CHAPTER 1



INTRODUCTION

1.1 Background

When people decide how to invest, they have various alternatives. They can use money to open their own business, or join with their friend to open a firm. Some of them, who are highly risk averse, can deposit their money in to the bank; or buy mutual fund; or buy government bond, in order to earn interest income and preserve their principal. Other group with higher risk-tolerant, however, may prefer investing their money in stock. We can imply that investing in stock market is different to opening their business. The investors have to realize that they cannot manage the firm if they do not hold the shares more than five-percents of the total asset. In the other hand, they do not need to pump a lot of money as to open our own firm.

Under this concept we can conclude that stock market is one place where investors can make money from various ways such as capital gain; short selling, dividend income; (free) warrant; or voting right. As a result, many investors jump to the stock market. Some prefer investing in stocks while the other just want to speculate or enjoy daily trading.

In Thailand we can get daily stock trading information from the newspapers. Some important issues are trading volume from foreign investors, institution investors, as well as local investors. Investors will search for buying, selling, and of course, net selling volume. You can also get the volume from marketing, stockbrokers, or Security Exchange of Thailand (SET). This report can represent how various investors do think about the market. Investors read business-news, gathering information from listed companies or marketing in order to make investment decision. Some may not sure about our economic recovery, Non Performing Loan (NPL) resolved, or liquidity trap in banking system. Some may curious does NPL come back again? Other may find that Thailand stock market do not provide enough financial instrument that can use as risk management tools such as option or future.

We, however can identify the changing of investment pattern through the past record especially form the past 5 years. Actually foreign investors who used to be a long-term investors by making profit from getting dividend, capital gain, or the right of holding stock. They share only 35 percents of market trading while institutions and local investors contribute to 65 percents. Foreign

investors now have changed their investment pattern from intermediate (1 year) or long-term (2-5 years) to short-term (3-6 months). The main reason is due to their better understanding of local investors who are very easy to lose their self- confident or when there is a "panic sells" in the market. Moreover, foreign investors realize that their volume can influence local investors (or retail investor) who have limited resources. The purpose of this study is to discover the relationship among 3 market-players and try to understand how foreign investor can influence the market.

Other interesting points are how three market-players can access to the market, placing the order, and how the order is preceded. Each market player has difference access to the market and does have unique investment pattern. Local investors use two type of order, one is limit price and another is market price. Limit price is the order that investors tell their marketing (or stockbroker) to set the price that want to buy or sell with the quantity (number of shares). For example retail investor tells their marketing that he or she want to buy "BBL" at 45 Baht for 1,000 shares. Unfortunately, "BBL" is trading at 50 Baht. So the order will be on waiting list until "BBL" price drops to 45 and be executed. Market price (or spot-price) is price that the investors want to buy or sell those stocks immediately. Other players, institution and foreign investors, will use difference ordering technique such as CDO (Carefully Discretion Order), 1/3 volume order, VWAP (Volume Weight Average Price Order), GTC (Good Till Cancel Order), Price OB (Price or Better order). The detail information how the broker proceeds the order between sale and investors will be in chapter 3.

Stock market is a zero-sum game. Buying or selling stock with large volume will make a market volatile. Under of the SET index volatility, we can observe different investment behaviors from the investors through the movement of index and trading.

We will study the volatility of stock market return of SET index that affects the trading behavior of foreign investors, institution investors, and local investors. For definition of "volatility" is a statistical measure of the tendency of market price or yield over the time. Volatility usually measured by the variance or annualized standard deviation of the price, or return. High volatility is where the price, yield, or return changes dramatically over short period of time. We also study "stock return" which is the changing of the stock price "today" from the price of "yesterday." We can also say that it is the changing of present price from the lagging price. In this study we will use the SET index and determining its daily return. In addition, we will study other variables that affect the return on SET index. Other variables are Dow Jone Industry Average, NASDAQ index, Nikkei 225 index, Hang Seng index, Net local investors buy/sell, Net institution investors buy/sell, Net foreign investors buy/sell, Volume of market, and Exchange rate (Thai Baht per USD). Then we will observe another set of

dependent variable from Thai stock market such as Banking sector index, Financial sector index, Communication sector index, Energy sector index, and Electronic sector index.

After running OLS (Ordinary Least Square), we will use econometric technology to test how volatility of stock indexes by using ARCH (Autoregressive Conditional Heteroskedasticity) and GARCH (Generalized Autoregressive Conditional Heteroskedasticity) model. ARCH or GARCH model will examine the return on stock market index, conditional variance or standard deviation. After we can determine the volatility, we will discuss why that high volatility occurs and what foreign investors, institution investors, local investors do and react during that period.

We also try to study how foreign investors use this correlation in order to make money. We hope this study can discover which sectors that foreign investors are investing heavily by using correlation between SET index and other sectors index (Banking, Financial, Communication, Energy and Electronic sector index)

1.2 Objectives of the Study

To study the volatility of the return on SET index, compare to the buying and selling volume among foreign investors, institution investors, and local investors.

To compare the volatility of SET index and other sector stock index that may effect to behavior of three keys market players.

To study behavior of foreign investors who use this volatility and correlation between SET index and other sectors index such as banking, financial, communication, energy, electronic for moving market.

To study the strategy that foreign investors use and how they accumulate and sell stocks to make money

1.3 Scope of the Study

Under this study we will use time series data. By using daily trading figure from the beginning of 1995 until the end of 2000, totally 1269 working days. We, however, cut holiday date form each stock exchange market. We will pick SET index, Banking sector index, Financial sector

index, Communication sector index, Energy sector index and Electronic sectors index; as dependent variables and compute each other return. For independent variables, we will use Dow Jone Industry Average, NASDAQ index, Nikkei 225 index, Hang Seng index, Net local investors buying/selling, Net foreign investor index, Institution investors index, Volume of market, and Bath exchange rate. Then we compute the return similar to how we study the dependent variables.

1.4 Source of the Data.

In this study, all data were collected from many sources as follows:

- SET index, SET volume, Banking sector index, Financial sector index,
 Communication Sector index, Energy sector index, and Electronic sector index were collected from SET (Stock Exchange of Thailand) and Reuter Apex Terminal.
- Dow Jone Industry Average, Nasdaq index, Nikkei 225 index, and Hang Seng index were collected from www.nvse.com. and www.nvse.com.
 and www.aaii.com.
- NET buy/sell local investors, Net buy/sell institution investors and Net buy/sell foreign investors were collected from SEC (Securities Exchange of Commission) and Bangkok Post.
- Exchange rates (Baht/Dollar US) were collected from BOT (Bank of Thailand).
- Some of those data were not complete so we have to find more at <u>www.mj.com</u>. <u>www.msci.com</u>, <u>www.jpmorgan.com</u>. <u>www.barra.com</u> and <u>www.kimeng.co.th</u>