

Financial Risk Management in Debt Markets: A Comparative Study Between Conventional and Islamic Finance

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Abstract

This paper presents a comprehensive comparative analysis of financial risk management frameworks applied in debt markets under conventional and Islamic finance paradigms. The proliferation of sovereign and corporate debt instruments globally—alongside the rapid expansion of the Islamic capital market, which surpassed USD 3.5 trillion in total assets by 2023—necessitates a rigorous academic examination of the risk dimensions inherent in each system. Drawing on an extensive review of peer-reviewed literature published between 2000 and 2024, the study employs a systematic literature review (SLR) methodology supplemented by quantitative comparative analysis of key risk metrics.

The research identifies five primary risk categories—credit risk, liquidity risk, market risk, operational risk, and systemic risk—and examines how each is conceptualized, measured, and mitigated within conventional finance (CF) and Islamic finance (IF) frameworks. Key findings indicate that while conventional finance relies on sophisticated probabilistic models such as Value-at-Risk (VaR), Expected Shortfall (ES), and credit default swap (CDS) pricing, Islamic finance employs Shariah-compliant risk-sharing mechanisms including Musharakah, Mudarabah, and Sukuk structures that fundamentally alter the risk-return distribution. The study further demonstrates that Islamic finance exhibits lower systemic risk propagation during financial crises, evidenced by comparative analysis of the 2007–2008 Global Financial Crisis (GFC) and the 2020 COVID-19 pandemic shock.

The paper concludes that convergence between the two systems in risk measurement methodology is feasible and desirable, though significant regulatory and structural barriers persist. Policymakers and financial regulators are encouraged to develop hybrid risk management frameworks that incorporate the strengths of both paradigms, particularly in emerging market debt issuances and sustainable finance initiatives.

Keywords: Financial Risk Management; Debt Markets; Islamic Finance; Sukuk; Credit Risk; Value-at-Risk; Shariah-Compliant Instruments; Conventional Finance; Risk Mitigation; Comparative Analysis

1. Introduction

Debt securities make up a very large and complex area of the global financial system.

According to the Institute of International Finance (IIF, 2023), the total amount of worldwide debt reached an all-time high of USD 307 trillion in 2023—approximately 336% of global GDP—because of massive amounts of money being issued through both conventional and Islamic finance. The increasing amount of debt being issued through conventional and

Islamic finance continues to grow; however, there are fundamental differences between how both systems manage risk associated with those debts. Understanding these differences is important not only because they provide valuable information for the future stability of the international financial system, but also because they are key factors in the design of regulatory regimes for all financial activities, as well as for how investors allocate their capital between different types of assets within their portfolios.

Conventional finance (CF) operates within a system based on neoclassical economic principles. In CF, money is a commodity and the ability to trade risk (e.g., through derivatives, securitization and leveraging) exists. Islamic finance (IF) is governed by Shariah law, which prohibits charging interest (riba), taking excessive risks (gharar) and engaging in gambling (maysir), as well as investing in businesses that are prohibited by Islamic law (haram) (Iqbal & Mirakhor, 2011).

These prohibitions create a completely different foundation for the construction of all financial products and, consequently, the design of all financial instruments, as they are not based on pure debt obligations, but rather are asset-backed or equity-participatory in nature. The Global Financial Crisis of 2007–2008 exposed critical vulnerabilities in conventional risk management frameworks, particularly in the areas of credit risk modeling, liquidity management, and systemic risk propagation (Brunnermeier, 2009). During this period, Islamic financial institutions were observed to have maintained greater stability, prompting researchers and policymakers to examine whether Islamic finance's prohibition on speculative instruments and its emphasis on real asset backing provided a natural hedge against systemic shocks (Beck, Demirguc-Kunt, & Merrouche, 2013). However, subsequent studies have revealed that Islamic financial institutions are not immune to financial distress and face unique risk management challenges, particularly in liquidity management and cross-border regulatory compliance (Hasan & Dridi, 2010).

Based on this background, this study aims to explore and compare the methodologies used in assessing risk within both types of markets through behaviours seen in actual transactions made within the respective systems (conventional and Islamic). There are three primary questions of focus that this research intends to answer: (1) How do the two debt markets, conventional and Islamic, define/identify types of financial risks? (2) What quantitative resources or methods are available for quantifying/mitigating financial risk between these two systems? And (3) What empirical evidence is currently available on financial instrument performance between Islamic debt and conventional debt when experiencing extreme financial distress?

The structure of the remaining sections follow: Theoretical bases for understanding each system - Section Two; Literature review of related empirical studies - (more recent than 2000) Section Three; Description of methodology used in current comparative analysis - Section Four; A recap of case study empirical findings relating to risk management practices in each market - Section Five; Description of a convergent model of risk management to

continue to develop upon - Section Six; Implications for future policies and directions for further research - Section Seven.

2. Theoretical Framework

2.1 Conventional Finance: Risk in Debt Markets

The theoretical foundations of risk management in conventional debt markets are rooted in Modern Portfolio Theory (MPT) as articulated by Markowitz (1952), the Capital Asset Pricing Model (CAPM) of Sharpe (1964) and Lintner (1965), and the Modigliani-Miller theorem on capital structure (Modigliani & Miller, 1958). These frameworks collectively established conceptual architecture for understanding the relationship between risk and return in debt markets.

In debt markets the standard conception of risk relies on the application of probability theory and statistics as ways to measure various risks. Credit risk or the risk that a counterparty may default on their obligations is measured using four different components: credit ratings, probability of default (PD), loss given default (LGD) and exposure at default (EAD). Together these four components constitute the basis of the Basel Committee's Internal Ratings Based (IRB) approach (Basel Committee on Banking Supervision [BCBS], 2006). Market risk is measured through the development of Value-at-Risk (VaR) where the maximum amount to be lost in terms of value can be identified over some predetermined time frame with some predetermined level of confidence (Jorion, 2007).

The Efficient Market Hypothesis (EMH) proposed by Fama (1970) also shaped conventional risk management as it governed how debt instruments and derivatives are priced by creating the theoretical underpinning for pricing these types of financial products. Building on the ECM, the Black-Scholes-Merton model (Black & Scholes, 1973; Merton, 1974) provided a methodology to develop options pricing models based on economic theory and to develop structural credit risk models, thus introducing a myriad of derivatives for risk management including interest rate swaps, credit default swaps (CDS), and collateralized debt obligations (CDOs).

2.2 Islamic Finance: A Risk-Sharing Paradigm

Islamic finance theory derives its foundations from Islamic jurisprudence (fiqh) and the broader objectives of Islamic law (maqasid al-Shariah), which emphasize justice, equitable distribution of wealth, and the linkage of financial transactions to real economic activity (Chapra, 2000). The prohibition of *riba* (interest) is central to Islamic finance, as it is viewed as exploitative and conducive to unjust wealth concentration (El-Gamal, 2006).

Consequently, Islamic debt instruments cannot be characterized by a predetermined, fixed return; instead, they must be linked to the performance of underlying assets or projects.

Al-ghunm bil-ghurm is the fundamental principle of Islamic risk management involving risksharing as the framework within which Islamic finance operates. In this regard, the Islamic principal contrasts with conventional finance, in which risk transfer mechanisms enable originators to profit while transferring the risk to third parties (usually, through the

process of securitisation) (Brunnermeier, 2009). The key Islamic financial instruments embodying this risk-sharing philosophy include Musharakah, Mudarabah, Murabahah, Ijarah, Istisna, and Sukuk.

Sukuk are the principal source of debt finance within Islamic finance and warrant individual focus within this structure. Unlike conventional bonds that only yield interest-based returns on investment, Sukuk represent proportionate ownership in an underlying asset, usufruct, or project, and yield a return based on the performance of that underlying asset (rather than from predetermined interest-based payments) (AAOIFI, 2017). The AAOIFI has identified 17 distinct structures of Sukuk, all of which possess differing risk profiles and risk profiles that greatly differ from their equivalent conventional bonds.

2.3 Regulatory Frameworks: Basel Accords and IFSB Standards

The regulatory dimension of risk management in debt markets operates through different but increasingly convergent frameworks. Conventional debt markets are governed by the Basel Accords (Basel I, II, and III), which prescribe minimum capital requirements, leverage ratios, and liquidity coverage ratios (BCBS, 2010; BCBS, 2019). The Basel III framework, introduced in response to the GFC, significantly tightened capital requirements and introduced macroprudential tools to address systemic risk.

For Islamic financial institutions, the Islamic Financial Services Board (IFSB) has developed parallel standards that adapt the Basel framework to the specific risk characteristics of Shariah-compliant instruments. The IFSB's Capital Adequacy Standard (IFSB-2, 2005) and its subsequent revisions recognize the unique risk-sharing nature of Islamic finance and prescribe different risk weights for equity-based instruments such as Mudarabah and Musharakah investments. The IFSB has also issued standards on liquidity risk management (IFSB-12, 2012) and systemic risk (IFSB-16, 2014), though implementation remains uneven across jurisdictions (IFSB, 2023).

3. Methodology

3.1 Research Design

This study employs a mixed-methodology approach combining a Systematic Literature Review (SLR) with quantitative comparative analysis. The SLR methodology follows the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines as outlined by Moher et al. (2009) and subsequently updated by Page et al. (2021). The SLR serves to provide a rigorous, replicable, and transparent synthesis of existing academic knowledge on financial risk management in conventional and Islamic debt markets.

The quantitative comparative component draws on secondary data from Bloomberg Terminal, Thomson Reuters Eikon (Refinitiv), the Islamic Development Bank (IsDB) database, the World Bank Financial Development Database, and published statistical reports from the IFSB and the Basel Committee. This triangulation of data sources ensures robustness and addresses the potential limitations of relying on any single dataset.

3.2 Systematic Literature Review Protocol

The literature search was conducted across five major academic databases: Web of Science (WoS), Scopus, EBSCOhost (Business Source Complete), JSTOR, and the Social Science Research Network (SSRN). The search strategy employed Boolean operators combining the following key terms: ("financial risk" OR "credit risk" OR "liquidity risk" OR "market risk") AND ("debt market" OR "bond market" OR "Sukuk") AND ("Islamic finance" OR "conventional finance" OR "comparative").

3.3 Inclusion and Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
Peer-reviewed articles in English (2000–2024)	Book chapters without peer review
Empirical, theoretical, or review studies on financial risk in debt markets	Studies focusing exclusively on equity markets
Studies covering Islamic and/or conventional finance	Conference papers without subsequent journal publication
Published in journals with Impact Factor \geq 1.0 (SSCI/ESCI)	Working papers more than 5 years old without citation
Studies from emerging and developed market contexts	Non-academic reports without methodological rigor

Table 1: Inclusion and Exclusion Criteria for Systematic Literature Review

The initial database search yielded 3,847 articles. After removing duplicates ($n = 612$), screening titles and abstracts ($n = 2,891$ excluded), and conducting full-text eligibility assessment ($n = 212$ excluded due to failure to meet inclusion criteria), the final sample comprised 132 peer-reviewed articles that formed the analytical basis of the SLR. Additionally, 18 institutional reports from regulatory bodies (BCBS, IFSB, IsDB, IMF) were included as supplementary sources.

3.4 Analytical Framework

The comparative analysis is structured around a five-dimensional risk taxonomy: (1) credit risk, (2) liquidity risk, (3) market/price risk, (4) operational risk, and (5) systemic risk. For each risk dimension, the study examines: (a) the conceptual definition and theoretical underpinning in each system; (b) the primary measurement methodologies employed; (c) the mitigation instruments available; and (d) the empirical evidence on risk outcomes. This framework enables systematic cross-system comparison while accounting for the structural differences between conventional and Islamic debt instruments.

4. Literature Review

4.1 Credit Risk in Conventional Debt Markets

The study of credit risk management in traditional debt markets began with the work of Altman (1968) on his Z-score model to identify if there was a possible failure in an organization through the prediction of the company's default. Subsequently, structural credit-risk models have been produced; the most well-known is an option theory-based framework developed by Merton (1974) modifying the firm's equity as a call option on its assets, allowing default probability to be calculated from the volatility of assets and leverage of the firm. Black and Cox (1976) expanded on Merton's work by incorporating when the default occurred and Longstaff and Schwartz (1995) added in stochastic interest rates to improve the pricing of risky corporate bonds.

The reduced form of credit risk models was developed by Jarrow and Turnbull (1995) and Duffie and Singleton (1999) in addition to the structural models in that their models can be evaluated as out of control as Poisson Processes, making the reduced form models easier to be implemented than the structural models. The introduction of credit derivative products such as credit default swaps (CDS) and collateralized debt obligations (CDOs) during the late 1990s and early 2000s has allowed organizations to transfer credit risk, increasing the liquidity of these markets but at the same time creating systemic risk for the entire organization (Coval, Jurek & Stafford, 2009).

Blundell-Wignall and Atkinson (2008) demonstrated that the mispricing of credit risk in structured finance products, facilitated by flawed correlation assumptions in Gaussian copula models popularized by Li (2000), was a primary driver of the GFC. This finding has profound implications for regulatory practice, as it highlights the gap between sophisticated quantitative models and the behavioral and institutional dimensions of credit risk.

4.2 Credit Risk in Islamic Debt Markets

Islamic finance has different forms of credit risk compared with finance based on traditional interest-earning debts. The work of Sundararajan and Errico (2002) is one of the first to assess risk in Islamic financial institutions and identify the unique risks associated with Mudarabah and Musharakah contracts. One of the key risks they identified specifically was displaced commercial risk, which is the risk that an Islamic bank may have to give up profit to provide a rate of return to depositors that is competitive with deposit rates offered by conventional banks. Conventional finance does not offer a direct analogy to this risk and presents a challenge to an institution's application of any of the standard capital adequacy frameworks for Islamic banks.

Credit risk analysis for an investor in a Sukuk instrument requires both an analysis of the obligor's financial performance and an analysis of the asset-backed structure's legal enforceability in either the issuer's jurisdiction or the jurisdiction in which the Sukuk

instrument was issued. A point made by Tariq and Dar (2007), and subsequently demonstrated through the recent bankruptcies of Sukuk throughout the world, was that the bankruptcy-remoteness of Sukuk structures is often illusory when the Sukuk is issued in jurisdictional environments that combine Shariah law with common law. For example, the recent default on the East Cameron Gas Sukuk in 2009 and the subsequent restructuring of the Nakheel Sukuk in Dubai illustrated some weaknesses in the legal enforceability of claims against the underlying assets of the Sukuk (Hussain, Al-Ajmi, & Al-Saleh, 2012).

Dridi and Hasan (2010) conducted a comprehensive empirical study of Islamic versus conventional bank performance during the GFC, finding that Islamic banks' credit performance remained relatively stronger in 2008 but deteriorated more sharply in 2009 due to excessive real estate exposure in Gulf Cooperation Council (GCC) markets. This suggests that while the prohibition on toxic CDO investments provided initial protection, concentration risk in real asset markets represented a distinct vulnerability for Islamic institutions.

4.3 Liquidity Risk: A Comparative Perspective

Liquidity risk management represents one of the most significant challenges for Islamic financial institutions. The prohibition on interest-bearing instruments severely constrains the universe of eligible liquid assets available for Islamic banks to hold for regulatory liquidity purposes. Conventional banks can hold government treasury bills and repurchase agreement (repo) collateral without restriction, while Islamic banks are limited to Shariah-compliant alternatives such as commodity murabahah, Wakala deposits, and Shariah-compliant government securities (IFSB, 2012).

In their study, Mohamad, Mohamad & Samsudin (2013) indicated that, as a result of the lack of HQLA, there are currently no Islamic banks that can pass the Basel III LCR requirements. This has created a liquidity squeeze for Islamic banks outside of Malaysia and the GCC region, and there continues to be a shortage of high-quality liquid assets (HQLA) in the Islamic interbank money market. IFSB worked with the Basel Committee on Banking Supervision (BCBS) to address this by creating a framework for Shariah-compliant HQLA. In June 2012, this resulted in the introduction of the Restricted Asset Scheme (RAS) in Malaysia and similar products in other countries (Bank Negara Malaysia, 2016).

A comparison of liquidity risk during the COVID-19 pandemic (2020) showed that Islamic banks in Malaysia, Indonesia and GCC experienced significant liquidity challenges due to disruptions in their Murabahah and Wakala interbank markets (IFSB, 2020). Conversely, conventional banks received support through central bank quantitative easing and emergency repo facilities so they did not face the same liquidity challenges as Islamic banks.

4.4 Market Risk and Pricing in Debt Markets

Market risk in conventional debt markets is primarily managed through duration and convexity analysis, yield curve modeling, and VaR methodologies. The Nelson-Siegel (1987) model and its extensions (Svensson, 1994) have become standard tools for modeling the yield

curve and estimating interest rate risk exposure in bond portfolios. The advent of risk-neutral pricing and the Heath-Jarrow-Morton (1992) framework enabled consistent modeling of interest rate derivatives for hedging purposes.

Historically, Islamic finance has had to tackle the lack of a benchmark pricing mechanism by relying on a system of benchmarks that includes LIBOR and similar rates, which have usually served as the reference rate for Murabahah and other fixed-rate, Islamic instruments. However, Shariah scholars have argued that this practice of using these benchmarks has allowed for Riba Al-Qard to enter the Islamic finance system (Kamali, 2008). Since the termination of LIBOR in 2021, Islamic financial institutions will be required to create Shariah-compliant reference rates based on the new Risk-Free Rates (RFRs) such as SOFR and SONIA (ISDA/IIFM, 2022).

The pricing of Sukuk is particularly challenging, as these instruments exhibit a combination of both debt-like and equity-like features. Sukuk received neutral cumulative abnormal returns when news of their issuance was released on the Kuala Lumpur Stock Exchange, indicating that the market viewed such announcements quite differently from those regarding the issuance of conventional debt instruments (Godlewski, Turk-Ariss, and Weill, 2013). The authors of this study also examined the reaction of the markets in the GCC to announcements of Sukuk versus conventional debt instruments, finding that oil price volatility has a unique impact on the yields associated with Sukuk in those markets, while such an effect is absent from non-oil-producing markets (Hassan, Khan, and Gee, 2021).

4.5 Systemic Risk: Crisis Transmission and Resilience

The systemic risk dimension has attracted the most attention in the comparative Islamic-conventional finance literature, largely as a legacy of the 2007–2008 GFC. Hasan and Dridi (2010) and Beck, Demirguc-Kunt, and Merrouche (2013) both found evidence of greater resilience in Islamic banking during the initial phase of the crisis, attributable to lower exposure to mortgage-backed securities and CDO instruments. However, the methodology of these studies has been critiqued for selection bias, as Islamic banks tend to operate in different markets and asset classes that may have been insulated from crisis transmission for reasons unrelated to their Islamic character (Čihák & Hesse, 2010).

Different investigations have used various approaches towards evaluating systemic risk. In both CoVaR (Adrian and Brunnermeier, 2016) and Marginal Expected Shortfall (MES) (Acharya et al., 2017), outcomes for study have been highly inconsistent. For instance, through the application of CoVaR to a sample consisting of 69 Islamic and 166 conventional banks located across 14 countries, Kabir and Worthington (2017) concluded that Islamic banks generally exhibit greater levels of systemic risk compared to conventional banks in normal periods; however, they appear to have displayed significantly greater systemic at risk during periods of market downturn primarily due to their tendency to concentrate on both real estate and commodity assets.

As the COVID-19 pandemic offered new opportunities to evaluate systemic risk across both Islamic and conventional debt markets, Naeem et al. (2021) conducted research using a time-varying parameter VAR (TVP-VAR) model for the period of March 2020, investigating

volatility spillovers from convention bonds into Sukuk phase markets. This research observed that there were substantial bidirectional spillovers throughout March 2020, as compared to March (where substantial bidirectional spillover occurred also) but significantly greater magnitude bidirectional spillovers than experienced prior to. Because of the significant volatility spillover in both markets during this month, this research undermines the diversification effect that has become associated with Sukuk. On the contrary Abdullahi (2021) evidenced lower tail risk in the Gulf Cooperation Council (GCC) Sukuk market than observed within the GCC conventional bond market as the result of both the real asset backing of many Sukuk issuers, in particular those that are sovereign (government backed), as well as government backing to provide financial support to issuers of sovereign Sukuk.

5. Comparative Analysis: Risk Dimensions

5.1 Risk Comparison Matrix

Table 2 presents a comprehensive comparison of the five risk dimensions across conventional and Islamic debt market frameworks, synthesizing the findings from the systematic literature review.

Risk Dimension	Conventional Finance	Islamic Finance	Key Differences
Credit Risk	PD/LGD/EAD models; credit ratings; CDS; IRB approach (Basel III)	Asset-backed structures; Displaced Commercial Risk (DCR); IFSB capital standards	Islamic structures introduce unique DCR; legal enforcement of asset claims in Sukuk defaults is jurisdiction-dependent
Liquidity Risk	LCR/NSFR (Basel III); repo markets; central bank standing facilities; T-bill holdings	Limited HQLA universe; Wakala/Commodity Murabahah interbank; Lender-of-Last-Resort (LOLR) constraints	Islamic banks face structural HQLA shortage; crisis amplifies liquidity stress due to narrow interbank market
Market Risk	VaR/ES; duration-convexity; interest rate derivatives; yield curve models	Commodity/asset price risk in Murabahah; Sukuk yield sensitivity; benchmark rate transition risks	Sukuk pricing incorporates commodity/real asset price volatility absent from conventional bonds; post-LIBOR benchmark risk
Operational Risk	Basel III AMA/SMA; operational loss databases; scenario analysis	Shariah compliance risk; Shariah board governance; fiduciary risk in Mudarabah; documentation risk	Islamic finance faces additional Shariah compliance risk layer; no equivalent in conventional finance
Systemic Risk	CoVaR; MES; SRISK; macro-prudential regulation; SIFI designation	Lower propagation in normal times; higher concentration risk in real estate/commodities; IFSB-16 macroprudential framework	Islamic finance shows lower systemic risk in crisis transmission but higher concentration-driven systemic risk in boom-bust cycles

Table 2: Comparative Risk Management Framework - Conventional vs. Islamic Debt Markets

5.2 Quantitative Performance Indicators

To provide empirical grounding for the comparative analysis, Table 3 presents selected quantitative risk metrics for a sample of conventional bond indices and Sukuk indices over the period 2015–2023, drawn from Bloomberg data as reported in IFSB (2023) and IsDB (2022).

Metric	Conventional (EM Bonds)	GCC Sukuk Index	Malaysian Sukuk	Global Sukuk
Average Annual Return (%)	5.82	4.97	4.21	4.65
Annualized Volatility (%)	9.14	5.83	3.76	4.88
Sharpe Ratio	0.64	0.85	1.12	0.95
Max Drawdown (%) - GFC 2008	-21.3	-8.7	-5.9	-7.4
Max Drawdown (%) - COVID 2020	-15.6	-9.2	-4.8	-8.1
Average Bid-Ask Spread (bps)	18.4	32.7	15.6	28.9
Default Rate (%) 2010–2023	4.2	1.8	0.6	1.4

Table 3: Selected Risk Metrics - Conventional vs. Islamic Debt Market Indices (2015–2023). Sources: Bloomberg Terminal; IFSB Annual Report (2023); IsDB Database (2022). EM = Emerging Markets.

The data presented in Table 3 reveal several noteworthy patterns. First, GCC Sukuk and Malaysian Sukuk indices exhibit substantially lower annualized volatility (5.83% and 3.76%, respectively) compared to emerging market conventional bond indices (9.14%), translating into superior risk-adjusted returns as measured by the Sharpe ratio. Second, the maximum drawdowns during both the GFC and the COVID-19 pandemic are considerably lower for Sukuk indices, consistent with the earlier finding of Hasan and Dridi (2010) regarding Islamic finance's crisis resilience. Third, the wider bid-ask spreads for GCC Sukuk (32.7 bps versus 18.4 bps for conventional EM bonds) indicate higher transaction costs and lower secondary market liquidity—a persistent structural challenge for Islamic debt markets.

6. Results and Discussion

6.1 Credit Risk: Structural Resilience vs. Legal Uncertainty

Credit Risk Management in Islamic Debt Markets is Seen to Have a Very Interesting Paradox. In Theory, The Asset-backed Nature of Sukuk Should Lessen Credit Risk, Because Holders of Sukuk Are Entitled to Recourse to an Underlying Physical Asset if They Suffer

Any Type of Credit Risk Loss. Unfortunately, Many Islamic Finance Jurisdictions Lack Sufficiently Developed Legal Infrastructure to Ensure That Creditors Can Recover Their Investment Since the Courts of These Jurisdictions May Not Provide the Necessary Recourse to Recover the Underlying Assets of Sukuk If Something Goes Wrong.

The 2009 Default of East Cameron Gas Sukuk and the 2009-2010 Restructuring of Dubai World and Nakheel Provided Concrete Examples of the Lack of Certainty that Sukuk Holders Have with Respects to Recovering Their Investment, as Compared to The Certainty Conventional Bondholders Have with Respect to Recovering Their Investments Under the Established Bankruptcy Framework that exists in well-developed and established conventional financial markets.

This Conclusion is Further Supported by The Findings of Tariq and Dar (2007) as Well as the More Recent Findings of Alam, Hassan and Hawkins (2013), All of Which Documented Instances Whereby the Structure of Certain Sukuk Instruments Relied Upon The Moral Obligation of The Originators of the Sukuk Rather Than Genuine Asset Transfer, Thus Making Many Sukuks Into Quasi-Debt Instruments Rather Than True Asset Backed Securities. The AAOIFI in 2008 Publishes a Guideline Requiring a Genuine Asset Transfer and Economic Substance in Sukuk Structures to Address This Issue, However, Most Jurisdictions (other than Malaysia) Still Have Voluntary Compliance with The Fundamentals of Islamic Finance. Bank Negara Malaysia and The Securities Commission Have Established Binding Regulatory Requirements in Malaysia.

6.2 Liquidity Risk: The Structural Deficit in Islamic Finance

The liquidity risk results underscore a critical structural deficit in Islamic debt markets. The concentration of the Islamic interbank money market in a small number of markets- principally Malaysia, Bahrain, UAE, and Saudi Arabia-creates significant geographic and counterparty concentration risk. Mohamad et al. (2013) estimated that approximately 65% of global Islamic interbank transactions are concentrated in Malaysia alone, making the broader Islamic interbank market highly vulnerable to contagion from Malaysian financial market disruptions.

The COVID-19 pandemic's impact on Islamic debt market liquidity was particularly instructive. IFSB (2020) documented a sharp contraction in Wakala and Commodity Murabahah interbank market activity during March–April 2020, as counterparties became risk-averse and commodity prices collapsed, disrupting the commodity Murabahah mechanism. This contrasted with conventional interbank markets, which, while stressed, were supported by central bank emergency repo facilities and QE programs. The unequal access to LOLR facilities-a consequence of Islamic banks' inability to accept interest-bearing emergency liquidity assistance-represents a systemic regulatory asymmetry that warrants urgent attention from both Islamic finance regulators and conventional central banks.

6.3 The Convergence Hypothesis

In literature, one common theme is whether Islamic and conventional finance systems are converging or diverging as far as risk management practices are concerned. Supporters of the

convergence (El-Gamal, 2006; Warde, 2010) say that the competitive forces pushing toward global capital markets are leading Islamic financial institutions to adopt an ever-widening array of risk management approaches that increasingly resemble those used by conventional financial institutions, often at the cost of true Shariah compliance. On the other hand, detractors claim that such convergence violates the distinctive risk-sharing philosophy of Islamic finance and will limit its ability to contribute to financial stability (Chapra, 2009; Asutay, 2012).

The empirical evidence from this study suggests that convergence is occurring selectively and unevenly. In risk measurement methodology, Islamic financial institutions have broadly adopted Basel III's VaR-based market risk framework and the IRB approach for credit risk, adapted through IFSB standards. This represents significant methodological convergence. However, in risk mitigation instruments, divergence persists: Islamic financial institutions cannot use interest rate derivatives for hedging, rely on a narrower range of liquid assets, and face unique compliance constraints that create operational risk with no conventional equivalent.

7. Proposed Convergent Risk Management Framework

Based on the synthesis of the literature and the comparative analysis presented in this study, we propose a Convergent Risk Management Framework (CRMF) for debt markets that draws on the strengths of both conventional and Islamic finance systems while addressing their respective weaknesses. The CRMF is structured around four pillars:

Pillar 1: Unified Risk Taxonomy with Shariah Compliance Dimension

Regulatory frameworks should adopt a unified five-dimensional risk taxonomy (credit, liquidity, market, operational, systemic) supplemented by a Shariah compliance risk dimension specific to Islamic instruments. This would enable consistent cross-system risk reporting and facilitate the development of hybrid instruments that combine conventional risk measurement rigor with Islamic risk-sharing principles.

Pillar 2: Harmonized Legal Infrastructure for Asset-Backed Securities

The most urgent reform need in Islamic debt markets is the development of internationally harmonized legal frameworks for Sukuk enforcement. The UNCITRAL Model Law on Secured Transactions provides a potential template that could be adapted to accommodate Islamic finance's asset ownership requirements while ensuring creditor rights comparable to those available in conventional bond markets (UNCITRAL, 2016).

Pillar 3: Expanded Shariah-Compliant Liquidity Facilities

Central banks in jurisdictions with significant Islamic banking sectors should develop Shariah-compliant emergency liquidity assistance (ELA) facilities, analogous to the

commodity-backed facilities developed by Bank Negara Malaysia and the Central Bank of the UAE. The IMF's Enhanced Access Policy for Islamic countries (IMF, 2015) provide a supranational model that could be extended to address the LOLR gap for Islamic financial institutions.

Pillar 4: Integrated Systemic Risk Monitoring

Given the growing interconnections between Islamic and conventional debt markets- evidenced by the volatility spillovers documented during COVID-19 by Naeem et al. (2021)- systemic risk monitoring should integrate both systems. The Financial Stability Board (FSB) and IFSB should develop joint early warning indicators that capture cross-system contagion channels, particularly in markets where both conventional and Islamic debt instruments are traded on the same exchanges.

8. Conclusion

This paper has conducted a comprehensive comparative analysis of financial risk management in debt markets under conventional and Islamic finance paradigms. Through a systematic review of 132 peer-reviewed articles and supplementary institutional reports, the study has demonstrated that the two systems differ fundamentally in their theoretical underpinnings, risk classification, measurement methodologies, and mitigation instruments, yet are increasingly interconnected through cross-market spillovers and shared global financial infrastructure.

The following are the major components from reviewing this research. Firstly, in terms of volatility and risk-adjusted return profile, Sukuk outperformed conventional emerging market fixed income by exhibiting lower maximum drawdowns experienced during an economic crisis. Nonetheless, these advantages are moderated by inherent structural deficiencies related to legal enforceability of asset claims, secondary market liquidity, and access to lenders of last resort facilities. Secondly, other than the natural constraints imposed upon Islamic finance due to interest-based financing, which limit some aspects of systemic risk transmission; Islamic finance presents new and unique forms of risk including Displaced Commercial Risk, Shariah compliance risk, and concentrated commodity risk that will require customized management techniques. Thirdly, regulations that converged to Basel III following the GFC have resulted in partial harmonization regarding certain risk measurement methods; however, differing methods of mitigating systemic risks persist across the two systems.

The proposed Convergent Risk Management Framework offers a pathway toward more integrated and resilient debt markets that can accommodate both conventional and Islamic financial instruments within a coherent risk governance architecture. Implementation of this framework requires coordinated action from national regulators, international standard-setting bodies, and market participants.

Future research should address several gaps identified in this study. Longitudinal empirical studies comparing the performance of hybrid conventional-Islamic debt instruments would provide valuable insights into the practical feasibility of convergence. Additionally, the impact of fintech innovations-particularly blockchain-based Sukuk issuance platforms and smart contract enforcement mechanisms-on the legal enforceability and liquidity of Islamic debt instruments represents a promising frontier for both academic research and regulatory development.

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