MALAYSIA STOCK MARKET INTEGRATION: THE EFFECT OF LEADER AND EMERGING MARKET

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- There have a new equity market leaders will be emerged. In viewing of macroeconomics matter, such as low oil prices, the strong US dollar, diverging of monetary policies and restructuring companies be able to influence on company's earnings and stock price in a unique way.

- Today's trading, Europe economics, India and Japan, demonstrate a good sign in a bullish market. Furthermore, Japan's economy shows an improvement and stock of companies are embracing reform efforts could significantly outperform those that resist change.

- Though Europe economic still fragile, but the corporate earnings and European equities are expected an upward swing (Goldman Sachs, 2015.)

- The world's economic and financial ups and down will definitely gives impact to the whole country as they experienced economic interdependences and linkages with each other. Therefore, it is important to identify the degree of the financial integration as it could help the investors to diversify their portfolio in the country that gives higher returns.

- In the case of Malaysia, the condition of U.S stock market because Malaysia is depends on the U.S stock market. The sub-prime crisis, bankruptcy of Lehman Brothers, dot-com bubble and September 11 terrorist attack on the U.S could gives shock to the world stock market (Hooi and Kee, 2013). In contrast, Malaysia could also be affected on the sudden shock of the financial crisis in Asia as it also affect U.S, Japan, China and India stock market where each of the countries is linkage with Malaysian stock market (Hooi and Kee, 2013).
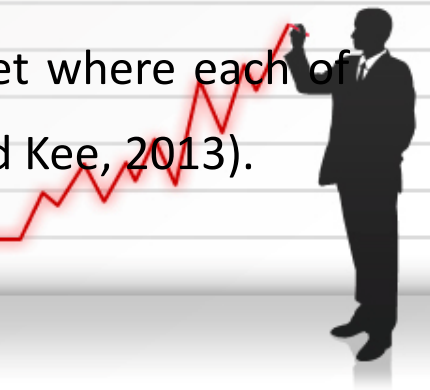
- **Main Research Question**

✓ Is there any significant relationship between world leaders and emerging powers with Malaysia stock market?

- **Specific Research Questions**

✓ Is there any significant relationship between U.S stock market (world market leader) and Malaysia stock market?

✓ Is there any significant relationship between Japan stock market (world market leader) and Malaysia stock market?

✓ Is there any significant relationship between China stock market (emerging power) and Malaysia stock market?

✓ Is there any significant relationship between India stock market (emerging power) and Malaysia stock market?

- ✓ To identify the relationship between U.S stock market (world market leader) and Malaysia stock market.

- ✓ To identify the relationship between Japan (world market leader) and Malaysia stock market.

- ✓ To identify the relationship between China stock market (emerging market) and Malaysia stock market.

- ✓ To identify the relationship between India stock market (emerging market) and Malaysia stock market.
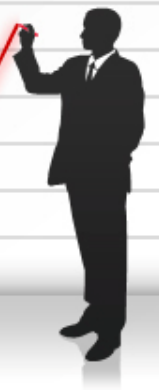
LITERATURE REVIEW

Study	C ↔ U	IN ↔ U	J ↔U	M ↔ U	M ↔ C	M ↔ ID	M ↔ E	M ↔ IN
Cheung and Ho (1991)	X	X	X	X				
Chan, Gup, and Pan (1992)			X					
DeFusco et al. (1996)	X	X	X	X				
Sheng and Tu (2000)	√	√	√	√				
Ng (2002)	√	√	√	√				
Jang and Sul (2002)	√	√	√	√				
Manning (2002)	√	√	√	√				
Yang, Kolari, and Min (2003)	√	√	√	√				
Click and Plummer (2005)	√	√	√	√				
Dunis and Shannon (2005),	√	√	√	√				
Goh et al. (2005)	X	X	X	X				
Ibrahim (2006)	X	X	X	X				
Leen and Teng (2013)					√			
Hussin et al. (2013)				X		X		
Naseri and Masih (2014)				√	√			
Lee and Isa (2014)					√	√	√	√

Note: C:China, IN: India, J: Japan, U: US, ID: Indonesia, E: Europe, M: Malaysia, ↔ : Co-integrate

DATA & METHODOLOGY

- Time series data were used in this study. The sample data were taken in monthly basis from January 1994 to December 2014. The observation numbers is 252 for this study.

- As to complete the regression, these research rates Dow Jones Industrial Average (DJIA) for U.S stock market, NIKKEI 225 Stock Average Price Index (NIK) for Japan stock market, Shanghai Stock Exchange Composite Index (SHCI) for China stock market, and Bombay Stock Exchange National Index (S&P BSE SENSEX) for India stock market as the independent variables data as well as Kuala Lumpur Composite Index (FBMKLCI) for Malaysia stock market as dependent variable data.

- The cointegration study depends on the non-stationarity of the stock markets prices of the sample. The first exerciseis to test for a unit root in each index series, the second is to test for the cointegration between variables of the system of stock markets indices and finally causality test were used to test whether the contagion effects within the market.

Unit Root Tests

Market	Level I(0)	First Difference I(1)
FBMKLCI	-1.4154	-13.62440*
NIK	-1.7925	-14.0398*
SCHI	-1.7230	-11.0536*
S&P BSE SENSEX	-0.0269	-15.2898*
DJIA	-1.6945	-15.1369*

*Rejection of the null with 99% confidence

The unit root tests suggest that all stock indexes are I(1) and therefore co-integration tests may be used to assess whether these indexes share common effects. This study use Akaike information criteria to determine the appropriate lag length.

Multiple Co-Integration Results

Null hypothesis	Traces Statistics	95% Critical Value	Maximum Eigenvalue	95% Critical Value
h=0	254.1173**	69.8189	77.3194**	33.8769
h=1	176.7979**	47.8561	59.9125**	27.5843
h=2	119.8854**	29.7971	50.8718**	21.1316
h=3	69.0136**	15.4947	37.8605**	14.2646
H=4	31.1532**	3.8415	31.1532**	3.84145

* **Rejection of the null with 95% confidence
**MacKinnon-Haug-Michelis (1999) p-values
Both Trace and Maximum Eigenvalue Tests indicate 5 co-integrating eqn(s) at the 0.05 level

The results indicated that the emerging stock markets and world leader stock market were co-integrating with Malaysian stock market. Therefore, it can be seen that they are moving together which shows the fact that asset allocation across the markets may not provide great opportunities to gain more on the diversification of fund. This also suggests that there are long runequilibrium relationships between the stock market indices of these countries. Trace and Max-eigenvalue test statistics indicate five cointegrating vectors at 5% level.

Vec Granger Causality Tests

Null hypothesis	χ^2 statistic	Probability
FBMKLCI → S&P BSE SENSEX	5.5392	0.0627***
S&P BSE SENSEX → FBMKLCI	6.3375	0.0421**
SCHI → S&P BSE SENSEX	7.1371	0.0282**
S&P BSE SENSEX → SCHI	23.4868	0.0000*
S&P BSE SENSEX → NIK	7.6916	0.0214**
SCHI → FBMKLCI	7.7951	0.0203**
SCHI → DJIA	7.3425	0.0025**

*Rejection of the null with 99% confidence
**Rejection of the null with 95% confidence
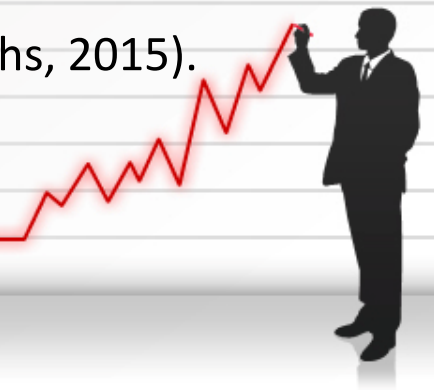***Rejection of the null with 90% confidence

- The result of VEC Granger causality test for market indices is shown in Table 3. Seven market pairs out of the twenty market pairs tested rejected the null hypothesis of no causality. Two market links of the seven displayed bi-directional (two-way) Granger causality. The remaining five pairs exhibited uni-directional (one-way) causality.

- S&P BSE SENSEX market was stronger as it Granger-caused FBMKLCI prices at 5% level while the latter Granger-caused the former at 10% level.

- S&P BSE SENSEX was also stronger in the market as it Granger caused SCHI prices at 1% level of significance while SCHI prices Granger-caused S&P BSE SENSEX prices at 5% level.

- In the other market pairs, the markets shown in the link demonstrated equal strength as they Granger themselves at 5% level.

- This means that they influence one another in terms of market price trend and probably from the relation of influencing to the other stock market.

CONCLUSION

- In conclusion, the Co-integration test shows that these four markets were integrated with Malaysia stock market. Therefore, it can be said that they had long term relationship with Malaysia stock market.

- This would lead to the conclusion that Malaysia investors could less benefit from diversification by investing in these countries as it will affect the market. For the Granger Causality Test, it can be shown that Indian market (S&P BSE SENSEX) was playing a dominant role to influence the other markets, especially the Malaysia (FBMKLCI) and China (SCHI) market.

- This result parallel to the expectation on the India future economy would be in favorable condition for the year 2015 and 2016 (Goldman Sachs, 2015).

THANK YOU