OPTIMAL POSITIONING IN THAILAND’S SPOT AND FUTURES MARKETS: ARBITRAGE SIGNALING FROM THRESHOLD COINTEGRATION MODEL

BY

MR. KHEMARAT SONGYOO

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS (ECONOMICS)
(ENGLISH LANGUAGE PROGRAM)
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ABSTRACT

This study examines the intraday price lead-lag relationship between TFEX Index futures or single stock futures and their underlying cash indices using high frequency minute data. Candidate series being traded within TFEX are chosen based on liquidity criteria. Engle-Granger’s idea of cointegration is applied to explain their bivariate long-run relationship and the Threshold Vector Error Correction Model is practiced to estimate the short-run adjustment parameters. A portfolio is afterward constructed on the basis of pair trading strategy to evaluate the performance of the model and its predictability power. Also an additional signal from trading volumes of futures and cash indices is acquired to reduce the risk of wrong positioning since the adjustment process of prices does not have to take place in both series. The result from Granger causality test suggests that most of the time future price movements lead its underlying cash price but, for some certain periods, eventual relationship can bi-directional. Arbitrage opportunities present in SET50 future derivative market and have a strong impact on the dynamics. Besides, short run trading strategy fails in single stock future market due to low variability in the stock cash price and short-selling restriction. The returns of portfolio under pair trading strategy with signal from TVECM model and trading volume moving average is relatively high in comparison with the traditional pair trading strategy.