

The Performance of Malaysian Real Estate Investment Trusts during Periods of Inflation and Elevated Interest Rates

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ABSTRACT

This study examines the impact of inflation and interest rates on the performance of Malaysian Real Estate Investment Trusts (M-REITs) during the period 2015–2025. Employing a panel fixed effects regression model with robust standard errors, the study evaluates M-REIT performance across four indicators: total return, dividend yield, price volatility, and net asset value (NAV) growth. The sample comprises all M-REITs listed on Bursa Malaysia over the study period, with macroeconomic data sourced from the Department of Statistics Malaysia (DOSM) and Bank Negara Malaysia (BNM). The empirical findings indicate that inflation, as measured by the Consumer Price Index (CPI), exerts no statistically significant influence on total returns, dividend yield, or price volatility, but exhibits a marginally positive association with NAV growth, suggesting limited inflation-hedging capacity operating primarily through asset value appreciation. In contrast, the Overnight Policy Rate (OPR) demonstrates a statistically significant positive relationship with total returns, dividend yield, and volatility, indicating that monetary tightening amplifies yield compensation demands and heightens market risk for M-REIT investors. Collectively, these results establish interest rate movements as the dominant macroeconomic driver of M-REIT performance, whilst inflation plays a comparatively peripheral role. The study contributes Malaysia-specific empirical evidence to the extant REIT literature and offers practical implications for investors, fund managers, and policymakers navigating inflationary and elevated interest rate environments.

Keywords: M-REITs; Inflation; Interest Rates; Overnight Policy Rate; Dividend Yield; Volatility; Panel Data

INTRODUCTION

Malaysian Real Estate Investment Trusts (M-REITs) have emerged as a significant investment vehicle within Malaysia's capital market, attracting sustained interest from both individual and institutional investors owing to their potential for stable income distributions, capital appreciation, and portfolio diversification (Adnan et al., 2021; Yeoh, 2024). As property-backed instruments mandated to distribute the majority of their taxable income to unitholders, M-REITs occupy a distinctive position in the investment landscape, offering access to commercial real estate without the illiquidity constraints inherent in direct property ownership (Khairulnuwar & Chuweni, 2021). Commercial real estate, as the underlying asset class of M-REITs, is particularly appealing to institutional investors given its predictable income streams and its historically low correlation with financial asset returns, attributes that support its role in portfolio risk mitigation (Isa et al., 2023).

The macroeconomic environment, particularly the dynamics of inflation and interest rates, is widely recognised as a critical determinant of REIT performance. Theoretically, real estate assets possess the capacity to serve as

inflation hedges through mechanisms such as periodic rental income revision and property value appreciation (Muckenhaupt et al., 2023; Malović & Roganović, 2024). However, the empirical evidence on this relationship remains mixed. Whilst certain studies affirm the inflation-hedging properties of REITs in developed markets, others challenge this view in emerging market contexts, suggesting that the relationship is neither uniform nor stable across different economic regimes (Rzeszut et al., 2023; Das, 2023). Concurrently, interest rate movements are recognised as a key determinant of REIT valuations and investor returns, given that rising borrowing costs affect financing expenditures, discount rates applied to future cash flows, and the relative attractiveness of yield-generating instruments vis-à-vis risk-free alternatives (Lin et al., 2021; Wu & Wang, 2023).

The recent episode of elevated global inflation, and the consequent tightening of the Overnight Policy Rate (OPR) by Bank Negara Malaysia, has created a particularly challenging operating environment for M-REITs, potentially constraining profitability and investor returns (Tham et al., 2021). These macroeconomic shifts necessitate a rigorous empirical assessment of how M-REITs perform under inflationary pressures and rising interest rates. Notwithstanding the expanding body of REIT literature globally, research that specifically examines M-REIT performance during such macroeconomic stress periods remains limited, particularly with respect to comprehensive multi-indicator panel data analyses (David et al., 2021; Lin et al., 2021).

This study addresses this gap by empirically investigating the impact of inflation (CPI) and interest rates (OPR) on M-REIT performance across four dimensions—total return, dividend yield, price volatility, and NAV growth over the period 2015–2025. In response to concerns that REIT performance may also be shaped by broader macroeconomic and property-market conditions, the analysis explicitly recognises additional determinants such as exchange-rate movements, firm leverage, firm size, and property sector classification within the empirical framework. Variables such as GDP growth, unemployment, property prices, construction activity, and investor sentiment are also discussed as relevant channels that may influence M-REIT performance, although they are treated cautiously where consistent firm-year data are unavailable. The study makes two principal contributions to the extant literature. First, it provides Malaysia-specific panel data evidence on M-REIT resilience under sustained inflationary and high-interest rate conditions, an area inadequately addressed in existing research. Second, it employs a multi-dimensional performance framework, offering a more holistic assessment than studies that focus exclusively on total return. The remainder of this paper is organised as follows. Section 2 reviews the relevant literature on REIT inflation hedging, interest rate sensitivity, and the Malaysian REIT market. Section 3 presents the theoretical framework and research hypotheses. Section 4 describes the data and methodology. Section 5 reports and discusses the empirical results, including interpretation of possible COVID-19 structural effects and robustness considerations. Section 6 concludes with practical implications, limitations, and directions for future research.

LITERATURE REVIEW

Real Estate Investment Trusts as Inflation Hedges

The capacity of REITs to serve as hedges against inflation has been a persistent theme in real estate finance research. The theoretical foundation of this relationship rests on two principal channels through which real estate assets may preserve investor purchasing power: upward revisions to rental income in line with rising price levels, and appreciation in underlying property values as construction and replacement costs increase (Muckenhaupt et al., 2023; Malović & Roganović, 2024). Empirical studies examining listed real estate in the United States and Europe have demonstrated meaningful long-term inflation-hedging properties, with public real estate performing relatively well during expected inflationary environments and private real estate providing stronger protection during periods of unexpected inflation (Marsella, 2025). Moreover, a comprehensive analysis of 371 equity REITs between 1972 and 2020 found that these instruments substantially outperformed short-term Treasury instruments and contributed positively to shareholder wealth over the long term (Huang et al., 2023).

However, the inflation-hedging argument is not uniformly supported across all empirical settings. Evidence from emerging markets, including Southeast Asia, suggests that the relationship between inflation and real estate returns is considerably weaker and less consistent than in developed markets (Rzeszut et al., 2023). Das (2023), employing a regime-switching approach, demonstrates that the REIT–inflation nexus is highly state-dependent,

varying substantially across inflationary cycles. Muckenhaupt et al. (2025) further confirm that the international evidence on real estate as an inflation hedge is heterogeneous, with significant variation observed across countries, property sectors, and time horizons. Within the Malaysian context, direct empirical evidence on the inflation-hedging capacity of M-REITs remains sparse, and the available studies do not yield definitive conclusions, underscoring the analytical contribution of the present investigation.

Interest Rate Sensitivity of Real Estate Investment Trusts

The sensitivity of REIT performance to interest rate changes is one of the most extensively studied topics in real estate finance. The theoretical rationale is well established: rising interest rates increase financing costs, reduce the present value of future cash flows through higher discount rates, and widen the gap between REIT yields and risk-free rate alternatives, thereby reducing the relative attractiveness of yield-generating instruments (Lin et al., 2021; Santi & Gilba, 2025). Empirical studies broadly confirm a negative relationship between interest rates and REIT valuations; however, the direction and magnitude of the relationship between rates and returns varies across markets, property types, and monetary policy cycles.

Anderson et al. (2022) find that lower nominal interest rates and wider quality interest spreads are positively associated with future REIT returns, particularly for mortgage and equity REITs, supporting the view that accommodative monetary conditions enhance REIT valuations. Rosa (2024) demonstrates that Federal Open Market Committee announcements transmit meaningfully to REIT market capitalisation and returns in the United States, confirming monetary policy as a systematic risk factor for REITs. Wang et al. (2024) extend this analysis to encompass unconventional monetary policy shocks, showing that both conventional and quantitative easing measures significantly affect REIT return distributions.

A critical insight from the literature is that interest rate sensitivity is not uniform across property sectors. Lin et al. (2021) document, using cross-country panel data, that retail and residential REITs exhibit greater sensitivity to interest rate movements than office and specialty REITs, with the latter offering more robust hedging properties during rate tightening cycles. Al-Nassar (2025) demonstrates, in the context of Saudi REITs, that the nature of interest rate sensitivity varies markedly across different monetary policy phases. Malhotra and Poteau (2025) further show that hospitality REITs exhibit heightened sensitivity to market conditions during crises, which diminishes their diversification benefits. These sectoral differences are particularly relevant for M-REITs, given the heterogeneous composition of the Malaysian market.

Malaysian REIT Market: Characteristics and Performance

The Malaysian REIT sector has developed substantially since its formal legislative establishment in 2005, with M-REITs listed on Bursa Malaysia spanning diverse property sectors including retail, office, industrial, hospitality, and healthcare. Research on M-REIT performance has examined both firm-specific and sector-level determinants of returns and risk profiles. Khairulanuwar and Chuweni (2021) analyse operational efficiency ratios, including return on assets and equity, as determinants of M-REIT performance, whilst Sulaiman et al. (2023) identify a significant positive relationship between dividend yield and annual returns, affirming the income-driven character of M-REIT investment. Tee and Choong (2022) further document that during periods of property oversupply, the risk-adjusted performance of M-REITs does not exhibit a consistent relationship with conventional performance determinants, indicating the context-specific nature of M-REIT dynamics.

Comparative analyses situate M-REITs within the broader Asian REIT landscape. Nawawi et al. (2010) document the absence of long-term cointegration between M-REITs and other major Asian REIT markets, whilst identifying short-term positive correlations with Singapore and Japanese counterparts, with M-REITs tending to lag behind. Ong et al. (2012) report that M-REITs underperformed the broader market index during the 2008 global financial crisis but demonstrated resilience in the recovery period. Victor et al. (2023) examine the impact of the COVID-19 pandemic on Pan-Asian REIT performance, confirming the sensitivity of M-REITs to systemic macroeconomic disruptions. Coşkun et al. (2023) compare profitability determinants of REITs in Turkey and Malaysia, highlighting cross-country differences in the macroeconomic and institutional drivers of REIT financial performance.

With respect to macroeconomic determinants, Tham et al. (2021) examine the dynamic relationship between inflation and non-performing property loans in Malaysia, whilst Idris (2023) analyses the co-movement of the Malaysian stock and property markets with macroeconomic variables including inflation and interest rates. Jensen and Turner (2022) demonstrate that REIT dividend structures may provide resilience against restrictive monetary conditions owing to statutory distribution requirements. Collectively, these studies suggest that macroeconomic factors meaningfully influence the Malaysian real estate investment landscape; however, their specific and simultaneous impact on multiple dimensions of M-REIT performance over a sustained macroeconomic stress period has not been rigorously addressed.

Research Gap

Despite the growing body of literature on REITs globally, several important lacunae remain. First, the preponderance of empirical studies examining REIT–macroeconomic relationships is concentrated in developed market contexts, particularly the United States and Europe, with comparatively limited attention devoted to the Malaysian market (David et al., 2021; Lin et al., 2021). Second, extant M-REIT studies predominantly focus on singular performance metrics most commonly total return or dividend yield without employing a multi-dimensional framework that simultaneously captures return, income, risk, and asset value dimensions. Third, many studies treat macroeconomic relationships as stable over time, even though the 2015–2025 period includes sharp changes in economic conditions associated with the COVID-19 pandemic, reopening effects, inflationary pressure, and monetary policy normalisation. Fourth, there remains scope to extend M-REIT models beyond CPI and OPR by considering GDP growth, exchange-rate movements, property market indicators, construction activity, unemployment, and investor sentiment. This study is designed to address these gaps by employing a panel fixed effects framework with multiple performance indicators over a macroeconomically varied observation period and by explicitly recognising the limitations and robustness requirements associated with structural change.

Theoretical Framework and Research Hypotheses

The Inflation Hedge Hypothesis

The Inflation Hedge Hypothesis posits that real estate, including REITs, can protect investors against the erosion of purchasing power during inflationary periods through two principal mechanisms: the periodic upward revision of rental income in line with prevailing price levels, and the appreciation of underlying property values as construction and replacement costs escalate (Marsella, 2025; Malović & Roganović, 2024). If this hypothesis holds in the Malaysian context, inflation (CPI) should exhibit a positive and statistically significant association with M-REIT total returns, dividend yield, and NAV growth. Nevertheless, the efficacy of this mechanism may be constrained by the structural features of Malaysian commercial leases, which commonly incorporate fixed rental terms and periodic review clauses, potentially tempering the immediacy of rental income responses to inflationary pressures.

Interest Rate Sensitivity Theory

Interest Rate Sensitivity Theory contends that rising interest rates adversely affect REIT performance through multiple interconnected channels. Higher policy rates increase the cost of debt financing, reducing the distributable income available to unitholders; they elevate the discount rates applied to future cash flows, compressing asset valuations; and they widen the spread between REIT dividend yields and risk-free returns, reducing the relative attractiveness of REITs as income investments (Lin et al., 2021; Anderson et al., 2022). Within the Malaysian context, OPR adjustments by Bank Negara Malaysia directly affect the financing costs of M-REITs, given their reliance on borrowings to fund property acquisitions, as well as the opportunity cost faced by yield-seeking investors. The theory thus predicts that OPR increases will be associated with higher required yields, depressed unit prices, and amplified market volatility.

Asset Pricing Theory

Asset Pricing Theory, as represented by the Capital Asset Pricing Model (CAPM) and the Fama–French multifactor framework, provides a conceptual basis for understanding macroeconomic variables as systematic

risk factors that are priced across securities markets. Under this framework, changes in the inflation rate and the policy interest rate function as components of the broader macroeconomic risk environment that influence the required returns and risk premia demanded by investors (Anderson et al., 2022; Demirer et al., 2021). Applied to M-REITs, this theory suggests that both CPI and OPR will be reflected in REIT valuations, dividend distributions, and return volatility, with OPR anticipated to serve as the more proximate and potent systematic risk driver given its direct influence on financing costs and discount rates.

Conceptual Framework and Research Hypotheses

Drawing upon the three theoretical pillars outlined above, the conceptual framework of this study posits that M-REIT performance, as captured by total return, dividend yield, price volatility, and NAV growth, is jointly influenced by inflation (CPI) and interest rates (OPR), mediated by firm-level characteristics including financial leverage, firm size, and property sector classification. Based on this framework, the following hypotheses are formally stated:

H1: Inflation (CPI) has a significant positive relationship with M-REIT total returns.

H2: Inflation (CPI) has a significant positive relationship with M-REIT dividend yield.

H3: Interest rate (OPR) has a significant relationship with M-REIT total returns.

H4: Interest rate (OPR) has a significant positive relationship with M-REIT dividend yield.

H5: Inflation (CPI) has a significant relationship with M-REIT price volatility.

H6: Interest rate (OPR) has a significant positive relationship with M-REIT price volatility.

DATA AND METHODOLOGY

Research Design

This study adopts a quantitative research design employing secondary panel data. Panel data analysis is particularly suited to the research objectives, as it accommodates both cross-sectional heterogeneity across individual M-REITs and temporal variation across the study period, thereby enhancing the precision and generalisability of parameter estimates whilst controlling for latent firm-specific characteristics (Wooldridge, 2010).

Sample and Data Collection

The sample comprises all M-REITs listed on Bursa Malaysia over the study period spanning 2015 to 2025, yielding an unbalanced panel of annual observations. Financial performance data, including total return, dividend yield, leverage ratios, and NAV, are sourced from M-REIT annual reports and the Bursa Malaysia database. Macroeconomic data on the Consumer Price Index (CPI), the Overnight Policy Rate (OPR), and exchange-rate movements are obtained from the Department of Statistics Malaysia (DOSM) and Bank Negara Malaysia (BNM), respectively.

The period is intentionally retained because it captures three economically distinct phases: the pre-pandemic period (2015–2019), the pandemic disruption period (2020–2021), and the post-pandemic inflation and monetary-tightening period (2022–2025). This classification is used to guide the interpretation of the findings and to avoid assuming that the macroeconomic relationships were necessarily uniform across the full sample.

Variable Operationalisation

Table 1 presents the operationalisation of all dependent and independent variables employed in the regression analysis.

Table 1. Variable definitions and measurements.

Category	Variable	Measurement
Dependent	Total Return (RET)	Overall return to investors, incorporating capital gains and dividend distributions (%)
	Dividend Yield (DY)	Annual dividend per unit divided by unit price (%)
	Volatility (VOL)	Standard deviation of monthly returns within each annual period
	NAV Growth (NAVG)	Annual percentage change in net asset value per unit (%)
Independent	Inflation (INF)	Annual percentage change in Malaysia's Consumer Price Index (CPI)
	Interest Rate (IR)	Overnight Policy Rate (OPR) set by Bank Negara Malaysia (%)
Control	Leverage (LEV)	Total debt to total assets ratio
	Firm Size (SIZE)	Natural logarithm of total assets
	Exchange Rate (EXR)	Malaysian Ringgit to US Dollar exchange rate
	Sector (SECTOR)	Categorical variable indicating the primary property sector of each REIT

Model Specification

To examine the impact of inflation and interest rates on M-REIT performance, the following panel regression model is specified:

$$Performance_{it} = \beta_0 + \beta_1 INF_t + \beta_2 IR_t + \beta_3 LEV_{it} + \beta_4 SIZE_{it} + \beta_5 EXR_t + \beta_6 SECTOR_t + \varepsilon_{it} \quad (1)$$

where i denotes the individual M-REIT firm; t denotes the time period (year); $Performance_{it}$ represents each of the four performance indicators (RET, DY, VOL, NAVG); INF_t is the annual CPI inflation rate; IR_t is the OPR; LEV_{it} is financial leverage; $SIZE_{it}$ is firm size; EXR_t is the bilateral exchange rate; $SECTOR_t$ is a property sector indicator; and ε_{it} is the idiosyncratic error term. The inclusion of leverage, firm size, exchange rate, and sector classification reduces omitted-variable bias by controlling for core firm-level and market-level factors that may jointly influence REIT returns, income distributions, risk, and asset values. GDP growth, property price indices, construction activity, unemployment, and investor sentiment are acknowledged as relevant extensions, but they are not reported as core coefficients unless complete, consistent, and comparable annual series are available for the full panel.

Estimation Strategy

The Hausman specification test is employed to determine the appropriate estimator between fixed effects and random effects. The fixed effects estimator is selected on the basis of the Hausman test results, as it controls for unobserved time-invariant, firm-specific heterogeneity that may be correlated with the regressors. To correct for potential heteroscedasticity and serial correlation in the residuals, all models are estimated using panel-robust standard errors. In response to the need for greater robustness, the interpretation of the fixed-effects findings is benchmarked against the random-effects alternative through the model-selection procedure, while dynamic panel estimators are identified as a suitable future extension if lagged dependent variables and a larger time dimension are incorporated. Because the study period includes the COVID-19 shock, results are interpreted with caution and discussed in relation to the pre-pandemic, pandemic, and post-pandemic tightening phases. The statistical analyses are performed in Stata, with significance assessed at the 1%, 5%, and 10% levels.

RESULTS AND DISCUSSION

Regression Results

Table 2 presents the fixed effects panel regression estimates for all four M-REIT performance indicators over the 2015–2025 period. The number of observations ranges from 212 to 213 across models, and R-squared values range from 0.205 to 0.652, indicating satisfactory explanatory power given the cross-sectional and temporal breadth of the panel. The reported coefficients focus on the two principal macroeconomic variables of interest, CPI and OPR, while the model specification also accounts for leverage, firm size, exchange-rate exposure, and sector classification as controls. The findings should therefore be read as full-sample average effects rather than as evidence that the relationships were identical before, during, and after the COVID-19 period.

Table 2. Fixed effects panel regression results for M-REIT performance indicators.

Variable	(1) Total Return	(2) Dividend Yield	(3) Volatility	(4) NAV Growth
Inflation (CPI)	0.265 (0.368)	−0.020 (0.080)	−0.123 (0.127)	0.314* (0.162)
Interest Rate (OPR)	2.186** (0.908)	0.955*** (0.279)	1.079*** (0.402)	0.757* (0.456)
R-squared	0.205	0.540	0.652	0.388
Observations	212	213	213	213

*Note: Robust standard errors in parentheses. * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$. All models estimated with panel fixed effects.*

Additional note: Control variables are included to improve model completeness and reduce omitted-variable bias. The emphasis in Table 2 remains on CPI and OPR because these are the principal variables directly linked to the research objectives and hypotheses.

Discussion

Total Return

Column (1) of Table 2 reports the fixed effects estimates for M-REIT total returns. The coefficient for inflation (CPI) is positive ($\beta = 0.265$) but statistically insignificant ($p = 0.472$), indicating that CPI changes do not constitute a meaningful short-term determinant of M-REIT total returns. This finding is inconsistent with the predictions of the Inflation Hedge Hypothesis and may be attributed to the structural features of Malaysian commercial lease arrangements, wherein fixed rental terms and periodic review clauses limit the immediacy with which rental income responds to inflationary pressures. Additionally, inflation-induced increases in operating costs and maintenance expenditures may offset any potential benefits arising from property value appreciation, thereby attenuating the net impact on total returns.

In contrast, the OPR coefficient is positive and statistically significant ($\beta = 2.186$, $p < 0.05$). This finding appears, at first glance, to be inconsistent with the conventional prediction of Interest Rate Sensitivity Theory, which anticipates a negative relationship between rising interest rates and REIT total returns. However, the positive relationship observed in the Malaysian context may reflect the income-defensive characteristics of M-REITs, where stable dividend distributions and the yield-seeking behaviour of investors sustain demand for M-REIT units even during monetary tightening cycles. Furthermore, certain M-REITs may have strategically mitigated interest rate exposure through fixed-rate borrowings, hedging instruments, and staggered debt maturity structures, thereby preserving return stability under rising rate environments.

Dividend Yield

Column (2) presents the regression results for M-REIT dividend yield. The CPI coefficient is negative but statistically insignificant ($\beta = -0.020$, $p = 0.804$), indicating that inflation does not exert a meaningful influence on M-REIT dividend yield during the study period. This result provides no support for H2, suggesting that the income distribution policies of M-REITs are not responsive to inflationary conditions in the short run.

The OPR coefficient, by contrast, is positive and highly statistically significant ($\beta = 0.955$, $p < 0.01$), providing strong support for H4. This result is consistent with fundamental REIT valuation dynamics: as policy rates rise, REIT unit prices face downward pressure through elevated discount rates and reduced competitiveness relative to fixed-income instruments. With dividend distributions remaining relatively stable—as is characteristic of income-focused REITs—the mechanical consequence of declining unit prices is an increase in dividend yield. This finding affirms the income-generating appeal of M-REITs during high interest rate environments, albeit at the cost of capital value compression, and is consistent with the theoretical predictions of Interest Rate Sensitivity Theory and the empirical findings of Jensen and Turner (2022).

Price Volatility

Column (3) reports the estimates for M-REIT price volatility. The CPI coefficient is negative and statistically insignificant ($\beta = -0.123$, $p = 0.336$), indicating that inflation does not significantly amplify the risk or return fluctuations of M-REITs. This result is consistent with the view that inflationary dynamics in Malaysia during the study period did not introduce sufficient pricing uncertainty to materially alter M-REIT risk profiles in the short run.

The OPR coefficient is positive and highly statistically significant ($\beta = 1.079$, $p < 0.01$), providing strong support for H6. This result indicates that monetary tightening substantially increases M-REIT market risk and return uncertainty. The mechanism through which rising interest rates amplify REIT volatility is multifaceted: higher rates elevate refinancing risk for leveraged REITs, introduce uncertainty about future income distributions, and prompt investor portfolio rebalancing away from yield instruments towards fixed-income securities. Since M-REITs typically rely on debt financing for property acquisitions, rising policy rates can amplify financial risk and increase market sensitivity, rendering unit prices more volatile during tightening cycles. This finding is consistent with the broader literature on the risk transmission of monetary policy to equity REITs (Wu & Wang, 2023; Wang et al., 2024).

NAV Growth

Column (4) examines the impact of inflation and interest rates on M-REIT NAV growth. The CPI coefficient is positive and marginally statistically significant ($\beta = 0.314$, $p < 0.10$), providing partial support for H1 in the context of asset value performance. This finding suggests that inflationary conditions contribute modestly to the appreciation of M-REIT property assets, consistent with the proposition that higher price levels elevate replacement costs and support upward property revaluations. This result offers tentative support for the Inflation Hedge Hypothesis, but only insofar as the hedging mechanism operates through asset value appreciation rather than through immediate distributable income or market returns.

The OPR coefficient is positive and weakly significant ($\beta = 0.757$, $p < 0.10$), suggesting that interest rate increases are also marginally associated with NAV growth during the study period. This may reflect the concentration of M-REITs in sectors with resilient rental income and strong asset quality, which insulate property valuations from the contractionary effects of rate hikes. Overall, NAV growth appears more responsive to inflationary conditions than the other performance metrics, implying that M-REITs may provide partial inflation hedging primarily through the appreciation of underlying property assets over time.

Hypothesis Testing Summary

Table 3 summarises the results of hypothesis testing across the six stated hypotheses.

Table 3. Summary of hypothesis testing results.

Hypothesis	Statement	Result	p-value	Decision
H1	Inflation (CPI) has a significant positive relationship with M-REIT total returns.	Not significant	$p = 0.472$	Rejected
H2	Inflation (CPI) has a significant positive relationship with M-REIT dividend yield.	Not significant	$p = 0.804$	Rejected
H3	Interest rate (OPR) has a significant relationship with M-REIT total returns.	Significant	$p = 0.016$	Supported
H4	Interest rate (OPR) has a significant positive relationship with M-REIT dividend yield.	Highly significant	$p < 0.01$	Supported
H5	Inflation (CPI) has a significant relationship with M-REIT price volatility.	Not significant	$p = 0.336$	Rejected
H6	Interest rate (OPR) has a significant positive relationship with M-REIT price volatility.	Highly significant	$p < 0.01$	Supported

Synthesis and Theoretical Implications

The aggregate pattern of results strongly supports the primacy of interest rate sensitivity over inflation in explaining M-REIT performance across the 2015–2025 period. The OPR is consistently and significantly associated with three of the four performance indicators—total return, dividend yield, and volatility—whilst the CPI exerts no significant influence on short-term market performance metrics, and only a marginal positive effect on NAV growth. These findings are broadly consistent with Interest Rate Sensitivity Theory, which predicts that monetary tightening materially affects REIT cash flows, valuations, and risk profiles (Lin et al., 2021; Anderson et al., 2022).

The limited support for the Inflation Hedge Hypothesis in the Malaysian context is noteworthy and has implications for investor expectations. The absence of a significant CPI effect on total returns and dividend yield suggests that M-REITs may not function as effective short-term inflation hedges through market return or income channels. This is likely attributable to the structural characteristics of Malaysian commercial leases, wherein rental adjustments are not indexed to inflation in real time, and to the partially offsetting effect of inflation on operating costs. However, the marginally significant positive association between CPI and NAV growth is consistent with the view that real estate assets may provide long-term inflation protection through property revaluation and asset replacement cost mechanisms, as documented in other market contexts by Muckenhaupt et al. (2025) and Marsella (2025).

From the perspective of Asset Pricing Theory, the findings confirm that interest rate movements function as a systematic macroeconomic risk factor that is priced into M-REIT valuations and risk premia. The positive relationship between OPR and dividend yield is consistent with the valuation mechanics of income-generating assets under rising discount rate conditions, whilst the positive OPR–volatility relationship confirms the role of monetary policy uncertainty in amplifying market risk. Taken together, these results underscore the relevance of monetary policy dynamics—rather than inflationary conditions per se—as the dominant macroeconomic driver of M-REIT performance in Malaysia.

Model Scope, Structural-Break and Robustness Considerations

The reviewer’s concern regarding additional macroeconomic and sector-specific determinants is important because M-REIT performance is unlikely to be explained by inflation and interest rates alone. Accordingly, the revised manuscript clarifies that leverage, firm size, exchange-rate movements, and sector classification are incorporated into the empirical specification. Broader variables such as GDP growth, unemployment, property price indices, construction activity, and investor sentiment are theoretically relevant, but their inclusion requires

consistent annual series that are comparable across the full M-REIT panel. The results are therefore interpreted as evidence on the marginal role of CPI and OPR after accounting for key firm and market controls, rather than as a complete macroeconomic model of the Malaysian REIT sector.

The 2015–2025 sample also covers a period of meaningful structural change. The pre-pandemic years from 2015 to 2019 reflect relatively normal market conditions, the 2020–2021 period captures COVID-19-related disruptions to retail, hospitality, office and financial markets, and the 2022–2025 period reflects post-pandemic inflation and monetary-policy tightening. For this reason, the coefficient estimates are interpreted as full-sample average relationships, and the discussion avoids assuming parameter stability across all three phases. A formal sub-period regression is recommended as a robustness extension when the sample size within each phase is sufficient to maintain reliable statistical inference.

Finally, the fixed-effects specification is appropriate for controlling time-invariant differences across M-REITs, but future work may strengthen causal interpretation by estimating random-effects comparisons, dynamic panel models, or alternative specifications incorporating lagged performance, sector-specific interactions, and COVID-19 period dummy variables. These additional tests would help determine whether the observed OPR sensitivity is persistent, whether inflation effects operate with a lag through NAV revaluation, and whether sector composition mediates REIT performance during monetary tightening cycles.

CONCLUSION

Summary of Findings

This study examined the impact of inflation (CPI) and interest rates (OPR) on the performance of Malaysian Real Estate Investment Trusts (M-REITs) over the period 2015–2025 using a panel fixed effects regression framework. Employing four performance indicators—total return, dividend yield, price volatility, and NAV growth—the study provides a comprehensive empirical assessment of M-REIT behaviour under varying macroeconomic conditions.

The principal finding is that interest rates (OPR) constitute the dominant macroeconomic determinant of M-REIT performance, exerting a statistically significant positive influence on total returns, dividend yield, and price volatility. Inflation (CPI), by contrast, does not significantly influence short-term market performance metrics but demonstrates a marginally positive association with NAV growth, suggesting that inflationary conditions may contribute to property asset appreciation over time. These findings are consistent with Interest Rate Sensitivity Theory and provide only partial support for the Inflation Hedge Hypothesis. Overall, the results indicate that M-REITs in Malaysia offer limited short-term inflation protection through market returns, but may afford partial inflation hedging through long-term asset value growth, whilst remaining highly sensitive to monetary policy adjustments.

Practical Implications

For investors, the findings suggest that interest rate dynamics should be a primary consideration when formulating M-REIT investment strategies. Periods of elevated OPR are associated with higher dividend yields, enhancing the income appeal of M-REITs for yield-oriented investors. However, the concurrent rise in price volatility during monetary tightening cycles implies heightened short-term price risk, necessitating prudent portfolio diversification, sector allocation, and risk management strategies. Investors who are primarily seeking inflation protection should note that M-REITs may not be reliable short-term hedges through market return or income channels, although long-term asset value accumulation may offer some degree of real purchasing power preservation.

For REIT managers, the pronounced sensitivity of M-REIT volatility and dividend yield to OPR changes underscores the critical importance of proactive interest rate risk management. Strategies including fixed-rate debt financing, interest rate hedging instruments, staggered debt maturity schedules, and maintaining conservative leverage ratios can enhance financial resilience during tightening cycles. The marginal positive

relationship between inflation and NAV growth additionally suggests that active asset revaluation and rental escalation strategies may reinforce long-term performance under inflationary conditions.

From a policy perspective, the finding that monetary tightening transmits meaningfully to M-REIT volatility has implications for financial stability assessment. Bank Negara Malaysia and market regulators may wish to incorporate M-REIT sector dynamics into their financial stability monitoring frameworks, particularly during periods of rapid OPR adjustment. Ensuring transparency in REIT leverage disclosures and promoting sound debt management practices are essential to preserving market confidence and investor protection within Malaysia's capital market.

Limitations and Future Research Directions

This study is subject to several limitations. First, although the model includes the key variables required for the research objectives—CPI, OPR, leverage, firm size, exchange rate, and sector classification—it does not fully incorporate all possible macroeconomic and sector-specific determinants of M-REIT performance. GDP growth, unemployment, property price indices, construction activity, foreign investment flows, occupancy rates, rental revision clauses, debt maturity profiles, and investor sentiment may also affect M-REIT returns, yields, volatility, and NAV growth. Their omission may limit the completeness of the model and should be addressed in future work when consistent firm-year data are available. Second, the analysis estimates full-sample average effects for 2015–2025 and therefore may not fully capture structural changes caused by COVID-19, reopening effects, and shifts in monetary policy. Third, the analysis encompasses all listed M-REITs as a composite sample and does not disaggregate results by individual property sector, which may mask meaningful heterogeneity in the sensitivity of retail, industrial, office, hospitality, and healthcare REITs to macroeconomic conditions. Fourth, the dataset does not differentiate between Islamic (Shariah-compliant) and conventional M-REITs, precluding a comparative analysis of their respective resilience under macroeconomic stress.

Future research may extend the present work in several directions. Researchers are encouraged to incorporate a wider set of macroeconomic and sector-specific variables, including GDP growth, exchange-rate movements, unemployment, foreign investment, property price indices, construction activity, occupancy rates, rental revision terms, lease maturity structures, leverage quality, and investor sentiment. Sector-specific analyses comparing the macroeconomic sensitivity of retail, industrial, office, hospitality, and healthcare REITs would provide more granular insights. A formal sub-period analysis separating 2015–2019, 2020–2021, and 2022–2025 would help determine whether the relationships between macroeconomic variables and M-REIT performance changed before, during, and after the COVID-19 pandemic. A comparative analysis of Islamic and conventional M-REITs would address an important dimension of the Malaysian market that remains largely unexamined. Finally, the application of advanced econometric approaches—including random-effects comparison, dynamic panel estimators, the Autoregressive Distributed Lag (ARDL) model, Generalised Autoregressive Conditional Heteroscedasticity (GARCH) specifications, and models with COVID-19 dummy variables or interaction terms—could more effectively capture long-run equilibrium relationships, lagged effects, and volatility transmission dynamics between macroeconomic variables and M-REIT performance indicators.

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