Thesis Title

The Relationship between the Volatilities of Foreign

Exchange and Stock Markets

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Abstract

Recently, the exchange rate system and the stock markets have received more interest. Both of these markets showed a great deal of volatility. The volatility that arose in the financial markets pointed to the changing characteristics of economic variables that cannot be predicted. This unpredictability created risk for importers, exporters, and investors. Having knowledge of the volatility in the foreign exchange and stock markets would be beneficial for making business decisions. Therefore, this thesis aimed to investigate the characteristics of exchange rate volatility and its relationship to the stock market. This study was divided into three parts. The first part analyzed the changes in the foreign exchange market in accordance with the stochastic model of exchange rates, which showed the economic structure and relationship between economic variables, in order to estimate changes in the exchange rate that occurred in the static manner.

The second part studied movements in multiple currency exchange rates that experienced dynamic volatility. This part of the study used data from two different time periods. The first time period studied was from January 1992 to June 1997, which was the period that the Thai bath was pegged to a basket of currencies. The second time period studied was from July 1997 to December 1998 in which a managed float exchange rate system was used. Two cases were analyzed using the before mentioned data periods. The first case used the GARCH model with common factor. The study results using this model found that the results from each of the two-time period were very similar and that the movements in exchange rate volatility were caused by the common factor more than uncontrollable external factors. The second case studied the exchange rate movements of each exchange rate and movements in the stock price index by using the univariate GARCH model. The results found that the total variable variance has changed in accordance with the conditions of heteroskedasticity

The final part of this thesis studied the efficiency of the stock market under the hypothesis that the stock market is efficient. This analysis also separated out into two different time periods. The first time period studied was from January 1992 to June 1997, during the time of the currency basket exchange rate system. The second time period studied was from July 1997 to December 1998 when the managed float exchange rate system was initiated. The results of this analysis found that the exchange rate had a negative relationship with stock prices. During the time of the currency basket exchange rates system, the stock market was efficient, because stock prices immediately changed with the exchange rate. During the time period of the managed float exchange rate system, the stock market was not efficient.