then estimate the elasticity of calorie consumption and find that self-provisioning households' consumption is less responsive to income.

Chapter title: Oligopoly and Price Transmission in Turkey's Fluid Milk Market

Abstract: Milk farmers in Turkey constantly complain that milk processing firms abuse their oligopsony power when buying milk and point that retail milk price in Turkey is among the highest in Europe. Major dairy processing firms in Turkey blame the low quality of raw milk and the dispersion of milk producers for high price of processed milk. I single out Ultra High Temperature (UHT) milk which is only produced by national brands to study the claims of abuse of market power. I find no evidence for manipulation of prices for their benefit during 1994 – 2006. Milk processing firms are passing the price concessions and the more they extract from milk producers to downstream in dairy marketing chain. I find evidence of downward trend in inflation adjusted UHT milk price in post 1997 period. This downward trend coincides with increased competition in the dairy industry and the growing market share of formal sector dairy enterprises to the expense of informal sector. I conclude that major dairy processing firms are able to expand their market share by lowering the relative price of their products and still enjoy healthy profits thanks to increasing returns to scale they enjoy in processing and distribution in a growing market.