

THE ROLE OF SHARIA-COMPLIANT HEDGING INSTRUMENTS IN MANAGING SUKUK YIELD VOLATILITY

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ABSTRACT

The rapid expansion of Indonesia's sukuk market has become a strategic pillar in the advancement of the national Islamic economic framework. Nevertheless, this progress is overshadowed by the inherent risk of yield volatility, primarily triggered by fluctuations in monetary policy. Such volatility generates significant cash flow uncertainty for issuers and price risks for investors. Unmitigated, this risk has the potential to hinder market deepening and constrain long-term financial stability. This study aims to conduct an in-depth analysis of the conceptual framework and technical mechanisms of Sharia-compliant hedging instruments as a viable solution to these challenges. Employing a systematic literature review with a qualitative analytical approach, the study synthesizes diverse academic works, industry standards, and relevant fatwas. The findings indicate that the Islamic Profit Rate Swap (IPRS) represents a manifestation of Sharia-compliant financial engineering that is theoretically effective in mitigating yield-related risks. Structured through a series of wa'd (unilateral promises) and tawarruq (commodity murabahah) contracts, the IPRS mechanism provides functional equivalence to conventional swaps by enabling market participants to exchange fixed-rate exposures for floating ones. The main contribution of this research lies in bridging the existing literature gap between global discourses on Islamic derivatives and their contextual application within Indonesia's sukuk market. The study concludes that understanding and adopting sophisticated instruments such as the IPRS is not merely an option but a necessary condition for achieving maturity, resilience, and market completeness in the future development of the Islamic capital market.

Keywords: Islamic Financial Risk Management; Islamic Profit Rate Swap (IPRS); Sharia-Compliant Hedging; Sukuk; Yield Volatility.

INTRODUCTION

Within the architecture of the global financial system, Islamic finance has evolved from a niche segment into a significant pillar of the international economy. Among its diverse instruments, sukuk (Islamic bonds) have emerged as a dynamic flagship product, functioning as a crucial conduit that integrates the financial sector with asset-based real economic activities. Indonesia, as the world's largest Muslim-majority nation, has strategically positioned itself at the forefront of sukuk market development, as articulated in the Masterplan for Islamic Economy and Finance issued by the National Committee for Islamic Economy and Finance (KNEKS, 2023). Sovereign Sukuk (SBSN) have become a vital fiscal instrument in financing national infrastructure projects, while corporate sukuk continue to facilitate business expansion in alignment with Sharia-compliant financial principles.

However, this remarkable progress has been accompanied by emerging challenges, most notably the volatility of sukuk yields. This volatility is not merely a statistical phenomenon but carries tangible implications for macroeconomic stability. For the government, fluctuations in yields elevate fiscal costs through higher coupon payments on Sovereign Sukuk (SBSN). For the private sector, such uncertainty can delay critical corporate investment decisions. More broadly, unmitigated yield turbulence poses the risk of eroding confidence in the stability of the national Islamic financial system. The magnitude of this risk is quantitatively evident: historical data on 10-year SBSN yields over the 2020–2025 period reveal pronounced fluctuations, ranging from record lows during the low-interest-rate era to sharp increases in response to both global and domestic monetary tightening. This dynamic underscores the need for a more resilient and adaptive framework in managing sukuk yield volatility within Indonesia's Islamic financial architecture.

The underlying source of this risk largely stems from the transmission mechanism of monetary policy to the sukuk market. Bank Indonesia's decisions to adjust the benchmark interest rate (BI-Rate) in response to inflationary pressures and exchange rate dynamics directly shape market expectations. An increase in the BI-Rate exerts a dual impact: for issuers of floating-rate sukuk, it raises funding costs; while for investors holding fixed-rate sukuk, it generates price risk through a decline in market portfolio value. The academic literature has long highlighted this linkage. Studies such as (Aulia & Suhel, 2023; Suriani, Mukhlis, & Musnadi, 2018) confirm a strong correlation between monetary policy and sukuk market performance. However, other findings, such as those reported by (Mughtar & Aris, 2023), reveal that the effects are not always linear or statistically significant in the short term. Although most studies concur that the BI-Rate exerts a significant influence, these inconsistencies underscore the limitations of predictive analyses and highlight the need for a more proactive risk management framework, particularly through the development of Sharia-compliant hedging instruments such as the Islamic Profit Rate Swap (IPRS).

While the concept of Sharia-compliant hedging (*tahawwuth*) and instruments such as the Islamic Profit Rate Swap (IPRS) have been discussed

extensively in the literature (Desky, Beik, & Risfandy, 2025; Hasan, 2023; Zatadini, 2022a), most studies remain confined to a conceptual level. This conceptual gap constitutes the primary focus of the present research. To date, no study has systematically mapped the relationship between sukuk yield volatility and its potential mitigation through IPRS within the context of Indonesia's regulatory and market frameworks. This study seeks to fill this void by conducting an in-depth analysis of the operational mechanism of IPRS and its applicability through a hypothetical case study in the domestic market. The findings are expected to provide a conceptual roadmap for both practitioners and regulators in strengthening the resilience of the Islamic financial system against interest rate-driven shocks.

Building on the complexity of risk dynamics and the current limitations of available mitigation instruments, this study seeks to address two central research questions. First, why does yield volatility constitute a fundamental risk that must be systematically managed within Indonesia's sukuk market ecosystem? Second, how can the Islamic Profit Rate Swap (IPRS) function as an effective and Sharia-compliant hedging instrument to mitigate such risk?

Given the strategic importance of sukuk in Indonesia's fiscal and financial architecture, unmanaged yield volatility poses a systemic challenge that extends beyond short-term market fluctuations. It threatens to weaken investor confidence, increase fiscal vulnerabilities, and undermine the credibility of Islamic financial instruments as stable alternatives to conventional assets. Addressing this issue requires not only macroprudential vigilance but also the development of risk management tools that are both effective and compliant with Sharia principles. The Islamic Profit Rate Swap (IPRS) offers a promising avenue in this regard, as it provides a mechanism to stabilize expected returns without violating the prohibition of *riba* or engaging in speculative behavior. By advancing a systematic analysis of IPRS within the context of Indonesia's sukuk market, this study contributes to the broader discourse on Islamic financial resilience and supports the ongoing agenda of integrating ethical finance into national economic stability frameworks.

METHODS

Grounded in an interpretivist paradigm, this research adopts a qualitative approach designed to develop a deep understanding of the operational mechanisms of the Islamic Profit Rate Swap (IPRS), rather than merely measuring empirical correlations. Ontologically, this paradigm views the "reality of the Islamic financial market" not as a static or objective entity but as a socially constructed domain whose meanings are continuously shaped and negotiated through the interaction of diverse texts, fatwas, regulations, and academic discourses (Creswell & Poth, 2016). Importantly, this approach does not contradict the normative principles of Sharia; rather, it aims to illuminate how Islamic doctrines are interpreted and operationalized by actors within financial markets. A library research design was deliberately employed due to the conceptual-theoretical orientation of the study, which seeks to construct a model and conceptual framework for IPRS implementation in Indonesia (Zed, 2014).

Building upon this methodological foundation, the study identifies its unit of analysis as textual sources that represent the phenomenon of the Islamic Profit Rate Swap (IPRS). To ensure a comprehensive analytical scope, these texts are classified into three primary categories: normative texts such as fatwas from the Dewan Syariah Nasional–Majelis Ulama Indonesia (DSN-MUI) and standards issued by the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI); conceptual texts derived from scholarly journal publications; and empirical–secondary materials drawn from market reports of the Financial Services Authority (OJK). Data collection from these secondary sources followed a systematic process guided by clear inclusion criteria—covering thematic relevance, source credibility (with priority given to official and authoritative documents), and temporal validity by focusing on literature published between 2010 and 2025. This systematic selection ensures that the analysis captures both the historical evolution and the most recent developments of the IPRS discourse within Indonesia’s Islamic financial landscape.

Extending from the data collection process, the analytical procedure employs an interpretive–thematic approach to uncover the latent meanings and relational structures embedded in the selected texts. The analysis proceeded through iterative stages: (1) textual familiarization and initial coding to identify key concepts relevant to IPRS mechanisms; (2) thematic categorization to reveal interpretive patterns across normative, conceptual, and empirical sources; and (3) synthesis and abstraction to construct a conceptual framework linking Sharia principles with the functional dynamics of risk mitigation in the sukuk market. Throughout this process, reflexivity and contextual interpretation were emphasized to maintain analytical rigor and ensure alignment with both the doctrinal integrity of Islamic finance and the institutional realities of Indonesia’s financial system. In doing so, this methodological design complements the earlier stages by transforming textual representations into a coherent analytical model (Sugiyono, 2017), offering a theoretically grounded basis for understanding the operational and regulatory dimensions of IPRS.

Building upon the preceding analytical framework, this study employs several strategies to ensure the validity and trustworthiness of its interpretations. Source triangulation was conducted by comparing information across multiple types of texts, enabling a more comprehensive understanding of the phenomenon under study. To maintain methodological transparency, an audit trail was systematically applied by documenting the coding and thematic development process in detail, while peer debriefing sessions were undertaken with scholars specializing in Islamic economics. The researcher acknowledges the methodological limitation that this approach does not capture practitioners’ direct perspectives. Nevertheless, this limitation simultaneously underscores the theoretical contribution of the study—establishing a solid conceptual foundation that can inform and guide future empirical research.

RESULTS AND DISCUSSION

RESULTS

From the investors' perspective—particularly institutional holders that dominate the sukuk market such as pension funds, insurance companies, and investment managers—the yield volatility manifests primarily in two interrelated forms of risk. The first is price risk, which directly influences the market value (mark-to-market) of their investment portfolios. Based on fundamental bond valuation principles, when market interest rates increase, the discount rate used to determine the present value of a sukuk's future cash flows also rises, thereby reducing its market price below par value in the secondary market (Ayub, 2007). This dynamic underscores how even Sharia-compliant instruments are not immune to the macrofinancial transmission of conventional rate fluctuations, reflecting a structural exposure that investors must address through effective risk management and hedging mechanisms.

To illustrate this mechanism more concretely, consider a Sharia-compliant pension fund holding a government sukuk with a nominal value of IDR 100 billion, a fixed annual coupon rate of 8 percent, and a remaining maturity of five years. When the market interest rate for comparable instruments rises to 9 percent, new investors will no longer be willing to purchase the sukuk at par value. Consequently, its market price declines to approximately IDR 96.1 billion to offer a yield to maturity equivalent to 9 percent. This depreciation—representing a potential mark-to-market loss of around IDR 3.9 billion—constitutes a tangible financial risk that must be recognized by investors.

A second form of exposure is reinvestment risk and opportunity loss. Investors remain bound to the fixed 8 percent return, while newly issued instruments in the market provide higher yields, thereby reducing both the competitiveness and the income optimization potential of their portfolios. These interlinked risks highlight the structural vulnerability faced by Islamic institutional investors within the yield volatility cycle.

Acknowledging the fundamental nature of these risks, the subsequent section delineates Sharia-based hedging mechanisms—particularly the Islamic Profit Rate Swap (IPRS)—as a prospective and compliant risk mitigation strategy to address these challenges effectively within Indonesia's sukuk market framework.

1. Identification and Characterization of Yield Risk in Sukuk Instruments

Building upon the preceding discussion on investor-side exposure, the analysis of recent literature identifies rate of return risk as the most dominant and unavoidable market risk inherent in sukuk instruments. Unlike credit risk, which pertains to an issuer's ability to meet its contractual obligations, rate of return risk is primarily driven by external macroeconomic factors—most notably changes in

benchmark interest rates that serve as reference points in the broader financial market.

Empirical studies consistently demonstrate an inverse relationship between movements in market interest rates and the prices of fixed-income instruments, including sukuk. When benchmark rates rise, investors demand higher returns on new issuances, thereby rendering existing sukuk with lower coupon rates less attractive and causing their market prices to decline (Putra, Hidayat, & Firmansyah, 2024; Wahidah, 2023). Furthermore, complementary findings reveal that other macroeconomic variables—such as inflation, exchange rate volatility, and capital market development—also exert a significant influence on sukuk yields (Febriana & Setiawan, 2024).

Consequently, rate of return risk constitutes an intrinsic exposure within sukuk investment portfolios, requiring systematic and Sharia-compliant risk management mechanisms. The findings of this study further reveal that the manifestation of this risk produces distinct yet equally significant impacts on the two principal market participants: issuers and investors.

a. Yield Risk Exposure for Sukuk Issuers with Floating-Rate Structures

Extending the preceding analysis of rate of return risk, the findings reveal that sukuk issuers—particularly corporate entities and government bodies utilizing floating-rate structures—are primarily exposed to cash flow risk. This form of risk arises because fluctuations in benchmark interest rates directly affect the periodic returns payable to investors, thereby influencing the issuer's profit and loss statements.

This observation aligns with empirical evidence provided by (Hakim & Syaichu, 2020), who identified a strong correlation between benchmark interest rate movements and fluctuations in Indonesia's bond and sukuk markets. Under a floating-rate scheme—commonly structured as [Benchmark Rate + Fixed Margin]—any volatility in monetary policy is immediately transmitted into the issuer's financial performance. Consequently, issuers face inherent uncertainty in predicting future financing costs, particularly during periods of monetary tightening or high market volatility, which can disrupt both liquidity management and long-term fiscal planning.

To illustrate this mechanism more concretely, consider a corporation that issues Sukuk Ijarah valued at IDR 2 trillion with a seven-year maturity and a floating-rate coupon set at BI Rate + 1.5%. At the time of issuance, when the BI Rate stands at 6.0%, the company's initial annual coupon obligation amounts to 7.5% or approximately IDR 150 billion. However, if within the following two years Bank Indonesia raises its policy rate aggressively by 125 basis points (1.25%) to 7.25% in response to inflationary pressures, the issuer's annual coupon burden would surge to 8.75%, equivalent to IDR 175 billion.

This increase of IDR 25 billion per year represents a non-discretionary cost escalation beyond managerial control, which may severely disrupt corporate budget planning, compress net profits, and deteriorate key financial indicators such as the Debt Service Coverage Ratio (DSCR)—a critical metric for creditors and investors. The scenario underscores how monetary policy transmission directly translates into higher funding costs for sukuk issuers, thereby amplifying their exposure to cash flow volatility and refinancing constraints within an Islamic capital market framework.

b. Risks for Sukuk Investors with Fixed Returns

On the investors' side, particularly among institutional holders such as pension funds, insurance companies, and investment managers, rate of return risk manifests in two principal forms. The first is price risk, which directly affects the mark-to-market valuation of their investment portfolios. According to the fundamental principles of bond valuation, when market interest rates increase, the discount rate applied to compute the present value of future sukuk cash flows likewise rises, resulting in a decline in secondary market prices below their par value (Ayub, 2007).

This inverse relationship between interest rate movements and sukuk prices is particularly consequential for fixed-income investors with long-duration holdings, as it erodes the market value of their assets and may trigger unrealized losses in financial statements. Within the context of Islamic finance, such valuation adjustments underscore the exposure of sukuk investors to systemic macroeconomic volatility—despite the underlying asset-backing of the instrument—highlighting the intrinsic sensitivity of sukuk performance to global monetary cycles.

An illustrative scenario can further clarify the manifestation of rate of return risk faced by sukuk investors. Consider a Sharia-compliant pension fund holding a sovereign sukuk with a nominal value of IDR 100 billion, a fixed annual coupon of 8 percent, and a remaining maturity of five years. If the prevailing market interest rate for comparable instruments rises to 9 percent, new investors will be unwilling to purchase the sukuk at par value. Consequently, its market price would decline to approximately IDR 96.1 billion to yield a return equivalent to 9 percent to new buyers. This decline of roughly IDR 3.9 billion represents a tangible loss in market value that must be recognized by the investor.

Beyond price risk, investors also face reinvestment risk and opportunity loss. Being locked into an 8 percent fixed return, while new instruments in the market offer higher yields, reduces both the competitiveness and the income optimization potential of their investment portfolios. Such conditions reveal that, even within an Islamic framework that prohibits speculative gains, sukuk investors are still exposed to macro-financial fluctuations that shape real portfolio performance and intertemporal income efficiency.

2. Framework of Solutions: Sharia-Compliant Hedging Instruments

The conceptual synthesis of the literature indicates that, in response to the aforementioned risk dynamics, the global Islamic finance industry has progressively developed a structured framework of solutions, centered on various Sharia-compliant derivative instruments. Although several instruments have emerged—such as the Islamic Cross-Currency Swap, designed to hedge exchange rate risk, and the Islamic Forward Rate Agreement, which serves to lock in returns for a single future period—comparative analysis identifies the Islamic Profit Rate Swap (IPRS) as the most relevant and comprehensive mechanism for managing the sustained volatility of profit rate movements. The IPRS framework offers a more dynamic and continuous approach to risk mitigation, aligning with the *maqāṣid al-sharī'ah* by preserving financial stability and ensuring equitable outcomes for both issuers and investors

The Islamic Profit Rate Swap (IPRS) is meticulously designed to address risk management needs while fully adhering to the fundamental prohibitions of Islamic law—namely *riba* (interest), *gharar* (excessive uncertainty), and *maysir* (speculative behavior). Building upon the solution framework discussed earlier, the IPRS represents a structured mechanism that harmonizes risk mitigation objectives with the ethical and jurisprudential boundaries of Sharia. Its foundational legitimacy, as outlined in the standards of the (Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI), 2017) and the (Dewan Syariah Nasional-Majelis Ulama Indonesia (DSN-MUI), 2015), rests on two key principles: first, that any hedging (*tahawwuth*) activity must be grounded in a genuine and pre-existing risk exposure (underlying exposure); and second, that such transactions must be executed through transparent contractual arrangements based on real asset transactions. This dual compliance—both financial and Sharia-based—positions the IPRS as a credible and ethically sound instrument for stabilizing returns in the Islamic capital market.

Building upon the Sharia-compliant foundations outlined earlier, recent literature consistently identifies the Islamic Profit Rate Swap (IPRS) as the most relevant and sophisticated instrument for managing rate of return risk in Islamic finance. Rather than constituting a single standalone contract, the IPRS is defined as a structured financial product composed of multiple underlying contracts designed to achieve the economic objective of cash flow exchange (cash flow swaps) in full compliance with Sharia principles (Zatadini, 2022). Typically, this structure integrates Commodity Murabahah and Wa'ad (binding promise) arrangements, which together ensure adherence to Islamic legal norms while enabling the effective exchange between floating and fixed profit rate streams denominated in a single currency (Maybank Islamic Berhad, 2025).

Furthermore, the literature highlights several *fiqh al-mu'āmalah* challenges associated with IPRS implementation—particularly issues of speculative intent (*maysir*), the combination of multiple contracts (*ta'addud al-'uqūd*), and the

enforceability of unilateral promises (waiver obligations). These jurisprudential concerns have become focal points in ongoing scholarly debates and product development efforts aimed at ensuring that IPRS remains aligned with the *maqāṣid al-sharī'ah* (higher objectives of Islamic law). Within this evolving framework, the IPRS has emerged as the de facto industry standard for Sharia-based hedging instruments, increasingly adopted across global Islamic financial markets due to its demonstrated ability to mitigate rate of return volatility through a legally and ethically accountable structure (International Islamic Financial Market (IIFM), 2025).

Following the conceptual framework discussed earlier, the fundamental contractual architecture underpinning the Islamic Profit Rate Swap (IPRS) can be synthesized from various authoritative sources as a hybrid structure combining Wa'd (unilateral promise) and Tawarruq (commodity Murābaḥah) contracts. The Wa'd functions as the master agreement, wherein one party issues a legally binding promise (according to the dominant view in contemporary Islamic jurisprudence) to undertake a series of transactions at a predetermined future date. This promise provides the essential legal and operational certainty required for both counterparties in executing the swap arrangement.

Meanwhile, the Tawarruq contract serves as the transactional engine that generates the actual cash flows. In practice, the paying counterparty conducts a series of commodity purchase transactions-typically involving metals traded on international commodity exchanges through deferred payment sales (Murābaḥah). The purchased commodities are then sold on a spot basis in the open market to obtain liquidity. The profit margin embedded in these Murābaḥah sales forms the basis of the rate of return, which can be structured either as a fixed rate or linked to a benchmark rate (e.g., LIBOR or its Islamic equivalent) to replicate a floating rate profile.

The integration of wa'd and tawarruq contracts creates what may be termed functional equivalence with the conventional interest rate swap (IRS). From an economic perspective, the ultimate outcome of the IPRS mirrors that of a conventional swap-namely, the exchange of cash flows between fixed and floating returns. However, the juridical foundation and substantive nature of the two instruments differ profoundly.

While a conventional interest rate swap explicitly entails the exchange of interest-based payments, which are categorically prohibited under Islamic law, the IPRS achieves an identical economic result through a sequence of real asset-based sale and purchase transactions conducted in full compliance with Sharī'ah principles. Thus, the IPRS should not be viewed merely as a mechanical replication of its conventional counterpart, but rather as a form of Islamic financial engineering that transforms the transactional substance-from an interest-bearing loan arrangement into an asset-backed trade structure. This transformation enables Islamic financial institutions to manage profit rate risk effectively while remaining fully aligned with the core prohibitions and objectives (*maqāṣid*) of Islamic finance.

3. Technical Mechanism of IPRS Application in the Sukuk Market

Building upon the preceding discussion of its structural and juridical foundations, the final stage of this study maps out the technical mechanism through which the *Islamic Profit Rate Swap (IPRS)* framework can be practically applied to mitigate the previously identified profit rate risks within the sukuk market. The proposed mechanism is presented through two primary implementation scenarios, each illustrating a distinct risk management pathway for issuers and investors.

However, beyond mere descriptive modeling, these findings carry significant policy and market implications. The effective implementation of IPRS in Indonesia requires robust market infrastructure, particularly the availability of a liquid commodity trading platform to facilitate *Tawarruq*-based transactions, as well as a regulatory framework issued by the Financial Services Authority (Otoritas Jasa Keuangan-OJK) that explicitly governs Shari'ah-compliant derivatives. Without such institutional and infrastructural support, IPRS adoption is likely to remain confined to over-the-counter (OTC) transactions, which inherently lack transparency and standardization.

At the macro level, the widespread adoption of the *Islamic Profit Rate Swap (IPRS)* has the potential to significantly enhance the stability and depth of Indonesia's sukuk market. The availability of an effective hedging instrument would encourage issuers to engage more confidently in long-term sukuk issuances, while enabling institutional investors to manage portfolio exposure more efficiently. By mitigating profit rate risk, IPRS implementation could ultimately reduce secondary market price volatility, thereby making sukuk a more attractive and liquid asset class for a broader range of investors.

Consequently, the adoption of IPRS should not be viewed merely as a technical risk management tool for individual entities, but rather as a strategic policy instrument to reinforce the resilience and competitiveness of the national Islamic capital market ecosystem.

a. Risk Mitigation for Sukuk Issuers

In this scenario, a corporation that has issued a floating-rate sukuk seeks to transform its uncertain coupon obligations into a fixed and predictable financing cost. The mechanism unfolds through a structured series of contractual interactions between the corporate client and an Islamic bank within an Islamic Profit Rate Swap (IPRS) framework that mirrors the remaining tenor of the sukuk. The client assumes the position of a fixed-rate payer and a floating-rate receiver, while the bank takes the opposite side. Periodically, under a *wa'd* arrangement, the bank executes a *tawarruq* transaction by selling commodities to the client on deferred payment terms, with the profit margin indexed to the benchmark rate. This generates a floating cash inflow for the client, which is subsequently used to service its sukuk coupon payments. Conversely, the client enters into a counter *wa'd* whereby it sells

commodities to the bank at a pre-agreed fixed profit margin, creating a fixed cash outflow. Through the netting of these two cash flows, the floating-rate exposure of the corporation is synthetically converted into a fixed-cost liability. As a result, the risk of profit-rate volatility is effectively transferred to the Islamic bank, allowing the issuer to achieve greater budgetary stability and predictability in its financial planning.

b. Risk Mitigation for Investors

In this scenario, an institutional investor holding a fixed-rate sukuk seeks to transform the income profile of the instrument into a floating-rate return in anticipation of rising market profit rates. The process begins when the investor enters into an Islamic Profit Rate Swap (IPRS) agreement with an Islamic bank. Within this contractual structure, the investor assumes the position of a fixed-rate payer and a floating-rate receiver, while the bank takes the opposite role. Periodically, the investor uses the fixed coupon income received from the sukuk to fulfill the fixed-payment obligation owed to the bank under the IPRS contract. In return, the bank provides the investor with a cash inflow indexed to a floating benchmark rate. Through this exchange of cash flows, the investor's net income becomes variable, moving in line with changes in the reference rate. This synthetic conversion enables the investor to hedge against opportunity loss associated with rising profit rates and to effectively transform the asset's return structure from fixed income to floating income, without liquidating the underlying sukuk holdings. These findings underscore that the IPRS mechanism provides essential flexibility for active portfolio management within a Sharia-compliant framework.

DISCUSSION

1. Identification and Characterization of Profit Rate Risk in Sukuk Markets

The findings of this study clearly identify profit rate risk as a tangible and quantifiable threat to sukuk market participants in Indonesia. This assertion is not merely theoretical but is empirically substantiated. Historical data analysis reveals that the yield on 10-year Sovereign Sukuk (SBSN) has experienced significant volatility over the past five years-declining to below 6% during periods of accommodative monetary policy and subsequently surging to around 8% amid tightening cycles. A similar pattern, albeit with higher volatility, is also evident in corporate sukuk yields, directly influencing the funding costs of the real sector. These findings provide contextual validation and reinforce the empirical conclusions drawn by (Hakim & Syaichu, 2020) concerning the dynamics of the retail sukuk market.

The significance of these findings extends beyond a mere technical concern; unmitigated profit rate risk has evolved into a strategic constraint for the advancement of the national Islamic economic agenda. When corporations face uncertainty in their funding costs, they tend to exhibit reluctance in undertaking new expansions through sukuk issuance, thereby slowing the pace of investment

growth. A similar dynamic applies to institutional investors, who may reallocate funds away from sukuk toward safer instruments. Collectively, these behavioral responses generate frictions in the efficient mobilization of capital—an essential prerequisite for the sustainability and resilience of the Islamic financial system (Alqurnia, Puspitasari, & Hartono, 2023; Otoritas Jasa Keuangan (OJK), 2025).

From this perspective, addressing profit rate volatility is not only a matter of micro-level risk management but also a macroeconomic imperative to strengthen the depth and stability of Indonesia's Islamic capital market. This contextual understanding provides a conceptual bridge to the subsequent section, which explores the development of Shariah-compliant hedging mechanisms—particularly the Islamic Profit Rate Swap (IPRS)—as a structured response to this systemic vulnerability.

The urgency for such a solution is further underscored from a cross-country comparative perspective. In more mature sukuk markets—such as Malaysia and the Gulf Cooperation Council (GCC) countries—profit rate risk likewise constitutes a major challenge. Nevertheless, these markets have made more substantial progress in establishing and adopting comprehensive risk management infrastructures, including liquid Shariah-compliant derivative instruments. The availability of such instruments enables these jurisdictions to exhibit greater resilience in responding to global interest rate volatility.

The empirical reality that even advanced Islamic financial markets face comparable risks—yet have proactively implemented effective hedging mechanisms—reinforces the argument that, for Indonesia, the development of Islamic hedging instruments is not merely an option but an economic necessity. It represents a fundamental prerequisite for sustaining competitiveness and realizing the nation's long-term aspiration to establish itself as a global hub for Islamic finance (Komite Nasional Ekonomi dan Keuangan Syariah (KNEKS), 2023).

Accordingly, this discussion positions risk management not merely as a supporting function but as a strategic enabler that underpins the sustainability and competitiveness of the Islamic capital market. Consistent with the argument of (Khan & Ahmed, 2001), the maturity of a financial market is not measured solely by its transaction volume, but rather by the completeness and sophistication of its risk management infrastructure. Addressing profit rate risk, therefore, constitutes an indispensable prerequisite for enhancing the depth, liquidity, and resilience of Indonesia's sukuk market.

2. Solution Framework: Sharia-Compliant Hedging Instruments

The findings of this study delineate the framework of the Islamic Profit Rate Swap (IPRS) as a manifestation of *Sharia-compliant financial engineering*. The IPRS represents a prime example of how classical Islamic contractual principles—such as *wa'ad* (promise) and *tawarruq* (commodity-based transaction)—can be innovatively structured to address contemporary financial challenges (Zatadini,

2022). This innovation bridges the gap between the growing demand for risk management products and the limited availability of corresponding instruments in the Indonesian market (Fathurahman & Purnomo, 2023).

In alignment with the standards articulated by the (Islamic Financial Services Board (IFSB), 2021), the development of such instruments is pivotal to ensuring the stability and resilience of the Islamic financial system. As a structured product, the IPRS embodies a synergy between Sharia compliance and financial innovation, where risk-oriented innovation emerges as a key determinant of competitiveness among Islamic financial institutions (Setiawan & Suroso, 2021).

a. Numerical Illustration and Risk Mitigation Mechanism

Building upon the conceptual framework of the *Islamic Profit Rate Swap (IPRS)* discussed earlier, this section provides a numerical illustration to demonstrate its practical role in mitigating yield volatility. Consider a hypothetical case in which Company A issues sukuk worth IDR 500 billion with a floating return structure benchmarked at the market rate plus 2%. At the time of issuance, the benchmark rate stands at 5%, implying a cost of 7% per annum (IDR 35 billion). Concerned about potential increases in the benchmark rate, Company A enters into an IPRS contract with Islamic Bank B for a three-year period.

- 1) **IPRS Agreement:** Company A agrees to pay a fixed profit rate of 7.5% to Islamic Bank B, while Islamic Bank B commits to paying Company A a floating profit rate equivalent to the benchmark rate plus 2%.
- 2) **Interest Rate Hike Scenario:** One year later, the benchmark rate rises to 6.5%.
 - a) *Without IPRS:* Company A's sukuk cost would escalate to 8.5% (6.5% + 2%), or IDR 42.5 billion.
 - b) *With IPRS:*
 - (1) Company A continues to pay the sukuk holders 8.5% (IDR 42.5 billion).
 - (2) Company A receives a floating return of 8.5% (IDR 42.5 billion) from Islamic Bank B.
 - (3) Company A pays a fixed rate of 7.5% (IDR 37.5 billion) to Islamic Bank B.
- 3) **Final Outcome:** The net cost of funds effectively becomes locked at a fixed rate of 7.5% (IDR 37.5 billion), irrespective of the increase in the benchmark rate. This numerical simulation vividly illustrates how the IPRS mechanism transforms the issuer's exposure from a floating to a fixed yield structure, thereby ensuring cost predictability and shielding the sukuk issuer from market rate fluctuations.

b. Functional Analysis and the Evolution of Fiqh

Following the numerical illustration of how the *Islamic Profit Rate Swap (IPRS)* functions in practice, this section deepens the analysis by exploring its functional equivalence to the conventional interest rate swap. The argument of “functional parity” between IPRS and its conventional counterpart lies at the heart of this discussion. From an economic standpoint, both instruments achieve an identical objective—the mitigation of interest rate risk. However, their fundamental distinction resides in the contractual structure and the substance of the underlying transactions.

A conventional swap constitutes a direct exchange of interest payments, representing a purely derivative contract. In contrast, the Islamic Profit Rate Swap (IPRS) replicates the same economic outcome through a series of real commodity-based transactions (*tawarruq*), underpinned by a unilateral promise (*wa'ad*), as stipulated in the standards issued by (Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI), 2017).

This functional parity does not imply a mere mechanical replication of conventional finance. Rather, it represents a form of contemporary *ijtihad*, an adaptive reasoning process that ensures the continuing relevance and resilience of Islamic finance in addressing modern financial risks (Hassan & Al-iyu, 2018). The adoption of such multi-contract structures reflects a paradigmatic shift from a rigid, form-based *fiqh* approach toward a more purposive and outcome-oriented interpretation—one that aligns with the *maqāṣid al-sharī'ah*, emphasizing the preservation of economic value against real financial risks.

c. Contribution to Market Completeness

Building upon the preceding discussion on the functional legitimacy of the *Islamic Profit Rate Swap (IPRS)*, this section emphasizes its macro-financial contribution to market completeness—a critical condition for the efficiency and resilience of Islamic financial systems. Conceptually, a complete market provides participants with sufficient instruments to transfer and manage risk optimally. By offering functionality equivalent to that of conventional swaps, the IPRS ensures that Islamic market participants are not structurally disadvantaged in managing exposure to profit rate volatility.

This advancement is particularly important in light of empirical evidence from (Karim, Wijayanti, & Hartono, 2022), which demonstrates that heightened market volatility has a negative impact on sukuk issuance. Hence, the availability of Sharia-compliant hedging instruments such as IPRS, supported by international frameworks developed by institutions like the *International Shari'ah Research Academy for Islamic Finance (ISRA)*, serves as a shock absorber within the broader Islamic capital market ecosystem.

Ultimately, the integration of IPRS into the financial architecture not only enhances the stability and sustainability of sukuk issuance but also strengthens the depth, liquidity, and structural integrity of the national Islamic capital market. In this regard, IPRS transcends its role as a mere financial innovation and emerges as a strategic enabler for advancing Indonesia's aspiration to become a global hub for Islamic finance.

3. Technical Mechanisms and Implementation Challenges of IPRS in the Sukuk Market

While the Islamic Profit Rate Swap (IPRS) presents an elegant conceptual solution, a balanced scholarly discourse necessitates a critical evaluation of its practical challenges within the Indonesian context. The first and perhaps most fundamental challenge concerns Sharia complexity and jurisprudential controversy. The IPRS structure, which heavily relies on *tawarruq munazzam* (organized commodity transactions), remains one of the most debated areas in contemporary Islamic finance. Critics argue that such transactions may risk degenerating into mere formalities—form over substance—serving as legal stratagems (*hīlah*) to replicate debt-based outcomes. Consequently, stringent oversight by the Sharia Supervisory Board (SSB) is imperative to ensure the *genuineness, auditability, and transparency* of each transaction. Without robust Sharia governance, the IPRS risks being perceived not as an authentic innovation, but merely as a cosmetic Islamization of conventional derivatives.

The second challenge is the institutional and market readiness of Indonesia's financial ecosystem. As of now, no specific fatwa from the DSN-MUI nor a comprehensive regulatory framework from the Financial Services Authority (OJK) explicitly governs Sharia-compliant derivatives such as the IPRS. This regulatory vacuum constitutes a major impediment. Furthermore, supporting market infrastructures—including efficient clearing systems and human capital capable of managing complex structured products—remain underdeveloped and require substantial capacity building.

At the institutional level, adoption is further constrained by the accounting and risk-reporting implications associated with the instrument. Should IPRS be implemented, financial institutions would need to comply with PSAK 71 (Financial Instruments), particularly the provisions concerning hedge accounting. This necessitates intricate valuation, measurement, and documentation systems to demonstrate hedge effectiveness, thereby imposing significant operational and compliance costs on Islamic financial entities.

Given these multidimensional challenges, a hasty rollout of the IPRS could expose the system to both operational and reputational risks. Accordingly, this study advocates a phased implementation framework as the most prudent policy pathway. The process should commence with the establishment of regulatory and Sharia foundations, followed by regulatory sandbox experimentation and pilot projects under controlled environments. Subsequent stages may involve limited

deployment among qualified institutions, before scaling up to broader market participation.

This gradual and risk-sensitive approach ensures that financial innovation is accompanied by parallel advancements in governance, regulation, and market infrastructure. Ultimately, such a calibrated strategy allows the Islamic Profit Rate Swap (IPRS) to evolve into a credible and Sharia-compliant risk management instrument, thereby enhancing both the stability and depth of Indonesia's sukuk market and consolidating its position within the global Islamic financial architecture.

CONCLUSION

This study concludes that the principal strategic barrier to the deepening of Indonesia's sukuk market lies not primarily in external factors, but in the absence of an effective Sharia-compliant hedging instrument. The conceptual evidence reveals that unmitigated profit-rate volatility systematically undermines the confidence of long-term institutional investors. In response, this study conceptually maps the Islamic Profit Rate Swap (IPRS) as a robust solution that provides *functional equivalence* with conventional hedging instruments through its multi-contract structure. The major contribution of this research lies in being the first to systematically conceptualize the IPRS structure specifically for sukuk risk within an emerging market context, thereby enriching both Sharia risk management theory and the Islamic capital market framework.

The implications of these findings call for a calibrated, collaborative approach among regulators such as the Otoritas Jasa Keuangan (OJK) and the National Sharia Council – Indonesian Ulema Council (DSN-MUI) to establish a coherent legal and market ecosystem. As a purely conceptual inquiry, this study carries inherent limitations due to the absence of empirical validation. However, this limitation simultaneously opens crucial avenues for future research—particularly through mixed-methods design studies aimed at empirically testing the IPRS model in real-world market settings. Ultimately, this study affirms that while sophisticated instruments like the IPRS hold the key to the future resilience of the sukuk market, their realization fundamentally depends on a strong institutional ecosystem and a deep collective understanding among all market stakeholders.

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