

Price Support and Gradual Farm Expenditure Adjustment: Evidence from China's Minimum Grain Procurement Policy

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This research analyzes the impact of the Minimum Grain Procurement Policy (MGPP) on farm expenditure behavior in China, using panel data. This type of support policy is implemented in many countries to stabilize agricultural income, but existing research has not clearly analyzed how price-induced incentives influence production behavior, particularly through expenditure adjustment.

This study builds a theoretical framework to illustrate how the policy influences farm expenditure through price expectations, emphasizing the institutional feature that the minimum price is announced before the sowing season. For production expenditures, there may be adjustment costs. We formulate two hypotheses regarding adjustment costs: quadratic and fixed.

For the empirical analysis, we use panel data from the China Health and Nutrition Survey (CHNS) from 1996 to 2014, and we employ the difference-in-differences method. Hunan Province is the treatment group, and Guizhou Province is the control group. Moreover, we use event studies and other dynamic analysis methods to examine the timing and pattern of adjustment costs.

The results show that the MGPP has a positive impact on the farm expenditure at the levels. On the other hand, the policy does not have a significant short-run effect, but its effect gradually becomes significant in the mid- to long-term. Based on the analysis of the probability of expenditure adjustment and large policy-induced price shocks, we find that the adjustment cost is inconsistent with fixed adjustment costs, which usually exhibit non-continuous change patterns. Based on the above analysis, we conclude that quadratic adjustment costs are the domain patterns for the smooth adjustment process. In addition, the heterogeneity analysis shows that high-income households have a significant effect, but low-income households do not. This is mainly due to differences in effective adjustment costs associated with liquidity constraints.

This research shows that the evaluation of this type of policy should just focus on the short-run effects. By rethinking the dynamic impact on expenditure, researchers should consider the role of adjustment costs and their effects on the medium- to long-term.