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Would Bond Market be More Viable Investment Alternative to the Stock Market?

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Abstract

This paper investigates the co-movement of stocks and bonds on a monthly basis for the period of Jan 1998 until Dec 2008. Average returns and standard deviations for both bond and stock market are computed and comparison is performed to determine which market provides a better return, less volatile and high liquid especially during stress events. The finding indicates that the bond market on the average has outperformed the stock market during the period of the study especially during stress events. Furthermore, bond market seems to be more stable instrument indicated by lower volatility vis-à-vis stock as well as more liquid instruments as indicated by high volumes. The low interest rate regime as a result of interest rate cuts further increases bond yields and makes them a safer and more attractive investment as compared to stock. The study concludes that bond market can become more viable investment alternative than the stock market. In addition, the government plan to liberalise the bond market by allowing lower rating to be traded could spur more interest. The bond market also is expected to expand the issuance of securitisation base investment product which likely to offer yield enhancement hence, making bond market more attractive.

Keywords*: Bond, Stock, Performance*

1. BACKGROUND OF THE STUDY

In the Malaysian capital market, the development of bonds has been totally outpaced by the mercurial growth of equities. In fact, equities have captured investment limelight for so long that, as an investment option, bonds is little known to the average Malaysian investor. As a result, Malaysians have tended to exclude bonds from their investment portfolios. However, this is set to change in the near future. The Asian financial crisis in 1997 and credit crisis in 2008 have highlighted the critical need for a more balanced mix of equity and bonds as financing and investment choices in the capital market. Indeed, with the stock market languishing for most of the year, it is not surprised that many investors are giving bonds a closer look. At the Edge-Lipper Malaysian Unit Trust Fund Awards 2000, the Commerce-Trust Lifetime Bond Fund beat 90 other funds to win the Best Overall Performance award for the one-year category. It has achieved the highest absolute return of 9.81% in 2001 (figure is taken based on the last recession which happened in US and spilled over the effect globally). The conservative nature of bond investments attracted investors who wanted to limit their risk and yet reap good returns.

2. PROBLEM STATEMENT

Stocks and bonds have very different risk-return characteristics. In general, while stocks are more volatile than bonds, over the long run, stocks are expected to yield higher returns than bonds. However, some investors are still favour to invest in bonds. The bond in general offers

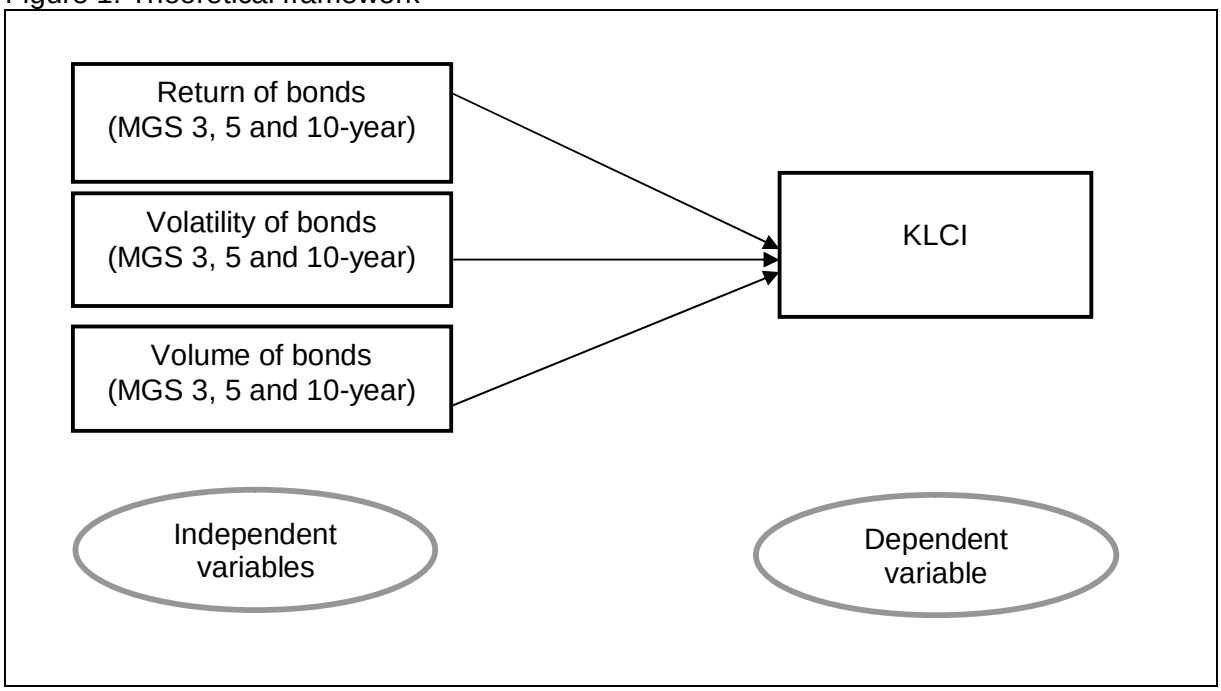
advantage to the investor of which it offers steady income stream, it gives relatively attractive yield, offers high liquidity, lower risk as compared to stocks, offers feature such as hybrid and convertible and the holders generally ranking higher in terms of seniority of claim should any insolvency occurs. During stress events such as recession, market crash and crises, investors would decide to invest in low volatile but high liquid investment products. In many cases, bond is low volatile than stock due to its features and its seniority of claims. For the purpose of this study, which using government bonds (MGS), it should provide lower volatility as compared to KLCI as government securities can be classified more secure. Liquidity also would be always being part of the main factors to be considered before investing. Liquidity is vital as it determines the probability of converting securities to cash. Based on historical trends, government bond is always the highest liquid instrument especially during stress events. Given these three key points, does this mean bond is more viable instrument than stock?

3. RESEARCH OBJECTIVE

As the economy progresses and the resulting affluence of individuals, the bond market should provide individuals with an investment alternative. The main purpose of this dissertation is to examine whether the Malaysian bond market is more viable investment alternative than the stock market. This objective will be achieved by examine the return, volatility and liquidity of bond and stock market. Instruments which provide high return, low volatility and high liquidity should be the main preference for investors to invest especially during stress events.

4. THEORETICAL FRAMEWORK

Figure 1: Theoretical framework



Based on the above theoretical framework, this study measures the sustainability of return of bond market vis-à-vis stock market during the period of time for the purpose of this study (1998 to 2008). This study also will measure the volatility of these two instruments which will determine the riskier assets. As far as the liquidity is concern, volume for both instruments is used to determine the level of liquidity of bond and stock.

5. HYPHOTESES OF THE STUDY

As a first attempt to analyse the co-movement of stock and bond markets, the study compares the return, volatility and liquidity of stock market vis-a-vis the bond market. In particular, the study will test the null hypothesis that the stock market is more viable investment than the bond market. The alternative hypothesis will then be that the bond market is more viable investment alternative than the stock market. In addition, the study will investigate for a positive trend in the correlation between rate of return for bonds and stocks, as do the studies done by Shiller and Beltratti (1992) and Campbell and Ammer (1993).

H1 : Measurement of the stock market's and bond market's return
H_0: The return in stock market is better than the bond market especially during stress period.
H_1: The return in bond market is better than the stock market especially during stress period.

H2 : Measurement of the stock market's and bond market's volatility
H_0: Stock market is less volatile than the bond market especially during stress period.
H_1: Stock market is more volatile than the bond market especially during stress period.

H3 : Measurement of the stock market's and bond market's liquidity
H_0: Stock market is more liquid than the bond market especially during stress period.
H_1: Stock market is less liquid than the bond market especially during stress period.

6. LITERATURE REVIEW

The present value model is a framework for understanding how the prices of stocks and bonds are determined. Both stocks and bonds are claimed of future cash flows. According to this model, their current prices should be equal to the present value of future cash flows, subject to the appropriate discount rates, which consist of the real interest rate, expectation of inflation rate and a premium for holding a risky asset. Any movement in discount rates of bonds and stocks would result a similar movement in price. However, Shiller and Belratti (1992) found that theoretical correlation between stock and long-term bond returns under the premise of the present value model is only slightly positive: a mere 0.06. This result suggests that the discount rates for stock and bond are not moving in tandem, so neither do the expected future cash flows for stocks and bonds. Campbell and Ammer (1993) focused on the excess returns earned in holding stocks and bonds, that is, the returns over what would have been earned if people invested their money in high liquid, virtually risk-free instrument like T-bill. They break excess returns into components associated with "news" about future cash flows, which refer to dividends for stocks or bonds. In distinguishing more asset return components than do Shiller and Beltratti, Campbell and Ammer also found that the correlation between stock and bond returns is general is small, but it seems to be increase over time.

The low correlation is due to the balance among several offsetting factors. First, the discount rate for stocks may be different from the discount rate for bonds. This would be the case if their risk premiums were different. Furthermore, the dividend stream that is discounted for a stock is fundamentally different from the coupon stream that is discounted for a long-term bond, and that also can lead to difference in their prices. Stock and bond returns tend to move on the same direction when expected future risk premiums for holding stocks and bonds change. Second relates to the effect of inflation. An inflation shock would affect bond prices much more than stock prices. This is due to the nominal value of the coupon is fixed, an inflation shock would dampen the real value of the bond's coupon stream, the nominal value of the stock dividend stream, in contrast, rises in response to an inflation shock, leaving the real value of the dividend stream fairly stable. The third relates to the sources of interest

rate changes. Suppose interest rate fall due to the information of future economic activity, therefore corporate profits are going to be on the low side. That information also would drive stock price lower as it would imply lower dividends. The effect on bond prices would be just opposite. Bond price would rise because the fixed coupon stream is discounted at a lower rate. By combining all three effects, it accounts for small positive correlation between stock and bond returns. Thus the relation between stock and bond would depend on the underlying economic variable driving the asset prices. It is therefore not surprising that a growing body of research has focused on forecasting stock and bond returns using economic and monetary factors. Fama and French (1988, 1989), Fama (1990), and Schwert (1990) focus on economic factors and find that three business conditions proxy, the dividend yield, default spread and term spread, can explain significant variation in expected stock and bond returns. These studies generally find that the required returns that investors demand vary over the business cycle. By combining the previous cycle's proxy with a measure of monetary policy, Booth and Booth (1997) find that a restrictive (expansive) monetary policy stance decreases (increases) returns of small stock portfolios and in some cases, corporate bond portfolios. The monetary policy stance measures have explanatory power in forecasting stock and bond returns, beyond business conditions proxies.

After detecting a small positive correlation between stock and bond returns, the next question is to explore the volatility of this correlation. Schwert (1989) presented evidence that equity and short-term bond returns moving more volatile during recession. In particular, Schwert (1989) claimed that monthly equity returns were 68% more volatile during recession than during expansion in the post-war US data (1953-1987). Over the same period, monthly short-term bond returns were estimated to be 134% more volatile. There is study that examines the impact of macroeconomic expectations and perceived stock market uncertainty on the time-varying correlation between stock and bond returns. Understanding the dynamics of the time-varying relationship between stock and bond markets is important for several reasons. Asset allocation and risk management strategies that assume a constant relationship between stock and bond returns may be improved by properly taking into account the observed time-variation in the correlation between these two asset classes. A better understanding of the time-varying co-movements between stock and bond markets may also be useful for monetary policy purposes. Although central banks do not have specific price targets for financial assets such as bonds or stocks, monetary policy authorities are using the information contained in the prices of these assets to gauge, for instance, market participants' growth and inflation expectations. Hence, the stock-bond return correlation estimates may offer policymakers useful complementary information to determine whether markets are changing their views on inflation or economic activity prospects.

The relationship between stock and bond returns has received considerable attention in the literature. Shiller and Beltratti (1992) document a strong positive (negative) correlation between changes in stock prices and long-term bond prices (yields). They argue that this positive correlation is caused by the common discount rate effect. Also Campbell and Ammer (1993) find a positive, albeit low, correlation between stock and bond returns. However, both Shiller and Beltratti (1992) and Campbell and Ammer (1993) implicitly assume that the relationship between stock and bond prices remains constant over time. More recently, several studies have shown that the correlation between stock and bond returns exhibits considerable time-variation (see e.g., Gulko, 2002; Cappiello, Engle and Sheppard, 2003; Ilmanen, 2003; Connolly, Stivers and Sun, 2004; Jones and Wilson, 2004; Li, 2004). Although stock and bond prices, in general, tend to move in the same direction, recent studies have also documented sustained periods of negative correlation.

7. RESEARCH METHODOLOGY

7.1 Data collection method

For the purpose of this study, all data would be obtained from financial data source provider of which Bloomberg and Thomson Reuters as well as Bank Negara Malaysia's bond market official website i.e. Bond Info Hub and Fully Automated System for Issuing/Tendering (FAST). The study period spans from January 1998 until December 2008, comprising a total of 120 monthly observations. The study will measure the return, volatility and liquidity of Kuala Lumpur Composite Index (KLCI) to represent the return, volatility and liquidity of stock market. As for bonds, the study will measure the return, volatility and liquidity of Malaysia Government Securities (MGS) benchmark issuance (3, 5 and 10-year) as these issuances are the most liquid issuances in Malaysia bond market. Trading volume is used to measure the liquidity of both KLCI and MGS.

7.2 Data Analysis and interpretation

7.2.1 Return

Data is used to compute the average return for both bond and stock using their own proxy of which KLCI and MGS benchmark papers. Average monthly return would be calculated using simple average calculation. The nominal monthly returns from the stock market, in the period from month *t* to month *t+1*, denoted as R_{Stock}, equals the KLCI at *t+1* minus KLCI at *t* divided by the KLCI at *t.* Similar computation is used to measure the monthly returns from the bond market, R_{MGS3} for MGS 3-year, R_{MGS5} for MGS 5-year and R_{MGS10} for MGS 10-year.

a. Return on Common Stock $R_{Stock} = KLCI_{t+1} – KLCI_t / KLCI_t$
b. Return on MGS $R_{MGS3,5,10} = MGS_{t+1} – MGS_t / MGS_t$

7.2.2 Volatility

Data is used to compute the average volatility for both bond and stock using their own proxy of which KLCI and MGS benchmark papers. Average monthly volatility would be calculated using simple average calculation. The nominal monthly volatilities from the stock market, in the period from month *t* to month *t+1*, denoted as V_{Stock}, equals the volatility of VKLCI at *t+1* minus volatility of VKLCI at *t* divided by the volatility of VKLCI at *t.* Similar computation is used to measure the monthly volatilities from the bond market, V_{MGS3} for MGS 3-year, V_{MGS5} for MGS 5-year and V_{MGS10} for MGS 10-year.

a. Volatility on Common Stock $V_{Stock} = VKLCI_{t+1} – VKLCI_t / VKLCI_t$
b. Volatility on MGS $V_{MGS3,5,10} = VMGS_{t+1} – VMGS_t / VMGS_t$

7.2.3 Liquidity

To measure liquidity, data on volume is used. Data is used to compute the average volume for both bond and stock using their own proxy of which KLCI and MGS benchmark papers. Average monthly volume would be calculated using simple average calculation. The nominal monthly volume from the stock market, in the period from month *t* to month *t+1*, denoted as L_{Stock}, equals the volume of LKLCI at *t+1* minus volume of LKLCI at *t* divided by the volume of LKLCI at *t.* Similar computation is used to measure the monthly volumes from the bond market, L_{MGS3} for MGS 3-year, L_{MGS5} for MGS 5-year and L_{MGS10} for MGS 10-year.

a. Liquidity on Common Stock $L_{Stock} = LKLCI_{t+1} – LKLCI_t / LKLCI_t$
b. Liquidity on MGS $L_{MGS3,5,10} = LMGS_{t+1} – LMGS_t / LMGS_t$

For all these three variables, similar computations shall be observed for subsequent months *t+1* and *t+2*, and thereafter. The returns are then compared over the duration of the study to ascertain which asset provides a better return. For the purpose of this analysis, Microsoft Excel is going to be used to process the computation.

The study also will analyse the sample means and standard deviation of the three time-series of indices used in this research. This would provide with the answer as to which market is more volatile during the duration of the study. In addition, the t-test, the procedure to test for significance of differences in two means, will be conducted. The t-test determines whether a certain confidence level, it is justified to conclude that the average return and market volatility is greater and lower respectively for the bond market during the period of study. The study is also best motivated by the principle that the return, volatility and level of liquidity of stock and bond should be closely linked. The study expresses this as a simple linear equilibrium relationship between return, volatility and liquidity of stock ($R_{Stock,}$ $V_{Stock,}$ L_{Stock}) and return on MGS ($R_{MGS3,5,10,}$ $V_{MGS3,5,10,}$ $L_{MGS3,5,10}$).

a. $R_{Stock} = \beta_0 + \beta_1 R_{MGS3} + \beta_2 R_{MGS5} + \beta_3 R_{MGS10} + e$
b. $V_{Stock} = \beta_0 + \beta_1 V_{MGS3} + \beta_2 V_{MGS5} + \beta_3 V_{MGS10} + e$
c. $L_{Stock} = \beta_0 + \beta_1 L_{MGS3} + \beta_2 L_{MGS5} + \beta_3 L_{MGS10} + e$

The above multiple regression analysis allows for the simultaneous investigation of three independent variables, namely MGS 3, 5 and 10-year's returns, on a single dependent variable, of which stock returns. The coefficients show the effects on the dependent variable unit increases in any of the independent variables. In the above regression, the coefficient of β_1 is defined as the partial regression coefficient for which the effect of the other independent variable is held constant. To test for statistical significance, an F-test, comparing the different sources of variation, is necessary. The F-test will show that there appears to be an association between the dependent and the independent variables other than random variation in the data. For the purpose of this analysis, software namely Statistical Package for Social Science (SPSS) is going to be used in order to facilitate the computation process.

8. FINDINGS AND ANALYSIS

The research results are divided into 5 sub-sections of which:

a. An analysis of average returns from both stock market and selected government bonds.
b. The descriptive statistics on the volatility of the respective markets.
c. An analysis of volumes which determine the level of liquidity for both markets.
d. The result of t-test for significance of differences in the scores for all three factors of which return, volatility and liquidity.
e. The result of the regression analyses and discussion on the correlation or co-movement of the stock and bond market.

8.1 Average return of stock and bond market

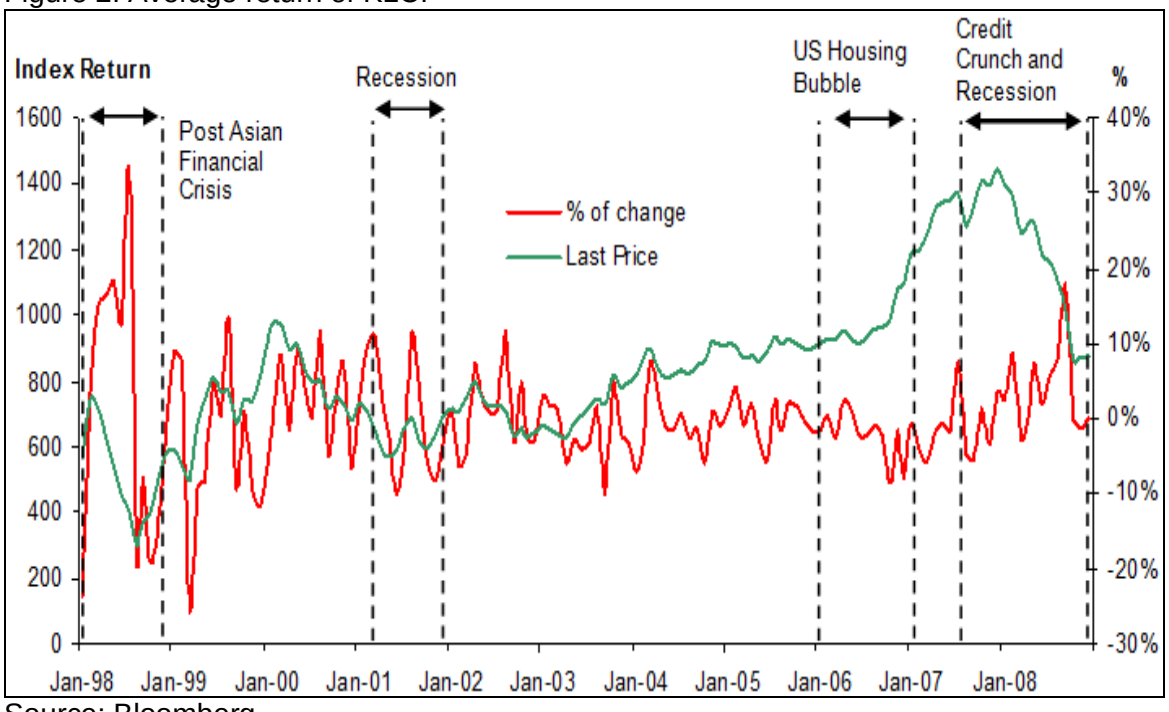
In finance, rate of return (ROR), also known as return on investment (ROI), rate of profit or sometimes just return, is the ratio of money gained or lost (realized or unrealized) on an investment relative to the amount of money invested. The amount of money gained or lost may be referred to as interest, profit/loss, gain/loss, or net income/loss. The money invested may be referred to as the asset, capital, principal, or the cost basis of the investment. ROI is usually expressed as a percentage rather than a fraction. Table 1 below presents the average returns and its components for the stock and bond market. Overall, bond market provides positive returns as compared to stock market throughout the period of the study. As shown in the above table, all three benchmark papers provide stable return every year and deviation between negative and positive figure are relatively closed. Unlike stock market, the returns varied every year of study period and not stable as provided by the bond market. This result shows that bond market is more stable investment instrument vis-à-vis stock market especially during stress events whereby market is in the environment of uncertainties.

Table 1: Average return of KLCI and MGS

Year	KLCI (%)	MGS 3-year (%)	MGS 5-year (%)	MGS 10-year (%)
1998	1.18	-0.01	0.09	0.18
1999	-3.02	-0.20	0.09	0.30
2000	2.17	0.21	-0.08	-0.12
2001	0.35	0.25	0.07	-0.13
2002	0.77	0.26	0.08	-0.57
2003	-1.64	-0.04	-0.09	0.17
2004	-0.86	0.01	0.01	-0.21
2005	0.05	-0.01	-0.09	-0.24
2006	-2.12	-0.04	0.03	-0.19
2007	-1.24	0.01	0.15	2.78
2008	4.19	0.11	0.12	-0.09
Average return	-0.02	0.002	0.03	0.17

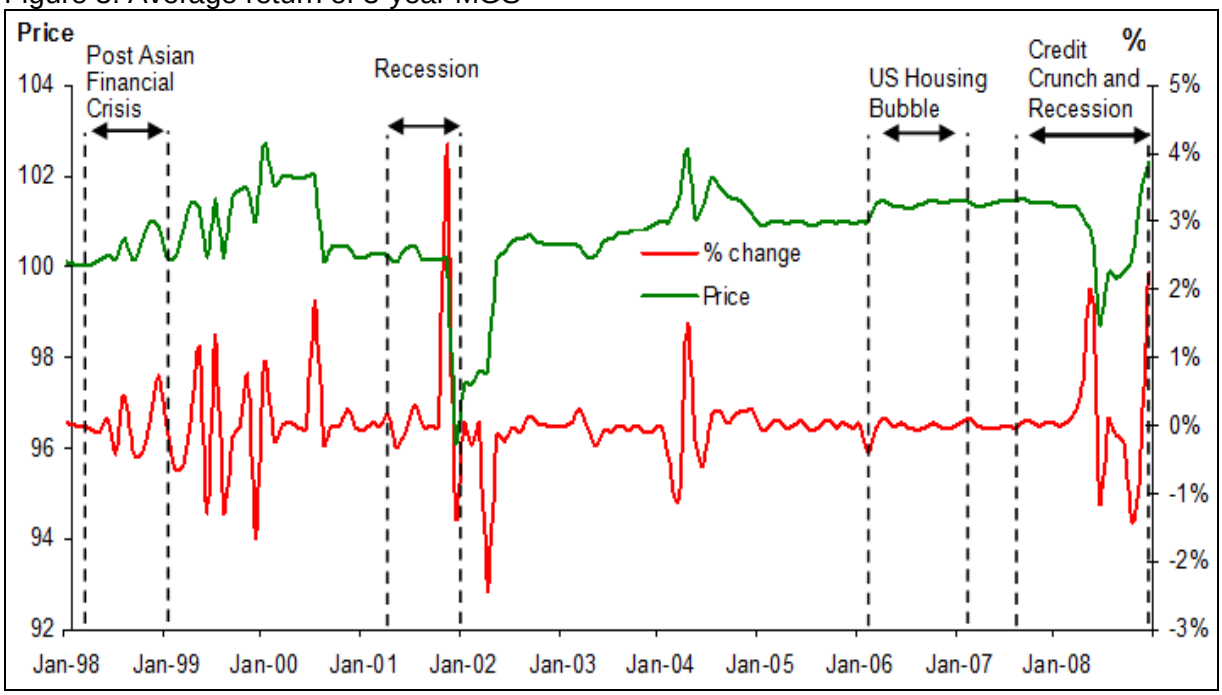
Figure 2 to 4 shows the fluctuation of prices for selected MGS and KLCI which indicate the stability of income. From the figures, it's obvious that change in return of KLCI was more fluctuated and volatile as compared to the selected MGS. The price of the benchmark MGS papers also was relatively attractive as most of the prices are quoted above par and slightly below par.

Figure 2: Average return of KLCI



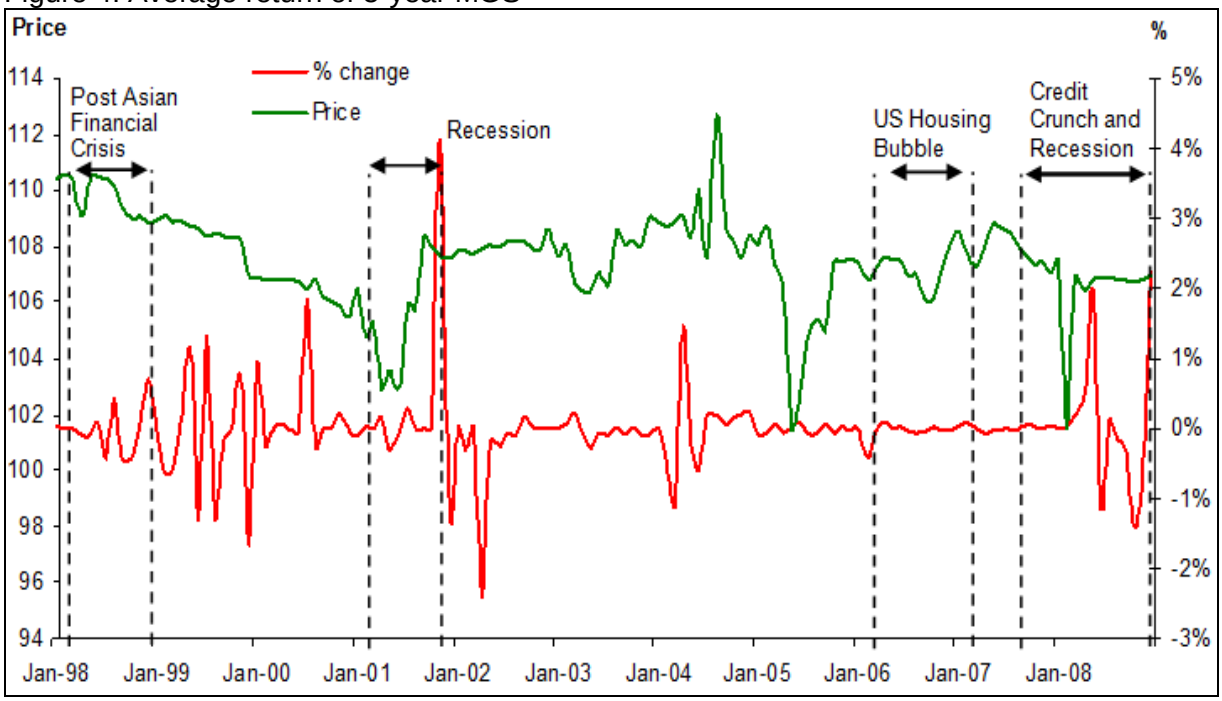
Source: Bloomberg

Figure 3: Average return of 3-year MGS



Source: Bloomberg

Figure 4: Average return of 5-year MGS



Source: Bloomberg

8.2 Volatility of stock and Bond Market

Volatility most frequently refers to the standard deviation of the continuously compounded returns of a financial instrument with a specific time horizon. It is often used to quantify the risk of the instrument over that time period. Volatility is typically expressed in annualized terms, and it may either be an absolute number ($5) or a fraction of the mean (5%). Volatility can be traded directly in today's markets through options and variance swaps. For a financial

instrument whose price follows a Gaussian random walk, or Wiener process, the volatility increases as time gets longer. Conceptually, this is because there is an increasing probability that the instrument's price will be farther away from the initial price as time increases. However, rather than increase linearly, the volatility increases with the square-root of time as time increases, because some fluctuations are expected to cancel each other out, so the most likely deviation after twice the time will not be twice the distance from zero.

More broadly, volatility refers to the degree of (typically short-term) unpredictable change over time of a certain variable. It may be measured via the standard deviation of a sample, as mentioned above. However, price changes actually do not follow Gaussian distributions. Better distributions used to describe them actually have "fat tails" although their variance remains finite. Therefore, other metrics may be used to describe the degree of spread of the variable. As such, volatility reflects the degree of risk faced by someone with exposure to that variable. Historical volatility (or ex-post volatility) is the volatility of a financial instrument based on historical returns. This phrase is used particularly when it is wished to distinguish between the actual volatility of an instrument in the past, and the current (ex-ante, or forward-looking) volatility implied by the market. Table 2 below presents the average standard deviation and its components of returns for both stock and bond market.

Table 2: Standard deviation of returns for KLCI and MGS

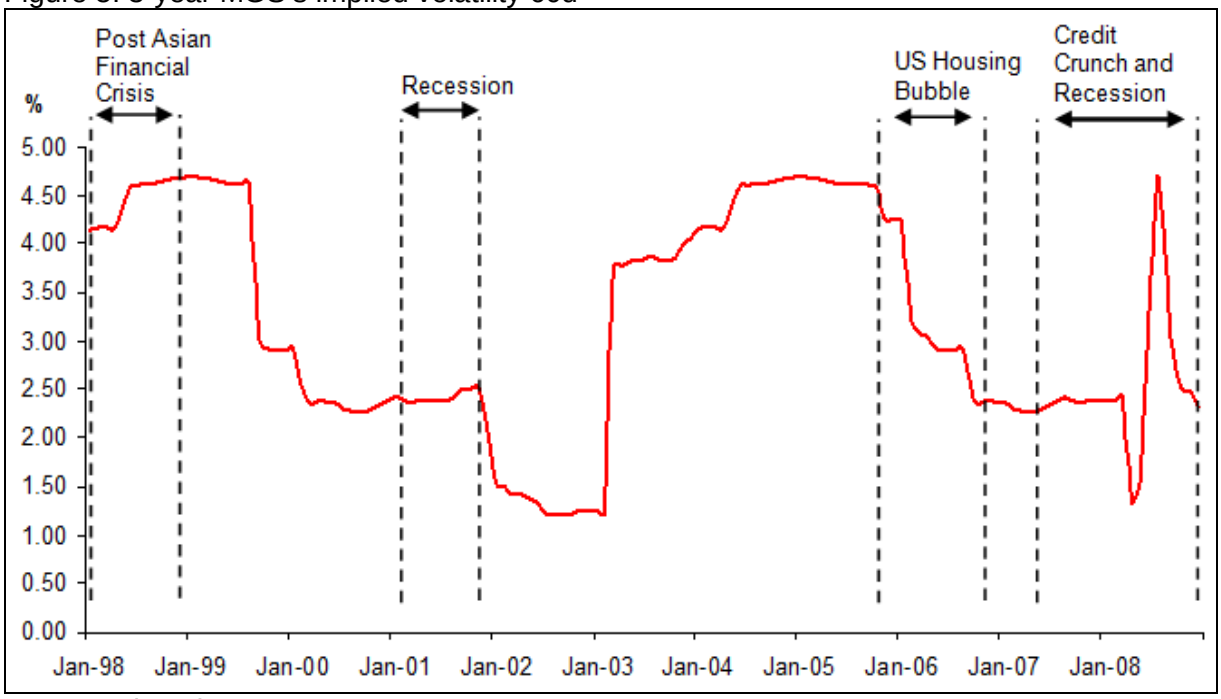
Year	KLCI (%)	MGS 3-year (%)	MGS 5-year (%)	MGS 10-year (%)
1998	18.15	0.34	2.33	0.31
1999	11.16	0.95	0.45	0.29
2000	6.25	0.59	0.55	1.10
2001	7.41	1.28	1.85	2.14
2002	5.17	0.69	1.94	1.55
2003	4.19	0.12	0.78	0.68
2004	3.89	0.62	0.34	0.44
2005	2.66	0.06	1.41	0.80
2006	3.22	0.12	0.37	0.37
2007	4.00	0.04	0.34	0.29
2008	5.82	1.08	0.57	0.25
Average Standard Deviation	6.54	0.54	0.99	0.75

From the above table, it’s obvious that KLCI has the highest average standard deviation vis-à-vis all three MGS benchmark papers. It shows that KLCI or stock market is more volatile than bond market. As presented in the table, the difference of standard deviation between KLCI and MGS is huge especially during stress event period. The highest standard deviation is during post-Asian financial crises in 1998 where it hit record high of 18%. The standard deviation reduced gradually in the next period of study started went up during housing bubble in US and has stayed above 5% in the end of 2008, worsened by US credit crunch which contributed to the worst economic recession in century.

Figure 5 to 7 shows the implied volatility of KLCI benchmark index and benchmark papers of MGS. In financial mathematics, the implied volatility of an option contract is the volatility implied by the market price of the option based on an option pricing model. In other words, it

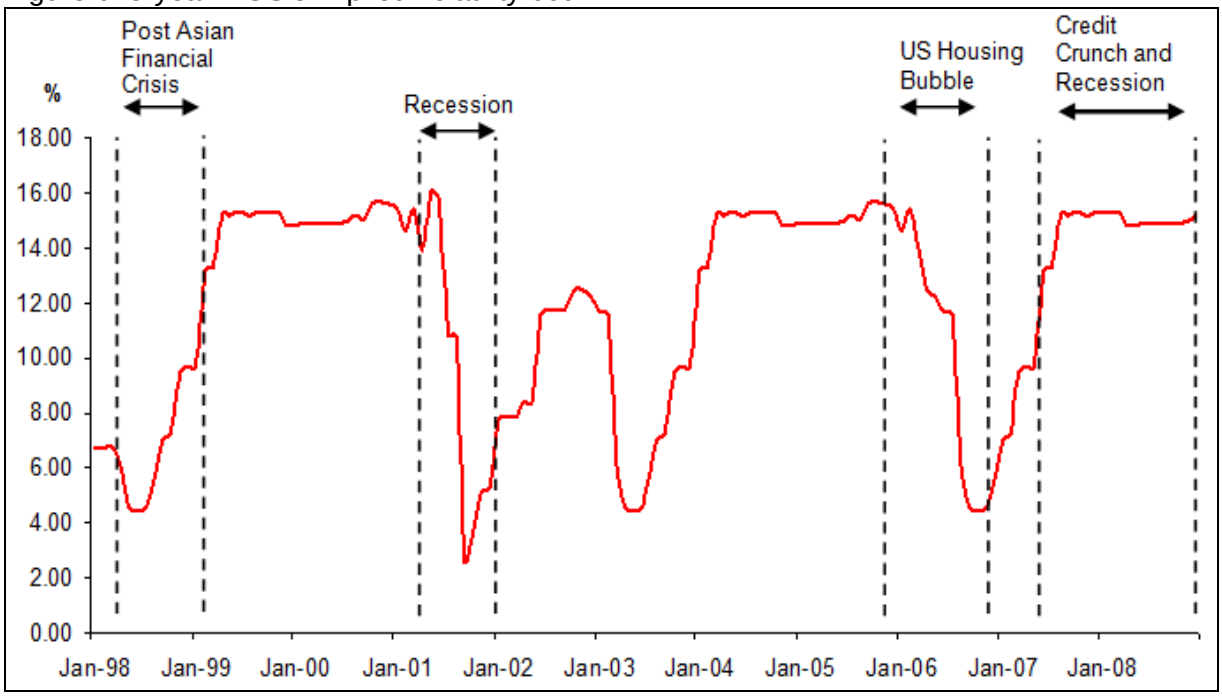
is the volatility that, when used in a particular pricing model, yields a theoretical value for the option equal to the current market price of that option. Non-option financial instruments that have embedded optionality, such as an interest rate cap, can also have an implied volatility. Implied volatility, a forward-looking measure, differs from historical volatility because the latter is calculated from known past prices of a security.

Figure 5: 3-year MGS's implied volatility 60d+



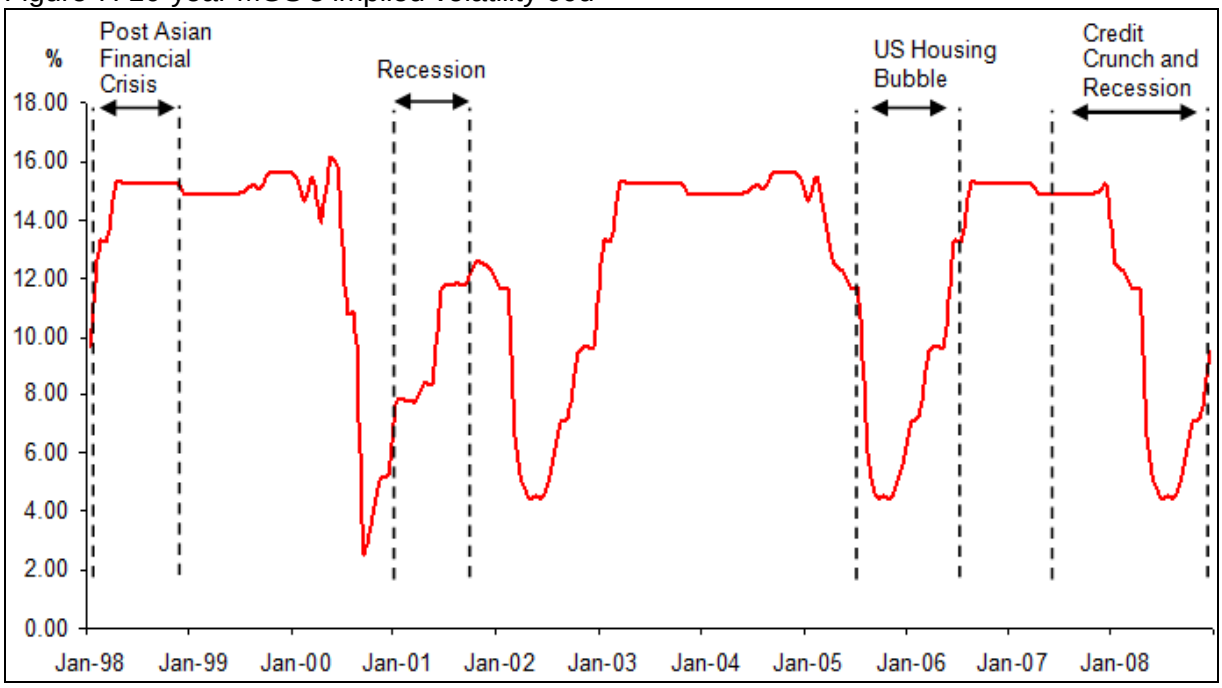
Source: Bloomberg

Figure 6: 5-year MGS's implied volatility 60d+



Source: Bloomberg

Figure 7: 10-year MGS's implied volatility 60d+



Source: Bloomberg

As presented on the above figures, it's proven that KLCI is much more volatile than MGS benchmark papers. The volatility hit a record high of 82% in 1998 as Malaysia was one of the most affected countries during Asian financial crises. Using a similar period, volatility for all three MGS benchmark papers were much lower than MGS whereby 3-year MGS recorded a volatility less than 5% while 5-year and 10-year MGS recorded a volatility of roughly around 15%. This volatility study shows that stock market is more volatile than the bond market. This partly due to bond features which provide secured element in terms of the stability of principal and interest payment as well as risk free elements in the bond (due to government bond).

8.3 Level of liquidity for stock and bond market

A liquid asset has some or more of the following features. It can be sold rapidly, with minimal loss of value, anytime within market hours. The essential characteristic of a liquid market is that there are ready and willing buyers and sellers at all times. Another elegant definition of liquidity is the probability that the next trade is executed at a price equal to the last one. A market may be considered deeply liquid if there are ready and willing buyers and sellers in large quantities. This is related to a market depth, where sometimes orders cannot strongly influence prices. An illiquid asset is an asset which is not readily saleable due to uncertainty about its value or lacking a market in which it is regularly traded. The mortgage related assets which resulted in the sub-prime mortgage crisis are examples of illiquid assets as their value is not readily determinable despite being secured by real property. Another example is an asset such as large block of stock, the sale of which affects the market value.

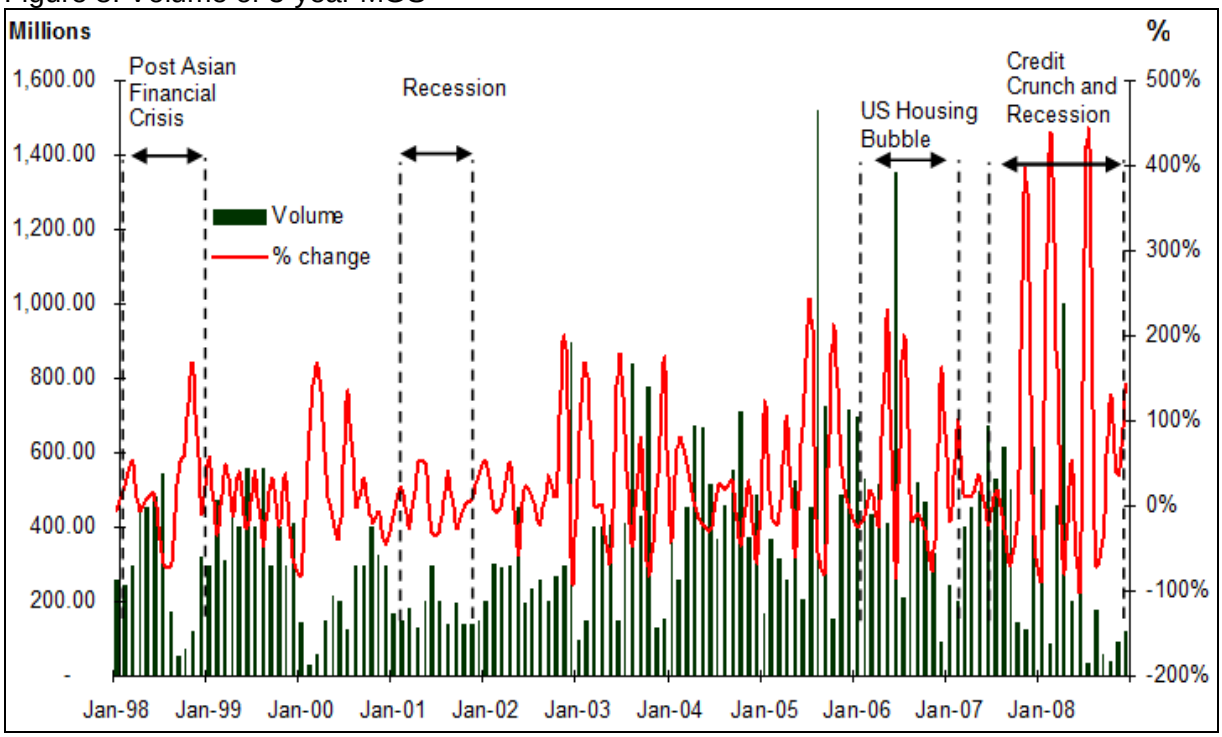
The liquidity of a product can be measured as how often it is bought and sold; this is known as volume. Often investments in liquid markets such as the stock exchange or futures markets are considered to be more liquid than investments such as real estate, based on their ability to be converted quickly. Some assets with liquid secondary markets may be more advantageous to own, so buyers are willing to pay a higher price for the asset than for comparable assets without a liquid secondary market. The liquidity discount is the reduced promised yield or expected return for such assets, like the difference between newly issued U.S. Treasury bonds compared to off-the-run treasuries with the same term remaining until

maturity. Buyers know that other investors are not willing to buy off-the-run so the newly issued bonds have a lower yield and higher price.

Speculators and market makers are key contributors to the liquidity of a market, or asset. Speculators and market makers are individuals or institutions that seek to profit from anticipated increases or decreases in a particular market price. By doing this, they provide the capital needed to facilitate the liquidity. The risk of illiquidity need not apply only to individual investments: whole portfolios are subject to market risk. Financial institutions and asset managers that oversee portfolios are subject to what is called "structural" and "contingent" liquidity risk. Structural liquidity risk, sometimes called funding liquidity risk, is the risk associated with funding asset portfolios in the normal course of business. Contingent liquidity risk is the risk associated with finding additional funds or replacing maturing liabilities under potential, future stressed market conditions. When a central bank tries to influence the liquidity (supply) of money, this process is known as open market operations. For the purpose of this study, volume of all three variables is used to measure the liquidity level.

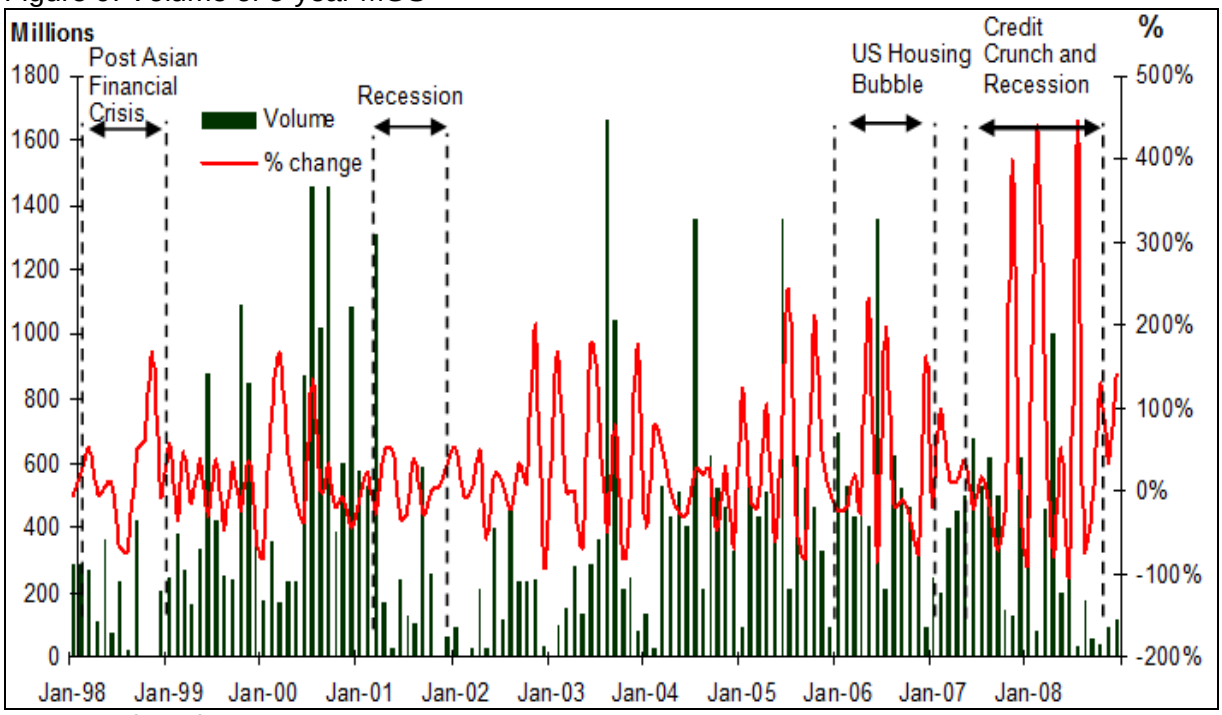
Figures 8 to 10 show total volume traded and changes for all three variables from Jan-98 until Dec-08. Overall, liquidity is not an issue for both stock and bond market. The trading is fairly active even during stress period. However, liquidity for 10-year MGS was not so encourage during stress events as investors tend to hold shorter to medium tenor of bond. This is partly due to uncertainty on direction of the benchmark interest rate which has a direct impact to bond price. Generally, bonds with longer tenor are more sensitive to interest rate fluctuations and other market risks such as credit risk, and hence provide the potential for greater returns or losses.

Figure 8: Volume of 3-year MGS



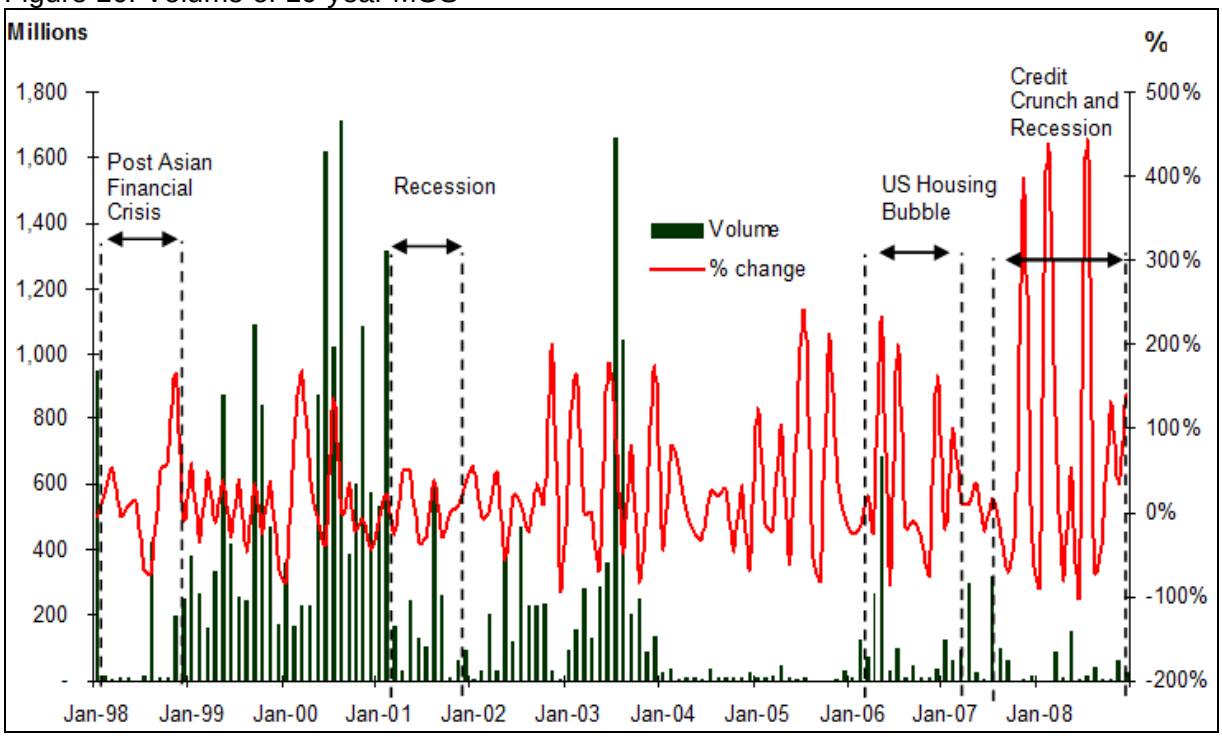
Source: Bloomberg

Figure 9: Volume of 5-year MGS



Source: Bloomberg

Figure 10: Volume of 10-year MGS



Source: Bloomberg

9. SUMMARY

The main achievement of this study is to conclude a joint time series of Malaysian stock and bond market return, volatility and liquidity. These series allow us to outline the important characteristics of these two asset class. Average return for stock market (KLCI) is recorded

negative return of which -0.02%. The negative return is primarily due to stress events occurred throughout the period of study such as Asian financial crisis in 1997 whereby, KLCI lost a total of 643 points during the 12-month period or 50% of the index. Apart from that, KLCI also was affected by US credit crunch whereby, the index has breached the support level of 1,000 points as investors' risk appetite and confidence deteriorate.The bond market (benchmark issuances of MGS) was more resilient averaging a positive return of 0.002% for 3-year MGS, 0.03% for 5-year MGS and 0.17% for 10-year MGS. Part of the main contributor is its element of risk-free which, investors tend to be more preferred to hold this paper especially during stress event as it provides stable cashflow. Bond returns were boosted by the interest rate cuts and depressed stock market. Since bond prices and interest rates have an inverse relationship, the reduction in benchmark interest rate would provide positive and better average returns. For investors who are risk-averse, the government bond market is the safest place to invest due to its features which provide stable cashflow and lower risk in terms of credit.

In contrast to Fisher and Lorie (1970), and Jones and Wilson (1989), the study found that stock market is 6 times more volatile than the bond market throughout the study period. The high volatility was due to uncertainties surrounding the issue during stress event i.e. currently investors are concern on company financial strength and probability to survive for certain financial institutions due to credit crisis. In addition, prospect of stock market might get worse if those stress event led to economic recession. This will cause a difficulty for stock market to recover and investors tend to be more risk averse by holding more secured and low risk instrument such government bond. Apart from that, low volatility of MGS was probably due to lack of liquidity as there is less number of bid and offer in the market. There is also a need to increase awareness about the bond market among retail investors as they tend to be more focus on equity investment. The study on regression of the volatility on stock and bond confirms Zhou's (2000) findings that the volatility of these two asset classes is closely correlated (This study rejects Reilly, Wright and Chan's (2000) conclusions that stock and bond is less correlated). Given higher volatility of the stock market, the negative coefficient of correlation between the volatility of stock and bond would mean bonds are more viable investment alternative.

As far as the liquidity is concern, both investment alternatives did not face any difficulties on it. Trading was taken place most on daily basis. Investors shouldn't face any difficulties to find potential buyer or seller to transact. One thing to ponder is monthly change for stock market is much bigger and wider than bond market. This is partly due to its features of high risk investment and therefore fluctuation is bigger than bond market. Nevertheless, this scenario is still contribute to ample liquidity for both stock and bond market. The above findings are summarized below:

a. Average return for bond (MGS benchmark) is marginally higher than stock (KLCI) throughout the period of study.
b. There is positive correlation between stock and bond returns. However, bond returns by themselves cannot be used to predict stock returns. There are other independent variables to be considered.
c. The stock return is more volatile than the bond return.
d. Both asset classes have an ample liquidity even during stress events.

10. RECOMMENDATION

Researcher also would like to stress out that there are other variables that have an impact on both stock and bond return. Fama and French (1988,1989), Fama (1990), and Schwert (1990) focused on economic factors, Booth and Booth (1997) examined monetary policy stance, and Zhou's (2000) paper finds that the stock market movement are closely related to

shifts I the state of the term structure of interest rates. Further studies on these variables will help fund managers and market analyst has a better understanding and better position to predict stock returns in order to earn abnormal profit.

11. CONCLUSION

In conclusion, the bond market can become more viable investment alternative than the stock market. Higher grade bonds, which have lower risk of default, were much sought after following the economic crisis. In addition, the government plan to liberalise the bond market by allowing lower rating to be traded could spur more interest in the bond market. The bond market also is expected to expand the issuance of securitisation base investment product which likely to offer yield enhancement hence, making bond market more attractive.

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