

ABSTRACT

Title of Dissertation	The Empirical Study of the Stock Returns and the Volatility of the Stock Exchange of Thailand
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This study investigates the relationship between equity market risks and returns in various aspects. First, the implied volatility transmissions between international stock markets—the United States, European countries, Japan, and Thailand—are examined. The results from the VAR analysis with its application, including the causality tests, show that there exists a bi-directional causality between the returns of the SET50 index and its implied volatility such that both the leverage effect (return-driven) hypothesis and the volatility feedback effect (volatility-driven) hypothesis are satisfied. In addition, the dependencies of the implied volatility series across different countries exist such that changes in uncertainty in the U.S. stock market are transmitted to other markets, including Thailand stock returns and volatility.

Second, regarding the asymmetric property of volatility which is characterized by asymmetric GARCH models and the subprime effect, it was found that the subprime effect is significant in the volatility of the SET and eight industry group returns. Positive and negative shocks have different effects on the conditional variance of the agribusiness and food, consumer products, industrials, property and construction, and services industries. However, the ARCH effect was found in the SET index returns and all industries' returns such that the GARCH(1,1) model is appropriate in such a case. The leverage effect hypothesis and volatility feedback hypothesis are also satisfied at the industry level.

Third, the return-volatility tradeoff was found to be significantly positive at the aggregate level and 6 industries among all 8 industries, which are agribusiness and

food, consumer products, financials, property and construction, resources, and services. However, the interest rate effect on excess returns was statistically significant at the aggregate level and some industries: industrials, property and construction, and resources. The estimates of the relative risk aversion index implies that the industries whose index ranked from highest to lowest were services, agribusiness and food, consumer products, property and construction, financials, technology, resources, and industrials.

The major finding implies that volatility measured by conditional standard deviation or variance appear to be important in determining excess stock returns at the aggregate level and industry level for Thailand's stock market, and investors may obtain higher stock returns only by incurring additional risk. There exist instantaneous causal relations between returns and risk such that stock returns are caused by volatility, and returns also lead to stock volatility. In addition, it can be inferred from the negative relationship between the option-derived implied volatility and stock returns that an increase in stock volatility raises the expected risk premium, and lower stock prices through volatility-driven effect, and negative stock returns increases financial leverage, which makes the stock riskier and increases its volatility through a return-driven effect. Regarding the international perspective, the leading role of the U.S. market inferred from the VAR model, impulse response analysis, and variance decomposition can be utilized when predicting not only expected volatilities but also stock returns in Thailand's stock market. Finally, the global financial crisis effect on Thailand's stock returns volatility at both the aggregate level and all eight industries deduced from the modified GARCH models should lead to the development of measures to prevent another future crisis through coordinated crisis management and resolution, and regional cooperation.