

CHAPTER I

INTRODUCTION

A. Background

Stock market volatility is a major concern for economic policy makers, as well as investors, listed companies, and market regulators. Volatility in the broad market reflects investor sentiment, which is a leading indicator of business investments, aggregate consumption, and economic cycles. High volatility deters investor participation and risk sharing and distorts investment decisions. It leads to higher costs of capital and deters firms from stock market listing and capital expansion. In emerging markets, high volatility is shown to be largely unrelated to the risk in economic fundamentals and is often associated with financial instability. Therefore high volatility impedes the growth and development of financial markets, which plays an important role in promoting long-run economic growth. This paper explores the predictability of stock market volatility Dow Jones in New York. Broad market volatility is a systematic risk faced by investors. The ability to forecast overall market volatility has direct implications on investment decisions, risk management, market regulation, and economic policy.

Stock market and its efficiency is important, because stock market channel is an investors savings from another nations. If the investors have a good and well-run exchange into production and productive service and its efficient, the stock

market channel this money into these area that most required. The price is determine by the supply and demand, it is what country need to prepare to face.

Economic activity in the world is becoming more interconnected, and depend on each other. The interaction of economic activities related to both real sector activities and the monetary sector. There is no state boundaries for the activities in monetary sector. Financial institutions run in money market and capital market.

The money market is a meeting of supply and demand in a short-term fund, while the capital market is a meeting between supply and demand in long-term funds that realize financial instruments could be traded. The existence of international capital markets investors can diversify their portfolios by buying securities in the stock exchanges, or observe the movement of foreign indices over time, both historical index or the past and predict the future.

Some country has different political systems, different currencies, different foreign exchange regulations, different trade restrictions, different political alliances, and various other types of trade barriers. Furthermore a different country has different phases of the business cycle with the other countries. The era of globalization of capital markets investors can cross national borders in investing, then that differences factors can be eliminated, some stock chart shows changes or have almost same in fluctuations price.

Some effect in foreign countries such as the Dow Jones (USA), Nikkei 225 (Japan), and for the ASIAN such as Hang Seng (Hongkong) and Straits Times

Index (Singapore) correlated with Jakarta Composite Index (JCI) in Indonesian Stock Exchange (IDX) on various stock exchanges around the world; investors can take conclusions and considerations for their investment. All of that stocks index has high trading volume in the four major countries such as USA, Japan, China, and Singapore as a country which act as a benchmark for growth the world economic, Because USA, Japan, Hongkong, and Singapore have the systems and the rapid movement of economic and also political as well as supported by country legislation and make accelerate the process of running a global economy, and make the world investors looked shares issued by these countries.

Based on a description of the background and the results of previous research are varied, it is difficult to detect the presence or absence of the effect on the stock price index in the foreign stock exchange against stock exchange in this country. It provides an opportunity to conduct further research in order to test the consistency of the results for previous studies and obtained empirical evidence whether there is any effect of the stock price index in the foreign stock exchange against stock exchange in this country. Therefore, researchers interested in conducting research on how the influence of foreign stock price index on composite stock price index in Indonesia Stock Exchange in the minor thesis entitled: "The Effect of Global Stock Index (Dow Jones Industrial Average, Nikkei 225, Hang Seng, and Strait Times) on Jakarta Composite Index at Indonesian Stock Exchange period of 2010-2012".

B. Formulation of the Problem

The formulation of problem statement posed in this research are:

1. Does global stock price index (DJIA, NIKKEI 225, Hang Seng, and STI) has effect partially and simultaneously on JCI at IDX in period of 2010-2012?
2. Which global stock index has the most influence on JCI ?

C. Research Objectives

Based on the research problems that have been made, the purpose of this research are:

1. Determining the effect partially and simultaneously of global stock price index (DJIA, NIKKEI 225, Hang Seng, and STI) against JCI at IDX in period of 2010-2012.
2. Determining global stock index has the most influence on JCI

D. Contribution of the Research

The result of this research will have contributions to several stakeholders, such as investors and further research

1. Theoretical

The study is expected to be useful for the development of capital market in Indonesia in particular science and can be used as a reference or comparison to studies conducted the days come.

2. Practical Aspect

This study is expected to be a reference and consideration for investor and company on the issue of the determination financial condition of the global market

3. For Next Researcher

This study can be used as benchmarks, the basic reference, and discourse for the research expansion and increase knowledge to develop further research.

E. Writing Structure

Writing Structure of the study are:

CHAPTER I INTRODUCTION

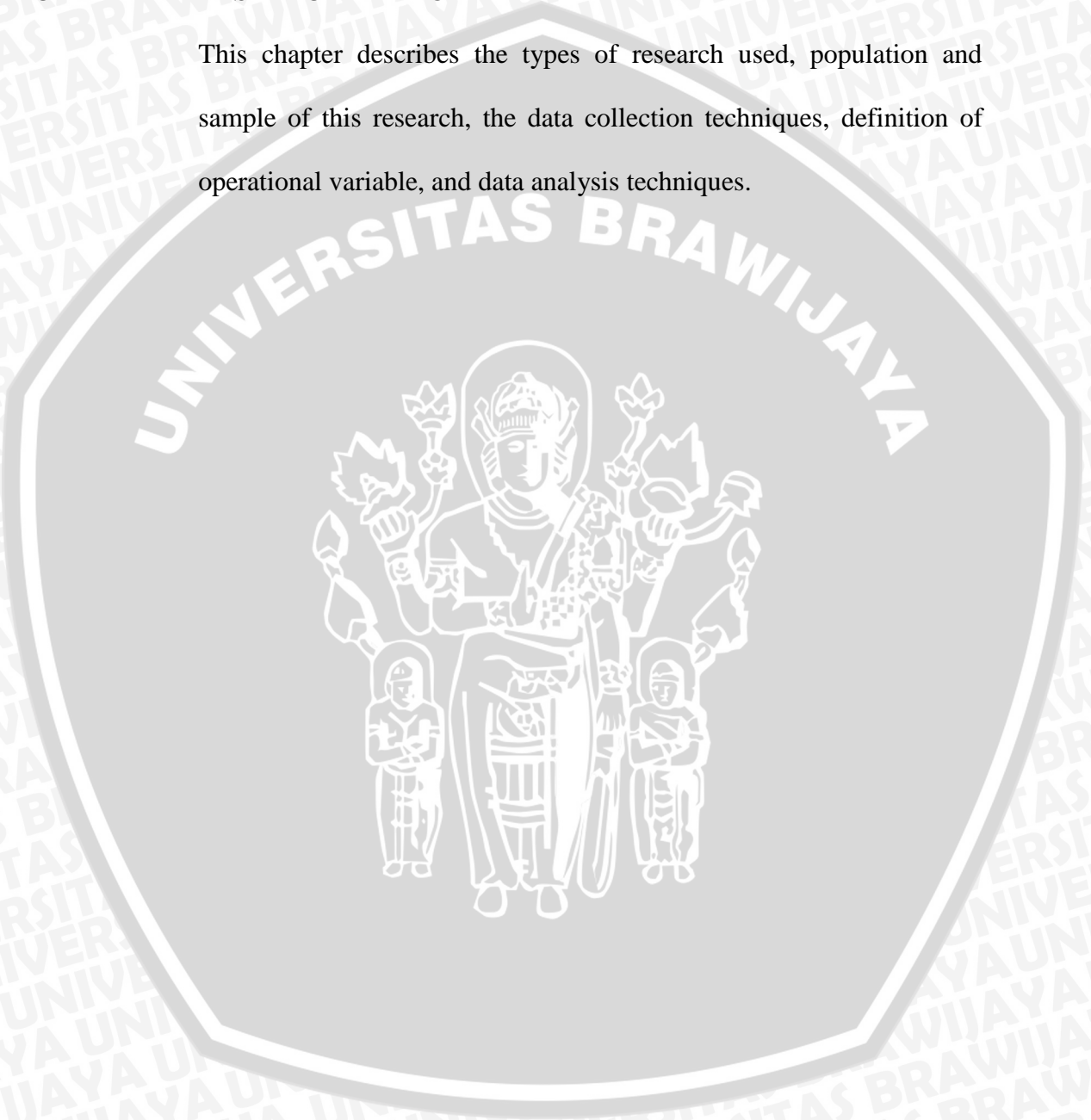
This chapter presents the background of the problem that the reason for the selection of the title of this minor thesis, formulation of the problem, and also this chapter will also explain research contribution and research objective, and also writing structure.

CHAPTER II LITERATURE REVIEW

This chapter consists of any previous research that related for this minor thesis, outlines the theories related to the existing problems , which includes about global stocks listed on IDX like DJIA , Nikkei 225 , Hang Seng , STI , and JCI in 2010-2012 that can be used as a basis for solving problem. Conceptual Framework and also hypothesis to explain what the research wants to describe.

CHAPTER III RESEARCH METHOD

This chapter describes the types of research used, population and sample of this research, the data collection techniques, definition of operational variable, and data analysis techniques.



CHAPTER II

LITERATURE REVIEW

A. Prior Research

1. Mansur (2006)

This research entitled “*Pengaruh Indeks Bursa Global Terhadap Indeks Harga Saham Gabungan (IHSG) Pada Bursa Efek Jakarta (BEJ) Periode Tahun 2000-2002*”, it turns out there are three models of analysis global indexes, namely the Hang Seng Index, the Dow Jones and FTSE for 5% significance level has no statistically significant effect on the Jakarta Composite Index (JCI). Positive direction of influence from that foreign stock movement has the same direction against JCI, means if that foreign stock weaken the JCI would also come down and if these indices gained, JCI will also gain. Conversely, if the index had a negative total effect, such as Hang Seng Index (Hong Kong), it means that the movement of the index will have the opposite direction. If the Hang Seng Index (Hong Kong) gained, JCI will weaken and vice versa if the Hang Seng (Hong Kong) come down, JCI has improved indication (gain). The statistical analysis of dynamic explains that there is a significant relationship between Jakarta Composite Index, Korea Stock Exchange, Tokyo Stock Exchange Taiwan Stock Exchange, and the Australian Stock Exchange, so that the trading activity in the IDX, affected by trading activity that occurred in that four foreign stock exchange .

- 1.1 Results of the path analysis testing models show that composite price index of global stock have a significant influence on the Jakarta Composite Index (JCI). While individual testing of that seventh global stock market index Stock Exchange conclude that Hong Kong, New York, and London does not have significant effect on JCI at IDX, the study period of 2000 to 2002.
- 1.2 Significant influence of Jakarta Composite Index (JCI) is shown by Korea Stock Exchange, Tokyo Stock Exchange, Taiwan Stock Exchange, and the Australian Stock Exchange
- 1.3 Analysis conducted Mansur of that four stocks have a significant influence amounted to 75.944 %. Korean stock exchange (KOSPI) the most dominant influence on JCI at IDX with significant influence value at 61.12 %, then the market index of Tokyo exchange (Nikkei) amounted to 44.61 %, the Hang Seng stock market index (Hong Kong) amounted to -29.296 %, and the stock market index result of Australian Stock exchange is smallest but statistically contributed significant effect in 0.06%. Compared between that seven global capital markets studied, the regional capital markets Asia and Australia will be more affected in Indonesian capital market than Europe and America.

2. Amin (2012)

This study entitled "*Pengaruh Tingkat Inflasi, Suku Bunga SBI, Nilai Kurs Dollar (USD/IDR, dan Indeks Dow Jones (DJIA) terhadap Pergerakan Indeks Harga Saham Gabungan di Bursa Efek Indonesia Periode 2008-2011*" The relationship between the rate of inflation , SBI , dollar exchange rate , the Dow Jones index fund , simultaneously to the JCI shows the inflation rate affect the performance of listed companies on the Stock Exchange , the other consideration is the investor -related information such as alternative investment foreign exchange rate , SBI , and others , and will have an impact on the JCI movement in IDX .

2.1 Inflation rate , interest rate SBI , value dollar exchange rate (USD / EUR) , the Dow Jones (DJIA) simultaneously influence the JCI . The magnitude of the effect caused by the four independent variables is equal to 62 % while the remaining 38 % may be influenced by other variables outside our model , such as: petroleum price , gold prices , price of the euro , and others .

2.2 The rate of inflation is not give partial effect on JCI

2.3 SBI interest rate has a positive effect on JCI

2.4 Value dollar exchange rate (USD / IDR) has negatif effect on JCI

2.5 The Dow Jones (DJIA) has a positive effect on JCI

2.6 Interest rates of SBI give the most influence dominant on the JCI than the other independent variables

3. Suyanto (2009)

This study entitled "*Analisis Pengaruh Perubahan Tingkat Suku Bunga Internasional Terhadap Pergerakan Indeks Harga Saham Gabungan Pada Bursa Efek Indonesia Selama Terjadi Krisis Keuangan Global*" showed that;

3.1 During the global financial crisis , changes in international interest rates have a different effect on each country against the movement of JCI in Indonesia Stock Exchange (IDX) either directly or indirectly through IDR

3.2 From path analysis results can be concluded that the changes in international interest rates to movements the JCI in Indonesia Stock Exchange during the global financial crisis are as follows :

- a. changes in U.S. interest rates do not directly affect the JCI movement , but has indirectly through changes in the exchange rate of IDR/ USD
- b. Changes in interest rates European region directly affects the JCI movement and does not have the indirect effect of exchange rate changes IDR / Euro
- c . Japanese interest rate changes directly affect the JCI movement and has no influence indirectly through changes in the exchange rate IDR / JPY .

4. Tamara (2013)

This study entitled “*Pengaruh Dow Jones Industrial Average, Deutscher Aktienindex, Shanghai Stock Exchange Composite Index, dan Straits Times Index Terhadap Indeks Harga Saham Gabungan di Bursa Efek Indonesia*” period of 2010-2012 suggest that increasingly close links between Indonesian stock exchanges with global stock markets as represented by the relationship between stock price index implies a faster rate of Indonesian stock exchange in response to the global stock market movements.

4.1 Based on the results of the simultaneous testing factors, DJIA, DA, SSECI and STI simultaneously influence that significantly composite stock price index by 88.8%, however 11.2% were changes in IHSG influenced by other variables such as the state of the global economy, trade relations between countries, exchange rates, situation and social conditions , politics, security, and other issues which can provide a certain sentiment for stock trading in Indonesia Stock Exchange

4.2 DJIA, Shanghai Stock Exchange Composite Index, SSI partially give significant effect on JCI. Meanwhile, Deutscher Aktienindex partially give no significant effect on JCI

From all the prior research, the difference of these studies with the previous studies is the difference in the selection of stock markets across countries, time periods of the study, the frequency of observation data, and the method of analysis used. This study also has similarities with the research that has been done before, because in this research use Jakarta Composite Index (JCI) at Indonesian Stock Exchange (IDX) as independent variables.

B. Investment

According to finance term investment means buying of assets (Hiriyappa: 2007). for example:

- a. Buying stocks and bonds
- b. Investing in real estate
- c. Mortgages

Investment can be defined as consumers delay at present to be used in the efficient production over a given period (Jogiyanto, 2009:5). Definition of investment is the commitment of funds or other fund sources are done at present, with the aim of obtaining a profit in the future (Fischer in Kamaruddin, 2004:1). While in my opinion, that investment as a commitment to a number of funds or other resources that is done at present, with the purpose of obtaining a profit in the future

1. Types of Financial Investments

Investments into financial assets can be divided by direct investment and indirect investment (Jogiyanto, 2009:7).

a) Direct Investment

Direct investment can be done by purchasing financial assets that can be traded in the money market, capital markets, or in derivative markets. Direct investment can also be done with the purchase of financial assets that can not be traded. Financial assets that can not be traded normally obtained through commercial banks, usually like bank deposits or certificates of deposit. Financial assets that can be traded in the money market that have a small risk of failure, short maturities with a high liquid level. Financial assets that can be traded in the stock market is like a financial assets in fixed income securities and stocks (equity securities). Assets that can be traded in the derivatives markets is like an option and the futures contract.

b) Indirect Investment

Indirect investment made by purchasing securities of investment companies, its like a companies that provide financial services by selling shares to the public using the proceeds to be invested into the portfolio.

2. Investment Process

Investment processes shows how investors should make investment decisions on the securities that can be sold, and when can be done (Halim, 2003:2). That investment process required to determine investment objectives, investors need to determine what their investment objectives, and how much investment will be made. The occurrence of a positive relationship between risk and return on investment, then the investor can not said that the investment objective is to obtain maximum profit. According to (Halim, 2003:2) required to be aware that there is likely to getting loss. Investment objectives must be expressed in both benefits and risks. Investors who are willing to bear greater risk (because they expect to obtain greater profits), will allocate funds on securities are more risky. Investment portfolio may consist of stocks and not bonds. Shares will be selected by the companies that have a high risk. In contrast to investors who are not willing to bear high risk may choose most of their investment on bonds in companies that considered safe. Risk preferences should be considered in the investment process.

3. Securities Analysis

This stage means an analysis of individual (or group) securities. There are two philosophies in securities analysis. The first are those who argue that there is mispriced securities (the price may wrong, maybe too high or too low) and analysts can detect these securities. There are various ways to do this analysis, but the outline seems these ways can be grouped into two: technical analysis and

fundamental analysis. Technical analysis uses data (change) prices in the past as an attempt to estimate the price of the securities in the future. Fundamental analysis seeks to identify prospects for the company (through an analysis of the factors that influence it) to be able estimate stock price in the future. The second one are those who argue that the security price is a fair, if there is mispriced securities, analysts were unable to detect it. Investors who hold this view argue conclude that the capital markets is efficient. Security selection is not based on mispriced factors, but based on the risk preferences of investors (investors who are willing to bear the high risk will choose riskier stocks), the pattern of cash needs (investors who want to earn stable income will select stable dividend stocks) and so on. Profits earned by investors, according to this opinion is in accordance with the risk they bear.

4. Returns and Risks from Investing

a) Component of Return (Jones et al 2009: 141):

- 1) Yield: the basic component many investors think of when discussing investing returns is the periodic cash flows (or income) on the investment, either interest or dividends. The distinguishing feature of these payments is that the issuer makes the payments in cash to holder of the asset. Yield measures relate these cash flows to a price for the security, such as the purchase price or the current market price.
- 2) Capital Gain (Loss): the second component is the appreciation (or depreciation) in the price of the asset, commonly called the capital gain (loss). Refer to it simply as

the price change. In the case of long position, it is difference between purchase price and the price at which the asset can be, or is, sold; for a short position, it is the difference between the sale price and the subsequent price at which the short position is closed out. In either case, a gain or a loss can occur.

b) Sources of Risk (Jones et al 2009: 143)

- 1) Interest Rate Risk: The variability in security's return resulting from change in the level of interest rates is referred to as interest rate risk.
- 2) Market Risk: The variability in returns resulting from fluctuations in the overall market that is the aggregate stock market. Market risk includes a wide range of factors exogenous to securities themselves, including recessions, wars, structural change in economy, and changes in consumers preferences.
- 3) Inflation Risk: A factor affecting all securities is purchasing power risk, or the chance that the purchasing power of invested dollars will decline. Since interest rates generally rise as inflation increases, because lenders demand additional inflation premiums to compensate for the loss of purchasing power
- 4) Business Risk: The risk of doing business in a particular industry or environment is called business risk. For example, PT Telkom Tbk., the traditional telephone powerhouse, faces major changes today in the rapidly changing telecommunication industry.

- 5) Financial Risk: Associated with the use of debt financing by companies. The larger proportion of assets financed by debt (as opposed to equity). The larger variability in the returns, other things being equal.
- 6) Liquidity Risk: Associated with the particular secondary market in which a security trades. An investment that can be bought or sold quickly and without significant price concession is considered liquid. The more uncertainty about the time element and the price concession, the greater liquidity risk.
- 7) Exchange Rate Risk: All investors who invest internationally in today increasingly global investment arena face the prospect of uncertainty in the returns after they convert the foreign gains back to their own currency.
- 8) Country Risk: Also referred to as political risk, is an important risk for investors today, probably more important now than the past. More investors invest internationally, both directly or not, the political, and therefore economic, stability and viability of a country economic need to be considered.

5. Capital Market

Capital market are the trading transaction of capital funds, debt and equity.

Included are private placement sources of debt and equity as well as organized markets and exchanges. (Downes in Anwar, 2006). The capital market used to buy and sell the equity , debt, and securities (Hiriyappa, 2007). By understanding the stock market according to the Capital Market Law no. 8, 1995:

"Capital Market as an activity that is concerned with the public offering and trading of securities, public companies relating to the issuance of securities, as well as institutions and professions related to the effect."

According to (Hirriyapa, 2007: 169) Capital markets may classified into three parts:

a) Industrial securities market

1) Primary Market or New Issue Market:

Market for new securities issues, in the primary market the security is purchased directly from the issuer. This differs from the secondary market. The primary market facilitates capital formation. According to (www.organisasi.org: 2013) Primary Market is where the first public offering of the issuer to investors during the time specified by the issuer (emiten) before that stock traded in the secondary market. Usually within a period of at least 6 (six) working days.

Stock prices in the primary market is determined by the underwriters and go public companies based on fundamental analysis of the company concerned. In the primary market, the company will obtain the necessary funds. The company may use the proceeds of the funds to develop and expand the capital goods for producing goods and services. Stock price on the primary market is fixed, the parties authorities are underwriters and brokers, the commission is not charged with ordering the conducted through

sales agent. After fulfilling the requirements for emissions, then chairman of the securities and exchange commission issued emission permits. Offer securities in the primary market has several stages and requirements that must be passed fulfilled. As for the stages offer securities in then primary market as follows;

1.1 Announcement and Distribution of Prospectus

Prospectus is a document that provides information and explanation regarding the issuance of new securities and their issuer. Announcements and distribution of the prospectus to prespective applicants, intended for candidates buyers know the willingness of the issuer and studying the bids of the issuer of the prospectus disseminated. In summary prospectus should contain information and investors in the prospectus that there should be a minimum there should be as follows:

- a) purpose public offering
- b) the directors and commissioners
- c) offering period
- d) the date of allotment
- e) date of refund
- f) date of listing on the stock exchange
- g) stock prices or bond
- h) underwriters
- i) quick financial statements
- j) the business issuers
- k) number and date of issuance
- l) the issuers capital structure

period and the distribution of this announcement, should be announced in the mass media.

1.2 Offering Period

Furthermore make an offer, which the offering period after dissemination of the prospectus. Minimum period of 3 working days and the period of time between emission permits with listing on the stock exchange at the time set a maximum of 90 days. Investors who want to do the ordering effect of the offer on the way fill the order form provided. Form for order should also contain information about:

- a) Stock / bond
- b) Number of shares / bonds ordered
- c) Subscriber identity
- d) The date of allotment and refund
- e) The amount of money paid
- f) Realtors are calling
- g) Procedures for ordering

Once the order form, then filled and signed, providing investors stay funds according to the order form along with a copy of identity card (KTP)

1.3 Allotment Period

When all order have been made, then the next step is to rationing, allotment made if the amount subscribed by the investors exceeds the amount that provided by the issuers. Allotment period counted 12 days after the expiration of the starting offers.

1.4 Payback Period

When the amount subscribed by the investors can not be met, then the issuer must return the funds that can not be fulfilled. Maximum time limit is 4 days expiration of rationing began

1.5 Delivery of Securities

For investors who have obtained certainty gain effect, then just wait delivery of securities. Delivery of securities is done by the underwriters to order investors through the selling agent. Maximum period of 12 working days delivery effect from the date expiration of the allotment

1.6 Registration of the Securities

After all above done, then its time to note the effect on the stock exchange. Effect of recording is the final process in the primary market issuance and can formally traded in the secondary data

2) Secondary Market or Stock Exchange

Market in which an investor purchases a security from another investor rather than issuer, subsequent to the original issuance in the primary market. Generally, securities are listed in the stock market and it provides a continuous and regular market for buying and selling of securities. Secondary market has controlled by securities contracts.

b) Government Securities Market:

there are many types of Government Securities that consist of short-term and long-term Government Securities are issued by the Central Government, State Government, Semi-Government Authorities. Government Securities are promissory notes, bearer bonds which can be discounted and Treasury bills.

c) Long-Term Loans Market:

Development banks and commercial banks can play a significant role under this market, Because they are supplying long-term loans to corporate customers. Long-term loans may be classified into three types:

1. Terms Loans Market
2. Mortgages Market
3. Financial Guarantees Market.

6. There are three fundamental aspects to be achieved by Indonesian capital market according to (Kamaruddin, 2004:19):

1. Accelerate the process of expanding public participation in the ownership of company shares
2. Equitable distribution of public income through the ownership of shares
3. Excite the community and mobilize funds to raising productive use.

7. Capital Market Instruments

According to Hadi (2013:30), capital market instrument divided by:

- a. Stock
- b. Bonds
- c. Mutual Funds
- d. Preemptive rights
- e. Warrant

a. Stocks

1) Stock in Terms of How the Transition According to Kamaruddin, (2004: 74)

a) Bearer Stocks

Bearer stocks means a stock that does not have the name or there's no owner's name that written in such shares.

b) Registered Stocks

Registered stocks means shares of the stock owner's name written and to be transferred to another party required terms and specific procedures.

2) Stock in Terms of the Right to Collect

a) Common Stocks

this Shareholders to obtain dividends take precedence for the preference stock holder, and also the right to property if the company is liquidated .

b) Preference Stocks

Stocks that combined characteristics of bonds and common stock, as it gives fixed income like bonds.

Common stock price in the market (market share) really mean for the company because the price determine the value of the company. Firm's market value can be calculated by multiplying the share price with the number of shares outstanding prices.

b. Bonds

Bonds can be described simply as long-term debt instruments that representing the issuer's contractual obligation or IUO. The buyer of a newly issued coupon bond is lending money to the issuers who in turn agrees to pay interest on this loan and repay the principal at a stated maturity date (Jones et al, 2009:30). And this is the type of bonds according to Kamaruddin, (2004: 69)

1) Bonds in Terms of Transition

- a) Bearer Bonds: This type of bond does not have a name in the bond and easy to be transferred to another party.
- b) Registered Bonds: Bonds that has name of the owner in that bonds and for the transfer need various requirements and procedures.

2) Bonds in Terms of Secured

- a) Secured Bonds: Secured by certain collateral, such as; bond guarantees, bonds with a guarantee of property, bonds with a

guarantee of securities , and bonds with collateral equipment.

b) Unsecured Bonds: Bond given only by the trust of each party (there is no secured property or secured to guarantee).

3) Bonds in Terms of the Determination and Payment of Interest and Principal .

- a) Bonds with fixed interest
- b) Bonds with not fixed interest
- c) Bonds without interest

4) Bond in Terms of Issuer

- a) Bonds by government
- b) Bonds by private

5) Bonds In Terms of Maturity

- a) Short-term bonds
- b) Medium-term bonds
- c) Long-term bonds

c. Mutual Funds

Mutual funds used to collect funds from the public then portfolio invested in securities by investment managers

d. Preemptive Rights

Preemptive rights means securities that entitle the owner to buy new shares at a specified price and within a specified period. Published at the time of limited public offering (rights issue).

e. Warrant

Warrant is securities that entitle the owner to buy new shares at a specified price and within a specified period. Issued following the issuance or sale of other securities (eg rights issue, IPO, Bonds).

7. Players in the Capital Market

According to Greenblatt (2008) The main players in the capital markets are the company that will conduct the sale (emiten) and the buyer that will buy the instruments offered by the emiten, then help by capital market institutions or companies that support the operation capital markets. The main players involved in the capital markets and supporting institutions that are directly involved in the transaction as follows:

a. *Emiten*: Company that will sale their securities or conduct emission in the stock exchange. Purpose the emiten to raise capital have been presented at the RUPS, the aim of emissions include:

- 1) to expand the business
- 2) Improve the capital structure

3) Organize shareholder transfer

b. *Investor*: An investor who will buy or invest in emissions companies. The main objective of the investors in the capital market include:

- 1) Getting a dividend
- 2) Ownership of the company
- 3) Trading

c. *Supporting Institutions*: The function of this supporting institutions is participate to support the operation in the capital markets, making it easier for both issuers and investors in a variety of activities related to capital markets. The supporting institutions that play an important role in the capital market mechanism are:

- 1) Underwriter
- 2) Brokerage trading of securities (broker)
- 3) Trading securities (dealer)
- 4) Guarantor
- 5) Trustee
- 6) Securities company
- 7) Investment company
- 8) Effect administrative officer

d. Agencies that involved in the stock market: Institutions related to capital market consists of various companies, which between the institution and the other institutions need each other. That institutions are:

1) Government Agencies: Agencies assigned to support and facilitate the process of trading in securities on capital market, ranging from emissions plan to the effect sales. that related Government agencies are:

- a) Capital Market Executive Agency (*Bapepam: Badan Pengawas Pasar Modal*)
- b) Capital Investment Coordinating Board (*BKPM: Badan Koordinasi Pasar Modal*)
- c) Department of Justice

2) Private Institutions: Private institutions also play an important role in supporting the success in the capital markets, for the example:

a) *Notary*: Plans to sell shares or bonds in the capital market first discussed and approved in the General Meeting of Shareholders (RUPS). Records that need to be certified by a notary based on Hadi (2013:29) :

- 1) Making news event for RUPS
- 2) Prepare all Decision for RUPS
- 3) Examine the validity relating RUPS such validity preparation of RUPS and legitimacy RUPS shareholders
- 4) Examining budget changes

b) *Certified Public Accountants*: The role of public accountants are needed to make an assessment and determine the appropriateness of the financial statements such as balance sheet, income statement and changes income statement of emiten equity. Public accountants who will do the assessment must be approved by the BPKP. Public

accountants will issue a statement about results of assessment. that

Opinions are:

- 1) Unqualified opinion
- 2) Qualified opinion
- 3) Adverse
- 4) Decline of opinion

c) *Legal Consultant*: Legal consultants providing statements about the validity of the documents submitted. Lawyers duty are make researching over the required documents. Things that need to get the research and statements of legal counsel is like:

- 1) Certificate of establishment and companys budget and its amendments, if any
- 2) Investments in capital to shareholders before going public
- 3) the ownership status of the company's assets
- 4) the agreement has been made with the third party, if any

d) *Appraiser*: Assessment of reasonableness of an asset such as land, machinery, buildings, cars and other assets that professional appraiser need. Assessor will assess how current fair value and carried at revalued so that the entire value of the assets can be known clearly and correctly.

e) *Consultant of effects*: Providing an opinion about effects in financial and management companies. Consultant will provide consultation on the effects of:

- 1) Type of funds that need
- 2) Selection of financial resources that need
- 3) Appropriate capital structure

8. Risk

Risk is the probability difference between the actual return received by expectations return (Greenblatt, 2008:48). Risk is the deviation between the rate of expected return with the rate of return that achieved in actual condition (Brigham, 2006:302). In my opinion, risk is an uncertain or probability about income (cash flow) in the future or in the presence of investment income variability (ownership) to a property. In principle, investors preferences of risk according to (Halim, 2003:38) classified into 3, there are:

- a) *Risk Seeker*: The investor when faced two investment options that provide a rate of equal return but has different risk level, then they would prefer to take investments with greater risk.
- b) *Risk Averter*: The investor when faced two investment options that provide a rate of equal return but has different risk level, then they would prefer to take investments with less risk.
- c) *Risk Neutrality*: Investors who would ask for the increasing return in the same rate of increasing risk. There are different preferences for face the risk, but in reality most investors tend to avoid risk. Because it is always used in the subsequent analysis, so that we can assume that all investor averse the risk.

9. Capital Market Efficiency

Techniques get a return from capital gains, investors should be alert about the changing of stock prices. Stock prices are influenced by the information obtained

and available as the prevailing prices, the volume of stock trading, financial reporting, forecasting, dividend announcements, stock splits, and including internal problems associated with the company. The available information may affect the stocks price depends on market efficiency. In fact the stock price always change or fluctuate. Formally efficient capital market is defined by Kamaruddin, (2004:225) as a market that securities prices reflect all relevant information.

Efficient here also means fast and accurate in reflecting the information available in the stock market. There are three main form of market efficiency based on this information, such as; past information, present information that is being published, and private information Jogiyanto, (2009:353). That three forms of market efficiency are:

- a) Weak Form of Market Efficiency: Market that efficient in the weak form if the prices of the securities is fully reflect in past information. Investors can not use past information to predict the present price so that will not raise abnormal profit.
- b) Semi-strong Form of Market Efficiency: Market in a semi- strong efficient if security prices fully reflect all public available information. Such information may affect the securities prices individually, industry groups or a whole of stock market. Information may include financial statements, funding announcements, associated with the government, and so on. Investors can not use the information to gain abnormal profit in the long term.

- c) Strong Form of Market Efficiency: Efficient in the strong form if security prices fully reflect all available information, including private information. There is no investor can earn abnormal profits because they have private information.

10. Index

According to (Halim, 2003:8) index is a summary of the simultaneous effects and complex range of variables that influence, especially on economic events. The index number is the ratio of the size numbers used to compare the activity or event, indicated by the level of price, quantity, or productivity compared to the base period. The changes in the indices is expressed in percentage index on the basis period amounted to 100.

According to Supranto (2006:101), the index can be divided as follows :

1) According to type:

- a) Price index, the original form for the price index is currency, such as the price index, earnings index, revenue index, corporate debt index.
- b) Quantity index, the original form for the quantity index is physical units (pieces, pounds, tons, liters, m³), such as the supply of index shares sold on the stock exchange, the production index, the index of goods transported and etc.

2) According to the number of shares covered

- a) individual stock index is an index that consists of a single type of stock, such as the share price index of Gudang Garam , Astra and others. The formula used is:

$$SI = P_s \div P_{base}$$

Source: Hadi, (2013:186).

Which :

SI : Stock Individual Index

P_s : Stock Market Price

P_{base} : Base Value of a Stock

b) agregatif index is an index that consists of a collection of many stocks such as JCI, the index of LQ - 45 (ILQ - 45), Sectoral Shares Price Index (IHSS), Syariah Index (Jakarta Islamic Index / JII).

The formula used to calculate the index are :

$$IHSG_t = \frac{NP_t}{ND} \times 100$$

Source: Hadi, (2013:188)

Which :

IHSG_t : composite stock price index on day t

NP_t : market value on day t, is obtained from the number of shares listed on the stock multiplied by the market price per share .

ND : basic value.

C. The Effect of Foreign Index and Domestic Index

International economic system that knows no boundaries among them make the emergence of international investments, its like international investment in Jakarta Composite Index (JCI). Information access growing rapidly include the economic conditions both in micro and macro will greatly affect the accuracy of the investment decision. So that the information accessible by the market (stock exchange) will affect performance of that global stock markets. Global information about the economy, politics, and international security eventually absorbed by other stock exchanges. So technically, it can be observed the movement of index in one country to another country (Mansur, 2005;206).

Indonesian capital market linkages with overseas capital markets began after the permissibility of investors to take control of the shares listed on IDX. The Role of Foreign portfolio investment is very important in any capital markets (Mobius in Mansur, 2005:206). The introduction foreign investors into the market of course serve as a catalyst that encourages local investment. The influence of foreign investment is to get the highlight of company that give financial information transparency and best valuation, the entry of foreign funds into new markets give beneficial effect on growth and market structure.

The role of domestic investors is increasing but there are habits of domestic investors are do tagging strategy on foreign investors or domestic investors use the foreign investors behavior as a reference (Cahyono in Mansur, 2005:206), while foreign investors take stock, domestic investors follow to participate, as a result

the index can fall more sharply. Foreign investors invest the stock around the world so that the world stock markets have global relevance. Condition and dynamics of stock price between both stock exchanges with the other stock exchange can influences in each other, especially with the exchange market of neighboring countries such as that occurred in the Singapore stock exchange will lead crash the stock exchange in Hong Kong, Japan and Indonesia, and vice versa.

1. JCI (Jakarta Composite Index)

Jakarta Composite Index is the Sum of Market Value that from total shares record on August 10th, 1982. The total number of market value come from multiplications per share was recorded (except for companies that are in a restructuring program) with the price in JCI on that day. Index calculation represents the movement of stock prices in the market/exchange that occurs through the auction trading system. Basic values will be adjusted quickly when the change of emiten capital happened or other factors unrelated to stock prices. Adjustments will be made if there are any additional new emiten, preemptive rights (HMETD/*Hak Memesan Efek Terlebih Dahulu*), partial/company listing, warrant, convertible bonds and also delisting. The occurrence of stock splits, stock dividends or bonus shares, Basic Value not adjusted because doesn't affect the market value. Stock price used in calculating the price of shares in IDX is based on the regular market price occur based auction system.

JCI calculations performed every day, after close of trading in each day, in the near future expect the index calculations can be done multiple times or even within a few minutes, this can be done if the trade system automation is implemented properly. if the index level increase sharply, surely because of increasing the stocks price in BIG CAP. The weakness of this calculation is because the formula include stocks that are less actively traded and include a weighting factor or a whole number of shares in its calculations. This methods include stocks that are less actively traded, sometimes classified in “sleep shares”, so it would cut representation of JCI in real terms, because the shares that not traded also included in the calculations. IDX still considers that methods used is sufficient to represent the movement of all shares on the daily trading floor.

2. Index Fund

The Efficient Market Theory is a theory that underlies the creation of Index Fund, which invests in the stock market by buying the index as an investment object (Samsul, 2006: 176). The idea came from investment managers and stock analysts who continue to look for stocks that will out-perform or out of the market performance. Competition becomes effective when the latest information about the company can be translated into the movement of stock directly.

A person can not affect the market 's, best to do then is to have all the things that indicate the market, whether the ownership of all shares or a representative sampling of stocks available on the market. Base sampling for representative

stocks available on the market concept emerged Index Fund. This strategy is also called passive strategies. The Efficient capital market concept if the market really efficient then no one investors gain abnormal returns above the market return. Passive strategy can also be interpreted as investor act to make a stocks portfolio that replication of index performance in market. Passive strategy goal is to follow the performance of market index closely.

3. Global Stock Market Indexes

Composite index in the global marketplace of this 4 country help to determine investors decision to invest in developed country, because USA, Japan, Hong Kong and Singapore can be as a benchmark indexes that represent them provides insight into the diverse global marketplace.

a. Dow Jones Industrial Average (DJIA)

The best known average in the United States is the Dow Jones Industrial Average (DJIA) probably because it has always been affiliated with Dow Jones & Company, publisher of the Wall Street Journal, and it is reported daily on virtually all major newscasts. The DJIA is computed from 30 leading stocks chosen somewhat arbitrarily by Dow Jones & Company to represent different industries

b. Nikkei 225 (N 225)

Nikkei 225 is one of the joint-stock index in Tokyo Stock Exchange (TSE) include industrial stocks that most active in Tokyo and most frequently

observed by some stock exchanges in Asia. Nikkei 225 the leading and most-respected index of Japanese stocks. It is a price-weighted index comprised of Japan's top 225 blue-chip companies on the Tokyo Stock Exchange. The Nikkei is equivalent to the Dow Jones Industrial Average Index in the U.S. In fact, it was called the Nikkei Dow Jones Stock Average from 1975 to 1985.

c. Hang Seng Index (HSI)

Hang Seng Index is one of the joint-stock index in Stock Exchange of Hong Kong Limited / SEHK. Hang Seng is a freefloat-adjusted market capitalization-weighted stock market index in Hong Kong. It is used to record and monitor daily changes of the largest companies of the Hong Kong stock market and is the main indicator of the overall market performance in Hong Kong. These 48 constituent companies represent about 60% of capitalization of the Hong Kong Stock Exchange.

d. Straits Times Index (STI)

Straits Times Index is a joint-stock index in the Singapore Stock Exchange, which includes all shares listed on the Singapore Stock Exchange. At the time, it represented 78% of the average daily traded value over a 12-month period and 61.2% of total market capitalization on the exchange

D. Conceptual Framework

Global index and the effect of Jakarta Composite Index (JCI) period of 2010-2012



Figure 2.1. conceptual framework

Conceptual framework expect and describe research directions. Conceptual Framework describing the relationship foreign stock price index with the JCI. The following framework explains that the Indonesian stock market is a place for investors to share trading activities. The calculation of JCI represents the movement of stock prices in the market/exchange that occurs through the auction trading system. Basic values will be adjusted quickly when there is changes of emiten capital or other factors unrelated to stock prices. JCI calculations are performed every day after the close of trading each day. In the fact of cause and effect reversed, index doesnt affect the stocks, but the stocks affecting the index. Stock price used in calculating the price of stocks in JCI is based on the regular market price occur in auction system.

D. Hypothesis Framework

Based problem formulation and theory reviews that has been stated above, the hypothesis is as follows:

1. Global stock price index (DJIA, NIKKEI 225, Hang Seng, and STI) has an effect on JCI at IDX period of 2010-2012.
2. Global stock index has the most influence in Jakarta Composite Index (JCI) is Dow Jones (DJIA).

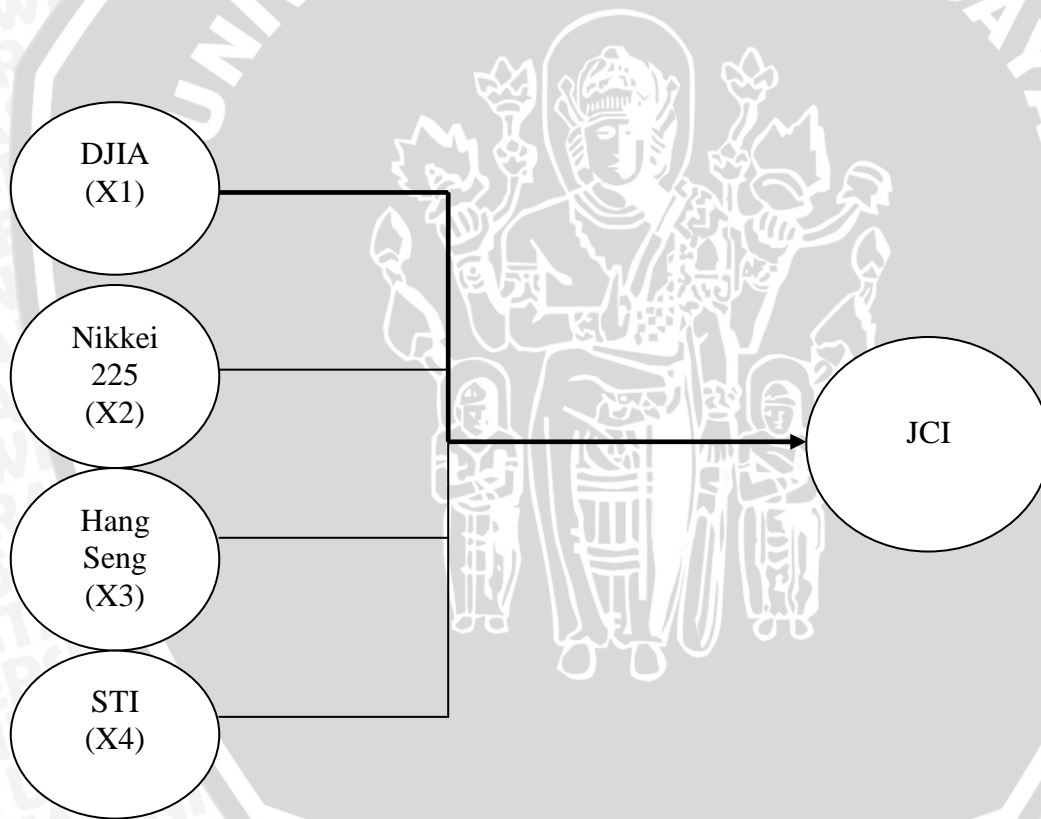
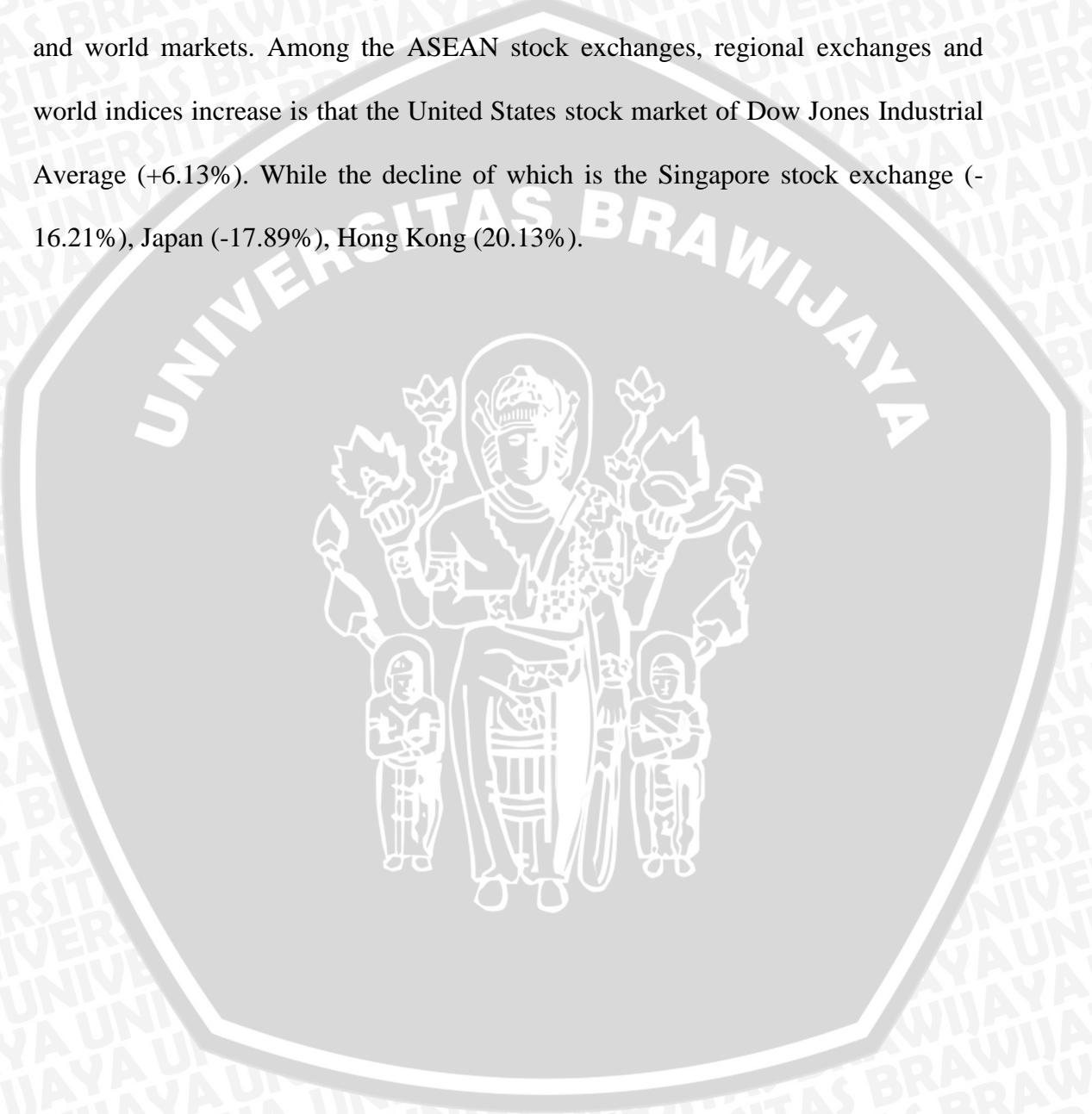


Figure 2.2. Hypothesis Framework

The economic crisis that held some country in the euro zone at 2011 and yet the economic recovery in the United States has significant impact on the performance

of stock indexes around the world stock exchange. In rising of the stock index, JCI in 2011 remains one of the best performing markets in comparison with major regional and world markets. Among the ASEAN stock exchanges, regional exchanges and world indices increase is that the United States stock market of Dow Jones Industrial Average (+6.13%). While the decline of which is the Singapore stock exchange (-16.21%), Japan (-17.89%), Hong Kong (20.13%).



CHAPTER III

RESEARCH METHOD

A. Types of Research

This research aim to understand the effect of some global stock index against JCI at IDX, and also assessing causal relationship between variables. In accordance with the formulation of the problem and research objectives, the type of research used is explanatory research, which is highlights the influence of study variables and test hypotheses that have been formulated previously. Explanatory research is a study that seeks to explain the influence between variables through hypothesis testing.

B. Population and Sample.

Population of this study is that the stock price index in 4 country (USA, Hongkong, Japan, and Singapore), and also the stock price index in Indonesia. The sampling technique used was purposive sampling method with a model of judgment sampling, which is sampling technique that used specific considerations (Sekaran, 2006:289), the criteria used in the selection of this sample is composite index of stocks in 5 countries (USA, Hong Kong, Japan, and Singapore, and Indonesia). The data used in this study is the closing stock price index data from January 2010 until December 2012 (36 months). The number of all elements of the

population studied was 36, full sample for observational data consisting observations for each stock price index investigated.

C. Location of Research

This study will be conducted in Indonesian Stock Exchange (IDX) at Jl. MT. Haryono 165 Malang, East java, Faculty of Economic and Business of Brawijaya University (IDX Corner). IDX has all the publication about Global index a whole country that needed in this research. The author will also collect related data from the official website of the Indonesia Stock Exchange (www.idx.co.id), and also <http://yahoofinance.com>. All of global stock movement per time, day, and week are presented by that website, so that the author will get the accurate data per year to measure the effect for each foreign stock needed against JCI in IDX.

D. Data Collection Techniques

Data Collection is the process of gathering and measuring information on systematic ways that enables the researcher to answer the research question, test hypotheses, and evaluate outcomes. The data collection technique used in this research is documentation. The data used in this research are secondary data. Secondary data is a research data that acquired and recorded by others (Sekaran, 2003:148). In this research the secondary data exist in the form of internal repost and media publications.

E. Definition of Operational Variable

Definition of operational variable is a study or limitation used to set the relationship between two or more variables in a hypothesis and will be executed after each qualitative variables is set off. This operational definition, the variables that will be observed in this minor thesis preparation are:

a. Dow Jones Industrial Averages (DJIA) as independent variables X₁

Is one of the joint-stock index in the New York Stock Exchange (NYSE) which includes active industrial stocks on the NYSE are often used as a benchmark to assess overall performance of NYSE stocks .

b. Nikkei 225 (N 225) as the independent variable X₂

Is one of the joint-stock index in Tokyo Stock Exchange (TSE) include industrial stocks that most active in Tokyo and most frequently observed by some stock exchanges in Asia .

c. Hang Seng Index (HSI) as the independent variable X₃

Is one of the joint-stock index in Stock Exchange of Hong Kong Limited / SEHK which covers most of the 33 stocks in the SEHK company and a leading indicator of market performance in Hong Kong, which accounted for approximately 70% capitalization rate SEHK.

d. Straits Times Index (STI) as the independent variable X₄

Is a joint-stock index in the Singapore Stock Exchange, which includes all shares listed on the Singapore Stock Exchange. At the time, it represented

78% of the average daily traded value over a 12-month period and 61.2% of total market capitalization on the exchange

e. Jakarta Composite Index (JCI) as the dependent variable Y

Is a joint-stock index in JCI which includes all shares listed on Indonesian Stock Exchange (IDX) that describe the overall performance of the JCI stocks.

F. Data Analysis Techniques

a) Multiple Regression Analysis

Multiple regression analysis measuring influence or not between the Dow Jones Industrial Average as the independent variable (X1), the Nikkei 225 as the independent variable (X2), the Hang Seng as the independent variable (X3), the Straits Times Index as the independent variable (X4) with JCI (Y) in period of 2010 until 2012

The formula as follows:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e$$

Source: Tamara (2013)

Description :

Y: Dependent variable JCI 2010 - 2012

a : constants

b_1, \dots, b_4 : regression coefficient of the independent variable 1 until 4

X_1 : independent variables of Dow Jones

X_2 : independent variables of Nikkei

X_3 : independent variable of Hang Seng

X_4 : independent variables of Straits Times Index

b) Determination Coefficient (R^2)

Determination coefficient states the proportion of variance in Y that can be explained by X. R^2 illustrates how far the model's ability to explain variation in the dependent variable. R^2 value will always be positive and range between 0 and 1. The more value of R^2 , the independent variables more closely associated with the dependent variable. The coefficient of determination (R^2) in this study is determined by looking at the adjusted R Square value obtained from the processing of the data by using SPSS 17.0

c) Classical Assumption Test

The classical assumption in this study aims to determine whether the estimation model has met the criteria for econometric, its mean there is no serious deviations from the assumptions that need to fulfilled in the method of Ordinary Least Square (OLS). In this study, the classical assumption test performed with the SPSS program (Statistical Product and Service Solutions) 17.0. the classical assumption used in this study include: normality test, multicollinearity test, autocorrelation test, and heteroscedaticity test.

1) Normality Test

Normality test aims to test the normality of data distribution. Use of normality test for the parametric statistical analysis, assumptions must be owned by the data is that the data are normally distributed. Normality test data in this study using the Kolmogorov-Smirnov test on the basis of decision-making as follows:

- 1.1 If the value of the significance of the Kolmogorov-Smirnov test ≥ 0.05 then the data are normally distributed.
- 1.2 If the value of the significance of the Kolmogorov-Smirnov < 0.05 then the data distribution is not normal.

2) Multicollinearity Test

Multicollinearity means that there is a perfect linear relationship or certainly among some or all independent variables of the existing model (Gujarati, 2003:342). Multicollinearity occurs when there is a correlation between the independent variables (Santoso, 2004:251). If there is a fairly high multicollinearity in multiple regression will lead to a result:

- 2.1. Standard error of regression coefficient will be greater with increasing collinearity between independent variables
- 2.2. Because the standard error is large, then the confidence interval for allegedly parameter will be wider .
- 2.3. Confident intervals wider, the possibility to accept the wrong hypothesis will be easy.

Multicollinearity test done by finding the value of the variance inflation factor (VIF) and tolerance. If the tolerance value is greater than 0.10 and VIF less than 10, meaning no multicollinearity. Conversely, if the tolerance value is less than 0.10 and VIF is greater than 10, meaning there is Multicollinearity.

3) Autocorrelation Test

Autocorrelation test is performed to determine whether the regression model correlation between bullies error in period t with the error in period $t - 1$. Autocorrelation occurs due to all independent variables in the regression equation not include, the error mathematical models and not good data processing. If autocorrelation in the multiple regression models above occur, will be as follows:

- 3.1. ordinary least square estimation is not efficient because the confident interval is wider and significant test is not accurate anymore.
- 3.2. Standard errors and variances may be under estimated from actual.
- 3.3. The estimated ordinary least square to be sensitive against sample.

How to determine whether there is autocorrelation or can be seen from the magnitude of the Durbin- Watson (DW), with the following conditions :

- a. If $d_u < d < 4 - d_u$, H_0 acceptable means there is no autocorrelation
- b. If $d < d_l$ or $d > 4 - d_u$, H_0 is rejected , it means that there is autocorrelation

- c. If $d_l < d < d_u$ or $4 - d_u < d < 4 - d_l$, the test is inconclusive, meaning no conclusions.

4) Heteroscedasticity Test

Heteroskedasticity occurs when the error or residual of the observed models do not have a constant variance of an observation to other observations. heteroscedasticity can be detected by looking at the graph plots between the predictive value of dependent variable of ZPRED against the residual of SRESID. If there is a specific and well-form pattern like dots form (wavy, wide, etc) then there has been a symptom of heterocedastisity. in otherwise, if there is not well-form pattern as well as the points spread above and below zero on the Y axis at random, it does not happen heterocedastisity symptom.

d) Hypothesis Testing

1) F Test (Simultaneously Test)

F test is used to test the significance of the coefficient of multiple determination, with the formula :

$$F = \frac{R^2 / k}{(1 - R^2) / (n - k - 1)}$$

Source: Tamara (2013)

Where :

R^2 = coefficient of multiple regression

k = number of predictors (independent variables)

N = number of data

F = Hypothesis testing

Testing criteria :

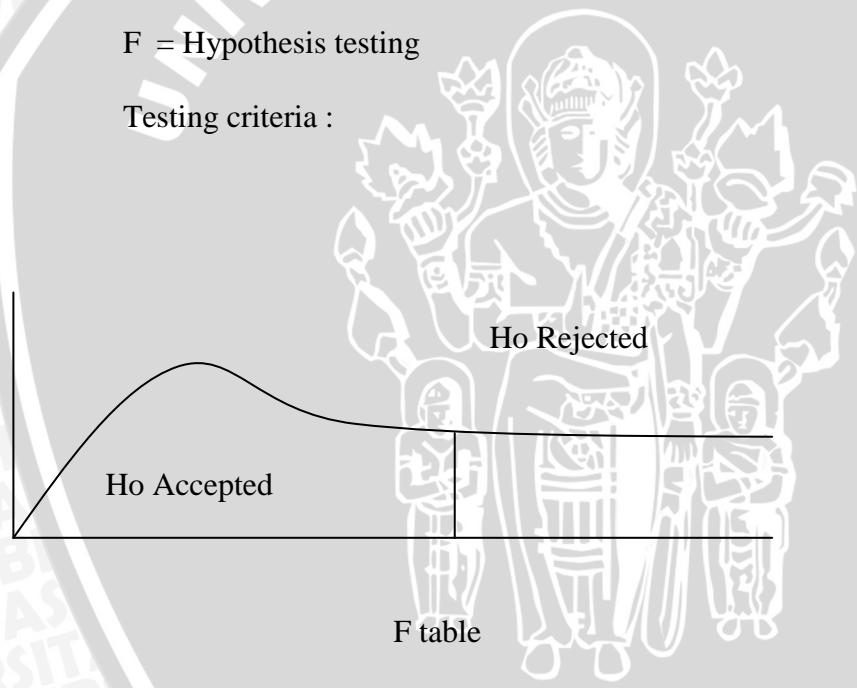


Figure 3.1. Hypothesis Testing of F test

If $F_{\text{calculated}} > F_{\text{table}}$ then tested the effect of simultaneous is significant .

If $F_{\text{calculated}} < F_{\text{table}}$ tested the simultaneous effects are not significant .



2) t test (Partially Test)

To prove whether there is a significant relationship between the independent variable on the dependent variable partially or not .

Regional distribution of t test results can be seen in the following figure :

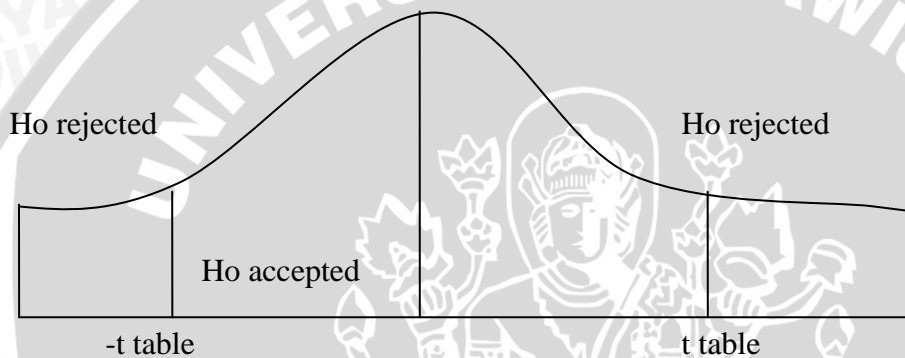


Figure 3.2. Hypothesis Testing of t test

Statistic Hypothesis:

- $t_{\text{calculated}} \leq t_{\text{table}}$ and significant $p \geq \alpha$, the hypothesis is zero (Ho) or accepted
- $t_{\text{calculated}} > t_{\text{table}}$ and significant $p < \alpha$, the hypothesis is zero (Ho) or rejected