Conference Paper

The Impact of Political Risk and Macro Economics on Stock Return at Indonesia Stock Exchange (An Approach of Arbitrage Pricing Theory (APT))

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Abstract
Politics Risk and Macro Economics factors Indonesia have become one of the indicators for investors to invest in Indonesia. Generally, investors expect a higher expected return, but the desire is not in accordance with the fact that the rate of return obtained is small. This study aims to find out the effect of Politic Risk and macro factors on the return rate with the approach of Arbitrage Pricing Theory (APT). Systematic factors that became the object of this study, among others; market risks, economic growth (GDP), inflation, interest rates, rupiah exchange rate and political risks. This research uses the explanatory method, with analysis unit is the companies listed in Indonesia Stock Exchange. The data used are time-series data and cross-section data based on the company's financial statements during the study period 2007-2017. The sampling technique used purposive sampling method in 194 companies for nine years. Data analysis is done in two stages: First-pass regression (time-series) to determine excess return asset based on the beta value of macro factor and second-pass regression (cross-section). The result of the research shows that there is difference of systematic factors influence to stock return in three observation period. Increased market risk and economic growth, increase stock returns. High inflation and interest rates cause investors to reconsider the investments they have made. The strengthening of the rupiah against the US dollar is a positive signal for market participants where they still have confidence in Indonesia’s economic condition. Political risk becomes one of the factors that need to be considered in determining stock return other than market risk and macroeconomic factors.

Keywords: APT multifactor, macro economic factors, market risk, political risks, stocks returns

1. Introduction

Investation is basically an action of investors by placing a particular amount of fund at present time in order to get profit at future time. However, the investing action cannot be separated from its risk (the uncertainty), considering that the investment decision may
result in unexpected profit. The investment risk is crucial and it requires knowledge and comprehension from the investors or the prospective investors. The rational investors, before taking investment decision must consider two things, namely the expected return and risk that depend on the investment type.

If an investor expects a high return, the investor should be willing to bear a high risk (Gultom & Fachrudin, 2013). There are commonly two types of investment risks; the unsystematic risk and the systematic risk. The unsystematic risk derived from the company itself or several similar companies due to the stock liquidity of the companies (Amanda & Pratomo, 2013).

Roll & Ross (1980) explain that there are three treatment in testing the APT related to the expected return, namely: (a) testing APT on return, (b) determining the correlation between residuals, and (3) considering the difference of structural factors of various securities. Unlike the CAPM that uses single factor to estimate the systematic risk, APT can use single factor, market portfolio, and multiple factor model to see their impact on stock return. However, one of the main limitations of APT is the fact that the amount of factors or index model are unknown, therefore tests by statistical or economic analysis are required (Benakovic & Posedel, 2010).

In the context of APT, beta is often referred to as a factor loading, if APT has the opportunity to obtain a zero degree of arbitrage, where two portfolios have the same risk, they will not produce a different level of expected return, meaning that there will be a net investment of zero.

APT has not sufficiently determined which factors are consistently included to estimate the share price. It is because APT still shows some significant weaknesses, especially in, especially in dealing with economic changes and different economic characteristics throughout the countries. Differences in economic characteristics can explain variations in the results of related research such as a study that found a positive correlation of returns and risks in an economy, while the same research conducted in another country showed that there was no significant correlation of return and risk (Herwany, Omar, Meera & Febrian, 2014).

Based on some of the APT empirical studies, the phenomenon of capital markets related to APT is still relevant and actual for conducting a research to have practical and theoretical implications. The theoretical implications related to the APT are still an interesting issue. The differences in the results of the APT empirical research is a challenge for researchers to conduct further research using more relevant and valid methods and data. Practical implications can provide a clear illustration for investors or
capital market players in explaining the impact of macro economic factors on the risk premium expected from a stock.

The first main issue is the use of political risk variables in the context of APT that relate to stock returns, where political risk provides a macro impact on all investment activities. Attention to political risk increases along with the increasing development activities, especially in developing countries. This can have an impact on the development of the capital market in a country, because the dynamics of the capital market can change through the dynamic global political changes, especially in developing countries.

The presence of international funding flows from developed countries to developing countries is an important issue, because portfolio cash flows for developing countries can increase market volatility and economic instability. Several countries have responded this condition by implementing regulations aimed to limit the amount of capital entering their countries. Such restrictions can be seen as changes in political risk (Bilson, Brailsford & Hooper, 1999).

The emergence of political risk is a phenomenon that occurs throughout the world, which has an impact on the capital market, meaning that if there is an occurrence, such as political events happens, investors will react to the occurrence. Investors will react positively if the political occurrence gives positive effect on the stock movements. On the contrary, investors will react negatively towards political occurrence that gives negative impact on stock movements.

Political risk is a risk where the ruling government suddenly changes the rules of the game on business activities in a country (Butler & Joaquin, 1998). While Bilson et. al (1999) defines political risk as a condition that describes the risks arisen due to government actions (government policies in the economy; ownership of government-owned companies; security disturbances) and other domestic influences that can threaten investment activities in a country. This condition can affect multinational companies, instability in government, foreign investment, as well as fiscal and monetary policies. In addition, political risk also affects the value of multinational companies through changes in future cash flows and required return from investors (Butler et. al, 1998). It is because investors will recalculate the value of investments made in a country and its impact on the company’s cash flow in the occurrence of political risks, especially those related to foreign investment.

The changes of macro economic condition in Indonesia is affected by the political occurrence. Various political occurrence such as the election of legislative candidates, presidential election, and other political events are indicators that are absorbed by capital market actors and are used to gain future profits. This condition makes investors
wait to see investment prospects in the future, especially related to foreign investment. This situation can trigger the occurrence of Indonesia’s domestic political risk, which is a factor that is feared both in the short and long term.

The second main issue in this study is the effectiveness of the APT with the use of several macroeconomic factors (GDP, inflation, interest rates and exchange rates). Regarding investment policies that include determining investors and their ability to invest, investors must know and understand the movements of stocks to be able to facilitate the determination of investment choices (Brown & Reilly, 2009).

Share prices are strongly influenced by investor expectations, therefore they can quickly respond to existing occurrence or information. This is related to the level of investment made by investors and the risks that occur. The many economic occurrence that may happen very quickly at national and international levels, has made the market to be able to survive especially for extreme cases such as the global economic crisis happened in the last few years that affects every aspect in a country (Spyridis, Sevic & Theriou, 2012).

Generally, investors expect a high expected return, but this desire does not correspond with the fact that the level of return generated is low. This condition can occur because of the sensitivity of stock returns. This condition can occur because of the sensitivity of stock returns. The sensitivity of stock returns is a function of one or more factors used to see the sensitivity of stock returns. Market returns reflect macro factors along with the company’s average sensitivity towards this factor. According to Bodie, Kane & Marcus (2014) if each share has a relatively similar sensitivity to each risk factor such as macro economic factors, then all systematic risk sources become one variable (returns on the market index will ignore the differences that explain each stock return better).

Herwany et. al (2014) argues that some variables of macro economic in Indonesia can be identified as having influence on determining return, but not all variables can be used. The fluctuations in the economic variables used produces high volatility in the Indonesia Stock Exchange (IDX Composite) which in turn can prevent investors from predicting stock prices. In addition, the existing economic volatility varies from one to another countries. Rapid changes in economic conditions affect economic variables as well as high volatility of stock fundamental factors. Therefore, an equilibrium model is needed to capture the relationship of risk and return volatility factors. It can be seen from the crisis that occurred in 1998, 2008 and 2014 caused by the weakening of the world economy. In general, Indonesia’s macro conditions are shown in the following table 1.1.
The fluctuative economic growth in Indonesia has caused the investors reconsider to make investment in Indonesia. Referring to table 1.1., in 2015 the Indonesia economic declined by 0.22%, but it managed to increase during the following years. The decline in economic growth is the lowest in the last five (5) years, this condition is caused by a global economic slowdown that has limited economic activity and investment in Indonesia.

Furthermore, the inflation rate in Indonesia also fluctuates due to various factors both internal and external. Table 1.1 shows that the higest inflation happens in 2008, 2013 and 2014 due to external and internal factors. The external factors are caused by the global economic slow down which affect in 2008, while the internal factors are caused by the increasing of fuel and basic needs prices in 2013 and 2014. However, in 2015 the inflation level in Indonesia could be suppressed by the government to 3.35% due to the policy of increasing interest rates carried out by the government since 2014, thus it could overcome the increasing of basic need prices.

On the other hand, the exchange rate of Rupiah which is still weakening against the US dollars has an impact on the economic activities in Indonesia. In 2017, the Rupiah depreciated against the US dollar up to Rp. 14,500, this condition led Rupiah depreciated by 5.80% compared to the previous year. The weakening of the exchange rate of the Rupiah against the US dollar was partly due to: (1) the recovery of the United States economy and planned interest rate increases by The Feds, (2) market perceptions when the rupiah broke a certain level which quickly triggered dollar buying.

Stock trading activities on the Indonesia Stock Exchange (IDX) also fluctuated. The data on the performance of the Indonesia Stock Exchange in table 1.1 show that during
the last four (4) years the performance of the Indonesia Stock Exchange (IDX) has been fluctuative. It is showed by the IDX Composite value achieved by the IDX, in 2014 the JCI’s performance reached the peak at 5.227 which made the IDX as one of the active capital markets in the Asian region. However, in 2015 the JCI performance decreased by 12.13% compared to the previous year. This decline in performance was caused by external factors related to the global economic slowdown.

Based on the empirical evidence, there is a correlation of systematic risk factors on stock return. This study uses the systematic risk factors that consist of: market risk, economic growth, inflation, interest rate, the rupiah exchange rate, and political risk.

Referring to the illustration, it is necessary to conduct further research on: "Political and Macroeconomic Risk Factors that have an impact on Stock Returns on the Indonesia Stock Exchange (an Approach of Arbitrage Pricing Theory / APT)

2. Literature Review

2.1. Portofolio Theory

The investors expect a particular return by investing their fund in the form of stocks or other securities. But in investing, there is risks to bear. Therefore, to reduce the risk, the investors can diversify investment of their funds.

The Portfolio theory was first stated by Harry Markowitz in 1952. Markowitz explains that the process of portfolio selection can be divided into 2 steps, namely: (1) by conducting observation, experience and trust upon the future performace of the security, and (2) relevant trust on the security performance in the future that ends on portfolio selection. Markowitz uses an approach of return variability as the basis for calculating investment risks.

This research attempts to find the correlation of political risk, micro economy and market risk factors on stock return and test the balance model of Arbitrage Pricing Theory (APT) at Indonesia Stock Exchange that will be built based on the existing theoretical frame that relates to the risk theories and financial management theories.

2.2. Arbitrage Pricing Theory (APT)

Ross (1976) develops an alternative theory as a substitute for the theory of Capital Asset Pricing Model introduced by Sharpe, Lintner and Treynor (SLT), that in addition to systematic risks, there are other factors that influence return stock.
APT relies on three things, including: (1) securities returns can be illustrated by factor models; (2) there are securities that adequately distance idiosyncratic risk; and (3) a well-functioning securities market does not allow continuous arbitration opportunities (Bodie et al., 2014). Asset prices are generally believed to react sensitively to economic news. Everyday experience seems to support the view that individual asset prices are affected by various unexpected occurrences and several other events (Chen et al., 1986).

In addition, Sun & Zhang (2001) reveals that APT is a theory related to lowering required rate of return of insecure asset based on systematic asset correlation for several risk factors. Unlike the CAPM, APT allows several factors to influence asset returns. Although more intuitive, APT makes no statements about size or risk premium signs for each factor. Therefore, the selection of analysis model is very important to do to choose factors and interpret them in APT.

Elton et al. (2003) explains that APT is a new and different approach in determining asset prices that attempts to capture some non-market influences that simultaneously give the impact on assets. This is based on the law of one price where two of the same items cannot sell at different prices. Unlike the CAPM which requires strong restrictions on distribution and return preferences, APT characterizes the expected return on assets based on the assumption that there is no chance of arbitration, returns follow a homogeneous structure of factor and expectations (Gilles & LeRoy, 1990).

APT assumes that opportunity for profit arbitrage is quickly eliminated through competitive power. It means that investors cannot obtain a positive expected return from a combination of several assets without causing some risk and without producing some net investment (Berry et al., 1988). In general, APT implies that asset returns can be broken down into expected returns. Thus, APT predicts that general information will affect the rate of return on all shares, but in different amounts. In this way APT is more common than the CAPM, because it allows a greater number of factors that affect the rate of return. (Cuthbertson, 2004).

### 2.2.1. Gross Domestic Product (GDP)

Equity returns are a function of the flow of future cash flows that highly depend on economic conditions in the future. Gross Domestic Product (GDP) is measured by calculating the total amount of goods and services produced in an economy (Liow, Faisal, & Huang, 2005). There is empirical evidence that stock returns are positively correlated to future real activities that are measured by GDP.
Research conducted by Liow et al. (2005) found that GDP in Hong Kong, Singapore, and Japan has a positive correlation on property stock excess returns, while in the UK GDP was negatively correlated to the excess return of property shares. While Pilinkus (2009) conducted a study of the correlation of stock returns and macroeconomic variables at the Lithuanian stock market. One of the macroeconomic variables used as indicator in his research was GDP. The result of this research stated that GDP has negative correlation on the stock returns (Pilinkus, 2009).

Hsing (2011) conducted research in three countries, namely Bulgaria, Croatia, and South Africa, using macroeconomic variables. For the GDP variable in these three countries, Hsing (2011) found that GDP has a positive correlation with the stock market indexes in Bulgaria, Croatia, and South Africa because the stock market indexes in the three countries are more sensitive to changes in real GDP. This result is consistent with Hsing, Phillips & Phillips (2013) who conducted a research in Mexico. While El-Nader & Alraimony (2012) used the GDP variable to see its impact on the stock market in Amman. The result is consistent with that of Hsing (2011) where GDP has a positive impact on the Amman stock market index.

2.2.2. Inflation

The effect of inflation rate is considered important in finance and real asset prices. Generally, inflation is measured by Consumer Price Index (CPI) where the measurement is conducted based on the amount of goods and service purchased by household sector. Inflation is commonly divided into two parts: expected inflation rate and unexpected inflation rate. The latter is commonly defined as the difference of actual inflation rate on expected inflation rate (Liow et al., 2005). In addition, inflation affects savings and investment decisions in different ways (Kyereboah-Coleman & Agyire-Tettey, 2008).

A research conducted by Liow et al. (2005) views the effect of macroeconomic on stock return of property companies in four countries: Singapore, Hong Kong, Japan and the UK. The result showed that the stock excess return of companies in Hong Kong has a positive correlation to the inflation, the similar condition happened in Singapore where there was a high rate of the property stocks excess return. In Japan, the inflation had a positive correlation to the excess return. However, a contrary condition happened at the UK market where the property stock excess return had a negative correlation to the inflation.
2.2.3. Interest Rate

A high interest rate commonly increases company’s debt and reduce the future net income. In addition, a high interest rate also affect investment activity of a company. In a condition where the interest rate is high, it is expected to give negative stock excess return of property companies. On the other hand, the high interest rate will increase the investor’s income that in turn stimulates the economic and stock market growth (Liow et. al, 2005).

A research conducted by Kyereboah-Coleman et. al (2008) found that there is a positive correlation of treasury bill rate on stock market performance in Ghana, although the correlation is not quite strong, because the loan interest rate is a defining factor of inflow fund into a country thus it has a strong influence. On the other hand, it is found that the high loan rate has a negative impact on business in Ghana. While Pal et.al (2011) found that the interest rate has a positive and significant correlation to the stock market in India, especially on government obligation offering and decreases the risk therefore influence the overall index.

A study conducted by Hsing shows a difference compared to that of Kyereboah-Coleman et. al (2008) dan Pat et. al (2011). Hsing (2011) found that actually the interest rate has negative correlation to the stock market index in three different countries, namely Bugaria, Croasia and South Africa, and this result is consistent with another study in Mexico and also consistent with the study conducted by Aamir, Akram, Shafique & Atif (2011). While Ozcan (2012) confirms that there is a correlation of interest rate to stock market rate in Istanbul, whis is contrary to the finding of El-Nader et.al (2012) who stated that there is a negative correlation of interest rate to the stock market index in Amman.

2.2.4. Exchange Rate

According to Purchasing Power Parity (PPP) theory, exchange rate will adjust as reflected in the relative inflation rate, because the exchange rate risk will not be separated from the price.

But in the short and medium term deviations from the PPP imply that the risk of exchange rates must be borne by investors. For example, the appreciation of the local currency against the US Dollar is expected to reduce the value of exports and the profits obtained and lead to lower economic growth. Conversely, the decline in the cost of imported goods can be beneficial for countries that have considerable trade relations
with the United States, which in turn can generate long-term benefits for the economy and the stock market (Liow et. al, 2005).

The study by Liow et al. (2005) regarding the correlation of stock excess returns to exchange rates showed a positive correlation in the Hong Kong, Singapore and Japan markets while in the UK the correlation of excess returns on exchange rates is negative. Kyereboah-Coleman et al. (2008) found there was a positive correlation of exchange rates and stock market performance in Ghana. Although the currency exchange rate of Ghana (Cedi) has depreciated against foreign currencies but it does not affect the performance of the Ghana stock market.

A study by Pal et. al (2011) shows a result that contradicts of that by Kyereboah-Coleman et al. (2008) where the currency exchange rate of India (Rupee) has a negative correlation to stock market in that country, because some developing countries such as India need a large amount of foreign currency to conduct transaction (especially related to export – import)

2.2.5. Market Return

Market return is market return is the level of market profit, thus to get the maximum level of market profit, you must first know the market conditions (Waskito & Fitria, 2016). In balanced market conditions, investors will not be able to obtain abnormal returns (extra returns) from the price level formed. Therefore, this condition will encourage all investors to choose a market portfolio, which consists of all existing risk assets (Saipul & Erliana, 2010).

Systematic risks of a company is very important since it shows the company risk related to the market risk, if the company risk is higher than the market risk, it will affect the stock holder values, the risk changes is reflected from stock market at efficient market (Alaghi, 2013). Tehoritically, (Kim, Gu, & Mattila, 2002) said that big companies tend to have low systematic risks due to their better capability in minimizing the impact of economy, social and political changes (Sullivan, 1978) or their market power allows them to achieve superior profit in a more competitive environment (Ang et. al, 1985; Moyer & Chatfield, 1983).

In finance, systematic risks happens when investors cannot diversify risks and use CAPM where the beta coefficient relates to the company stock return. Beta Market Portfolios are used to estimate the weighted average capital costs used by investors as discount rates to evaluate capital budgeting and financial leasing projects (Lee & Hooy,
While Hsing (2011) found a negative correlation of exchange rate to stock market index in Bulgaria, Croatia and South Africa.

### 2.2.6. Political Risk

Political risks are risks happen in a particular country due to unexpected occurrence and changes on rules of the game of business in that country. This condition give a significant impact to multinational companies that will affect the company's values. That impact can be seen from the future cash flow and investor required return (Butler et al, 1998). Political risk is often defined as an adverse risk resulting from political events. This definition is used because the emergence of political risk can reduce the value of the company, therefore if this risk arises then the manager must immediately consider the steps or policies that will be carried out (Butler et al, 1998).

Uncertainty about the impact of future government policies is not the same in every region because it is adapted to existing political maps. As a form of change in political map and power shifts, new items appear on the political agenda, where investors will find it difficult to assess the types of policies in the future that relate to the growth and cash flow of the company. A high level of uncertainty regarding the impact of the company's future policies can increase financial risk on company assets, especially for stocks with high returns (Kim et al, 2012).

Diamonte et al (1996) conducted a study on the impact of political risk changes on return in developing countries. In the study they argued that political risks in developing countries happened due to the changes in economic factors therefore affect the stock return. Furthermore, it is explained that during the last 10 years the political condition in developing countries had been tended to be safer than political condition in advanced countries.

### 2.2.7. Stock Return

Return is a result of investment. The return can be in form of realized return, a return that has been a realization or expected return, a return that has not been a realization but is expected to happen in the future. Realized return is calculated by the historical data. The realized return is important because it is used as one of the tools to measure a company performance while expected return is a return that is expected by the investor in the future (Jogiyanto, 2010)
Jones (2004) says that investment return is consist of two main component, namely yield and capital gain (loss). Yield is a return component that reflects cash flow or revenue that is gained periodically from a particular investment. While capital gain (loss) as the second component is a return from the increasing (decreasing) of a security that can give profit (loss) for the investor. In other words, capital gain (loss) can be interpreted as changes in the price of securities.

Expected return reflects the premium value for the largest share, especially if market multiple do not fully included fundamental factors. The possible prior return impact on expected return is an interesting issue. The analysis commonly set price target for short term, approximately one year, they are influences by Jegadeesh & Titman (1993) who found that stock return has a positive correlation to prior return during one year period.

3. Previous Research

The different results from previous researches on macroeconomic factors, market return, political risks, and stock return as well as the APT balance model has motivated the author to conduct a further research on those matters. From various empirical studies found several results that relate to the variables being used in this research. Those researches showed positive, either significant or not significant effect, as well as negative either significant or not significant effect.

This theoretical gap is caused by differences in the data used in each country, the methodology used and the variables or proxies used in previous studies.

Similarities of this research with previous studies are;

1. Use macroeconomic indicator such as: economic growth, inflation, interest rate and exchange rate.

2. Use market return as indicator

3. Use indicator of political risk; that is politicak risk index

Based on the previous empirical studies, the state of art in this research is combining variables existing on previous researches, of which the previous researches focus on one or more variables such as; the correlation of market return with stock return or macroeconomic with stock return, and political risk with stock return.
4. Research Method

4.1. Object of Study

The Object of this study is macroeconomic factors, market return, political risk and stock return. The macro factors are identified by economic growth (GDP), inflation, interest rate, the exchange rate of rupiah and political risk, while the market return is measured by IDX Composite.

The unit of analysis in this study is companies of all sectors listed at Indonesia Stock Exchange (IDX) during the research period of January 2007 – December 2015. The basis of determining is to see the overall roles of all sectors in Indonesia Stock Exchange in supporting the national economy.

4.2. Methodology

The method used in this research is explanatory method that purposes to examine the hypothesis of causal correlation of studied variables. According to its nature, this research is descriptive study that aims to describe the object of the study (Rianse & Abdi, 2009).

4.2.1. Variable Operationalization

The basic concept of operational definition covers the notion to obtain data that will be analyzed in order to operate the research concept into variables and ways of measuring them. Variables used in this research are:

4.2.2. Independent Variable

Independent variable is variables that affect other variables. The independent variable of this research are: economical growth (GDP), inflation, interest rate, the exchange rate of rupiah against the US dollar, market return, and political risk.

The political risk is measured by political risk index issued by International Country Risk Guide (ICRG). The reason of using risk measurement index issued by ICRG includes: (a) it has ranked political risks in more than 140 countries; (b) by using this approach, this study will be able to capture wider spectrum of political risks than event study because different risk factors are included in this approach. The measurement of
political risk conducted by ICRG is based on 22 components that is grouped into 3 main categories of risk, namely: politic that consists of 12 components, finance that consists of 5 components and economy that consists of 5 components.

Political component consists of 12 indicators, namely: politic, the government stability, social economic condition, investment profile, internal conflict, external conflict, corruption, military, religion, tribe, democracy and bureaucracy quality. The indicator of financial component includes: finance and condition of export-import trade. While the economic indicator includes: economic condition. Assessment is given to each component of the 3 risks, after the result of each group is added to give an overall risk assessment. The higher the rating obtained, the lower the political risk that occurs and vice versa.

In this research, only political risk component of total component (ICRG) will be used as indicator to measure political risk as shown in the following table:

4.2.3. Dependent Variable

Dependent variables are variables that are affected by other variables. The dependent variable in this study is stock return. Stock return is the ratio of investment income during several periods on the fund amount that has been invested (Jogiyanto, 2010). In this research, the stock return variable is calculated by the same concept of calculating market risk.
4.2.4. Data Source and Determining

The data in this study are sourced from secondary data, covering annual financial data of companies listed on Indonesia Stock Exchange during the period of January 2007 – December 2017 (monthly), that are obtained from: (a) Indonesia Capital Market Directory (ICMD); share price and IDX Composite; (b) Central Bureau of Statistics; economic growth (GDP) and consumer price index; (c) Bank Indonesia; Sertificate of Bank Indonesia, and the exchange rate of rupiah; (d) International Country Risk Guide (ICRG); political risk indices.

The observation period is divided into 3 categories, namely (1) the whole period January 2007 - December 2015; (2) crisis period 2007 - 2009 and; (3) non-crisis period 2010-2017. This study uses time-series data during the period January 2007 - December 2017 and cross-section data from individual stocks of all companies used as research samples. In addition, it uses supporting documents from financial journals as well as articles relating to research.
4.2.5. Population and Sampling Techniques

The population of this research is all companies in all sectors listed on Indonesia Stock Exchange during the period of study January 2007 – December 2017. Samples are taken using purposive sampling, i.e. the samples are chosen based on particular criteria and purpose of this research.

The criteria as the basis of samples selection are: (a) companies that publish complete financial statement every 31 December during the research period, (b) companies that publish information about the share price movement and stock trade monthly during the period of research, (c) companies that are not in bankruptcy problems. Based on those criteria, there are 194 (38.03%) companies that meet the criteria.

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Sumber: BEI (Fact Book). Data diolah (2015)

4.2.6. Data Collection Technique

The data collection technique is conducted by combining the data time series and cross section during the research period of January 2007 – December 2017. The data time series (monthly) during the research period of January 2007 – December 2017 include; the IDX Composite, closing price of individual stocks, economic growth (GDP), inflation, interest rate, exchange rate of Rupiah against the US Dollar and political risk indeks.

4.2.7. Analysis Design and Hypotese Tests

Analysis Design

This research uses time series data and cross section data. The data analysis method used in this study is regression analysis. The next steps of this research are as the following:

1. Estimated the beta value of macro variables; market return, economic growth, inflation, interest rate, exchange rate, and political risks.
2. Conducting an analysis time series regression to determine excess return asset based on beta value of each macroeconomic factor (GDP, inflation, interest rate and exchange rate of rupiah), market return, and political risks. The equation of the time series regression is as the following:

\[ R_i \text{it} = \beta_0 + \beta_1 R_P \text{it} + \beta_2 GDP \text{t} + \beta_3 INF \text{t} + \beta_4 SB \text{t} + \beta_5 NT \text{t} + \beta_6 Ri \text{Pit} + \epsilon \text{t}. \]  

(1)

Where; \( R_i \text{it} \): excess return asset; \( \beta_1 \text{it} \): Market Return; \( \beta_2 \text{it} \): Economic Growth(GDP); \( \beta_3 \text{it} \): Inflation; \( \beta_4 \text{it} \): Interest Rate; \( \beta_5 \text{it} \): Exchange Rate of Rupiah; \( \beta_6 \text{it} \): Political Risk.

3. Conducting cross-section analysis of the affect of systematic risk factors (market return, GDP, inflation, interest rate, exchange rate of Rupiah, and political risks), on stock return to determine the risk premium of each factor, as the following:

\[ \overline{R_i} = \lambda_0 + \lambda_1 \beta_1 + \lambda_2 \beta_2 + \lambda_3 \beta_3 + \lambda_4 \beta_4 + \lambda_5 \beta_5 + \lambda_6 \beta_6 + \epsilon_{it}. \]  

(2)

Where: \( R_i \): stock return; \( \lambda_0 \): constants; \( \lambda_1 \beta_1 \): market risk; \( \lambda_2 \beta_2 \): economic growth (GDP); \( \lambda_3 \beta_3 \): inflation; \( \lambda_4 \beta_4 \): interest rate; \( \lambda_5 \beta_5 \): exchange rate of rupiah; \( \lambda_6 \beta_6 \): political risk; \( \epsilon_{it} \): error

Hypothesis testing

Hypothesis testing is conducted to maintain the consistency of hypothesis testing and research hypotheses. Hypothesis testing is carried out upon all variables involved in
this research. The hypothesis testing taken in this research is one-sided test because the correlation of the two variables can be positive or negative.

The hypothesis testing specifications in this study are as follows:

1. Examine the effect of market return on stock return;
2. Examine the effect of economic growth (GDP) on stock return;
3. Examine the effect of inflation on stock return
4. Examine the interest rate on stock return;
5. Examine the exchange rate of rupiah on stock return;
6. Examine the political risks on stock return

**Classical tests**

The Classical Test for testing the regression results is carried out according to statistical requirements, such as Determination Coefficient Test ($R^2$), Partial Test (t-Test), Normality Test, Multicollinearity Test, Autocorrelation Test, Heterokedastic Test and Robustness Model Test conducted in this study but not discussed in this script.
5. Discussion

5.1. The Effect of Political Risk on Stock Return

When investors decide to make investment, they will consider political risk of the country where the investment will be placed. Investors expect a high political risk premiums for the investment placed in a country that has less stable political condition. The reason is, if there is an occurrence related to politics, it will affect the stock return thus will make the investors take various actions to safe their investment. The consequence of political risk will reduce the company’s value that is reflected from the decreasing of share price traded that eventually give impact on the lowering return rate obtained by the company. Therefore, the condition must be considered by the company’s managers.

This research finds that during the overall period (January 2007 – December 2017) the political risk premium had positive and significant effect on the stock return. During the non-crisis period (January 2010 – December 2017) the political risk did not affect the stock return. Similar result is found during the period of non-crisis (January 2010 – December 2017) where there was a positive and significant effect of political risk on stock return at 0.0301 (3.01%)

This findings indicate that there is an increase in political risk premium where investors will give negative signal to the market. During that period, there had been many political occurrences in Indonesia. These political occurrences has become important for the investors because it will affect trust and decision making related to their investment towards the policy that will be taken by the government at present as well as in the future.

Political dynamics that occur in the country, especially ahead of general elections, both the election of legislative candidates, regional head elections and president and vice president elections that can play a role in the determination and decision making. It was seen during the 2009 and 2014 elections, in which during those years the political condition in Indonesia heated. It indicates that Indonesia is still vulnerable to changes in political conditions which at times can trigger political risks.

The impact of the negative sentiment triggered investors, especially foreign investors, to release their shares and invest in other regions or countries. In addition, the Indonesian capital market is a weak capital market, therefore investors are very sensitive to changes that occur in the country, especially those related to political factors. If the political risk has negative shock value, it will lowering the stock return. If political
conditions show unstable symptoms, foreign investors will make capital outflows to other countries.

This situation will cause investment activities to be sluggish so that it impacts on activities in the market, which ultimately decreases stock returns. This result is consistent with the research conducted by Panzalis, Stangeland & Turtle (2000); Hasan (2003); Claude Beaulieu et al (2005); Pastor et al (2012); Brogaard & Detzel (2012); Cermeno & Suleman (2014). The existence of political events that tend to be detrimental has a large impact on the investment climate in a country, especially in developing countries. The impact of changes in political risk in developing countries is caused by changes in economic factors. Developing countries have a greater chance of political risk compared to developed countries, due to political conditions of developing countries are relatively unstable therefore they are vulnerable to political risk.

The political risk gives impact on the sustainability of foreign direct investment that is affected by investment climate, unstable political condition as determining factors in investment decision. Investors will continue to pay attention to the development of a country’s economic activity which is indicated to cause political risk, especially related to policies issued by the government of a country. Risk premium caused by political events in developing countries has higher value compared to that in developed countries. As a result, stock prices fluctuate thus it affects the level of stock returns.

Unconducive political situation are not favorable for countries that are in need of foreign investment. On the other side, the investors need to know and understand the changes due to macroeconomic factors as well as political factors.

5.2. The Effect of Market Return on Stock Return

Market risk is an indicator of potential profits that can be obtained from the high and low market returns (IDX Composite). If the amount of market risk is high, the investor will ask for a high level of profit as compensation for the high level of risk. This will have an impact on rising share prices which affect the level of individual stock returns that will increase. Conversely, if the market risk is low, the level of profits received by investors will be low as compensation for the low level of risk, consequently the stock price will decrease which causes the declining individual stock returns.

Positive value of market risk premium indicates that market risk can be used to predict the future stock return rate. This condition makes the investors respond positively to the exchange performance. Although a crisis happens, the investors still have trust that Indonesia market is still stable and will keep their investment in Indonesia.
5.3. The Effect of Economic Growth (GDP) on Stock Return

In overall period (January 2007 – December 2015) the risk premium of economic growth (GDP) did not affect the stock return. In crisis period (January 2007 – December 2009) the economic growth has a positive and significant effect on the stock return. While in non-crisis period (January 2010 – December 2015) the economic growth has a positive and significant effect on the stock return. This result is in line with the balance theory stated that if the risk premium of economic growth (GDP) increases, it will raise stock return.

The higher risk premium of economic growth (GDP) is, stock return will be high thus it draws interest for the investors to buy the stock that will increase the share prices. Risk premium obtained by the investors will be higher due to the increasing changes of economic growth (GDP). The increasing economic growth gives impact on IDX Compsite therefore the stock return will be high.

Although the global crisis happened (2008) and the national economic growth declined in 2015 by 0.22%, but the economic still grew in Indonesia, compared to other ASEAN countries. This condition does not stop the investment in Indonesia, because the investors still have trust that the economic growth in Indonesia will be recovering. Therefore, the investors still give positive respon and keep considering their decision to invest in Indonesia. This condition is certainly will affect the performace of Indonesia Stock Exchange, that eventually gives impact on return rate.

This result is consistent with the study conducted by Ataullah (2000); Bonini et. al (2007); Jecheche (2008); Tursoy et. al (2008); Benakovic et. al (2010); Maholtra (2010); Quadir (2012); Zhu (2012); El-Nader et. al (2012); Kisman et. al (2015). Who found that in making investment decision, investors tend to consider the risk due to the changes of economic growth (GDP). The investors expect that if they invest in Indonesia with a stable economic growth (GDP) they will gain profit that is reflected from the return rate.

5.4. The Effect of Inflation on Stock Return

The calculation of risk premium in overall period (January 2007 – December 2015) finds that inflation has a positive and significant effect on the stock return. In crisis period (January 2007 – December 2009) Inflation has a positive and significant effect on stock return. This findings are consistent with the balance theory and similar to the research by Altay (2003); Tursoy et. al (2008); Benakovic et. al (2010); Maholtra (2010); Izedonmi et. al (2011); Bahri (2013). A linear correlation of inflation risk premium and stock return
causes the investors to expect higher compensation due to the condition. In addition, the increasing of the inflation rate changes leads to higher interest rate on the money market and investors tend to move their funds to the capital market thus stock prices rise and the rate of return will increase.

In non-crisis period (January 2010 – December 2015), the inflation risk premium has a negative and significant effect on stock return. This finding indicates a declining inflation risk, therefore the investors give positive respond towards this condition and eventually gives impact on increasing stock return. The inflation does not always affect on the decreasing demand of market instruments.

This result is consistent with the research by Junttila (1998); Bonini et. al (2007); Benakovic (2010). The inflation changes do not significantly affect people’s buying power of basic needs. Another factor that causes inflation is rupiah depreciation against the US dollar, if the depreciation of rupiah does not happen, the possibility of inflation rate will not be too high, but this condition only takes place in short term. In 2015, the inflation rate can be reduced up to 5.05% thus it can reduce the price increase of basic needs.

The positive signal will be a good momentum to issue obligation, increase the number of investors to trigger the market optimism that leads to the increasing of stock trade movements at Indonesia Stock Exchange.

5.5. The Effect of Interest Rate on Stock Return

The calculation result of overall period (January 2007 – December 2015) shows that interest rate risk premium has a negative and significant effect on stock return. This finding indicates the decreasing in interest rate risk premium, therefore old investors will respon positively towards that condition by keeping their stocks in the market. While new investors who will place their funds will be more interested in investing in the stock market than in the money market. It will result in increasing share price and stock return will be higher. This result is consisten with that of Junttila (1998); Altay (2003); Bahri (2013).

In the crisis period (January 2007 – December 2009), the interest rate risk premium has a positive and significant effect on stock return at 0.0664 (6.64%) and in the non-crisis period (January 2010 – December 2015) found that interest rate has no effect on the stock return. This findings are in accordance with the balance theory stated that higher risk leads to higher return. The high interest rate risk premium is certainly give a negative signal to investors, and they will consider about type of their future investments because in this condition, the share prices tend to decline that will lead to
the low return rate. High interest rates also lead to increased capital costs that will be incurred by the company.

In addition, investors always pay attention on the movement of Bank Indonesia Certificate (BIC) due to the existence of government control through interest rate changes of Bank Indonesia Certificate (BIC) that will affect on the fluctuation of the stock return. The increase in interest rates will affect the stock price of the issuers on the Indonesia Stock Exchange. In 2014, the interest rate experienced an increase by 0.36% from 5.50% in 2013 to 7.50%. The increase of BI Rate gives positive and negative impact on the return rate of issuers at the Indonesia Stock Exchange.

For companies that want to expand their business, supplementary funding is needed either from their own capital or funding sourced from debt or loan of other parties. As a result, the companies will bear the cost of the interest expense of the loan so that it will have an impact on the net profits obtained by the companies. This finding is consistent with the research by Tursoy et. al (2008); Quadir (2012).

5.6. The Effect of Exchange Rate on Stock Return

Fluctuative exchange rate will cause risk. The higher fluctuation of exchange rate leads to the higher risk. Fluctuative exchange rate of rupiah against the US dollar will give positive and negative impact on stock return. The research shows that in overall period (January 2007 – December 2015) the exchange rate risk premium of rupiah has a positive and significant effect on stock return. In crisis period (January 2007 – December 2009) also finds that a significant and positive affect of rupiah exchange rate on stock return. This finding indicates an increase in exchange rate risk due to depreciation against the US dollar which has an impact on the company’s cash flow, especially companies that

The weakening (depreciation) of the Rupiah exchange rate against the US dollar can provide a negative signal for market participants because there will be investor concerns about the investments they make in Indonesia. The depreciation of the Rupiah exchange rate can reduce the value of Indonesian imports, where most companies (manufacturers) import raw materials from abroad, resulting in an increase in production costs thus the price of goods will increase.

On the other hand, the weakening of rupiah exchange rate can increase the export value from Indonesia to abroad. In addition, the depreciation of rupian against the US dollar can affect the financial position of companies especially relating to accounts payable transactions. This result is consistent with the researches by Liow et. al (2005);
That condition gives a positive signal to economy, because the strengthening of rupiah exchange rate against the US dollar will decrease production cost especially cost of imported raw materials. This finding is consistent with studies by Pal et al (2011); Hsing (2011); Hsing et al (2013); Mohi-U-Din et al (2013); Riantini et al (2013); Bahri (2013) dan Kirui (2014). Strengthening (appreciation) of rupiah exchange rate against the US dollar is a positive signal for the market participants because they still have trust upon the economic condition in Indonesia thus they still want to invest their funds in Indonesia; cost of imported raw materials can be reduced especially for manufacturer companies of which most of the raw materials have to be imported from abroad.

### 5.7. The Effect of Exchange Rate on Stock Return

Weakening (depreciation) of rupiah exchange rate against the US dollar can give a negative signal to market participant because it will raise concern upon the investment made in Indonesia. The depreciation of rupiah exchange rate can lowering the value of import in Indonesia where most of the companies (manufacturer) import raw materials from abroad thus it can give impact on increasing production cost that will lead to increasing prices of goods.

On the other hand, weakening of rupiah exchange rate can increase export value of Indonesia to abroad. In addition, depreciation of rupiah against the US dollar can affect the company’s financial position especially relating to account payable transactions. This finding is consistent with the studies by Liow et al (2005); Kyereboah-Coleman et al (2008); Benakovic et al (2010); Izedonmi et al (2011); Ozcan (2012); Zhu (2012) Samadi et al (2012).

In non-crisis period (January 2010 – December 2015) shows that the exchange rate risk premium of rupiah has a negative and significant effect on stock return. This finding indicates that rupiah exchange rate are appreciated against the US dollar, that causes decreasing in exchange rate risk of rupiah thus investors give positive respond towards market by conducting stock buying action, therefore the share prices will be improved.
### Table 2: The Result of Study and Hypothesis tests.

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hypothesis 1</strong></td>
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<tr>
<td>Market return has a positive effect on stock return (overall period)</td>
<td></td>
</tr>
<tr>
<td>1a. Market return has a positive effect on stock return in crisis period</td>
<td>H1a  positive</td>
</tr>
<tr>
<td>1b. Market return has a positive effect on stock return in non-crisis</td>
<td>H1b  positif</td>
</tr>
<tr>
<td>period</td>
<td></td>
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<td><strong>Hypothesis 2</strong></td>
<td></td>
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<tr>
<td>Economic growth (GDP) has a positive effect on stock return (overall</td>
<td></td>
</tr>
<tr>
<td>period)</td>
<td>H2  positive</td>
</tr>
<tr>
<td>2a. GDP has a positive effect on stock return in crisis period</td>
<td>H2a  positive</td>
</tr>
<tr>
<td>2b. GDP has a positive effect on stock return in non-crisis period</td>
<td>H2b  positive</td>
</tr>
<tr>
<td><strong>Hypothesis 3</strong></td>
<td></td>
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<tr>
<td>Inflation has a positive effect on stock return (overall period)</td>
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<tr>
<td>3a. Inflation has a positive effect on stock return in crisis period</td>
<td>H3a  positif</td>
</tr>
<tr>
<td>3b. Inflation has a positive effect on stock return in non-crisis period</td>
<td>H3b  negative/not supported</td>
</tr>
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<td><strong>Hypothesis 4</strong></td>
<td></td>
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<tr>
<td>Interest rate has a positive effect on stock return (overall period)</td>
<td></td>
</tr>
<tr>
<td>4a. Interest rate has a positive effect on stock return in crisis period</td>
<td>H4a  negative/not supported</td>
</tr>
<tr>
<td>4b. Interest rate has a positive effect on stock return</td>
<td>H4b  positive</td>
</tr>
<tr>
<td><strong>Hypothesis 5</strong></td>
<td></td>
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<tr>
<td>Exchange rate of rupiah has a positive effect on stock return (overall</td>
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<tr>
<td>period)</td>
<td>H5  positive</td>
</tr>
<tr>
<td>5a. Exchange rate of rupiah has a positive effect on stock return in crisis period</td>
<td>H5a  positive</td>
</tr>
<tr>
<td>5b. Exchange rate of rupiah has a positive effect on stock return in non-crisis period</td>
<td>H5b  negative/not supported</td>
</tr>
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<tr>
<td>Political risk has a positive effect on stock return (overall period)</td>
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</tr>
<tr>
<td>6a. Political risk has a positive effect on stock return in crisis period</td>
<td>H6a  positive</td>
</tr>
<tr>
<td>6b. Political risk has a positive effect on stock return in non-crisis</td>
<td>H6b  positive</td>
</tr>
<tr>
<td>period</td>
<td></td>
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</tbody>
</table>

### 5.8. Conclusion

Referring to the result of research on the effect of political risk factors and macroeconomy, market return and the impact on stock return, several conclusion can be made as follow:

1. There is a linear correlation of market return and stock return in three periods of observation, this condition corresponds to the balance theory stated that if the risk is higher then the return will increase.

2. Factors of political risk and economic growth (GDP) can be determined as defining factors for stock return rate. It is illustrated from the correlation of political risk and economic growth (GDP) that is linear on stock return, therefore the condition existed is in accordance with the balance theory.

3. Based on the findings in three periods of observation, the correlation of inflation on stock return in overall period (2007 – 2017) and crisis period (2007 – 2009) is linear, this result is consistent to the balance theory. In non-crisis period (2010-2017) the correlation of inflation and stock return is not linear.
4. In overall period found that the correlation of interest rate and stock return is reversed. This condition indicated that during that period the interest rate risk had decreased due to the policy issued by the government, therefore the investors give positive respond towards this condition. Otherwise, in crisis period the condition of interest rate and stock return is linear. This result corresponds to the balance theory. The high interest rate gives negative signal to investors and causes the investors divert their investment in other forms.

5. In overall period (2007 – 2017) and crisis period (2007 – 2009) the exchange rate and stock return is linear. While in non-crisis period (2010 – 2017) the exchange rate and stock return has reserved correlation. The strengthening (appreciation) of rupiah exchange value against the US dollar is a positive signal for the market participants of whom still have trust that economic condition in Indonesia will recover thus they still want to invest their fund in Indonesia; cost of imported raw material for production can be reduced especially for manufacturer companies of which most of the raw material have to be imported from aboard. On the other hand, the weakening (depreciation) of rupiah exchange rate against the US dollar can give negative signal to the market participants because a concern will be arisen towards the investment placed in Indonesia.

6. Based on the findings in three periods of observation, a linear correlation is found of political risk on stock return. This condition is in line with the balance theory. When investors decide to place an investment, they will consider political risk of the investment destination country. Investors expect high political risk premiums for investment made in countries where the political condition is less stable. An occurrence related to politics will give impact on stock return, therefore make investors take various actions to safe their investments.

References


