The 1st Proceeding of The International Conference on Economics and Business
Vol.2, No.1 January-June 2023
e-ISSN: 2963-3370; p-ISSN: 2963-3656, Page 57-68

Effect of Systematic Risk on Stock Market Development in Indonesia: Moderating Role of Political Stability

Elmira Siska
Faculty of Business and Accountancy, Lincoln University College, Malaysia
Email: esiska.phdscholar@lincoln.edu.my

Oyyappan Duraipandi
Faculty of Business and Accountancy, Lincoln University College, Malaysia
Email: oyyappan@lincoln.edu.my

Corresponding author: esiska.phdscholar@lincoln.edu.my

Abstract. *The objective of this study is to examine effect of systematic risk which include the exchange rate, rates of interest, inflation, and the stock market capitalization in Indonesia linking with political stability as moderating variable. This study based on secondary data from the first quarter of 2000 until the last quarter of 2020. Quantitative research design with descriptive approach employed in this study. To avoid spurious regression, the stationary of the time series was check by utilyzing the Ng-Perron unit root test. To process the data, SPSS-25 and Eviews-10 program were applied. According to result of Ng-Perron test, research's variable is stationary at the first difference. Regression result confirmed that systematic risk, which consists of the USD exchange rate against the rupiah, interest rates, inflation level have a negative impact on stock market development in Indonesia. Second, political stability plays an important role on weakened negative impact of exchange rate, interest rates, and inflation on stock market development in Indonesia. The study recommends that the Indonesian government along with public people must be able to maintain domestic political stability*

Keywords: *Systematic Risk, Stock Market Development, Political Stability.*

INTRODUCTION

The prevalent belief that financial sector is one of component of economic growth has been strengthened by the growing significance of financial markets across the world (Lenka & Sharma, 2017). Capital market is part of the financial markets. The capital market has an important role to an economy country (Igoni et al., 2020). The capital market runs two functions, namely the economic function and function finance. In economic function, capital market provide meeting facilities two interests, namely the party that owns excess funds (investors) and parties who require funds (issuers). As is capital market, parties who have advantages funds can invest the funds in the hope of

Received on Febuary7th, 2023; Revised on March 2nd, 2023; Accepted on April 26th, 2023
*Elmira Siska, : esiska.phdscholar@lincoln.edu.my

making a profit (return), while the company (issuer) can use these funds for investment interests without waiting Availability of company operating funds.

The existence of the capital market in Indonesia is an important factor in national economic development, proven by many industries and companies who use these institutions as media to absorb investment and media to strengthen its financial position (Sari, 2018). Factually the capital market has become the nerve center of finance (financial nerve center) in the world of economics today's modern, even the economy modern cannot possibly exist without it strong and competitive capital market global and well organized. In addition, the capital market is also used as one an indicator of economic development a country (Lenee & Oki, 2017).

Shahbaz et al., (2018) explained that the financial market plays an important role in improving economic growth through mobilization financial resources and capital inflows. Companies and governments alike can benefit from the existence of the capital market. Both can take advantage of a variety financial instruments in the capital market for finance long-term projects. Indonesian capital market is growing market. In development, the capital market is very vulnerable to general macroeconomic conditions as well global economic conditions (Amtiran et al., 2017). The macroeconomic effect is not affect company performance instantly but slowly and deeply long period of time. In addition to macro-economic factors that are synonymous with systematic risk, conditions of domestic political stability also influence the development of the capital market (Irshad, 2017; Mertzanis & Allam, 2018). The objective of this study is to examine effect of systematic risk which include the exchange rate, rates of interest, inflation, and the stock market capitalization in Indonesia linking with political stability as moderating variable.

LITERATURE REVIEW

Overview and Development of Indonesia Capital Market

Prior to Indonesia's independence, the capital market already existed. The stock exchange, often known as the capital market, was first established in 1912 in Batavia, during the Dutch colonial era. In those days, the colonial administration or VOC benefited

from the establishment of the capital market by the Dutch East Indies government (Herison et al., 2022).

Even though the capital market has existed since 1912, the development and growth of the capital market did not go as expected, even during several periods of capital market activity there was a vacuum . This was caused by several factors such as World War I and II, the transfer of power from the colonial government to the government of the Republic of Indonesia, and various conditions that prevented the stock exchange operations from running as they should (Gunawan & Hendrawaty, 2018). The Government of the Republic of Indonesia reactivated the capital market in 1977, and a few years later the capital market experienced growth in line with various incentives and regulations issued by the government. One of indicator development of Indonesia capital market can be seen from the stock market capitalization as depicted in the Figure 1. Over the past 20 years, the Indonesia stock market capitalization has grown by more than 3100 percent.

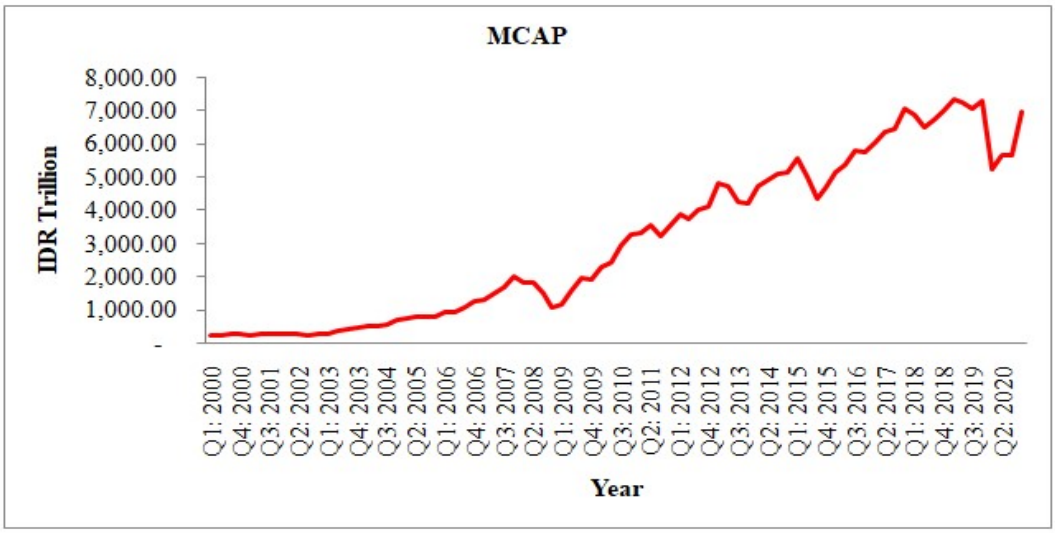

Figure 1. The Growth of Indonesia Stock Market Capitalization 2000 - 2020

However, this robust expansion is accompanied by a shallow of Indonesia's capital markets. Comparatively to developing markets and other ASEAN nations, Indonesia's capital markets are currently smaller and less liquid. The market capitalisation of listed firms in Indonesia is smaller than that of its neighboring countries, and Indonesia's securities and stock markets are comparatively undeveloped. Indonesia's stock market

capitalization is still low at 50% of the GDP. On the positive side, it means that Indonesia has ample room for growth.

Systematic Risk

According to (Jedynak & Bąk, 2020), risk is the possibility that an event will not occur profitable. Based on this definition, it is understandable that every investor who will make an investment will definitely estimate and estimate risk by taking into account the factors that influence it.

In general, risks that can be divided into two types, namely systematic risk and unsystematic risk. Systematic risk is a risk that cannot be avoided, systematic risk comes from inflation, foreign exchange rates, interest rates and market risk (Devia, 2019). This systematic risk cannot be diversified, cannot use asset allocation, cannot be predicted. Usually systematic risk is measured by Beta (β).

Unsystematic risks are risks that can be avoided, for example massive labor strikes, mergers with larger or smaller companies, lawsuits from suppliers, failed research, corruption cases. These news can make stock prices rise dramatically or fall dramatically and cause a market reaction. This unsystematic risk can be diversified with portfolios and investors can move their investments according to their expectations. Figure 2 displays the systematic and unsystematic risk.

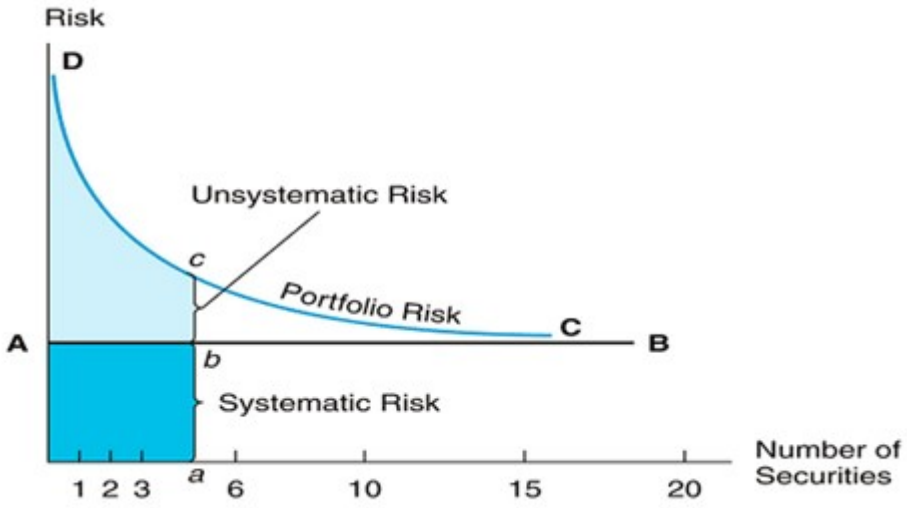

Figure 2. Systematic and Unsystematic Risk

e-ISSN: 2963-3370; p-ISSN: 2963-3656, Page 57-68

Political Stability

Emerging stock markets are likely to be vulnerable to variables such changes in economic activity levels, shifts in the political, and global economic surroundings. According to (Smales, 2014), political stability has a significant impact on capital market conditions since turbulent political situations often indicate stable economic and security conditions. The political stability has great impact on macroeconomic balance and creating a climate that is conducive to business in a nation (Musibah et al., 2015).

Therefore, the political situation in the country into consideration for the investors to invest. Investors will place expectations on political stability, and such expectations may be reflected in fluctuations in stock prices. Moreover (Permana, 2016) explain that political phenomena, particularly those that have occurred in the country may also have an impact on stock price fluctuation, which will eventually have an impact on the stock market's capitalization. Definitely, factors affecting political risk, such as regime change, government economic involvement, and property rights laws, might have a negative impact on the decision-making process for foreign investors.

Research Framework

The research framework in Figure 3 was developed to examine how systematic risk affected Indonesia's stock market capitalization linking with political stability during the period 2002 until 2020.

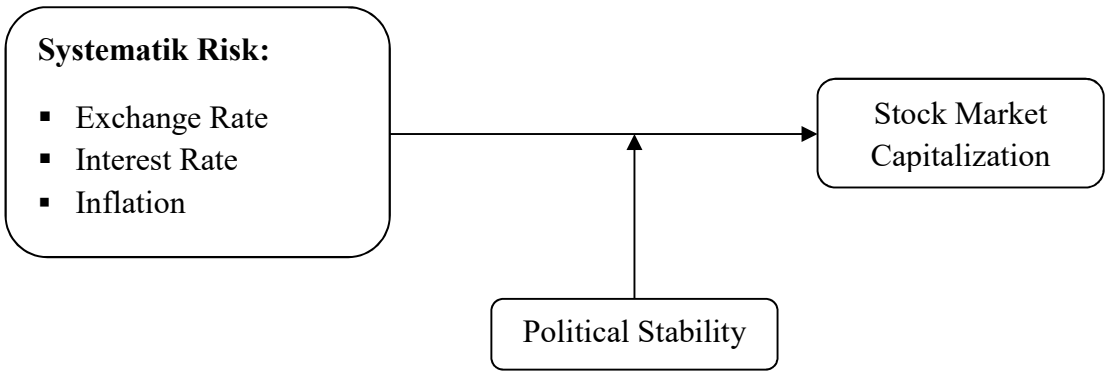

Figure 3. Research Framework

RESEARCH METHODS

Research Design

In order for addressing research concerns involving numerical data and statistical models, this study uses a quantitative research design through descriptive method. The phrase "quantitative research approach" refers to methodologies that investigate certain populations or samples, collect data using research equipment, then statistically analyze that data in order to assess the set hypotheses.

Data

To investigate the effects of systematic risk on stock market development in Indonesia, secondary data from the 1st quarter of 2000 until the 4th quarter of 2020 was used. Time series data for interest rates and exchange rates were taken from the Bank Indonesia directory. Data on inflation were retrieved from the Statistics Indonesia database. The Indonesia stock exchange directory was used to get data on stock market capitalization. Data for political stability in Indonesia was obtained from the Global Economy directory.

Hypothesis Development

Research's hypothesis can be formulated as follows:

H1: There is relationship between exchange rates and stock market capitalization

H2: There is relationship between interest rates and stock market capitalization.

H3: There is relationship between inflation and stock market capitalization.

H4: Political stability moderates impact between exchange rates and stock market capitalization

H5: Political stability moderates impact between interest rates and stock market capitalization

H6: Political stability moderates impact between inflation and stock market capitalization

Unit Root Test

Unit root test is use to test whether the data has a stationary pattern or stable (Rizal & Akbar, 2015). To avoid spurious regression, we first investigate the characteristics of the time series data we are working with to see if the variables are stationary or nonstationary in nature. In this investigation, the Ng-Perron unit root test was used. The presence of a unit root or the fact that the time series is non-stationary is the null hypothesis for the Ng-Perron unit root test. The alternate hypothesis is that the time series is stationary or that there isn't a unit root.

To evaluate if the time series data is stationary or not, the Elliott-Rothenberg-Stock DF-GLS (Ng-Perron) statistic will be compared to MacKinnon's crucial value at any significant level. If the absolute value of the Elliott-Rothenberg-Stock DF-GLS (Ng-Perron) statistic is greater the MacKinnon's critical value, so, the null hypothesis is rejected, means the data in a time series is stationary, or vice versa.

Hierarchical Regression Analysis

Hierarchical regression was run by utilizing the SPSS-25 to examine the predictive power of the hypothesized model and to identify the moderates effect political stability.

FINDINGS AND DUSCUSSION

Unit Root Test

Result of Ng-Perron unit root test for the series lnSMC, lnEXR, INT, FLA, and POL at the level and first difference were summarized in the Table 1

Table 1. Ng-Perron Unit Root Test at Level and First Difference

Factors	Ng-Perron Statistic	McKinnon Value			Status
		1%	5%	10%	
Panel A. Unit Root Test at Level					
lnSMC	-0.908074	-2.593468	-1.944811	-1.614175	I(0)
lnEXR	-0.834199	-2.593121	-1.944762	-1.614204	I(0)
INT	-1.729987	-2.593468	-1.944811	-1.614175	I(0)
FLA	-1.647410	-2.593121	-1.944762	-1.614204	I(0)
POL	-1.546722	-2.593472	-1.944811	-1.614341	I(0)

Panel B. Unit Root Test at Difference					
lnSMC	-6.894226	-2.593468	-1.944811	-1.614175	I(1)
lnEXR	-9.976070	-2.593468	-1.944811	-1.614175	I(1)
INT	-3.759090	-2.593468	-1.944811	-1.614175	I(1)
FLA	-5.693560	-2.594563	-1.944969	-1.614082	I(1)
POL	-5.878602	-2.594788	-1.944811	-1.614175	I(1)

From the result of the Ng-Perron unit root test as displayed in Table 1 Panel A, it can be seen that absolute value of Ng-Perron statistics is smaller than the cirical value of McKinnon at each significant level. This outcome revelaed that we can't reject the null hypothesis. So, all variables are non stationary at the level or all variable has zero order integration. Then, we run the unit root test at first difference. The result of Ng-Perron unit root test for all time series at first difference can be seen from the Table 1 Panel B. Based on the result of the Ng-Perrom unit root test at first difference, it can be seen that the absolute value of Ng-Perron statistics is greater than the critical value of McKinnon, so the null hypothesis is rejected. Therefore, we can conclude that all series are stationary at first differences or we can denotes as the I(1) series.

Hierarchical Regression Analysis of Moderating Effect

The hierarchical regression results were used to examined the moderating effect of Political stability on the relationships of the systematic risk and stock market capitalization in Indonesia. The results of hierarchical regression was displayed in the Table 2.

Table 2. Identification the Moderating Effect of Political Stability (Stock Market Capitalization as Dependent Variable)

Variables	**Predictor**	**t-Value**	**Moderated**	**t-Value**	**Interaction**	**t-Value**
lnEXR	-0.338***	-3.643	-0.322***	3.457	-0.217***	-2.334
INT	-0.268**	-2.876	-0.270**	3.684	-0.321**	-2.742
FLA	-0.384**	-3.540	-0.340**	3.982	-0.240	-3.232
POL			0.642	2.644	1.446**	2.440
lnEXR-POL					-0.174***	-2.986
INT_POL					-0.134**	-3.484
FLA-POL					-0.282	-2.569
F value		1.908		3.408		4.702
F Sig.		0.154		0.188		0.004

e-ISSN: 2963-3370; p-ISSN: 2963-3656, Page 57-68

R^2		0.344		0.564		0.813
Adjusted R^2		0.295		0.420		0.641
Sig. F change		0.140		0.006		0.054

Note: *** indicate p< 0.01; ** indicated p< 0.05;

Based on the findings displayed in Table 2. all systematic risk indicators has significant impact on stock market capitalization. The exchange has negative impact on stock market capitalization and significant at 1% level. This finding support the study of (Wahyudi, 2018). The interest rate and inflation have negative impact on stock market capitalization and significant at 5% level. This finding supports the hypothesis H1, H2 and H3.

Result from processing data shown in Table 1 depicted the interaction terms among political stability and systematic risk indicator. The interaction term lies between the exchange rate (β= -0.174, t= -2.986, p<0.01), interest rate (β= -0.134, t= -3.484, p<0.05), and inflation rate (β= -0.82, t= -2.569, p>0.1). These findings describe that political stability as significant moderator that influence exchange rate and interest. In relation to inflation, political stability moderator that influence of inflation rate but not significant statistically. In investigating the effects of moderating variable of political stability on the systematic risk and stock market capitalization, the finding support the H4, H5 and H6. This findings revealed that the political stability plays a significant role on weakened negative impact of exchange rate, interest rates, and inflation on stock market development in Indonesia.

Interestingly, the moderating impact of political stability on the relationship between inflation and stock market development was found not significant statistically. This may be due to the relatively low inflation rate in Indonesia. In the last 10 years, the annual inflation rate of 1.68% is the smallest annual inflation rate, where the average annual inflation rate in the 10-year period is 4.23% with the highest annual inflation rate in 2013 by 8.38%.

In Indonesia today, legislative and presidential elections are held every five years as a manifestation of popular sovereignty. Every election in Indonesia is viewed as free and fair as of the fall of Suharto's New Order, which signaled the start of the Reformation period. However, there are still issues with corruption, nepotism, collusion, and money-

politics, which allow for buying of political positions or influence. For instance, the less wealthy sections of Indonesian society are 'encouraged' to cast their votes for a particular presidential candidate on election day by being given some modest change at the polls. Such tactics continue to be employed by all parties engaged. Eventhough, currently Indonesia is recognized as the third largest democracy in the world. This shows that political stability in Indonesia is going well. Indonesia's political stability is very important to attract investors to invest in the Indonesian capital market, so as to encourage the growth of the stock market

CONCLUSION AND RECOMMENDATION

Based on research findings that has been discuss in previous section, there are 2 things can be concluded. First, systematic risk, which consists of the USD exchange rate against the rupiah, interest rates, inflation figure have a negative impact on stock market development in Indonesia. Second, political stability plays an important role on weakened negative impact of exchange rate, interest rates, and inflation on stock market development in Indonesia. The study recommends that the Indonesian government along with public peoples must be able to maintain domestic political stability

ACKNOWLEDGEMENT

This paper is a part of my doctoral dissertation at the Faculty of Business and Accountancy at Lincoln University College in Malaysia. Dr. Purwanto Widodo is acknowledged by the authors for his help and support throughout data processing and valuable feedback for the article review.

REFERENCES

Amtiran, P. Y., Indiastuti, R., Nidar, S. R., & Masyita, D. (2017). Macroeconomic factors and stock returns in APT framework. *International Journal of Economics and Management*, *11*(SpecialIssue1), 197–206.

Devia, V. (2019). The correlation of exchange rate and inflation and its effect on stock markets. Case Study on Consumer Good Index Indonesia: 2004 – 2017. *Academic Journal of Economic Studies*, *5*(2), 32–44.

Gunawan, & Hendrawaty, E. (2018). Stock Liquidity and Market Capitalization: Investment Challenges in Indonesian Capital Markets. *International Journal of Economics and Management Studies*, *5*(11), 11–20. https://doi.org/10.14445/23939125/ijems-v5i11p103

Herison, R., Sahabuddin, R., Azis, M., & Azis, F. (2022). The Effect of Working Capital

Turnover, Accounts Receivable Turnover and Inventory Turnover on Profitability Levels on the Indonesia Stock Exchange 2015-2019. *Psychology and Education*, *59*(1), 385–396. www.psychologyandeducation.net

Igoni, S., Henry Ogiri, I., & Orlu, L. (2020). Perceived Macroeconomic Factors and Stock Market Capitalization: Experience from the Nigerian Economy Perspective. *Asian Journal of Economics and Empirical Research*, *7*(1), 105–114. https://doi.org/10.20448/journal.501.2020.71.105.114

Irshad, H. (2017). Relationship Among Political Instability, Stock Market Returns and Stock Market Volatility. *Studies in Business and Economics*, *12*(2), 70–99. https://doi.org/10.1515/sbe-2017-0023

Jedynak, P., & Bąk, S. (2020). Understanding Uncertainty and Risk in Management. *Journal of Intercultural Management*, *12*(1), 12–35. https://doi.org/10.2478/joim-2020-0030

Lenee, T. L., & Oki, J. (2017). Capital Market Development and Economic Growth: Evidence from the Mint Countries. *Journal of Economics and Sustainable Development*, *8*(2), 68–107. https://pdfs.semanticscholar.org/ab94/20d75af9878b05816a7b2c41d1dd9dbcce4c.pdf

Lenka, S. K., & Sharma, R. (2017). Does Financial Inclusion Spur Economic Growth in India? *The Journal of Developing Areas*, *51*(3), 215–228. https://doi.org/10.1353/jda.2017.0069

Mertzanis, C., & Allam, N. (2018). Political Instability and Herding Behaviour: Evidence from Egypt's Stock Market. *Journal of Emerging Market Finance*, *17*(1), 29–59. https://doi.org/10.1177/0972652717748087

Musibah, A. S., Shahzad, A., & Bt Fadzil, F. H. (2015). Impact of foreign investment in the yemen's economic growth: The country political stability as a main issue. *Asian Social Science*, *11*(4), 102–116. https://doi.org/10.5539/ass.v11n4p102

Permana, D. N. I. (2016). Relationship Between Political Stability with The Market Performance (Case Study on Jakarta Composite Index). *International Journal of Management and Applied Science*, *2*(7), 22–26.

Rizal, J., & Akbar, S. (2015). Perbandingan uji stasioner data time series antara metode: control chart, correlogram, akar unit Dickey Fuller, dan derajat integrasi. *Jurnal Gradien*, *11*(1), 1040–1046.

Sari, S. W. M. (2018). The Impact of Islamic Capital Market Development on Economic Growth: The Case of Indonesia. *Journal of Smart Economic Growth*, *3*(2), 21–30.

Shahbaz, M., Bhattacharya, M., & Mahalik, M. K. (2018). Financial development, industrialization, the role of institutions and government: a comparative analysis between India and China. *Applied Economics*, *50*(17), 1952–1977. https://doi.org/10.1080/00036846.2017.1383595

Smales, L. A. (2014). Political uncertainty and financial market uncertainty in an Australian context. *Journal of International Financial Markets, Institutions and Money*, *32*(1), 415–435. https://doi.org/10.1016/j.intfin.2014.07.002

Wahyudi, R. N. (2018). the Influence of Macroeconomic Variables Toward Jakarta Composite Index on Indonesia Stock Exchange. *JBMI (Jurnal Bisnis, Manajemen, Dan Informatika)*, *14*(2), 131–148. https://doi.org/10.26487/jbmi.v14i2.2164