I. INTRODUCTION

1.1 Background

The world is experiencing the age of tubelence, full of uncertainty. Within 14 months, the US stock market has fallen over 47% from its October 2007 high, with the Dow suffering its biggest loss in history dropping 777.68 points on the September 2008. It has pulled down many stocks to a new 52-weeks lows.

The main cause of this financial crisis is simple, bad bank practices. The root of this crisis stretches back eight years ago. The 2000 dot com bust has triggered a mild recession. This led the US Federal Reserve to cut interest rates to an all time low of 1 %. Money become easier and cheaper to borrow, fueling asset inflation. It set alight a property boom, fueling home prices higher and higher. With the bullish market, people took bigger and bigger risks. They refinanced their homes, rolling over the equity to invest in even more properties and the stock market.

Banks resorted into more risky lending practices. This involved subprime lending, giving loans to people with no credit history or income. They attracted more borrowers by introducing promotional rates for early portion of contract and zero down payment schemes.

As banks made more of these risky loans, they found a pass their risks through their financial innovation, called securitization. It is basically those debt were repackaged as financial instruments. It is called Collateralized Debt Obligation

(CDO). The market for these CDOs rose to the billions as banks bought them up, and in turn sold them to investors. They were attracted by the good interest rates at seemingly relatively low risks. These assets got their value from the mortgages. It mean that the borrowers need to repay their loan for them to be worth anything.

In 2006, the prices of real estate plunging. The catalyst for this was a situation not seen since 1974, where inflation soared while economic growth slowed, a phenomenon known as Stagflation. The cost of oil soared to record levels at US$ 140. Cost of living went up while salaries stagnated or shrank. Home owners who had been living in their properties over a decade found their homes devaluing at an increasing rate. The huge crown has been gambling on the value of their homes to rise. Instead, they found they had no money to meet their obligations or top up their losses. This forced many people to default on their loans. Coupled with increasing interest rate, the value of these mortgage-backed securities fall.

Those billions of dollars worth of mortgage-banked assets swiftly become worthless. Many banks were forced to write-off the losses from their balance sheet. Subsequently, the credit market for those assets become frozen. The write-offs meant that the banks would have to raise money to meet their capital ratios and debt obligations. Amid a tight credit market, they found themselves unable to do so. Banks in the US and Europe were very careful to lend to one another, not knowing who might be the next to fall.

The crisis worsened as companies and individuals counted their losses and began liquidating their assets. Fund managers sell stocks, sending the market into further decline. After a one month of heavy selling, short-sellers returned and joined forced sellers in the chase downward. All this resulted in a systemic confidence problem in the financial markets. With investors holding back and others fleeing in a flight to quality or safety, liquidity became the main issue in a market already spreading its contagion around the globe. And because of this, it eventually affected all the stocks around the world. These are how some other markets have been affected:

Table 1. How the financial crisis has effected the stock market

Country	Index	Recent Peak		Plunge*
China	Shanghai Composite	Oct 2007	5903.64	-70%
India	Sensex	Jan 2008	20,827.45	-50%
Japan	Nikkei 225	Jul 2007	18,157.93	-60%
South Korea	KOSPI	Oct 2007	2,019.34	-54%
Hong Kong	Hang Seng	Oct 2007	31,638.22	-65%
London	FTSE	Oct 2007	6730.70	-43%
Indonesia	Jakarta Composite	Jan 2008	2830.26	-59%

Source: Yahoo Finance

Many of the once seemingly invincible financial institutions have fallen. Headlining the shockers is the bankruptcy of Lehman Brothers, one of the largest investment banks. The 158 year old firm was once valued at US$637 billion.. Just a week later, its stock plunged 97% to be eventually bought over by JP Morgan for US$10 each. Both were companies which survived the Great Depression, both World Wars, and various financial meltdowns along the way. Here are the other companies that effected by the crisis

Table 2. The companies that effected by the crisis

Name	Who they are	What happened	What since
Fannie Mae & Freddie Mac	US mortgage service giant	Loans they backed went bad, huge losses, share price plunged by 90%	US Government Bailout
AIG	US Insurance giant	Verge of bankruptcy, high of $80 to $1.25	Same as above + Government now owns 80%
Washington Mutual	Was USA's largest bank	Rumours lead customers to withdraw some 10% from its accounts, leaving bank unstable	Government steps in, sells the company to JP Morgan Chase for close to US$2 billion
Wachovia	Bank Holding Company	Fearful customers withdraw some 1% of its deposits in a "silent run"	Pressured by authorities to put itself on sale

Source: Wall Street Journal

Therefore, it can clearly seen that one of the purposes of writing this thesis is to educate the indonesian community to understand the right method and the right instrument to invest in stock market, in order to achieve their financial goals.

One surprising fact is that less than 1% of the population in Indonesia invest in stocks. The reason is because the knowledge of Indonesian people about stocks is very minimal and most of the people who in the capital market are traders, who only have short term goal rather than investor, who has long term goals. Thus, the purpose of writing this thesis is to educate the community to make the right decision, not based on feeling but with reasoning.

Apart from educating people, another purpose of writing this thesis is also to test whether the techniques that are used by Warren Buffett can be used in Indonesia Stock Exchange (IDX). Specifically, it is to test whether the selected stocks will gain above the market average, both in “bull market” (good economy) and in “bear market” (bad economy) like now.

Theoretically, investment is one of the indicators which can be used to measure the growth in one country. Investment generally divided into two categories, real asset and financial asset. The more develop the country is, the more alternative financial investments. Alternative investment (apart from stocks) are like bonds, mutual fund, options and futures.

Investment can be executed by either individual or financial companies with one same purpose, which is the gain as much profit as possible. In order to achieve that purpose, one must decide which is the best investment alternatives by considering several factors (like maturity, economy, future prospect and so on) in order to achieve an actual (real) return that is not far from investor’s expected return (financial goals).

Recently, a lot of companies take advantage of Indonesia Stock Exchange (IDX) as one of the source to sell its financial assets, which is in a form of stocks.

However, the growth and development of IDX is relatively slower than other Asian neighboring countries like Singapore and Malaysia. For example IDX established since 1912, far earlier than Singapore capital market which founded in 1930. By comparing the current state between two countries at this very moment, the growth and development of Singapore capital market is far more develop and more efficient than Indonesia capital market.

According to the IDX research data, in March 29, 2006, a total of 335 companies listed their shares with market capitalization of Rp 910.5 trillion. The number of active brokerage houses was 116 companies with daily trading value of Rp 1.85 trillion. Taking into account several newly listed companies recently, the number of listed companies on the IDX has increased to 390 companies (as of May 30, 2008) (IDX, 2009).

The IDX market capitalization at the end of 2007 reached Rp 2,539.041 trillion, consisting of the combined equity of Rp1,982 trillion, corporate bonds of Rp 79.065 trillion and US$ 105 million, as well as the state debt securities of Rp 477 trillion (IDX, 2009).

The return of Indonesia stock market is very prospective and promising. As shown on the table below, the red line represent Indonesia Index (JKSE). The horizontal line represent the period which cover at least 10 years. The vertical line represent the return of the stock market if one invested around 1997. The rest of the line represent other neighbouring countries – Malaysia (KLSE), Japan (N225), Singapore (STI), Australia (AORD), N.America (GSPC) and Hong Kong (HSI).

Explanation : Indonesia index gain the most percentage among other indexes for the last ten years

Source : Yahoo Finance

Figure 1. How each country indexes performed for the last ten years

Given a history of stocks market in Indonesia and the current situation of global crisis that affect Indonesia stock market, there is a huge opportunity to buy one of the best performance companies in very low prices. In order to take this rare chance of opportunity, one must able to understand the right measurement techniques to value those companies. However, investing in stocks require a lot of mathematics and formulas, thus it is very hard to understand for average investors and applicable in real world.

If one must know how to profit or stand out in the stock market, one must learn from the best, none other than Warren Buffett himself. In general, according to

1993 Forbes list of America's richest people, Warren Buffett had an estimated net worth of $8.3 billion. Of all 69 people listed, Buffett is the only one who obtained his wealth solely from the stock market.

Buffett graduated from the University of Nebraska. While there, he read a book The Intelligent Investor by Benjamin Graham. This book so impressed Buffett that he went to New York to study with Ben Graham at the Columbia Graduate Business School.

According Robert Hagstrom in his book "The Warren Buffett way", at the young age of 25 in 1956, Buffett already started an investment partnership. He had seven limited partners who contributed $105,000 each and Buffett as general partner put in only $100. The limited partners received 6-percent interest per year and 75-percent of the profits generated above this level. Buffett was paid the other 25-percent. Over the next 13 years, this partnership compounded investments at an annual rate of 29.5-percent. In 1965, Buffett closed the partnership and cashed out with a personal stake of $25 million. Warren Buffett used his capital to purchase a controlling interest in Berkshire Cotton Manufacturing, a well established but struggling textile company. This company merged with Hathaway Manufacturing, and also bought interests in two insurance companies in 1967. The combined company was renamed Berkshire Hathaway. Thus, Berkshire Hathaway divided into two division, insurance division and textile division. The insurance companies generated steady cash flow, which was invested in stocks and bonds to have the funds available for payment of claims. The company's stock portfolio in 1967 was $7.2

million, so Buffett assumed control of this. Within two years, the stock portfolio had grown to $42 million. During the 1970s, Berkshire bought three more insurance companies and started another five. Buffett also closed the textile side of the company and converted Berkshire Hathaway into a holding company. Berkshire owns a number of other varied companies which generate good returns on equity without using debt. By 1993, the noninsurance side of Berkshire-Hathaway group had a sales turnover of $2.0 billion and earned $176 million after tax - about 37-percent of the group's operating earnings.

Warren Buffett and his wife now own around 40-percent of the stock of Berkshire-Hathaway. He works as Chief Executive of the company for an annual salary of $100,000 per year. Many of his employees who manage different parts of the company earn much more. Berkshire-Hathaway had a corporate net worth of $22 million when Warren Buffett assumed control. Today, it is worth more than $10.2 billion. Buffett's goal is to increase the company's worth by a 15-percent compound rate each year. Berkshire pays no dividends but reinvests all money earn. Therefore, shareholders look to a capital gain in the value of their stock. Since 1964, Berkshire shares have grown from $19 each to more than $22,000 per share today. Over the past 25-years, Berkshire has grown at a compound rate of 23.2-percent per year - well above Buffett's target of 15-percent per year.

1.2 Problems Identification

Before explaining the problem identification, it is essential to know the basics term in financial world, like stocks. The definition of stocks is a form of corporation equity ownership in a form of securities. It is considered relatively more risky in comparison to preferred shares and bonds. In the event of bankruptcy, common stock investors receive their funds last, after preferred stockholders, bondholders, creditors, etc. In short, stocks carries the most risk when compared to bonds and preferred shares. However, from return (profit) perspective, historically results show that common shares (stocks) on average perform better than preferred shares or bonds over time.

People who own stocks are called stockholder. Stockholder are able to influence the corporation through votes on establishing corporate objectives and policy, stock splits, and electing the company's board of directors. Some holders of common stock also receive preemptive rights, which enable them to retain their proportional ownership in a company should it issue another stock offering. Additional benefits from common stock include earning dividends and capital appreciation (profit from price increase in stocks).

In the beginning, Prof. Eugene Fama created a theory called Efficient Market Hypothesis (EMH). EMH explain that financial markets are "informational efficient", or that prices on traded assets, like stocks already reflect all known information. The efficient-market hypothesis states that it is impossible to consistently outperform the market by using any information that the market already knows, except through luck. Information or news in the EMH is defined as anything that may affect prices that is unknowable in the present and thus appears randomly in the future (known as random walk).

However, investors and researchers have disputed the efficient markets hypothesis empirically and theoretically. For example, the imperfections in financial markets to a combination of cognitive biases such as overconfidence, overreaction, representative bias, an inability to use configurable rather linear reasoning, and various other predictable human errors in reasoning and information processing (the theory is called Behavioural Finance). Furthermore, these errors in reasoning lead most investors to avoid high-value stocks and buy growth stocks at expensive prices, which allow those who reason correctly to profit from bargains in neglected value stocks and the overreacted selling of growth stocks. Warren Buffett once commented "I'd be a bum on the street with a tin cup if the markets were always efficient".

Warren Buffett believed a technique called Value Investing. Value investing is an investment paradigm that derives from the ideas that involves buying securities whose shares appear underpriced by some form of fundamental analysis. Basically, the essence of value investing is buying stocks at less than their intrinsic value (fair value). The intrinsic value is the discounted value of all future distributions and calculated though present value. The discount of the market price to the intrinsic value is what Benjamin Graham called the "margin of safety". The disadvantage of this techniques is that the future distributions and the appropriate discount rate can only be determined according to individual's discretion. Thus, it can be different from one person to another.

Furthermore, Warren Buffett has taken the value investing concept even further as his thinking has evolved to where for the last 25 years or so his focus has been on "finding an outstanding company at a sensible price" rather than generic companies at a bargain price. Nevertheless, value investing has proven to be a successful investment strategy. Research shows that buying value stocks, consistently found that value stocks outperform growth stocks and the market as a whole (Fama & French, 1992).

Although value investing can be proven successful in United States of America (USA), there is no research studies that give evidence it can applied successfully in Indonesia itself. Even if on the assumption that value investment can be applied and proven successful in Indonesia capital market, what kind of stocks would Warren Buffett pick to gain enormous amount of profit and beat the market on average?

1.3 Problem formulation

Based on problem identification which written above, the problem that needed to be address and research on this thesis are:

1. How far Warren Buffett techniques can be applied in the process of decision making in investing common stock, especially in Indonesia Stock Exchange?
2. What specific value investing techniques that is used by Warren Buffett, in

order to find outstanding stocks?

3. Is it true that the selected stocks will perform (gain) above the average in normal condition or even in crisis condition?

1.4 Objectives of Study

The goal and purpose that needed to achieve through research and writing this thesis is:

1. To analyze the LQ-45 stock using Warren Buffett techniques.
2. To measure the capital gain from selected stock by Warren Buffett technique and selected stock by non-Warren Buffett.
3. To analyze the portfolio risk between stock selected by Warren Buffett and IHSG.
4. To formulate managerial implication for investor.

1.5 Scope of discussion

Techniques used by Warren Buffett in constructing a portfolio or a popular philosophy which is “Buying the business”, divided into four main categories. They are:

1. **Business Principle** – Warren Buffett believes having a business that is simple to understand, consistent operation year after year and have a good prospect of the business in the future.
2. **Management Principle** – He also believes having people that are honest, hardworking and capable. The most important is honestly, without that,

everything is impossible.

3. **Finance Principle** – He selects criteria based on Return on Equity (ROE), Owners' Equity, Profit Margin and Earning that is above the market. To be able to calculate the value of the stock and buy below the value of the stock at least 30%.
4. **Marketing Principle** – He believes a business must have sustainable competitive advantage. It means the company has a certain differentiation among other companies, like having a certain product those other competitors hard to copy or have achieved share of mind (not market share) among customers. Thus, no matter how strong the competition in the market, the company will exist in the market for very long time.

The performance measurement of the portfolio will be executed in two condition, in normal condition and crisis condition. These two periods will be using a method called Holding Period Return (HPR). The return of the portfolio will be measured the average gain of the selected stocks and the return of the portfolio will be measured using the index from Indonesia Stock Exchange (IHSG). The performance then will be compared to test whether the return of the portfolio will be higher than the general market or index.

Lastly, this thesis research will also analyze the level of portfolio return and risk based on established techniques of Warren Buffet, where the performance of the portfolio will be compared the performance of the market. Establishing the portfolio itself, specifically in this thesis research is only based on the financial principles, while the business principles, management principles and marketing principals is not discussed in depth.

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