

# **Hedging Strategy for Rice Income Assurance Scheme**

**Wisarut Prompong**  
**5102042529**

Master of Science Program in Finance (International Program)

Faculty of Commerce and Accountancy, Thammasat University, Bangkok, Thailand

May 2010

## **ABSTRACT**

Thai government has recently introduced the income assurance scheme for farmers. Unlike the decades old former policy of agricultural price intervention, the new policy compensates registered farmers by the difference between the spot reference price and the predetermined price if the reference price is lower than the guaranteed price. This policy is virtually similar to giving free put option to farmers. While the policy effectively reduces role of intermediaries, lack of effective risk management might bring chaos.

Two main purposes of this paper are to compute fair prices of the options, and to recommend how to manage risk. This paper uses rice income assurance scheme to demonstrate the idea. The paper suggests the government to dynamically hedge its short position in option by creating synthetic put option with CBOT rough rice futures as underlying asset. The empirical result shows that the hedging program helps government to reduce the price risk of the short put options position. During the period of study, the hedging strategy suggested led to the loss of -18.0295 USD from CBOT futures selling and the profit of 207.4555 USD from foreign exchange forwards position per one ton of rice hedged.