PERFORMANCE OF SOCIALLY RESPONSIBLE INVESTMENT PORTFOLIO IN INDONESIA: A COMPARISON OF SRI KEHATI INDEX AND CONVENTIONAL INDEX.

by

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ABBREVIATIONS

ASI	: Adjusted Sharpe Ratio Index
AJI	: Adjusted Jensen Alpha Index
ESG	: Environment, Social and Governance
EuroSIF	: The European Sustainable Investment Forum
IDX	: Indonesia Stock Exchange
JCI	: Jakarta Composite index
SI	: Sharpe Index
SRI	: Socially Responsible Investment
SBI	: Sertifikat Bank Indonesia
SoM	: The Sortino Ratio
USSIF	: The Forum for Sustainable and Responsible Investment

PRESTASI PORTOFOLIO PELABURAN BERTANGGUNG JAWAB SOSIAL DI INDONESIA: SATU PERBANDINGAN ANTARA INDEKS SRI KEHATI DENGAN INDEKS KONVENSIONAL

ABSTRAK

Kajian ini bertujuan untuk mengkaji prestasi indeks SRI Kehati berbanding Indeks Komposit Jakarta sebagai indeks pasaran. Dengan menggunakan saringan dalam kriteria pelaburan, pelaburan bertanggungjawab sosial ini adalah berbeza dengan pelaburan konvensional. Menerusi sampel harga indeks harian SRI Kehati berbanding dengan Indeks Komposit Jakarta, kajian ini meliputi tempoh data dari 1 Januari 2009 sehingga 31 Disember 2014. Kajian ini menggunakan pulangan purata dan sisihan piawai, pulangan risiko terlaras yang merangkumi Indeks Sharpe, Indeks Sharpe Terlaras (ASI), Indeks Treynor, Indeks Jensen Alpha, Indeks Jensen Alpha Terlaras (AJI) dan indeks Sortino untuk mengkaji prestasi. Hasil kajian menunjukkan bahawa pulangan purata indeks SRI Kehati berprestasi kurang baik berbanding Indeks Komposit Jakarta sebagai indeks konvensional pada tempoh keseluruhan, akan tetapi berprestasi baik selama empat tahun (2011-2014) dengan campuran profil pulangan yang signifikan dan tidak signifikan. Sisihan piawai menunjukkan bahawa SRI Kehati secara konsisten adalah lebih tinggi dan signifikan berbanding JCI dalam tempoh tahunan dan keseluruhan. Keadaan ini menyokong hipotesis yang menyatakan bahawa SRI Kehati adalah lebih berisiko berbanding JCI. Kecuali Indeks Sharpe dan Indeks Sharpe Terlaras, prestasi pulangan terlaras risiko indeks SRI Kehati, (Treynor, Jensen Alpha, Jensen Alpha Terlaras dan Indeks Sortino) menggunguli JCI sebagai indeks petunjuk pasaran konvensional. Walau bagaimanapun, hanya Indeks Jensen yang menunjukkan ia

sebagai pengukur prestasi yang signifikan dan seterusnya menyokong bahawa SRI Kehati mengungguli JCI untuk keseluruhan tempoh 2009-2014. Perbincangan dapatan ini adalah sedikit berbeza berbanding dengan majoriti literatur kajian. Dapatan yang memaparkan pulangan purata yang rendah dan berbeza sedikit sahaja untuk Sri Kehati untuk keseluruhan tempoh boleh dikaitkan dengan kaedah saringan pelaburan yang menghadkan pempelbagaian potfolio. Perdebatan yang sama juga dikaitkan dengan dapatan bahawa Sri Kehati adalah lebih berisiko berbanding JCI. Memandangkan terdapatnya percanggahan diantara pulangan terlaras yang terdiri daripada Indeks Sharpe/ Indeks Sharpe Terlaras dan Indeks Jensen Alpha, hipotesis yang menyatakan bahawa SRI Kehati menghasilkan prestasi pulangan risiko terlaras yang lebih tinggi berbanding JCI tidak dapat diterima. Walaupun, prestasi SRI Kehati dalam kajian ini adalah rendah, ia hanya berbeza sedikit sahaja dalam tempoh keseluruhan dan masih menghasilkan keputusan yang kompetitif. Keputusan pulangan purata tahunan dari 2011-2014 membuktikan bahawa pulangan SRI Kehati dalam sesetengah aspek mengungguli pasaran konvensional.

PERFORMANCE OF SOCIALLY RESPONSIBLE INVESTMENT PORTFOLIO IN INDONESIA: A COMPARISON OF SRI KEHATI INDEX AND CONVENTIONAL INDEX.

ABSTRACT

This study aims at examining the performance of the SRI Kehati index against the Jakarta Composite index as the market index. By applying screening in investment criteria, this Socially Responsible Investment is different from the conventional investment. Using the sample of daily index price of SRI Kehati Index and Jakarta Composite Index, this study covers a period from 1 January 2009 to 31 December 2014. This study uses the mean return and the standard deviation, the risk-adjusted return inclusive of the Sharpe Index, the adjusted Sharpe Index (ASI), the Treynor Index, the Jensen's Alpha Index, the Adjusted Jensen's Alpha Index (AJI) and the Sortino ratio index to examine the performance. The results shows that the mean return of SRI Kehati index underperforms against JCI as the conventional benchmark index in overall period but outperform for four years (2011 to 2014) with mix of significant and non significant return profile. The standard deviation of SRI Kehati is consistently higher and significant against JCI in annual an overall period. This condition supports the hypothesis that SRI Kehati is riskier than JCI. Except Sharpe ratio and adjusted Sharpe ratio, the risk-adjusted return performance of the SRI Kehati index, (Treynor, Jensen alpha, Adjusted Jensen alpha and Sortino ratio) outperforms JCI as the conventional benchmark index. However, the Jensen alpha is the only performance measure that is significant and therefore supporting that Sri Kehati outperforms the JCI during the overall period of 2009-2014. The discussions of these findings are slightly different with

majority of the previous literature. The findings that exhibit a slightly lower mean return of Sri Kehati Index in the overall period could be related to the screening method of investment that limits the portfolio diversification. The same argument is also associated with the outcome that SRI Kehati is riskier than JCI. As there is a contradiction between adjusted return of Sharpe Index/ Adjusted Sharpe Index and Jensen Alpha Index, the hypothesis that Sri Kehati presents higher risk adjusted performance than JCI cannot be accepted. Even though the performance of Sri Kehati in this study is slightly lower in the overall period, but it is still generate competitive results. Annual results of mean returns from 2011 to 2014 give evidence that the return of Sri Kehati to certain extent outperforms the conventional market.

CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter provides the background of the study and the problem statement. Then, the research questions and objectives are addressed as sub topics of this chapter. Besides, this chapter provides the significances of this study and the organisation of the research report.

1.2 Background of Study

Socially Responsible Investment (SRI), which concerns in the ethical investing decision, has grown significantly in the last four decades. Socially responsible investors focus on their investment decisions to a combination of financial and social criteria to make sure that the investments they select are consistent with their personal value system and beliefs (Das & Rao, 2013; Hamilton, Jo, & Statman, 1993; Sauer, 1997). Socially Responsible Investment provides a description of an investment process adopting issues on environmental, social, governance (ESG) or ethical considerations. This process is integrated into the investment selection involving the inclusion of one or more of the ESG practices in the analysis and monitoring of an investment (The Forum for Sustainable and Responsible Investment, 2012).

In the Socially Responsible Investment, the investment screening will choose the application either excluding (negative screens) or including (positive screens) companies from investment portfolios based on a range of social and environmental criteria (Kurtz & DiBartolomeo, 1996; Michelson, Wailes, Van Der Laan, & Frost, 2004; Sánchez, Luis, & Ladislao, 2013). The negative screening is used to illustrate the exclusion or avoidance of an investment based on ESG or ethical factors, while the positive screening, also known as “best in class”, is the long term benefit consideration of an investment opportunity based on some issues. The issues such as sin criteria (tobacco, alcohol, gambling, weapons, and pornography), ethical criteria (animal testing, abortion, genetic engineering, Islamic, healthcare), environmental protection (nuclear, environment, renewable energy), and labour relations have been common in the Socially Responsible Investment negative screens. Therefore, the organisation that applying screening approach is expected to facilitate ESG concern due to focus on People, Planet and Profit (Renneboog, Ter Horst, & Zhang, 2008b).

Environmental damages in the late 1980s have made investors more aware of negative environmental consequences of industrial development. The Chernobyl nuclear power plant in Ukraine exploded on the 25th of April 1986 that caused the spreading radioactive material across Europe and increasing the number of cancer deaths by thousands is one example of the environmental damage issues. Besides, the other worst environmental disaster example happened in the US when the oil super tanker Exxon Valdez ran aground near Alaska and spilled 11 million gallons of crude oil on 23rd March 1989 (Renneboog et al., 2008b; Schueth, 2003).

Due to the trend of environmental damages as mentioned above, the awareness for Socially Responsible Investment has increased. Investment strategies that take into consideration the ESG criteria have been gaining more attention from the investors. The Forum for Sustainable and Responsible Investment (USSIF) reported that the value of socially responsible investment portfolios had reached $3.74 trillion as of 2012 in total assets under management using one or more sustainable and responsible investing strategies namely investment screening, shareholder advocacy, and community investing. In the past seventeen years, social investing has showed a significant increase from $639 billion in 1995, meaning that it performed a healthy growth.

The growth of ethical investment practices over the last two decades has seen the creation of new stock indices. The first sustainability index in the world was created on May 1, 1990 by the social investment research firm Kinder, Lyndenberg, Domini & Co (KLD) namely Domini 400 Social Index (DSI). It was launched in 1990 and is currently known as the MSCI KLD 400 Social Index. As the sustainability index, MSCI KLD 400 Social Index (KLD) is designed to measure the return of a portfolio of companies pursuing a strategy of corporate sustainability and social responsibility (Arias & Samanez, 2013; Bianchi & Drew, 2012; Luck & Pilotte, 1993). The socially responsible index excludes all companies in the "sin industries" such as tobacco, gambling, alcohol, and similar industries (Statman, 2006). This index takes into consideration, negative social screening and best in class practices. The current knowledge of Socially Responsible Investment or ethical stock index may offer new concepts on the influence of social responsible standards on the performance of corporate stocks (Consolandi et al., 2009).

Table 1.1 displays information on sustainability index around the world. The table lists provides the existing SRI indices across the world with the issuing year and its coverage.

Table 1.1 The SRI Indices in the World

The SRI index	Year started	Coverage
Domini 400 Social Index	1990	US
Dow Jones Sustainability Index Series	1999	Global
Calvert Social Index (2000)	2000	US
FTSE4 Good Index Series	2001	Global
Advanced Sustainability Performance Eurozone Index	2002	Europe
Morningstar Socially Responsible Investment Index	2003	Japan
Ethibel Sustainability Index (ESI) Series	2002	Global
Johannesburg Stock Exchange in Africa(JSE)	2004	South Africa
Bovespa Corporate Sustainability Index (ISE)	2005	Brazil
VBV-ÖsterreichischerNachhaltigkeits index (VÖNIX)	2005	Austria
MaalaSRI (Socially Responsible Investing) Index	2006	Israel
KLD Sustainability Index Series (GSI)	2007	Global
S&P ESG India Index	2007	India
DAXglobal® Sarasin Sustainability Germany Index	2007	Germany
DAXglobal® Sarasin Sustainability Switzerland Index	2007	Switzerland
Global Challenges Index	2007	Germany
OMX GES Ethical Index Series	2008	Europe
FTSE KLD Sustainability Index Indices	2008	Global
SRI-KEHATI Index	2009	Indonesia
Shanghai Stock Exchange (SSE) SRI Index	2009	China
CEE Responsible Investment Universe	2009	Europe
Korean SRI Index	2009	Korea
Responsible Investment Universe Index	2009	Austria
RESPECT Index	2009	Polish
The HangSeng Corporate Sustainability Index	2010	Hong Kong
the Hang Seng (China A) Corporate Sustainability	2010	China
The Hang Seng (Mainland and HK) Corporate Sustainability Index	2010	China
Istanbul Stock Exchange Sustainability Index	2010	Turkey
OMX GES Sustainability Index Series	2010	Europe
MSCI ESG Best-of-Class Indices	2010	Global
MSCI Values-based Indices	2010	Global
MSCI KLD 400 Social Index	2010	Global
STOXX Global ESG Leaders Indices	2011	Global
STOXX Sustainability Indices	2011	Europe
STOXX Global ESG Leaders Indices	2011	Global
MSCI Global ex Controversial Weapons Indices	2011	Global
MSCI Global Socially Responsible Indices	2011	Global

Source: Sun, Nagata, & Onoda, (2011)

These SRI indices emphasised on the environmental issue. The SRI index has become phenomena started from 1990 until now. There are 14 countries launched SRI index beside Europe and Global Market namely: US, Japan, South Africa, Brazil, Australia, Israel, India, Germany, Switzerland, Indonesia, China, Korea, Polish, Hong Kong, and Turkey.

1.3 Socially Responsible Investment in Indonesia

The awareness of Socially Responsible Investment (SRI) also exists in Indonesia. This is manifested in the creation of an index called SRI Kehati Index. This index was developed by the KEHATI Foundation, in collaboration with Indonesian Stock Exchange (IDX) in 2009. The creation of this index was triggered partly by environmental destructions caused by some Indonesian companies such as PT. Newmont Nusa Tenggara and PT. Newmont Minahasa Raya Mine, both of which were under the Newmont Group. PT. Newmont Nusa Tenggara destroyed the local environment in Sumbawa Island, scarring the earth and dumping waste. The large mine has impacted on the destruction of the health and environment of local communities directly. PT. Newmont's Minahasa Raya Mine in Sulawesi polluted the environment, contaminating about 15 to 60 tons of raw mercury into the waterways of the northern Sulawesi every year (Welker, 2009).

In another example, Freeport McMoRan group were famous for its corrupt relationship with the Nuovo Ordine regime on the large-scale land environment destruction and expropriation in West Papua. PT. Freeport Indonesia gold mining was triggered complicity in military abuses of human rights until now (Welker, 2009). And recently in Sidoarjo East Java, Indonesia that has been in eruption of mud volcano since

May 2006 until now. It is the biggest mud volcano in the world caused by irresponsibility of PT. Lapindo Brantas under the Bakrie Group.

Following the standard and regulation of Sustainable and Responsible Investment (SRI), SRI Kehati Index can be regarded as a type of green investment. By launching SRI Kehati Index, it was expected that the public would be made aware of the existence of an index showing which companies were regarded as beneficial and constantly managing sustainable development.

1.4 SRI Kehati Index

SRI-KEHATI Index was established as an ethical index, a benchmarking unit for SRI investors to review the performance of companies' profitability, supported by their environmental, social, and governance (ESG) performance. The index was created to meet the demands on Sustainable and Responsible Investment (SRI) process. Therefore, the terminology of SRI and KEHATI, as the most influential institution on the index's assessment, Indonesian Stock Exchange (IDX) newly introduced an index in IDX namely SRI Kehati Index (Layungasri, 2010).

The establishment of Socially Responsible Investment index aims to implement biodiversity conservation programs by raising awareness toward biodiversity among the shareholders, the industry sector and capital market. The objectives of the SRI Kehati index also provide open information to the public regarding to selection and identification companies' mechanism rated by the index. The information consist of some considerations in running any businesses related to the environmental safety point of view, business management, community involvement, human resources, human rights, business behaviour and ways of operations with internationally accepted business ethics.

The KEHATI foundation selects companies that are eligible to be included into the SRI Kehati Index under certain criteria. These criteria can be used as guidance for investors. The committee that constructed SRI index select on some SRI criteria, but disagree on the others. For example, KLD, which groups the DS 400 Index now MSCI KLD 400 Social Index, avoids companies that derive any revenues from the sin manufacture such as tobacco, alcohol, gambling, weapons, and pornography. Then, KLD evaluates companies applied best in class in areas such as the environment, diversity, and employee relations.

The inclusion of the companies will be evaluated twice a year, which is in April and October, and the result will be published by IDX website through the link http//www.idx.co.id. The screening process selection for these companies follows three steps. The first step is an initial exclusion selection of negative line-of-business aspects (such as Pesticide, Nuclear, Weapons, Tobacco, Alcohol, Pornography, Gambling, and Genetically Modified Organism (GMO)). The second step is to identify financial aspects. For example, companies with market capitalisation and asset ownership above Rp 1 Trillion based on their latest audited financial report have 10 percent public ownership or above free float ratio active stock on the Indonesian stock exchange. The companies must also have a positive Price/Earnings (PE) Ratio during the last six months.

A further screen selection also evaluates fundamental aspects of the companies (such as Corporate Governance, Environment, Community Involvement, Business Manners, Human Resources, and Human Rights). The evaluation is done through a review toward companies that have passed three steps of mechanism selections and also through other relevant data. Therefore, from this mechanism Kehati foundation determines 25 companies that are qualified to be included in the SRI Kehati Index under certain selection. Then, the Indonesian Stock Exchange and Kehati foundation launched SRI Kehati index with 100 value basis, where this index has obtained a positive reaction on the first day at the position of 116.946. As a result, those that fulfil specific criteria stated above will be declared eligible to be included in the SRI Kehati index.

As in the majority of the world stock exchange, the SRI Kehati Index is calculated by using a methodology based on the weighted average number of registered shares (market value) or Market Value Weighted Average Index. This methodology is similar to the conventional IDX index calculation. The basis for calculating the index formula is:

$$\text{Index} = \frac{\text{Market Value}}{\text{Basic Value}} \text{X } 100 \ldots$$

Where, the market value is the cumulative number of registered shares (which are used for index calculation) multiplied by the market price. Market value is also called market capitalization. Formula for calculating the market value is:

$$\text{Market Value} = p_1q_1 + p_2q_2 + \cdots + p_iq_i + p_nq_n$$

Where:

p = Closing price (the price of shares)

q = Number of shares used for calculating the index (number of shares recorded)

n = Number of companies listed in the Stock Exchange (the number of issuers that are used for the calculation index)

Basic value is the cumulative number of shares multiplied by the base price.

The Chairman of the Presidential Advisory Council of Indonesia year 2010-2014, Prof. Emil Salim, noted that in the SRI Kehati Award on 31 July 2013, the companies that won the award were those that concern to the environment and sustainability development. The companies were not only profit oriented, but also applied the ESG criteria in their operation. Prof. Emil Salim also explained that the criteria and standards for selecting the companies are based on the three pillars of thought, namely, the economic pillar of the profit, the social pillar of the employees and the community, and the environmental pillar of the contribution to the planet.

1.5 Performance of SRI and SRI Kehati index

The reasons why ethical investments might be do better than conventional investment because it is thought that higher financial returns occur because of the adoption of social screening practices. Ethical firms are able to recognise social or ethical investments as a positive "signal" indication since they communicate to stakeholder and shareholder including their focus on sustainability and management quality that corporate socially responsible firms are expected to include them in ethical area (Cullis, Lewis, & Winnett, 1992; Michelson et al., 2004).

Corporate social responsibility is one of the management strategies to include the corporate impacts on society. It also tries to take the potential benefits from some responsible actions(Vives & Wadhwa, 2012). Graves and Waddock (1994)'s study also supported the theory that high corporate social responsible companies may prove to be better for investments over the longer terms. This is related to a triple bottom line as the basic source of ESG (Schäfer, 2012), that is, for the financial, social and environmental results, is an approach to integrate parts of a company's operations and see that all these parts are related to each other. Graves and Waddock (1994) argued about this matter because the investors believe that the low CSR companies are tended to make riskier investments. In line with Hong and Kacperczyk (2009), they explained about the sin stock facing greater risk because of the conflict with social norms. Further, the investors believed that high CSR companies were better investments over the longer term since low CSR companies were more likely to be involved in business activities that were unsustainable. Finally they found that institutional owners did not penalise companies that were seeking to improve their CSR. In fact their study discovered that using efficient market theory reduction risk as a lower risk when companies improved their CSR (Graves & Waddock, 1994).

Statman (2006) compared the returns of the four socially responsible indices and the returns of the conventional S&P 500 index. In general, the returns of performance SRI indices brought higher returns than the conventional index during the boom of the late 1990s, but started losing in the early 2000s. Regarding to the performance of investment, there are also similar studies that have been conducted, but more focused on shariah-compliance vs. non shariah-compliant stocks from the comparison of Islamic screening index and conventional index. According to Islamic principles, to avoid pork and interest based, financial institution has to include the negative screening elements of socially responsible investment (Renneboog et al., 2008b). Then, Ahmad and Ibrahim (2002) compared between the performance of Shariah indices (KLSE SI) and conventional indices. Generally, Shariah indices performed slightly better in growing phases of the study period than conventional indices, but still underperform in other two phases (overall period and declining period) than the market index. The interesting evidence of these securities is also supported by some studies on a very similar type of investment i.e., the socially responsible investment. Consolandi et al. (2009), Mallin et al. (1995) and Statman (2000) interpreted that socially responsible index generally performed better than other conventional indices.

Therefore, the investors are caring of their social responsibility and taking into consideration about their investment returns. The investor can also give a priority to the low risk and high expected returns in their investment choices and analyze information from the comparison between the SRI index and the conventional index (Statman, 2006). The index also provides a benchmark for socially responsible investing and contributes to the development of responsible business practice around the world.

With regards to SRI Kehati Index, Figure 1.1 below shows the four years period's movement of the SRI Kehati Index.

This plot clearly shows the increasing trend of the SRI Kehati index from 2009 until 2012.

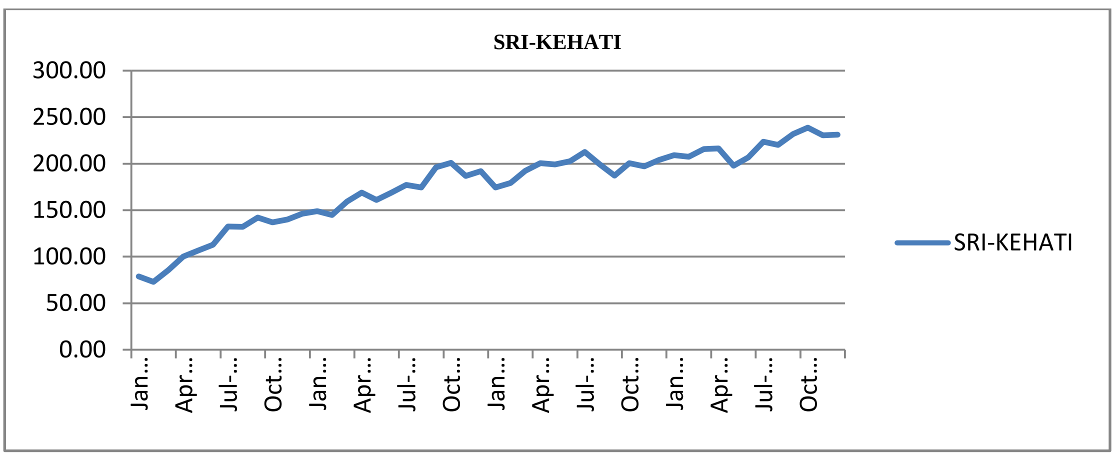

Figure 1.1 The SRI Kehati Monthly Closing Price Index from January 2009 to December 2012

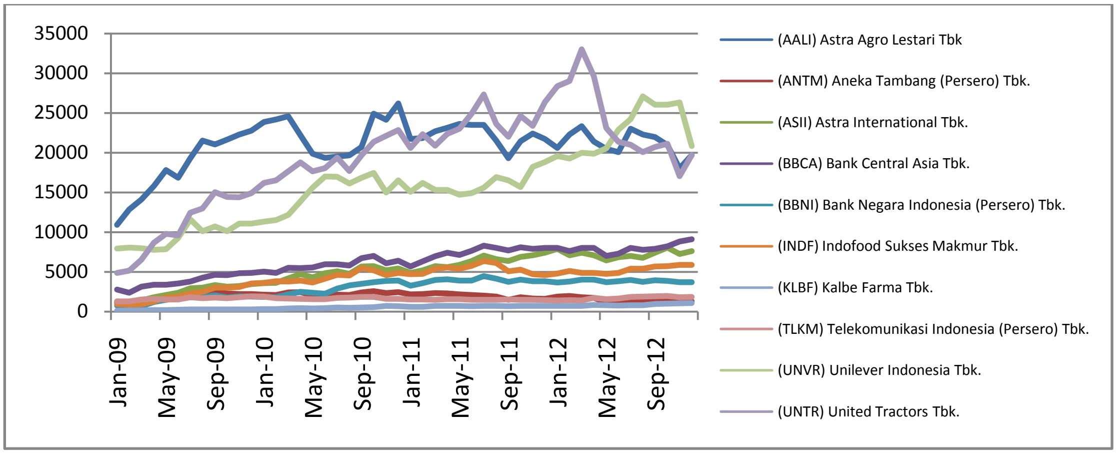

Figure 1.2 The Closing Prices Movements of Top Ten Companies Listed In the SRI Kehati Index From January 2009 to December 2012

Figure 1.2 exhibits the price movements of 10 companies in the Sri Kehati Index from January 2009 to September 2012. Most of the ten companies registered extreme sharp increase in the closing price during the first year when SRI Kehati index was launched.

1.6 The Jakarta Composite Index (JCI)

This study will examine the performance of SRI Kehati compared with the market performance. The Jakarta Composite Index (JCI) is recognised as a conventional market index. This market index is used as a benchmark for the performance comparison study. As a benchmark for socially responsible investment index fund and also as the main market barometer, the Jakarta Composite Index (JCI) is attempted to be used as a conventional index in this study. The JCI serves as an indicator of the performance of the Indonesian economy. Thus, the JCI is an important indicator of local businesses and market conditions.

On 1 April 1983, the Jakarta Composite Index (JCI) was introduced as an indicator of price movements of stocks listed on the stock exchange**.** The constituents of JCI's index calculation are coming from all the listed companies. JCI has a right whether to eliminate or to exclude one or several listed companies for the calculation to make sure that the result will reflect fair market conditions. The reason of this action is to keep the reasonable fluctuation in JCI, for example, if the listed companies' public shares are only owned by a few shareholders (small free float) while its market capitalization is relatively high, this may cause the price change in the listed companies' stock that may potentially affect the reasonable fluctuation of the JCI (IDX, 2010).

1.7 Problem Statement

The analysis of the performance of SRI, as compared to that of the conventional benchmarks started a long ago. A pioneering study was conducted by Moskowitz (1972). SRI has realized its potentials as a tool for social and economic changes. Since then, a lot of investors definitely find out that their funds invested according to social concerns without leaving the concern to the financial returns (Waring & Lewer, 2004).

Basically the investors are risk averse (Fama & MacBeth, 1973). A study by Sauer (1997) has explained that the general perception of the socially responsible investing essentially results in lower risks to the investor. Consistent with the result, the studies of Hamilton et al. (1993) and McGuire et al., (1988) indicated that they mostly agreed that socially-ethical investment is associated with lower risks. Then, one important question to ask, 'Are the risks and returns of socially responsible stocks equal to the risk and returns of conventional stocks?' From this question, many studies on this issue significantly increased in the recent years, but the results have so far been rather mixed. McGuire et al. (1988) confirmed that advanced impact of social performance was associated with lower risk in finance.

The most of previous studies concluded in support of the SRI Index outperformed from conventional investments. For Example, the studies of Mutezo (2013), Beer et al. (2011), Nakajima (2011), Consolandi et al. (2009), Schröder (2007), Derwall et al. (2005), Statman (2000), DiBartolomeo & Kurtz (1999), Luck & Pilotte (1993), and Sauer (1997) generally found that the mean return of socially responsible index and risk-adjusted returns are higher than the conventional index.

Another result showed that performances of socially responsible index are similar with their benchmarks. Collison et al., (2008) analysed the financial performance of the FTSE4Good index, the result proved that FTSE4Good achieves the same level of return as their base universe Indices benchmarks in 1996–2005. Kreander et al., (2005) reported that ethical fund performance is broadly similar to the market benchmarks. Their findings suggested that there is no significant difference between ethical and non-ethical funds and the performance measures.

On the other hand, Bianchi & Drew (2012) found that individual SR stocks have on average significantly lower returns and unconditional variance than CS stocks when controlling for industry effects. Mironova & Kynäs (2012) explained that ethical investments do not perform significantly better than conventional investments. Becchetti & Ciciretti (2009) found that individual socially responsible stocks have on average significantly lower returns and unconditional variance than conventional stocks when controlling for industry effects. With these mixed findings from the previous studies, coupled with the lack of study on the socially responsible investment in Indonesia, this study will provide further evidence in this area.

Despite SRI is not a new concept in the worldwide, but in Indonesia SRI is still recognised as an emerging issue for the investment area. The Kehati foundation as an organiser of green investment funds in collaboration with Indonesian stock exchange manages companies including in the SRI Kehati index. Although the socially responsible investment is related to environment, social and governance (ESG) practices, few studies have been conducted on this issue in Indonesia, especially about the performance of the socially responsible investment in Asia as an emerging market. This study will be conducted based on an index price which is the SRI Kehati index. In addition, there is a very limited study undertaken that analysed the comparative risk adjusted return performance of SRI funds in Indonesia.

From this background, the portfolio in this study is related to the triple bottom line theory perspectives explaining people planet and profit. The application of social screening in this study is attempted to help investors reduce impacts of environmental damage from their decisions about the planet and people in the triple bottom line theory. For maximising returns as being the objectives of investors, this theory contributes to profit perspectives. Therefore, based on the ESG, returns of investment in this term are not the only purpose of SRI investors but also social and environmental concerns do determine their decisions. This study will contribute to the investment performance knowledge by conceptualising ESG factors related to the investment in the context of Indonesian investment.

In addition, this study also attempts to take into consideration on the comparison of the return of the socially responsible index whether to be higher (better) or lower performance than the conventional index benchmark. Therefore, this study will examine the performance of SRI fund, which explains about risk, return and risk adjusted return profile for the portfolio investment performance. This portfolio is contributed of 25 listed companies in the single index, namely SRI Kehati index. The SRI Kehati is recognised as the Socially Responsible Investment index in Asia besides Japan, China and India (Sun, Nagata, & Onoda, 2011). Then, this study is also expected to add knowledge about sustainable investment in ASEAN region countries. Further, by looking at the development of social aspects in investment, this topic would enrich knowledge about the index performance.

1.8 Research Questions

Based on the problem statement presented above, the study attempts to answer the following research questions:

1. Does the SRI Kehati index present higher daily return than the Jakarta Composite Index?
2. Does the daily risk of SRI Kehati index is riskier than the Jakarta Composite Index?
3. Does the SRI Kehati index present higher risk adjusted return performance (Sharpe, Treynor, Jensen, and Sortino) than the Jakarta Composite Index?

1.9 Research Objectives

Thus, to answer the research questions above, this study will attempt to achieve the following research objectives:

1. To analyse the risk and return performance of the SRI Kehati index and the Jakarta Composite Index.
2. To evaluate the risk adjusted return performance (Sharpe, Treynor, Jensen, and Sortino) of the SRI Kehati index and the Jakarta Composite Index.

1.10 Significance of the Study

This study aims to know about the comparative risk-return profile and risk adjusted return performance between socially responsible investment index fund and conventional index fund investment in Indonesia Stock Exchange. Then, the contribution of this study can be divided into two categories which are theoretical and practical contributions.

1.10.1 Theoretical Contribution

In 2007, The Government of Republic of Indonesia issued the Law number 40 regarding Limited Liability Companies. In article number 3 of this Law, Indonesian companies should conduct activities concerning environmental and social responsibility. This regulation requires Indonesian companies to disclose the implementation of the environmental and social responsibility. Therefore, Indonesian companies should apply this in their annual reports. It is expected that Indonesian companies pay attention to their environment and social aspects. However, there are some evidences that Indonesian companies did not apply the responsible investment (irresponsible) such as the case of companies under the Bakrie Group; PT. Lapindo Brantas and PT. Kaltim Prima Coal.

Related to the environmental damage and social problem, these are becoming a serious problem in Indonesia. Common business in industrial sectors focuses only on the performance return profile without considering ESG factors. From this background, the socially responsible investment in Indonesia has offered a “green index” or “sustainability index” as a product in the capital market known as SRI Kehati index. This index is different from others because of applying screening criteria. This index was created as a barometer for investment funds for those who are aware of the aspects of environmental, social and good corporate governance (ESG). This index also describes that companies should be aware of the sustainable biodiversity without sacrificing long term returns on the investment.

By doing this research, this findings can contribute to this issue is related to the portfolio theory perspectives that describes about risk and return characteristics. For example, Guerard (1997) and Larsen (2013) stated the social screening in SRI study is related to the portfolio theory that indicates the higher risk correlated with relatively higher returns. This perspective showed that the characteristics of SRI to the financial objectives are without forgetting about ESG principles. The portfolio theory helps the investor to develop their decisions in terms of risk-return characteristics (Ferruz, 2010). In SRI context, performance implications contribute to investors' decision which describes the portfolio theory area about the relationship between risk-return to the screening adoption and also shows how the investors' risk is significantly linked to the investment diversification.

1.10.2 Practical Contribution

In the perspective of practical contribution, the socially responsible investment aims to propose a company contribution to ESG issues (Schäfer, 2012). According to Berry & Junkus (2013), investors who have used SRI screening criteria in investment decisions should prefer to consider the SRI funds. This is because firms should be rewarded for applying the positive social practice (green company), and for considering the environmental protection in their operations.

Renneboog et al. (2008b) clarify the return on social investment is the interest to help society and maximisation of stakeholder value. The goal of socially responsible investors to promote their investment avoids companies producing goods that may cause health hazards or exploit employees either in developed or developing countries. Moreover, Renneboog et al. (2008b) also explain the companies applied corporate social responsibility and concern to avoid negative screening will achieve good reputation in a competitive market. However, the companies that promoting this concept automatically help the social and environment as bottom line long term purposes.

Therefore, from this practical contribution, the result of this socially responsible investment study is expected to contribute both of investors (external) and listed companies (internal) as well. Stakeholders can get benefits not only returns on investment, but also help the internal get ESG benefits for a better sustainable and responsible practices. Then, the result of this study is expected to provide information to help investors make better investment decisions in order to get the best risk – return profile. Again, the result of this study is expected to provide information for listed companies and private companies whether to consider SRI Kehati as a better foundation or not in order to get better performance.

1.11 Definition of Key Terms

SRI

SRI is defined as the process of integrating personal values into investment decision-making. Socially responsible investment is also defined the investment integrated to non financial approaches such as environmental, social and governance (ESG) factors (Sandberg et al., 2009).

Screening

Screening is a specific investment criterion used to include or exclude firms based on lines of business or corporate behaviour based on Environment, Social and Governance (Lyn & Zychowicz, 2010)

Sustainability

Sustainability is a major issue to reconcile financial goals with environmental and social goals. The concept of sustainability in finance is a mechanism selection of investment strategy to provide a good environment for future generation based on normative long term decisions (Matthews & Rusinko, 2010).

Sustainability Index

The Sustainability index is an index that serves the reliable information for the investors about the price movements of the stocks of socially responsible investment (Layungasri, 2010).

The SRI Kehati Foundation

The body that is an independent institution, non-profit organisation that concern about the environment, socially responsible investment, biodiversity conservation and natural resource management in Indonesia (SRI Kehati, 2012).

The SRI Kehati Index

The SRI Kehati index is an index adopting the exclusionary screen (negative screening), finance screen and fundamental screening (SRI Kehati, 2012).

Stock Exchange

Related to the capital market, the stock exchange is an organisation that provides the selling and buying securities such as stocks and obligations (IDX, 2010)

The Standard Deviation

The standard deviation is the instrument of risk measurement. The standard deviation is obtained from the historic variation of daily returns (Jensen, 1969).

Mean Return

The mean return is the return values of investments consist of a portfolio. The mean return is the mean value of the probability distribution of possible returns (Ferruz et al., 2009).

Risk-Adjusted Return

A concept that processes an investment's return by measuring how much risk is involved in producing return which is generally expressed as a number or rating (Renneboog et al., 2008).

The Sharpe Ratio Index

The Sharpe index represents the average risk premium per unit of the total risk with the average daily return minus the risk free interest rate and divided by the standard deviation (Ferson, 2010).

The Treynor Ratio Index

The Treynor measure (reward to volatility ratio) utilises the trust's beta to measure volatility, and allows us to isolate market influences on the analysis of fund performance against the respective indices. It is the excess return to non-diversifiable risk (Mallin et al., 1995)

The Jensen Alpha Index

The Jensen Alpha is the formula of excess return of the portfolio. A higher Alpha indicates that the portfolio has a good risk-adjusted returns and vice versa (Reddy & Fu, 2014).

The Sortino Ratio Index

The Sortino ratio represents the differential return of a portfolio by unit of downside risks (Arias & Samanez, 2010).

1.12 Organisation of the Research Report

This report is divided into five major chapters. Chapter one presents the introduction of the Indonesian experiences with the SRI Kehati index, the problem statement, the research questions and the objectives of the study. The second chapter presents the relevant empirical literature, the theoretical perspective studies regarding ethical investments and the performance of socially responsible index. Chapter three describes the study’s hypothesis, the methodology used and the sampling method. In the chapter four, the results of the study and finding are discussed. Finally, chapter five summarizes and concludes the results of study. The limitation of the study and suggestions for future researches are also provided in this final chapter.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter reviews literature about the socially responsible investment in general. Firstly, this chapter discusses about the development of socially responsible investments. Secondly, it reviews a screening mechanism on socially responsible investments. Furthermore, this chapter also provides investors' perspectives view on socially responsible investments. The last section is a review of empirical evidence and development of hypotheses of the studies on the socially responsible investment.

2.2 Socially Responsible Investment

Socially Responsible Investment (SRI)'s definition varies greatly from one academic journal literature to another (Hamilton et al., 1993). Currently, SRI is also identified as a "green investment", "sustainable investment", and "ethical investment" (Renneboog et al., 2008b; The Forum for Sustainable and Responsible Investment, 2012). The idea of ethical investments begins from the origin religious traditions. This is an important relationship between religious perspectives and the finance sections. However, this relationship explains about socially responsible investment as a part of ethical investment which also recognise as the faith-based investment (Lyn & Zychowicz, 2010).

The most distinctive feature between faith-based investment and conventional investment represents the Islamic investors applying "prohibited investment" such as avoiding business involved in "Haram" principles. Based on the knowledge of the holy

Al Quran and its explanations, Haram principles is absolutely recognised as sin activities that consist of interest based/usury ‘Riba’ financial institutions, pork production, alcohol, gambling and prostitution. The Christian Methodist Church and the Quaker also keep clear to avoid investment from sinful companies that have a possibility in defence strategy, alcohol, tobacco and gambling when they began investing during the stock market period in 1920s (Ghoul & Karam, 2007; Renneboog, et al., 2007b). Therefore, the roots of SRI history can be traced back to various religious movements based on each religion teaching (Berry & Junkus, 2013).

The Forum for Sustainable and Responsible Investment (USSIF) (2012) defined socially responsible investment as an investment discipline that considers ESG criteria to develop positive societal impact and better long-term financial returns. This definition is also in line with Bilbao-Terol, et al. (2012), Fung, et al. (2010), and Janda & Wilson (2006)’s arguments. They have similar ideas that SRI is considered as an important aspect for the long term benefit

Renneboog, et al. (2011) defined the socially responsible investment as the ethical investment which is relevant with social objectives and environmental issues to obtain the financial goal (risk-return) as a factor in equity portfolio construction. Then, this social issue is recognised as an important element of ESG criteria which is distinguishing the characteristics between ethical and conventional investments based on the financial objectives of the portfolio. Therefore, the ethical investment is aimed not only at focusing on the social objectives, but also caring about the specific financial risk-return and ESG goals on investment (Cowton, 1994; Cowton & Sandberg, 2012 and Ortas, et al. 2013).