JIET
Jurnal Ilmiah Ekonomi Terapan

JURNAL ILMU EKONOMI TERAPAN
https://e-journal.unair.ac.id/JIET/index

COMPARISON OF STOCK PORTFOLIO PERFORMANCE OF CONVENTIONAL BANKS AND ISLAMIC BANKS USING SHARPE RATIO, TREYNOR RATIO, AND JENSEN RATIO (2021-2023)

Asiska Nur Abidah*[1]
Putri Hadiyanti Pratiwi[2]
Triya Oftafiana[3]
Muhammad Aswad[4]

[1,2,3] Sharia Economics, Universitas Islam Negeri Sayyid Ali Rahmatullah, Tulungagung, Indonesia
[4] Postgraduate Lecturer, Universitas Islam Negeri Sayyid Ali Rahmatullah, Tulungagung, Indonesia

ABSTRACT

Before purchasing shares on the stock exchange, potential investors and investors need to measure the performance of the stock portfolio of companies listed on the stock exchange to identify the level of return to be received and whether the level of return is comparable to the risk borne to maximize the return. Along with the development of the Islamic sector in Indonesia, the stock exchange is filled with conventional stocks and Islamic stocks owned by companies that operate based on Islamic principles. Some researchers have different opinions regarding which stock performance is superior between Islamic and conventional stocks. This study aims to measure the performance of stock portfolios in Islamic banking and conventional banking and then compare the performance of both. This study used samples of conventional commercial banks such as BPTN Bank, Bukopin Bank, and CIMB Niaga Bank. At the same time, Islamic Commercial Banks were BPTN Syariah Bank, Panin Dubai Syariah Bank, and Bank Syariah Indonesia. The research methods used to measure stock portfolio performance are the Sharpe Method, Treynor Method, and Jensen Method. The study results show that the performance of the stock portfolio in conventional commercial banks using the Sharpe index, Treynor index, and Jensen index for 2021 to 2023 is superior to that of Islamic commercial banks.

Keywords: *Stock Performance, Conventional Banking, and Islamic Banking*

ARTICLE INFO

Received: June 20th, 2024
Revised: September 20th, 2024
Accepted: November 8th, 2024
Online: December 5th, 2024

*Correspondence:
Asiska Nur Abidah

E-mail: siskanurabidah@gmail.com

ABSTRAK

Sebelum melakukan pembelian saham pada bursa efek, calon investor maupun investor perlu mengukur kinerja portofolio saham perusahaan-perusahaan yang terdaftar di bursa efek untuk mengidentifikasi tingkat return yang akan diterima dan apakah tingkat return tersebut sebanding dengan risiko yang ditanggung dengan tujuan memaksimalkan perolehan return. Seiring berkembangnya sektor syariah di Indonesia, pada bursa efek tidak hanya di isi oleh saham-saham konvensional namun juga mulai muncul saham-saham syariah yang dimiliki oleh perusahaan-perusahaan yang beroperasi berdasarkan prinsip Islam. Beberapa peneliti memiliki perbedaan pendapat mengenai kinerja saham mana yang lebih unggul

Jurnal Ilmu Ekonomi Terapan p-ISSN: 2541-1470; e-ISSN: 2528-1879
DOI: 10.20473/jiet.v9i2.59272

antara saham syariah dan konvensional. Tujuan penelitian ini adalah untuk mengukur kinerja portofolio saham pada perbankan syariah dan perbankan konvensional kemudian membandingkan kinerja keduanya. Bank Umum Konvensional yang menjadi sampel dalam penelitian ini adalah Bank BPTN, Bank Bukopin, dan Bank CIMB Niaga, sementara Bank Umum Syariah adalah Bank BPTN Syariah, Bank Panin Dubai Syariah, dan Bank Syariah Indonesia. Metode penelitian yang digunakan untuk mengukur kinerja portofolio saham adalah metode Sharpe, metode Treynor, dan metode Jensen. Berdasarkan hasil penelitian menunjukkan bahwa kinerja portofolio saham pada Bank Umum Konvensional menggunakan indeks Sharpe, indeks Treynor, dan indeks Jensen periode 2021 sampai 2023 lebih unggul dibandingkan Bank Umum Syariah.

Kata Kunci: *Kinerja Saham, Bank Konvensional, dan Bank Syariah*

JEL: A10; A23

To cite this document: Abidah, A. N., Pratiwi, P. H., Oftafiana, T., & Aswad, M. (2024). Comparison of Stock Portfolio Performance of Conventional Banks and Islamic Banks Using Sharpe Ratio, Treynor Ratio, and Jensen Ratio (2021-2023). *Jurnal Ilmu Ekonomi Terapan, 9*(2), 295-311. https://doi.org/10.20473/jiet.v9i2.59272

Introduction

Purchasing Islamic stocks is the same as purchasing regular stocks. All investors have the same expectations for future returns based on the degree of risk. The distinction in expectations lies in that investors consider ethical and religious principles in addition to profit and risk levels. Investments made by the principles of Islamic Sharia forbid usury, gambling, and uncertain activities. They also forbid the manufacturing of goods and services that are forbidden by Islamic law, as well as the use of alcohol, pornography, and casino operations (Alwahidin, 2020). The number of investors and the value of asset capitalization both show that investment is moving forward in Indonesia at a very favorable rate. Technological advancements are supporting the increase in the number of investors. Due to Indonesia's economic strategy and development advancement, the country has numerous investment opportunities. The goal of an investment portfolio is to diversify potential risks and income streams by holding a variety of financial instruments that are marketed on stock exchanges and money markets. A portfolio aims to reduce risk by identifying and characterizing its ideal performance. Risk-adjusted return is one way to characterize the performance of a portfolio (Aprilianti et al., 2022).

As demonstrated by the increase in investment activity, Indonesia is currently experiencing favorable growth. Analyzing a portfolio's performance is one step in the investing decision-making process. Additional steps include selecting an asset allocation, setting investment goals, selecting investment policies, selecting portfolio strategies, and tracking and evaluating portfolio performance. This performance measurement and evaluation stage includes measuring portfolio performance and benchmarking the measurement results against other portfolio performances. Investors and prospective investors can assess a portfolio's ability to generate returns commensurate with the level of risk taken and significantly higher than previous portfolio returns by evaluating the portfolio's performance. The performance of several independently constructed portfolios or independently constructed portfolios with comparable independently constructed portfolios created by fund management firms is compared to conduct this evaluation. When evaluating the performance of a portfolio, many factors must be considered, including the level of risk, the duration, the use of appropriate benchmarks, and the investing objective. Because of this, evaluating a portfolio's performance

requires considering factors other than the return it produces (Adnyana, 2020). Michael Jensen, Jack Treynor, and William Sharpe set three metrics for measuring portfolio performance. Sharpe performance metrics, Treynor performance, and Jensen performance are the three names for the portfolio performance indicators. The trio of techniques examines past gains and forecasts forthcoming gains and hazards (Aprilianti et al., 2022).

There are also encouraging statistics regarding the growth of Islamic stocks in Indonesia. The Indonesian Sharia Stock Index (ISSI) has increased dramatically since its debut in 2011. As of April 2024, the capitalization value of Indonesian Islamic stocks was six trillion rupiah, or 53 percent of the total capitalization value of shares listed on the Indonesia Stock Exchange, according to OJK data (Otoritas Jasa Keuangan, 2024). Researchers have yet to establish a clear consensus regarding the relative performance of Islamic and conventional stocks, so it is impossible to say whether one is superior. They contend that sharia's stringent regulations restrict the company's ability to use outside resources, which lessens its potential and ability to grow and develop going forward (Alwahidin, 2020). Although there has been a positive increase in Islamic stock transactions, this growth does not indicate that Islamic stocks offer higher rates of return or lower risk levels than conventional or non-sharia stocks (Maulita, 2021).

Some earlier research that compares the performance of Islamic stocks and conventional stocks includes that of (Fajar, 2018), which examines returns, Sharpe ratios, Jensen ratios, and Treynor ratios in the IDX manufacturing sector from 2016 to 2018. The results indicate no discernible difference between the performance of Islamic stocks and conventional stocks in the manufacturing sector, regardless of the metric used. This research contradicts the findings of the Sari & Riwayati (2021) study, which compares the performance of conventional and Islamic mutual funds. The study uses the Sharpe method to measure performance differences between conventional and Islamic mutual funds; however, the Treynor and Jensen methods show no differences. Another study by (Caisar et al., 2023) The performance of conventional and Islamic mutual funds using the Sharpe, Treynor, and Jensen methods descriptively and quantitatively show little difference, while statistical tests reveal no significant difference between the performance of conventional and Islamic mutual funds. This comparison of conventional and Islamic stock mutual funds covers 2017 to 2020. Different research (Zamzany & Setiawan, 2018), based on the Jensen index, demonstrates that the performance of Islamic stock mutual funds is better than that of conventional stock mutual funds; nevertheless, the use of the Treynor and Sharpe indexes indicates that the conventional stock mutual funds outperform the Islamic stock mutual funds.

The banking sector is one of the business sectors that participates in the Indonesia Stock Exchange because banks need capital to achieve banking objectives regarding services and fulfilling obligations. Banks will sell company shares to the general public through the stock exchange to obtain additional capital. On the Stock Exchange, the price of shares as a subject is often influenced by demand and supply itself. If the demand for shares increases, the share price rises, and vice versa. Investors will buy or sell shares based on information obtained, either in the form of financial statements or other factors that can be used to assess the performance of an issuer. In 2005, many investors were pessimistic about the financial performance of banks because, in that year, the average achievement of banking performance declined, so investors became less interested in buying banking stocks. However, after the government revised PP No. 14/2005 concerning the Settlement of State Receivables, investors began to be interested in buying shares in banks again because it was an effort by the government to nourish the performance of national banks. Based on the background previously described,

the authors are interested in analyzing the comparison of the performance of Islamic stocks with conventional stocks in the banking sector listed on the Indonesia Stock Exchange using the Sharpe, Treynor, and Jensen methods with the following hypotheses:

H1: The stock portfolio of conventional commercial banks is better than that of Islamic commercial banks using Sharpe, Treynor, and Jensen methods.

H2: The stock portfolio of Islamic commercial banks is better than conventional commercial banks using the Sharpe, Treynor, and Jensen methods.

Literature Review

The literature review will discuss five points, including stocks, stock prices, banks, financial performance, and portfolio performance measurement.

Stock

A share is defined as a document that outlines the financier's right to purchase a portion of the prospects or assets of the company issuing the securities and the conditions under which the financier may exercise that right. This definition includes the concept of shares as financial instruments that provide a high rate of return to investors and list each investor's nominal value, company name, and rights and obligations (Widiarma, 2022).

Based on the theory above, stocks are one type of capital market instrument in the form of a piece of paper on which the company's name and nominal value are printed. The owner of the shares has certain obligations in addition to other rights and the right to own part of the business. There are various kinds of shares, among others: 1) the rights associated with shares are divided into two categories: (a) rights to company assets in the event of liquidation and common stock (common stock), which puts its most junior owner in the distribution of dividends. (b) Preferred stock combines the qualities of a bond with other features (Syariah et al., 2019). 2) based on their management practices, shares can be classified as follows: (A) shares on show, where the owner's name is not printed to facilitate alienation among investors. (b) shares on show clearly state the owner's information and require special measures before transfer. 3) stocks can be divided into two categories based on their trading performance: (a) blue-chip stocks, that is, ordinary shares of a business that is well known as a leader in a particular field, generates stable income, and consistently pays dividends. (b) income stock, i.e., ordinary shares of the issuer that can distribute dividends more significantly than the average dividend distribution of the previous year. (c) well-known growth stocks come from companies with solid revenue growth and a strong reputation as leaders in their industry. Less well-known growth stocks are also available; these are stocks of issuers that do not lead their industry but still exhibit the Traits of growth stocks. (d) speculative stock is an ownership stake in a business that, while uncertain, may not regularly generate substantial profits in the future. (e) countercyclical stocks, or stocks unaffected by the macro environment or general business conditions (Darmayanti et al., 2017).

Stock Price

The law of supply and demand determines the price of a stock. A stock's price will rise in response to increased demand. The stock price dropped because the owners sold many of their shares. As a measure of prices affected by supply and demand for these shares, the share price is the cost of shares in the capital market when market participants are involved (Yeni et al., 2021).

The stock price is one measure of how well the management of the company is doing; the volume of stock trades in the capital market indicates the strength of the market. The market will respond to the company's progress and setbacks through changes in stock prices. The company will obtain capital gains if the shares traded on the capital market have a high price. Along with realizing capital gains, the business will also improve its standing with investors, making it simpler for management to secure outside funding (Syariah et al., 2019).

Bank

Banks in their operating activities can be broadly distinguished through the principle of operation, namely conventional and Islamic banks. Conventional banks are financial institutions that collect public funds through deposits and then channel these funds to the public through credit or other financial services. This process aims to improve people's living standards. The operations of conventional banks are primarily driven by their ability to attract public funds through competitive interest rates and other services. Sharia business units and Sharia branch offices of international banks that conduct business in accordance with Sharia principles are examples of Sharia banks operating according to Sharia principles. These banks adhere to the banking laws specified in Republic of Indonesia No. 10 of 1998 when providing payment traffic and money circulation services (Satria & Setiani, 2018).

The primary distinction between these two banks is that Islamic banks are required to conduct their operations in accordance with Sharia law. The guidelines of an Islamic law-based contract between a bank and another party for storing money and funding commercial ventures or other Sharia-declared activities are known as Sharia principles. These principles include financing capital goods based on the ideas of pure rent without choice (ijarah), capital participation (musharakah), profit sharing (mudharabah), buying and selling goods for profit (murabaha), or with the option of having another party transfer ownership of the goods rented from the bank (ijarah wa iqtina) (Caesar & Yanuar, 2024).

Financial Performance

Analyzing financial statements is crucial for evaluating a business's performance and financial status. This investigation looks at financial statements such as the cash flow statement, income statement, and balance sheet to determine the stability and health of the company's finances. A company's financial performance can be examined to identify trends and patterns that can be utilized to evaluate the business's financial stability (Meliani et al., 2020).

Financial statement analysis is very important for banks because it can be a benchmark for their success. If the bank's performance is unsatisfactory, this may lead to the replacement of directors. Financial statement analysis can help identify areas that need improvement, such as liquidity, profitability, asset quality, and capital adequacy, and provide a roadmap for improving performance. This analysis involves several steps, including (Saragih, 2023): (a) Collect financial reports, such as annual reports, quarterly reports, and other periodic reports; (b) Examine the balance sheet, analyzing it to assess the mix and quality of assets, liabilities, and equity; (c) Analysis of the Income Statement: Examining the income statement to evaluate the flow of income, expenses, and profitability; (d) Assess risk management practices, such as evaluating the bank's risk management strategy, including capital adequacy, risk appetite, stress testing, and compliance with regulatory standards.

Portfolio Performance Measurement

Portfolio performance is assessed using a variety of metrics, including the Jensen Index, Treynor Ratio, Information Ratio, and Sharpe Ratio. However, only the Treynor ratio, the Jensen Index, and the Sharpe Ratio are usually employed (Rumintang & Azhari, 2015). The methods used to evaluate the performance of risk-adjusted portfolios are as follows:

1) Sharpe Method

Sharpe's method for assessing portfolio performance is based on the concept of risk premium. The risk premium is the amount that separates the average performance of a mutual fund from the average performance of risk-free assets, which is often referred to as the risk-free rate.

The Sharpe ratio, which gauges a portfolio's excess return in relation to risk as determined by the standard deviation of the portfolio return, is computed using this risk premium (Darmayanti et al., 2017).

2) Treynor Method

Like the Sharpe approach, the Treynor method of evaluating portfolio performance is predicated on the idea of risk premium. Nonetheless, the Treynor technique modifies the portfolio's systematic risk to reflect market risk using a beta divisor. This beta comes from the Capital Asset Pricing Model (CAPM), which estimates a portfolio's systematic risk. The Treynor ratio computes excess return per unit of systematic risk to give a risk-adjusted measure of portfolio performance.

3) Jensen Method

Jensen's method for reducing investment return is similar to Treynor's method since it also takes into account the beta (β) factor from the Capital Asset Pricing Model (CAPM). The Jensen method evaluates the manager's work performance by calculating a few large portfolios that they use to estimate market values based on their assumptions. A more positive alpha coefficient means the manager's investment performance is improving (Kholidah et al., 2019).

Investment Performance Ratio

The Sharpe ratio measures the excess return per unit of total portfolio risk. This is important to assess how well the portfolio compensates for the total risk taken. This study found that Islamic banks in Indonesia showed a more stable Sharpe ratio compared to conventional banks during the COVID-19 pandemic. This suggests that Islamic banks may have lower volatility in their investment returns (Nurafini, 2022). An analysis of the Sharpe ratios of Islamic and conventional bank stocks in Malaysia showed that Islamic banks tend to have higher Sharpe ratios during periods of high inflation, indicating that they are more efficient in generating returns with lower risk (Suryadi et al., 2021).

The Treynor ratio measures a portfolio's excess return per unit of systematic risk (beta). It assesses how well a portfolio compensates for systematic market risk. It was reported that conventional banks in Indonesia have a higher Treynor ratio compared to Islamic banks, especially in volatile markets. This suggests that investors may get better returns for each unit of market risk in conventional banks (Hassan et al., 2022). This study analyzed the Treynor ratio of Islamic bank stocks in Turkey and found that Islamic banks have a relatively competitive

Treynor ratio compared to conventional banks, especially during periods of rapid economic growth (Didin et al., 2021).

According to the CAPM model, the Jensen ratio measures the portfolio's return compared to the expected return. It shows how well the portfolio manager generates returns beyond the CAPM prediction. This study found that Islamic banks in Indonesia showed higher Jensen values than conventional banks, suggesting that they are more successful in managing their portfolios to generate better-than-expected returns (Mustakawarman et al., 2016). This study examined the Jensen ratio of Islamic bank stocks in the Philippines and found that the Jensen ratio for Islamic banks tends to be more consistent, signaling the ability of portfolio managers to generate positive alpha more steadily compared to conventional banks (Nugroho et al., 2022).

The analysis of these studies suggests that the performance differences between conventional and Islamic banks in terms of the Sharpe Ratio and Treynor Ratio could be due to different cost structures and business models. Conventional banks may have greater access to various financial instruments and investment strategies that can enhance their portfolio performance. In contrast, Islamic banks, despite having investment restrictions, are able to show competitive results in terms of the Jensen Ratio, demonstrating the effectiveness of portfolio managers in generating positive alpha. Differences in managerial approaches and investment strategies may have influenced the observed results. For instance, Islamic banks that avoid investing in sectors considered haram may experience more stable performance in volatile market conditions but with different risks.

Existing studies indicate that there are substantial differences in stock portfolio performance between conventional and Islamic banks. Conventional banks generally perform better in the Sharpe Ratio and Treynor Ratio, while Islamic banks excel in the Jensen Ratio. These findings highlight the significance of considering bank type and underlying principles in portfolio performance analysis. This research makes a crucial contribution to investors and policymakers by providing insights into the dynamics of portfolio performance in the context of the fundamental differences between conventional and Islamic banks.

Data and Research Methods

This study uses a descriptive qualitative methodology to compare the performance of Islamic banks' stock portfolios with those of conventional banks applying to the Indonesia Stock Exchange using the Sharpe, Treynor, and Jensen methods. Secondary data sources were consulted for this study's data. The closing price of shares in the conventional bank index and Islamic banks in 2021-2023 was obtained through the OJK website, The Annual Report website, and Yahoo Finance for each bank. The data entered will be processed using Microsoft Excel.

The stock of Syariah and conventional banks listed on the Indonesia Stock Exchange between 2021 and 2023 made up the study's population. Purposive and random sampling are the sample techniques employed. While the data from a random sample of objects were obtained, the criteria for objects listed on the IDX in 2021–2023 were not taken as a whole for the purposive sampling approach. The data was obtained from 68 National private commercial banks and 10 from Islamic banks. Data was taken from each bank, three national private commercial banks, and 3 Islamic banks. The following businesses were included in the study's sample: Islamic banks (Bank Tabungan Pensiunan Nasional Syariah (BTPS), Bank Panin Dubai Syariah (PNBS), and Bank Syariah Indonesia (BRIS)) and national private commercial

banks (Bank Tabungan Pensiunan Nasional (BTPN), Bank KB Bukopin (BBKP), and Bank CIMB Niaga (BNGA).

The following are the steps to examine data from the Central Statistics Agency and the Indonesia Stock Exchange (IDX) to determine Indonesia's interest rate data, which is used to assess portfolio performance. The research was processed and analyzed using the following data analysis techniques (Sri & Dyah, 2020) :

1) Calculate the return on individual shares by the formula:

$$R_j=(P_t-P_{t-1})/\ P_{t-1} \quad (1)$$

Description:

R_j : stock Return

P_t : closing price of shares at the end of the period

P_{t-1} : closing price of the stock at the beginning of the month

2) Calculate the average return on shares by the formula:

$$ER_i = \sum \frac{R_i}{n} \quad (2)$$

Description:

ER_i : expected return

$\sum R_i$: total stock return I

n : number of observations

3) Calculate the average risk-free rate of return by the formula:

$$RFR = \frac{\sum BI\ rate}{n} \quad (3)$$

Description:

RFR : risk-free return

$\sum BI\ \ rate$: the amount of interest rates in a given period

n : number of calculation periods

4) Calculate the market rate of return by the formula:

$$Rm = \frac{IHSG_t - IHSG_{t-1}}{IHSG_{t-1}} \quad (4)$$

Description:

Rm : market return

$IHSG_t$: current period IHSG value

$IHSG_{t-1}$: previous period IHSG value

5) Designing standards, with the formula:

$$SD = \frac{\sqrt{\sum_{i=1}^{n}[X_i - E(X_i)]^2}}{n} \quad (5)$$

Description:

SD : standard deviation

X_i : i-th value

$E(X_i)$: evaluation value

n : amount of data used

6) Calculating Beta by the formula:

$$\beta_i = \frac{\sigma i,m}{\sigma^2 m} \quad (6)$$

Description:

β_i : β securities i

$\sigma i,m$: calculation of the return of security I with the calculation of market return (covariance)

$\sigma^2 m$: variance of market return

7) Calculating portfolio performance using the Sharpe method (RVAR), with the formula:

$$S_p = (R_p - R_f) / \sigma_p \quad (7)$$

Description:

S_p : Sharpe Performance Index

R_p : portfolio Return or market rate of return in period t

R_f : risk-free Return risk-free interest rate in period t

σ_p : Total risk is the sum of systematic risk and unsystematic risk

If the Sharpe value (RVAR) is positive, the greater the portfolio performance, the better.

8) Measuring portfolio performance using the Treynor method (RVOL), with the formula:

$$T_p = (R_p - R_f) / \beta_p \quad (8)$$

Description:

T_p : Treynor Performance Index

$R_{p\ q}$: portfolio return or market rate of return in Periosd t.

R_f : risk-free return the risk-free interest rate in the period t.

β_p : market risk of the portfolio or systematic risk of the portfolio (market beta)

If the value of Treynor (RVOL) is positive, the greater the portfolio performance, the better

9) Measuring portfolio performance using the Jensen Method, with the formula:

$$a_p = R_p - [R_f + b_p (R_m - R_f)] \quad (9)$$

Description:

a_p : Jensen Index

R_p : portfolio Return in Period t

R_f : return on risk-free investment in the period t

R_m : return market

b_p : market beta coefficient

Result and Discussion

Result

Sharpe, Treynor, and Jensen Index Value of Conventional Commercial Banks and Islamic Commercial Banks

This study used stock data from 3 conventional and 3 Islamic commercial banks taken from finance.yahoo.com from 2021 to 2023. The results of data processing through Microsoft Excel are as follows:

Table 1: Stock Returns of Conventional Commercial Banks and Islamic Commercial Bank

Year	Code of Conventional Commercial Banks and Islamic Commercial Banks						
	BBKP	**BTPN**	**BNGA**	**BRIS**	**BTPS**	**PNBS**	**IHSG**
2021	-34.97%	-15.76%	-3.02%	-20.87%	-4.53%	2.41%	10.08%
2022	-62.22%	1.15%	22.80%	-25.69%	-22.07%	-25.88%	4.09%
2023	-20.57%	-1.13%	43.04%	34.88%	-39.43%	-14.29%	6.16%

The average return on shares of 3 conventional banks and 3 Islamic banks is negative. In 2021, the lowest share return was owned by Bank KB Bukopin (BBKP) at -34.97%, and the highest share return was owned by Bank Panin Dubai Syariah (PNNBS) at 2.41%. In 2022, Bank KB Bukopin had the lowest share return again, valued at -62.22%, and the highest share return value owned by Bank CIMB Niaga. In 2023, the lowest share return was owned by Bank Tabungan Pensiunan Nasional Syariah (BTPS), worth -39.43%, and the top value share was owned by Bank CIMB Niaga, which reached 43.04%. Six bank stocks studied have negative returns, meaning that the rate of return on shares is so low that it can cause losses.

Here are the factors that can affect stock returns or stock returns according to (Alwi, 2008), among others:

1) Internal Factors
    a) Production, marketing, and sales notifications, including contract information, price adjustments, advertisements, production reports, recalls of new products, sales data, and product safety reports.
    b) Financing announcements or announcements about funding, such as matters related to debt or equity.
    c) Notification of the Management Board of Directors (management of director announcements, such as promotions), for instance, to conduct research and development, expand the factory, or close other businesses.
    d) Notifications about employment (labor announcements), such as new contract negotiations, strikes, et Cera.
    e) Notification regarding the company's financial statements, namely about profit forecasting before the end of the fiscal year and after the end of the fiscal year, Price Earnings Ratio (PER), Earnings per Share (EPS) and Dividend per Share (DPS), Net Profit Margin (NPM), Return on Equity (ROE), Price to Book Value (PBV), return on assets (ROA) and Economic Value Added (EVA), and also Market Value Added (MPV) whose values are not included in the financial statements and others.
2) External Factors
    a) Government notification of changes in foreign exchange rates, government regulation and deregulation of the economy, interest rates on savings deposits, and inflation.

b) Legal announcements or notices related to the law, such as claims to the company or addressed to managers by employees and claims against managers by the company.
c) Notification of the Securities Industry (securities announcements), for example, insider trading, restrictions or delays in trading, annual meeting Reports, and value or stock price trading.
d) Foreign political turmoil and fluctuating exchange rates can significantly affect stock price movements on a country's Stock Exchange.
e) Domestic and foreign issues.

In Table 1, there is also an IHSG return column or Composite Stock Price Index. The stock price index describes the movement of stock prices. This index serves as a guide for investors to invest, especially in capital market stocks. The stock price index movement describes market conditions at a certain time, regardless of whether the market is active or relatively slow (Rukmana, 2019).

After knowing the stock return of each company, to measure portfolio performance using the Sharpe, Treynor, and Jensen indices, several components are needed as follows:

Table 2: Monthly Standard Deviation of Conventional Commercial Banks and Islamic Commercial Banks

Year	Code of Conventional Commercial Banks and Islamic Commercial Banks						
	BBKP	BTPN	BNGA	BRIS	BTPS	PNBS	IHSG
2021	13.38%	5.70%	8.74%	14.56%	14.31%	35.73%	2.84%
2022	7.80%	2.30%	5.39%	9.12%	7.67%	10.31%	2.42%
2023	8.14%	4.16%	5.49%	6.56%	7.99%	6.07%	2.55%

Table 3: Annualized Conventional Commercial Banks and Islamic Commercial Banks

Year	Code of Conventional Commercial Banks and Islamic Commercial Banks						
	BBKP	BTPN	BNGA	BRIS	BTPS	PNBS	IHSG
2021	46.36%	19.75%	30.27%	50.42%	49.57%	123.76%	9.83%
2022	27.02%	7.97%	18.66%	31.59%	26.56%	35.73%	8.38%
2023	28.19%	14.43%	19.03%	22.72%	27.68%	21.04%	8.82%

Table 4: Risk Free

Year	BI Rate
2021	3.52%
2022	4.00%
2023	5.81%

Table 5: Beta of Conventional Commercial Banks and Islamic Commercial Banks

Year	Code of Conventional Commercial Banks and Islamic Commercial Banks						
	BBKP	BTPN	BNGA	BRIS	BTPS	PNBS	IHSG
2021	3.59	1.28	2.22	2.72	3.63	4.44	1
2022	1.19	0.13	1.42	0.70	1.91	0.16	1
2023	1.07	0.59	-1.04	0.84	2.33	1.05	1

Before calculating the Sharpe Index, Treynor and Jensen calculate risk-free. Risk-free is an investment in financial instruments that have a small risk. The data used is banking data from the Central Bureau of Statistics for 2021-2023. The calculation results of the monthly BI Rate data for each period are: The average in 2021 is 3.52%; in 2022, it is 4.00%; and in 2023, it is 5.81%.

The next step is calculating each company stock's standard deviation or risk level. This study uses the Microsoft Office Excel formula with the formula (=STDEVA) to determine the value of standard deviation and beta with the formula (=SLOPE). Based on the calculation results, the maximum standard deviation value of shares with the PNBS bank code (Panin Dubai Syariah Bank) in 2021 is 123.76%, beta is 4.44. The lowest standard deviation value of shares with the Code bank BTPN (Bank Tabungan Pensiunan Nasional) in 2022 was 7.97%, with a beta of 0.13.

The magnitude of the company's risk is determined by Beta:

1) β > 1 indicates that the company›s stock price is more volatile than the market index, meaning the stock rises and falls more than the market· This shows that the condition of the stock becomes more risky; that is, if the market changes by 1%, stock X will experience a change of more than 1%·
2) β < 1 indicates that the condition is not manageable to change based on market conditions or that the stock tends to rise and fall below the general market index (general market index).
3) β = 1 indicates that the condition is the same as the market index (Handayani, 2020).

After the components for calculating portfolio performance using Sharpe, Treynor, and Jensen indices are met, the calculation results of each index are as follows:

1) Index Sharpe

Table 6: Index Sharpe

Year	Code of Conventional Commercial Banks and Islamic Commercial Banks					
	BBKP	**BTPN**	**BNGA**	**BRIS**	**BTPS**	**PNBS**
2021	-0.83	-0.98	-0.22	-0.48	-0.16	-0.01
2022	-2.45	-0.36	1.01	-0.94	-0.98	-0.84
2023	-0.94	-0.48	1.96	1.28	-1.63	-0.96

Based on the results in Table 6, all banks had negative Sharpe values, especially in 2021. In 2022, only Bank CIMB Niaga (BNGA) had a positive sharp index; in 2023, only the Sharpe index of Bank CIMB Niaga and Bank Syariah Indonesia (BRIS) had a positive value. The highest Sharpe index in 2021 is owned by Panin Dubai Syariah Bank (PNBS), and the lowest is Bank Tabungan Pensiunan Nasional (BTPN). The highest Sharpe index in 2022 is the bank with the code BNGA or Bank CIMB Niaga, while the lowest sharp index belongs to Bank KB Bukopin (BBKP). Bank CIMB Niaga owns the highest Sharpe index for the 2023 period, and the lowest Sharpe index value is from a bank with the BTPS code (Bank Tabungan Pensiunan Nasional Syariah).

2) Index Treynor

Table 7 shows the results of the Treynor Index Calculation in 2021 if sorted by results from highest to lowest, namely Bank Panin Dubai Syariah (PNBS), Bank Tabungan Pensiunan

Nasional Syariah (BTPS), Bank CIMB Niaga (BNGA), Bank Syariah Indonesia (BRIS), Bank KB Bukopin (BBKP), finally Bank Tabungan Pensiunan Nasional (BTPN). For the 2022 period, the highest Treynor index value is Bank CIMB Niaga (BNGA), which is positive 0.13, while other banks are opposing. In 2023, the positive Treynor index value was only owned by Bank Syariah Indonesia (BRIS) at 0.35.

Table 7: Index Treynor

Year	Code of Conventional Commercial Banks and Islamic Commercial Banks					
	BBKP	BTPN	BNGA	BRIS	BTPS	PNBS
2021	-0.11	-0.15	-0.03	-0.09	-0.02	0.00
2022	-0.56	-0.22	0.13	-0.42	-0.14	-1.92
2023	-0.25	-0.12	-0.36	0.35	-0.19	-0.19

3) Index Jensen

Table 8: Index Jensen

Year	Code of Conventional Commercial Banks and Islamic Commercial Banks					
	BBKP	BTPN	BNGA	BRIS	BTPS	PNBS
2021	-62.04%	-27.66%	-21.06%	-42.23%	-31.83%	-30.20%
2022	-66.33%	-2.87%	18.67%	-29.76%	-26.24%	-29.90%
2023	-26.76%	-7.15%	37.59%	28.78%	-46.05%	-20.46%

Just like the calculation of the Sharpe index, the index's value is different; in 2021, all Jensen index banks are opposing, while in 2022, the Jensen index with the BNGA bank code is positive. In 2023, the Jensen index of bank codes BRIS and BNGA is positive, while the other four banks remain negative. BBKP owns the lowest Jensen index in 2021 at -62.04%; the lowest Jensen index in 2022, owned by BBKP, is also at -66.33%; for 2023, the lowest Jensen index is owned by BTPS at -46.05%.

Comparison of Portfolio Performance of Conventional Commercial Banks and Islamic Commercial Banks

Here is a table of the average Sharpe, Treynor, and Jensen indices of conventional commercial banks and Islamic commercial banks:

Table 9: The Average Sharpe, Treynor, and Jensen Indices of Conventional Commercial Banks and Islamic Commercial Banks

Bank	Sharpe			Treynor			Jensen		
	2021	2022	2023	2021	2022	2023	2021	2022	2023
Conventional	-0.67	-0.60	0.18	-0.10	-0.21	-0.24	-0.37	-0.17	0.01
Islamic	-0.22	-0.92	-0.44	-0.04	-0.83	-0.01	-0.35	-0.29	-0.13

The average Sharpe index of conventional commercial banks is -1.10, and Islamic commercial banks are -1.57. This means that the portfolio performance of conventional commercial banks based on the Sharpe index is higher than that of Islamic commercial banks. The average number of conventional commercial banks' Treynor index is -0.55, while the magnitude of Islamic commercial banks is -0.88. Although both are negative, the portfolio performance of conventional commercial banks based on the Treynor index is better than that of Islamic commercial banks. According to the average number of Jensen indices between conventional commercial banks and Islamic commercial banks for the period 2021-2023, it is

known that the Jensen index of conventional banks is -0.53 and that of Islamic banks is -0.76, so it can be interpreted that conventional commercial banks have better portfolio performance than Islamic commercial banks based on the Jensen index. The three indices, Sharpe, Treynor, and Jensen, show that good portfolio performance belongs to conventional banks from 2021 to 2023. Research from Binangkit & Savitri (2013) describes that the higher the performance index of Sharpe, Treynor, and Jensen, the better the performance.

Discussion

Comparison of Stock Portfolios of Islamic and Conventional Commercial Banks with Sharpe, Treynor, and Jensen Methods

Based on research from (Esha et al., 2014) risk adjusted return, and snail trail. The research object is equity fund that has been stated effective by Bapepam – LK before the research period. Result from this study is sharia equity fund has a better performance, a few of equity fund can outperform from the market, and the result of statistic test declares that there is not any different average performance of sharia equity fund and conventional equity fund with Significance level (0.05, Sharia mutual funds perform better than conventional mutual funds based on Sharpe, Treynor, and Jensen methods. Similar results were obtained from the research of Adelina (2014), where there is no difference between the performance of Islamic mutual funds and conventional stocks according to the Sharpe, Treynor, and Jensen methods. Research from (Ratnawati & Khairani, 2013) and (Rahmawati & Purwidianti, 2015) also have similar results. This indicates that the return of Sharia stocks is no less profitable than conventional stocks, but even at the level of profit results have no difference but on the operational activities and management of investor funds, Sharia stocks sharia principles that do not contain gharar, riba, and maysir (Purbaningrum, 2016). The research published in this journal differs from earlier research in that the former suggests that Islamic stocks outperform conventional stocks, while the latter suggests that the shares of conventional commercial banks perform better than those of Islamic commercial banks. This journal needs more information regarding the reasons for discrepancies between the research undertaken and earlier research due to the paucity of data sources and journals pertaining to the comparison of shares of Islamic commercial banks with conventional commercial banks. Additionally, unlike earlier research, this study did not conduct statistical testing.

Conclusion

Based on what has been above, it can be concluded that performance comparison between conventional banks (BBKP, BTPN, and BNGA) and Islamic banks (BRIS, BTPS, PNBS) in the period 2021 to 2023 using the Sharpe method shows that in 2021 all banks, both conventional and Islamic, have a negative index value. In 2022, only bank CIMB Niaga (conventional) has a positive index value of 1.01. In 2023, two banks had a positive index value: Bank CIMB Niaga (conventional) and Bank Syariah Indonesia (sharia). Performance comparison between conventional banks (BBKP, BTPN, and BNGA) and Islamic banks (BRIS, BTPS, PNBS) in the 2021 to 2023 time span using the Treynor method shows that in 2021, all banks have a negative index value except for Bank Panin Dubai Syariah which has an index value of 0.00. Meanwhile, in 2022, only Bank CIMB Niaga (conventional) has a positive index value; in 2023, only Bank Syariah Indonesia (sharia) has a positive index value. Performance comparison between conventional banks (BBKP, BTPN, and BNGA) and Islamic banks (BRIS, BTPS, PNBS) in the 2021 to 2023 time span using the Jensen method shows that in 2021 all banks, both conventional and Islamic, have a negative index value. In 2022, only Bank CIMB Niaga (conventional) has a positive index value of 18.67%, and in 2023, there are two banks

that have a positive index value, namely Bank CIMB Niaga (conventional) and Bank Syariah Indonesia (sharia). The outcome of contrasting the conventional commercial banks' and Islamic commercial banks' portfolio performance based on the Jensen, Treynor, and Sharpe indices' average values shows that portfolio performance at conventional banks is better than portfolio performance at Islamic banks, so H1 is rejected, and H2 is rejected.

References

Adnyana, I. M. (2020). *Manajemen Investasi dan Portofolio*. Lembaga Penerbitan Universitas Nasional (LPU-UNAS).

Adelina D.N, R. (2014). *Analisis Kinerja Reksa Dana Saham Konvensional dan Reksa Dana Saham Syariah Berdasarkan Indeks Sharpe, Indeks Treynor, Dan Indeks Jensen Pada Tahun 2010-2012*. UPN Yogyakarta.

Alwahidin. (2020). Kinerja Portofolio Saham Syariah dan Faktor yang Memengaruhi Kinerja Saham Syariah di Indonesia. *Li Falah: Jurnal Studi Ekonomi Dan Bisnis Islam*, *5*(1), 17–41. https://doi.org/10.31332/lifalah.v5i1.1884

Alwi, Z. I. (2008). *Pasar Modal Teori dan Aplikasi*. Yayasan Pancar Siwah.

Aprilianti, A., Suharti, T., & Azis, A. D. (2022). Analisis Kinerja Portofolio Saham Dengan Metode Sharpe, Treynor, dan Jensen (Saham IDX 30 tahun 2017 Sampai 2021). *Manager: Jurnal Ilmu Manajemen*, *5*(3), 329–338. http://ejournal.uika-bogor.ac.id/index.php/MANAGER

Binangkit, I. D., & Savitri, E. (2016). Analisis Perbandingan Kinerja Saham-saham Syariah dan Saham-saham Konvensional pada Portofolio Optimal dengan Pendekatan Single Index Model (Studi Kasus pada Bursa Efek Indonesia Tahun 2013-2015). *Jurnal Tepak Manajemen Bisnis*, *8*(3).

Caesar, I. J., & Yanuar. (2024). Analisis Faktor Karakteristik Dewan Direksi Terhadap Kinerja Keuangan Bank Konvensional dan Bank Syariah di Indonesia. *Jurnal Manajemen Bisnis Dan Kewirausahaan*, *8*(2), 392–406.

Caisar, J., Andriana, I., & Thamrin, Kemas M. Husni. (2023). Analisis Perbandingan Kinerja Reksa Dana Saham Konvensional dengan Saham Syariah (Metode Sharpe, Treynor, dan Jensen). *Al-Kharaj : Jurnal Ekonomi, Keuangan & Bisnis Syariah*, *5*(1), 96–110. https://doi.org/10.47467/alkharaj.v5i1.1103

Darmayanti, N. P. A., Suryantini, N. P. S., Rahyuda, H., & Dewi, S. K. S. (2017). Perbandingan Kinerja Reksadana Dana Saham Dengan Metode Sharpe, Treynor, dan Jensen. *Jurnal Riset Ekonomi dan Bisnis*, *17*(1), 93–107.

Didin, F. R., Wijaya, P. S., & Nugroho, C. (2021). Analisis Kinerja 3 Saham Bank Syariah Di Masa Pandemi Covid-19. *Halal Research Journal*, *1*(2), 74–86. https://doi.org/10.12962/j22759970.v1i2.85

Esha, M. R., Heykal, M., & Indrawati, T. (2014). Analisis Perbandingan Reksa Dana Saham Syariah dengan Reksa Dana Saham Konvensional Periode 2009–2012. *Binus Business Review*, *5*(1), 230-240. https://doi.org/10.21512/bbr.v5i1.1212

Fajar, M. A. (2018). Analisis Perbandingan Kinerja Saham Syariah dan Saham Konvensional Berdasarkan Return, Rasio Sharpe, Rasio Jensen dan Rasio Treynor di Sektor Manufaktur Bursa Efek Indonesia. *FOKUS EKONOMI: Jurnal Ilmiah Ekonomi*, *15*(2), 445–461. http://

ejournal.stiepena.ac.id/index.php/fe

Handayani, L. M. (2020). *Analisis Konsep Risk dan Return.*

Hassan, M. K., Hudaefi, F. A., & Agung, A. (2022). Evaluating Indonesian Islamic Banking Scholarly Publications: a Data Analytics. *Journal of Islamic Monetary Economics and Finance*, *8*(3), 341–370. https://doi.org/10.21098/jimf.v8i3.1560

Kholidah, N., Hakim, M. R., & Purwanto, E. (2019). Analisis Kinerja Reksadana Saham Syariah dengan Metode Sharpe, Treynor, Jensen, M^2, dan TT. *Indonesian Interdisciplinary Journal of Sharia Economics (IIJSE)*, *1*(2), 29–40. https://doi.org/10.31538/iijse.v1i2.194

Maulita, D. (2021). Kinerja: Saham Syariah VS Saham Konvensional. *Jurnal Riset Akuntansi Tirtayasa*, *06*(01), 16–25.

Meliani, S., Mareta, F., Jasuni, A., & Paulina, E. (2020). Analisa Laporan Keuangan Guna Mengukur Kinerja Keuangan Pada Perusahaan Semen Di Bursa Efek Indonesia (Periode 2017-2018). *Jurnal Aktiva : Riset Akuntansi Dan Keuangan*, *2*(2), 56–65. https://doi.org/10.52005/aktiva.v2i3.43

Mustakawarman, A. A. N., Wiksuana, I. G. B., & Artini, L. G. S. (2016). Kinerja Portofolio Saham Undervalued dan Overvalued Pada Indeks LQ45 di Bursa Efek Indonesia. *Jurnal Buletin Studi Ekonomi, 21*(2), 206–218.

Nugroho, L., Maryanti, T., Ismal, R., & Affandi Mahfudz, A. (2022). Determinants of Islamic Performance Ratio in Islamic Banks with Return on Assets as Moderating Factor. *International Journal of Commerce and Finance*, *8*(2), 21–56.

Nurafini, F. (2022). Studi Perbandingan Tingkat Kesehatan Bank Antara Bank Syariah dan Bank Konvensional di Indonesia Selama Pandemi Covid-19. *Jurnal Ilmiah Ekonomi Islam*, *8*(3). https://doi.org/http://dx.doi.org/10.29040/jiei.v8i3.5461

Otoritas Jasa Keuangan. (2024). *Statistik Saham Syariah - April 2024*. https://ojk.go.id/id/kanal/syariah/data-dan-statistik/saham-syariah/default.aspx

Purbaningrum, W. (2016). *Analisis Perbandingan Kinerja Reksadana Syariah dan Konvensional Periode 2012-2014.* [Bachelor's thesis, Universitas Muhammadiyah Surakarta].

Rahmawati, A., & Purwidianti, W. (2015). Analisis Komparasi Kinerja Reksadana Pendapatan Tetap Bagi Hasil (Syariah) dengan Indeks LQ45 Menggunakan Metode Sharpe, Jensen dan Treynor. *Media Ekonomi*, *15*(1).

Ratnawati, V., & Khairani, N. (2013). Perbandingan kinerja reksadana syariah dan reksadana konvensional. *Akuntansi*, *1*(1), 96–113.

Rukmana, S. (2019). Pengaruh Suku Bunga Terhadap Indeks Harga Saham Gabungan (IHSG) Dimediasi Nilai Tukar Pada Sektor Properti Di Bursa Efek Indonesia (BEI). *Jurnal Economix*, *7*(1), 17–24.

Rumintang, A. G., & Azhari, M. (2015). Analisis Perbandingan Kinerja Reksa Dana Saham Konvensional dan Reksa Dana Saham Syariah Dengan Menggunakan Metode Sharpe, Treynor, dan Jensen pada Tahun 2014. *E-Proceeding of Management*, *2*(2), 1428–1435.

Saragih, Y. S. (2023). Analisis Kinerja Keuangan Bank di Indonesia Sebelum dan Selama Pandemi Covid-19 dengan Menggunakan Rasio Keuangan (Studi Komparasi Bank BUMN dan Bank

Swasta Konvensional). *Jurnal Akuntansi, Keuangan Dan Perpajakan*, *6*(1), 12–22. https://doi.org/10.51510/jakp.v6i1.1082

Sari, N. I., & Riwayati, H. E. (2021). Analisis Perbedaan Kinerja Reksa Dana Saham Konvensional Dengan Reksa Dana Saham Syariah. *Prosiding Seminar Nasional, 1,* 95-109.

Satria, M. R., & Setiani, T. (2018). Analisis Perbandingan Pemberian Kredit Pemilikan Rumah (KPR) Pada Bank Konvensional Dengan Pembiayaan Murabahah (KPR) Pada Bank Syariah (Studi Kasus Pada Bank BJB dengan Bank BJB Syariah). *Jurnal Amwaluna*, *2*(1), 117–129.

Sri, H., & Dyah, A. E. (2020). *Teori Portofolio Dan Pasar Modal Indonesia*. Scopindo Media Pustaka.

Suryadi, S., Endri, E., & Yasid, M. (2021). Risk and Return of Islamic and Conventional Indices on the Indonesia Stock Exchange. *Journal of Asian Finance, Economics and Business*, *8*(3), 23–30. https://doi.org/10.13106/jafeb.2021.vol8.no3.0023

Syariah, S., Property, P., Real, D. A. N., Yang, E., Di, T., Periode, I., Syariah, S., Property, P., Real, D. A. N., Yang, E., Di, T., Periode, I., & Prasetyo, A. (2019). Analisis Harga Saham dan Earning Per Share (EPS) Terhadap Bid Ask Spread Pada Saham Syariah Perusahaan Property Dan Real Estate Yang Terdaftar Di Issi Periode 2014-2017. *Ekonomi Syariah Teori Dan Terapan*, *6*(8), 1537–1552.

Widiarma, I. (2022). Analisa Kinerja Perusahaan Dan Transaksi Investor Saham Bank Syariah Pasca Merger Terhadap IHSG. *Jurnal Al-Ijtimaiyyah*, *8*(1), 153-175. https://doi.org/10.22373/al-ijtimaiyyah.v8i1.13230

Yeni, F., Melani Putri, R., Elfiswandi, E., Lusiana, L., & Neldi, M. (2021). Analisis Bid Ask Spread Pada Masa Sesudah Right Issue Ditinjau Dari Harga Saham, Volume Perdagangan Dan Return Saham. *Jurnal Ilmu Manajemen Terapan*, *2*(6), 849–858. https://doi.org/10.31933/jimt.v2i6.654

Zamzany, F. R., & Setiawan, E. (2018). Studi Komparatif Kinerja Reksadana Saham Konvensional dan Syariah Di Indonesia. *Akuntabilitas: Jurnal Ilmu Akuntansi*, *11*(2), 305–318. https://doi.org/10.15408/akt.v11i2.8794