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Individual and Overall Analysis on Indonesian Stock Funds Market Timing and Selectivity

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Abstract: *This study investigates Timing and Selection ability of managers in Indonesia Funds Industry.The one month stock funds net asset value, Indonesian Treasury-Bill (3-Months) and Market rerturn of Indonesia Stock Exchange covering from 2010-2014 is used on this research. We apply Treynor-Mazuy Equation to test the hypothesis. This investigation exhibit the timing the capital market ability as well as selectivity possess by managers both individuall as well as overall point of view. The reult shows that, individual analysis on the funds proves that the almost all of the managers only have slight of ability. Only three of the assets exhibit affirmative and statistically substantial alpha and none of them display confident timing skill. Breakdown of overall funds endorses that managers show a weak selectivity and timing expertise.*

Keywords: Treynor-Mazuy, |Stock Funds, Timing and Selectivity Skill

Introduction

Mutual Funds is one of the very famous assets in financial market in previous decades. At the end of 2014 the total the world market value of mutual fund is extent to the level of $31.3 trillion. This is a significant rise compare to 2009 where the total asset of mutual funds is $22.9 trillion dollars. Especially in United States, mutual funds has significant share on many financial securities. According to ICI data on 2015, owned mutual funds summarize extra than one-partial of financial assets for sixty eight percent (68%) of all assets included mutual funds in it. Although they are popular in industrialized nations, however, former researchers were typically carried out in the United States and countries in the European plains. Conversely, the progress of it in the capital markets of developing countries, namely Indonesia, Malaysia, India, etc. began to show a good increase even though studies on mutual funds are still small in these developing countries.

This research focuses on mutual funds in the Indonesian capital market. In Southeast Asia, one of the largest economies is Indonesia; In 2008 Indonesia entered the OPEC countries and the only G20 nation came from the Southeast Asian region. Indonesia is increasingly taken into account by foreign investors. In addition, economic growth is promising, domestic and foreign debt is low, and the prospect of increasing income for savings by the public. The World Bank noted in 2015, GDP rose to $ 888 million from $ 540 million in five years, debt decreased by 28% in 2013, amid 2012-2020 disposable receipts per household are predicted to rise by almost 40.5 percent in.In addition, the total population between the ages of 15-64 skyrocketed 1.7% between 2009 and 2014(monitor Euro, 2012). The large number of young people will create the need to plan for good financial future such as pension funds, tuition fees and so on. So that mutual funds become a choice of attractive investment assets for young people.

The high development of the funds in foreign countries tightened rivalry among financial management companies. Financial fund management companies will attract investors with promotions and campaigns. Each fund manager will try to convince their prowess in generating profits from the fund. An investor must not depend

on promotion solitary, but an examination and understanding of the fund management strategy that is applied is needed, the selection of assets supported by market opportunities are two crucial things in providing benefits from investment funds. Mutual funds are cash flows obtained from the investor community by asset management companies and are responsible for investing in stock assets, bonds and others (SEC, 2015). mutual funds have special characteristics. One, mutual funds are small cash flows from individual or institutional investors. Two, the company collects and invests money from these investors to get investment assets. Three, companies monitor, manage and monitor funds gradually. Indeed there are many investment assets in the capital market. However, it is not easy to get good securities. The reality is that ordinary investors have mastered information, abilities, skills and not much time to produce a portfolio of assets. Thus, mutual funds are the choice as a suitable instrument for new investors, especially novice investors.

Although mutual funds are very popular and profitable, investors do not effortlessly distinguish mutual fund businesses that be able to provide returns above the index returns. If a profitable fund manager cannot be confirmed statistically. So every good display of assets does not at all reflect future prospects (Barras, 2010).

Previous researchers such as Lee and Rahman (1990), Dellva et al (2001), Cuthbertson et al (2010), separated performance into two terms. the first is selectivity (skills in determining preferred stocks) and market timing, namely expertise in managing market time such as buying assets before the market goes up and selling assets before the market actually goes down.

Methodology

CAPM is a theory that was introduced by William F. Sharpe in 1964. This theory is very well known and is used as a tool for determining the price of securities and in determining the risk of an asset. Then, the description of beta or systematic risk as well as the trade-off plan among return and risk is the biggest role of CAPM. Furthermore, the CAPM formula defines each asset presents desired returns that are linearly and real correlated with market returns. As a formula, the CAPM formula be able to be written for example below:

$$E(r)_i = r_f + \beta (r_m - r_f) + e \qquad \text{……..(3)}$$

As shown above E(Ri), i.e. return of expected assets i. The symbol, $R_{f,}$ is risk-free assets return, while (Rm-Rf) is the risk extended orpremium that is borne and finally e is the error term. Next, a multivariate model was formed based on the CAPM. In this research the CAPM model is considered effective, so that (E (Ri) - Rf) or realized premium return will be the same as β (Rm-Rf). The calculation presents as follows:

$$E(r)i - r_f = \beta (r_m - r_f) + e \qquad \text{……(4)}$$

|Next equation (5) is modified, expanded into Jensen's equation and strengthens the CAPM model in asset valuation. Jensen said that if managers show their best ability to predict capital market conditions because of the accurate source of information they get, so asset managers can choose investments that provide returns above market risk. Thus, it is probable for the unique equation (2) to augment the presence of non-nil alpha as presented in calculation (3)

$$E(r)_i = \alpha + r_f + \beta(r_m - r_f) + e \quad \ldots\ldots (5)$$

Added to formula (4) is alpha (α), this is commonly known as alpha Jensen. Alfa fundamentally has a strong enough reason, so Jensen alpha is generally used to determine the ability to choose assets. At this stage, the equation is able to measure the ability to choose assets owned by managers only.

The model to measure the aptitude of market timing as well as selectivity is based on Jensen model. Also called a quadratic model that measures market timging and selectivity in one analysis. Next, the approach using Least Squared analysis statistical tools will match the typical lines for data recital by including quadratic terms in the installation formula.

Mathematically, the formula for Treynor-Mazuy's quadratic regression model can be able to be written as below:

$$R_{pt} - R_{ft} = \alpha + \beta\,(R_{mt} - R_{ft} + \gamma(R_{mt} - R_{ft}) + e \quad \ldots\ldots.(6)$$

From the daitas formula, α (alpha) is the rate of return on assets greater than market returns; Gamma (γ) is a figure that gives information about market timing presence or absence and e is the symbol of error.

When quadratic term $(Rm-Rf)^2$ gives a significant-positive value, it means that the manager can read good market timing. But, otherwise if not then the coefficient is zero.

This research investigates the ability to read the market and choose assets in each mutual fund. Each mutual fund will be analyzed empirically with the Treynor-Mazuy model.

Benchmark and Variables

Because this investigation examines mutual funds in the Indonesian capital market, two benchmarks seem appropriate for use. In the quadratic model requires a barometer, index or market returns and risk-free rate. The chief thing is the Jakarta Composite Stock Index (^JKSE index) is used as a barometer of market yields. The index of the Jakarta Composite Index is the entire price movement of ordinary shares and favored stocks registered on the Indonesia capital market. The base-day for calculating market returns is August 10, 1982. The Excel application is used to facilitate the calculation of closing price returns sourced from the Yahoo Finance website. Secondly, the 90-day Indonesian Treasury Bill was established as a risk-free rate. Treasury billing data is gained from Bank Indonesia website.

Excess refunds for returning risk-free rate (Rp-Rf) is dependent variable. Its difference between mutual fund returns and risk-free rate is predictable to be affirmative. In determining monthly funds revenues, the price of each month net assets is used and the subsequent formulation is applied:

$$Return_p = (NAV_t - NAV_{t-1})/(NAV_{t-1})$$

NAVt represent net assets at time t and NAVt-1 represent net assets before time t. We does not add dividends in the formula used to get stock returns. Dividends is defined at the end of each year, not every month. In addition, past studies by Cuthberston (2006) Murhadi (2012), Dewi and Ferdian (2012), also did the same thing by eliminating the effect of dividends in calculating returns.
(Rp-Rf) is the dependent variable. Whereas (Rm-Rf) and $(Rm-Rf)^2$ are independent variables. Rm is the market return and Rf is a risk-free return of assets.

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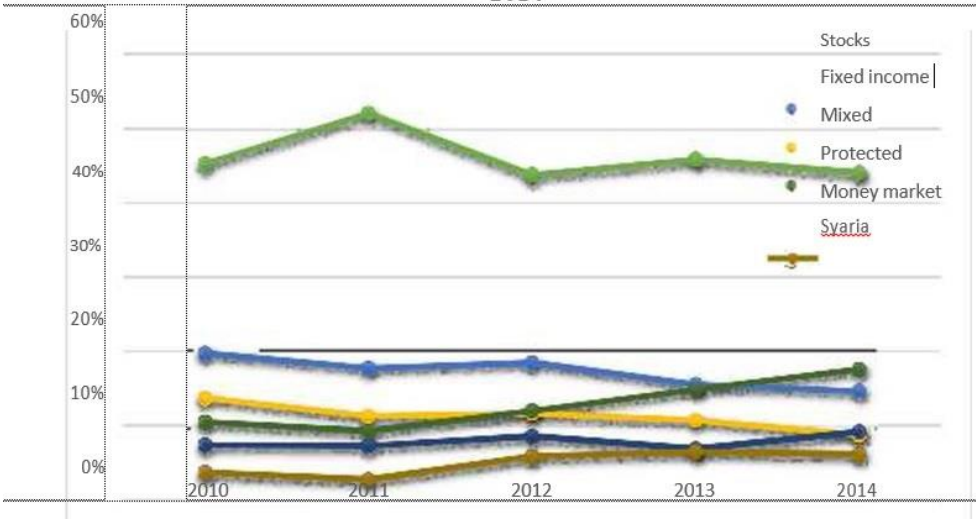
Data

The Net Asset Value of the funds covering from January 2010 to December 2014 is used as the main data in this study. The 2010-2014 period chosen aims to get the most recent portfolio manager performance appraisal. Stock mutual funds were chosen because they will provide a better picture of the ability of managers, this is because the mutual funds consist of stock assets reaching 80% so they contain a high level of volatility. Therefore, equity funds will make it clear whether or not managers are anticipating market changes.

The total value of the Net Asset Value of mutual funds in the Indonesian capital market is dominated by NAV equity funds. In addition, stock funds are prevalent mutual funds compared to others. Therefore, this study chooses stock mutual funds as objects that can represent an assessment of the capacity in timing the market and choosing the stock of mutual funds in the Indonesian capital market.

Managers need the ability to predict the market and choose assets that produce abnormal returns so that the portfolio of funds provides a high value. This research will use 43 equity funds in Indonesia to evaluate this. The stock fund strategy invests in 80% in stock securities and 20% in other properties. In the strategy used, the manager tries to monitor gradually the shares in the equity market and adjust the portfolio composition so that it becomes more ideal.

Figure 4.1 The Composition of Funds in Indonesian Mutual Funds Industry from 2010-2014



Apparently, Figure 4.1 demonstrates that a mutual fund is a mutual fund with a large capitalization. This is because variations in existing assets in the Indonesian capital market are still very few and the most commonly found and easy to access is stock securities. However, despite being dominated by shares, the Indonesian Government recorded US $ 25 trillion in bond transactions throughout 2014. Other assets such as deposits in US dollars while also promising a good interest rate of 0.94% per month (Kontan, 2015) . Then, the certificate of deposit was also issued by the Central Bank of Indonesia so that more investment choices. However, this condition is not enough to defeat the dominance of stock assets in the Indonesian capital market. Another reason why mutual funds in Indonesia are dominated by equity funds is that managers want to secure their funds in blue-chip stocks whose volatility tends to be small. From the calculation of the assessment of market returns also equity funds throughout the reflection dated displays that the maximum return on the market (Jakarta Composite Index) is 13.6% and the lowest at -9%. Whereas the highest-performing mutual funds and shares had the highest average return rate at 12.5% and the lowest at -12.4%. Table 4.1 below shows the 5 best stock funds with the highest average returns.

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Table 4.1 5 Top Funds 2010-2014

No	Funds	Fund Companies
1	REKSADANA MILLENIUM EQUITY	MILLENIUM DANATAMA INDONESIA ASSET MANAGEMENT
2	REKSADANA MNC DANA EKUITAS	MNC ASSET MANAGEMENT
3	PANIN DANA PRIMA	PANIN ASSET MANAGEMENT
4	PRATAMA SAHAM	PRATAMA CAPITALASSET MANAGEMENT
5	BATAVIA DANA SAHAM OPTIMAL	BATAVIA PROSPERINDO ASSET MANAGEMENT

Mutual funds in the table above have been operating in the Indonesian capital market for at least 10 years. In addition to the above mutual funds, there are several other mutual funds that also have quite good performance such as mutual funds no. 18 27 and 38 (See Table 4.1). However this information does not reflect the ability of market timing.

Based on data from the Financial Services Authority (FSA) it was noted that there were 158 active equity funds operating. Due to the limited data available on the OJK website, only 43 stock mutual funds are used as research objects. Table 4.2 shows monthly returns from these 43 mutual funds.

To evaluate the performance of the mutual fund manager this study uses a monthly NAV of 43 stock mutual funds. This data was collected from OJK Indonesia's website. Risk free rate data used is Indonesian Treasury bill, obtained from the BI website. Finally, in this study, the Jakarta Composite Index (JKSE) is used as a benchmark from www. Yahoofinance.com.

In table 4.2. It was shown that of the 43 mutual funds studied, only one showed a undesirable return (-0.0001) with a total usual return of the entire sample of 1.09% for the period 2010-2014. The maximum return among mutual funds is 1.6%. This displays a great variety of returns because the regular slightest fund is -0.00%. Mutual fund number 27 has earned the major return of 39%. Conversely, fund number seven has experienced the largest loss among these funds.

Analysis and Conclusion

From the analysis of each mutual fund with the Treynor and Mazuy Model, the alpha value is -0.001435, this indicates that there is no ability owned by mutual fund managers to determine the right assets in terms of buying and selling assets in the portfolio formed. Simply three mutual funds have optimistic and substantial alpha, namely Pratama Shares also Batavia Optimal Stock Funds. The largest alpha value among other funds is shown by Pratama Fund Fund mutual funds (0.016682). Apart from that, 25 equity funds out of a total of 43 mutual funds studied showed negative alpha. This shows the lack of selectivity, and only five of the 25 mutual funds are statistically negative and significant at 5- 10%. The results also show that the slope factor for the negative quadratic term for 39 funds. However, only 26 of the 39 funds were negative and statistically significant. Stimulatingly, there are no funds with immediate alpha and gamma positives

Consistently, the overall analysis, the coefficient of the quadratic term presents an estimate of a negative and significant coefficient (-1.281, t = -7.421). Likewise, the alpha value was negative but not significant (-0,001, t = -1,943). This discovery also signals us that investment managers in the Indonesian market lack market timeliness and stock selection.

The results of this study are almost related to previous studies on stock selection and timing of the mutual fund market in developed capital markets. The study prove that substantial time capability and stock selection is found in only a small number of stock fund (Chang and Lewellen (1984),Treynor and Mazuy (1966), and Becker et al. (1999). These findings are in line with some research in Indonesian market and other developing markets such as India and etc, for example, Murhadi (2010), Low (2007), Dewi and Ferdian (2012), but there are numerous research that express diverse outcomes: Bullen and Busse (2001), Lee and Rahman (1990), and Comer 2006 found several selction skill and timing ability in their research. In addition, Fletcher et al (1995), Dellva et al (2001) established a negative result of market time and positive stock selection. Thus, in a mutual fund study can caused by modifications in the sample, dated and technique applied to examine the skill.

Treynor-Mazuy explain in their paper, if the managers of the funds are clever enough to predict the market, the characteristic line will be convex to the origin. Conversely, if they show no evidence of their aptitude of predict the market, the characteristic line become linear. The discovery proposes that an asset or investment in capital markt of indonesia hinge on variation of the market. Consequently, chiefs of many funds company in the market are not capable to beat the inactive tactic and give only divergence advantage for the stockholders. Nonetheless, it does not automatically means that the managers could not make better return in decent or corrupt financial prudence than the regular market does. Managers probably being expert to upsurge the degree of their ROI through classifying other approach such as recognizing understated assets or refining the total asset managed by the fund companie, before judging the effort of the capital market.

So, based on overall and individual analysis, the fund managers in Indonesian Capital Market appear to possess slght aptitude in picking the assets that bid more return. They also exhibit feeble ability in altering the arrangement of their stock composition to regulate its uncertainty due to market volatility.

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