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THE EFFECT OF SYSTEMATIC RISK FACTORS ON THE PERFORMANCE OF THE MALAYSIA STOCK MARKET

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ABSTRACT

Malaysia has undergone a tremendous transformation in its economic due to the New Economic This has created instability on the changes in the macroeconomic fundamental, called systematic risk. The study aims to determine the effect of the systematic risk towards the performance of the stock returns. The paper aims to use the arbitrage pricing theory (APT) framework to relate the systematic risk with the performance of stock return. The variables chosen to represent the systematic risk were variables that were in line with the transformation policy implemented. The independent variables chosen were interest rate, inflation rate due to the removal of fuel subsidy and the implementation of good and service tax, exchange rate which is influenced by the inflow of foreign direct investment, crude oil price that determines the revenue of the country being an oil exporter and industrial production index that reflect political as well as business news meanwhile the dependent variable is stock returns. All the macroeconomic variables will be regressed with the lagged 2 of its own variable to obtain the residuals. The residuals will be powered by two to obtain the variance which represents the risk of each variable. The variables were run for unit root to determine the level of stationarity. This was followed by the establishment of long run relationship using Johansen Cointegration and short run relationship using Vector Error Correction Modeling.

Keywords: systematic risk, macroeconomic variables, stock return, Malaysia new economic model, arbitrage pricing theory

1.0 Introduction

Stock market is an important aspect of the dynamics of economic activity. The performance of stock market can be measured by stock returns. Stock return is an indicator of social disposition and is used as a leading indicator that measures the strength of the economy (Nordin *et al*., 2014). The increasing stock return tends to be related to increased business investment and vice versa. Stock returns also affect the growth of households and their consumption. As stock returns increases, growth in consumption and investment of household will also increase. Thus, policymakers need to keep on observing and controlling the performance of the stock returns, as its smooth and risk-free operation is important for economic and financial stability.

Various studies have tried to explain the determinants of stock market using different variables and methodologies. It is often been argued those stock markets are determined by internal and external factors. Internal factors are closely related to the issues in the firm or the industry, meanwhile external factors usually involves macroeconomic variables that directly or indirectly influences the profit earned

by the firm. Therefore, the stock returns will also be affected. All these factors create uncertainty and uncertainty involves risk. The higher the risk the higher the returns.

All investment involves risks and uncertainty and capital market helps to manage risk and uncertainty. Risks are usually to be understood as systematic assertions on which an investment decision is based. The instability on the stock return will cause systematic risk for investors (Guo, 2002). There are two types of the investment risks in stock market, the risk that can be diversified is known as unsystematic risk meanwhile the risk that cannot be diversified is named systematic risk. For a company stock price, the factors that affect the company's stock price is balance sheet, sales, profitability, board of directors and new product launching, while the other can be eliminated through diversification. In a diversified portfolio, investors only deal with systematic risks because it cannot be diversified. However, diversification cannot remove all risk completely. To some extent, the fortunes of all companies move with the economy. The risk correlated with the movement in the economy is referred to as the systematic risk, market risk, and non-diversifiable or unavoidable risk (French, 2003). The systematic risk category is the type of risk factors which are the first identified in an investment decision-making process. Usually, the systematic risk factors differ from market to market and country to country.

In the era of globalization free flow of resources, capital and labor has distorted and influenced the fundamental issue in Malaysia. Malaysia's Gross Domestic Product (GDP) or economic activities are contributed by trade. Both export and import comprise 134 percent of the GDP in 2015. Moreover, with the new transformation process under the new economic model, Malaysian economy is exposed to foreign investments. Thus, its real economic activity is closely related to external factors which can influence the systematic risk.

Moreover, in recent years the liberalization of financial markets causes the stock market to be exposed to various sources of risks (Kasman *et al*., 2011). Risks can be influence by the monetization development of a nation. Developments of monetization differ from one country to another country. Monetization development can be expressed using the monetary transmission channels. It begins with money supply. Money supply is an important indicator. Money supply is measured by quantifying it as M1, M2 and M3. The value of M1, M2 and M3 which is published in the central bank financial reports are referred to as anticipated money supply. Since Malaysia like any other developing nation is now exposed to various political, financial and investment scandal, it is wise to look into unanticipated money supply rather than anticipated money supply. Unanticipated money supply can be derived by regressing anticipated money supply with the lagged anticipated money supply. The error term in the equation will represent the unanticipated money supply (Barro, 1978 and 1977).

Unanticipated money supply will influence the interest rate. When unanticipated money supply increases, interest rate will decrease and vice versa. Interest rate can influence various price of the financial and non-financial assets. Increase in interest rate will increase the demand for bond but reduces the price of stocks. Increase in interest rate will increase the cost of borrowing money and decreases the demand for physical assets. Excess supply of physical assets will decrease its price when interest rate increases, return on investment will be high in the nation. Demand for local currency will increase and exchange rate will be depreciating (Kutty, 2010). Thus it can be concluded that changes in money supply can lead to changes in interest rate. This will eventually decreases the price of financial asset like equity, non-financial asset like property and the value of the exchange rate. Overall it is said to have an impact on the component of aggregate demand such as consumption, investment and trade through export and import (Chen, 2009). When aggregate demand changes the general price level of the nation will also change. This can lead to inflation or deflation. Changes in the general price level can change purchasing power and indirectly the profitability of firms. This can lead to changes in stock returns. Therefore, unanticipated money supply, interest rate, exchange rate and inflation can influence stock returns directly or indirectly.

The theoretical underpinning the relationship between macroeconomic variables and stock market performance is explained by models such as the APT developed by Ross (1976). These models clarify how fluctuations in the macroeconomic variables can influence stock market performance. Thus, if the expected return compensates its risk, then only investors hold risky assets (Hiller *et al*., 2010). Meanwhile, Sharpe (1964) claimed that the risk resulting from changes in economic activity is not possible to avoid. This risk cannot be avoided by diversification and even remains in the most efficient portfolios. In addition, Chen *et al*. (1986) also claimed that the biggest part of stock returns is from unexpected events such as scandals, political unrest and soon from the general economic environment. To define, these models indicate that any new information about macroeconomic variables will affect stock market performance through its influence on the discount rate, expected future dividends, or both.

By using the APT model numerous attempts have been made to solve this problem empirically. However, there is no accurate definition or consistency in explaining the relationship in the Malaysian context or even elsewhere. No doubt the current literature widely used asset pricing models, however it does not provide specific direction as to which macroeconomic variables affect stock return and to what extent (Ibrahim and Musah, 2014; Tursoy *et al*., 2008; Maysami *et al*., 2004; Groenewold, 1997; Chen and Jordan, 1993; Chen *et al.,* 1986). There are unsolved issues theoretically and also methodologically. It is expected that the standard set of macroeconomic variables will be identified with the help of empirical analysis. The modern financial theory focused on inflation, interest rate, industrial production index as sources of systematic risk supporting the monetary transmission channel variables.

Theoretically, majorityof the empirical studies used APT method in United States and United Kingdom (Al-Jafari *et al*., 2011; Humpe and Macmillan, 2009; Liow *et al*., 2006). Both are developed countries with well-established monetary system. However, literature that focuses on developing and emerging economy like Malaysia is very limited (Abdullah *et al*., 2014; Vejzagic and Zarafat, 2013; Zakaria and Shamsuddin, 2012). The limited literature does not only provide clear evidence the influence of macroeconomic variables on the performance of Malaysia stock market (Abdullah *et al.*, 2014). The standard macroeconomic variables like inflation, interest rate, industrial production index (Chen *et al.,* 1986) might not be suitable in influencing developing and emerging economics like Malaysia's stock market. Malaysia is an emerging economy which is not fully industrialized. It still depends heavily on agriculture as a source of income. Besides that, with its economic transformation programme, it is moving towards a service and energy based economy. Service, energy and agriculture are sensitive towards changes in the macroeconomic factors. Hence, do these less-industrialised markets like Malaysia react to changes in its fundamental macroeconomic variables such as exchange rate, industrial production index and inflation rate and also specifically variables like crude oil price which is still an untouched area as a macroeconomic variable (Hosseini, 2011). These factors might not be relevant for developed nation but it might be relevant for emerging markets like Malaysia. Furthermore, in a developed economy the nature of the relationship between stock market and macroeconomic variables may differ from developing economies.

Malaysia has a developing economy, with an emerging stock market and smaller market capitalization it is expected to be more exposed to speculative activities. Malaysia has shown massive growth over the past two decades. During the period 1991 to 1995, the economy grew at an average rate of 9.4 percent per year, followed by a slower growth rate of 5 percent per year in 1996 to 2000. In between 2001 to 2005, the average growth of Gross Domestic Product (GDP) is 4.4 percent, meanwhile 4.5 percent for the period 2006 to 2010 and 5.3 percent for the period 2011 to 2015 (World Bank, 2016). The economic growth was disrupted by 1997 and 1998 Asian financial crisis as well as 2007 and 2008 global financial crisis. After the Asian financial crisis, Malaysia has built its competency to cope with challenges.

Meanwhile, on-going economic transformation programme under the new economic model carried out by Malaysian Prime Minister has enhanced Malaysia's competitiveness. The financial sector has gone through many regulatory adjustments to increase foreign ownership in financial subsectors. Numerous domestic equity requirements that restricted foreign investment were now eliminated. Thus, the inflow and outflow of foreign capital has a significant impact in Malaysia. This has able to change the money supply in the nation. The changes in money supply will influence the interest rate in the country. Moreover, the implementation of the Good and Service Tax (GST) has also increased the cost of buying goods resulting in cost push inflation. Apart from that, the government also has pulled back the untargeted subsidies given for depleting resources like foods, electricity and fuel. This has decreased the purchasing power of the consumers. Hence, less spending decreased the demand for goods and also savings. Less demand reduced production as well as the profit earned by the firms. Reduction in profit will reduce the return in stocks.

Thus, it can be concluded that theoretically findings in the previous empirical literature monetization based macroeconomic variables such as interest rate, inflation rate, money supply, industrial production index, and exchange rate and also practically factors like crude oil price are investigated because it can create a dynamic movement in stock return. Market practitioners, particularly investment analysts, portfolio managers, investors, regulators, and policymakers would find this knowledge to be of interest since stock return affects asset pricing and risk. The idea is that since there is a strong link between the macroeconomic variables and the stock return, any shock in macroeconomic variables will present a source of systematic risk that will influence any market portfolio, irrespective of how well diversified the portfolio (Chowdhury *et al*., 2006). Besides that, monthly time series data spanning from January 2009 to December 2016, a total of 96 observations for each variable was used in this study. Hence, this study extends the previous literature by using the latest data and examining a timeframe of new economic model. Thus, this paper has a great interest because the findings may provide a new perspective on the analysis of the Malaysian stock market.

2.0 Theoretical And Conceptual Foundations

2.1 Risk

Risk is defined in finance theory as the uncertainty, or the probability that the actual return will deviate from the expected return (Valipour *et al*., 2015). Total risk, which reflects the overall risk exposure of a firm, can be decomposed into systematic risk and unsystematic risk (Van Horne, 2002). When risk refers as investments, it may be correlated with the probability of earning less than the expected return (Brigham and Ehrhardt, 2013; Amorim *et al*., 2012). Risk has been an important element for investor to consider before they make an investment. Risk associated with investment defines the return that an investor wants from their investment. There is a direct relationship between risk and expected return. It means that if uncertainty on any investment is higher it will also increase the expected return of that particular investment.

In finance, the investor expects maximum expected return and minimum risk when they invest in certain asset such as stocks and bonds. Therefore, an investor need some kind of information or benchmark that can predict the future return and the amount of risk that they need to bear if they have invested in the certain assets (Crowder and de Jong, 2011). Risk is measured by standard deviation which is the square root of the variance. An investor will predict of future return of investment before investing into certain assets. This prediction of future return is known as the expected return. Furthermore in finance the measurement of the standard deviation is also known as volatility. Volatility measures the variation of price of a financial asset over time. Normally, investment in low volatility assets refers to less risk compared to investment in high volatility asset. Particularly, company that has more volatile stock is perceived as more risky (Tofallis, 2008). Meanwhile, the risk in portfolio is measured by covariance.

Covariance measures the variation in expected return from the actual return of an asset in portfolio by measuring the co-movement of stock held in the portfolio.

2.2 Systematic Risk

The diversifiable risk is the unsystematic risk, while non-diversifiable risk is systematic risk which is also known as volatility or market risk which will affect the overall market not just a particular stock market or industry only (Valipour *et al.,* 2015; Amorim *et al.*, 2012). The systematic risk measure beta is a key concept in modern finance theory (Masih *et al*., 2010). This type of risk indicates a part of total risk of shares, created because of existence of factors influencing the price of stock of all firms at a time. The systematic risk of firms listed in the securities market directly affects stock price by changing expected earnings of stock (Jeon *et al*., 2006). Systematic risk is unpredictable and impossible to avoid completely, hence the systematic risk always exists. Meanwhile there is always a chance also to encounter with economic downfall either the whole industry or a particular industry segment and this risk cannot be avoid or reduce through diversification, only through hedging or by using the right asset allocation strategy can minimize or limit the systematic risk. Therefore systematic risk refers as the variability of a firm's excess return of the overall market portfolio. This risk depends on changes in external factors such as changes in the market or the economy, which affects all stocks. Systematic risk is the element of risk that comes as a result of factors that affect the overall market such as changes in the nation's economy or a change in world energy situation such as an increase in oil prices or changes in political factors. Therefore, systematic risk is define as the variability of return on stocks or portfolios correlated with changes in return on the market as overall. Investors who hold a well-diversified portfolio are exposed only to this type of risk, as such would be compensated for bearing this type of risk.

The sources of systematic risk could be macroeconomic factors such as inflation, changes in interest rates, fluctuations in currencies, recessions, natural disasters, wars and government regulations (Tripathi and Neerza, 2015; Zahiri *et al*., 2014) because all these factors affect the entire market and cannot be avoided through diversification. Systematic risk influences all other investment risks. Systematic risk can be controlled partially and mitigated through asset allocation. By having different asset categories with low correlation, smooth portfolio instability can be resolved because different asset categories react differently to macroeconomic factors. The total risk of a portfolio (Refer Figure 2.1) is the sum of its systematic risk and unsystematic risk (Total risk = Systematic risk + Unsystematic risk). Systematic risk is risk that still appears after full diversification in the portfolio.

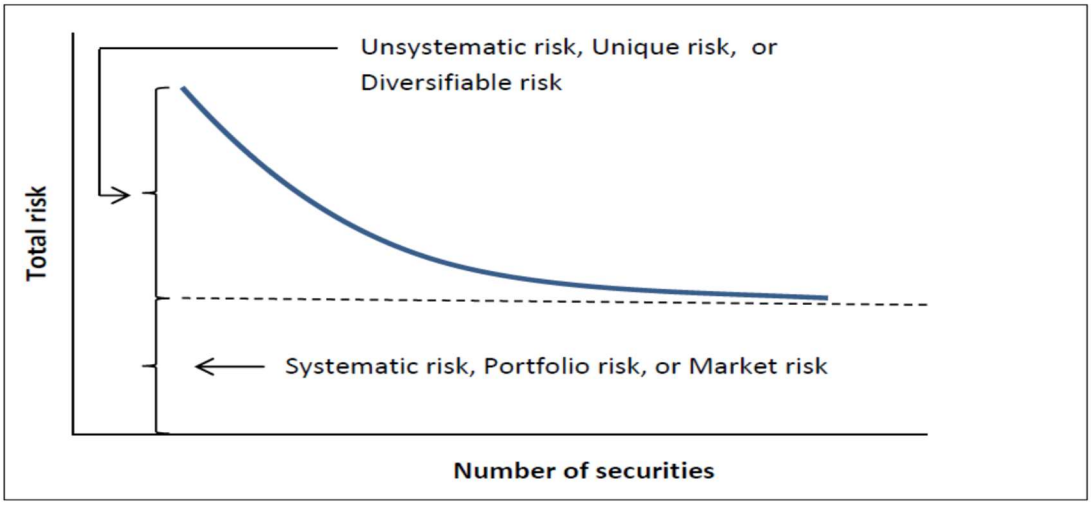

Figure 2.1: Diversification and portfolio risk
Source: Hillier, Ross, Westerfield, Jaffe, and Jordan, (2010)

2.3 Arbitrage Pricing Theory

The capital asset pricing model (CAPM) (Lintner, 1965; Sharpe, 1964, 1963) indicates that stock return is a function of a company systematic risk. This risk determines the expected return that a potential investor demands from their investment in a company stock. The CAPM is empirically proved as an imprecise framework to estimate the cost of capital for an investment, since it suggests that only systematic risk factors can explain the expected rate of return. This leads to a rational assumption that more than one factor influences the expected returns of an underlying security. A substitution for the CAPM that formulated by Ross (1976) is the arbitrage pricing theory (APT), also known as a multi-factor pricing model. This also demonstrates the relationships between risk and return in asset pricing. However, the APT differentiates from the CAPM by inserting more explanatory indicators.

The equation of APT can be represented as:

$$E\,(R_i) = R_f + B_{i1}\,RP_1 + B_{i2}\,RP_2 + B_{i3}\,RP_3 + B_{i4}\,RP_4 + \ldots + B_{in}RP_n + e_i$$

where:
$E(R_i)$ = the expected return of asset i
R_f = the risk-free rate of return
B_i = the sensitivity of the asset's return to the particular factors
RP = the risk premium associated with the particular factor
e_i = the error term

From the theoretical perspective, the APT provides the theoretical framework through which the behavior of macroeconomic fundamentals can be linked to the stock return (Chen *et al.*, 1986). These models emphasize that any expected or unexpected arrival of new information and policy decisions regarding macroeconomic variables such as gross domestic product, interest rates, exchange rates and foreign direct investments, money supply and inflation will change the equity prices and further the return of stocks through change in the future cash flows and expected dividends. Apparently, the essence of the theoretical link between the macroeconomic variables and equity market volatility is that any change or shock in the macroeconomic variables will raise the source of systematic risk of the market portfolio, irrespective of how well the portfolio is diversified (Chowdhury *et al*., 2006).

Under the theory of arbitrage pricing by Ross (1976), several studies have been constructed using different sets of macroeconomic factors to estimate stock returns. The pioneering work that supports the APT was conducted by Chen *et al.* (1986). The methodology of Chen *et al.* (1986), the macroeconomic variable model of the APT, is considered as the best and the most economically interpretable model. However, the evidence from the empirical studies show that this method does not explain accurately the relationship between stock return and the macroeconomic variables. The proposed multi-factor model in this study follows the same methodology by applying a different set of data and tests the significant of the relationship.

2.4 Macroeconomic Variables and Stock Returns

The macroeconomic and financial variables chosen by previous researchers are mainly monetary variables derived from the monetary transmission channel. It began with money supply. When money supply increases there is a discrepancy in the money market. Money supply will be greater than money demand. Excess supply will decrease the interest rate. From the interest rate changes, the demand to hold bond will also change. When interest rate decreases, the intention to hold equity or stock will rise. Increase in the demand for stock will increase the price of stock. Thus, the return on stock will also increase.

Money supply can also increase the inflation rate by increasing the demand for goods and services. To control the effect of inflation, the government will always use contractionary monetary policy. When money supply is contracted the interest rate can increase. This can also increase the demand for bond and reduce the demand for stock. Excess supply of stock will reduce the price of stock. Both monetary variables, interest and inflation rate can influence the exchange rate. Changes in interest rate create changes in the inflow and outflow of capital and this will result in the changes in the exchange rate. Changes in inflation also can cause the changes in cost of living. Thus the demand for local or foreign goods will change resulting in changes in exchange rate. Changes in exchange rate can have an impact on stock returns through the sales or the cost of goods sold, which eventually influence stock returns.

Monetary variables like money supply, interest rate, inflation rate and exchange rate can influence the GDP directly and indirectly. GDP will experience fluctuation due to fluctuation in these variables. However, Jarvinen (2000) argue that during depression, higher unexpected growth will result in positive stock returns. Alternatively, higher expected economic growth will result in overheating. Moreover, the monetary authorities might decide to increase the interest rate which is a bad news for stock returns. Since the value of corporate equity at the aggregate level dependS on the country of economic activity, it is likely that any changes in the level of uncertainty of future macroeconomic conditions would cause a change in stock return volatility. The fluctuation in macroeconomic variables, which lead to the change the structure of stock returns (Adam and Tweneboah, 2008). The relationship between macroeconomic variables and stock returns has been extensively studied by Ray and Sarkar (2014), Khan (2014), Sohail and Hussain (2012), Kuwornu and Owusu-Nantwi (2011), and Tursoy *et al.* (2008). Therefore, the fundamental relationship between macroeconomic variables and stock returns one of the most debated issue in finance and economic in the past few decades.

Apart from that, the study of APT model with macroeconomic factors done by Chen *et al.* (1986) was further tested by Shanken and Weinstein (2006) and Groenewold (1997). Shanken and Weinstein (2006) re-examined and tested the validity of the pricing of the five Chen *et al.* (1986) macroeconomic variables and the results to be surprisingly sensitive to reasonable alternative procedures for generating size portfolio returns and estimating their betas. Strong evidence of pricing is obtained only for the industrial production growth factor and for the market index. In particular, the corporate-government bond return spread, an important factor in Chen *et al.* (1986) study, is insignificantly negative from 1958 to 1983 period, supporting the cross-sectional regression results. Thus, it can conclude that timeframe can influence macroeconomic variables towards stock return. Furthermore, each macroeconomic variable can influence each industrial portfolio differently because the economic and political development can influence the economics activity as well as the stock market differently for each time period. This supported by Tursoy *et al*. (2008) studies found that each macroeconomic variable affects different industry portfolios to a different degree. However, the finding indicates that there is not a significant relationship between stock return and macroeconomic variables.

In line with the study conducted by Tursoy et.al (2008), Sikalao-Lekobane and Lekobane (2014) employed the VECM analysis to investigate a set of macroeconomic variables influence on domestic stock market in emerging market and disclosed that the stock price and macroeconomic variables are cointegrated and in long run equilibrium relationships existed between this variable. In a similar type of study, Naik and Phadi (2012) also investigated the relationships between Indian stock market and five macroeconomic variables were wholesale price index, industrial production index, exchange rates, money supply, and treasury bills rates. The scholar employed the Johansen Co-integration and VECM and the analysis showed that the stock market index and macroeconomic variables are cointegrated and therefore, a long run equilibrium correlation exists between them. Meanwhile, Ray and Sarker (2014) also employed similar type of analysis technique to examine the shock of macroeconomic variables on the Indian stock return. Similarly, Sohail and Hussain (2012) also employed Johansen Co-integration technique to

examine the response of stock return to macroeconomic variables in Lahore, Pakistan. This is supported recent studies by Ilahi *et al.* (2015), Hunja *et al.* (2014) and Kibria *et al.* (2014) also did their study in Pakistan. The scholars employed Descriptive Analysis, Correlation analysis, Regression and Granger Causality.

Unlike other countries, the study on the relationship between macroeconomic variables and stock market in Malaysian context is limited. Abdullah *et al.* (2014) applied numerous time-series techniques and a new method Wavelet analysis to investigate the causality between stock market index and macroeconomic variables in Malaysia. Zakaria and Shamsuddin (2012) also examined the relationship between macroeconomic variables with stock return in Malaysia. The volatility of study was estimated using Generalised Autoregressive Conditional Heteroskedasticity (GARCH) model and the relationship between stock returns and macroeconomic variables has been examined using bivariate and multivariate Vector Autoregressive (VAR) model, Granger Causality test as well as Regression analysis. The findings of the study did not find much support on the existence relationship between macroeconomic variables and stock returns. The weak relationship between stock returns and macroeconomic variables is possible due to lack of institutional investors in the market, and may also indicate the existence of information asymmetry problem among investors. However, Azman-Saini *et al.* (2007) in their studies through Granger non-Causality method found that Malaysia stock returns was led by the exchange rate during the crisis period. Malaysian Ringgit depreciated against US Dollar during the crisis and it significantly influences the Malaysian stock return. Meanwhile, Har *et al*. (2009) also investigated causal relationships between Malaysia stock market and the economy using Granger Causality tests on yearly data for the period of 1977 until 2006. The finding of study shows that stock market Granger caused economic activity with no reverse causality observed. The scholars further explain that expectations for future economic activity are not simply formed by looking at the past trend in the economy as the adaptive expectations model would suggested.

Practically all the studies conducted in Malaysia used similar econometric methods such as VECM, Cointegration, Unit Root, Granger Causality, Variance Decomposition and Impulse Response Function. The macroeconomic variable chosen was also similar to interest rate, inflation rate, money supply, industrial production index and exchange rate. Only studies by Janor *et al*. (2013) used oil price to reflect crisis in Malaysia. The timeframe was also divided into short run and long run using the oil crisis to break the duration. Moreover, all these research tried to explain the performance of the stock based on historical data or past trend in the economy as suggested by the adaptive expectation theory. Performance in the stock market Malaysia must be predicted well. Thus, information must be efficient. According to Ibrahim (1999) the information was inefficient in the Malaysia stock market. Inefficient stock market creates risk. It will lead to volatility in the market due to uncertainty.

3.0 Methodology

The stock market performance is measured by using the composite market index in FTSE Bursa Malaysia KLCI. Meanwhile, the macroeconomics variables as the interest rate is measured by using fix deposit rate of one month in Malaysia and inflation is measured by using the consumer price index in Malaysia. Besides that, others variables like money supply are measured using the money circulation in Malaysia market of category 2 (M2), M2 is used as an indicator of financial development in a nation and industrial production index is measured by using the change in output in Malaysia manufacturing, mining, construction and electricity, gas and water. Other than the variables mentioned above, the exchange rate and crude oil price also play a major role in determining the effectiveness of systematic risk on the stock market performance. The exchange rate is measured using the currency exchange rate with US Dollar and crude oil price is estimated using the oil price of per barrel in Malaysia.

The methodology used was the unit root test to unsure whether the time series data was stationary. Follow by the Cointegration test to unsure long run relationship and a VECM to establish a short run relationship between variables. Impulse response function was employed to explain the variation of the independent variables in explaining the dependent variable. As the studies can firm that the monetary variables chosen does influence stock return, but the variables differ based on the industry portfolio and time period.

4.0 Conclusion

By using the APT numerous attempts have been made to solve this problem empirically. However, there is no accurate definition or consistency in explaining the relationship in the Malaysian context or even elsewhere. No doubt the current literature widely used asset pricing models, however it does not provide specific direction as to which macroeconomic variables affect stock return and to what extent. There are unsolved issues theoretically and also methodologically issues and it is expected that the standard set of macroeconomic variables will be identified with help of empirical analysis. The modern financial theory focused on inflation, interest rate, industrial production index as sources of systematic risk supporting the monetary transmission channel variables.

The study between stock returns and macroeconomic variables differ based on the economic status of the country (developed, emerging or developing), the variables used as the independent variables, the timeframe, the methodology as well as the type of stock used to measure the returns. All these variables considered to be emphasized as the policy instruments by the government in order to stabilize stock return. Thus, there is need to determine what are the systematic risk factors that affecting the performance of the stock market because Malaysia is undergoing a transformation in its economic system. This paper has proposed to use arbitrage pricing theory (APT) framework to explain the risk due to variation in the macroeconomic variables risk towards the stock returns. The next phase planned would be to empirically investigate the validity of the framework by employing quantitative analysis to support the variables and their propositions.

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