Piyalak Noodam 2010: Price Discovery in Commodity Futures Developed and Emerging Exchanges. Master of Science (Agro-Industrial Technology Management), Major Field: Agro-Industrial Technology Management, Department of Agro-Industrial Technology. Thesis Advisor: Mr. Tanachote Boonvorachote, D.B.A. 214 pages.

This thesis has three main objectives: 1) to study commodity futures exchanges liquid, 2) to study structure of trader in commodity futures exchanges, and 3) to examine price discovery efficiency in commodity futures developed and emerging exchanges. A trading volume and volatility of emerging exchanges more than developed exchanges in specially China and South Africa exchanges.

Structure of trader in commodity futures exchanges examines form the relationship between price and trading volume. Correlation coefficients and Granger causality tests are used to investigate contemporaneous and lead-lag relationships between trading volume and both return and absolute return. The results present that positive and significant correlation between trading volume and both return and absolute return of futures contracts in developed exchanges more than emerging exchanges that is indicative of the asymmetry of trading volume and information asymmetry respectively. Granger causality test don't indicate that directional causality from trading volume to return in developed and emerging exchanges, which support weak-form efficiency. This study reveals unidirectional and bi-directional causality between trading volume and absolute return for some futures contracts in developed and emerging exchanges that support the sequential arrival hypothesis. Japan' red bean, Singapore' STR20, China' corn and soybean no. 1 and Thailand' white rice 5% futures contracts, the empirical analysis provides evidence of positive correlation and no significant causality between volume and absolute return that is indicative of the mixture of distribution hypothesis.

Only results for wheat U.S. and ribbed smoked rubber sheet no. 3 (RSS3) of Thailand confirm price discovery in the commodity futures exchanges. The empirical results reveal that wheat U.S., Malaysia' crude palm oil and RSS3 and white rice 5% of Thailand contribute to over 75% of price discovery.

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