

Chapter 2

Literature Review

2.1 Introduction

The first objective of this study is “to determine factors affecting investors’ asset allocation decisions in the Southeast Asian equity markets.” This is to be achieved by developing a multiple regression equation, with the dependent variable measuring how attractive or appealing the Southeast Asian equity market are to investors. In order to decide what explanatory variables were to be included in this model, it was necessary, initially, to conduct a literature review. The aim of this literature review was to discover a broad list of factors that affect investors’ allocation decisions. The result was that fourteen factors were discovered. From these fourteen factors, seven were chosen for inclusion in the multiple regression model.

To explain how this chapter is organised, firstly, the literature review outlines the different techniques and approaches that other researchers have used to measure how attractive, or appealing, certain equity markets are to investors. The strengths and weaknesses of these approaches, in addition to the findings of other researchers, are discussed. Finally, the choice of the approach used in this research (econometric multiple regression modelling) is justified.

Secondly, the fourteen factors that were discovered to be factors that affect investors’ allocation decisions are listed, with the reasons for their inclusion being explicitly stated in sub-sections entitled ‘Justification for Inclusion.’ The literature review thus adopts a *thematic approach*, with each of the fourteen factors representing a separate theme. Finally, the seven factors that were chosen to be used as explanatory variables in the multiple regression model are listed, and the reasons underlying the choice of these seven variables are explained.

2.1.1 Research Approaches Used by Other Researchers

In order to measure how attractive, or appealing, certain equity markets are to investors, three approaches have generally been adopted: firstly, the use of surveys; secondly, the assessment of the

performance of hypothetical portfolios using historical data; and, finally, econometric multiple regression modelling.

An example of the first approach is the work of Freeman and Bartels, which is cited frequently in this study. Their work is also especially relevant since it dealt with the Southeast Asian equity markets. They adopted a survey approach, sending a mailed questionnaire to institutional investors located in Hong Kong, Singapore, the UK and the US (Freeman & Bartels, 2000). The main aim of their research was to evaluate the Southeast Asian equity markets following the 1997 Asian financial crisis. Many of the questions in their survey effectively sought to measure how attractive the various Southeast Asian equity markets were to investors. Surveying investors, therefore, is one technique that can be used to measure how attractive certain stock markets are to investors.

With regards to the second approach, the assessment of the performance of hypothetical portfolios using historical data, Desrosiers et al studied 19 developed markets, from January 1988 to December 2005 (Desrosiers, Lemaire, & L'Her, 2007). They retroactively constructed various hypothetical portfolios, weighting the countries in them according to the expected returns for the various countries. They used the Residual Income Model (RIM) as the means of valuing the 19 countries' indices and thereby estimating expected returns. The performance of their value-weighted world index was compared with an equally weighted index comprising the 19 countries. They concluded that the RIM did have predictive power for country selection. Mitchell Conover et al also retroactively constructed various hypothetical portfolios, the composition of which was determined using monetary conditions in both the relevant local stock market and in the US market as the selection criteria (Mitchell Conover, Jensen, & Johnson, 1999). The data they used included monthly stock returns from January 1956 to December 1995 in 16 countries, which were mainly developed markets (South Africa was the exception). They compared the performances of their hypothetical portfolios and discovered that the best-performing portfolio was the one that *only* invested in the local stock market when monetary conditions were expansionary in *both* the local country and in the US (they classified periods following discount rate reductions as expansionary). It invested in Treasury Bills at other times (when monetary conditions were restrictive). Another researcher who constructed hypothetical portfolios and used historical data was Simons, who concluded that economic forecasts were crucial in determining which countries to invest in (or which countries to 'overweight' in a portfolio) (Simons, 1999). Finally, Emanuelli et al, using data from 24 countries during the period September 1987 to December 1991, constructed hypothetical portfolios and assessed the performance of these portfolios using the historical data (Emanuelli & Pearson, 1994). They concluded that earnings estimates revisions for countries, which were used as the criterion for their portfolio selection, were significant in identifying which countries would deliver the highest returns.

Finally, the third approach, the use of econometric multiple regression modelling techniques has already been discussed in detail in the Economic Outlook section of the Literature Review. Many researchers have used this technique. Generally, stock market indices have been used as the dependent variables in the models developed by researchers (Maysami, Howe, & Hamzah, 2004) (Islam, Watanapalachaikul, & Billington, 2004) (Menike, 2006). One researcher, however, used real GDP growth as the dependent variable, with the five explanatory variables being fixed investment percentage of GDP, government consumption percentage of GDP, GDP per capita in USD, annual percentage inflation, and annual percentage population growth (Wilcox, 1992). They assumed that real GDP growth would drive stock market returns.

Before discussing the strengths and weaknesses of these three approaches, the findings of the above-mentioned research shall first be evaluated. Freeman et al's survey highlighted several factors that are important to investors and therefore are likely to affect their asset allocation decisions. Such factors include market liquidity, economic outlook, corporate governance, the quality of listed firms, and the presence of firms in attractive industries (Freeman & Bartels, 2000).

Desrosiers et al, in concluding that the RIM had predictive power for country selection, provided empirical evidence that an undervalued stock market (with the valuation being derived using the RIM) is likely to deliver superior returns in the future (Desrosiers, Lemaire, & L'Her, 2007). Mitchell Conover et al effectively showed that reductions in interest rates can be followed by increases in the values of stock market indices (Mitchell Conover, Jensen, & Johnson, 1999). Emanuelli et al provided evidence that exploiting stock market inefficiencies (in their case, earnings estimates revisions, which represent an anomaly to the Efficient Market Hypothesis) can lead to superior returns, and thereby act as a factor that can be used to measure the appeal of different equity markets (Emanuelli & Pearson, 1994).

Finally, with regards to the findings of the econometric regression modelling approach, Maysami et al studied the Singaporean stock market and several sectors in that market. They found statistically significant positive correlations between stock returns and the variables inflation, industrial production, short-term interest rates, M2 money supply, and the exchange rate. They discovered a negative correlation between stock returns and long-term interest rates (Maysami, Howe, & Hamzah, 2004). The findings involving inflation and exchange rates, in particular, are contrary to economic theory (as mentioned earlier, usually, negative relationships are expected between inflation and stock market returns, and between exchange rates and stock market returns). They cited several possible explanations for the unusual positive relationship between inflation and stock market returns: investors may have been buying stocks as a hedge against inflation thus driving up the prices of stocks, and, also, increases in expected inflation may have signalled a potential increase in real

activity, production and hence higher stock returns. Regarding the unusual positive relationship between the exchange rate and stock market returns, they posited that a stronger domestic currency was lowering the cost of imports for domestic producers thus making them more competitive internationally.

Finally, the short-term interest rate was positively correlated with stock market returns, whilst the long-term interest rate was negatively correlated, as expected. Consistent with theory, Maysami et al argue that the long-term interest rate serves as a better proxy for the nominal risk-free component used in the discount rate in many stock valuation models (as explained earlier, a higher discount rate reduces the present value of companies' future cash flows, thus lowering stock valuations).

Also using econometric modelling techniques, Islam et al discovered significant positive relationships between the Thai stock index and the variables interest rate, exchange rate, price-to-earnings ratio and market capitalisation. They discovered a negative relationship between the Thai stock index and inflation and bond prices (Islam, Watanapalachaikul, & Billington, 2004). Menike studied the Sri Lankan stock market and discovered a positive relationship between money supply and stock returns, and negative relationships between stock returns and the following macroeconomic variables: inflation, interest rate and exchange rate (Menike, 2006).

To consider the strengths and weaknesses of each of the three main approaches, firstly, the survey approach will be evaluated. Firstly, the survey approach is relatively easy to understand. It is far less complex than the other two approaches, particularly the econometric regression modelling approach. Also, providing a correct sampling procedure is followed and a sufficient number of investors respond to the survey, it is possible to accurately conclude whether or not the results are statistically significant (in other words, whether or not, using correct statistical procedures, inferences can be drawn about the population from the sample). Another advantage of the survey is that any number of factors that may affect investors' decision-making can be considered. In contrast, with multiple regression modelling, as mentioned in the Limitations of the Study section, only certain variables lend themselves to inclusion in the model. It would be extremely difficult, for example, to find an independent variable that could successfully capture the effect of the 2011 flooding in Bangkok on Thailand's SET index. It would, however, be comparatively easy to include a question in a survey that asked investors about the impact of the flooding and how it may affect the attraction of Thailand as a destination for portfolio investment. Also, rather than using stock market indices as *proxies* for the attraction of certain stock markets, the survey approach permits the researcher to ask the investor *directly* how attractive a certain stock market is to them as an investment destination. Probably the main drawback of the survey approach, however, is the difficulty in obtaining a sufficient number of responses. Freeman et al, for example, although conducting their survey on behalf of the International

Finance Corporation (IFC), were only able to achieve a response rate of 10.2%, or 32 responses out of a potential 305, when they mailed their survey to institutional investors located in Hong Kong, Singapore, the UK and the US (Freeman & Bartels, 2000). Results obtained with such a low number of responses would therefore not be statistically significant. Freeman et al attempted to survey institutional investors who are comparatively easy to locate. If retail investors (members of the public) were considered, it would be even more difficult to locate potential respondents.

The second approach, constructing hypothetical portfolios and using historical data to assess their performance, has the advantage of empirical accuracy. We can see exactly what returns would have been generated had certain investment strategies been followed. This is in contrast to the survey approach, where there may be a discrepancy between what investors *say* in a survey and what they actually *do*. In response to a survey question, an investor may say, for example, that he or she considers Indonesia to be the most attractive portfolio investment destination in Southeast Asia over the next 3-year period. Nevertheless, there is no guarantee that such an investor will actually overweight Indonesia in their portfolio. Also, investors can be, and frequently are, incorrect in their assessments. They may believe Indonesia to be the most attractive investment destination over the next 3-year period, yet there is no guarantee that Indonesia will deliver returns consistent with that belief. Using this second approach, however, with the benefit of hindsight, it is possible to see what investment strategies would have actually delivered the highest returns over previous years. It is therefore possible to make more objective conclusions as to what factors should be considered when making country-allocation decisions. How attractive a particular stock market is can then be better measured using these factors. One apparent disadvantage of this second approach is that researchers have generally not used statistical techniques to justify their conclusions. Consequently, it could be argued that, if their findings cannot be proved to be statistically significant, then there is always the possibility that their results occurred by *chance*. Nevertheless, the fact that other researchers using this approach have not justified their results with hard statistical evidence does not preclude another researcher from doing so. A further disadvantage of the second approach is that it lacks the precise predictive capabilities of the multiple regression model approach. With multiple regression modelling, values can be 'plugged into' the equation in order to predict a value for, say, the stock market index. This cannot be done with the second approach. We can say, for example, that stock markets are likely to rise following a reduction in the discount rate, but we cannot arrive at a precise predicted value for the relevant index as we can with the third approach.

Advantages of the third and final approach, the econometric multiple regression modelling technique, include the fact that it is possible to ascertain whether or not the results are statistically significant. It is also possible to arrive at a predicted value for the stock market index. It has predictive ability based upon historical data and robust statistical tests. One disadvantage of this approach is that it is

relatively complex, at least compared to the two other approaches. Also, the rigour of the statistical testing is such that only variables that pass stringent statistical tests are included in the final equation. Thus, many variables can get excluded because they are not statistically significant. As mentioned earlier, many variables cannot be included in multiple regression modelling. Political risk or the effect of natural disasters (such as the 2011 tsunami in Japan or the 2011 flooding in Bangkok), for example, are variables that are difficult to include, due to the difficulty encountered in measuring them. In fact, many qualitative factors are difficult to measure in such a way that they are appropriate to be included in multiple regression modelling.

From the perspective of the academic researcher, the third approach, econometric multiple regression modelling, is the superior approach. It provides empirical evidence, by means of rigorous statistical tests, for its findings. This is the main reason why this approach will be used in this study. Additionally, surveying investors is not practical due to the difficulties likely to be encountered in locating them and obtaining sufficient responses. Finally, the second approach, which would involve constructing hypothetical portfolios and calculating the past returns of these portfolios would be exceptionally laborious and open to error due to the level of detail involved. It also requires suppositions to be made *at the outset* regarding which variables should be considered (by using these variables in the selection criteria for the investment strategy), whereas, with multiple regression modelling, it is possible to begin with a *large number* of variables and then exclude the ones that prove to be statistically insignificant. The second approach may thus *miss* important variables, which is less likely to be the case with the third approach.

2.1.2 Investment Approach and Company Policy or Investment Mandate

One of the main factors that would influence which countries an investor chooses to invest in would be the investment approach used and, also, in the case of institutional investors, company policy or investment mandate.

Three of the main investment approaches are growth, value and index investing. Growth investors seek firms which are expected to experience high levels of earnings growth, whilst value investors seek stocks which are comparatively 'cheap' (for example, those with relatively low price-to-earnings ratios). Of relevance here, however, would be index investing. Indexes are weightings of stocks constructed by financial organisations, whose performance represents the performance of, say, a country's stock market, an industry, a region, or even all stocks globally. Index investors would construct their portfolios in such a way that the portfolio tracks a particular index. A passive indexing approach would involve weighting investments in the portfolio in exactly the same way that they are

weighted in the index. For example, the iShares MSCI (Morgan Stanley Capital International) Emerging Markets fund tracks the MSCI Emerging Markets Index. The index gives Thailand a weighting of 1.3%, and even stipulates which Thai-listed stocks should form part of the index. In attempting to track this index, the fund had 1.52% of its total assets invested in Thailand (iShares United Kingdom, 2010). In contrast to the passive approach, an active indexing approach would also seek to track an index. The portfolio manager, however, would consider the prospects for the various national markets in which he or she must invest. A market with an optimistic outlook would be 'over-weighted' in the portfolio (a larger proportion than suggested by the index would be invested), whilst a market with a pessimistic outlook would be 'under-weighted', or avoided altogether. It can thus be seen that investors tracking an index would generally not choose which countries to invest in. It would be dictated to them by the index weightings.

There are, generally, two asset allocation methods, the 'top-down' approach and the 'bottom-up' approach. The 'top-down' approach would involve, firstly, evaluating different countries according to, primarily, their macro-economic outlooks, then, having chosen the most promising countries, evaluating the industries within those countries. Having then decided on the industries with the most optimistic outlooks, the various firms within the chosen industries would be evaluated in order to decide which ones to invest in. Many argue in favour of the 'top-down' approach in preference to the 'bottom-up' approach (Silverblatt, 2010); (Reilly & Norton, 2006); (Kirzner, 2000); (Franecki, 1999); (Montgomery, 1991). In contrast, the 'bottom-up' approach begins by examining firms' fundamentals, regardless of industry or country. Similarly, whilst many 'top-down' investors begin by comparing countries, increasingly, investors are comparing global industries. Thus, investors following a strictly 'bottom-up' approach or an industry approach would not be comparing countries to decide which national markets to invest in.

Finally, a portfolio manager's investment mandate may be to manage a country fund, a fund that only invests in one country (an example would be a Singapore fund). Equally, with regards to company policy, it may well be the case that a portfolio manager is only permitted to invest in companies with a market capitalisation over a certain amount, or with a minimum level of average daily trading volume, thus avoiding small, illiquid stocks (Freeman & Bartels, 2000). Such restrictions could well prevent the portfolio manager from investing in whole national markets, or only permit him to invest in the few, largest firms in some markets.

Freeman's survey of foreign portfolio investors active in the Southeast Asian equity markets had the following results: with regards to investment approach, 52% declared themselves to be growth investors, 13% value investors and 6.5% index investors. With regards to asset allocation methods, 23% were 'bottom-up', 16% 'top-down', and 61% used a mixture of both methods. Also, 23% said

they compared stocks by country, 13% by industry, and 64% used a combination of both (Freeman & Bartels, 2000).

Justification for Inclusion

Thus, the justification for the inclusion of this factor in the study should be self-evident. A brief evaluation of any investment company's website, for example, will show that many funds are index funds or country funds, which would require that the managers of these funds invest in pre-determined countries, and even pre-determined stocks (they do not choose which countries to invest in). Examples would include Deutsche Bank's MSCI Emerging Markets Asia Total Return Net (TRN) Index Exchange-Traded Fund (ETF), which tracks the MSCI Emerging Markets Asia TRN Index (Deutsche Bank db x-trackers - Exchange Traded Funds, 2010), and Fidelity International's Malaysia Fund, which invests only in Malaysian equities (Fidelity International, 2010). Equally, on their websites many investment companies give a detailed explanation of the investment process that they use. For example, Amundi Hong Kong uses a bottom-up approach, as explained on their website (Amundi Hong Kong), whilst Brooke Capital and Allard Partners use a combination of both top-down and bottom-up factors in their investment approach (Brooke Capital Limited); (Allard Partners). From such investment process explanations, therefore, the fact that some fund managers follow a top-down, bottom-up, or industry approach can be clearly seen. Finally, as mentioned in the previous paragraph, Freeman and Bartels used this factor in their survey of foreign investors active in the Southeast Asian equity markets (Freeman & Bartels, 2000). The purpose of their research was similar to the purpose of this study. Their objective was to evaluate the Southeast Asian equity markets, and in particular the Thai market, in the immediate period following the Asian economic crisis of the late 1990s.

2.1.3 Economic Outlook

When deciding which national markets to invest in, an assessment of the economic situation both globally and in the relevant countries is crucial. It should be possible to identify countries with optimistic economic outlooks (these countries should be 'over-weighted' in a portfolio) and also countries with pessimistic outlooks (these countries should either be 'under-weighted' or avoided altogether).

An awareness of the stage of the business cycle in a specific country is an important consideration. In terms of their GDP growth,¹² economies go through cycles. This business cycle is characterised by 5 stages: peak, recession, trough, recovery, expansion, and then back to peak. The expansion phase is characterised by higher production, higher spending, and maybe signs of inflation. The recession phase, in contrast, is characterised by slower or negative growth in output and higher unemployment. Although an investor may invest in defensive stocks, such as pharmaceuticals and food companies during recessions, generally it would be more advantageous to invest in economies during their recovery and expansion phases. In order to identify what stage of the business cycle a country's economy is at, cyclical economic indicators are often used. These leading economic indicators (LEIs) are a set of economic variables whose values reach peaks and troughs before aggregate economic activity (real GDP) does. The housing industry is one such leading indicator (Reilly & Norton, 2006).

When assessing the economic outlook, many other factors need to be considered, such as GDP growth, inflation rates, interest rates, unemployment rates, exchange rates, export and import activity, industrial or manufacturing output, retail sales, housing starts, consumer and business sentiment, demographics, labour force participation rates, and fiscal and monetary policy, to name but a few.

Inflation rates (often measured by means of a Consumer Price Index) are extremely important to investors, and high levels of inflation are viewed negatively for many reasons. High rates of inflation usually occur when short-term economic demand exceeds the long-term supply constraint (more goods and services are demanded from a country's economy than that economy can physically produce, hence the price of goods and services increases). It may therefore be seen as a sign that the end of an economic expansion is near, and that a downturn may be imminent. A high level of inflation also destroys wealth, as cash flows lose their value and purchasing power. An increase in the expected rate of inflation will cause nominal interest rates to rise (as the high demand for money increases the 'cost' of that money), and governments may also raise interest rates in an attempt to slow down economic growth and reduce the rate of inflation. Inflation increases the uncertainty of future business and investment decisions, which in turn increases risk premiums. Research has frequently shown negative correlations between a country's inflation rate and its short-term stock market returns (Reilly & Norton, 2006).

High interest rates are also generally viewed negatively, whilst low interest rates are typically seen as a positive factor. In general, high interest rates lead to reduced borrowing, by both consumers and businesses, which, in turn, may lead to an economic slowdown. Rising interest rates also often lead to falling stock prices for other reasons. For example, when interest rates rise, investors' required rate of

¹² Gross domestic product (GDP) is the total amount of goods and services produced within a nation's borders in a year. GDP forecasts are closely monitored by investors.

return on stocks will rise too. The present value of future cash flows decreases with high interest rates. Thus, movements by central banks to raise or lower interest rates are of extreme importance to investors.

The unemployment rate is important. This measures the extent to which an economy is operating at full capacity. Unemployment is likely to be high during a recession, whilst sustained low levels of unemployment may be a sign that an economy is at a peak in the business cycle and that a downturn is imminent.

Concerning exchange rates, a weak or depreciated home currency should support export growth and diminish import growth. Goods produced in the home country become comparatively cheaper to importers from other countries, whilst imports become comparatively more expensive to individuals and businesses in the home country. Thus, it is generally considered that a weak home currency is a positive indicator for the stock market in the home country (Tainer, 1993).

Governments use fiscal and monetary policy tools to try to guide the economy. Fiscal and monetary policy attempts to affect interest rates and economic growth. In so doing it can affect financial market behaviour and price levels. In the US, the federal government and the Federal Reserve Board (the 'Fed') are responsible for the use of fiscal and monetary policy.

Fiscal policy aims to stimulate the economy through increasing demand for goods and services. This can be achieved through several means, for example by an increase in government spending on, say, infrastructure. This would increase the profits of the businesses that have been contracted, and would also create jobs for workers, who, in turn, would have more disposable income to spend on goods and services.

Monetary policy aims to affect the money supply, the amount of money available in an economy. An increase in the money supply, for example, increases the availability of money, thus decreasing short-term interest rates (the cost of money). With lower interest rates, consumers and businesses borrow more for investment and consumption. The money supply can be changed through the government either buying or selling bonds, reducing the interest rate charged to banks on short-term loans, or through lowering banks' reserve requirements. There is however a stimulation-inflation trade-off, with a higher money supply in the long-term leading to a higher price level (a higher rate of inflation). It should also be noted, however, that a monetary supply that is too restrictive decreases the supply of money and also raises interest rates. This could lead to reduced aggregate demand, and, maybe, an economic slowdown.

Thus, observing if a country is engaging in fiscal or monetary policy, and to what extent, would be an important consideration when assessing the state of its economy, and also where that economy is heading. One study, for example, examined stock returns from 16 countries during the period January 1956 to December 1995, in relation to monetary policy in both the US and the respective chosen countries. It was discovered that the highest returns were achieved by a hypothetical portfolio that only invested in US and foreign stocks when both US monetary policy and local policy were expansionary (during periods following reductions in the discount rate) and in Treasury Bills when US monetary policy was restrictive (in periods following increases in the discount rate) (Mitchell Conover, Jensen, & Johnson, 1999).

Also, it should be mentioned that the long-term growth of an economy is fundamentally determined by supply factors. Long-run growth will be determined by the size of a country's population, the labour force participation rate (what percentage of the population are working), the average number of hours worked per week, and labour productivity. The productivity level of the labour force, in turn, depends on how advanced the technology is in a nation; how skilful, well-trained and knowledgeable the labour force are; and the availability of adequate resources to invest and expand. Thus, an understanding of these fundamental constraints is important to gain an insight into the potential future economic growth of a country.

Finally, it should be mentioned that numerous studies have examined the relationships between macroeconomic time series variables and stock market returns using econometric regression modelling techniques. Frequently, statistically significant correlations have been discovered. Maysami et al, for example, studied the Singaporean stock market and several sectors in that market. They found statistically significant positive correlations between stock returns and the variables inflation, industrial production, short-term interest rates, M2 money supply, and the exchange rate. They discovered a negative correlation between stock returns and long-term interest rates (Maysami, Howe, & Hamzah, 2004). The findings involving inflation and exchange rates, in particular, are contrary to economic theory (as mentioned earlier, usually, negative relationships are expected between inflation and stock market returns, and between exchange rates and stock market returns). They cited several possible explanations for the unusual positive relationship between inflation and stock market returns: investors may have been buying stocks as a hedge against inflation thus driving up the prices of stocks, and, also, increases in expected inflation may have signalled a potential increase in real activity, production and hence higher stock returns. Regarding the unusual positive relationship between the exchange rate and stock market returns, they posited that a stronger domestic currency was lowering the cost of imports for domestic producers thus making them more competitive internationally. Finally, the short-term interest rate was positively correlated with stock market returns, whilst the long-term interest rate was negatively correlated, as expected. Consistent with

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Justification for Inclusion

There are various reasons to justify the inclusion of economic outlook as a factor in this study. Firstly, it is logical that if an economy is expanding then firms will earn more money, and, if firms earn more money, the share prices of those firms will also increase. Thus, in general, it is common sense that investors will want to invest in countries with positive economic outlooks. Equally, investment text books and investment news websites, such as Bloomberg, are full of evidence that the economic outlook of countries is a crucial factor in investment decisions. An article in Bloomberg from the 27th August 2010, for example, states that investors withdrew a net \$7.1 billion from equity funds tracked worldwide in the week prior to 25th August. The article explains that the reason for this was concern that the economies in the US and Europe were losing momentum, as they sought to recover from the global financial crisis (Chen & Yong, 2010). Also, investment companies, on their websites, will frequently identify macro-economic analysis as crucial to their investment process. Calibre Asset Management, for example, state that their macro-economic analysis of major economies includes analysis of "GDP growth, consumer and producer price levels, nominal and real interest rates, money supply, international exchange rates, employment levels, consumer spending, industrial production, savings rate, spot and future prices of major commodities, and many others" (Calibre Asset Management). Finally, other researchers have used this factor. A study that examined the relationship between monetary policy and stock returns has already been mentioned (Mitchell Conover, Jensen, & Johnson, 1999). A further study made the assumption that real GDP growth drives stock returns and used a multiple regression equation to examine the relationships between real GDP growth and other economic factors, such as fixed investment as a percentage of GDP and inflation (Wilcox, 1992).

2.1.4 Valuation (of the Market and of Firms)

Another factor of importance to investors when deciding which markets and securities to invest in is the valuation of the stock market and the securities in that market. Just because a particular country may have an optimistic economic outlook does not necessarily make it a good investment. If it is common knowledge that a country has good economic prospects, then the increased demand for stocks in that country will have pushed up their prices. Consequently, the stocks in that country may be comparatively 'expensive'. In contrast, a country with a negative economic outlook, but with 'cheap' stocks, may be an attractive opportunity for many investors.

A common means of valuing a stock, an industry, or a whole market, is to use the price-to-earnings ratio (P/E ratio).¹³ This is the ratio of a firm's share price to its earnings per share. A relatively high P/E ratio for a market may indicate that it is over-valued, and, consequently, that a 'bull' market is likely to end soon, and a 'bear' market commence soon (a 'bull' market refers to an equity market that is rising in value, whereas a 'bear' market refers to a falling market). Equally, a relatively low P/E ratio may be an indication that an equity market is under-valued, and therefore likely to rise in the future.

It is also important to consider the historical average P/E ratios for different stock markets. Some markets typically have comparatively high P/E ratios (Japan, for example), whilst others have comparatively low ratios. It should be questioned as to whether a stock market's P/E ratio is high or low compared to its own historical average, not compared to other countries' stock market ratios.

Justification for Inclusion

This factor is included in this study for many reasons. Firstly, the valuation of stocks, industries and markets is at the heart of financial theory. Most, if not all, relevant textbooks will teach that it is the role of the investor to estimate the 'intrinsic' value (the true value) of a stock and then compare that value with the actual trading value of the stock, so as to make a buy, hold, or sell decision (Strong, 2009); (Reilly & Norton, 2006); (Bodie, Kane, & Marcus, 2005). Equally, articles in investment-related news publications will frequently make reference to valuations, and in particular P/E ratios, as being crucial to investor decision-making. John Dorfman, for example, in an article in Bloomberg, explains that the P/E ratio is the 'single most important tool' that he uses in selecting stocks. He then goes on to highlight ten stocks that he believes are attractive investments because they are trading at a

¹³ There are other measures that can be used for valuation purposes. These would include the price-to-book value, the price-to-sales and the price-to-cash flow ratios. Also used, particularly when valuing individual stocks, is the discounted cash flow (DCF) method.

P/E ratio of 10 (Dorfman, 2010). Finally, other researchers have used this factor in their studies. For example, in his survey of foreign portfolio investors, Freeman discovered that nearly 90% of respondents used the P/E ratio to select and compare Southeast Asian equities. Also, just over 80% used a similar valuation measure, the price-to-book ratio (Freeman, 2000).

2.1.5 Political Risk

Political risk describes situations in which unanticipated changes occur in the business environment, which stem from changes in the political environment (Strong, 2009). These changes have the potential to affect firms' profits considerably. In thus damaging firms' profits, the relevant country's stock market is also adversely affected.

Many groups and organisations seek to evaluate and report on the levels of political risk in various countries.¹⁴ One such group is the PRS Group (Political Risk Services) and they use the following variables when assessing political risk in a country : government stability, socioeconomic conditions, investment profile, internal conflicts, external conflicts, corruption, military in politics, religious tensions, law and order, ethnic tensions, democratic accountability, and bureaucracy quality (Bodie, Kane, & Marcus, 2005).

There are many examples of political risk. Extreme examples would be government takeovers of companies or forced renegotiation of contracts. In April 2008, for example, Hugo Chavez nationalised the entire cement industry in Venezuela. Less extreme examples would be restrictions on the repatriation of income (dividends or profits from capital gains) or capital, or the imposition of other currency controls. Following the 2006 military coup in Thailand, for example, the military government sought to impose currency controls on foreign investors. This was, however, quickly revoked following a fall in the stock market in response to the news (Nguyen & Jinks, 2007); (Bremner, 2006).

Finally, country risk is a similar concept to political risk. It has been stated that political risk, together with economic risk, are the two components of country risk (Strong, 2009).

¹⁴ Examples would include country risk ratings (Moody's, S&P, Fitch, Economist Intelligence Unit, Euromoney, Institutional Investor, Milken Institute Capital Access Index, Overseas Private Invest Corp.), Transparency International's Corruption Perception Index, the World Bank, Business Monitor International, www.prsgroup.com – International Country Risk Guide, www.econ.pncbank.com/cra.htm, www.grai.com/links.htm, and www.ambest.com/ratings/cr.

Justification for Inclusion

The reasoning behind the inclusion of this factor in this study is intuitive. Unless an investor is adopting a short-selling strategy (which involves borrowing a stock and profiting from a *fall* in the value of that stock), the vast majority of investors are seeking investments and markets that will *rise* in value. Thus, if a country exhibits a high degree of political risk, then there is a comparatively higher chance that the stock market in that country will fall significantly at some point in the future, as investors rush to exit from that market at the onset of political turmoil. In 2010, for example, Thailand experienced severe political problems as anti-government protesters clashed with soldiers on the streets of Bangkok resulting in the deaths of nearly one hundred people, and the injuries of hundreds more. During this period investors exited the Thai stock market in huge numbers, resulting in declines in the SET index as they did so (Moestafa & Lim, 2010); (Teso & Nguyen, 2010). Generally, investors will avoid countries that exhibit a high degree of political risk.

It should be noted, however, that one study argues that countries with high political risk *should* be included in an investment portfolio, because it will improve the risk-return characteristics of the portfolio (the portfolio will achieve higher returns, with the same level of risk, or the equivalent returns, but with a lower level of risk), and, strikingly, it will also actually reduce overall portfolio risk (Cosset & Suret, 1995). The findings of this survey, however, should be questioned. Cosset and Suret explain the findings as being due to low levels of correlation between the returns from politically risky countries. However, most high-risk countries are also developing markets, with associated higher rates of economic growth, whilst most low-risk countries are developed countries with lower levels of growth. It could, therefore, be the case that the results are due to economic growth factors and not political risk factors.

2.1.6 Exchange Rate Risk

Exchange rate risk is a major factor that needs to be considered by investors before deciding to invest in foreign markets. When an investor buys a security denominated in a foreign currency, he or she is actually purchasing two assets : firstly, the foreign exchange and, secondly, the security itself. Both assets have the potential to appreciate or depreciate in value.

To illustrate exchange rate risk, suppose a UK investor converts £100,000 into US dollars in order to invest in the New York Stock Exchange. If, at the time of conversion, the exchange rate is \$1.49 :

£1.00, then the UK investor will invest \$149,000. The investor's US stocks may then appreciate 28% in value, such that the value of the investment, in US dollars, is \$190,720. If, however, the investor then seeks to sell his US stocks and convert the funds back into pounds sterling at a new exchange rate of, say, \$1.92 : £1.00, then the investor will receive £99,333. Thus, in spite of the security gaining in value by 28%, the UK investor experiences an overall loss of approximately 0.7% due to the appreciation of the pound against the dollar. The loss on the second asset, the foreign exchange, has thus offset the gain on the security.

For major currencies, the exchange risk of an investment can be hedged through the use of future or forward currency contracts, currency options, or even by borrowing foreign currency to finance the investment. In emerging markets, however, this is often impossible, due to the unavailability of such hedging tools.

In a global portfolio, where an investor has invested in securities in many different national markets, there is a good chance that the depreciation of one currency will be offset by the appreciation of another. Parry highlights this currency diversification as a benefit of global investing (Parry, 1998). Thus, the contribution of currency risk should be measured for the total portfolio, and not for individual securities or markets.

Justification for Inclusion

This factor is included in the study for various reasons. Firstly, exchange rate movements have the potential to significantly affect the returns that investors will achieve. It is therefore logical that investors should carefully monitor potential exchange rate movements before making overseas investments. It would be extremely foolish to fail to do this. Secondly, nearly all investment text books that deal with the subject of investing in foreign markets will devote considerable attention to this factor (Solnik & McLeavey, 2009); (Strong, 2009); (Reilly & Norton, 2006); (Bodie, Kane, & Marcus, 2005). Finally, other authors, fund managers and researchers also highlight this factor as important in investment decision-making (Silverblatt, 2010); (Chambers, 2005); (Mandella, 2002); (Parry, 1998); (Littman, 1994).

2.1.7 Liquidity

Liquidity is a major factor influencing whether or not investors choose to invest in certain equity markets, particularly small emerging economy stock markets.

Liquidity refers to how quickly and easily an asset can be converted into cash (in other words, sold) and still fetch a fair price. If a security is traded infrequently, then it may well be illiquid. An investor seeking to sell an illiquid security may find that there are very few buyers willing to pay a price close to the price at which the security was last traded. Consequently, if the investor must sell the security immediately then they will have to accept a market discount. As an extreme example, property is the most illiquid asset. Office buildings and manufacturing structures, for example, can potentially experience a liquidity discount of 50% (Bodie, Kane, & Marcus, 2005).

The transaction volume, size and depth of a market also give indications on the levels of liquidity in that market. Many emerging markets are extremely small and, if an investor has invested a large amount in such a market, then it may take a long time for the investor to exit from that market, and he or she may have to accept a significant drop in prices, due to the lack of buyers. A small market is not necessarily illiquid per se. It may have large numbers of investors frequently trading its stocks. It could be illiquid, however, for institutional investors who manage extremely large-value funds.

Justification for Inclusion

To justify why this factor should be included in the study, firstly, Freeman discovered this factor to be of extreme importance to investors when, in 1999, he carried out a survey of foreign portfolio investors active in the Thai and Southeast Asian equity markets. Many institutional investors faced company policy constraints which were related to liquidity. Many were, for example, only permitted to invest in firms with a certain minimum level of market capitalisation, or minimum average daily trading volume (Freeman, 2000). Equally, 'improving market volume and liquidity' was cited by 72% of respondents as a way to make it easier for foreign investors to invest in the Southeast Asian equity markets (Freeman & Bartels, 2000). Finally, liquidity is frequently mentioned on investment websites, in textbooks and by other researchers, and fund managers as being a major factor that should be considered by investors when making investment decisions (Strong, 2009); (Bodie, Kane, & Marcus, 2005); (Chambers, 2005); (Kirzner, 2000); (Littman, 1994).

2.1.8 Market Volatility

Volatility is a similar concept to risk, and is generally measured in the same way: the standard deviation of returns that a market (or a stock, an industry, a region, or the world) delivers over a certain period (daily, monthly or annually, for example). In simplistic terms, a volatile market would

be reflected in an index with significant and frequent 'peaks' and 'troughs', whilst a market with low volatility would have a much smoother, less erratic index.

Traditionally, emerging markets have been classified as more volatile than developed markets, although, following the recent global financial crisis, many are challenging this assumption (Dimitrijevic, 2009). Using the MSCI indexes for world developed markets and emerging markets, during the period from May 1987 to May 2007, volatility, as measured by annualised standard deviation of returns was 13.8% for the world index and 22.6% for the emerging index. Geometric mean returns in US dollars, however, were 8.9% per year for the world developed market index and 14.5% per year for the emerging market index (Solnik & McLeavey, 2009). Thus, emerging markets are, generally, viewed as a higher risk, and higher expected return investment than developed markets.

It is important, therefore, for certain investors such as fund managers to understand the levels of volatility in different national markets before deciding whether or not to invest in those markets. This is because a fund manager's investment mandate will specify the level of risk appropriate for each fund that he or she manages. Funds are frequently sold to investors based on classifications of the level of risk that they offer. A 'conservative' fund, for example, would be expected to hold a high proportion of low risk assets, with low levels of volatility (such as cash, money market instruments, bonds, and developed market stocks). It would not be expected to hold a high proportion of volatile, emerging market stocks.

Emerging markets have generally been more volatile for various reasons, including unstable political and social situations, the high possibility of crises, and the lack of sophisticated investors to 'smooth out' the stock market volatility.

Justification for Inclusion

Justification for the inclusion of this factor in the study is, as already mentioned, the fact that different funds are designed to offer different levels of risk to the consumer. HSBC, for example, offers a fund named 'HSBC World Selection – Cautious Portfolio', which has only 0.2% invested in volatile emerging markets equity (HSBC, 2010). It also offers a fund named 'HSBC World Selection – Dynamic Portfolio', which has 7.8% invested in emerging markets equity (HSBC, 2010). Thus, fund managers would generally have to follow strict guidelines with regards to the percentages of different asset classes that certain funds would be permitted to invest in. In doing so, the volatility of different asset classes and different markets would be an important factor in their decision-making. Obviously, a portfolio manager in charge of a 'cautious' fund would not be permitted to invest in high-risk, highly volatile equities in an obscure emerging market. It is also the case that many fund Fact Sheets

will specify the level of volatility of the whole fund. Thus, it should be expected that the volatility of different markets is a factor that investors consider when deciding which countries they should invest in.

2.1.9 Regulations and Restrictions Placed Upon Foreign Investors

In research carried out by Freeman (2000), survey respondents were asked to what extent they considered it 'easy' or 'difficult' to invest in each of the Southeast Asian equity markets. Singapore ranked highest, with 80% regarding investing in this market as 'easy' or 'very easy', with the remaining 20% being neutral. Jakarta was the lowest ranked, with Bangkok being only slightly higher. Less than 30% regarded investing in Thailand's SET as 'easy' or 'very easy', whilst nearly 40% considered it 'difficult' or 'very difficult' (Freeman & Bartels, 2000).

Thus, investors' assessments of how easy or difficult it is to invest in certain equity markets could well be a factor influencing their decision as to whether or not to invest in those markets. Although the respondents to Freeman's survey may have had other factors in mind when they replied to this specific question, it is likely that regulations and restrictions placed upon foreign investors were a significant factor.

Justification for Inclusion

The justification for the inclusion of this factor in this study has already been given in the opening paragraph of this section: it has already been used by Freeman and Bartels in their research (Freeman & Bartels, 2000). It is also intuitive: all things being equal, an investor would prefer a market that is 'easy' to invest in, with regulations and restrictions that are not burdensome, over a market that is 'difficult' to invest in due to burdensome or restrictive regulations.

2.1.10 Corporate Governance (Including Respect for Minority Shareholders, Transparency, and Disclosure Levels)

Corporate governance, typically, refers to the relationship between a firm's board of directors, its management and the shareholders, and how this relationship determines the direction and performance of the firm (Wheelen & Hunger, 2008). Historically, there have been conflicts between the goals and interests of a firm's management and those of its shareholders. It should be the goal of

management to create value for the owners of the firm, the shareholders. Nevertheless, frequently management have acted in their own interests rather than in the interests of shareholders. A firm exhibiting good corporate governance should have a largely independent board of directors overseeing management and ensuring that they are acting in the interests of the firm's shareholders.

With regards to emerging markets, in particular, standards of corporate governance have often been poor. Majority shareholders have sometimes taken advantage of their controlling interest in the company to the detriment of minority shareholders. In a survey of foreign portfolio investors carried out by Freeman in 1999, most of the respondents (over 56%) cited insufficient minority shareholder rights as one of the main weaknesses of the business environment in Thailand (nearly 70% cited low corporate governance levels as one of the main weaknesses) (Freeman, 2000). The globalisation of financial markets, however, is leading to an improvement in national regulations in this respect.

Ten widely-recognised factors contributing to good corporate governance are highlighted below.

- a. Transparent ownership: the ability to identify the major shareholders, director and management shareholders, and cross-holdings.
- b. Board size: establishment of an appropriate number of board seats, optimally 5-9 (the procedure for the appointment of the board is also of importance).
- c. Board accountability: the board's role and responsibilities should be defined in published guidelines, and used as bases for board compensation.
- d. Ownership neutrality: prevention of anti-takeover defences that shield management from accountability. Shareholders should be notified at least 28 days before shareholder meetings. They should also be allowed to participate online.
- e. Broad, timely and accurate disclosure: financial and operating performance, competitive position and relevant details (such as board member backgrounds) should be fully disclosed in a timely manner. There should be multiple channels of access to this information and all shareholders should have full access.
- f. Accounting standards: internationally recognised accounting standards should be used for both quarterly and annual reporting.
- g. Dispersed ownership: no single shareholder or group should be allowed privileged access to or excessive influence over decision-making.
- h. Independent audits and oversight: annual auditing should be performed using an independent and reputable auditor (and, preferably, an internationally-recognised auditor). Independent committees should oversee auditing, internal controls, and top management compensation and development.

- i. Independent directors: no more than half of the directors should be executives of the company, and at least half of the non-executive directors should have no other ties to the company.
- j. One share, one vote: all shares should be assigned equal voting rights, and equal rights to distributed profit (Eiteman, Stonehill, & Moffett, 2004).

It should be noted that disclosure levels and levels of transparency are important features of corporate governance. Material information (information that will ultimately affect a firm's share price) should be disclosed thoroughly, accurately, and in a timely fashion, to all investors. No one group of investors should have an advantage over others in this respect. Both the quality and quantity of information disclosed should be high.¹⁵ Also, as mentioned above, there should be multiple channels of access to this information, such that all investors can easily gain access to this information. Transparency helps to prevent the corruption that inevitably occurs when a select few have access to important information and use it for personal gain.

Justification for Inclusion

This factor is included in the study because other researchers, authors and fund managers have already highlighted its importance. As already mentioned in the second paragraph in this section, Freeman discovered low corporate governance levels and insufficient minority shareholder rights to be high up on foreign investors' lists of grievances with regards to Southeast Asian equity markets (Freeman, 2000). Others have also cited this factor as significant (Mandella, 2002); (Kirzner, 2000); (Littman, 1994).

2.1.11 Availability and Quality of Research and Investment Information

As mentioned above, when investing in equity markets, obtaining information is crucial. This can be a problem for foreign investors when investing in emerging markets. They are frequently at a considerable disadvantage in comparison to local investors in this respect. There are many reasons for this. They may be in a different time zone and thus receive information much later than locals. Foreign investors may also face language barriers, a lack of availability of good quality information in their own language, low levels of disclosure and transparency, and also issues such as poor regulation

¹⁵ In a survey of foreign portfolio investors active in the Southeast Asian equity markets, with regards to subjective measures as a means to assess listed companies, 93% of respondents considered the *quality* of information disclosed by companies as 'important' or 'very important', whilst 57% judged the *volume* of information disclosed to be 'important' or 'very important' (Freeman & Bartels, 2000).

of the financial markets and insider trading. Importantly, investors also require sophisticated analysis of information released by listed companies (analyst reports, for example). This factor differs from the disclosure level component of the previous factor in that the previous factor was dealing with the primary information released directly by the firm. This factor, however, is dealing with reports and research produced by third parties, such as analysts, as they assess and evaluate the primary information.

It has been remarked that

“...the fact remains that throughout the world’s emerging markets, the lack of high-quality investment information is a serious impediment to capital formation” (Strong, 2009).

Thus, the availability and quality of investment information and research may well be an important factor affecting foreign portfolio investors’ decisions with regards to which countries to invest in.

As a caveat, however, it should be mentioned that many investors look for ‘neglected’ firms. These are firms which are not highly followed by analysts and investors, which receive little attention from institutional investors, and about which less information is available. The reasoning is that such firms are more likely to be mispriced, and hopefully under-valued, than firms which receive a lot of attention, and about which a great deal of information is readily available. It would almost certainly be the case that there would be a greater chance of finding such under-valued, neglected firms in less efficient, emerging markets. Thus, paradoxically, the lack of information may actually attract some investors. They are hoping to find the ‘bargain’ that other investors have not seen due to the lack of information and lack of attention.

Justification for Inclusion

This factor is included in the study because, as mentioned earlier in this section, it has been recognised by at least one author as being a relevant factor (Strong, 2009). In his opinion, the lack of high-quality investment information is preventing investors from investing capital into emerging markets.

2.1.12 Inefficiency of Markets

An important concept in investment theory is that of efficient capital markets and the efficient market hypothesis (EMH). A significant amount of research has been carried out in the last twenty years to test whether or not capital markets are efficient. The results have important implications for investors.

“...In an efficient capital market, security prices adjust rapidly to the infusion of new information, and, therefore, current security prices fully reflect all available information”
(Reilly & Norton, 2006).

Thus, in an efficient market, it should be extremely difficult for investors to discover securities that are either under-valued or over-valued. All security prices should adjust quickly to the arrival of new information, such that their prices fully reflect the *intrinsic* value of the security. If, for example, news arrives that a firm has just won a large contract that will increase its sales and profits, and thereby increase the intrinsic value of that firm’s stock, then many investors will attempt to buy this stock. The increased demand for this security will push up its market price until its price accurately reflects the new information.

The results of many studies have provided much support for the EMH, although many anomalies exist. The implications for investors, in simplistic terms, are that it is extremely difficult to find under-valued, or over-valued, stocks in efficient capital markets. There are such a large number of investors carefully analysing these markets and responding quickly to the arrival of news, that it is difficult to find ‘bargains’.

Whilst developed equity markets are generally considered to be efficient, this is not always the case for emerging markets. In developed markets information flows are plentiful, accurate, regulated and timely; there are a large number of sophisticated and knowledgeable investors and analysts; and large institutional investors are, for example, expending significant resources in their investment research and analysis. This is, however, not necessarily the case for emerging markets. Such markets may be small and illiquid, thus not attracting the largest global institutional investors. The total number of investors operating in the market may be relatively small. Many investors may not be particularly knowledgeable and may not employ sophisticated techniques to evaluate securities. Many stocks, particularly smaller ones, may be neglected and not covered by analysts. In emerging markets, therefore, there may well be many cases where stocks are either over-valued or under-valued. If short-selling is possible, then the over-valued stocks could be sold short. The under-valued stocks could be purchased and then sold once the market price had adjusted to accurately reflect the true price of the stock, thus generating profit.

In discussing the pitfalls of investing in the Vietnamese stock markets, for example, Geoffrey Ng highlights the inefficiency of these markets by stating the following:

“Vietnam’s financial markets are still young, and are dominated by retail investors who invest based on sentiment rather than fundamentals. In the short run, market movements are driven by a herd mentality, and during periods of high euphoria investors become foolishly willing to pay any price for the Vietnam growth story.....On the flip side, when retail investors feel panicked, Vietnamese markets will have a definite tendency to over-correct, creating absurdly attractive valuations for strong companies with good long-term earnings prospects. By remaining disciplined and being wary of market signals, you will almost certainly out-perform the benchmark index” (Ng, 2010).

Thus, due to inefficiencies in emerging markets, there is the potential for a knowledgeable and skilful investor to earn the kind of profits that he or she would not have easy access to in a more developed, efficient market. The inefficiency of some emerging equity markets therefore is often a factor that attracts investors.

The issue of whether or not capital markets are efficient, and the testing of the EMH, has been an extremely well-researched area in recent years. Numerous methods have been used to test the efficiency of stock markets. Autocorrelation tests of the independence of stock returns over time have been used, for example. (Reilly & Brown, 2005) According to the EMH, the market adjusts very quickly, almost instantaneously, to the arrival of new information. Thus, if positive information concerning a certain stock arrives, then the price of that stock should adjust (increase in this case) over a short period of time (one day, for example). For this reason, after the short period of time during which the stock price should have adjusted, the price of that stock should not *continue* to increase as a result of the positive news. Thus, the EMH contends that stock returns over time should be independent of each other. The autocorrelation tests measure whether or not stock returns are independent of each other. The results of these tests have typically indicated insignificant correlation in stock returns over time, thus confirming the theory that stock markets are efficient.

Another popular method that has been used to test market efficiency is event studies. (Reilly & Brown, 2005) Event studies examine the impact of the release of certain types of news, such as unexpected world events and economic news, on stock prices. The EMH contends that stock prices adjust very quickly to the infusion of news. These event studies have evaluated how long it takes stock prices to adjust to, say, announcements regarding interest rates, inflation and other important economic variables. Although there have been some anomalies (for example, when a firm’s earnings exceed consensus estimates, studies have found it takes several weeks for the firm’s stock price to

adjust to the new information), most event studies have generally shown that stock prices adjust extremely quickly to the arrival of new information. In most cases, stock prices adjust to the new information within 1-3 days, or less.

The implications of markets being efficient are that it is extremely difficult for investors to earn *abnormal returns* (returns that exceed the returns of the overall market). In other words, the market adjusts so quickly to the arrival of new information, that investors cannot 'beat the market'. If an investor discovers some new information regarding a stock that will influence its price, he or she cannot act on that information before the market has already responded to it and priced that information into the stock price. Various studies, therefore, have examined whether or not certain groups of investors can 'beat the market', and outperform the relevant market index. Studies have, for example, evaluated whether or not acting upon the advice of experienced stock analysts can generate returns greater than the market. Numerous studies have also assessed the performance of professional money managers (mutual fund managers, for example), to see whether or not they can outperform the market. (Reilly & Brown, 2005) The results of these tests are well-publicised, and the studies have shown that very few investors can *consistently* outperform the market.¹⁶

Justification for Inclusion

This factor is included in the study because many investment companies openly state that they seek to exploit mispricings in inefficient markets. AXA Rosenberg, for example, base their investment approach on four core beliefs, the second of which is that "markets are.....not perfectly efficient", and that they seek to identify under- and over-priced stocks in such markets (AXA Rosenberg). Daiwa SB, also, state that their investment philosophy relies on "taking advantage of market inefficiencies" (Daiwa SB Investments).

2.1.13 Effective Regulation of Capital Market and Listed Firms

An earlier section dealt with the importance of corporate governance, which covered other more specific issues such as respect for the rights of minority shareholders, transparency and disclosure levels. In order to ensure that firms exhibit satisfactory levels of corporate governance, it is necessary that a country's capital market and its listed firms be adequately regulated. It is necessary, for

¹⁶ This has contributed to the rise in popularity of index investing and exchange-traded funds (ETFs), which aim just to track an index. The rationale behind this kind of investing is that, if even professional investors cannot outperform the index, then it would make more sense to simply construct a portfolio that replicates the index, and produces returns consistent with those produced by the index.

example, that firms are forced to comply with the minimum required disclosure levels, that incidences of corruption, insider trading and abuse of minority shareholders' rights are identified and punished.

In a survey of foreign institutional investors active in Thailand's SET equity market, over 70% cited 'improving the regulatory environment' as a way of making investing in the SET easier (Freeman, 2000). It could therefore be surmised that effective regulation of a country's capital market and its listed firms is a factor that could well affect whether or not an investor decides to invest in a specific country.

Justification for Inclusion

This factor is included in the study because other researchers and authors have cited it as being of importance (Mandella, 2002) (Freeman, 2000).

2.1.14 Quality of Listed Firms

It is true to say that a good firm may not necessarily be a good investment, whilst a bad firm may not necessarily be a bad investment. A firm may be well-managed, achieve excellent financial results and have great prospects. Nevertheless, if all investors are aware of this, then such a firm may well be over-valued and, therefore, not be a good investment. As an analogy, there would be no point in purchasing a Mercedes Benz for a price higher than the usual retail price, in spite of the exceptionally high quality of the car. Equally, a firm may be poorly-managed and have poor financial results, and yet may be a good investment if it is under-valued and there is some evidence of hope for future improvement. Nevertheless, it would be fair to say that the quality of firms listed on a country's stock market is a factor that will influence whether or not a foreign investor decides to invest in that country. In general, investors do not want to invest in poorly-managed, poorly-performing companies.

The quality of a firm can be measured in many ways. Objective, quantitative methods can be employed, such as financial statement analysis and the development of financial performance measures and ratios. Also, more qualitative methods can be used, such as assessments of management ability, the expertise of employees, the loyalty and commitment of employees, how quickly the firm can adapt to a changing business environment, and other such factors.

In terms of the latter (the use of qualitative methods), for example, in his survey of foreign portfolio investors active in the Southeast Asian equity markets, Freeman attempted to discover how important

various subjective measures were to investors in their evaluations of firms. It was discovered that 97% of respondents judged 'general management ability' as 'important' or 'very important', whilst 95% of respondents considered 'focus on core business' as 'important' or 'very important' (Freeman & Bartels, 2000). Also, the Vietnamese securities company, Ho Chi Minh City Securities Corporation (HSC), in providing research on Vietnamese-listed firms to their customers, emphasise the importance of management ability in their assessments:

“HSC research department places great importance on.....gaining a good understanding of the quality and strategic capability of management in the companies we follow. We believe that the best companies are first and foremost to be identified by excellent leadership which in turn can deliver superior performance year in and year out” (Ho Chi Minh City Securities Corporation).

In terms of quantitative methods, fundamental analysis should be discussed. Fundamental analysis forms an integral part of most investment analysis. It involves determining the intrinsic value of a firm's shares by examining the variables that determine value, such as current and future earnings or cash flows, interest rates and risk variables. In particular, it involves in-depth analysis of a firm's financial statements (in addition to macro-economic and industry analysis, for example).

Although fundamental analysis is properly defined as an attempt to estimate the intrinsic, or “proper”, value of a firm's stock, when referring to a firm's “fundamentals”, it is generally understood to encompass a whole range of financial performance measures and ratios (Bodie, Kane, & Marcus, 2005). These ratios and measures are largely calculated using information available on a firm's financial statements.

There are a large number of financial performance measures and valuation measures and techniques that are used and calculated. In terms of valuation, for example, some of the most popular performance measures and techniques that are used include the price-to-earnings ratio, the price-to-book value ratio, the price-to-sales ratio, the price-to-cash flow ratio, and discounted cash flow analysis. Drawing information primarily from the firm's financial statements and accompanying notes, analysts would also seek to evaluate the firm using performance measures in the areas of activity, liquidity, solvency, and profitability. Such measures would include, for example, the current ratio, the quick ratio, debt ratios, and margin analysis.

As mentioned earlier, different investors have different styles and approaches. Consequently, when carrying out fundamental analysis, different investors will be focusing on different aspects and different performance measures. In general, however, it would be accurate to say that the quality of

the fundamentals of the firms listed on a particular national stock market is a significant factor determining whether or not foreign portfolio investors choose to invest in that market.

As an illustration, the 1997 Asian financial crisis began in Thailand. Research was carried out assessing the state of Thailand's listed corporations in the period leading up to mid-1997. This assessment used a range of investment performance measures and techniques commonly used by portfolio investors, including, for example, return on assets, return on equity, the debt-to-equity ratio, net profit margin, economic value added, and Altman's Z-score, amongst others. It was discovered that Thai corporations experienced a marked deterioration, in terms of these fundamentals, in the years preceding the 1997 crisis (Freeman, 2000).

A country's stock market is viewed as a leading economic indicator for that nation's economy. In other words, if the stock market begins to decline, then that is an indicator that an economic recession or downturn may well be imminent. Confirming this, Thailand's SET index began trending down in the years prior to the crisis. The SET index actually peaked in December 1993, and experienced a rapid decline from January 1996 onwards, more than one year before the onset of the crisis.

“This decline in the index was almost certainly due in large part to the fact that major institutional portfolio investors were becoming cognisant of this deterioration in corporate performance, as evidenced in the comparative measurements and ratios they applied, and were contracting their Thai equity portfolio accordingly” (Freeman, 2000).

Foreign investors were, therefore, pulling out of the Thai stock market due to the fact that the quality of Thai-listed firms' fundamentals was deteriorating. Thus, the quality of firms, in terms of their fundamentals, is a major determining factor for investors when deciding whether or not to invest in a country's stock market.

Also, due to increasing globalisation, many investors now invest on a global industry or sector basis. Thus, instead of initially deciding upon a country to invest in, and then selecting stocks from within that country, they decide first on an industry to invest in, and then select stocks from within that industry, regardless of the country of origin of those stocks. Thus, if an investor decides he wants to invest in the cement industry, then he may well compare a Thai cement firm with a Mexican cement firm. This is all the more reason why the quality of a firm (as measured using both quantitative and qualitative methods) is of high importance. The local firm needs to compete with other firms located in other countries, not just with firms within its own national boundaries.

Justification for Inclusion

This factor is included in the study for several reasons. Firstly, as mentioned earlier in this section, it has been included in the research of others and found to be of significance. Freeman and Bartels discovered that both qualitative and quantitative measures of firms were important considerations for investors (Freeman & Bartels, 2000). Secondly, most investment firms will include measures of the quality of companies that they consider as investment prospects. Two of the 'screeners' that Goldman Sachs use when selecting firms' stocks, for example, are 'superior management' and 'strong earnings growth' (McGee, 1997). A co-founder of PXP Vietnam Asset Management also cites the presence of "some extremely badly run companies" in Vietnam as a relevant factor (Ismail, 2008). Finally, it also makes intuitive sense: few investors are likely to be attracted to a stock market where poorly-managed and poorly-performing companies proliferate.

2.1.15 Presence of Firms in Attractive Industries

The previous section was concerned with internal factors that affected the quality of firms. There are, however, external factors that affect a firm's performance. One example, which has already been discussed, would be the performance of the economy in which the firm operates. Another factor would be the firm's industry outlook. As already mentioned, investors following a top-down approach, having identified the most promising national economies, would then attempt to identify the most promising industries within those economies. These would generally be the industries projected to experience the most rapid growth. Also, as already discussed, some investors, instead of first deciding upon which country to invest in, will first choose which global industries to invest in. Thus, the performance of the industry in which a firm operates is of relevance to the investor in his or her decision-making process.

Freeman noted that in the immediate post-Asian economic crisis period (July 1997 to December 1999), the equity market indices of South Korea, Singapore and Hong Kong rose, respectively, by 29%, 20% and 9%. Conversely, the indices for Indonesia, Malaysia and Thailand fell by 14%, 26% and 32%, respectively. One of the causes of this, according to many, was a "two-tier effect" between the Northeast and Southeast Asian stock markets, due in large part to the former having a much higher representation of stocks in the technology sector (Freeman, 2000). At the end of the 1990s, the sectors of most interest to institutional investors were technology, IT, telecommunications and internet. Stocks in these sectors were lacking in the Southeast Asian equity markets, whilst, particularly in the Thai market, stocks in less attractive sectors, such as property development, and banking and finance

were over-represented.¹⁷ In Freeman's survey, for example, 70% of investors considered the IT industry to be under-represented in the Southeast Asian equity markets. 60% also believed the electronics industry to be under-represented. 78% of respondents considered the banking and finance industry to be over-represented. 91% of respondents expressed a potential interest in Initial Public Offerings (IPOs) in the IT sector, with 67% saying the same thing about the electronics and communications sectors (Freeman & Bartels, 2000).

In conclusion, therefore, it can be surmised that the presence of firms in attractive industries is a factor that will influence which national markets investors choose to invest in. There are various industries, sectors and themes that may well be of interest to institutional investors today in Asian countries. These could well include food, consumer goods and services, infrastructure, resources and 'green' companies. There are various drivers behind this, including predicted shortages of food (rice shortages, for example) and resources, significant population growth, rising incomes, the rapid development of Asia, and increasing regulation relating to 'green' issues.

Justification for Inclusion

This factor is included in the study because other researchers have found it to be of importance (Freeman & Bartels, 2000). It also makes intuitive sense: investors following a top-down, or industry approach, will look for attractive industries, and if a country possesses an abundance of good quality firms in these industries, then it will attract investors.

2.1.16 The Explanatory Variables

The objective of this research was to provide *empirical evidence* that certain factors do affect investors' decision-making. In order to provide this empirical evidence, econometric multiple regression modelling techniques were employed, with the intent of finding statistically significant relationships between explanatory variables that should affect investors' decision-making and a dependent variable that acted as a proxy for the attraction, or appeal, of the Southeast Asian equity markets.¹⁸ For this reason, and, as will be elaborated below, it was not possible for all of the above fourteen factors to be chosen as explanatory variables.

¹⁷ It should also be noted that these sectors (property, and banking and finance) are highly correlated. Thus, investors wishing to benefit from industry diversification would have been unable to do this in the Thai stock market.

¹⁸ The implication is that the explanatory variables that are found to have statistically significant relationships with the dependent variable are the factors that affect investors' decision-making.

Instead, seven variables, *derived from* the fourteen factors, were used as explanatory variables. These seven variables were:

- *short-term interest rate*
- *price level / inflation*
- *M2 money supply*
- *exchange rate*
- *valuation of the market (market price-to-earnings ratio)*
- *exchange rate risk*
- *market volatility*

As can be noted, the first four of these variables were derived from only one of the above-mentioned fourteen factors, 'Economic Outlook'.

Three of the main reasons behind the choice of these explanatory variables were, firstly, the ability of the relevant variable to be measured quantitatively (and thereby be used with ease in multiple regression modelling); secondly, the precedence set by researchers who have previously studied this subject (this will be discussed next); and, thirdly, the availability of monthly data over the sample period for each variable and for each country being studied (from January 2000 to September 2011).

As mentioned previously, many other researchers have used multiple regression modelling techniques to find statistically significant relationships between economic time-series variables and stock market indices. Some of the explanatory variables that they have used are: inflation, industrial production, short-term interest rate, long-term interest rate, M2 money supply, and exchange rate (Maysami, Howe, & Hamzah, 2004). Also using econometric modelling techniques, Islam et al, when studying the Thai stock market, used the variables interest rate, exchange rate, price-to-earnings ratio and market capitalisation (Islam, Watanapalachaikul, & Billington, 2004). Finally, Menike studied the Sri Lankan stock market and employed the explanatory variables money supply, inflation, interest rate and exchange rate (Menike, 2006).