

Chapter VII

SUMMARY, CONCLUSION AND RECOMMENDATION

7.1 Summary and Conclusion

Agricultural production is a very important economic sector which engages 83% of rural peoples and accounts as much as 45% of the value of gross provincial production in Hunan. Agriculture is characterized by the intensive concentration on the production of a few staple crops including rice, cotton, ramie and tobacco. These crops used to be produced according to various government production plans.

The agricultural marketing system in Hunan used to be under full government control before 1982. Marketing activities were conducted by the government representative agencies, namely, the Co-ops (cash crop products), the PIA (agro-inputs), the GMA (grain & oil), because the government believed an absolutely planned marketing system could perform and serve people better. During that time farm prices were frequently manipulated and fixed at low levels to protect the welfare of urban citizens and to promote industrialization. Both selling of agricultural products to consumers and selling of inputs to farmers were through rationing systems. Huge government subsidies were used to keep the government planned marketing system functioning.

Since the Rural Reform in the earlier 1980s, farmers were granted the right to farm their individual farms and make their own crop decisions. This allowed some flexibility in agricultural production. In

the late 1980s more aggressive measures were taken to liberalize the marketing system. The government marketing activities and control which increasingly added financial burdens to the government were gradually reduced. The private sector has been growing quickly and has occupied big market shares of some products such as vegetable, fruit and fish. At present, the general marketing system is in the transformation phase which is characterized by the mixed functions of both government plans and free market mechanism (*Dual-Track*). Farm prices, agricultural product supplies and farmers' incomes have fluctuated severely during this period. Gross value of agricultural production and farmers' income level increased rapidly. Supply of vegetable and other food products in the urban areas become abundant. Consumers have more commodity and quality choices.

The second part of this research involves a quantitative analysis of the impact of prices and institutional reforms on the production of four major crops in Hunan with the Seemingly Unrelated Regression model.

The Rural Reform (imposed in 1982) reduced the rice and cotton planted area by 2.52% (1.67 million mu) and 31.18% (0.80 million mu) respectively, but it did not affect ramie and tobacco production significantly. The Market Reform (started in 1985) reduced rice planted area by 3.13% (2.07 million mu), and increased tobacco area by 21.40% (0.16 million mu), it did not significantly affect cotton and ramie production.

Market prices of agricultural products played an very important role in farmers' crop cultivation decisions. The own-price

elasticities of cash crops (cotton, ramie and tobacco) are almost identical (range from 0.6979 to 0.7440), it shows government full marketing control on cotton and tobacco did not hinder these two crop prices from having the same effect as the prices of free-of-control crops. As rice is grown for self-consumption and government procurement, it has an extremely low own-price elasticity (0.0784). Cross-price effects among the analyzed crops are not very significant except the rice price to tobacco planted area. This may be because crop prices always moved simultaneously in the same direction (the relative prices did not change significantly among the analyzed crops) and the rigidity of the production of each crop for both biophysical and institutional reasons.

Price risk and yield risk associated in the marketing and production of agricultural products had insignificant impacts on farmers' crop decision making. This is probably because farmers in Hunan are not used to price risk, and could not avoid yield risk under centrally planned commune production system.

The one-year lagged planted area has an extremely significant estimation. This explains the strong impact of the trend factor on crop production. This variable appears to reveal the impacts of self-sufficiency, government control on the production of certain crops, the limited available farmland, and farmers preferences and experiences.

For future research a few observations should be noted:

(1) The marketing analysis is based on a modified industrial organization framework in order to assess performances of marketing

system of agricultural products in Hunan in general. The same approach should be applied to specific commodities or groups of commodities that entered into less government-control-system.

(2) The model should expand to include vegetable and other cash crops in order to investigate cross price effect. Longer period of the analysis would provide better result of statistical tests. Formal marketing survey is recommended and market performance should be investigated in detail.

7.2 Recommendation

Some findings in this analysis that point to some potential measures useful to improve the existing agricultural P&M system in Hunan province.

(1) Government monopoly marketing system is not efficient as it absorbs huge government subsidy and constrains agricultural diversification and commercialization. Therefore the ongoing dismemberment of the system is in the correct direction. The government representative agencies need to be transformed into economically independent marketing firms. This should promote fair competition among all sectors to the agricultural market.

(2) Fixed price and self-sufficiency policies did not allow production to adjust to changes in market demand. This led to mis-allocation of resources and restrained agricultural specialization and growth. Further Lifting these policies would allow growth as shown in late 1980s.

(3) Farmers were responsive to price changes. Even though the responses are very small especially for rice, government can utilize output price policy in order to encourage or depress production of cotton, ramie, tobacco, as well as comparable crops.

(4) Rice production is market-price inelastic, and the ordinary grade rice is in over-supply in Hunan province. Institutional changes in the past have had a significant impact on rice production. Rice is justified as a competing crop to cash crops. Therefore, some modification of the government procurement policy may be more effective than price adjustment in the effort to reduce rice overstocking without causing side effects to other crops.

(5) Price liberalization has resulted in severe market fluctuation and thus unstable farm income. Government can employ appropriate price stabilization measures along with other policies to regulate the agricultural market.

(6) The rationing system was created during the time of agricultural short supply. As the supply situation has dramatically changed and the system has become a burden for the government to finance. For this move, consumers no longer favor it. It is time to demolish the system in order to end the rigid government compulsory procurement, grant consumers more market choices, and improve the financial condition of the government.

(7) Low agricultural price discouraged farmers' production enthusiasm, hence lower input to land and agricultural productivity. price should be further adjusted to offset the effect of market inflation. This will help stabilize the supply of agricultural products.