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Do Islamic and Conventional Indices React Differently to Monetary Policy Surprises?

Abstract: This paper tests whether Islamic equity indices exhibit systematically different sensitivities to high-frequency monetary policy surprises than their matched conventional benchmarks, and whether any Islamic–conventional wedge is universal or provider-specific. We construct daily return differentials (Islamic minus conventional) in USD total returns, expressed in basis points, for three global index families: FTSE All-World vs FTSE IdealRatings All-World Islamic; MSCI World vs MSCI World Islamic; and S&P Global BMI vs S&P Global BMI Shariah. We regress the differential on orthogonalised FOMC monetary policy surprises and two ECB surprises: a Target component measured around the press release (OIS-1M) and a Forward-Guidance component measured around the press conference (OIS-2Y). Shocks are mapped to close-to-close returns over an event window ([t-1, t, t+1]), with inference based on Newey–West (HAC) standard errors; event-only and ECB "Monetary Event" (ME) robustness checks are reported. Results show significant, opposite-signed announcement-day effects for FTSE and S&P: Islamic indices relatively outperform on Target surprises and underperform on Guidance surprises (larger magnitudes for S&P), while FOMC surprises are not significant. MSCI differentials are weak and inconclusive. Collapsing ECB shocks into ME largely nets out same-day effects, with a modest (t+1) Guidance effect in event-only estimates. The findings are consistent with distinct funding-cost (Target) versus policy-path/term-premium (Guidance) channels and with provider-level composition differences.

Keywords: Islamic indices, monetary policy, Islamic financial market

JEL Classification: E52, E43, G12.

1. Introduction

In principle, investing in equities, which do not generate a predefined income (as many conventional bonds do), but instead entail participation in companies' profits and losses, lies at the very core of economic activity in accordance with Islamic principles. However, not all companies conduct their business in compliance with Shariah. Hence the idea of identifying those that are permissible for Muslims and examining their performance in comparison with global, national, or sectoral stock indices. Any differences in their behaviour, if present, could be relevant not only for Muslim investors but also for others seeking to achieve specific outcomes by exploiting the characteristics of investments in Shariah-compliant companies.

Islamic stock indices are a more recent phenomenon than Islamic finance itself. Islamic finance operates under the guidance of Shariah, a framework of Islamic legal and ethical principles. Among its core prohibitions is riba, understood as usury, which encompasses predetermined or fixed returns on borrowed funds. Shariah further excludes investment in enterprises engaged in activities deemed impermissible (haram), such as gambling. At the same time, Islamic finance actively promotes commerce and enterprise, primarily through mechanisms of risk-sharing and profit-sharing in activities that are considered lawful. In the absence of riba, Islamic financial contracts are structured around instruments that are either linked to the performance of an underlying real asset, generating variable returns contingent upon that performance, or provide for profit distributions determined only after real earnings have been realised and apportioned according to a pre-agreed ratio (Ayub, 2007; Hassan & Lewis, 2007; International Monetary Fund et al., 2015).

The vast majority of scholarly articles devoted to Islamic stock indices examine whether they perform better than their conventional counterparts, with mixed results. For example, Asutay et al. (2022) find that the results for the period 2009–2013 are inconclusive: Islamic indices exhibit superior performance in European and Asia–Pacific markets, whereas conventional indices perform better in other markets. Similarly, Trabelsi et al. (2020) compare the performance of Islamic, conventional, and mixed Islamic–conventional optimal portfolios from the perspective of American investors allocating to emerging markets in Latin America, Asia, and Europe. The analysis covers the period from June 2002 to February 2017, encompassing both tranquil and crisis regimes. Although many Islamic portfolios outperform their conventional counterparts, the tests indicate that the differences in the Sharpe ratio across all portfolios are not statistically significant.

Consequently, investors remain indifferent between conventional, Islamic, and mixed portfolio diversification strategies.

This study examines whether Islamic equity indices display a systematically different sensitivity to unanticipated monetary policy actions than their conventional benchmarks, moving beyond the large body of work that compares average performance levels. The empirical focus is the daily return differential between each Islamic index and its matched conventional index, constructed from total-return series in a common currency and reported in basis points; a positive value indicates Islamic outperformance on that day. Identification relies on high-frequency monetary policy surprises for the Federal Reserve and the European Central Bank, measured from intraday movements in short-maturity interest-rate derivatives (such as overnight index swaps and policy-rate futures) within narrow windows bracketing the official communications (for the ECB, both the press release and the press conference). These intraday shifts capture revisions to the expected policy path that were not priced immediately beforehand. Each surprise is then mapped to the calendar day of the announcement; as a robustness check, the assignment considers a $t-1, t, t+1$ window to accommodate time-zone and trading-hour differences across markets. The return differential is related to the two policy surprises in a single, reduced-form specification, so that the coefficient on each surprise reads as basis points of Islamic–conventional outperformance per one basis point of unexpected policy change by the corresponding authority, holding the other authority's shock fixed. Two design features sharpen interpretation while keeping the set-up parsimonious and free of additional controls. First, short-horizon response profiles are assessed by estimating separate specifications for close-to-close returns on t–1, t, and t+1, with an extension to t+2 in robustness checks, in order to distinguish announcement-day effects from limited timing-related carry-over. Second, the ECB communication is decomposed into Target and Forward-Guidance components rather than collapsed into a single event measure, allowing the analysis to distinguish between near-term funding-cost news and policy-path news. Sectoral composition – particularly the lower bank weight typical of Islamic indices – may condition these differential responses even if it is not modelled explicitly.

The empirical evidence should be interpreted as reduced-form and channel-consistent rather than as a structural identification of sectoral or leverage mechanisms.

2. Literature review

Conventional studies demonstrate that equity markets react primarily to the unexpected component of monetary policy, with easing surprises raising returns and tightening surprises depressing them (Bernanke & Kuttner, 2003). The high-frequency identification strategy employed here builds on a broader literature that decomposes central-bank communication into structurally distinct surprise types. Nakamura & Steinsson (2018) show that the FOMC announcements contain an information component – central bank signals about future economic conditions that can generate asset-price responses opposite in sign to the pure policy-rate surprise, complicating reduced-form inference. Jarociński & Karadi (2020) formalise this decomposition by separating a "pure monetary policy" shock from a "central bank information" shock using sign restrictions on stock-price and interest-rate co-movements; their framework directly motivates the separation of ECB Target and Forward-Guidance components adopted in the present study. Cieslak & Schrimpf (2018) extend the analysis to ECB communications and document that non-monetary news, particularly statements about growth and risk appetite, constitutes a distinct component of press-conference surprises. Against this backdrop, the Islamic conventional differential offers an unusually clean laboratory: by differencing matched index pairs, common-factor responses (including any information-effect component that affects both baskets equally) cancel out, and the residual coefficient captures only the *differential* transmission of each surprise type. Whether Shariah screens generate such a differential, and whether the sign pattern of the estimated coefficients is consistent with the funding-cost and policy-path channels outlined above, is the central question of this study.

Evidence for Islamic indices, however, remains limited. As far as we can ascertain, no prior study has estimated differential "surprise betas" for Islamic versus conventional equity indices using high-frequency FOMC (MPS) and ECB (EA-MPD) measures within a unified daily framework. The closest antecedent is Akhtar et al. (2017) who examine how interest-rate surprises – defined as the unexpected component of policy announcements relative to market expectations – affect Islamic and conventional indices across eleven countries and multiple providers. Using daily data, panel regressions and GARCH models, they document that the stock-return response is heterogeneous but often non-attenuated for Islamic indices: out of 18 Islamic–conventional stock pairs, surprises have no impact for eight pairs, similar impact for three pairs, and a stronger impact on Islamic indices for seven pairs (including Australia, Canada, France, Italy, Turkey and the UK). The authors attribute these patterns to index-construction features – exclusion of most financials, lower leverage and cash screens – which shift sectoral weights and risk exposures, so that policy news transmits differ-

ently through official interest rate and cash-flow channels. The broad message is that, despite Shariah screens, Islamic equities are not insulated from monetary news; if anything, their reaction can match or exceed that of conventional benchmarks, with country and provider differences playing a first-order role.

Anwer et al. (2019) employ quantile regressions for several markets and find that expansionary policy often reduces returns in bearish states, has little effect around the median, and becomes favourable only in bullish conditions. For example, US easing lowers euro area and Indian Islamic returns at low-to-middle quantiles, while turning positive only at the upper tail. These asymmetric responses suggest that Islamic equities are less sensitive to policy easing, likely owing to low leverage and sectoral exclusions that weaken credit-channel transmission. Importantly, Anwer et al. focus solely on Islamic indices; they do not compare them with conventional benchmarks. The present study addresses this gap by examining both classes of indices under policy surprises.

Ziaei (2018) is the first study to examine US unconventional monetary policy (QE) and Islamic equities exclusively. Using daily data (2007–2015) and a VAR with term (10y–3y Treasuries) and corporate (corporate rate minus effective federal funds rate) spreads as policy proxies, the paper documents significant spillovers to Shariah indices, with narrower corporate spreads boosting Islamic equities and effects generally stronger for corporate than term spreads; responses vary across regions and are particularly salient where exchange rates are pegged to the US dollar. Crucially, the analysis does not compare Islamic with conventional benchmarks, nor does it employ high-frequency surprise measures.

Bahloul et al. (2017) examine the effects of conventional index returns and volatility, inflation, the short-term interest rate, the slope of the yield curve, and changes in money supply on Islamic stock market returns across different financial regimes over the period June 2002 to June 2014, covering ten developed and ten emerging markets. The findings indicate that conventional index returns and money supply growth exert a significant influence on Islamic index returns in both low- and high-volatility regimes in developed and emerging markets alike. For the remaining macroeconomic variables, the estimated coefficients are particularly significant in the low-volatility regime. Moreover, differences between developed and emerging markets in terms of how these factors affect Islamic index returns appear to be relatively limited.

Albaity (2011) documents systematic differences in how Islamic and conventional stock indices co-move with monetary conditions, albeit using monthly macro/monetary instruments (money aggregates M1–M3, policy/market inter-

est rates, inflation, activity) rather than high-frequency surprises. Using DJIMI (US) and KLSI (Malaysia) – with DJIA and KLCI as conventional benchmarks – and GARCH-type specifications over 1999–2007, the author finds that in the mean equation KLSI is positively related to M3 and inflation but negatively to the interest rate, whereas DJIMI shows no individually significant macro drivers; in the variance equation, DJIMI volatility is linked to interest-rate and inflation risk, while KLSI volatility responds to M2, M3 and inflation, often with opposite signs across the two Islamic indices. These patterns imply that Islamic and conventional markets can differ in both level and volatility sensitivities to monetary settings, plausibly reflecting index screens and sectoral composition; however, the evidence speaks to broad monetary stances, not to announcement-window surprises.

Using weekly USD returns for 1996–2011, Shamsuddin (2014) asks whether Islamic equity portfolios (DJIMI) are sensitive to interest-rate movements, estimating a TGARCH(1,1) mean–variance model in which equity returns load on the world market and on changes in policy/market rates; robustness comes from a Nelson–Siegel decomposition into level, slope and curvature factors built from US zero-coupon yields. At the aggregate level the DJ Islamic Market index appears insensitive to both long- and short-rate changes and to interest-rate volatility, whereas at the sectoral level several Islamic portfolios (e.g., basic materials, industrials, technology) do exhibit statistically significant exposures – typically weaker and less pervasive than those of their conventional DJ World counterparts. The sectoral pattern helps reconcile the aggregate "immunity" with underlying heterogeneity. Overall, the paper documents that interest-rate risk can matter for Islamic equities, primarily through sector composition, but it does not study high-frequency announcement surprises.

Umar et al. (2018) study whether Shariah screening lowers equity sensitivity to interest rates. Using weekly data (1996–2015) for the Dow Jones Islamic Market (DJIM) and its industry indices, they estimate quantile regressions with the level/slope/curvature factors of the U.S. yield curve (Nelson–Siegel) and show predominantly negative interest-rate exposure, strongest in bearish tails. Crucially, they find little difference between Islamic and conventional industries, implying Islamic equities are not a reliable hedge against rate risk. It supports the broader claim that Islamic equities do react to interest-rate conditions and are not decoupled from conventional markets. Similarly, Hasan et al. (2021) note that the conservative features of Islamic stocks do not constitute a superior investment alternative, particularly during periods of economic turmoil. Higher-order moment-based tests performed by Hassan et al. (2020) show a strong contagion effect of the financial crisis on Islamic stock markets.

Paltrinieri et al. (2018) investigate cointegration and time-varying (dynamic) correlations among 17 Islamic, socially responsible investment (SRI), and conventional stock indices over 2005–2015. They also examine how these indices respond to two major economic factors – oil prices and market volatility. The authors find evidence of cointegration across Islamic, SRI, and conventional markets, as well as co-movement with bidirectional causality. Dynamic correlations tend to spike during crises, whereas conditional covariances display greater variability in post-crisis periods.

Umar et al. (2022) examine how movements in the US yield curve propagate to Islamic equity sector indices using a two-step framework: (i) decompose daily zero-coupon yields into level, slope, curvature factors via dynamic Nelson–Siegel, and (ii) quantify static and time-varying return/volatility spillovers with the Diebold–Yilmaz connectedness approach. On daily data (1996–2021) for 10 Islamic sectors, they find strong connectedness: the level factor is a net transmitter, while slope and curvature are typically net recipients. Spillovers surge in crises (Asian crisis, dot-com, GFC, COVID-19), and most Islamic sectors are net recipients of return spillovers; in volatility space, about half are net transmitters and the other half are net receivers. The authors conclude there is no decoupling between Islamic equities and the yield-curve channel.

Anwer et al. (2023) model Islamic equity returns in major markets with a Markov-switching dynamic regression that embeds policy rate changes (domestic and U.S.) as the monetary driver. Results indicate limited effectiveness of expansionary monetary policy on Islamic equity returns and regime dependence (bear vs. bull). While it does not juxtapose Islamic with matched conventional indices, it is one of the few papers to link central-bank policy actions directly to Islamic stock performance and to argue that Islamic indices may be less sensitive to monetary easing – an interpretation the authors turn into hedging implications. Shariah screening has important implications for monetary transmission mechanism, as it may discard business sectors that are more responsive to interest rate changes. Moreover, Shariah-compliant equities follow low debt capital structure, and the reduction in policy rate may not induce them to avail debt above a certain level.

Choi et al. (2024) study time-varying spillovers between Islamic equity markets and monetary policy across five advanced economies using the Diebold–Yilmaz connectedness framework on daily data (1996–2022). Monetary stance is proxied by shadow short rates (SSR) to capture both conventional and unconventional (QE/LSAP) regimes. The authors find that "intraconnectedness" among equity markets exceeds "interconnectedness" between equity and monetary policy, that Islamic equities are net receivers of both return and volatility shocks, and that

spillovers intensify during crises and unconventional monetary policy periods (e.g., GFC, COVID-19). The US is the dominant transmitter of return shocks; EU/UK dominate volatility transmissions; Japan is typically a net receiver. These results reject a simple "decoupling" view of Islamic equities. The paper provides contextual evidence that Islamic equities are meaningfully exposed to monetary conditions and global policy cycles.

Interest rate changes affect equity prices through several overlapping channels, and Shariah screening plausibly alters the relative importance of each. Three channels are of direct relevance here.

The *funding-cost channel* operates through firms' cost of debt. Because Shariah screens cap conventional leverage (typically at 33% of market capitalisation), Islamic index constituents are structurally less leveraged than their conventional counterparts. A positive ECB target-rate surprise raises short-term funding costs, imposing a proportionally larger burden on highly-leveraged conventional firms; Islamic firms, insulated by lower debt loads, should suffer comparatively less (Akhtar et al., 2017; Bernanke & Gertler, 1995). This channel therefore predicts that Islamic indices outperform conventional ones on positive target-rate surprises (H1).

The *financial-sector channel* works through index composition rather than firm-level balance sheets. Islamic screens exclude or strongly underweight conventional banks and insurance companies whose profitability tends to rise with the yield curve when a tightening surprise widens net interest margins. This compositional effect partially counteracts H1: if the banking benefit to conventional indices dominates, the differential could be attenuated or reversed. In the present context – where the ECB target surprise and forward guidance are separated – this effect is most relevant for the target-rate component. H1 should therefore be interpreted as the net balance of the leverage benefit and the financial-sector underweight.

The *policy-path and term-premium channel* operates through the discount rate applied to future cash flows. A hawkish forward-guidance surprise raises expected future short rates and compresses the term premium, increasing discount rates and reducing the present value of long-duration assets (Cieslak & Schrimpf, 2018; Jarociński & Karadi, 2020). Islamic screens systematically exclude conventional financial firms but retain technology, healthcare and consumer-discretionary stocks, which tend to have longer cash-flow duration than financials. If Islamic indices thus carry higher effective duration than their conventional benchmarks, they should be more adversely affected by a surprise hawkish guidance revision (H2).

Finally, FOMC surprises are global shocks that affect both Islamic and conventional portfolios through the same channels simultaneously. Because both legs of each differential are exposed to the common US monetary impulse, the net effect on the Islamic–conventional spread is expected to be close to zero (H3) (Bernanke & Kuttner, 2003).

These three hypotheses provide a direct mapping from the theoretical channels to the signs of the estimated coefficients, formally defined in Section 2. The empirical section tests whether the data are consistent with this mapping, while Section 4 discusses the extent to which H1 and H2 can be attributed to Shariah-specific structural features versus provider-level index construction choices.

3. Data and Methodology

For the analysis, the following pairs of indices were used: (i) the FTSE All-World Index and the FTSE IdealRatings All-World Islamic Index (USD Total Return Index Value); (ii) the MSCI World Index and the MSCI World Islamic Index; and (iii) S&P Global BMI and its Islamic counterpart S&P Global BMI Shariah.

The **FTSE All-World Index** is a capitalisation-weighted benchmark covering large- and mid-cap equities across both developed and emerging markets, designed to capture approximately 90–95% of the investable global equity universe (FTSE All-World Index, 2025).

The FTSE IdealRatings All-World Islamic Index is a global Shariah-compliant benchmark developed by FTSE Russell in partnership with IdealRatings, a leading provider of Shariah screening services. It is designed to replicate the structure of the FTSE All-World Index while excluding firms that fail to meet Islamic investment principles. The index is capitalisation-weighted and investable, offering broad coverage across both developed and emerging markets. Its construction follows a two-stage screening methodology. At the first stage, companies are excluded if they derive more than a small proportion of revenue (typically above 5%) from prohibited business activities such as alcohol, gambling, tobacco, pork products, conventional financial services, or specific forms of entertainment. At the second stage, financial ratios are applied to ensure compliance with Shariah law. In particular, investment is not permitted in companies where total conventional debt exceeds 33 per cent of average market capitalisation (over the prior 24 months), where cash and short-term interest-bearing securities also exceed 33 per cent. Additionally, accounts receivable and cash collectively should amount to less than half (50%) of total assets. Certification of compliance is secured through

a Fatwa issued by recognised Shariah scholars (FTSE IdealRatings Islamic Index Series, 2025).

The quantitative thresholds used in Shariah screening – notably the 33% leverage ceiling and the 5% revenue cap – lack a firm textual basis in the Qur'an or hadith and vary across providers, leading to divergent stock classifications (Adeyemi & Tekdoğan, 2024; Derigs & Marzban, 2008). These inconsistencies are acknowledged as a limitation of the Islamic-index construct; they do not, however, invalidate performance comparisons since index membership reflects actual investor practice regardless of its religious-theoretical foundation.

The **MSCI World Index** represents a narrower benchmark than FTSE All-World Index, focusing exclusively on developed economies. Constructed within MSCI's Global Investable Market Indexes framework, it is also free-float adjusted, market capitalisation-weighted and designed to cover large- and mid-capitalisation stocks. However, unlike the FTSE All-World, its coverage is limited to 23 developed markets and excludes emerging markets, thereby capturing approximately 85 per cent of the free-float-adjusted market capitalisation within its investment universe (MSCI Index Calculation Methodology, 2025). The methodological emphasis is similar – liquidity, replicability and investability – yet the index serves a different analytical purpose. While the FTSE All-World is often employed as a proxy for global equity exposure, the MSCI World is typically used in research and investment strategies targeting advanced economies alone. As a result, the MSCI World remains a central benchmark in studies of developed-market dynamics, diversification and international financial integration, even as it is narrower in scope than its global counterparts.

The MSCI World Islamic Index is a global Shariah-compliant benchmark designed to measure the performance of large- and mid-cap equities across developed markets in conformity with Islamic investment principles. It is derived from the MSCI World Index, but non-compliant securities are excluded through a systematic two-stage screening process. Again, at the business activity level, companies are removed if they derive more than 5 per cent of revenue from prohibited sectors, including alcohol, tobacco, pork-related products, gambling, conventional financial services, armaments, or certain forms of entertainment. At the financial level, constituents are screened on the basis of three ratios designed to restrict leverage and interest-based income. Specifically, a firm is considered non-compliant if conventional debt exceeds 33.3 per cent of total assets, if cash and interest-bearing securities similarly exceed 33.3 per cent, or if accounts receivable and cash surpass 70 per cent of assets. A buffer rule allows existing constituents to remain in the index provided that ratios do not breach thresholds for

three consecutive reviews. The methodology also requires dividend purification, whereby the proportion of income derived from non-permissible sources is deducted from investor returns and donated to charity. The index is rebalanced quarterly, with oversight and certification by a board of Shariah scholars. Constituents are weighted by free-float market capitalisation, subject to issuer caps to mitigate concentration risk (MSCI World Islamic Index, 2025).

We compute daily Islamic–conventional return differentials from USD total-return indices. For MSCI we use the Gross TR series so that treatment is comparable across providers. Total-return indices are preferred to price indices because monetary-policy news can affect both prices and expected cash distributions, while Net TR series embed jurisdiction-specific withholding-tax assumptions that may differ across vendors.

We include **S&P Global BMI (USD TR)** and **S&P Global BMI Shariah (USD TR)** as a third global benchmark family. The S&P pair spans both developed and emerging markets under a single, transparent float-adjusted methodology; the Shariah variant is drawn from the same parent universe, so any Islamic–conventional wedge is attributable to screening rather than differences in index engineering. This triangulates results across three independent provider families and tests whether sensitivities are provider-agnostic.

For the United States we use the **Monetary Policy Surprises (MPS)** series compiled by the Federal Reserve Bank of San Francisco, which follows and updates Bauer and Swanson (2023). The series captures exogenous revisions to the expected short-term interest-rate path within tight windows around FOMC announcements, constructed as the first principal component of 30-minute changes in futures rates covering the next four quarters. We use the orthogonalised variant (MPS_ORTH), which is the residual from regressing the raw surprise on six pre-announcement macro-financial predictors. The raw surprise may still embed a component that was predictable given publicly available information immediately before the announcement; orthogonalisation removes that predictable part and retains only the genuinely new policy information revealed at the event.

Orthogonalisation also attenuates the information effect identified by Nakamura & Steinsson (2018) and formalised by Jarociński & Karadi (2020): when central banks signal unexpectedly favourable economic conditions alongside a rate increase, equity prices may rise rather than fall, generating a sign reversal that contaminates reduced-form estimates. Because our dependent variable is an Islamic–conventional differential, any information-effect component that shifts both baskets equally will cancel out; nonetheless, using MPS_ORTH rather than

the raw surprise reduces measurement error at the individual-regression level and keeps the estimated betas interpretable as responses to policy-rate news.

For the euro area we use the **Euro Area Monetary Policy Event-Study Database (EA-MPD)** of Altavilla et al. (2019). The database provides intraday changes in OIS rates across maturities in two distinct windows on each ECB policy date: the press-release window (rate decision, 13:45 CET) and the press-conference window (statement and Q&A, 14:30 CET). This two-window structure, analysed by Cieslak and Schrimpf (2018), permits a clean separation between rate-decision news and policy-path news. As our measure of the rate-decision shock (ECB_Target) we use the one-month €STR OIS change in the press-release window (OIS_1M): the one-month tenor sits at the very short end of the risk-free curve and responds almost one-for-one to unexpected changes in the near-term policy rate, while OIS pricing minimises credit and term premia. As our measure of forward guidance (ECB_FG) we use the two-year €STR OIS change in the press-conference window (OIS_2Y): at daily horizons the cost of equity is most sensitive to revisions to the expected policy path over the next few years, and the two-year point offers a standard balance of liquidity and path sensitivity in ECB event studies. A positive value of either series denotes an unexpected tightening.

Both series are taken directly from the EA-MPD workbook and require no rescaling; each surprise is mapped to the calendar day of the meeting, with zero on non-event days within coverage and NA outside coverage (where a primary column is unavailable, we adopt transparent fallbacks preserving economic meaning: OIS_SW or OIS_2M/3M for Target; OIS_1Y, then OIS_3Y, for Forward Guidance). The design is robust across the EONIA→€STR transition, since EA-MPD provides a harmonised series and the fixed spread cancels in changes.

Using both the Target and Forward-Guidance shocks preserves the economic content of ECB communications and avoids collapsing two conceptually distinct channels into a single proxy. At the daily horizon this separation clarifies the Islamic–conventional differential: the Target surprise isolates the immediate policy-rate decision, whereas the FG surprise captures revisions to the expected policy path over the next few years – the segment of the curve that chiefly drives equity required returns:

$$\Delta r_t = \alpha + \beta_{Fed} \cdot MP\_ORTH_t + \beta_{ECB,T} \cdot ECB\_Target_t + \beta_{ECB,FG} \cdot ECB\_FG_t + \varepsilon_t$$

- Δr_t is daily return differential (Islamic minus matched conventional index), computed from Total Return series in USD, expressed in basis points (bp),

- MPS_ORTH_t: FOMC surprise (San Francisco Fed MPS, orthogonalised), in bp; positive = unexpected tightening,
- ECB_Target_t: press-release window surprise, proxied by OIS 1M from EA-MPD, in bp; positive = unexpected tightening of the decision,
- ECB_FG_t: press-conference window surprise, proxied by OIS 2Y from EA-MPD, in bp; positive = unexpected tightening of the policy path (forward guidance),
- α: average daily differential when no surprise occurs,
- ε_t: error term.

The hypotheses formulated in Section 1, therefore, map directly onto the signs of these coefficients: H1: $\beta_{ECB,T} > 0$; *H2:* $_{\beta ECB,FG} < 0$; H3: $\beta_{Fed} \approx 0$.

Interpretation of results: β have units bp of Islamic–conventional outperformance per 1 bp of surprise, holding the other shocks fixed. E.g., if $\beta = 0.60$, a +25 bp FG surprise is associated with +15 bp (0.60 × 25) Islamic outperformance on that mapping. A positive β means the Islamic index falls less / rises more than the conventional one on a tightening surprise; negative means the opposite.

For parsimony checks we also compute a one-number aggregate from the ECB "Monetary Event Window" (OIS_2Y) as a robustness measure; it is never combined with the two separate components to avoid double counting. The "Monetary Event Window" reports intraday price changes over the entire ECB event, i.e. from just before the press release (policy decision at 13:45 CET) through to the end of the press conference (from ~14:30 CET). In other words, it is one continuous window that spans press release and press conference and measures the total move in each instrument across the full event.

As a robustness check, we map each surprise to the $[t-1, t, t+1]$ close-to-close returns to accommodate time-zone and trading-hour differences. This alignment keeps identification at high frequency while allowing estimation on a uniform daily panel. Inference employs heteroskedasticity- and autocorrelation-robust (HAC/Newey–West) standard errors appropriate for daily data.

The sample period begins with the first available index observations: 15 June 2012 for FTSE, 31 May 2002 for MSCI, and 31 August 2015 for S&P Global BMI. The end date is the last date for which both US and euro-area high-frequency policy surprises are available (31 December 2023).

4. Results

Table 1 presents the estimation results for FTSE All-World Indices.

In the first specification, all available observations were included – i.e., both non-zero surprise values and zeros on days without a surprise. Statistically significant β-coefficients are found only for the ECB surprises, particularly on days when the rate decision was announced and information was conveyed at the press conference (statement and Q&A), i.e., on day t. A positive surprise is hawkish, whereas a negative surprise is dovish.

Table 1: Results for the FTSE All-World Indices

Coefficient	t–1	t	t+1
		Full sample (all days)	
α (intercept)	0.2992 [1.11]	0.3049 [1.13]	0.3211 [1.19]
β_Fed (FOMC surprise)	0.3695 [1.13]	-0.0456 [-0.11]	-0.5069 [-1.23]
β_ECB,T (ECB target-rate surprise)	0.5595 [1.67]*	1.3765 [2.54]**	0.7079 [1.35]
β_ECB,FG (ECB forward-guidance surprise)	0.4342 [0.86]	-1.4734 [-2.17]**	-0.7590 [-1.50]
		Event only	
α (intercept)	0.3027 [0.38]	0.3791 [0.33]	-0.8098 [-0.76]
β_Fed (FOMC surprise)	0.3694 [0.99]	-0.0493 [-0.11]	-0.4513 [-1.38]
β_ECB,T (ECB target-rate surprise)	0.5593 [1.67]*	1.3724 [2.37]**	0.7711 [1.63]
β_ECB,FG (ECB forward-guidance surprise)	0.4342 [0.90]	-1.4749 [-2.39]**	-0.7368 [-1.65]*
		Full sample (all days)	
α (intercept)	0.3104 [1.14]	0.3195 [1.18]	0.3342 [1.23]
β_Fed (FOMC surprise)	0.3690 [1.13]	-0.0463 [-0.11]	-0.5076 [-1.23]
β_ECB,ME (ECB Monetary Event Window)	0.6056 [1.62]	-0.0181 [-0.03]	-1.0993 [-3.28]***
		Event only	
α (intercept)	0.4618 [0.57]	0.5849 [0.48]	-0.4955 [-0.46]
β_Fed (FOMC surprise)	0.3615 [0.99]	-0.0594 [-0.13]	-0.4668 [-1.40]
β_ECB,ME (ECB Monetary Event Window)	0.6044 [1.94]*	-0.0203 [-0.03]	-1.0925 [-3.95]***

Source: Author's own work

Values are coefficient estimates in basis points. Bracketed numbers are Newey–West (HAC, lag=5) t-statistics; * p<0.10, ** p<0.05, *** p<0.01. Sample covers the intersection of available series for each specification.

On the announcement day (t), the two ECB components estimated jointly on the full sample deliver opposite-signed, statistically significant effects. The target-rate surprise yields Islamic outperformance ($\beta_{ECB,T}$ = 1.3765, 5% level), i.e. about +1.38 bp of Islamic–conventional differential per +1 bp surprise, whereas the forward-guidance surprise produces Islamic underperformance ($\beta_{ECB,FG}$ = –1.4734, 5% level). This pattern is economically coherent. The press-release (Target) window primarily shifts very short-dated funding costs; with lower leverage and smaller bank weights, Islamic baskets tend to fall less (or rise more) than conventional benchmarks. By contrast, the press-conference (FG) window reprices the 1–3-year policy path and term premium, lifting required returns and relatively hurting a higher-duration, bank-light Islamic basket. A plausible reading – consistent with index composition – is that hawkish guidance often benefits banks (via higher expected net-interest margins), so conventional indices, which are heavier in financials, outperform (hence a negative Δr for Islamic). Symmetrically, a same-day rate hike can trigger a risk-off impulse; Islamic screens (lower leverage, exclusion of financials) cushion that drawdown, aligning with the positive Target coefficient. The economically relevant window is t: a small t–1 significance on the Target component is best viewed as a dating/time-alignment artefact (differences in market closes, currency translation cut-offs, and the composite "world close"), not as genuine pre-reaction; t+1 effects are null in the full sample, as any follow-through from Asian cash markets tends to move Islamic and conventional baskets in tandem, leaving the differential negligible.

The absence of a significant Fed coefficient should not be read as evidence that global Islamic equities are insulated from US monetary news. Rather, our dependent variable is the Islamic–conventional *differential*, so common global policy rate shocks that move both baskets in tandem tend to wash out. By contrast, ECB communication arrives in two distinct intraday windows – rate decision and forward guidance – that load on different channels (near-term funding costs versus the expected path/term premium) and interact directly with Shariah-driven tilts (lower leverage and lower financials weight). This yields a clearer, sector-differentiated wedge for FTSE and S&P. Moreover, close-to-close timing is naturally aligned for ECB events within European hours, whereas FOMC announcements occur later in global time and their effects may be spread across labelled trading days, further attenuating differential estimates. It should be noted, however, that this interpretation requires caution: by construction, any symmetric FOMC response that shifts both baskets equally will cancel out in the differential, so the absence of significance does not imply that US monetary policy is economically irrelevant at the level of individual indices.

The event-only specification (restricting to non-zero-shock days) leaves this message essentially unchanged – positive on Target and negative on Guidance on t, with the Fed term insignificant. The sole nuance is a negative t+1 coefficient for Forward Guidance, significant at the 10% level in the FTSE specification. To assess whether this pattern reflects a meaningful delayed response or primarily a timing-related realisation of the differential, we extend the analysis in two ways: first, we add a t+2 window to the baseline specification; second, we augment the t+1 and t+2 regressions with sub-period dummies for the COVID episode, the ECB tightening cycle, and (for MSCI) the GFC, and examine the base-period coefficients outside these episodes. Full results are reported in Table A1 (Annex). Three findings are relevant. First, outside the COVID period, the Forward Guidance coefficient at t+1 remains statistically significant for FTSE (base-period estimate: –1.13 bp/bp, t = –2.36), suggesting that the t+1 pattern cannot be reduced solely to the pandemic episode. Second, the effect does not persist to t+2, where neither coefficient approaches conventional significance for any index pair. Third, no comparable t+1 effect is detectable for S&P, where announcement-day identification is cleanest and EM-Asia exposure is smallest. Taken together, these results are more consistent with time-zone sequencing and market-close alignment than with a persistent delayed transmission channel: because the ECB press conference (14:30 CET) occurs after many Asian and MENA cash markets have closed, part of the FTSE Islamic–conventional differential may be realised only at the next trading session. The evidence therefore supports, at most, a limited timing-related carry-over for FTSE, not a general or economically large next-day transmission effect.

In the third and fourth specifications, we use the single Monetary Event (ME) ECB shock – an OIS-2Y measure that cumulates the release and press-conference moves – as a robustness check. We find no effect on day t but a negative, 1%-significant effect on t+1 in both the full-sample and event-only settings. This pattern is consistent with (i) offsetting within-day components (target vs. guidance) that net out in Europe/US on day t, and (ii) next-session cash-market repricing in Asia/MENA, whose first trading opportunity is the next day, where the Islamic–conventional composition gap is more salient. In addition, with the ME shock we observe a positive association on t–1 at the 10% level; again, this likely reflects anticipation and close-time alignment rather than genuine "yesterday" causality.

Table 2 presents the performance of the MSCI World Indices, Islamic and conventional. Using the same specification and sample alignment, the MSCI pair exhibits far weaker differential sensitivity to monetary policy surprises than the FTSE pair.

Table 2: Results for the MSCI World indices

Coefficient	t–1	t	t+1
		Full sample (all days)	
α (intercept)	-0.0500 [-0.17]	-0.0599 [-0.20]	-0.0779 [-0.26]
β_Fed (FOMC surprise)	-0.0257 [-0.06]	-0.1138 [-0.30]	0.0807 [0.17]
β_ECB,T (ECB target-rate surprise)	-1.3301 [-1.70]*	-0.6591 [-1.19]	0.2198 [0.19]
β_ECB,FG (ECB forward-guidance surprise)	-0.0716 [-0.18]	0.4153 [1.03]	-0.0805 [-0.18]
		Event only	
α (intercept)	0.9331 [0.88]	-1.2627 [-1.31]	-0.9431 [-0.87]
β_Fed (FOMC surprise)	-0.0541 [-0.10]	-0.0790 [-0.20]	0.1071 [0.26]
β_ECB,T (ECB target-rate surprise)	-1.3683 [-1.73]*	-0.6123 [-1.14]	0.2536 [0.23]
β_ECB,FG (ECB forward-guidance surprise)	-0.0569 [-0.16]	0.3974 [1.25]	-0.0934 [-0.24]
		Full sample (all days)	
α (intercept)	-0.0758 [-0.26]	-0.0733 [-0.25]	-0.0725 [-0.24]
β_Fed (FOMC surprise)	0.0521 [0.11]	-0.0771 [-0.20]	0.0675 [0.14]
β_ECB,ME (ECB Monetary Event Window)	-0.6772 [-1.29]	0.0160 [0.05]	0.1618 [0.32]
		Event only	
α (intercept)	0.5578 [0.55]	-1.4565 [-1.49]	-0.9301 [-0.79]
β_Fed (FOMC surprise)	0.0352 [0.06]	-0.0400 [-0.09]	0.0918 [0.23]
β_ECB,ME (ECB Monetary Event Window)	-0.6714 [-1.30]	0.0033 [0.01]	0.1540 [0.35]

Source: Author's own work

Values are coefficient estimates in basis points. Bracketed numbers are Newey–West (HAC, lag=5) t-statistics; * p<0.10, ** p<0.05, *** p<0.01. Sample covers the intersection of available series for each specification.

In the main MSCI (Fed + ECB) specification, the only hints of significance are $\beta_{ECB,T}$ at t–1, which is negative at the 10% level (≈ –1.33 bp per 1 bp target-rate surprise, both in full-sample and event-only), and nothing systematic at t or t+1. In the ECB ME (Monetary Event) specification (with Fed), no coefficients are significant at conventional levels across t–1, t, t+1. β_{Fed} is never significant.

MSCI World is a developed-markets–only benchmark, whereas FTSE All-World spans across both developed and emerging markets. That difference matters for several reasons. First, the ECB releases (13:45/14:30 CET) hit Europe/US during their cash sessions; Asian and many MENA markets react at their next-day open (t+1). FTSE All-World's larger EM Asia/MENA footprint makes any t+1 differential more visible. MSCI World's heavier Europe/US mix means more of the reaction is absorbed on day t and nets out in the Islamic–conventional difference. Second, Islamic screens remove most conventional financials. If the convention-

al benchmark (to which the Islamic index is compared) carries more emerging market banks and other rate-sensitive sectors, the Islamic–conventional wedge is mechanically larger and more sensitive to funding-cost (target) and guidance shocks. FTSE All-World typically has more EM banks than MSCI World; that amplifies the opposite-signed ECB effects in FTSE and mutes them in MSCI. Third, including emerging markets brings in firms whose cash flows and risk premia are more cyclicality- and risk-sentiment-sensitive to global policy news (via Dollar/Euro funding, risk-off episodes, and term-premium moves). That widens the channels through which ECB announcements tilt Islamic vs conventional baskets – again more pronounced in FTSE than in the developed-only MSCI World. Fourth, the same Shariah rules bite/hit? differently across regions. In emerging market-heavy universes, the exclusions tend to alter leverage/duration and sector tilts more starkly than in developed-only sets, raising the chance of detectable betas in FTSE and lowering it in MSCI.

Table 3 reveals a clear and internally consistent pattern for the S&P Global BMI pair. When the two ECB surprises are included jointly, announcement-day (t) coefficients are of opposite sign and statistically significant: the target-rate surprise is associated with Islamic outperformance (about +2.6 bp of Islamic–conventional differential per +1 bp surprise), whereas the forward-guidance surprise is associated with Islamic underperformance (about –3.4 bp per +1 bp). The day-before coefficient on the target component is small, positive and borderline significant, which is consistent with mild anticipation or close-time alignment; there is no evidence of effects on t+1. These conclusions are essentially unchanged in the event-only specification. By contrast, collapsing the two ECB windows into the single Monetary Event aggregate removes the same-day signal which is unsurprising given that the opposite-signed target and guidance effects net out, leaving at most a weak association on t–1. FOMC surprises are not statistically significant in any S&P specification.

Table 3: Results for the S&P Global BMI indices

Coefficient	t–1	t	t+1
		Full sample (all days)	
α (intercept)	0.6619 [1.35]	0.6661 [1.38]	0.6855 [1.41]
β_Fed (FOMC surprise)	0.8665 [1.53]	0.7107 [1.02]	-0.2716 [-0.34]
β_ECB,T (ECB target-rate surprise)	1.4528 [2.07]**	2.6334 [3.36]***	1.3485 [1.42]
β_ECB,FG (ECB forward-guidance surprise)	0.2297 [0.29]	-3.4444 [-2.55]**	0.3553 [0.43]
		Event only	
α (intercept)	1.4718 [1.09]	0.2866 [0.13]	-0.9174 [-0.38]
β_Fed (FOMC surprise)	0.8199 [1.37]	0.7325 [1.08]	-0.1793 [-0.26]
β_ECB,T (ECB target-rate surprise)	1.3908 [2.13]**	2.6625 [3.23]***	1.4712 [1.44]
β_ECB,FG (ECB forward-guidance surprise)	0.2177 [0.31]	-3.4387 [-2.76]***	0.3792 [0.51]
		Full sample (all days)	
α (intercept)	0.6981 [1.42]	0.7154 [1.46]	0.7345 [1.49]
β_Fed (FOMC surprise)	0.8644 [1.53]	0.7078 [1.01]	-0.2744 [-0.34]
β_ECB,ME (ECB Monetary Event Window)	0.9315 [1.74]*	-0.2721 [-0.25]	-0.4597 [-0.80]
		Event only	
α (intercept)	2.0581 [1.45]	1.1446 [0.48]	0.1801 [0.08]
β_Fed (FOMC surprise)	0.7861 [1.33]	0.6831 [1.03]	-0.2425 [-0.35]
β_ECB,ME (ECB Monetary Event Window)	0.9125 [1.80]*	-0.2781 [-0.29]	-0.4519 [-0.94]

Source: Author's own work

Values are coefficient estimates in basis points. Bracketed numbers are Newey–West (HAC, lag=5) t-statistics; * p<0.10, ** p<0.05, *** p<0.01. Sample covers the intersection of available series for each specification.

In relation to the earlier pairs, the S&P results replicate the FTSE pattern from Table 1 – Islamic outperformance on decision surprises and underperformance on guidance surprises – but with larger magnitudes (roughly twice the FTSE elasticities), and they do not replicate the MSCI findings in Table 2, where differential sensitivities are small and fragile. Taken together, the three tables indicate that the target-versus-guidance asymmetry is not an idiosyncrasy of the FTSE construction or sample noise; it reappears in an independent provider with a different screening implementation.

Overall, Table 3 strengthens the paper's central claim: Islamic–conventional differentials around ECB communications depend on the information content (decision versus guidance) and on the index family's underlying composition, with S&P behaving like FTSE (strong, opposite-signed responses on t) and unlike MSCI (weak effects). Practically, the pattern informs interpretation and event-risk

management rather than mechanical trading: around ECB days one should expect Islamic relative outperformance on target surprises and underperformance on guidance surprises, with little persistence beyond the announcement day and no systematic effect from the Fed.

5. Summary and Discussion

This study examined whether Islamic equity indices display a systematically different sensitivity to unanticipated policy shocks than their conventional benchmarks.

Across three global index families, the results are clear. When the two ECB surprises are entered jointly, FTSE and S&P show opposite-signed, announcement-day (t) effects: Islamic indices outperform on Target surprises and underperform on Forward Guidance surprises. For S&P the full-sample elasticities are approximately +2.63 bp/bp (Target) and –3.44 bp/bp (Guidance). For FTSE the full-sample point estimates are similar in magnitude (+1.38 and –1.47 bp/bp, respectively), but as shown below, they are not stable across sub-periods.

Day-t+1 effects are negligible in the full sample; a weak negative t+1 response appears for Forward Guidance only in the event-only FTSE specification, and the extended checks in Table A1 (Annex) suggest that this is better interpreted as a limited timing-related carry-over than as a persistent delayed transmission effect. By contrast, the MSCI World pair exhibits little or no differential sensitivity at conventional significance levels.

FOMC (MPS_ORTH) surprises are never statistically significant for the Islamic–conventional differential. One plausible interpretation is that US policy-rate news operates as a common global factor, shifting required returns across Islamic and conventional constituents broadly in tandem, so that differencing leaves little systematic wedge. However, this interpretation should be treated with caution: by construction, any symmetric response to FOMC surprises will cancel out in the return differential, so the lack of statistical significance does not necessarily imply economic irrelevance at the individual-index level. The finding is therefore best read as evidence that the Federal Reserve surprise does not *differentially* affect Islamic versus conventional portfolios in the studied sample, rather than as evidence of Fed-policy neutrality for equity markets in general. The ECB, by contrast, delivers policy information in two distinct intraday windows – the 13:45 decision (Target) and the 14:30 press conference (Forward Guidance) – which need not affect screened and unscreened baskets in the same way. Consist-

ent with this, collapsing ECB Information into a single Monetary Event aggregate tends to net out same-day effects when Target and Guidance move in opposite directions. A coherent channel interpretation is that the press-release (Target) surprise primarily shifts near-term funding conditions, to which Islamic baskets – characterised by lower leverage and smaller bank weights – are relatively less exposed, whereas the press-conference (Guidance) surprise re-prices the expected policy path and term premium over the next few years, raising discounting pressure and favouring conventional indices with heavier financials. Overall, the evidence supports the view that Shariah screens re-weight the transmission channels rather than insulating Islamic equities from monetary news.

Taken together, these findings indicate that the Islamic–conventional differential is both information-window specific (decision versus guidance) and provider dependent (coverage and composition). Yet before drawing broader conclusions, it is important to distinguish between two conceptually distinct sources of any observed "Islamic effect".

The first is a *Shariah-structural effect*: systematic differences in sensitivity that arise directly from the financial constraints imposed by Shariah screening – most notably the leverage cap and the exclusion of conventional financial firms. These features are common across providers and constitute a genuine, if partial, decoupling of Islamic indices from certain monetary transmission channels. The funding-cost and financial-sector channels described in Section 1 belong to this category, and the positive Target coefficient (H1) and negative Guidance coefficient (H2) are consistent with this interpretation.

The second is a *provider-construction effect*: differences that arise not from Shariah principles as such, but from index-design choices – the treatment of emerging markets, the breadth of sectoral coverage, the specific leverage thresholds applied, and the rebalancing methodology. Table A2 (Annex) provides descriptive evidence consistent with this interpretation. The MSCI pair is constructed on a developed-market-only universe and shows no emerging-market exposure in either leg (0.0% in both indices), while the conventional MSCI World carries 16.7% financials and 26.2% technology, compared with only 0.1% financials and 36.3% technology in MSCI World Islamic. This combination implies a much stronger tilt of the Islamic leg towards long-duration developed-market growth sectors, but without the broader cross-country heterogeneity present in FTSE and S&P. By contrast, the FTSE pair combines a sizeable conventional financials weight (16.1%) with approximately 11% emerging-market exposure, and the S&P Global BMI pair spans an even broader universe with roughly 18% emerging-market weight. In all three providers, conventional financial services are effectively

screened out from the Islamic leg, but only FTSE and S&P combine that screening effect with broad global and emerging-market coverage. Descriptively, this helps explain why FTSE and S&P display a clearer Islamic–conventional wedge than MSCI: the observed differential appears to reflect not only common Shariah screens, but also the extent to which each provider's construction amplifies sectoral and geographic asymmetries between the two legs.

This distinction has a direct implication for interpretation: the statistically significant results for FTSE and S&P are consistent with H1 and H2, but in light of the descriptive composition evidence in Table A2 (Annex) they cannot be attributed unambiguously to Shariah finance as a system. They may instead reflect the particular screening methodology and coverage choices of two providers whose index construction happens to amplify the structural channels. The "Islamic effect" documented here is therefore conditional in two distinct senses. First, it depends on provider construction, as demonstrated by the contrast between FTSE/S&P on the one hand, and MSCI on the other. Second, and more importantly, it depends on the monetary policy regime: the stability analysis reported in the following paragraph shows that for FTSE the differential is confined to the COVID period and is indistinguishable from zero outside it, whereas for S&P the base-period coefficients remain statistically significant across regimes. Whether the S&P result generalises to other providers, markets or policy environments beyond those studied here remains an open empirical question.

The results are more valuable for understanding and risk management than for minting an easy trading strategy. There are several reasons. First, surprises are, by definition, unpredictable *ex ante*; the sign and size are known only once the shock has occurred. Second, our day-t coefficients are on the order of 1–3 bp per 1-bp surprise; even with 25-bp shocks the expected edge is tens of basis points, often within transaction costs, slippage and ETF/futures-basis noise – especially for Islamic products, which tend to be less liquid and harder to borrow for shorting. Third, the Target versus Guidance effects arrive in different intraday windows; capturing them requires near-real-time identification (from OIS/futures), rapid execution and market-neutral implementation. That may be feasible for an institutional desk with automation, but it is challenging for most investors.

To assess parameter stability, we augment the baseline specification with dummy variables for three sub-periods – the COVID episode (March–December 2020), the GFC (September 2008 – March 2009, MSCI only), and the ECB tightening cycle (July 2022 – December 2023) – and interact each dummy with all three surprise measures. The results reveal meaningful heterogeneity across providers.

For S&P, the base-period coefficients (outside COVID and the tightening cycle) remain statistically significant: TGT = +7.35 bp/bp [t = 2.45] and FG = −6.40 bp/bp [t = −4.17]. The interaction terms are individually significant but largely offset each other in economic terms, and the signs of the base-period effects are preserved throughout. The S&P results are therefore broadly robust to regime conditioning, supporting H1 and H2 for that index pair.

For FTSE, the picture is markedly different. Outside the COVID period, neither the Target nor the Forward Guidance coefficient is statistically significant at conventional levels (TGT = −0.13 [t = −0.15]; FG = −1.56 [t = −1.61]). The full-sample significance reported in Table 1 is driven almost entirely by the COVID interaction terms (TGT × D_COVID = +4.24 [t = 4.47]; FG × D_COVID = −8.79 [t = −5.07]). This finding substantially qualifies the interpretation of the FTSE results: the Islamic–conventional differential for that index pair appears to be a COVID-specific phenomenon rather than a stable structural feature. A plausible explanation is that the ECB's pandemic-era interventions (ПЕПП), targeted LTROs, and negative deposit rates disproportionately benefited conventional financial institutions, temporarily amplifying the sector-composition asymmetry between the FTSE Islamic and conventional baskets. Outside this exceptional episode, the differential is indistinguishable from zero.

For MSCI, the stability check confirms the main finding: no interaction term achieves significance for the Target or Guidance surprises in any sub-period, consistent with the muted full-sample results.

Taken together, the stability analysis suggests that the "Islamic effect" documented in this paper is not a universal or time-invariant feature of Shariah-screened indices. It is robust for S&P across regimes, but for FTSE it is confined to the COVID period. This heterogeneity reinforces the conclusion reached above that provider construction choices matter: the same Shariah principle manifests differently depending on index design and the prevailing monetary policy environment.

Finally, the findings document that Shariah screens change monetary policy sensitivity (lower bank weight, lower leverage). This is relevant for policy scenarios (stress-testing different rate-path narratives), factor models (calibrating rate- and financials-related betas in Islamic baskets), and client explanations (articulating why Islamic indices can fall less on decision surprises yet more on guidance tightening). The sector composition data reported in Table A2 (Annex) serve to motivate the funding-cost and financial-sector channels outlined in Section 1 (Literature review), but they do not constitute a formal decomposition of the es-

timated coefficients into sector contributions. Identifying what share of the Islamic–conventional wedge is attributable to the exclusion of financial stocks versus the reweighting towards technology or energy would require event-frequency panel data on individual constituent returns, a richer dataset that lies beyond the scope of the present study.

Before listing specific limitations, it is worth stating explicitly what this study does not claim. The finding that Islamic indices react differently to ECB Target versus Forward-Guidance surprises does not imply that they are insulated from monetary policy in general and the existing literature is clear that Shariah-compliant equities are not decoupled from monetary conditions (Akhtar et al., 2017; Choi et al., 2024). Nor do the results suggest that Islamic indices offer a systematic hedge against rate risk: the differential is sign-dependent (outperformance on Target surprises, underperformance on Guidance surprises), episode-specific (FTSE result confined to the COVID period), and too small to overcome transaction costs for most investors. The more precise claim is that Shariah screening reweights exposure across distinct policy channels – shifting sensitivity away from near-term funding costs and towards policy-path and term-premium risk – rather than eliminating monetary sensitivity altogether.

Several limitations of the present study should be noted. First, the absence of macroeconomic controls or conditioning state variables limits interpretability: the estimated betas may absorb variation attributable to contemporaneous news correlated with policy surprises, and the regression cannot distinguish between a structural Islamic-effect and a spurious correlation driven by omitted macro dynamics. The sub-period stability checks reported above partially address this concern by conditioning on three distinct policy regimes, but they do not constitute a full solution. Second, the sample periods differ across index pairs (MSCI from 2002, FTSE from 2012, S&P from 2015), so cross-provider comparisons are not made on a common set of events. Third, the findings pertain to daily close-to-close return differentials and cannot speak to intraday price discovery or to the behaviour of individual constituents. Fourth, as the stability analysis shows, the FTSE result is largely confined to the COVID period; readers should be cautious about generalising it to other episodes of unconventional policy.

Future work could extend the analysis to other central banks and to intraday horizons, incorporate state dependence (risk-on/off regimes), and examine sector-level channels that mediate the decision-versus-guidance asymmetry.

References

1. Adeyemi, I. B., & Tekdoğan, Ö. F. (2024). Understanding the Screening Criteria for Shariah-Compliant Stocks. *Adam Akademi Sosyal Bilimler Dergisi*, 14(2), 371–395. https://doi.org/10.31679/adamakademi.1415744
2. Akhtar, S., Akhtar, F., Jahromi, M., & John, K. (2017). Impact of interest rate surprises on Islamic and conventional stocks and bonds. *Journal of International Money and Finance*, 79, 218–231. https://doi.org/10.1016/j.jimonfin.2017.09.003
3. Albaity, M. S. (2011). Impact of the Monetary Policy Instruments on Islamic Stock Market Index Return. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.1973469
4. Altavilla, C., Brugnolini, L., Gürkaynak, R. S., Motto, R., & Ragusa, G. (2019). Measuring euro area monetary policy. *Journal of Monetary Economics*, 108, 162–179. https://doi.org/10.1016/j.jmoneco.2019.08.016
5. Anwer, Z., Azmi, W., & Ramadili Mohd, S. M. (2019). How do Islamic equities respond to monetary actions? *International Journal of Emerging Markets*, 14(4), 503–522. https://doi.org/10.1108/IJOEM-11-2017-0459
6. Anwer, Z., Sabit, A., Hassan, M. K., & Paltrinieri, A. (2023). Monetary transmissions mechanism for Islamic capital markets: Evidence from Markov switching dynamic regression approach. *International Journal of Islamic and Middle Eastern Finance and Management*, 16(3), 448–463. https://doi.org/10.1108/IMEFM-05-2022-0203
7. Asutay, M., Wang, Y., & Avdukic, A. (2022). Examining the Performance of Islamic and Conventional Stock Indices: A Comparative Analysis. *Asia-Pacific Financial Markets*, 29(2), 327–355. https://doi.org/10.1007/s10690-021-09351-7
8. Ayub, M. (2007). Understanding Islamic Finance. John Wiley & Sons.
9. Bahloul, S., Mroua, M., & Naifar, N. (2017). The impact of macroeconomic and conventional stock market variables on Islamic index returns under regime switching. *Borsa Istanbul Review*, 17(1), 62–74. https://doi.org/10.1016/j.bir.2016.09.003
10. Bernanke, B. S., & Gertler, M. (1995). Inside the Black Box: The Credit Channel of Monetary Policy Transmission. *Journal of Economic Perspectives*, 9(4), 27–48.
11. Bernanke, B. S., & Kuttner, K. N. (2003). What Explains the Stock Market's Reaction to Federal Reserve Policy? *Staff Reports*, 174. https://www.newyorkfed.org/research/staff_reports/sr174.html

12. Choi, S.-Y., Phiri, A., Teplova, T., & Umar, Z. (2024). Connectedness between (un)conventional monetary policy and islamic and advanced equity markets: A returns and volatility spillover analysis. *International Review of Economics & Finance*, 91, 348–363. https://doi.org/10.1016/j.iref.2024.01.034
13. Cieslak, A., & Schrimpf, A. (2018). NON-MONETARY NEWS IN CENTRAL BANK COMMUNICATION. *NBER WORKING PAPER SERIES*, 25032. http://www.nber.org/papers/w25032
14. Derigs, U., & Marzban, S. (2008). Review and analysis of current Shariah-compliant equity screening practices. *International Journal of Islamic and Middle Eastern Finance and Management*, 1(4), 285–303. https://doi.org/10.1108/17538390810919600
15. FTSE All-World Index (pp. 1–4). (2025). [Factsheet]. FTSE Russell. https://www.lseg.com/en/ftse-russell/indices/global-equity-index-series
16. FTSE IdealRatings Islamic Index Series (pp. 1–5). (2025). https://www.lseg.com/en/ftse-russell/indices/idealratings-islamic
17. Hasan, Md. B., Mahi, M., Hassan, M. K., & Bhuiyan, A. B. (2021). Impact of COVID-19 pandemic on stock markets: Conventional vs. Islamic indices using wavelet-based multi-timescales analysis. The North American *Journal of Economics and Finance*, 58, 101504. https://doi.org/10.1016/j.najef.2021.101504
18. Hassan, K., Hoque, A., Gasbarro, D., & Wong, W.-K. (2020). Are Islamic stocks immune from financial crises? Evidence from contagion tests. *International Review of Economics & Finance*, 86, 919–948. https://doi.org/10.1016/j.iref.2020.08.004
19. Hassan, K., & Lewis, M. (Eds). (2007). Handbook of Islamic banking. Edward Elgar.
20. International Monetary Fund, Bank for International Settlements, & European Central Bank (Eds). (2015). Handbook on securities statistics. International Monetary Fund.
21. Jarociński, M., & Karadi, P. (2020). Deconstructing Monetary Policy Surprises—The Role of Information Shocks. *American Economic Journal: Macroeconomics*, 12(2), 1–43. https://doi.org/10.1257/mac.20180090
22. MSCI Index Calculation Methodology. (2025). https://www.msci.com/indexes/index/990100
23. MSCI Islamic Index Series Methodology. (2025). MSCI. https://www.msci.com/index/methodology/latest/Islamic
24. MSCI World Index. (2026). MSCI. https://www.msci.com/indexes/index/990100
25. MSCI World Islamic Index. (2025). https://www.msci.com/indexes/index/136123

26. Nakamura, E., & Steinsson, J. (2018). High Frequency Identification of Monetary Non-Neutrality: The Information Effect. *NBER WORKING PAPER SERIES*, (19260). http://www.nber.org/papers/w19260
27. Paltrinieri, A., Floreani, J., Kappen, J. A., Mitchell, M. C., & Chawla, K. (2018). Islamic, socially responsible, and conventional market comovements: Evidence from stock indices. *Thunderbird International Business Review*, 61(5), 719–733. https://doi.org/10.1002/tie.22027
28. Shamsuddin, A. (2014). Are Dow Jones Islamic equity indices exposed to interest rate risk? *Economic Modelling*, 39, 273–281. https://doi.org/10.1016/j.econmod.2014.03.007
29. S&P Global BMI. (2025). S&P Global BMI. https://www.spglobal.com/spdji/en/indices/equity/sp-global-bmi/#overview
30. S&P Shariah Indices Methodology. (2026). S&P. https://www.spglobal.com/spdji/en/documents/methodologies/methodology-sp-shariah-indices-detail.pdf
31. Trabelsi, L., Bahloul, S., & Mathlouthi, F. (2020). Performance analysis of Islamic and conventional portfolios: The emerging markets case. *Borsa Istanbul Review*, 20(1), 48–54. https://doi.org/10.1016/j.bir.2019.09.002
32. Umar, Z., Shahzad, S. J. H., Ferrer, R., & Jareño, F. (2018). Does Shariah compliance make interest rate sensitivity of Islamic equities lower? An industry level analysis under different market states. *Applied Economics*, 50(42), 4500–4521. https://doi.org/10.1080/00036846.2018.1458191
33. Umar, Z., Yousaf, I., Gubareva, M., & Vo, X. V. (2022). Spillover and risk transmission between the term structure of the US interest rates and Islamic equities. *Pacific-Basin Finance Journal*, 72, 101712. https://doi.org/10.1016/j.pacfin.2022.101712
34. Ziaei, S. M. (2018). US unconventional monetary policy and Islamic equity indices. *International Journal of Islamic and Middle Eastern Finance and Management*, 11(4), 575–590. https://doi.org/10.1108/IMEFM-11-2017-0299

Annex

Table A1: Extended event windows and sub-period stability checks

Panel A: Baseline specification (event-only), extended to t+2

Coefficient	t–1	t	t+1	t+2
FTSE All-World pair				
α (intercept)	0.3027 [0.38]	0.3791 [0.33]	−0.8098 [−0.76]	−0.2505 [−0.42]
β_Fed	0.3694 [0.99]	−0.0493 [−0.11]	−0.4513 [−1.38]	−0.0016 [−0.01]
β_ECB,T	0.5593 [1.67]*	1.3724 [2.37]**	0.7711 [1.63]	0.4046 [0.86]
β_ECB,FG	0.4342 [0.90]	−1.4749 [−2.39]**	−0.7368 [−1.65]*	−0.0952 [−0.20]
MSCI World pair				
α (intercept)	0.9331 [0.88]	−1.2627 [−1.31]	−0.9431 [−0.87]	−0.7444 [−0.73]
β_Fed	−0.0541 [−0.10]	−0.0790 [−0.20]	0.1071 [0.26]	−1.2581 [−2.08]**
β_ECB,T	−1.3683 [−1.73]*	−0.6123 [−1.14]	0.2536 [0.23]	2.1478 [1.55]
β_ECB,FG	−0.0569 [−0.16]	0.3974 [1.25]	−0.0934 [−0.24]	0.1902 [0.45]
S&P Global BMI pair				
α (intercept)	1.4718 [1.09]	0.2866 [0.13]	−0.9174 [−0.38]	−1.4468 [−0.98]
β_Fed	0.8199 [1.37]	0.7325 [1.08]	−0.1793 [−0.26]	0.5040 [0.67]
β_ECB,T	1.3908 [2.13]**	2.6625 [3.23]***	1.4712 [1.44]	−0.1697 [−0.54]
β_ECB,FG	0.2177 [0.31]	−3.4387 [−2.76]***	0.3792 [0.51]	−0.5168 [−0.63]

Panel B: Sub-period stability – base-period estimates outside COVID, ECB tightening cycle, and GFC (MSCI only)

Coefficient	t+1	t+2
FTSE All-World pair		
α (intercept)	−1.6407 [−1.52]	−0.2030 [−0.29]
β_Fed	−0.5839 [−1.16]	0.0172 [0.04]
β_ECB,T	0.9638 [1.61]	0.6046 [1.32]
β_ECB,FG	−1.1316 [−2.36]**	−0.2756 [−0.38]
MSCI World pair		
α (intercept)	−1.4876 [−1.35]	−0.2947 [−0.28]
β_Fed	−0.0811 [−0.18]	−0.8029 [−1.38]
β_ECB,T	0.5587 [1.08]	0.3096 [0.57]
β_ECB,FG	−0.0250 [−0.06]	0.2828 [0.65]
S&P Global BMI pair		
α (intercept)	−2.1104 [−0.73]	−2.1563 [−1.20]
β_Fed	0.0312 [0.03]	0.5421 [0.47]
β_ECB,T	1.8159 [0.78]	1.9939 [1.38]
β_ECB,FG	0.7208 [0.63]	−1.1870 [−0.94]

Source: Author's own calculations

Values are coefficient estimates in basis points per basis point of surprise. Bracketed numbers are Newey–West (HAC, lag=5) t-statistics; * p<0.10, ** p<0.05, *** p<0.01. Panel A: baseline specification (event-only), extended to the t+2 return window. Panel B: base-period estimates from the augmented specification with sub-period dummies for COVID (Mar–Dec 2020), ECB tightening cycle (Jul 2022–Dec 2023), and GFC (Sep 2008–Mar 2009; MSCI only) with full interactions; reported estimates apply outside all crisis/regime episodes. The t+2 window uses the two-day-ahead return lead.

Table A2: Sector and geographic composition of the six index pairs

Index	N	Financials (%)	Technology (%)	EM weight (%)
FTSE pair				
FTSE All-World (conventional)†	4,225	16.1†	28.0†	11.0††
FTSE IdealRatings All-World Islamic (Shariah)†‡	n.a.	~0‡	n.a.	~11††
MSCI pair				
MSCI World (conventional)	1,353	16.7	26.2	0.0
MSCI World Islamic (Shariah)‡	329	0.1‡	36.3	0.0
S&P pair				
S&P Global BMI (conventional)	>14,000	n.a.	n.a.	~18§
S&P Global BMI Shariah (Shariah)‡	n.a.	~0‡	n.a.	~18§

Notes: N = number of index constituents. Financials and Technology weights are expressed as percentages of total index market capitalisation. EM weight = share of Emerging Market countries in index market capitalisation.

† FTSE indices use the Industry Classification Benchmark (ICB) rather than GICS. The "Financials" figure combines three ICB supersectors: Banks (7.9%), Financial Services (4.9%) and Insurance (3.4%). "Technology" corresponds to ICB Supersector 1010 (Software and Computer Services; Technology Hardware and Equipment).

†† EM weight for the FTSE All-World Index computed from the country breakdown in the May 2025 factsheet by summing FTSE-classified Advanced and Secondary Emerging Market countries. The FTSE IdealRatings Islamic index is screened from the same parent universe and therefore inherits an approximately equal EM exposure.

‡ Conventional financial services (commercial banking, investment banking, insurance, and mortgage services) are explicitly prohibited under the Shariah screening rules of all three providers. The 0.1% residual reported for MSCI World Islamic reflects marginal financial revenues of otherwise compliant companies.

§ The S&P Global BMI spans 48 markets (approximately 25 developed and 23 emerging). Detailed sector breakdown is not publicly accessible without a subscription. EM share of approximately 18% is consistent with the composition documented in S&P Dow Jones Indices (2024).

Sources: (1) . (2) MSCI Index Calculation Methodology (2025); MSCI Islamic Index Series Methodology (2025); MSCI World Index (2026). (3) (S&P Global BMI, 2025; S&P Shariah Indices Methodology, 2026). n.a. = data not available from public sources without subscription. Composition data are indicative of structural features prevailing over the sample period (2002–2023); sector weights are broadly stable across time.