

Comparative Performance of Equity and Fixed-Income Mutual Funds in Indonesia and Implications for Islamic Portfolio Management

Desmizar^{1*}

¹ Universitas Mercu Buana, Jakarta, Indonesia

(*) Corresponden Author: desmizar@mercubuana.ac.id

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This study compares the performance of conventional equity and fixed-income mutual funds registered with the Otoritas Jasa Keuangan (OJK) in Indonesia and interprets the findings through Modern Portfolio Theory (MPT) and an Islamic investment perspective. The study uses a sample of equity and fixed-income mutual funds selected from eligible investment managers through simple random sampling. Performance is evaluated using Net Asset Value (NAV), return, standard deviation as a measure of total risk, and Risk Adjusted Return (RAR), while differences between fund categories are assessed using a binary dummy-regression model. The findings indicate that equity and fixed-income mutual funds do not exhibit meaningful differences in NAV and return, whereas their risk characteristics and risk-adjusted performance differ. Fixed-income mutual funds show a more favorable return-to-risk profile during the observation period, mainly because of their relatively lower volatility. These results support the MPT proposition that investment performance should be assessed by considering return together with the risk required to generate it rather than by relying solely on nominal returns. From an Islamic portfolio-management perspective, the findings do not constitute direct evidence on Sharia mutual funds, but they emphasize the relevance of diversification, defensive asset allocation, and risk-adjusted efficiency. A comparable Sharia-compliant strategy should rely on screened equities, sukuk, and other permissible instruments while avoiding *riba*, excessive *gharar*, and *maysir*.

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INTRODUCTION

Mutual funds have become an important investment vehicle because they allow households and institutions to obtain professional portfolio management without having to select and continuously monitor individual securities. In Indonesia, the mutual fund industry offers a broad range of products with different asset allocations, liquidity characteristics, return opportunities, and risk exposures. Among the most familiar categories are equity mutual funds, which allocate a substantial proportion of their portfolios to shares, and fixed-income mutual funds, which primarily allocate funds to debt securities. The two categories represent distinct positions on the risk-return spectrum and therefore provide a relevant

setting for examining whether higher exposure to market risk is accompanied by superior investment performance.

The basic economic problem facing investors is not simply how to obtain the highest nominal return, but how to select a portfolio that provides an acceptable return for the level of risk borne. This problem is central to Modern Portfolio Theory (MPT), which emphasizes the joint evaluation of expected return, variance, covariance, and diversification in portfolio formation (Markowitz, 1952). In mutual fund evaluation, the same logic requires performance assessment to go beyond changes in Net Asset Value (NAV) or raw returns. Risk-adjusted measures are necessary because two funds can generate similar returns while exposing investors to substantially different levels of volatility. Recent evidence from emerging markets similarly shows that mutual fund rankings and perceived efficiency can depend on the risk measure used (Ali et al., 2023).

The issue becomes more relevant when the research is positioned within Islamic finance. Islamic investment shares the general objective of allocating funds efficiently, yet the investable universe is constrained by Sharia principles. Investments involving *riba*, excessive *gharar*, *maysir*, and non-permissible business activities are excluded, while Sharia screening and purification affect the set of securities available to portfolio managers. Contemporary research indicates that MPT can be applied within Sharia constraints rather than being treated as incompatible with Islamic finance. Sandwick and Collazzo (2021) show that optimized multi-asset Sharia portfolios can achieve risk-return characteristics comparable with conventional portfolios, while Puspita et al. (2023) formally incorporate Sharia screening and purification into a Markowitz-based portfolio model.

The distinction between conventional fixed-income instruments and Islamic fixed-income instruments is particularly important. Conventional bond funds may hold interest-bearing securities, whereas an Islamic portfolio cannot replicate such exposure without considering the prohibition of *riba*. Sukuk and Sharia-compliant fixed-income funds provide a more appropriate Islamic analogue because their contractual structures are designed around permissible underlying transactions. Empirical evidence from Turkey suggests that Sukuk can provide diversification benefits and can alter the risk-return profile of bond portfolios, particularly during deteriorating economic conditions (Pirgaip et al., 2021). In Malaysia, Islamic fixed-income funds have also been found to exhibit lower total risk than Islamic equity funds during the COVID-19 period (Ishak et al., 2022).

Despite a growing international literature, several gaps remain relevant to the Indonesian context. First, many mutual fund studies emphasize Islamic-versus-conventional classification without separately examining how the underlying asset class influences risk-adjusted performance. Second, studies that compare equity and fixed-income funds often rely on raw return or a limited set of performance measures, even though the theoretical relevance of the comparison lies in the risk-return trade-off. Third, recent evidence specifically covering the Indonesian period from mid-2023 to mid-2024 is limited, even though the period contained an important monetary-policy transition. Bank Indonesia maintained the policy rate at 5.75% in June 2023, raised it to 6.00% in October 2023 to strengthen rupiah stability amid global uncertainty, and increased the rate again to 6.25% in April 2024 (Bank Indonesia, 2023a, 2023b, 2024). Such conditions can influence bond yields, equity valuation, portfolio flows, and investor risk appetite.

The submitted study originally compared conventional equity and fixed-income mutual funds using NAV, return, standard deviation, and a simplified Risk Adjusted Return (RAR) measure. The original statistical results are retained in this revision. However, the theoretical positioning is strengthened by explicitly grounding the analysis in MPT and by interpreting the results from an Islamic investment perspective. This approach is intentionally cautious. Because the empirical sample consists only of conventional funds, the study does not claim to

measure the performance of Sharia mutual funds. Instead, the conventional evidence is used as a benchmark for discussing how asset-class differences in risk and return can inform Islamic portfolio allocation subject to Sharia screening and permissible-instrument constraints.

Accordingly, the study addresses three research questions. First, are there significant differences in NAV, return, total risk, and RAR between equity and fixed-income mutual funds in Indonesia during June 2023-May 2024? Second, which category demonstrates more favorable performance after considering the total risk assumed? Third, what implications do the observed risk-return characteristics have for Islamic portfolio management? The objectives are to compare the four performance dimensions, interpret the magnitude and direction of the differences through MPT, and develop implications for Sharia-compliant portfolio allocation without overstating the empirical scope of the dataset.

The study contributes in three ways. Empirically, it provides evidence from a recent Indonesian monetary environment and distinguishes nominal performance from risk-adjusted efficiency. Theoretically, it connects the observed differences with the central MPT proposition that return should be evaluated jointly with risk. For Islamic finance, it provides a bridge between conventional fund evidence and Sharia portfolio management by distinguishing interest-bearing fixed-income exposure from permissible sukuk-based or other Sharia-compliant defensive allocations. This positioning is relevant to Economics & Islamic Finance Journal because it places conventional capital-market evidence within an explicit Islamic investment framework while preserving the actual scope of the data.

THEORETICAL FRAMEWORK AND LITERATURE REVIEW

Modern Portfolio Theory and Mutual Fund Performance

Modern Portfolio Theory originates from the proposition that portfolio choice should be based on the expected return and variance of the portfolio as a whole rather than on isolated securities (Markowitz, 1952). Diversification can reduce unsystematic risk when assets are not perfectly positively correlated, and an efficient portfolio is one that provides the maximum expected return for a given level of risk or the minimum risk for a desired expected return. This framework is directly relevant to the comparison between equity and fixed-income mutual funds because the two categories contain different underlying exposures and therefore different patterns of volatility and return.

Equity mutual funds generally obtain returns from changes in share prices and distributions from portfolio companies. Their performance can be strongly affected by changes in economic growth expectations, earnings forecasts, equity valuations, exchange rates, and investor sentiment. Fixed-income mutual funds, in contrast, are affected by coupon income, credit quality, maturity, duration, and interest-rate movements. The relationship between interest rates and bond prices implies that fixed-income funds are not risk free, although their total volatility is often lower than that of equity-oriented portfolios. The practical question is therefore not whether one asset class is universally superior, but whether the return generated during a given period is sufficient relative to the risk borne.

Performance measurement should therefore incorporate both return and risk. The Sharpe ratio evaluates excess return relative to total volatility, the Treynor ratio evaluates excess return relative to systematic risk, Jensen's alpha evaluates performance relative to an asset-pricing benchmark, and the Sortino ratio focuses on downside deviation. The original dataset in this study used RAR, defined as average return divided by standard deviation. Although RAR does not subtract a risk-free rate and is therefore simpler than the Sharpe ratio, it retains the fundamental risk-adjusted logic that a higher return per unit of total volatility represents more efficient historical performance. The use of multiple risk-adjusted

measures is encouraged in recent mutual fund research because conclusions can be sensitive to how risk is defined (Ali et al., 2023; Ishak et al., 2022).

Islamic Investment Perspective

Islamic investment incorporates financial objectives within a Sharia governance framework. The pursuit of return is legitimate, but the structure and source of that return must comply with Islamic principles. Riba is prohibited, transactions characterized by excessive gharar should be avoided, and maysir or gambling-like speculation is not permissible. In addition, investors apply qualitative screening to exclude prohibited business activities and quantitative screening to assess financial structures such as leverage and non-permissible income. These requirements make Sharia compliance a substantive portfolio constraint rather than a label added after investment selection.

The existence of Sharia constraints does not eliminate the relevance of diversification, risk management, or portfolio efficiency. Sandwick and Collazzo (2021) demonstrate that MPT can be implemented with Sharia constraints in multi-asset allocation. Puspita et al. (2023) extend this logic by incorporating screening and purification processes directly into portfolio optimization. These studies suggest that the Islamic investment problem can be understood as optimization within a restricted but ethically defined opportunity set.

The fixed-income dimension requires particular care. Conventional bonds are commonly structured around interest-bearing debt, which is inconsistent with the prohibition of riba. Islamic portfolio managers therefore use sukuk and other Sharia-compliant instruments rather than assuming that conventional fixed-income funds are directly transferable to an Islamic portfolio. Pirgaip et al. (2021) provide evidence that Sukuk can contribute diversification benefits to bond portfolios. This distinction is fundamental to the present study: the observed performance of conventional fixed-income funds is interpreted as evidence about the defensive role of an asset class, not as evidence that Islamic investors should hold interest-bearing securities.

Recent Islamic mutual fund research also shows that Sharia screening may generate performance patterns that differ across market conditions. Mirza et al. (2022), using 476 Islamic and 591 conventional equity funds, find that Islamic equity funds displayed greater resilience during peak COVID-19 stress. Elfakhani (2024), using a long international sample, finds that conventional funds outperform Islamic and ethical funds on average but that Islamic and ethical funds can outperform conventional proxies during some recessionary periods. These mixed findings reinforce the need to avoid universal claims and instead examine performance conditional on asset class, market environment, and measurement method.

State of the Art and Research Positioning

Table 1. State-of-the-Art Summary of Recent Mutual Fund and Islamic Portfolio Research

Study	Context and sample	Method	Main finding	Gap addressed by present study
Sandwick & Collazzo (2021)	Global multi-asset Sharia and conventional portfolios	MPT-based multi-asset optimization	Sharia-constrained optimized portfolios can achieve competitive risk-return characteristics.	Provides MPT-Sharia bridge, but not recent Indonesian equity vs fixed-income mutual funds.
Pirgaip et al. (2021)	Turkish conventional bond, Sukuk, and mixed bond funds, 2014-2019	Mean/variance tests; spanning and intersection tests	Including Sukuk can improve diversification and produce a lower-risk, higher-return profile.	Supports Islamic fixed-income diversification but in Turkey and a different period.

Study	Context and sample	Method	Main finding	Gap addressed by present study
Mirza et al. (2022)	476 Islamic and 591 conventional equity funds	Risk-adjusted performance; style and volatility timing	Islamic equity funds were relatively resilient during peak COVID-19 stress.	Focuses on Islamic vs conventional equity rather than equity vs fixed income in Indonesia.
Ishak et al. (2022)	20 Islamic equity and 54 Islamic fixed-income unit trusts in Malaysia	Sharpe, Treynor, Jensen; literature review	Both categories performed relatively well; Islamic fixed-income funds displayed lower total risk.	Closest asset-class comparison, but Malaysia and a pandemic period.
Ali et al. (2023)	Mutual funds in an emerging market (Pakistan)	Multiple risk-adjusted performance measures	Performance evaluation changes with the selected risk measure.	Supports the need to distinguish raw return from risk-adjusted performance.
Puspita et al. (2023)	Sharia-compliant portfolio optimization	Markowitz model with stochastic purification and screening constraints	Sharia screening and purification can be embedded formally in portfolio optimization.	Provides theoretical mechanism for interpreting conventional evidence through an Islamic portfolio lens.
Elmanizar & Avliasari (2023)	Islamic and conventional mutual funds in Indonesia, 2017-2021	Return and several risk-adjusted measures; Mann-Whitney test	Many performance dimensions show no statistically meaningful difference.	Indonesia-specific comparison, but not focused on asset-class differences in 2023-2024.
Elfakhani (2024)	646 Islamic funds, 475 ethical funds, and conventional proxies, 1990-2022	Mean/median tests and heteroscedasticity-robust regression	Conventional funds lead overall, while Islamic/ethical funds can outperform during some recessionary periods.	Shows performance is conditional on market conditions and fund type.
Present study	32 equity and 32 fixed-income conventional mutual funds in Indonesia, June 2023-May 2024	NAV, return, standard deviation, RAR, and dummy regression	Nominal NAV and return do not differ significantly; risk and RAR do.	Adds recent Indonesian evidence, effect-size interpretation, monetary context, and Islamic portfolio implications.

Source: Authors' synthesis of the cited literature.

The recent literature indicates that three issues remain insufficiently integrated. First, asset-class comparison is often separated from Islamic-versus-conventional comparison. Second, performance conclusions are sensitive to the choice of risk-adjusted measure. Third, market conditions can materially alter the relative attractiveness of fund categories. The present study addresses these issues by keeping the original empirical comparison of equity and fixed-income mutual funds, interpreting the results through MPT, and then translating the asset-allocation implications into an Islamic investment context without claiming direct Sharia-fund evidence.

Hypotheses

Based on the theoretical discussion, the empirical hypotheses retain the four performance dimensions used in the original study. The hypotheses are stated as differences

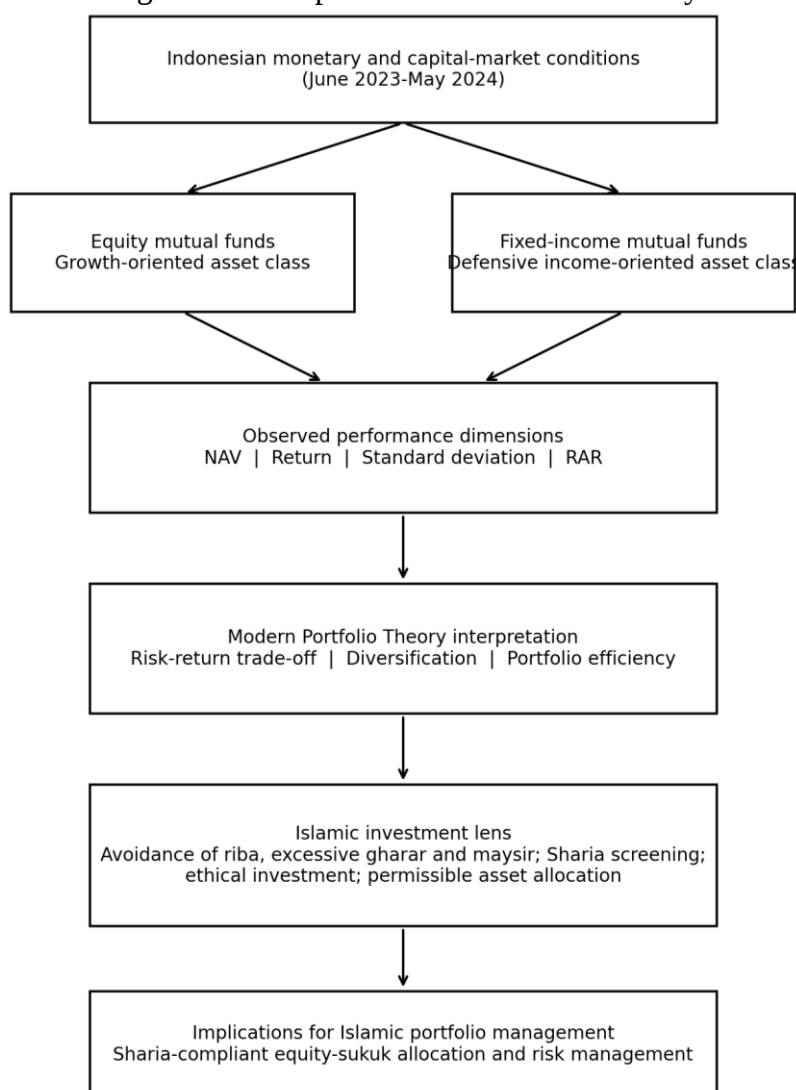
between equity and fixed-income mutual funds, while the direction and economic meaning of any difference are interpreted after estimation.

- H1: There is a significant difference in Net Asset Value between equity mutual funds and fixed-income mutual funds.
- H2: There is a significant difference in return between equity mutual funds and fixed-income mutual funds.
- H3: There is a significant difference in total risk (standard deviation) between equity mutual funds and fixed-income mutual funds.
- H4: There is a significant difference in Risk Adjusted Return between equity mutual funds and fixed-income mutual funds.

Conceptual Framework

Figure 1 positions the empirical comparison within a two-stage interpretation. The first stage compares the conventional fund categories and their observed NAV, return, risk, and RAR. The second stage interprets the resulting risk-return characteristics through MPT and an Islamic investment lens. Sharia principles enter as constraints on implementation rather than as variables directly measured in the dataset.

Figure 1. Conceptual Framework of the Study



Source: Developed by the authors.

RESEARCH METHOD

Research Design, Population, and Sample

This study uses a quantitative comparative design based on secondary mutual fund data. The target population consists of investment managers registered with the Otoritas Jasa Keuangan (OJK) during the research period that managed both conventional equity mutual funds and conventional fixed-income mutual funds. The submitted manuscript identified 47 investment managers that satisfied this eligibility condition. Each eligible investment manager represented a sampling unit capable of contributing one equity fund and one fixed-income fund to the comparative analysis.

The study used probability sampling. The original sample size was determined using the Slovin formula with a 10% margin of error, resulting in 32 selected investment managers. Simple random sampling was then used to select the managers. One eligible equity mutual fund and one eligible fixed-income mutual fund were taken from each selected manager, resulting in 64 mutual fund products: 32 equity funds and 32 fixed-income funds. The product-level fund names were not reproduced in the submitted blind manuscript supplied for this revision. Consequently, this revised version does not invent a product list. Before final publication, the authors should attach the original sampling worksheet as supplementary material if required by the editor.

The study period extends from June 2023 through May 2024. The original method states that NAV data were summarized quarterly, while returns were calculated monthly and then grouped by quarter. On that basis, the design implies up to four fund-quarter observations per product, or a maximum of 256 fund-quarter observations across 64 products, subject to data completeness. Because the original regression tables do not report the final analytical N, the revised manuscript does not claim an exact regression observation count beyond the documented fund sample.

Data Sources, Frequency, and Data Transparency

The original manuscript identifies OJK, Infovesta, Kontan Pusat Data, and Bank Indonesia among the sources used in the study. OJK is the regulatory reference for investment-manager and mutual-fund registration, while the market-data sources were used to obtain NAV-related information. Bank Indonesia data are used in the revised discussion to describe the monetary-policy environment during the observation period. The submitted manuscript, however, does not map each individual fund series to a unique data source. Therefore, this revision retains the declared sources and explicitly acknowledges the absence of a product-level source map as a transparency limitation rather than reconstructing one without evidence.

Monthly returns are derived from changes in NAV per participation unit and then summarized by quarter in accordance with the original procedure. Standard deviation is computed from periodic returns and represents total historical volatility. RAR is calculated as average return divided by the standard deviation of return. The same empirical output and numerical values reported in the submitted manuscript are retained; no observations, risk-free rates, benchmarks, or missing values have been reconstructed during revision.

The original manuscript did not preserve a product-level missing-observation log or an explicit imputation rule. Accordingly, the revised manuscript makes no claim that interpolation or another imputation technique was used. This is treated as a methodological limitation. If the journal requires a reproducibility appendix, the authors should disclose the original data sheet, the number of valid observations by fund, and the exact exclusion rule used at the time of analysis.

Variable Measurement

The independent variable is mutual fund category, represented by a binary dummy variable. Equity mutual funds are coded 0 and fixed-income mutual funds are coded 1. Four dependent variables are retained from the original study.

Net Asset Value (NAV). NAV represents the fair value of the mutual fund's assets net of liabilities and, when expressed per participation unit, functions as the observable unit value of the fund. The original study uses quarterly average NAV as the first performance dimension.

Mutual fund return. Periodic return is computed from the change in NAV per participation unit:

$$R(i,t) = [NAV(i,t) - NAV(i,t-1)] / NAV(i,t-1)$$

where $R(i,t)$ is the return of fund i in period t , $NAV(i,t)$ is the current NAV per participation unit, and $NAV(i,t-1)$ is the previous-period NAV.

Total risk. Standard deviation measures the dispersion of periodic returns around their mean and is used as the total-risk indicator:

$$SD(i) = \sqrt{\sum [R(i,t) - \text{mean}(R(i))]^2 / (n - 1)}$$

Risk Adjusted Return (RAR). The original study evaluates return relative to total volatility using:

$$RAR(i) = \text{mean}(R(i)) / SD(i)$$

A larger RAR indicates more historical return per unit of total volatility. Because this measure does not subtract a risk-free return, it should be interpreted as a simplified return-to-volatility ratio rather than as a Sharpe ratio. The reviewer recommended Sharpe, Treynor, Jensen alpha, or Sortino ratios as robustness measures. These additional measures are not reported as empirical results because the submitted archive does not contain the fund-level risk-free-rate and benchmark series required to reproduce them reliably. This limitation is stated explicitly rather than introducing synthetic robustness results.

Dummy-Regression Model and Decision Criteria

Differences between equity and fixed-income mutual funds are examined using a binary dummy-regression model. For each dependent variable, the model is:

$$Y(i) = \text{beta}(0) + \text{beta}(1)D(i) + \text{epsilon}(i)$$

where Y represents NAV, return, standard deviation, or RAR; D equals 0 for equity mutual funds and 1 for fixed-income mutual funds; $\text{beta}(0)$ is the estimated mean for equity funds; $\text{beta}(1)$ is the estimated difference between fixed-income and equity funds; and $\text{beta}(0) + \text{beta}(1)$ is the estimated mean for fixed-income funds. With a single binary predictor, the regression is an algebraically convenient way to estimate and test a difference in group means while also showing the direction and magnitude of that difference.

The revised manuscript applies the conventional two-tailed significance criterion $\alpha = 0.05$. The original text compared p -values with 0.025 without documenting a multiple-testing adjustment. Because the reported regression p -values are already two-tailed and no Bonferroni or other correction was specified, 0.05 is used as the decision threshold. This clarification does not change any empirical conclusion: $p = 0.678$ and $p = 0.334$ remain non-significant, while $p < 0.001$ remains significant.

Normality is assessed using the Shapiro-Wilk test because each fund category contains 32 sampled products. A significance value above 0.05 is interpreted as insufficient evidence to reject normality. The original normality table is retained below.

RESULTS AND DISCUSSION

Normality Test

Table 2. Results of Normality Tests for Equity and Fixed-Income Mutual Funds

Fund category	K-S Statistic	K-S df	K-S Sig.	Shapiro-Wilk Statistic	S-W df	S-W Sig.
Equity mutual funds	0.112	32	0.200*	0.947	32	0.116
Fixed-income mutual funds	0.191	32	0.004	0.963	32	0.325

* Lower bound of the true significance for the Kolmogorov-Smirnov test; Lilliefors significance correction.
Source: Original empirical output.

The Shapiro-Wilk significance values are 0.116 for equity mutual funds and 0.325 for fixed-income mutual funds. Both exceed 0.05, so the normality assumption is not rejected for either category. The Kolmogorov-Smirnov result for fixed-income funds is lower than 0.05, but the original analysis appropriately relied on Shapiro-Wilk for the 32-product groups. The subsequent interpretation therefore retains the original parametric difference-testing framework.

Difference in Net Asset Value

Table 3. Dummy-Regression Results for Net Asset Value

Model	Term	B	Std. Error	Standardized Beta	t	Sig.
1	Constant	1261.644	23.110	-	54.592	0.000
1	Dummy	13.572	32.683	0.026	0.415	0.678

Dependent variable: NAV. Source: Original empirical output.

The constant indicates an average NAV of 1,261.644 for equity mutual funds. The dummy coefficient is 13.572, implying an estimated fixed-income mean of 1,275.216. The difference is positive but statistically insignificant ($p = 0.678$). H1 is therefore not supported. In practical terms, the asset-class label explains little of the difference in average NAV during the observation period.

The standardized coefficient is only $\beta = 0.026$, which indicates a trivial standardized association between fund category and NAV. In a simple regression with one predictor, the squared standardized coefficient is approximately 0.001, reinforcing that fund category accounts for negligible variation in NAV. This result also illustrates why NAV alone is an incomplete basis for judging investment performance: a similar unit value does not imply similar risk exposure or risk-adjusted efficiency.

Difference in Mutual Fund Return

Table 4. Dummy-Regression Results for Mutual Fund Return

Model	Term	B	Std. Error	Standardized Beta	t	Sig.
1	Constant	0.871	0.394	-	2.208	0.028
1	Dummy	0.540	0.558	0.061	0.968	0.334

Dependent variable: Return.

Source: Original empirical output.

The estimated average return of equity mutual funds is 0.871%, while the positive dummy coefficient of 0.540 percentage points produces an estimated average of 1.411% for fixed-income mutual funds. Despite the numerical advantage for fixed-income funds, the difference is not statistically significant ($p = 0.334$). H2 is therefore not supported.

The standardized coefficient is $\beta = 0.061$, again indicating a small effect. The result is consistent with the idea that a one-year observation window may be too short to establish a stable return superiority between major asset classes. It also supports the need to move from raw return comparison to risk-adjusted analysis. Recent mutual fund research shows that the assessment of fund efficiency can change when return is evaluated relative to alternative definitions of risk (Ali et al., 2023).

Difference in Total Risk

Table 5. Dummy-Regression Results for Mutual Fund Risk

Model	Term	B	Std. Error	Standardized Beta	t	Sig.
1	Constant	2.526	0.183	-	13.822	0.000
1	Dummy	-1.354	0.258	-0.312	-5.237	0.000

Dependent variable: Risk (standard deviation). Source: Original empirical output.

The risk result differs markedly from the NAV and return results. Equity mutual funds have an estimated average standard deviation of 2.526%, while the dummy coefficient of -1.354 percentage points yields an estimated average risk of 1.172% for fixed-income mutual funds. The difference is statistically significant ($p < 0.001$), supporting H3. Equity mutual funds therefore exhibit substantially greater total volatility during the study period.

The standardized coefficient of $\beta = -0.312$ is materially larger than the standardized effects for NAV and return and can be interpreted as a moderate asset-class effect. With one predictor, beta squared is approximately 0.097, indicating that mutual fund category is associated with about 9.7% of the standardized variation in the reported risk outcome. The direction of the result is consistent with the conventional risk hierarchy in which equity exposure is more volatile than diversified fixed-income exposure. It is also consistent with the Malaysian Islamic-fund evidence of Ishak et al. (2022), who report lower total risk for Islamic fixed-income funds than for Islamic equity funds during their observation period.

Difference in Risk Adjusted Return

Table 6. Dummy-Regression Results for Risk Adjusted Return

Model	Term	B	Std. Error	Standardized Beta	t	Sig.
1	Constant	0.361	0.159	-	2.275	0.024
1	Dummy	1.248	0.224	0.329	5.562	0.000

Dependent variable: RAR. Source: Original empirical output.

The average RAR of equity mutual funds is 0.361. The dummy coefficient of 1.248 implies an average RAR of 1.609 for fixed-income mutual funds. This difference is statistically significant ($p < 0.001$), supporting H4. The standardized coefficient is $\beta = 0.329$, representing a moderate positive association between the fixed-income category and risk-adjusted performance. Beta squared is approximately 0.108, suggesting that fund category is associated with about 10.8% of the standardized variation in RAR in this simple specification.

The RAR result is the central finding of the study because it reconciles the non-significant return difference with the significant risk difference. Fixed-income funds did not

produce a statistically superior raw return, but they generated similar return performance with much lower total volatility. As a result, the return generated per unit of risk was substantially higher. This pattern is consistent with the MPT proposition that the quality of a portfolio outcome depends on both dimensions of the risk-return trade-off.

Integrated Effect-Size Interpretation

Table 7. Summary of Differences and Standardized Effect Interpretation

Outcome	Equity mean	Fixed-income mean	Dummy coefficient	p-value	Standardized beta	Interpretation
NAV	1,261.644	1,275.216	13.572	0.678	0.026	No significant difference; trivial effect
Return	0.871%	1.411%	0.540 pp	0.334	0.061	No significant difference; small effect
Risk	2.526%	1.172%	-1.354 pp	<0.001	-0.312	Significant; moderate lower risk for fixed-income funds
RAR	0.361	1.609	1.248	<0.001	0.329	Significant; moderate higher risk-adjusted performance for fixed-income funds

Source: Authors' interpretation of the original regression output. pp = percentage points.

The comparison shows a consistent pattern. Fund category has little relationship with NAV or raw return but a materially stronger relationship with risk and risk-adjusted performance. This distinction is more informative than a binary significance statement because it identifies where the economic difference lies. The results do not show that fixed-income funds are universally superior. Rather, they show that during this specific period, fixed-income funds achieved a more favorable historical return-to-volatility combination.

Indonesian Capital-Market and Monetary Context

The observation period should be interpreted against Indonesia's monetary environment. In June 2023, Bank Indonesia maintained the BI 7-Day Reverse Repo Rate at 5.75%, emphasizing inflation control and rupiah stability (Bank Indonesia, 2023a). In October 2023, the policy rate was raised by 25 basis points to 6.00% as a pre-emptive response to heightened global uncertainty and imported-inflation risk (Bank Indonesia, 2023b). In April 2024, Bank Indonesia increased the BI-Rate again by 25 basis points to 6.25% to strengthen rupiah stability amid deteriorating global risk (Bank Indonesia, 2024). At that time, Bank Indonesia also reported higher yields on 2-year and 10-year government securities, illustrating the tighter yield environment.

These developments provide a plausible context for the observed mutual fund results. Higher market yields can increase prospective income opportunities for fixed-income portfolios, even though rate increases can reduce the market value of existing longer-duration bonds. Equities can simultaneously face a higher discount rate, exchange-rate uncertainty, and changes in portfolio flows or risk appetite. The significantly lower volatility of fixed-income funds in the sample is therefore economically plausible in a period characterized by monetary tightening and elevated global uncertainty.

This interpretation is contextual rather than causal. The regression models include only the mutual fund category dummy and do not incorporate the BI-Rate, inflation, rupiah exchange rate, bond yields, or equity-market index returns as explanatory variables. The study therefore cannot claim that monetary tightening caused the observed performance

difference. Instead, the monetary environment helps explain why the risk-return contrast is economically meaningful and motivates future multivariate research.

Implications for Islamic Portfolio Management

The Islamic-finance implication of the findings must begin with a clear boundary: the empirical sample is conventional. Therefore, the higher RAR observed for fixed-income mutual funds cannot be interpreted as direct evidence that Sharia fixed-income or sukuk funds would generate the same outcome. Conventional fixed-income funds may contain interest-bearing debt instruments that are not permissible for Islamic investors. The value of the finding lies in the asset-allocation principle, not in direct product substitution.

From an MPT perspective, the results show that defensive assets can improve historical portfolio efficiency when they provide meaningful risk reduction without a statistically significant sacrifice in return. In an Islamic portfolio, the corresponding implementation would require permissible defensive instruments such as sukuk or Sharia-compliant fixed-income funds. Pirgaip et al. (2021) show that Sukuk can contribute diversification benefits, while Sandwick and Collazzo (2021) show that Sharia constraints can be integrated into multi-asset optimization. Thus, the core portfolio principle remains diversification, but the opportunity set is filtered according to Sharia.

Sharia screening can also affect the risk characteristics of equity allocation. Exclusion of prohibited business activities and limits related to financial structure change sector composition, leverage exposure, and the correlation structure of the investable universe. Puspita et al. (2023) demonstrate that screening and purification can be incorporated formally into a Markowitz model, while Mirza et al. (2022) show that Islamic equity funds can display different resilience characteristics under market stress. Consequently, Islamic portfolio management should evaluate the joint effects of asset class, screening constraints, market regime, and risk-adjusted performance rather than assuming that conventional rankings automatically transfer to Sharia-compliant funds.

For Muslim investors, the practical implication is that portfolio choice should simultaneously address financial suitability and Sharia compliance. Risk tolerance, investment horizon, liquidity needs, and return objectives remain relevant, but they operate after non-permissible instruments have been excluded. A risk-averse Islamic investor may therefore consider a larger allocation to sukuk or Sharia fixed-income funds, whereas investors with longer horizons and greater risk tolerance may allocate more to screened equities. The appropriate allocation depends on the investor's objectives and on the risk-return characteristics of the Sharia-compliant opportunity set available at the time of investment.

CONCLUSION

This study compares the performance of conventional equity and fixed-income mutual funds registered with the Otoritas Jasa Keuangan and interprets the results through Modern Portfolio Theory and an Islamic investment perspective. The analysis evaluates mutual fund performance through NAV, return, total risk measured by standard deviation, and Risk Adjusted Return, while dummy regression is used to identify whether fund category is associated with meaningful performance differences.

The findings show that the distinction between equity and fixed-income mutual funds is not primarily reflected in nominal NAV or raw return. Instead, the more substantive difference lies in the level of risk and the efficiency with which return is generated relative to that risk. Fixed-income mutual funds display lower volatility and stronger risk-adjusted performance during the observation period, while equity mutual funds are associated with

greater fluctuations. Accordingly, the principal empirical insight is that evaluating mutual funds solely on nominal return may obscure important differences in portfolio efficiency.

The theoretical interpretation is consistent with Modern Portfolio Theory, which emphasizes that investment performance should be evaluated through the interaction between expected return and risk. The findings illustrate that two asset classes can provide broadly comparable nominal performance while exposing investors to different levels of uncertainty. The relative advantage observed for fixed-income mutual funds should not be interpreted as permanent superiority, because the efficiency of an asset class remains dependent on market conditions, portfolio composition, and the risk measure used in the evaluation.

The Indonesian monetary and capital-market environment during the research period provides an important context for understanding the findings. The period was characterized by relatively tight monetary policy, global financial uncertainty, and efforts to maintain rupiah stability. Such conditions may affect bond yields, equity valuations, investor risk appetite, and portfolio volatility in different ways. Nevertheless, this study does not estimate the causal effect of monetary variables, so the macroeconomic explanation should be understood as contextual rather than causal.

From an Islamic finance perspective, the contribution of this study is interpretive rather than a direct comparison between conventional and Sharia mutual funds. The favorable risk-adjusted characteristics of conventional fixed-income funds cannot be transferred mechanically to Islamic investors because interest-bearing debt is inconsistent with the prohibition of *riba*. The relevant implication is that defensive allocation and diversification remain important principles, but their Sharia-compliant implementation should rely on *sukuk*, screened equities, and other permissible instruments while avoiding *riba*, excessive *gharar*, *maysir*, and prohibited business activities. This interpretation connects the logic of MPT with Islamic portfolio management without overstating the scope of the empirical evidence.

The findings also provide practical implications for investors and investment managers. Mutual fund selection should not depend exclusively on historical NAV or nominal return. Investors should consider portfolio volatility, risk-adjusted performance, investment horizon, liquidity needs, and individual risk tolerance. Islamic investors should additionally evaluate Sharia screening and the permissibility of the underlying contractual structure. For investment managers, the results reinforce the importance of communicating risk alongside return and of designing asset-allocation strategies that are consistent with both market conditions and investor constraints.

This study has several limitations. The sample contains only conventional equity and fixed-income mutual funds and therefore does not provide direct empirical evidence on Sharia mutual funds. The observation period is relatively limited and may not capture a complete market cycle. In addition, the original dataset does not provide a complete product-level record of missing observations and does not contain the risk-free-rate and market-benchmark series required to reconstruct several alternative risk-adjusted performance measures.

Future research should extend the observation period and directly compare conventional equity funds, conventional fixed-income funds, Sharia equity funds, and *sukuk* or Sharia fixed-income funds within the same market environment. Robustness analysis can incorporate Sharpe, Treynor, Jensen alpha, Sortino, and other appropriate performance measures. Future models may also include monetary-policy indicators, inflation, exchange-rate movements, equity-market performance, government-bond yields, and *sukuk* benchmarks to examine whether Sharia screening and Islamic asset structures systematically influence the risk-return relationships predicted by Modern Portfolio Theory.

REFERENCES

- Ali, M. A., Aqil, M., Alam Kazmi, S. H., & Zaman, S. I. (2023). Evaluation of risk adjusted performance of mutual funds in an emerging market. *International Journal of Finance & Economics*, 28, 1436-1449. <https://doi.org/10.1002/ijfe.2486>
- Bank Indonesia. (2023a, June 22). BI 7-Day Reverse Repo Rate held at 5.75%: Synergy maintaining stability and reviving growth. Bank Indonesia.
- Bank Indonesia. (2023b, October). BI 7-Day Reverse Repo Rate (BI7DRR) raised 25 bps to 6.00%. Bank Indonesia.
- Bank Indonesia. (2024, April 24). BI-Rate increased 25 bps to 6.25%: Strengthening stability and maintaining growth from impact of global spillovers. Bank Indonesia.
- Elfakhani, S. (2024). Islamic, ethical and conventional mutual funds: A comparative study (1990-2022). *Journal of Islamic Accounting and Business Research*, 16(8), 1370-1393. <https://doi.org/10.1108/JIABR-03-2023-0105>
- Elmanizar, E., & Avliasari, E. (2023). Islamic and conventional mutual funds performance by return and risk adjusted performance. *Jurnal Akuntansi dan Keuangan Islam*, 11(1), 81-100. <https://doi.org/10.35836/jakis.v11i1.403>
- Fabozzi, F. J. (2021). *Investment management*. Salemba Empat.
- Hartono, J. (2020). *Portfolio theory and investment analysis*. BPF UGM.
- Ishak, N., Shari, A., Japang, M., & Ab Rahim, F. (2022). Performance of Islamic equity and fixed-income funds during the COVID-19 pandemic in Malaysia. *Cogent Economics & Finance*, 10(1), 2122184. <https://doi.org/10.1080/23322039.2022.2122184>
- Jensen, M. C. (1968). The performance of mutual funds in the period 1945-1964. *The Journal of Finance*, 23(2), 389-416.
- Markowitz, H. (1952). Portfolio selection. *The Journal of Finance*, 7(1), 77-91.
- Mirza, N., Abbas Rizvi, S. K., Saba, I., Naqvi, B., & Yarovaya, L. (2022). The resilience of Islamic equity funds during COVID-19: Evidence from risk adjusted performance, investment styles and volatility timing. *International Review of Economics & Finance*, 77, 276-295. <https://doi.org/10.1016/j.iref.2021.09.019>
- Republic of Indonesia. (1995). Law of the Republic of Indonesia Number 8 of 1995 concerning capital markets.
- Pirgaip, B., Arslan-Ayaydin, O., & Karan, M. B. (2021). Do Sukuk provide diversification benefits to conventional bond investors? Evidence from Turkey. *Global Finance Journal*, 50, 100533. <https://doi.org/10.1016/j.gfj.2020.100533>
- Puspita, D., Kolkiewicz, A., & Tan, K. S. (2023). Markowitz-based Shariah compliant portfolio model with stochastic purification and probabilistic compliance screening constraints. *Journal of Islamic Accounting and Business Research*, 14(8), 1300-1323. <https://doi.org/10.1108/JIABR-08-2021-0230>
- Rudiyanto. (2011). *Mutual fund performance evaluation method*. Kontan.
- Sandwick, J. A., & Collazzo, P. (2021). Modern portfolio theory with sharia: A comparative analysis. *Journal of Asset Management*, 22(1), 30-42. <https://doi.org/10.1057/s41260-020-00187-w>
- Sharpe, W. F. (1966). Mutual fund performance. *The Journal of Business*, 39(1), 119-138.
- Tandelilin, E. (2017). *Capital market portfolio and investment management*. Kanisius.