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PORTFOLIO PERFORMANCE ANALYSIS OF THE SHARPE METHOD ON THE INDONESIAN SHARIA STOCK INDEX

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ABSTRACT
Diversifying the stock portfolio can reduce the high risk of stock investment. The Sharpe method calculates the optimal portfolio by optimizing the ratio angle of excess returns and standard deviation risk of the portfolio. The Sharpe method is a portfolio method that compares returns and risks, the higher the Sharpe value, the better the performance of the portfolio. This ratio is used because it is popularly used as a mutual fund calculation compared to other methods such as the Simple Method. The purpose of this study is to find out how the stock portfolio is with the Sharpe method and how the combination of stocks is from that method. Based on the calculations and discussions that have been done, it can be concluded that the Sharpe method of portfolio analysis obtained only two assets that have the most significant angle, which means they have the best performance. Previously, 30 shares of IDX Syariah Growth were used, then 10 shares with the smallest and positive coefficient of variance were obtained. The ten shares are ADRO, AGII, ANTM, BRIS, BTPS, HRUM, INCO, ISAT, ITMG, and SIDO. After calculating by looking for the most significant angle, two combinations of stocks with the best performance were obtained, namely ADRO and ISAT. The best stock combinations using the Sharpe method acquired shares with the ADRO code of 70% and ISAT of 30%. It is expected that further research will also calculate stock performance in ASEAN countries.

Keywords: investment, stock portfolio, sharpe method

INTRODUCTION

Investment is an attempt to restrain the use of money that is transferred to a particular asset in order to obtain profits in the future. Investments can be directed at three main assets including goods, money, and stocks. Investments in the form of goods or objects can be in the form of land, gold, buildings. Investment in stocks is an investment that has the highest risk than investing in other assets. However, this high risk is also followed by a high expected return (Jogiyanto, 2013).

The high risk of stock investment can be reduced by diversifying the stock portfolio. Traditional portfolio theory prior to 1950 made stock selection random. Currently, modern portfolios have been known since Harry M. Markowitz published his article "Portfolio Selection". In addition, it is reinforced by William Sharpe's model which uses a mathematical and statistical approach in calculating the expected return (Jogiyanto, 2013).

Facts about the stock price over the past five years, from October 2017 to December 2019 the composite stock price index (IHSG) was stable at a price of IDR 6,300, during the January 2020 pandemic the share price was depressed to IDR 4,500. The share price has gradually increased from December 2020 until now, September 2022 has increased at a price of IDR 7,176. In addition, the Indonesian sharia stock index which consists of stocks that comply with sharia principles, one of which is the shares of Bank Syariah Indonesia and Bank BTPN Syariah whose share prices have continued to increase since July 2022 until now (Yahoofinance, 2022).

An increase in stock prices indicates that the demand for these shares also increases. This can be an opportunity for investors to invest their funds in stocks. The large number of Muslim residents in Indonesia makes investments directed at companies engaged in fields that do not violate sharia principles. Therefore, investment in Islamic stocks is attractive to Muslim investors who do not want to violate religious orders. A comparison of the

performance of Islamic and conventional stocks in 2017 to 2019 shows that the average performance of Islamic stocks is better than conventional stocks. The performance of Islamic and conventional stocks also shows differences with the calculation of the single index model in 2013-2015 (Diane et al., 2016).

Investing in stocks carries a high risk, therefore a method is needed to determine what stocks investors will buy. Optimal stock portfolio technique gives the combination of the highest return with the lowest risk. The Sharpe method calculates the optimal portfolio by optimizing the ratio angle of excess returns and standard deviation risk of the portfolio. The Sharpe method is
portofolio method that compares returns and risks, the higher the Sharpe value, the better the portfolio performance. This ratio is used because it is popularly used as a mutual fund calculation compared to other methods such as the Simple Method. Single Index Model and Markowitz Method. The traditional model does not use quantitative calculations, the Markowitz model only determines the best portfolio with the smallest risk. The Single Index Model and Markowitz methods are considered quite complicated because they involve many variants and covariances. The Sharpe method determines the truly optimal portfolio that has the best performance.

LITERATURE REVIEW

Previous research was conducted by Enny Prayogo, using the same method but on stocks listed on the LQ45 index in 2016 and 2017. The results showed that there were nine stocks that had the best performance and the best combination (Enny. 2017). Subsequent research by Ahmad Sodikin, using the same method but on textile industry stocks listed on the Indonesia Stock Exchange. The results showed that there were five stocks with the best combinations (Ahmad. 2020).

Subsequent research by Yuri et al with the title Performance Analysis of the Company's Share Portfolio in the Aviation Services Sector in several ASEAN Countries shows the result that the Garuda Indonesia Company has a greater risk than the shares of three other aviation service companies, Air Asia Berhad (Malaysia), Bangkok Airlines (Thailand) , Nok Airlines Public Company (Thailand). In fact, the four companies' stock performance is negative (Aprilianti, 2021). Research by Aprilianti et al, entitled Analysis of Share Portfolio Performance by the Sharpe, Treynor and Jensen Method (IDX 30 Shares from 2017 to 2021) shows the result that there is no significant difference between performance on IDX 30 shares (Hidayat). Research by Rini et al under the title Evaluation of Portfolio Performance Using the Sharpe Model on the LQ 45 Index shows that the portfolio selected in semester I has a different performance from semester 2. Investors should also know the company's performance fundamentally (Hidayat). Research by Sari with the title Analysis of Stock Portfolio Performance Evaluation Using the Risk Adjust Performance Method (Sharpe, Treynor and Jensen) Studies on the LQ45 Index for 2016-2020 show the result that there is no significant difference in performance between company performance at LQ 45 (Hidayat). Research by Utami with the title Stock Portfolio Performance Analysis using the Sharpe, Treynor and Jensen Method on the IDX 30 Index shows the result that issuers with the highest portfolio performance are shares of companies with the code BBRI or Bank BRI (Utami, 2021).

METHODS

Research Approach

This type of research is a qualitative descriptive research. This study explains how the Sharpe method produces an optimal portfolio of Islamic stocks. The data to be used is historical data on monthly Islamic stocks that have the highest liquidity during the observation period (Jogiyanto. 2013).

Population and Sample

The research population is all Islamic stocks listed on the Indonesia Stock Exchange. The sample in this study is stocks that meet Islamic criteria and have the highest liquidity. The research timeframe is from 2019 to 2022.

The sampling technique in this study was Pusposive Judgment Sampling with the following criteria:

Shares included in IDX Sharia Growth. Companies that issue shares from 2019 to 2022.

Based on this sampling technique, a list of 30 shares of IDX Sharia Growth was obtained which took effect from 31 October 2022 to 30 November 2022.

Table 1. Islamic stocks (Bursa Efek Indonesia, 2023).

No	Share Code	Company Name	No	Share Code	Company Name
1	ACES	Acer Hardware Indonesia Tbk.	16	HOKI	Buyung Poetra Sembada Tbk.
2	ADRO	Adaro Energy Indonesia Tbk.	17	HRUM	Harum Energy Tbk.
3	AGII	Aneka Gas Industri Tbk.	18	INCO	Vale Indonesia Tbk.
4	AKRA	AKR Corporindo Tbk.	19	ISAT	Indosat Tbk.
5	ANTM	Aneka Tambang Tbk.	20	ITMG	Indo Tambangraya Megah Tbk.
6	BMTR	Global Mediacom Tbk.	21	KAEF	Kimia Farma Tbk.
7	BRIS	Bank Syariah Indonesia Tbk.	22	KPIG	MNC Land Tbk.
8	BRPT	Barito Pacific Tbk.	23	LPPF	Matahari Department Store Tbk.
9	BSDE	Bumi Serpong Damai Tbk.	24	PTPP	PP (Persero) Tbk.
10	BTPS	Bank BTPN Syariah Tbk	25	PWON	Pakuwon Jati Tbk.
11	CPIN	Charoen Pokphand Indonesia Tbk.	26	RALS	Ramayana Lestari Sentosa Tbk.
12	ELSA	Elnusa Tbk	27	SIDO	Industri Jamu dan Farmasi Sido Muncul Tbk.
13	EMTK	Elang Mahkota Teknologi Tbk.	28	TINS	Timah Tbk.
14	ERAA	Erajaya Swasembada Tbk.	29	UNTR	United Tractors Tbk.
15	GJTL	Gajah Tunggal Tbk.	30	WIKA	Wijaya Karya (Persero) Tbk.

Source: Processed data

Variables, dimensions/sub-variables, and research indicators

The variables in this study consist of two variables, namely stock performance and performance measurement model Sharpe. Stock performance is a benchmark that will be used by investors in determining investment decisions. Performance is the achievement of the company with the management of the company's shares and is a measure of the health of the company.

The performance measure of the Sharpe model is one measure of company performance by looking at the movement of a company's stock price. This performance measure is a way of measuring technical performance. An indicator that a company's performance is good is by looking at the coefficient of variance, namely the division between risk and return. The best CV value is the one with the smallest and positive value.

Research Stage

The stages in this study include three stages, namely:

Pre-research, namely the stage where researchers determine Islamic stocks listed on the Indonesian Stock Exchange. Sharia stocks are incorporated into an index, namely the Indonesian Sharia Stock Index (ISSI). After that, determine the 30 best stocks in the Syari'a Growth Index.

Stages of field work, namely collecting monthly share prices for 30 companies from 2019 to 2022. In addition to stock price data, BI Rate data is also needed.

Stages of data analysis. The data analysis technique begins by inputting stock prices, then looking for realized returns, expected returns, and the coefficient of variance. The data is then processed by calculating the performance of the Sharpe model portfolio until the proportion of shares and the amount of rupiah that will be used are known.

Data collection technique

The data collection technique uses a literature review data collection technique, which is sourced from existing data or documents and used as a secondary data source. The data used are BI Rate data and monthly stock return data. Data obtained from the Indonesian Stock Exchange, Yahoo Finance and Bank Indonesia websites.

Teknik Validitas dan Reliabilitas Data

Assessment of validity and reliability in qualitative research includes 4 aspects namely (Afiyanti, 2008):

Credibility. High credibility can be achieved if participants in research know exactly what is being told in their research.

Dependability. High dependability in qualitative research is obtained by conducting structured data analysis and trying to interpret research results properly so that other researchers will be able to make the same conclusions using the perspectives, raw data, and documents that are being used.

Transferability, is the extent to which the findings of a study conducted in a particular group can be applied to other groups.

Confirmability, namely the willingness of researchers to disclose openly about the process and elements of their research so that it is possible for other parties to evaluate the results of their findings.

Data analysis technique

The data analysis technique in this study has the following stages:

Determination of stock samples to be used, Determination of the use of daily, weekly or monthly share prices, Monthly stock closing price data collection from the yahoofinance.com site, Retrieval of BI Rate data from the websites of the Central Statistics Agency and Bank Indonesia,Normalizing data,Perform data analysis by calculating the portfolio with the Sharpe model.

The stages of data analysis for the Sharpe model are carried out by calculating mathematically and statistically using the Excel application with the following steps (Afiyanti, 2008):

Input sharia stock prices; Seeking Risk-Free Return, namely Bank Indonesia Certificates Finding the expected return with the average stock price formula; Find the stock risk with the standard deviation formula; Finding the Coefficient of Variance; Determine the Covariances; Determining Correlation; Determines the identity vector with a value of 1 (one); Calculating the optimal portfolio proportion; Creating a capital market line; Calculating the percentage of stock investment and eliminating assets that have a negative return value.

RESULTS

List of IDX Sharia Growth Shares

The data collected for the first time is monthly closing price data from the yahoofinance.com website, this data is searched by typing the stock code for each company with the code JK added to the end of the code, for example, ACES.JK. The price of each share varies from

hundreds of rupiah per share to tens of thousands per share. The following is the monthly share price data that has been obtained:

Table 2. Monthly Stock Closing Price Data

Year	Month	ACES	ADRO	AGII	AKRA
2019	January	1700	1390	640	1050
	February	1755	1310	610	1110
	March	1785	1340	570	946
	November	1580	1230	585	680
	December	1495	1555	695	790
2020	January	1720	1225	590	662
	February	1515	1155	525	530
	March	1300	990	540	395
	November	1585	1390	900	582
	December	1715	1430	900	636
2021	January	1560	1200	1300	568
	February	1525	1180	1360	674
	March	1525	1175	1145	644
	November	1305	1700	1600	794
	December	1280	2250	1515	822
2022	January	1235	2240	1425	730
	February	1070	2450	1440	755
	March	1025	2690	1605	910
	November	500	3870	2270	1385
	December	496	3850	1940	1400

Source: Processed data, 2023

BI rate data

BI Rate data is used as supporting data, namely as a risk-free return.

Table 3. BI rate data

No	Month/Year	2019	2020	2021	2022
1	January	6,00	5,00	3,75	3,50
2	February	6,00	4,75	3,50	3,50
3	March	6,00	4,50	3,50	3,50
4	April	6,00	4,50	3,50	3,50
5	May	6,00	4,50	3,50	3,50
6	June	6,00	4,25	3,50	3,50
7	July	5,75	4,00	3,50	3,50
8	Agust	5,50	4,00	3,50	3,75
9	September	5,25	4,00	3,50	4,25
10	October	5,00	4,00	3,50	4,75
11	November	5,00	3,75	3,50	5,25
12	December	5,00	3,75	3,50	5,50

Source: Processed data, 2023

Realized Return

Realized return is calculated by dividing the current month's closing stock price by the previous month's closing price multiplied by the previous month's closing stock price and

then multiplied by one hundred percent. The calculation results are obtained in the following table:

Tabel 4. Return Realisasian

Year	Month	ACES	ADRO	AGII	AKRA
2019	February	0,032353	-0,05755	-0,04688	0,057143
	March	0,017094	0,022901	-0,06557	-0,14775
	April	-0,07563	-0,02612	-0,03509	-0,0592
	November	-0,06509	-0,06107	-0,01681	-0,14141
	December	-0,0538	0,264228	0,188034	0,161765
2020	January	0,150502	-0,21222	-0,15108	-0,16203
	February	-0,11919	-0,05714	-0,11017	-0,1994
	March	-0,14191	-0,14286	0,028571	-0,25472
	April	0,169231	-0,07071	-0,18889	0,21519
	November	0,01278	0,235556	0,395349	0,085821
	December	0,082019	0,028777	0	0,092784
2021	January	-0,09038	-0,16084	0,444444	-0,10692
	February	-0,02244	-0,01667	0,046154	0,18662
	March	0	-0,00424	-0,15809	-0,04451
	April	-0,02951	0,059574	-0,0262	0,015528
	November	-0,07447	0,011905	0,103448	-0,07026
	December	-0,01916	0,323529	-0,05313	0,035264
2022	January	-0,03516	-0,00444	-0,05941	-0,11192
	February	-0,1336	0,09375	0,010526	0,034247
	March	-0,04206	0,097959	0,114583	0,205298
	April	0,019512	0,241636	0,41433	0,175824
	November	-0,11504	-0,02764	0,107317	-0,11218
	December	-0,008	-0,00517	-0,14537	0,01083

Source: Processed data, 2023

Expected Return

Expected return is calculated using the average realized return formula for each stock code of 30 selected stocks. Risk is calculated using the standard deviation formula of realized returns, and the Coefficient of Variance is calculated by dividing risk by return. The smaller and positive the Coefficient of Variance, the better. The stocks that will be used subsequently are only selected as many as 10 stocks with the best Coefficient of Variance value. Following are the results of the 10 stocks that have the best performance at Table 5.

Table 5. Ten Selected Stocks

	ADRO	AGII	ANTM	BRIS	BTPS	HRUM	INCO	ISAT	ITMG	SIDO
E(RI)	0,02893	0,03601	0,02941	0,04069	0,01663	0,05103	0,02170	0,22929	0,02247	0,01664
σi	0,12322	0,16351	0,17663	0,24036	0,13209	0,20916	0,12817	1,47478	0,15449	0,08330
Cvi	4,25879	4,54109	6,00647	5,90644	7,94213	4,09911	5,90579	6,43203	6,87425	5,00513

Source: Processed data, 2023

Tabel 6a. Varian-Kovarian

	ADRO	AGII	ANTM	BRIS	BTPS	HRUM
ADRO	0,00548	0,00637	0,00294	0,00449	0,00497	0,00871
AGII	0,00637	0,00585	0,00953	0,00878	-0,00005	0,01848
ANTM	0,00294	0,00953	0,01442	0,02823	0,00534	0,01202
BRIS	0,00449	0,00878	0,02823	0,02550	0,01039	0,01362
BTPS	0,00497	-0,00005	0,00534	0,01039	0,02597	0,00534
HRUM	0,00871	0,01848	0,01202	0,01362	0,00534	0,03602
INCO	0,00464	0,00754	0,01572	0,01492	0,00376	0,00711
ISAT	-0,00945	0,00999	0,08316	0,05707	0,04528	0,06009
ITMG	0,01146	0,00784	0,00490	0,00935	0,00419	0,00981
SIDO	-0,00236	-0,00175	0,00383	0,00147	-0,00008	-0,00140

Source: Processed data, 2023

Tabel 6b. Varian-Kovarian

	INCO	ISAT	ITMG	SIDO
ADRO	0,00464	-0,00945	0,01146	-0,00236
AGII	0,00754	0,00999	0,00784	-0,00175
ANTM	0,01572	0,08316	0,00490	0,00383
BRIS	0,01492	0,05707	0,00935	0,00147
BTPS	0,00376	0,04528	0,00419	-0,00008
HRUM	0,00711	0,06009	0,00981	-0,00140
INCO	0,01365	0,02883	0,00709	0,00318
ISAT	0,02883	0,05024	-0,00378	0,01822
ITMG	0,00709	-0,00378	0,05804	-0,00124
SIDO	0,00318	0,01822	-0,00124	0,00694

Source: Processed data, 2023

Tabel 7. Correlation

	ADRO	AGII	ANTM	BRIS	BTPS	HRUM	INCO	ISAT	ITMG	SIDO
ADRO	1,0000									
AGII	0,3162	1,0000								
ANTM	0,1349	0,3301	1,0000							
BRIS	0,1517	0,2234	0,6650	1,0000						
BTPS	0,3056	-0,0022	0,2287	0,3273	1,0000					
HRUM	0,3380	0,5404	0,3255	0,2709	0,1931	1,0000				
INCO	0,2938	0,3596	0,6946	0,4842	0,2220	0,2654	1,0000			
ISAT	-0,0520	0,0414	0,3192	0,1610	0,2325	0,1948	0,1525	1,0000		
ITMG	0,6019	0,3103	0,1795	0,2519	0,2055	0,3036	0,3580	-0,0166	1,0000	
SIDO	-0,2296	-0,1281	0,2603	0,0733	-0,0072	-0,0802	0,2982	0,1483	-0,0966	1,0000

Source: Processed data, 2023

Variant-Covariance

Covariances for investors are used in measuring stock markets and asset allocation. Variance is used to measure the volatility of an asset and covariance is used to look at the returns of two different investments over a certain period of time when compared with different variables. An investment manager or investor can buy shares that have a negative covariance between one asset and another (Table 6). Investors can also find out the

maximum risk in investing by using Value at Risk (VaR) which can be measured using the Variant-Covariance method or the Delta Normal Method method. This method was chosen because it produces low volatility for assets or portfolios in the future.

Correlation

The correlation in the portfolio is used to see the relationship between two assets, for a correlation with a range of 0 indicates a weak relationship while a range of 1 indicates a strong relationship. A positive correlation value indicates a unidirectional movement, whereas a negative correlation value indicates a relationship between asset movements in the opposite direction.

Identity Vector with a value of 1 (one)

The identity vector is a value of 1 (one) that is used to determine matrix calculations.

Table 8. Identity Vector

SATU	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000

Source: Processed data, 2023

Determination of the value of A, B, C, and D

as follows. In order to draw an efficient graph set, you need the help of the values A, B, C and DDetermination of the value of A, B, C, and D
as follows. In order to draw an efficient graph set, you need the help of the values A, B, C and D.

Table 9. Grades A, B, C and D

A	19,5380
B	1039,8394
C	55241,3339
D	-1958,8519

Source: Processed data, 2023

Streamlined Graphic Sets

Before creating an efficient graph set, the risk-free return value is first entered, namely the value taken from the BI Rate data. The BI Rate value is the average of all BI Rate data for 4 years divided by 12 months. The result obtained is 0.003624.

Table 10. Efficient graph set forming tables

	σi	E(RI)
ADRO	0,1232	0,0289
AGII	0,1635	0,0360
ANTM	0,1766	0,0294
BRIS	0,2404	0,0407
BTPS	0,1321	0,0166
HRUM	0,2092	0,0510
INCO	0,1282	0,0217
ISAT	1,4748	0,2293
ITMG	0,1545	0,0225
SIDO	0,0833	0,0166
MAX	**1,4748**	**0,2965**
1	1,4048	0,2833
2	1,3347	0,2702

	σi	E(RI)
3	1,2647	0,2570
4	1,1947	0,2438
5	1,1247	0,2306
6	1,0546	0,2174
7	0,9846	0,2042
8	0,9146	0,1910
9	0,8446	0,1779
10	0,7745	0,1647
11	0,7045	0,1515
12	0,6345	0,1383
13	0,5645	0,1251
14	0,4944	0,1119
15	0,4244	0,0987
16	0,3544	0,0856
17	0,2844	0,0724
18	0,2143	0,0592
19	0,1443	0,0460
20	0,0743	0,0328
MVP	**0,0043**	**0,0189**

Source: Processed data, 2023

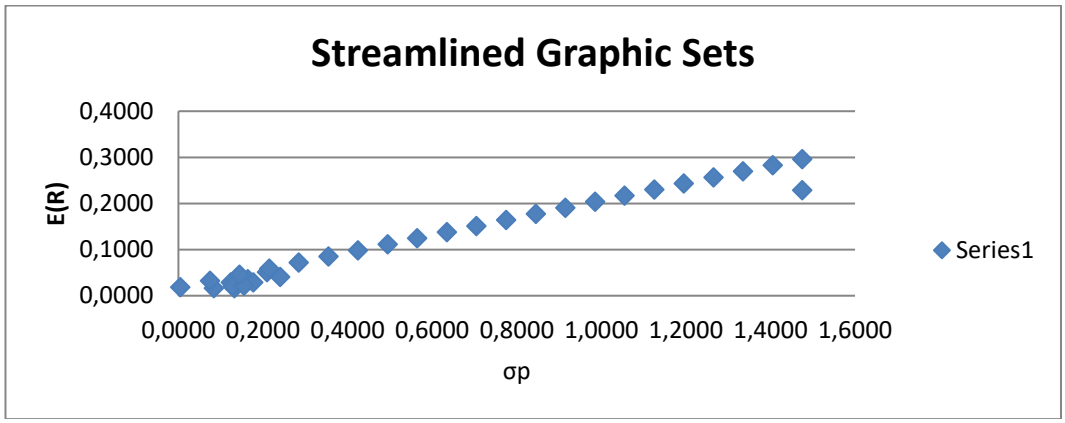

Figure 1. Streamlined Graphic Sets
Source: Processed data

Biggest Angle

The thing that distinguishes the Sharpe method from other methods is the calculation of the largest angle at the risk free asset point. This largest angle shows the best portfolio performance.

Table 11. Biggest Angle Determination Table

Optimal	**5,6518**	**8,8446**	**Sudut**
GPM	0,0000	0,0036*	1,564289134
GPM	1,4748	**2,3106**	

Source: Processed data, 2023

*Risk free returns

Share Proportion

Based on the calculation of the Sharpe portfolio method, the proportion of shares with the ticker code ADRO is 70% and ISAT is 30%. According to this method, only these two stocks have the best combination and performance for investors to choose from.

Table 12. Share Proportion Table

Aktiva	Wi
ADRO	70,30
AGII	0,00
ANTM	0,00
BRIS	0,00
BTPS	0,00
HRUM	0,00
INCO	0,00
ISAT	29,70
ITMG	0,00
SIDO	0,00
Total	**100,00**

Source: Processed data, 2023

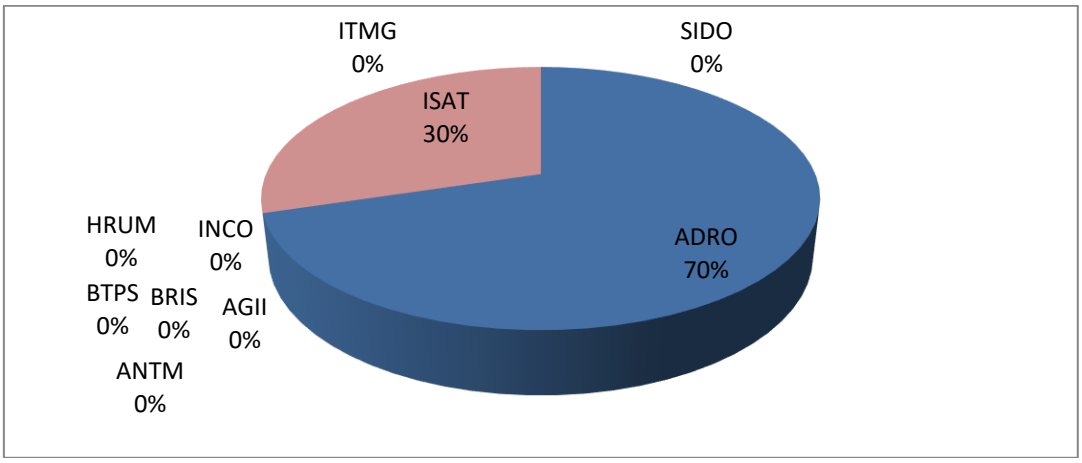

Figure 2. Proportion of Elected Shares
Source: Processed data, 2023

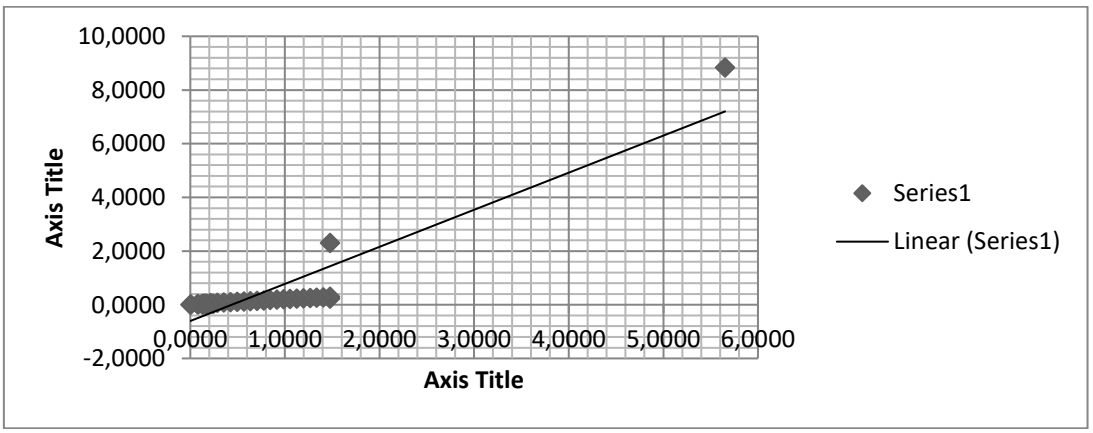

Figure 3. Capital Market Line Chart
Source: Processed data, 2023

Required funds

If converted into rupiah, the proportion of shares in ADRO is 70% and ISAT is 30%, and it is assumed that the closing price for ADRO shares is IDR 3,000/share and ISAT IDR 8,000/share. The minimum share purchase is 1 lot, which is equivalent to 100 shares for each type of share. Then the calculation is as follows:

Assume 30% as 1 lot of shares, and 70% as 2 lots of shares. So,
ISAT = 100 sheets x IDR 8,000 = IDR 800,000
ADRO = 200 sheets x IDR 3,000 = IDR 600,000
The total funds needed are IDR 1,400,000

DISCUSSION

The high risk of investing in stocks forces investors to use methods in determining their investment. Islamic stocks in Indonesia are included in the Indonesian Islamic stock index, Islamic stocks with the highest liquidity are incorporated in the Shari'a Growth Index which consists of 30 Islamic stocks. Then the closing data is collected on a monthly basis, realized returns and expected returns and the coefficient of variance (CV) are calculated. Based on the CV results, 10 stocks with the best performance were obtained, namely those with the smallest positive CV values. The ten shares were calculated using the Sharpe method to obtain a combination of shares/portfolio of 2 shares, namely shares of PT Adaro Energy Indonesia and PT Indosat. The two companies are engaged in different business fields. It is hoped that when the performance of one stock goes down, the other stock will go up so there is no loss in stock investment.

CONCLUSION

Based on the calculations and discussion that has been done, it can be concluded that the Sharpe method portfolio analysis obtained only two assets that have the largest angle, which means they have the best performance. Previously, 30 shares of IDX Syaria Growth were used, then 10 shares with the smallest and positive coefficient of variance were obtained. The ten shares are ADRO, AGII, ANTM, BRIS, BTPS, HRUM, INCO, ISAT, ITMG and SIDO. After calculating by looking for the largest angle, two combinations of stocks with the best performance were obtained, namely ADRO and ISAT.

The best combination of shares using the Sharpe method is obtained by shares with the ADRO code of 70% and 30% ISAT. If this value is converted to rupiah, investors can buy 1 lot of ISAT shares or 100 shares with the assumption that the closing price of ISAT shares is IDR 8,000/share, which is IDR 800,000. Then for ADRO shares of 2 lots or 200 shares assuming a closing price of 3,000 shares/share, which is 600,000 rupiah. The total fund needed by investors is 1,400,000 rupiah.

LIMITATION

The limitation in this study is that it does not calculate the performance of stocks other than Islamic stocks so that there is no comparison of performance in the same time period. In addition, this study uses monthly stock price data, to be more accurate it is better to use daily stock prices. It is hoped that in the future it will be able to calculate and compare stock performance in ASEAN countries.

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