

CHAPTER ONE

INTRODUCTION

Futures markets have existed for more than 250 years and began with agricultural products. It was initially developed to help farmers, elevator operators and grain merchandisers improve their marketing and purchasing practices. The needs for the futures market was vital in their trading in order for them to plan for the future. Nowadays, derivatives market recorded a remarkable innovation in the securities market with varied products offered such as Stock Index Futures (SIF), Bond Futures, Inter-Bank Offered Rate Futures and Crude Palm Oil (CPO) Futures. Even though our local derivatives market is relatively new compared to other established futures exchange in other parts of the world, the market offers important researches for the academicians and practical researchers in its sphere on the market efficiency besides its vital functions on hedging, arbitraging and speculating techniques.

This paper mainly focuses on the relevancy of the Efficiency Market Hypothesis (EMH) in a thinly traded and developing derivatives market in Malaysia, namely Stock Index Futures (SIF) market traded in Malaysia Derivatives Exchange (MDEX). In an efficient market, the relevant signal to be used by the traders, investors and speculators is simply the futures price. A market that always fully reflects the available information is said to be efficient. Three potential levels of efficiency can be considered: weak form, semi strong form and strong form. Strong form efficiency is concerned with the question of whether individual investors or groups have monopolistic access to any information relevant for price formation to earn excess profits. In a semi-strong form efficient market,

the relevant information includes all publicly available information such as announcements of annual earnings, bonus and right issues.

The most important form of efficiency, which we are concerned and which is the vital focus of attention in this paper, is the weak-form market efficiency. In the case of the weak form efficiency, the relevant information is the set of historical prices. This means that historical prices do not provide additional predictive power to explain the future prices in a weak form efficient market. The weak form of the efficient market hypothesis further asserts that the short-run future price movements of index are approximately random in character; that is, they are independent of the past history of the price movements. Thus, information about the past history of price movements would not allow an investor to make above-normal profits as a result of more accurate predictions of the next price of an index price. A market is efficient in the weak sense if stock prices fully reflect the information implied by all past movements. According to Fama (1965), the weak form of efficient market model involves two separate hypotheses: (a) successive stock price changes are independent, and (b) the price changes are identically distributed random variables. The first hypothesis is more interesting because it has an important economic implication. If successive stock price changes are independent of one another, then historical price changes cannot be used to predict future price movements in any meaningful way. Technical analysis based on past stock price movements would not, therefore, be useful for improving investment performance.

The literature of EMH (weak sense efficiency) also suggests that the prices move independently to previous movements. Thus in such a market there would be no prophetic patterns enabling futures price movements to be predicted from studying charts of past prices. Nor would there be any effective “trading rules”, (such as “sell a share if it falls by x% below certain prices,”) which produced above-average returns.

It is interesting to find out whether Malaysian Stock Index Futures market could or couldn't be outperformed that is investigating whether the market is weak form efficient or weak form inefficient. In other words, can we make above average returns using the historical data, forecasting ability and effective “trading rules” or the system and the mechanism do not offer any advantages to outperform the market? This question will be answered throughout the rest of the chapters covered in this research paper.

1.1 Objectives of the Study

The main objective in this research paper hovers around the efficiency of the Malaysian Stock Index Futures market. This paper is concerned only with the weak form test of the efficient market model. If the evidences fail to pass the weak form test, there is no reason to examine stronger forms before declaring the market inefficient. The other main areas, which are also discussed, are the relationship analysis between the selected economics indicators and the Malaysian Stock Index Futures, the analysis of change before and after July 1997 economic crisis and the most prominent part of the research is the forecasting ability to outperform the Malaysian Stock Futures market using the trading rules approach.

1.2 Significance of the Study

It is hoped that this research will provide an insight of the situation at hand. The relationship analysis and efficiency analysis in this paper may take better understanding of our local derivatives market namely the Malaysian Stock Index Futures market. For the efficiency purposes, it will ascertain the degree of weak form efficiency by employing certain tests and it is significant to the investors if the market is inefficient because if market is inefficient, then above average returns could be made for their investment in our local futures market. However, if market is found to be weak form efficient, it is even better because it offers an effective mechanism for competitiveness in the market.

1.3 Methodology and Data

For the purpose of the relationship analysis, the regression on the Econometric Model and Econometric Dummy Model using the ordinary least squares (OLS) method are used. For the forecasting technique ability analysis, time series forecasting methods namely Moving Averages (MA) and Single Exponential Smoothing are employed to forecast the dependent data thus test the efficiency using trading rules and assumptions, The lag of 1 period $(t-1)$ for the 60 sample forecasting on log linear distributive lag model and log linear distributive lag dummy model are also used to forecast the futures prices and using trading rules on buy low and sell high principle to test market efficiency. For the ex-post forecast, the filtered data on first 30 observations using the lag of 1 period are adopted to examine the ex-post forecasting technique thus using the same trading rules and assumptions to test market efficiency. Monthly closing prices of all dependent and independent variables from January 1996 to December 2000 were extracted from the

Bank Negara Malaysia (BNM) published monthly statistical bulletin, Statistics Department of Malaysia, various local daily newspaper, in particular The New Straits Times and The Star, The KLSE monthly Investor Digest and Malaysia Derivatives Exchange (MDEX) respectively.

1.4 Findings

Findings from the study suggest that the Malaysian Stock Index Futures market does not exhibit an evidence of inefficiency. The results assert that the absence of abnormal profits and above average returns using certain models and trading rules is a sufficient condition for accepting the weak form EMH.

1.5 Organization of the Study

The paper commences with introduction, objective, methodology and limitation of the study in Chapter 1. The next chapter has another look at the literature review of the past studies in the sphere of futures market locally and internationally. Chapter 3 illustrates in details the stock index futures market in Malaysia traded in Malaysian Derivatives Exchange (MDEX), contract specifications, market participants, membership, commission structure, speculative purposes in trading futures; which concentrate on the stock index futures market in Malaysia. Detailed discussion on data methodology will be presented in Chapter 4, which touches on the data gathered, models used for regression and forecasting targets. The penultimate chapter is the most important as the empirical findings will be portrayed in a very particularized manner. Finally, Chapter 6 will summarize all the results found throughout this research.