



INTERNATIONAL JOURNAL OF
INNOVATION, CREATIVITY AND CHANGE

Promoting and fostering innovation, creativity and change in all fields of endeavour.

Scopus[®] & **ERA**[®] (Excellence in Research Australia) listed journal

ISSN 2201-1323

(/)

Copyright © 2020 IJICC.
All Rights Reserved.

Joomla!
(<https://www.joomla.org>)
is Free Software released
under the GNU General

Public License. (<https://www.gnu.org/licenses/gpl-2.0.html>)



INTERNATIONAL JOURNAL OF
INNOVATION, CREATIVITY AND CHANGE



Promoting and fostering innovation, creativity and change in all fields of endeavour.

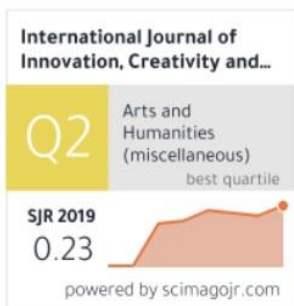
Scopus[®] & ERA[®] (Excellence in Research Australia) listed journal
ISSN 2201-1323

About Us

The **International Journal of Innovation, Creativity and Change** publishes scholarly work that promotes and fosters innovation, creativity and change in all fields of endeavour. The focus is on papers that will be influential in their field or across fields and will significantly advance understanding in those fields. All submissions undergo blind peer review and are now being indexed by Scopus.



Excellence in Research Australia listed journal (ERA) (Online) ISSN 2201-1323—Circulation 3956 (1/6/19)





Analysis of International Portfolio Investment in ASEAN-5 Countries

Febriyanto^a, Mahatma Kufepaksi^b, Marselina^c, Sri Hasnawati^d, ^aDoctoral student in the Faculty of Economics and Business, Universitas Lampung, Sumatera, Indonesia, Lecturer in the Faculty of Economics and Business, Universitas Muhamadiyah Metro, Sumatera, Indonesia, ^{b,c,d}Lecturer in the Faculty of Economics and Business, Universitas Lampung, Sumatera, Indonesia

This study analyses the diversified international portfolio investment in ASEAN-5 countries: Indonesia, Malaysia, Singapore, the Philippines, and Thailand. This study analyses moments after the enforcement of the ASEAN Economic Community policies. This study uses a quantitative approach analytical survey method and uses secondary data. Analysing the data of each company's stock liquid capital markets with a single index portfolio Sharpe analysis method. Using standard riskfree fundamentals of Southeast Asia that are SIBOR and Risk market Singapore capital market, there are 26 companies with a candidate portfolio of a sample of 59 companies. The highest proportion of funds **HA CPALL** company located in Thailand capital markets several are 0.1713% and the lowest percentage in **SRIL** company located in the Indonesian capital market, several are 0.0058%. Both companies have the highest and the smallest area in the capital markets of developing countries. It means there are potential investments that provide optimal results in countries in the developing conditions.

Key words: *Investment, Diversification, Return, Risk.*

Introduction

This study analyses the international portfolio investment diversification opportunities in ASEAN-5 countries: Indonesia, Malaysia, Singapore, the Philippines, and Thailand. The analysis is done by finding the value of shares included in the optimal candidate portfolio in capital markets fifth ASEAN-5. This study analyses moments after the enforcement of the ASEAN Economic Community policies.

Investment is undergone to obtain more significant results and more benefits, Gitman (2005). International Investment Diversification: different types of assets in some countries is a good strategy for investors (Balarezo, 2010). The diversification strategy is said to be good if it can



provide significant benefits for investors (Berger, Pukthuanthong, & Yang, 2011). Diversification benefits obtained by Sethapramote, Prukumpai, & Kaewju (2014). Sethapramote, Prukumpai, & Kaewju (2014) is to provide investors the opportunity to get higher profits. Bouslama and Ouda (2014) & Dimitriu (2014); this is in line with Goh, Annuar, & Zariyawati (2014), who said that diversification will provide the benefits of a reduced risk of the investments made. The capital market provides the opportunity for investors, especially in the ASEAN region, and the member states have agreed to establish a system of free trade agreements (MEAs).

Markowitz diversification concept originated in 1952, then experienced improvement and simplification, so it had an impact on the implementation of financial theory. Markowitz lowers the main benefits of quantitatively using a diversified portfolio consisting of two risky assets. The diversification aims to reduce the amount of risk but still provides enough profit potential for this strategy or commonly called asset allocation (Lessard, 1973).

Solnik (1995) mentions that investors are more interested in international diversification, because the total risk generated by international diversification is smaller than the domestic. International diversification provides opportunities to gain a value higher than domestic investment. (Bodie, Kane, and Marcus, 2014).

Grauer and Hakansson (1987) state that international portfolio investment risk can be reduced by incorporating foreign assets in the investment portfolio of a country. It is the basic principle of international diversification that allows it to maximise portfolio return with a certain level of risk or minimise the risk to a guaranteed return.

The portfolio theory describes how diversification can reduce portfolio risk by avoiding investing in assets that are perfectly correlated (Markowitz, 1959). The diversified international investor is motivated to obtain the expected return and expected to be achieved so that investors always consider the amount of risk that is acceptable (Bodie, Kane, and Marcus, 2014).

Some studies such as by Balarezo (2010); Berger, Pukthuanthong, & Yang (2011); Sethapramote, Prukumpai, & Kaewju (2014); Bouslama & Ouda (2014); Dimitriu (2014), Goh, Annuar, & Zariyawati (2014) suggest that the risk of the portfolio can be minimum and international portfolio investment risk can be reduced by incorporating foreign assets in the investment portfolio. Mansourfar, Mohamad, & Hassan (2010) also mentions the benefits of such an international portfolio investment in overseas shares will gain due to increased expected return. The reduced variation return: The low correlation of arrivals of foreign stocks by domestic stock. A rational investor should be able to conduct an analysis that provides maximum returns. A reasonable investor would choose the portfolio that gives maximum returns on a particular level of risk (Stambaugh, 1996).



Studi Grauer and Hakansson (1987) states that international portfolio investment risk can be reduced by incorporating foreign assets in the investment portfolio of a country. The application of modern portfolio theory in global investment, Solnik (1995), states that investors are more interested in international diversification because the total risks generated by international diversification are smaller than domestic diversification. The principle of a lower risk of international diversification is significantly dependent on the low correlation between the cross-border market (Grubel and Fadner, 1971). According to Xiao and Dhesi (2010), increased co-movement between asset returns from international stock markets will reduce the value of the advantage of a diversified investment portfolio internationally. The research of Ibrahim (2005) found a correlation level as a picture of long-term integration and this is still lacking between the ASEAN market. The increased co-movement between the capital market according to Rua and Nunes (2009), led to the diversification of capital markets and became less critical. This means, according to Goel and Chaudhary (2013), Zafaranloo and Sapian (2013), that the lower the correlation between the state of capital markets, the higher the benefits of portfolio diversification. The study of Mansourfar, Mohamad, & Hassan (2010) explains that a diversified portfolio of an investor is cautious about increasing profits or reducing investment risk.

Based on the principal theme of investment diversification, this study will describe the diversified international portfolio after the enforcement of MEA policy. This study focuses on investment diversification opportunities in 5 ASEAN countries, using investment instruments such as stocks. The object retrieval reason, because of the implementation of MEA, creates openness in the relationship and cooperation between countries to allow investors to invest in states that have investment opportunities. This study attempts to analyse the probability of the stock investment portfolio. This research is an exciting theme to be researched and studied, given the implementation of MEAs has been applied, beginning in 2016. Therefore, the problem that arises is what is the opportunity for diversification of international portfolios in the AEC era in the capital markets of ASEAN members, especially Indonesia, Malaysia, the Philippines, Singapore, and Thailand?

Methods

This study uses a quantitative approach, with an informative survey method. Using secondary data is the data of the past. The use of secondary data based on the consideration that the stock indices were studied, is the reference for making decisions in investing because of the ease in being informed. Secondary data in this study is a weekly closing price of the company's stock price index of liquid in some Stock Exchanges on the five (5) members of the ASEAN capital market.

The study population was only 5 (five) capital markets of ASEAN member countries, namely Indonesia, Singapore, Malaysia, Philippines, and Thailand, during the observation period from 2016 to 2018. While the sample using the criteria of sample portfolio analysis, which company



shares are classified as a liquid on the capital markets, have been known to have a significant correlation value in the period 2016-2018.

The analysis in this study is to analyse the data of each company's stock liquid capital markets. The respective data analysis capital market with a single index portfolio Sharpe analysis methods was made. Single Index Model portfolio analysis is a model of stock returns that divides the effect on yields to become systematic factors and company-specific factors. A single index is an analysis model developed by William Sharpe in 1963. The Single Index Model is a simplification of the theory of the Markowitz model that minimises input and analysis of portfolio theory to reduce the number of variables that need to be assessed. Besides, this model can also be used to calculate the expected return and risk portfolio. Single Index Model calculations relate to each asset return on the market index return. According to Elthon and Gruber (1995), are the portfolio performance measurement methods, one of which is a measurement with a parameter that is associated with the risk level (one performance parameter measure) as the Treynor Ratio, the Jensen Ratio and the Sharpe Ratio. The Single Index model has similarities with the Treynor Ratio that measures the performance of the portfolio based on the amount of premium return generated by each unit of systematic risk as measured by beta.

Result and Discussion

According to Markowitz (1952), there are benefits of diversification quantitatively using a portfolio consisting of two risky assets. Through pure mathematics, Markowitz was able to prove that the portfolio risk can be minimised if two assets have a negative correlation coefficient. According to Brigham and Daves, (2004), the risk in investment generally can be divided into two: First, Unsystematic Risk is the risk of a stock or portfolio caused by securities or other problems faced by particular industries. This risk can be avoided by diversifying. Both Systematic Risks (Market Risk) The second type of risk is a risk due to general market movements, such as changes in a country's economy, tax changes, and the world energy crisis. This risk cannot be minimised by diversifying; even investors who have diversified are affected. Some research results related to the diversification of the investment portfolio by Alexander and Baptista (2001); Rowland & Tesar (2004); Abidin, Ariff, Nassir, & Mohamad (2004); Costa and Nabholz (2007); DeSantis & Gerard (2009) reported on the benefits of diversification for investors. Kramer and Lensink (2009); Balarezo (2010); Berger, Pukthuanthong, & Yang (2011); Eiling, Gerard, Hillion, & de Roon (2012) also supported the importance of diversification.

The importance of diversification would still consider return and the risk obtained. Return and risk have a direct relationship, the higher the return, the higher the risk. The stock return is a calculation tool to measure the performance of global stock exchanges as seen from comparing the average stock return of all listed companies in a dialogue with other transactions. Investors desire to get the maximum profit with minimal risk, so investors should seek to minimise the



risk. Investment decisions of an investor can be rational or irrational, which is the part of the behaviour of finance. Nofsinger (2001) defined financial behaviour (behavioural economics) as studying how human beings behave in a determination of the actual investments (a commercial setting), which is influenced by psychological factors in making financial decisions, companies, and industrial markets. Solvic (1969 and 1972) suggested the psychological aspects of the investment and stockbroker. The existence of these psychological factors affects the placement, and results will be achieved. Investment through portfolio diversification: all available funds should not be invested in a single stock, but the portfolio should consist of many stock companies (Fabozzi, 1999).

A general overview of the study samples for each of the capital markets of the ASEAN-5, namely: Indonesia Stock Exchange (BEI) or the Indonesia Stock Exchange (IDX), owns 45 of the most desirable shares because it has a good level of liquidity that is often referred to LQ45. A list of companies that fit the criteria of the sample during the period 2016-2018, amounted to 34 companies. Singapore Exchange Ltd (SGX) is a Singapore stock exchange which listed 30 most liquid companies; data sampled liquid companies incorporated in the Singapore Stock Exchange were as many as 21 companies. Kuala Lumpur Stock Exchange (KLSE) has 30 most liquid companies on the stock exchange of Malaysia (www.bursamalaysia.com). Fluid corporate data corresponds with sample criteria and are members of the Stock Exchange of Malaysia, some 24 companies. The Philippine Stock Exchange (PSE), Philippine Stock Exchange reinde, or PSEI consists of 30 of the most liquid companies. Liquid corporate data corresponding with sample criteria and are members of the Malaysian stock exchange, some 29 companies. The Stock Exchange of Thailand (SET), this study, the SET index used is the SET50 index. Liquid corporate data corresponding with sample criteria and are members of the Stock Exchange of Thailand, some 26 companies.

The analysis of this research is the analysis of the international portfolio that uses the primary reference for Southeast Asia. The goal is for investors who want to diversify internationally and are not too focused on the region. The companies' candidate in each capital market portfolio values obtained greatest C_i or C^* of 0.00020. Using the fundamentals of Southeast Asia riskfree, they use a standard that is SIBOR and uses Risk market Singapore capital market; after the portfolio is analysed, there were 26 companies candidates who combined a collection of some 59 companies. The proportion of optimal portfolio funds on the highest stage of this analysis is on companies that are **HA CPALL**; Thailand capital markets firm is at **0.1713%** and the lowest proportion in the company **SRIL** located in Indonesia capital market has a portion of **0.0058%**. Both companies are the highest and the smallest area in the capital markets of developing countries, and this means there are potential investments that provide optimal results in countries with developing conditions.



Conclusion

The international portfolio of ASEAN capital market with a standard 5 SIBOR (Singapore Interbank Offered Rate) acquired companies included in the collection of Optimal candidates, as many as 26 companies. Based on the analysis, investors selected stocks' companies involved in the candidate optimum collection, by considering the value of ERB and C_i , so that it can provide benefits and contribute significantly to the scientific investment decision. Some of the information needs to be reviewed and considered by investors or prospective investors in stock investments in the capital market, investing in stocks exposed to the risk, both systematic risk and unsystematic risk. Unsystematic risk can be eliminated through diversification, namely by forming the optimal portfolio. Portfolio analysis using a single index model by comparing the value of excess return to beta with the cut-of- point, can be used as the basis for making investment decisions in stocks.



REFERENCES

- Abidin, S. Z., Ariff, M., Nassir, A. M., & Mohamad, S. (2004). International portfolio diversification: A Malaysian perspective. *Investment management and financial innovations*, (1, Iss. 3), 51-68.
- Alexander, G. J., & Baptista, A. M. (2001). A Var-Constrained Mean-Variance Model: Implications for Portfolio Selection and the Basle Capital Accord. In *EFA 2001 Barcelona Meetings*. <https://doi.org/10.2139/ssrn.275894>
- Balarezo, J. (2010). *International Diversification using Co-Integration and Modern Portfolio Theory*. Unpublished Master Thesis, Dept. of Economics, Copenhagen Business School.
- Berger, D., Pukthuanthong, K., & Yang, J. J. (2011). International diversification with frontier markets. *Journal of Financial Economics*, 101(1), 227-242. <https://doi.org/10.1016/j.jfineco.2011.02.009>
- Brigham, E. F., & Daves. P. R. (2004). Mergers, LBO's, Divestures and Holding Companies. *Intermediate Financial Management*, 866-915.
- Bodie, Z., Kane, A., and A. J. Marcus. (2014). *Investments, 9th Edition*. New York: McGraww Hill Global Holdings.
- Bousslama, O., & Ouda, O. B. (2014). International portfolio diversification benefits: The relevance of emerging markets. *International Journal of Economics and Finance*, 6(3), 200. <https://doi.org/10.5539/ijef.v6n3p200>
- Costa, O.L.V dan R.B. Nabholz. (2007). Multiperiod Mean-Variance Optimization with Inter-temporal Restrictions. *Journal Optimum Theory Application* 134: 257-274. <https://doi.org/10.1007/s10957-007-9233-x>
- Dimitriu, M. (2014). Modeling the efficient frontier of an investment portfolio. *Journal Knowledge Horisonz – Economics*, 6(3), 35-40.
- DeSantis, R., A., & Gerard, B. (2009). International Portofolio Reallocation: Diversification Benefit and European Monetary Union. *European Economic Review*, 53(8), 1010-1027. <https://doi.org/10.1016/j.euroecorev.2009.01.003>
- Eiling, E., Gerard, B., Hillion, P., & de Roon, F. A. (2012). International portfolio diversification: Currency, industry and country effects revisited. *Journal of International Money and Finance*, 31(5), 1249-1278. <https://doi.org/10.1016/j.jimonfin.2012.01.015>
- Elthon, E. J., and Gruber, M. J. (2010). *Modern Portfolio Theory and Investment Analysis, 8thEd*. John Wiley & Sons.
- Fabozzi, F. J. (1995). *Investment Management*. New Jersey-USA: Prentice Hall.
- Gitmant, J. L. (2005). *Principle of Managerial Finance, Elevent Edition*, Pearson.



- Goel, M.D. & Chaudhary, M. M. S. (2013). Advantages of International Portfolio Diversification. *International Journal of Marketing, Financial Services & Management Research*, Vol. 2, No. 4, ISSN 2277-3622.
- Goh, Q. R., Annuar, M. N., & Zariyawati, M. A. (2014). The Benefits of Diversification in ASEAN Stock Market to Malaysia Investors. *Asian Social Science*, 10(4), 78. <https://doi.org/10.5539/ass.v10n4p78>
- Grauer, R. R. & Hakansson, N. H. (1987). Gains From International Diversification. 1968-85 returns on portfolios of stocks and bonds. *The Journal of Finance*, 42(3), 721-739. <https://doi.org/10.1111/j.1540-6261.1987.tb04581.x>
- Grubel, H. G., & Fadner, K. (1971). The Interdependence of International Equity Markets. *The Journal of Finance*, 89-94. <https://doi.org/10.1111/j.1540-6261.1971.tb00591.x>
- Ibrahim, M. H. (2005). International Linkage of Stock Prices: The Case of Indonesia. *Management Research News*, 28(4), 93-115. <https://doi.org/10.1108/01409170510784823>
- Kramer, M dan Lensink, R. (2009). The Impact Of Financial Advisors On Individual Investor Portfolio Performance. Finance Department, Faculty of Economics & Business, University of Groningen (NL). <https://doi.org/10.2139/ssrn.1342690>
- Lessard, D. R. (1973). International portfolio diversification: a multivariate analysis for a group of Latin American countries. *The Journal of Finance*, 28(3), 619-633. <https://doi.org/10.1111/j.1540-6261.1973.tb01384.x>
- Loudon, Geoffrey. (2017). The impact of global financial market uncertainty on the risk-return relation in the stock markets of G7 countries. *Emeraldinsight Journal*. Vol. 34, Iss 1. pp 2-23. <https://doi.org/10.1108/SEF-05-2013-0069>
- Mansourfar, G., Mohamad, S. & Hassan, T. (2010). A Review of International Portfolio Diversification: The Middle East and North African Region. *African Journal of Business Management*, 4(19), pp. 4167-4173.
- Markowitz, H. M. (1952). Selection, Portfolio, and Efficient Diversification. *The journal of finance*, 7(1), 77-91. <https://doi.org/10.1111/j.1540-6261.1952.tb01525.x>
- Markowitz, H. M. (1959). *Portfolio Selection*. New York: John Wiley & Sons.
- Nofsinger, J. R. (2001). *Investment Madness: How Psychology Affects Your Investing and What to Do About It*. Prentice Hall.
- Rua, A. & Nunes, L. (2009). International Comovement of Stock Market Returns: A Wavelet Analysis. *Journal Empirical Finance*, 1-8.



- Sethapramote, Y., Prukumpai, S., & Kaewju, A. (2014). Stock Market Integration and Portfolio Diversifications in the ASEAN Economic Community (AEC): A Thai Perspective. In *Asian Finance Association (AsianFA) 2014 Conference Paper*. <https://doi.org/10.2139/ssrn.2396471>
- Sharpe, W. F. (1963). A simplified model for portfolio analysis. *Management science*, 9(2), 277-293. <https://doi.org/10.1287/mnsc.9.2.277>
- Solnik. (1995). Why Not Diversify Internationally Rather Than Domestically. *Financial Analysts Journal* (January-February 1995): 89-94. <https://doi.org/10.2469/faj.v51.n1.1864>
- Solvic, P. (1969). Analyzing the Expert Judge: A Study of a Stockbroker's Decision Process. *Journal of Applied Psychology*, Vol. 27; pp. 255 - 263. <https://doi.org/10.1037/h0027773>
- Solvic, P. (1972). Psychological Study of Human Judgement: Implications for Investment Decision Making. *Journal of Finance*, Vol.27; pp. 779 - 801. <https://doi.org/10.1111/j.1540-6261.1972.tb01311.x>
- Stambaugh, F. (1996). Risk and Value at Risk. *European Management Journal*. Vol.14, pp.612-621. [https://doi.org/10.1016/S0263-2373\(96\)00057-6](https://doi.org/10.1016/S0263-2373(96)00057-6)
- Rowland, P. F., & Tesar, L. L. (2004). Multinationals and the gains from international diversification. *Review of Economic Dynamics*, 7(4), 789-826. <https://doi.org/10.1016/j.red.2004.05.001>
- Xiao, L., & Dhesi, G. (2010). Volatility Spillover and Time-Varying Conditional Correlation between The European and US Stock Markets. *Global Economy and Finance Journal*, 3(2), 148 - 164.
- Zafaranloo, F. R. & Sopian, R.Z.Z. (2013). The Benefit of International Portfolio Diversification in Asian Emerging Markets to the U.S Investors. *International Journal of Business, Economics and Law*. Vol. 2, Issue 2. ISSN: 2289-1552.