THE APPLICATION OF ASSET ALLOCATION STRATEGY USING PANIN MUTUAL FUND PRODUCTS IN 2005-2009 PERIOD OF INVESTMENT

William Suryanto and Subiakto Soekarno
School of Business and Management
Institut Teknologi Bandung, Indonesia
[1] william.suryanto@gmail.com, [2] subiakto@sbm-itb.ac.id

Abstract

Most investors simply compare their portfolio returns to the market performance, however to compare which one is better investment is by comparing the risk adjusted return of the investments. One of the strategies that should be applied by investors that also calculated for the risk of the investment is an asset allocation strategy. In this research, the author combined the asset allocation strategy with Buy-and-Hold principle and Rebalancing Process as the comparison of risk adjusted return with the investment that in line with IDX performance. The result is the application of asset allocation strategy that combined with Buy-And-Hold and Rebalancing Process will generate better risk adjusted return performance compared to portfolio that invested in line with IDX performance measured with Sharpe, Treynor, and Jensen ratio.The best performance is shown by portfolio that invest with asset allocation strategy that combined with quarter rebalancing process and the worst is shown by portfolio that invested in line with IDX since the portfolio will generate the highest risk and beta portfolio among others. In conclusion, during 2005-2009, asset allocation strategy performs better result compared to IDX performance. Asset allocation strategy that combined with rebalancing process of 3 months period gives the best result of risk adjusted return analysis using Sharpe, Treynor and Jensen measurement. The rebalancing process will reduce the risk during the investment because by applying rebalancing process the investors will be forced to apply "Buy Low, Sell High" principle and do not have to panic or doing the opposite for the principle in uncertain investment world

Keywords : asset allocation strategy, product, IDX, panin mutual fund, investment.

Introduction

During 2005-2009, investment value in Indonesia is very volatile. As example, in the beginning of October 2008 investment value in Indonesian market was dropped significantly affected by global crisis. The most visible factor is looked by the stock market that was decreased for about 75%. These events make the investor panic and confuse to invest their funds. However at beginning of April 2009, economic market and situation in Indonesia already started to recover and increase the sense of investor confidence
Therefore investors must be increasingly careful in looking for a good investment strategy in managing and investing its

financial. Due to achieve investor's goals in investing, they have to make a decision through their analyst to put their funds on financial instrument such as stock market, bonds, options, futures, properties, stock market, or just save the funds in the bank and get the interest. Each financial instrument has a different of risk, ranging from the small risk and return by investing the funds in the banks at huge risk and return by investing in the stock market.

Every investor would have wanted to invest in a kind of business that could generate high return with minimum risk which one of the method is by applying "Buy Low, Sell High" principle, however in realization they are

often doing the opposite which is "Buy High, Sell Low" while the market is uncertain to be predicted because it has high volatility. One of the strategies that could help the investor to achieve their goals of the investment is by applying an asset allocation strategy. Asset allocation strategy is an investment strategy that is designed to reduce the "volatility" or variability of returns during investment, by diversifying across variety of Investments such as stocks, bonds, and money market or commodities. Asset allocation itself could be combined with other strategy, such as Buy-and-Hold strategy and Rebalancing Process in the application.

To be able to beat the market performance, investors must not only implement a superior strategy, however they also must be smart in choosing financial instruments that produces good performance in terms of risk and return. In recent years, one product which was introduced to the investors for their ease in processing and invests funds and takes into account the risk in it is a mutual fund product. A mutual fund is a collection of investors' funds, both individual and institutions that are managed by investment managers to be invested in market instruments. The market instruments itself are including bonds, stocks, money market instruments, other mutual funds, other securities, and/or commodities.

One of popular mutual fund product that generates good performance during the investment is issued by Panin Securities Company which is Panin Dana Maksima as stock mutual fund and Panin Dana Utama Plus as bond mutual fund because it shows excellent result compared with other mutual funds at the same level of amount invested so the author would use Panin mutual fund product since the performance is believed could compete with the market. Therefore, some research on the subject of the implementation of superior investment strategies is needed in order to generate good investor's portfolio performance during investing in Indonesia.
Some research questions that will be discussed and answered in this research are, as follows :

1. Is asset allocation strategy could give better risk adjusted return compared with risk adjusted return of IDX?
2. How rebalancing process in asset allocation strategy will affect the risk and return profile for the investment and investors?
3. Which category of rebalancing will give the best risk adjusted return performance?
4. Which method is the best strategy due to risk adjusted performance during period 2005-2009?

Theoretical Foundation

Asset allocation is a strategy that aims to manage risk and return for an investment by controlling the portfolio based on their risk tolerance and investment horizon to achieve the individual goals. Risk tolerance in portfolio will arrive into 3 different types of portfolio which are conservative, moderate, and aggressive portfolio. Asset allocation strategy would be effective when the asset classes would not have a parallel return at the same time and how to apply the appropriate asset allocation strategy would be based on the investor's goals and then diversify between the class assets of the portfolio.

Research Methodology

In order to do the research about the application of asset allocation strategy that combined with Buy-and-Hold principle and Rebalancing Process and compared the risk adjusted return performance with portfolio that invested in line with IDX, there are several steps to be done. First is by gathering the data. The historical price of NAV mutual funds are gathered from Panin Securities, while the historical price of IDX is gathered from open source website such as finance.yahoo.com. Then the second step is finding some literature review and/or supporting journals to complement the research from text books and/or JSTOR online.

After gathering the data, the next step to be done is the analyzing the data. In data analysis, there are four (4) steps that would be discussed. First is the composition of asset

allocation that would apply for the portfolios. The composition of the asset allocation in this research is based on the Merryl Lynch advisor that shown in the Table.1.

Table 1. Risk Tolerance Profile

Types of Portfolio	Composition of asset allocation		
	Panin Dana Maksima (stock mutual fund)	Panin Data Utama Plus 1 and 2 (bond mutual fund)	Cash Equivalent
Conservative	45%	35%	20%
Moderate	55%	40%	5%
Aggressive	75%	20%	5%

The second step is applying an asset allocation strategy that combined with Buy-and-Hold strategy into each types of portfolio. The initial capital is assumed in the nominal of 100 million IDR due to simply the calculation. The capital will be allocated into different financial instruments with the proportion that is depending on the type of risk tolerance. After buying the asset, it will be hold for 5 years investment; however the return will be calculated in monthly and yearly basis. After gather the return, the result will be used to calculate standard deviation, beta portfolio, and then measured for its Sharpe, Treynor, and Jensen ratio. The third step is applying an asset allocation strategy with rebalancing process in 3 different period of rebalancing which are 3 months, 6 months, and 12 months. The last step is calculating the number of Sharpe and Treynor in portfolio that invested in line with IDX performance. The method of the calculation is the third and last step will be the same with the second step

Data Analysis

The calculation for each strategy will be done in 2 bases. The first is the calculation of monthly basis calculation. The result from the calculation conclude that more aggressive the portfolio will generate higher return for the investment; however it is also generating high risk in accordance with "High Risk, High Return". The highest return for investment during 2005-2009 is shown by an aggressive portfolio that is applied using Buy-and-Hold strategy which could generate 2.42% for each month of investment. However if it is measured from risk adjusted return performance, the portfolio do not show the best investment performance that are measured by Sharpe, Treynor, and Jensen model because the return devisor which are standard deviation and beta portfolio also generate high number.

The best investment performance during 2005-2009 period of investment is aggressive portfolio using quarter rebalancing strategy since it generates the highest number for Sharpe, Treynor, and Jensen Ratio. Also it can be concluded from the table that asset allocation strategy will give better result of risk adjusted return for the investment compared to invest in accordance with IDX performance. However the best strategy that should be applied is an asset allocation that combined with rebalancing process because it will generates better performance of risk adjusted return compared to Buy-and-Hold strategy and IDX performance. For the complete result of the calculation data of 3 different strategies for each type's portfolio based on monthly basis calculation will be shown in Table. 2
The overall risk adjusted return performance for each strategy applied in yearly basis calculation will be shown in the Table 3.

Table 2. Monthly Basic Calculation

Buy and Hold Strategy	Monthly Basis Calculation					
	Conservative		Moderate		Aggressive	
	Average Monthly Return	σ (monthly)	Average Monthly Return	σ (monthly)	Average Monthly Return	σ (monthly)
	1.68%	0.0488841	2.07%	0.05501225	2.42%	0.0664537

Beta Portfolio	0.5288		0.6206		0.7535	
Sharpe Ratio	0.2336		0.2779		0.2819	
Treynor Ratio	0.0215		0.0246		0.0248	
Jensen Ratio	0.414%		0.675%		0.837%	
Rebalancing Process						
Quarter Rebalancing	Conservative		Moderate		Aggressive	
	Average Monthly Return	σ (monthly)	Average Monthly Return	σ (monthly)	Average Monthly Return	σ (monthly)
	1.615%	3.612%	1.769%	4.294%	2.176%	5.047%
Beta Portfolio	0.3976		0.4724		0.5519	
Sharpe Ratio	0.2971		0.2858		0.3237	
Treynor Ratio	0.0270		0.0260		0.0296	
Jensen Ratio	0.526%		0.577%		0.875%	
Semiannual Rebalancing	Conservative		Moderate		Aggressive	
	Average Monthly Return	σ (monthly)	Average Monthly Return	σ (monthly)	Average Monthly Return	σ (monthly)
	1.638%	3.870%	1.823%	4.679%	2.071%	5.703%
Beta Portfolio	0.4305		0.5215		0.6385	
Sharpe Ratio	0.3035		0.2984		0.3030	
Treynor Ratio	0.0255		0.0246		0.0240	
Jensen Ratio	0.504%		0.564%		0.652%	
Annual Rebalancing	Conservative		Moderate		Aggressive	
	Average Monthly Return	σ (monthly)	Average Monthly Return	σ (monthly)	Average Monthly Return	σ (monthly)
	1.713%	3.923%	2.015%	4.805%	2.284%	5.855%
Beta Portfolio	0.3729		0.5377		0.6586	
Sharpe Ratio	0.2985		0.3066		0.2976	
Treynor Ratio	0.0268		0.0274		0.0265	
Jensen Ratio	0.571%		0.734%		0.836%	
IDX Performance	Average Monthly Return	σ (monthly)				
	1.917%	7.924%				
Beta Portfolio	1					
Sharpe Ratio	0.1736					
Treynor Ratio	0.01376					

Table 3. Yearly Basic Calculation

Yearly Basis Calculation						
Buy and Hold Strategy	Conservative		Moderate		Aggressive	
	Average Annual Return	σ (yearly)	Average Annual Return	σ (yearly)	Average Annual Return	σ (yearly)
	26.124%	31.685%	29.514%	37.733%	35.654%	47.575%
Beta Portfolio	0.4756		0.5612		0.7000	
Sharpe Ratio	0.6004		0.5995		0.6097	
Treynor Ratio	0.4056		0.4067		0.4159	
Jensen Ratio	7.378%		8.765%		11.575%	
Rebalancing Process						
Quarter Rebalancing	Conservative		Moderate		Aggressive	
	Average Annual Return	σ (yearly)	Average Annual Return	σ (yearly)	Average Annual Return	σ (yearly)
	21.737%	22.360%	24.691%	27.506%	28.967%	34.457%
Beta Portfolio	0.3237		0.3983		0.5000	

	Conservative		Moderate		Aggressive	
Sharpe Ratio	0.6814		0.6613		0.6520	
Treynor Ratio	0.4707		0.4567		0.4493	
Jensen Ratio	7.127%		8.214%		9.940%	
Semiannual Rebalancing	Conservative		Moderate		Aggressive	
	Average Annual Return	σ (yearly)	Average Annual Return	σ (yearly)	Average Annual Return	σ (yearly)
	22.121%	24.497%	25.219%	30.084%	29.725%	37.760%
Beta Portfolio	0.3571		0.4391		0.5513	
Sharpe Ratio	0.6377		0.6222		0.6151	
Treynor Ratio	0.4374		0.4263		0.4213	
Jensen Ratio	6.674%		7.720%		9.416%	
Annual Rebalancing	Conservative		Moderate		Aggressive	
	Average Annual Return	σ (yearly)	Average Annual Return	σ (yearly)	Average Annual Return	σ (yearly)
	23.925%	26.204%	27.168%	31.928%	31.851%	39.774%
Beta Portfolio	0.3785		0.4623		0.5774	
Sharpe Ratio	0.6650		0.6473		0.6374	
Treynor Ratio	0.4604		0.4471		0.4390	
Jensen Ratio	7.943%		9.087%		10.886%	
IDX Performance	Average Annual Return	σ (yearly)				
	0.315502059	0.5185659				
Beta Portfolio	1					
Sharpe Ratio	0.483066987					
Treynor Ratio	0.250502059					

According to table, the result that generates the highest return for the portfolio is the same as monthly basis calculation which is an aggressive portfolio that invested by applying an asset allocation strategy that combined with Buy-and-Hold strategy. However, the best strategy of investment during 2005-2009 is also asset allocation strategy that combined with rebalancing process which the best performance of portfolio is the conservative one that invested using quarter rebalancing since it generates the highest number for its Sharpe (0.6814) and Treynor (0.4707). The highest number of Sharpe and Treynor means that the portfolio and the strategy is appropriate for investor who wants invest their money due t7%o achieve high return with low risk. In other case, if it is measured by Jensen measurement, the aggressive portfolio using buy-and-hold strategy is best performance in tem of risk adjusted return.

Conclusion and Recommendation
Conclusion

In conclusion, the best performance of investment portfolio is by applying the asset allocation strategy which is Rebalancing process of 3 months. The Sharpe ratio of rebalancing process of three-months period generates the highest Sharpe, Treynor and Jensen Ratio. For monthly basis during 2005-2009 investment, the best portfolio to be invested is conservative portfolio model that consist of 45% of stock mutual fund, 35% of bond mutual fund, and 20% of cash/equivalent. This portfolio will generate number of Sharpe ratio for 0.386, Treynor ratio for 0.0374, and Jensen Ratio for 0.880%.

In yearly basis calculation, the best investment strategy during 2005-2009 is also by applying quarter rebalancing. However, the type of the portfolio that generate the best risk adjusted return performance is different which is in yearly basis, the best portfolio performance is the conservative one based on Sharpe and Treynor model. In Jensen model, the best performance is shown by investing in aggressive portfolio using buy-and-hold strategy.

Overall conclusion, during 2005-2009 investment periods, asset allocation strategy performs better result compared to IDX performance because by applying asset

allocation strategy the investors will forced to diversify the portfolio due to minimize the risk. Asset allocation strategy that combined with rebalancing process of 3 months period gives the best result of risk adjusted return analysis using Sharpe, Treynor and Jensen measurement compared to Buy-and-Hold strategy and investment in accordance with IDX performance. The rebalancing process will reduce the risk during the investment because by applying rebalancing process the investors will be forced to apply "Buy Low, Sell High" principle and do not have to panic or doing the opposite for the principle in uncertain investment world.

Some recommendations for some fund managers and investors are :
- Investors and fund managers must be able to see the opportunities of the investment before apply for the strategy.
- Investors and fund managers has to control, manage, improve, and sharpen the application of Rebalancing process in accordance to "Sell High, Buy Low" principleInvestors and fund managers should apply the asset allocation strategy and determine the proportion of the asset in accordance with risk tolerance profile and time horizon of the investment in order to achieve their objectives and investment goals.
- Attend for seminar, training, sharing and socialize about the investment strategy related to the topic

Recommendation

Some recommendations might help for the further research with related topic:
- A wider research could be conducted using longer the time horizon of the investment (10or more than 10 years)
- Applied the strategies into another financial instrument or combining with different combination such invest in 10 largest market capitalizations, PER, PBV, and so on for the stock, ORI for the obligation, etc.
- Deals with some entry point of view for the investment in Indonesia, for example do calculation from 2004-2009, 2003-2008, and so on to get an investment history and the strategy history whether it is good or not to be applied in Indonesia

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