

The Primacy of Stability over Growth: Macroeconomic Drivers of Shariah-Compliant Equity Performance in Emerging Asia.

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Abstract

Whether macroeconomic growth or stability is more closely associated with Shariah-compliant equity performance remains an open question in Islamic finance research. This study provides multi-country evidence using a fixed-effects panel model motivated by Arbitrage Pricing Theory and an approximately balanced panel of seven major emerging Asian economies: Bangladesh, India, Indonesia, Malaysia, Pakistan, Saudi Arabia, and Turkey, over 2016-2023. The results show a consistent pattern in favour of stability-oriented factors. The real effective exchange rate, inflation, and the reserves-to-external-debt ratio are each significantly and positively associated with the level of the Shariah index, whereas FDI, trade openness, and remittances are statistically insignificant. This pattern is consistent with, but does not formally test, a “decoupling effect” in which Shariah indices appear less responsive to conventional growth channels. Stock market turnover, treated as a financial-market-conditions variable rather than a growth variable, is the only non-stability indicator that remains significant, consistent with a liquidity effect. Because growth- and stability-oriented variables are measured on different scales, the comparison is based on the consistency of statistical significance rather than coefficient size. The findings therefore indicate that macroeconomic stability is at least as important as growth for Shariah-compliant equity performance in the sampled markets. This conclusion remains subject to the reduced-form, levels-based dependent variable, limited statistical power relative to the number of parameters, and unaddressed endogeneity.

Keywords: *Shariah-Compliant Indices; Islamic Finance; Macroeconomic Stability; Economic Growth; Emerging Markets; Panel Data; Arbitrage Pricing Theory.*

1. Introduction

Global capital markets are entering a period in which ethical investing is no longer a peripheral preference but a structural force reshaping where capital flows. At the centre of this shift sit Shariah-compliant equity indices, which exclude interest-based activity, excessive speculation, and non-compliant sectors such as gambling and alcohol, and which have moved from a niche religious instrument to a major, well-defined asset class commanding the attention of mainstream investors (Derigs & Marzban, 2008). Yet for an asset class of this scale, a fundamental question remains strikingly unsettled: what actually moves Shariah-compliant equity prices? Because their composition is anchored in real economic activity rather than leveraged or interest-bearing instruments, these indices may respond to a different hierarchy of

macroeconomic forces than conventional equities do; a possibility the literature has raised repeatedly but never resolved with rigorous, comparative evidence.

The macroeconomic determinants of conventional equities are well established (Chen et al., 1986), but the evidence for Shariah-compliant indices is mixed. Several single-country studies report that growth-oriented drivers such as GDP expansion, foreign direct investment, and trade flows significantly shape Shariah index performance (Alfaro et al., 2004). Others argue that ethical screening weakens exposure to conventional growth channels and heightens sensitivity to stability-oriented forces such as exchange rates and inflation, a pattern labelled the “decoupling effect” (Cevik et al., 2024; Dewandaru et al., 2015). This disagreement concerns the nature of Shariah-compliant equities as an asset class. It persists partly because the evidence is often confined to single countries or treats macroeconomic variables as an undifferentiated block. To the authors’ knowledge, no study has directly compared growth and stability drivers across multiple markets to determine which category shows the more consistent relationship with performance.

This study addresses the gap by providing direct multi-country evidence from seven major emerging Asian economies: Bangladesh, India, Indonesia, Malaysia, Pakistan, Saudi Arabia, and Turkey, over 2016–2023. Using a fixed-effects panel model informed by Arbitrage Pricing Theory (Ross, 1976), the study compares growth-oriented and stability-oriented macroeconomic drivers within a single empirical framework. Its main contribution is to show which set of factors has a more consistent relationship with Shariah-compliant equity performance across the sampled markets. The comparison is based on patterns of statistical significance rather than raw coefficient size because the variables are measured on different scales. The findings also offer practical insights for investors and policymakers by identifying the macroeconomic conditions most closely associated with Shariah-compliant equity performance.

2. Theoretical Framework

The framework is organised as a layered structure rather than four co-equal, independently tested theories. Arbitrage Pricing Theory and Islamic Finance Theory provide the primary explanatory logic: the first motivates a multifactor macro-financial specification, while the second explains why growth and stability channels may matter differently for Shariah-compliant firms. Buffer Stock Theory is used only to motivate the reserves-to-external-debt variable, and Prospect Theory is used as an interpretive lens in Section 7 rather than as a tested theory. Figure 1 presents this structure.

2.1. Arbitrage Pricing Theory

The study is motivated by Arbitrage Pricing Theory (APT), a multifactor asset-pricing model (Ross, 1976) that accommodates a range of macroeconomic risk factors (Chen et al., 1986). This flexibility is relevant to Islamic equities, which face systemic influences that may differ from conventional markets (Burmeister & Wall, 1986). Prior work also shows that macroeconomic factors affect Islamic indices, supporting an APT-style multifactor logic in this context (Mensi, Hammoudeh, Sensoy, et al., 2017; Yusof & Majid, 2007). One qualification is important. Canonical APT models returns and risk premia, whereas this study uses the log level of the Shariah index as the dependent variable. APT therefore motivates the choice and grouping of macroeconomic factors; the estimated model is not presented as a strict test of risk-premia pricing in the Chen, Roll, and Ross (1986) sense.

2.2. Islamic Finance Theory and the Decoupling Rationale

APT alone does not explain why growth and stability drivers may relate differently to performance. Islamic Finance Theory adds this logic by prohibiting *riba* (interest) and *gharar* (excessive uncertainty) while promoting asset-backing and real economic activity (Chapra, 2000). This orientation steers Shariah-compliant firms toward real-economy sectors and away from highly leveraged, interest-based finance. It may therefore weaken their link to speculative or debt-driven growth channels while increasing sensitivity

to long-run predictability and resilience (Dewandaru et al., 2014). This reasoning underpins the decoupling hypothesis discussed in Section 7.4, where the limits of the present test are also stated.

2.3. Buffer Stock Theory and Prospect Theory: Two Narrower, Supporting Roles

Two further theories have narrower roles than APT and Islamic Finance Theory. Foreign reserves are grounded in Buffer Stock Theory (Aizenman & Marion, 2003), which holds that adequate reserves help central banks stabilise the currency and absorb external shocks, thereby lowering country risk premia and supporting investor confidence (Ranciere & Jeanne, 2006). This role is relevant to Shariah-compliant investors who prioritise capital preservation. Buffer Stock Theory therefore justifies the inclusion and interpretation of the reserves-to-external-debt variable rather than the whole empirical model.

Prospect Theory provides a complementary behavioural lens but is not empirically tested. Investors are loss-averse and may react more strongly to losses than to equivalent gains (Barberis et al., 2021). In volatile emerging markets, currency depreciation or rising inflation may therefore trigger stronger adverse reactions. Prospect Theory is used only to interpret the discussion in Section 7.1, and Figure 1 distinguishes this interpretive role from the tested framework.

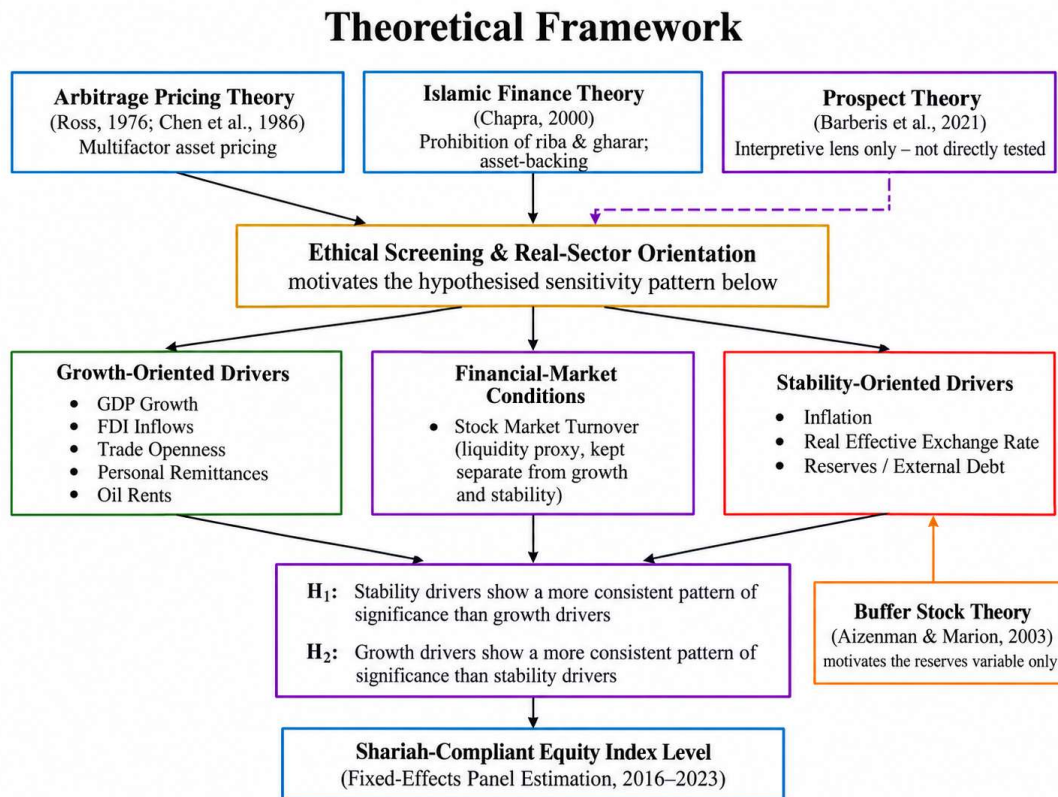


Figure 1. Theoretical Framework Linking Theory, Macroeconomic Drivers, and Shariah Index Performance

Figure 1 shows that Arbitrage Pricing Theory and Islamic Finance Theory provide the main theoretical foundation for explaining Shariah-compliant equity responses to macroeconomic conditions. Buffer Stock Theory supports the role of foreign reserves, while Prospect Theory is used only as an interpretive lens. As discussed in Sections 4.2 and 5.2, stock market turnover is treated separately as a financial-market condition. The framework therefore supports the comparison of growth- and stability-oriented drivers of Shariah-compliant equity performance.

3. Literature Review

3.1. Growth-Oriented Macroeconomic Drivers and Equity Performance

Research has examined how growth-oriented macroeconomic indicators shape equity performance. GDP growth, FDI, trade openness, and remittances are common proxies for productivity, capital formation, and global competitiveness (Alfaro et al., 2004; Fama, 1981). Some studies report a positive relationship between GDP growth and broader equity-market performance (Alfaro et al., 2004), but the evidence is not uniform. Malaysian evidence reports a significant negative relationship between GDP and Islamic stock performance, showing that stronger aggregate growth does not necessarily translate into higher Shariah-equity performance (Kong et al., 2025). Dewandaru et al. (2015) likewise show that Islamic equity behaviour can differ from conventional market expectations.

Evidence on FDI is also mixed. Alfaro et al. (2004) show that FDI can enhance productivity and equity returns in recipient sectors, while Zulkhibri (2018) identifies an “FDI quality dilemma” in which unstable regulation can obscure this relationship. Dewandaru et al. (2015) further note that FDI directed toward non-compliant sectors can weaken the link between aggregate FDI growth and Shariah index performance. Trade openness is similarly ambiguous. Yusof and Majid (2007) show that greater openness increases exposure to global shocks, while Zainuddin et al. (2022) show that COVID-19 affected Malaysia’s bilateral exports unevenly across product categories. The effect of openness is therefore context-dependent. Ahmed and Elsayed (2019) find that remittances can boost consumption and aggregate demand, but their effect on Shariah-specific indices may depend on how inflows enter the formal financial sector. Oil rents can support equity performance in rentier economies but may be inflationary for oil-importing nations (Naifar et al., 2020).

Stock market turnover is treated as a financial-market-conditions indicator rather than a growth variable (Sections 4.2 and 5.2). It directly captures liquidity, which lowers transaction costs and improves capital mobility in both Islamic and conventional equity markets (Aziz et al., 2023; Levine & Zervos, 1998). Liquidity can also transmit volatility across asset classes. The literature on cross-market spillovers therefore cautions that liquidity-driven relationships may weaken or reverse during periods of market stress (Mensi, Al-Yahyaee, et al., 2017), a point revisited in Section 6.4.

3.2. Stability-Oriented Macroeconomic Drivers and Equity Performance

A parallel and increasingly influential literature emphasises stability-oriented indicators; inflation, exchange rates, and foreign reserves; as important determinants of equity resilience (Fama, 1981; Geske & Roll, 1983). Fischer (1993) establishes the classical view that high inflation erodes real returns and amplifies uncertainty, depressing equity performance; other scholars counter that the real-sector orientation of Shariah-compliant firms can provide a partial inflation hedge, a position directly disputed by Naifar and Al Dohaiman (2013), who emphasise the rigidity imposed by Shariah screening rules. It is worth being precise about what a positive empirical relationship between inflation and index performance would and would not show: it would not indicate that inflation itself represents greater macroeconomic stability; inflation remains, by definition, a symptom of price instability; but it could indicate that the index exhibits some capacity for nominal pass-through. This distinction is carried through into the interpretation of results in Section 6.3.

Exchange-rate effects are also contested. Evidence from Turkey shows that central-bank interest-rate decisions, often used partly to defend the currency, affect equity-index returns (Yılmaz, 2022). Cevik et al. (2024), by contrast, argue that the defensive sector composition and lower currency exposure of Shariah indices may reduce this sensitivity. In this study, the real effective exchange rate (REER) follows the IMF International Financial Statistics convention in which a rise denotes real appreciation. This convention is stated because some databases define the index in the opposite direction, which would reverse the sign interpretation.

Foreign reserves are central to this literature. Consistent with Buffer Stock Theory, Aizenman and Marion (2003) and Ranciere and Jeanne (2006) show that higher reserves can support currency stability, reduce crisis risk, lower country risk premia, and strengthen investor confidence. Ranciere and Jeanne (2006) also model an optimal reserve threshold, implying that the marginal benefit of additional reserves may be non-linear. Stability-oriented variables are therefore theoretically well grounded and empirically relevant, but, to the authors' knowledge, they have not been tested directly alongside growth-oriented variables in a single multi-country model.

3.3. Shariah-Compliant Equity Markets within the Islamic Finance Literature

Related EJBM evidence from Thailand also shows that acceptance of Islamic financial institutions depends on social, religious, and confidence-based conditions, reinforcing the value of treating Islamic finance as institutionally distinctive rather than as a simple extension of conventional finance (Salaemae & Hassan, 2023).

A separate but complementary literature documents the structural features that distinguish Shariah-compliant equities from conventional benchmarks. Derigs and Marzban (2008) characterise Shariah screening as a well-defined, rules-based process that systematically excludes interest-based instruments and non-compliant sectors, while Chapra (2000) and Iqbal and Mirakhor (2011) root this screening in the broader objectives of Islamic economics: risk-sharing, asset-backing, and the avoidance of gharar. Hassan and Aliyu (2018) extend this view to Islamic banking more broadly, arguing that similar ethical principles shape the risk-return profile of Islamic financial institutions and, by extension, Islamic equities. Within this literature, Mensi, Hammoudeh, Sensoy, et al. (2017) provide direct empirical support for the relevance of macroeconomic factor models; such as APT; to Islamic equity indices, while Dewandaru et al. (2014) show that Islamic and conventional indices co-move differently across time scales, reinforcing the idea that Shariah-compliant markets warrant dedicated analysis rather than a borrowed conventional framework. This study builds on that foundation by comparing, within a single multi-country panel, which category of macroeconomic forces; growth, stability, or financial-market conditions; shows the more consistent relationship with performance, while treating the question of whether this pattern is structurally distinctive to Shariah indices (i.e., true “decoupling” relative to conventional equities) as a related but separate question addressed in Section 7.4.

4. The Growth-Stability Debate and Hypothesis Development

4.1. The Unresolved Debate

The literature reviewed in Section 3 reveals a genuine and unresolved debate rather than a simple gap in coverage. For every study reporting a significant growth effect, a comparably credible study reports a null or contradictory result; a similar back-and-forth holds, in reverse, for several stability indicators. This pattern is not confined to one variable or one country; it recurs across GDP growth, FDI, trade openness, remittances, inflation, exchange rates, and reserves alike; which is why a direct, multi-country comparative test is valuable, rather than another single-country case study. Table 1 synthesises this debate by setting the supporting and contradictory evidence for each driver side by side; stock market turnover is listed separately under “Financial-Market Conditions” rather than under growth drivers, consistent with the reclassification explained in Section 5.2.

Table 1. The Unresolved Debate on Macroeconomic Drivers of Shariah Indices

Driver Category	Macroeconomic Factor	Supporting Evidence	Contradictory / Qualifying Evidence
Growth Drivers	GDP Growth	Positive impact on regional equity performance (Alfaro et al., 2004)	Negative relationship between GDP and Malaysian Islamic stock performance (Kong et al., 2025)
	FDI	Enhances productivity in compliant sectors (Alfaro et al., 2004)	Unstable regulation can obscure the impact (Zulhibri, 2018)

	Trade Openness	Can enhance market efficiency and capital mobility (general trade-integration literature)	Increases exposure to global shocks; heterogeneous effects across products during crises (Yusof & Majid, 2007; Zainuddin et al., 2022)
	Remittances	Boosts consumption and demand (Ahmed & Elsayed, 2019)	Effect varies across countries depending on financial-sector channelling
Financial-Market Conditions	Stock Turnover	Improves liquidity and price discovery (Levine & Zervos, 1998)	Liquidity-driven relationships can weaken or reverse during volatility spillovers (Mensi, Al-Yahyaee, et al., 2017)
Stability Drivers	Inflation	Reduces real returns (Naifar & Al Dohaiman, 2013)	Shariah screening may constrain or complicate the inflation response (Naifar & Al Dohaiman, 2013)
	Exchange Rate	Currency pressure may prompt capital flight and defensive monetary tightening (Yilmaz, 2022)	Can improve export competitiveness; Shariah indices may be less exposed (Cevik et al., 2024)
	Reserves	Protects against volatility (Aizenman & Marion, 2003)	Effect may be non-linear beyond an optimal threshold (Ranciere & Jeanne, 2006)
	Oil Rents	Supports rentier economies (Naifar et al., 2020)	Inflationary for oil-importing nations

4.2. Hypothesis Development

Taken together, the evidence suggests that growth-oriented drivers (GDP, FDI, trade openness, remittances) exert a mixed, context-dependent influence that may be diluted by the ethical structure of Shariah-compliant sectors, whereas stability-oriented drivers (inflation, exchange rate, reserves) show a theoretically grounded and increasingly consistent influence in the literature. While numerous studies confirm that macroeconomic factors matter for Shariah indices in general, none, to the authors' knowledge, has directly compared the two categories within a unified multi-country framework. This study addresses that gap by testing two competing hypotheses:

H₁: *Stability-oriented macroeconomic drivers are associated with a more consistent pattern of statistically significant effects on Shariah index performance than growth-oriented drivers in emerging Asian economies.*

H₂: *Growth-oriented macroeconomic drivers are associated with a more consistent pattern of statistically significant effects on Shariah index performance than stability-oriented drivers in emerging Asian economies.*

A methodological clarification is necessary at the outset, because it shapes how H₁ and H₂ are evaluated throughout the remainder of the study. Growth- and stability-oriented variables in this dataset are measured on different scales; percentage points (GDP growth, FDI, remittances, inflation), a ratio (oil rents), and natural logarithms of indices (trade openness, exchange rate, reserves-to-debt). Because a coefficient's magnitude is a function of both the underlying relationship and the variable's measurement scale, comparing raw coefficient sizes across categories (for example, concluding that a coefficient of 0.636 indicates a "more important" driver than a coefficient of 0.239) is not, on its own, statistically defensible. Section 5.3 sets out the criterion used instead: the consistency of statistical significance within each category.

5. Methods

5.1. Data and Sample

The study uses an approximately balanced panel of seven major emerging Asian economies; Bangladesh, India, Indonesia, Malaysia, Pakistan, Saudi Arabia, and Turkey; over 2016-2023 (56 country-year cells in principle). One country-year cell had to be dropped from estimation because the corresponding Shariah-index value was unavailable for that year, leaving N = 55 usable observations. This shortfall is reported explicitly here, and consistently throughout the paper (including the Abstract and Table 4), to avoid the

inconsistency between the intended panel size and the estimation sample. These seven countries represent active, well-established segments of Asia's Islamic finance sector, and the sample window spans major global shocks, including post-2014 commodity-price adjustments, the COVID-19 pandemic, and the subsequent monetary-policy normalisation, providing a rich setting for analysing macroeconomic influence; while also introducing common shocks that are addressed as a limitation in Section 5.4.

The dependent variable, each country's annual Shariah-compliant stock index, was obtained from Investing.com. Independent variables were sourced from the World Bank's World Development Indicators (WDI) and the IMF's International Financial Statistics (IFS) databases (World Bank, 2024; International Monetary Fund, 2024).

5.2. Variable Measurement

The dependent variable was log-transformed to address scale variation and facilitate coefficient interpretation (Gujarati & Porter, 2009; Wooldridge, 2010). A clarification on this variable is necessary and is stated explicitly here because it affects how every result in Section 6 should be read. As Table 2 shows, Y_{it} is the natural logarithm of the level of each country's national Shariah-compliant equity index; not a return, and not a log-difference. Because Arbitrage Pricing Theory is, in its canonical form, a model of returns and risk premia (Ross, 1976; Chen et al., 1986), estimating the level of the index rather than its return is a meaningful specification choice with direct implications for interpretation. Under the fixed-effects estimator, each coefficient captures the association between within-country changes in a macroeconomic variable and within-country changes in the log level of the index over time; this is informative about the same directional relationships APT would predict for returns, but it is not itself a test of risk premia or a factor-sensitivity model in the strict Chen, Roll, and Ross (1986) sense. The model is therefore best described as an APT-motivated, reduced-form macro-financial specification of index levels rather than a canonical APT returns regression. A companion specification estimated on annual log-differences of the index (i.e., $\Delta \ln(\text{index})_{it}$, an approximation of returns) would provide a stricter test of the APT mechanism; this is identified in Section 8 as a priority extension that could not be completed within the scope of the present data collection, and every result below should be read with this scope condition in mind.

Independent variables are grouped into three categories rather than two. Growth-oriented indicators (GDP growth, FDI, trade openness, personal remittances, and oil rents) proxy channels of real economic expansion, capital formation, or external revenue generation. Stability-oriented indicators (inflation, exchange rate, and total reserves to external debt) proxy the credibility and predictability of the monetary and macroeconomic environment. Stock market turnover is treated as a separate, third category; financial-market conditions; because it reflects market liquidity and microstructure rather than either real-economy growth or macroeconomic stability; grouping it with growth variables would conflate two conceptually distinct channels. Table 2 details each variable's operationalisation, source, and category.

Three further classification issues deserve explicit comment, because they affect how the results in Section 6 should be interpreted. First, a positive estimated coefficient on inflation does not imply that higher inflation itself constitutes greater macroeconomic stability; inflation remains, by definition, an indicator of price instability. Such a coefficient instead speaks to whether the Shariah index exhibits a degree of nominal pass-through or inflation-hedging behaviour, a distinct empirical question addressed in Section 6.3. Second, the real effective exchange rate (REER) index used here follows the IMF IFS convention in which a rise denotes real appreciation of the domestic currency; the direction of interpretation would reverse under databases that define the index inversely, and this convention is stated explicitly to avoid ambiguity. Third, the reserves-to-external-debt ratio is properly understood as a measure of external liquidity and solvency; its use here as a broader proxy for macroeconomic stability follows Buffer Stock Theory's logic that adequate reserves are a precondition for currency and financial stability (Aizenman & Marion, 2003; Ranciere & Jeanne, 2006), but this is an indirect, theory-mediated link rather than a direct equivalence, and it is treated as such in Section 7.

Table 2. Variable Description, Category, and Data Sources

Variable	Symbol	Description	Category / Source	Transformation
Shariah Index (dependent)	ln_sharia	Natural log of the level of the national Shariah-compliant equity index (level, not return)	Dependent — Investing.com	Log
GDP Growth	gdp_g	Annual % growth of real GDP	Growth — World Bank WDI	None
FDI Inflows	fdi	Net FDI inflows (% of GDP)	Growth — World Bank WDI	None
Trade Openness	ln_tr	Log of (Exports + Imports) (% of GDP)	Growth — World Bank WDI	Log
Personal Remittances	rem	Personal remittances received (% of GDP)	Growth — World Bank WDI	None
Oil Rents	oil	Total oil rents (% of GDP)	Growth — World Bank WDI	None
Stock Turnover	ln_st	Log of total value of stocks traded (% of GDP)	Financial-Market Conditions — World Bank WDI	Log
Inflation	inf	Annual % change in consumer price index	Stability — IMF IFS	None
Exchange Rate	ln_ex	Log of real effective exchange rate index (rise = real appreciation)	Stability — IMF IFS	Log
Reserves to Debt	ln_rsd	Log of total reserves (% of external debt)	Stability — World Bank WDI	Log

5.3. Model Specification

Model choice followed a deliberate, sequential diagnostic procedure rather than a default assumption, so that the final specification is defensible on statistical as well as theoretical grounds. First, a Lagrange Multiplier (Breusch–Pagan) test was used to determine whether the panel structure of the data was statistically meaningful; the test rejected pooled OLS in favour of a panel-data approach, indicating that unobserved heterogeneity across the seven countries needed to be modelled explicitly rather than ignored. Second, having established that a panel approach was warranted, a Hausman test was used to choose between random-effects and fixed-effects estimators. The test rejected the random-effects model ($\chi^2 = 42.49$, $p < .001$), indicating that the assumption underlying random effects; that country-specific characteristics are uncorrelated with the regressors; does not hold in this sample. This is theoretically plausible: a country's regulatory regime, depth of Islamic finance infrastructure, and monetary-policy credibility are unlikely to be independent of its inflation, exchange-rate, or reserve behaviour. The fixed-effects (FE) estimator was therefore adopted, as it absorbs time-invariant country-specific characteristics (α_i) and isolates the within-country variation linking changes in macroeconomic conditions to changes in the log level of the Shariah index over time (Baltagi & Baltagi, 2008; Wooldridge, 2010). The baseline specification is:

$$Y_{it} = \alpha_i + \beta_1 GDPg_{it} + \beta_2 FDI_{it} + \beta_3 TradeOp_{it} + \beta_4 Remits_{it} + \beta_5 OilRents_{it} + \delta \cdot ln(St)_{it} + \gamma_1 Inf_{it} + \gamma_2 ln(Exch)_{it} + \gamma_3 ln(Rsd)_{it} + \varepsilon_{it}$$

where Y_{it} is the natural log of the level of the Shariah index for country i at time t (Section 5.2), α_i is the country-specific fixed effect that absorbs unobserved, time-invariant heterogeneity (e.g., regulatory depth, Shariah governance infrastructure), the vector β contains the coefficients for the five growth-oriented variables, δ is the coefficient on the single financial-market-conditions variable (stock turnover), the vector γ contains the coefficients for the three stability-oriented variables, and ε_{it} is the idiosyncratic error term.

Testing H_1 against H_2 requires care because β and γ are measured on different scales, as noted in Section 4.2. A coefficient's magnitude reflects both the strength of the underlying relationship and the scale of

the variable, so a direct comparison such as “ $\beta = 0.636$ is larger than $\beta = 0.239$, therefore the exchange rate matters more than stock turnover” is not statistically defensible on its own (Wooldridge, 2010). Formally establishing that one category’s effects are larger than another’s would require either standardising all variables to a common scale before estimation, or conducting a Wald test of the joint equality of appropriately normalised coefficients across the two vectors. Neither standardisation nor a Wald test was implemented in the present analysis; this is stated plainly here and flagged again as a priority extension in Section 8.3. Consequently, H_1 versus H_2 is evaluated in this study using a more conservative criterion: the consistency of statistical significance within each category, rather than the relative size of coefficients. Coefficient magnitudes are still reported and discussed in Section 6, but only to characterise the estimated relationships; not to rank the growth and stability categories against one another.

5.4. Estimation and Robustness

Four diagnostic tests were run before the baseline results were interpreted, each targeting a specific threat to inference in panel data. Multicollinearity among the nine independent variables was assessed using the Variance Inflation Factor (VIF); a mean or maximum VIF substantially above the conventional threshold of 10 (or the more conservative threshold of 5 used here) would indicate that coefficient estimates are unstable because regressors are too closely related to one another (O’Brien, 2007). Serial correlation; the risk that a country’s error term in one year is correlated with its own error term in the next, which would bias standard errors downward and inflate significance; was tested using the Wooldridge test for autocorrelation in panel data (Wooldridge, 2010). Cross-sectional dependence; the risk that shocks in one country spill over and contaminate another country’s error term in the same year; was tested using Pesaran’s CD test (Pesaran, 2007). Finally, because panel data routinely exhibit heteroskedasticity, robust (country-clustered) standard errors were used throughout the estimation.

It is important to be precise about what this diagnostic battery does and does not establish. The Lagrange Multiplier and Hausman tests justify the choice of a fixed-effects estimator over pooled OLS and random effects, respectively; the VIF, Wooldridge, and Pesaran CD tests rule out multicollinearity, first-order serial correlation, and cross-sectional dependence specifically; and clustering standard errors guards against heteroskedasticity. None of these tests, individually or jointly, establishes the absence of omitted-variable bias, unmodelled structural breaks, or endogeneity. These are separate concerns, discussed explicitly below and revisited in Section 8.3, rather than assumed away by the diagnostic battery.

A further concern is endogeneity. The baseline specification treats the nine macroeconomic variables as regressors and Shariah index performance as the outcome, but several of these relationships plausibly run in both directions; FDI inflows, for example, may respond to equity-market performance as much as drive it, so reverse causality of this kind could bias the estimated FDI coefficient. Country fixed effects absorb time-invariant confounders, but they do not address time-varying endogeneity. Because a suitable set of external instruments for each potentially endogenous regressor was not available within the scope of the present data collection, the results reported in Section 6 should be interpreted as robust within-country associations rather than as clean causal effects. A dynamic panel GMM approach (e.g., Arellano–Bond) or an instrumental-variables strategy is identified in Section 8.3 as an appropriate next step for stronger causal identification.

Time fixed effects were not included in the baseline specification reported in Table 4. This is a meaningful omission given that the sample period (2016–2023) exposed all seven economies simultaneously to common shocks; the COVID-19 pandemic, associated commodity-price swings, and the post-pandemic global monetary-tightening cycle; any of which could be partly absorbed by variables such as the exchange rate or inflation if not modelled explicitly at the year level. A year-fixed-effects version of Table 4 is identified in Section 8.3 as an essential robustness check that could not be completed within the scope of the present analysis; readers should treat the magnitude of the stability coefficients, in particular, as potentially reflecting some common time-varying shock component until this check is performed.

6. Results

The fixed-effects estimation shows a pattern consistent with H_1 : stability-oriented factors exhibit a more consistent statistical relationship with Shariah-compliant equity performance than growth-oriented factors in this sample. This section first reports the diagnostic tests that support the validity of the fixed-effects specification; and states plainly what they do not establish; before presenting and interpreting the baseline regression results.

6.1. Diagnostic Tests

Table 3 summarises each diagnostic test, its purpose, the resulting statistic, and the decision it supports. The Lagrange Multiplier test indicated that a panel-data approach was preferable to pooled OLS, and the Hausman test rejected the random-effects model in favour of fixed effects ($\chi^2 = 42.49$, $p < .001$). Subsequent checks indicated that the fixed-effects model was free of several specific statistical problems: the mean Variance Inflation Factor of 3.03 (maximum 5.51) ruled out problematic multicollinearity, the Wooldridge test ($F(1,6) = 2.154$, $p = .193$) ruled out first-order serial correlation, and Pesaran's CD test ($CD = 0.791$, $p = .429$) ruled out cross-sectional dependence across the seven countries. Robust, country-clustered standard errors were used throughout to guard against heteroskedasticity. As emphasised in Section 5.4, these results support the internal statistical soundness of the fixed-effects specification with respect to the specific problems each test targets; they do not, on their own, rule out omitted-variable bias, structural breaks, or endogeneity, which are addressed as limitations in Section 8.3.

Table 3. Summary of Diagnostic Tests and Model Validation

Diagnostic Test	Purpose	Test Statistic	Decision
Lagrange Multiplier (Breusch–Pagan) Test	Determines whether a panel-data approach is preferable to pooled OLS	Significant	Panel approach favoured
Hausman Test	Chooses between random-effects and fixed-effects estimators	$\chi^2 = 42.49$, $p < .001$	Fixed effects preferred
Variance Inflation Factor (VIF)	Detects multicollinearity among independent variables	Mean = 3.03; Max = 5.51	No problematic multicollinearity
Wooldridge Test	Detects first-order serial (auto)correlation in panel residuals	$F(1,6) = 2.154$, $p = .193$	No serial correlation detected
Pesaran CD Test	Detects cross-sectional dependence across countries	$CD = 0.791$, $p = .429$	No cross-sectional dependence detected

6.2. Baseline Fixed-Effects Results

Table 4 reports the baseline fixed-effects regression results comparing growth-oriented, financial-market-conditions, and stability-oriented macroeconomic drivers of the Shariah index level.

Table 4. Baseline Fixed-Effects Regression Results

Variable	Category	Coefficient	Robust S.E.
GDP Growth	Growth	0.0136	(0.0078)
FDI	Growth	−0.0288	(0.0291)
Trade Openness (ln)	Growth	−0.170	(0.333)
Remittances	Growth	−0.0181	(0.0476)
Oil Rents	Growth	0.00661	(0.0165)
Stock Turnover (ln)	Financial-Market Conditions	0.239***	(0.0642)
Exchange Rate (ln)	Stability	0.636***	(0.171)
Inflation	Stability	0.00984*	(0.0048)
Reserves/Debt (ln)	Stability	0.00630*	(0.0026)
Constant	—	5.822***	(1.234)

Notes: $N = 55$; R^2 (within) = 0.752. Significance: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. “Stability” and “Financial-Market Conditions” are reported as separate categories (Section 5.2); stock turnover is not classified as a growth variable in this specification.

6.3. The Consistency of Stability Drivers

Among stability-oriented variables, the exchange rate shows the largest estimated coefficient and a highly significant relationship with the Shariah index ($\beta = 0.636$, $p < 0.001$). In economic terms, a 1% real appreciation in the effective exchange rate is associated with a 0.636% increase in the log level of the Shariah index. Given the scale-comparability issue discussed in Sections 4.2 and 5.3, this magnitude is reported descriptively, to characterise the estimated relationship, and should not be read as formal evidence that the exchange rate is a “stronger” driver than, say, stock turnover; the comparison across categories in this study rests on the pattern of statistical significance (Section 6.5), not on relative coefficient size. Substantively, the result is consistent with currency predictability being an important macroeconomic condition for Shariah-compliant firms, particularly those in import-dependent sectors such as pharmaceuticals and technology that may absorb the cost impact of depreciation (Cevik et al., 2024).

Inflation is also positive and significant ($\beta = 0.00984$, $p < 0.05$). As noted in Section 5.2, this does not mean that inflation represents greater macroeconomic stability. It suggests that the Shariah index may exhibit some nominal pass-through, consistent with the real-sector orientation of asset-backed firms. The reserves-to-debt ratio is likewise positive and significant ($\beta = 0.00630$, $p < 0.05$), consistent with Buffer Stock Theory’s prediction that stronger external liquidity is associated with lower country risk (Aizenman & Marion, 2003). This ratio more directly measures external liquidity and solvency, so its link to broader “stability” remains theory-mediated. Together, the three stability variables are significant and signed in the expected direction. This consistency, rather than any single coefficient, underpins the conclusion in Section 6.5.

6.4. The Limited and Uneven Role of Growth and Financial-Market Variables

Growth-oriented variables; now excluding stock turnover, reclassified in Section 5.2 as a financial-market-conditions variable; are, almost without exception, statistically indistinguishable from zero. GDP growth carries the theoretically expected positive sign ($\beta = 0.0136$) but falls well short of conventional significance thresholds; FDI is negatively signed and insignificant ($\beta = -0.0288$); trade openness is negatively signed and insignificant ($\beta = -0.170$); and remittances are negatively signed and insignificant ($\beta = -0.0181$). The consistency of this null pattern across four conceptually distinct growth channels is itself informative: it is not one weak result but a coordinated absence of a detectable within-country relationship, which is difficult to reconcile with an account in which conventional growth fundamentals are strongly associated with Shariah index performance in this sample. As discussed in Section 7.4, however, insignificance in this sample does not by itself establish that Shariah indices are less responsive to these channels than conventional equity indices would be; that is a comparative claim that would require conventional-index data not collected for this study.

Stock market turnover, considered here as a separate financial-market-conditions variable rather than a growth variable, remains significantly positive ($\beta = 0.239$, $p < 0.001$). This is best read as a liquidity effect: turnover proxies for the ease with which capital moves in and out of a market, lowering transaction costs and improving price discovery for any equity class (Dewandaru et al., 2014). Its significance sits alongside, rather than within, the growth-insignificance pattern described above, and is consistent with the broader literature’s finding that liquidity conditions matter for equity performance largely independently of whether an index is Shariah-compliant or conventional (Levine & Zervos, 1998); though, as noted in Section 3.1, such liquidity-driven relationships can weaken during periods of market stress (Mensi, Al-Yahyaee, et al., 2017), a boundary condition not tested in the present annual-frequency data.

6.5. Synthesis

Overall, the results are consistent with H_1 . All three stability indicators are statistically significant with theoretically consistent signs, four of five growth-oriented variables are insignificant, and stock turnover,

the financial-market-conditions variable, is significant. Because the variables are measured on different scales, H_1 and H_2 are evaluated through the pattern of significance rather than coefficient size (Sections 4.2 and 5.3). Within this sample, the evidence therefore supports H_1 over H_2 . The finding should be interpreted as an association in a seven-country, eight-year panel of 55 observations, not as a definitive resolution of the broader debate. Section 8 identifies the returns-based specification, time fixed effects, endogeneity correction, and formal magnitude-comparison test needed to strengthen this conclusion.

7. Discussion

7.1. Why Stability Appears to Matter Most

The exchange-rate coefficient ($\beta = 0.636$, $p < 0.001$) is consistent with the importance of currency predictability for Shariah-compliant firms, including import-dependent sectors such as pharmaceuticals and technology (Hassan & Aliyu, 2018). Currency depreciation raises input costs and, under Prospect Theory's loss-aversion logic, may trigger stronger investor responses in volatile emerging markets. As noted in Section 2.3, this behavioural explanation is interpretive rather than tested. Inflation is also positive and significant ($\beta = 0.00984$, $p < 0.05$), suggesting some capacity for Shariah indices to act as a partial inflation hedge because of their real-sector orientation and avoidance of interest-based instruments (Iqbal & Mirakhor, 2011). This interpretation differs from Naifar and Al Dohaiman (2013), who emphasise constraints created by Shariah screening. The coefficient does not imply that inflation itself is stabilising. The positive reserves-to-debt effect ($\beta = 0.00630$, $p < 0.05$) is also consistent with Buffer Stock Theory (Aizenman & Marion, 2003), as larger reserves may improve a country's ability to absorb shocks.

7.2. The Limited Influence of Growth and the “Decoupling” Pattern

The insignificant effects of FDI, trade openness, and remittances are consistent with the decoupling hypothesis (Dewandaru et al., 2015). Because Shariah screening excludes non-compliant sectors such as conventional finance, alcohol, and gambling, these indices may capture less of the benefits from some global capital flows and trade channels. However, Section 7.4 treats this as a consistent, not confirmed, interpretation. Stock turnover remains significant ($\beta = 0.239$, $p < 0.001$), reflecting liquidity's relevance to both Islamic and conventional finance (Levine & Zervos, 1998). GDP growth is insignificant, suggesting limited detectable short-term association with this sample, subject to the endogeneity and time-fixed-effects limitations in Section 5.4.

7.3. Theoretical Reconciliation

The findings extend an APT-motivated approach to Islamic finance, consistent with the view that several macroeconomic factors are jointly associated with asset returns and prices (Chen et al., 1986; Ross, 1976). Within the study's scope, stability factors show a more consistent relationship with Shariah-compliant assets than growth factors. This interpretation combines APT, which motivates the multifactor design, with Islamic Finance Theory, which explains why the channels may differ for Shariah-compliant firms. Buffer Stock Theory supports the reserves variable, while Prospect Theory is used only to interpret the exchange-rate and inflation results. The pattern differs from some single-country studies reporting strong GDP or FDI effects, possibly because the multi-country fixed-effects design controls for time-invariant cross-country differences. This explanation remains provisional because of unmodelled time effects and endogeneity (Section 5.4). The findings are consistent with Dewandaru et al. (2015) and Cevik et al. (2024), who identify distinctive risk characteristics in Islamic equities.

7.4. Toward a Formal Test of the “Decoupling Effect”

The decoupling interpretation offered above is consistent with, but does not formally establish, the claim that Shariah-compliant equities are structurally different from conventional equities in their sensitivity to macroeconomic growth and stability shocks. Insignificant coefficients on FDI, trade openness, and remittances show only that these channels are not detectably associated with the Shariah index within this sample; on their own, insignificant coefficients do not show that Shariah indices are less responsive to

these channels than a conventional benchmark would be. A formally appropriate test of decoupling would instead estimate separate fixed-effects models for Shariah and conventional equity returns and then a pooled model with interaction terms between each macroeconomic factor and a Shariah-index indicator; a significant interaction coefficient would show that the sensitivity of Shariah returns to a given factor differs from the sensitivity of conventional returns, which is the appropriate empirical test of decoupling rather than an inference from insignificance alone. This extension requires conventional-index data that were not part of the present data collection. It is identified in Section 8 as the single highest-priority extension of this study, and the authors regard it as, in some respects, a more original and more directly testable question than the growth-versus-stability comparison reported above.

8. Conclusion and Implications

This study examined whether growth-oriented or stability-oriented macroeconomic conditions are more consistently associated with Shariah-compliant equity performance across seven emerging Asian economies from 2016 to 2023. The findings show that exchange rates, inflation, and the reserves-to-debt ratio are significantly associated with Shariah index performance, while most growth-oriented variables are not. The results therefore indicate that macroeconomic stability is more consistently linked to Shariah-compliant equity performance in the sampled markets. This provides comparative evidence across countries rather than relying on single-country findings.

The findings also have practical implications. For policymakers and regulators, the results suggest that exchange-rate management, inflation control, and adequate reserve buffers may be important for supporting Islamic capital markets. Policies designed to attract foreign investment and expand trade may also be more effective when such flows reach Shariah-compliant sectors. For investors and portfolio managers, the findings indicate that macroeconomic stability should be considered alongside growth indicators when assessing Shariah-compliant equities. External liquidity conditions and monetary-policy credibility may therefore provide useful information for portfolio evaluation and risk management.

The study has several limitations. The model uses the log level of the Shariah index rather than returns, which limits a strict test of Arbitrage Pricing Theory. The sample is also relatively small, with 55 observations across seven countries, and the model does not directly address endogeneity or include year fixed effects. In addition, the study does not formally compare Shariah and conventional equity indices, so the proposed decoupling effect cannot be confirmed. Future research should use larger samples, returns-based measures, dynamic panel or instrumental-variable methods, time fixed effects, higher-frequency data, and direct comparisons between Shariah and conventional equity markets across wider regions.

Declarations

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Conflict of Interest

The author declares no conflict of interest.

Data Availability

The data supporting the findings of this study are available from the corresponding author upon request.

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