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TRANSITIONING FROM LONDON INTERBANK OFFERED RATE (LIBOR) TO RISK-FREE RATES (RFRs): EARLY POLICY RESPONSES IN SELECTED JURISDICTIONS

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ABOUT THE ISLAMIC FINANCIAL SERVICES BOARD (IFSB)

The IFSB is an international standard-setting organisation which was officially inaugurated on 3 November 2002 and started operations on 10 March 2003. The organisation promotes and enhances the soundness and stability of the Islamic financial services industry by issuing global prudential standards and guiding principles for the industry, broadly defined to include banking, capital markets and insurance sectors. The standards prepared by the IFSB follow a lengthy due process as outlined in its Guidelines and Procedures for the Preparation of Standards/Guidelines, which involves, among others, the issuance of exposure drafts, holding of workshops and, where necessary, public hearings. The IFSB also conducts research and coordinates initiatives on industry-related issues, as well as organises roundtables, seminars and conferences for regulators and industry stakeholders. Towards this end, the IFSB works closely with relevant international, regional and national organisations, research/educational institutions and market players.

For more information about the IFSB, please visit **www.ifsb.org**.

ABBREVIATIONS

AAOIFI	Accounting and Auditing Organization for Islamic Financial Institutions
ARRC	Alternative Reference Rates Committee
BHIROR	Bahraini Dinar Interbank Offer Rate
BSRA	Banking Regulation and Supervision Agency
BR	Base Rate
CAPM	Capital Asset Pricing Model
CBO	Central Bank of Oman
CBN	Central Bank of Nigeria
CME	Chicago Mercantile Exchange
COF	Cost of Fund
CSIA	Compounded Setting in-Arrears
EONIA	Euro Overnight Index Average
EIBOR	Emirates Interbank Offered Rate
ESTR	Euro Short-Term Rate
FCA	Financial Conduct Authorities
FSB	Financial Stability Board
ICE	Intercontinental Exchange Benchmark Administration
ICM	Islamic Capital Market
IndoNIA	Indonesia Overnight index Average
IIFS	Institutions Offering Islamic Financial Services
IIFM	International Islamic Financial Market
IsDB	Islamic Development Bank
IFSB	Islamic Financial Services Board
ISDA	International Swaps and Derivatives Association
JIBOR	Jakarta Interbank Offered Rate
KIBOR	Karachi Interbank Offered Rate
KLIBOR	Kuala Lumpur Interbank Offered Rate
LIBOR	London Interbank Offered Rate
MYOR	Malaysia Overnight Rate
MYORi	Malaysia Overnight Rate Islamic

NIBOR	Nigeria Interbank Offered Rate
OIS	Overnight Index Swap
OMIBOR	Oman Interbank Offered Rate
OMR	Omani Rial
PKR	Pakistani Rupee
QCB	Qatar Central Bank
QCBDR	QCB Deposit Rate
QCBLR	QCB Lending Rate
QMR	Qatar Money Market Rate Standing Facility
QCBRR	QCB Repo or Repurchase Rate
RFR	Risk-Free Rate
RSA	Regulatory and Supervisory Authorities
SOFR	Secured Overnight Financing Rate
SONIA	Sterling Overnight Index Average
SAIBID	Saudi Arabian Interbank Bid Rate
SAIBOR	Saudi Arabian Interbank Offered Rate
TLREF	Turkish Lira Overnight Reference Rate
TR LIBOR	Turkish Lira Interbank Bid Rate
TONAR	Tokyo Overnight Average Rate

Abstract

The transition away from LIBOR to RFRs triggered several financial and regulatory issues for RSAs in jurisdictions offering Islamic financial services. During the early stage of the transition phase, RSAs have put in place several policy measures to mitigate the adverse effect of LIBOR`s abolishment and foster Islamic banks` resilience. This study, therefore, opts for a qualitative approach based on a survey questionnaire to gather inputs on challenges related to (i) LIBOR`s use and application across jurisdictions offering Islamic financial services, (ii) exposures and fallbacks, (iii) RFRs use and application across jurisdictions, (iv) major transitioning financial risks, (v) regulatory and supervisory challenges, and (vi) the additional roles that the IFSB can play during the transition phase. Responses were collected from 69 participants, mainly 11 RSAs and 64 Islamic banking institutions from various jurisdictions. In response to the raised issues, respondents provided sets of policy measures and actions taken to maintain a smooth transition process. After examining participants` feedback thematically and comprehensively, relevant results are provided. First, a lack of significant market disruptions is found, proving the magnitude of regulators` efforts to ensure a smooth transition to RFRs. Results show that IIFS have low exposure to LIBOR as it was being used for foreign currency-denominated transactions, whereas local reference rates were utilized for domestic transactions. Second, the study illustrates various policy measures that have been adopted by RSAs across jurisdictions enabling IIFS to mitigate major transitioning risks, as well as regulatory and supervisory challenges that have been triggered when transitioning from LIBOR to RFRs. Third, the study highlights additional challenges that regulators and standard setters interested in Islamic finance can address to strengthen the resilience of the Islamic banking sector.

Keywords*: LIBOR, RFRs, Islamic banks` stability, Regulations*

JEL Classifications: *F65, G21, G28*

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SECTION 1: INTRODUCTION

1.1 Background

The London Inter-Bank Offered Rates (LIBOR) have been used for several decades as a global benchmark for interest rates benchmark, underpinning derivatives, loans/financings, bonds, and other financial products. The London Inter-Bank Offered Rates (LIBOR) measure the interest rates that large banks offer when lending to each other on an unsecured basis in the London short-term money market. It represents the average of submissions from a panel of banks and is published by ICE Benchmark Administration (IBA), which is regulated by the Financial Conduct Authority (FCA).

LIBOR has been used in the financial world as a reference rate that underpins more than USD 400 trillion of financial contracts, derivatives, bonds, loans, and other exposures worldwide. It was calculated for five currencies (USD, GBP, EUR, CHF, and JPY) and seven tenors in respect of each currency (Overnight/Spot Next, One Week, One Month, Two Months, Three Months, Six Months, and 12 Months).

LIBOR has been calculated as of 11.00 every London business day and is normally published by ICE Benchmark Administration (IBA) at 11.55 London time. It represents a trimmed arithmetic mean that excludes the highest and lowest quartile of submissions. Trimmed mean is a method of averaging, which eliminates a small specified percentage of the largest and smallest values before calculating the mean. Each panel bank's submission carries an equal weight, subject to the trimming.

The IBA has constituted a designated panel of global banks for each currency and tenor pair. For example, 16 major banks, including Bank of America, Barclays, Citibank, Deutsche Bank, JPMorgan Chase, and UBS constitute the panel for U.S. dollar LIBOR. Only those banks that have a significant role in the London market are considered eligible for membership on the ICE LIBOR panel, and the selection process is held annually. Although LIBOR has been used for several decades as a global benchmark, it showed several weaknesses, which became more apparent with the global financial crisis of 2007-08 (BCBS, 2020). In 2017, the FCA and the Bank of England's Financial Policy Committee (FPC) noted that it had become increasingly apparent that the absence of active underlying markets and the scarcity of term unsecured deposit transactions raised serious questions about the future sustainability of the LIBOR benchmarks.

A review set up by the British government identified several issues which include (i) its subjective nature in which a shortage of transaction data meant that submissions were largely based upon expert judgement rather than actual transactions; (ii) both banks and individuals within them had incentives to manipulate the rates, and there had been significant manipulation over a period of years; and (iii) there were major weaknesses in governance, which at that time lay with the British Bankers Association. This led to a set of immediate reforms in governance, regulation, and calculation, but also to international efforts coordinated by the Financial Stability Board (FSB) to reform benchmark rates[1].

The FSB and other standard-setters set the objective of transitioning away from LIBOR to more robust benchmarks, and a large amount of detailed work was undertaken. In early 2020, the market turmoil during the COVID-19 pandemic added impetus to the transition. The limited number of market transactions underpinning LIBOR decreased even further, meaning that these rates were almost entirely based on expert judgement.[2]

The Financial Stability Board[3], therefore, has admitted that continuing the reliance of global financial markets on LIBOR poses clear risks to global financial stability, and in October 2020 it published a global transition map away from LIBOR[4]. On 5 March 2021, IBA and the FCA formally confirmed the dates that panel bank submissions for all LIBOR settings will cease, after which representative LIBOR rates will no longer be available.

The majority of LIBOR panels will cease at the end of this year, with several key US dollar (USD) settings continuing until the end of June 2023,[5] to support the rundown of legacy contracts only. The extended dates for the USD LIBOR tenors may enable legacy USD LIBOR contracts to mature before LIBOR experiences disruptions

[1]See FSB, (2022), LIBOR and other benchmarks - Financial Stability Board (fsb.org)

[2] See Bank of England (2020), Interim Financial Stability Report, May. Available at https://www.bankofengland.co.uk/-/media/boe/files/financial-stability-report/2020/may-2020.pdf

[3] See FSB (2021a) `Transition away from LIBOR requires significant commitment and sustained effort from both financial and non-financial institutions across many LIBOR and non-LIBOR jurisdictions`. https://www.fsb.org/2021/06/global-transition-roadmap-for-libor-2/

[4] See FSB (2021b) Global Transition Roadmap for LIBOR - Financial Stability Board (fsb.org)

[5] See FCA (Financial Conduct Authority) (2021) 'FCA Announcement on Future Cessation and Loss of Representativeness of the LIBOR Benchmarks', 5 March: https://www.fca.org.uk/publication/documents/future-cessation-loss-representativeness-libor-benchmarks.pdf

because the transition of these contracts to alternative reference rates will be challenging.[6]

With timelines for the cessation of LIBOR panels confirmed, there should be no remaining doubts as to the urgency of the need to transition away from LIBOR by the end of 2021 (FSB, 2021c). The FSB encouraged authorities to set globally consistent expectations and milestones that firms will rapidly cease the new use of LIBOR, regardless of where those trades are booked or in which currency they are denominated. Market participants were urged to cease new use of LIBOR in all currencies as soon as practicable[7], respecting national working group timelines and supervisory guidance where applicable, and in any case no later than the end of 2021[8].

Consequently, continued reliance of global financial markets on LIBOR benchmarks, particularly the most widely used USD LIBOR settings, might pose risks to financial stability, market integrity, and investor protection. It also creates various consumer protection, litigation, and reputational risks (IOSCO, 2021). Regulators, therefore, have been urging market participants to replace LIBOR with recommended Risk-Free rates (RFRs) which tend to be backward-looking overnight reference rates compared to LIBOR which is forward-looking[9].

Interestingly, the issue of backward-looking is becoming uncommon with the introduction of CME Term SOFR rates. This benchmark rate is a daily set of forward-looking rates, calculated and published for 1-month, 3-month, 6-month, and 12-month tenors. Each CME Term SOFR Reference Rates tenor will start on (and include) the second US Government Securities Business Day following the publication day and span the corresponding tenor (e.g., 1-month, 3-month, 6-month, 12-month) in accordance with modified following day-count conventions[10].

The CME Term SOFR Reference Rates calculation method enables determining a possible path of overnight rates that is consistent with the observable averages implied

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[6] See BOG (2020), 'Statement on LIBOR Transition', 30 November, Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, and Office of the Comptroller of the Currency: https://www.federalreserve.gov/newsevents/pressreleases/files/bcreg20201130a1.pdf

[7] IOSCO (2021), The Board of International Organization of Securities Commissions, Statement on Benchmarks Transition.

[8] FSB (2021c): Progress Report to the G20 on LIBOR Transition and Remaining issues, The Financial Stability Board https://www.fsb.org/2021/07/fsb-urges-action-to-complete-the-transition-away-from-libor-by-end2021/#:~:text=In%20June%202021%2C%20the%20FSB,is%20chaired%20by%20Randal%20K.

[9] AAOIFI (2021) Research on Alternative Reference Rate, Benchmark Rate for Islamic Finance in post LIBOR scenario

[10] CME (2022), `CME Term SOFR Reference Rates Benchmark Methodology`, CME Group Benchmark Administration Limited. Available at https://www.cmegroup.com/market-data/files/cme-term-sofr-reference-rates-benchmark-methodology.pdf

by SOFR based derivative contracts. Intuitively, averages over standard tenors can be directly created once the path of overnight rates is determined. The publication of CME Term SOFR reference rates occur on the next business day following the business day during which future data sampling takes place. Term SOFR reference rates are computed based on a reference period that begins two Business Days (T+2) after the publication date settlement.

Although several changes have been done at the global level, regulators and market players have considered rigorous policy measures to cope with the new benchmark reforms to ensure a smooth transition process[11]. Considered as a part of the global financial sphere, Islamic financial institutions (IIFS) are somehow exposed to LIBOR, whereas their exposure is less likely to be significant compared to their conventional counterpart. This implies that RSAs in jurisdictions offering Islamic financial services are also concerned about the LIBOR transition because it might have an impact on the resilience and stability of the Islamic finance sector. Global and national regulators in jurisdictions offering Islamic financial services have been monitoring the progress on the LIBOR transition closely and coordinating on supervisory issues. This included collaboration on implementing cross-industry solutions and active dialogue between large Islamic financial institutions and various stakeholders (FSB, 2021c). To this extent, this working paper aims to identify the various policy measures adopted in jurisdictions offering Islamic financial services when transitioning away from LIBOR.

1.2 Objectives

Although this research paper aims to complement other IFSB`s efforts to facilitate a smooth transition away from LIBOR, the study embarks on three objectives:

a. To identify the risks and challenges that occurred during the early stage of the transition phase;
b. To ascertain early policy responses in mitigating the adverse effects of LIBOR transitioning related risks on the resilience of the Islamic banking sector,
c. To determine the IFSB`s additional roles towards a smooth transitioning process;

[11]For an in-depth understanding of LIBOR`s cessation background and alternative rates utilisation in jurisdictions offering IIFS , See IFSI, Stability Report (2022), https://www.ifsb.org/download.php?id=6571&lang=English&pg=/sec03.php

1.3 Scope of the Paper

This working paper gathers inputs from RSAs and IIFS on the various actions and policy measures that have been adopted to mitigate the adverse effects of transitioning away from LIBOR on the Islamic banking industry. More precisely, it aims to identify the early policy responses and measures that have been taken against various risks, from financial, regulatory and supervisory point of view. The outcome of this study shall help regulators and policy makers to have an in-depth understanding of the actions taken by various RSAs and their respective market players, to ensure the resilience of the Islamic banking sector.

1.4 Methodological Assumptions and Limitations

When transitioning away from LIBOR, various risks were triggered from financial and regulatory perspectives, subject to IIFS exposure to LIBOR tough legacy contracts in particular. Using a qualitative methodology, a survey questionnaire is circulated to regulators and market players (IIFS) in jurisdictions offering Islamic financial services. The survey incorporates open-ended questions to seek for respondents` feedback on various issues and challenges such as: (i) LIBOR`s use and application across jurisdictions offering Islamic financial services, (ii) exposures and fallbacks, (iii) RFRs use and application across jurisdictions, (iv) major transitioning financial risks, (v) regulatory and supervisory challenges, and (vi) the additional roles that the IFSB can play during the transition phase.

Once the issues are identified, specific policy measures are gathered from RSAs and IIFS with regards to each issue, then analysed on a thematic approach across jurisdictions. Although this study aims at giving a holistic examination of the adopted early policy measures across jurisdictions, it does not include a comparative assessment on alternative risk-free rates adopted across RSAs in jurisdictions offering Islamic financial services in anticipation of LIBOR cessation. This could be the subject of future IFSB`s undertakings when necessary to provide an in-depth understanding of the main practices in terms of RFRs` implementation. The idea could also be extended to cover any differences in terms of RFRs utilization and regulatory and supervisory aspects between Islamic banks and their conventional counterparts, leading to a clearer understanding of the recent development worldwide.

1.5 Structure of the Paper

This paper comprises five sections. Section 2 provides a literature review. Section 3 describes the methodology and data characteristics. Section 4 discusses the results. Section 5 provides a review of the policy implications, as well as a conclusion.

SECTION 2: LITERATURE REVIEW

Since the establishment of the Islamic finance industry, practitioners and researchers have been seeking for *shari`ah* compliant alternative rates (IRTI, 2020). The Islamic finance industry has continued the adoption of conventional benchmarks due to the lack of a reliable Islamic interbank benchmark. In revanche, several interesting models have been proposed. For instance, macroeconomic models have been suggested to develop the Islamic benchmark rate (Hasan and Aznan, 2020; IRITI, 2020). The proposed models, considered the expected economic growth as a proxy to capture economic development across jurisdictions offering Islamic financial services. Intuitively, this will make the development of an Islamic benchmark rate more realistic, while Islamic finance is strongly related to the real economy. In addition, another group of researchers[12] introduced the capital asset pricing model (CAPM)[13], whereas the study by Majeed (2014) suggested the use of equity indices as pricing benchmarks.

The rates of return-based on budgetary surplus was proposed by Choudhry and Mirakhor (1997) and Sari et al., (2017), whereas Mannan (1982) suggested the accounting price of capital to be employed when calculating the benchmark rates. Last but not least, the studies by Mirakhor (1996) and Ali and Azmi (2014) suggested Tobin`s Q to be considered as a cost of capital in an interest-free economy, where price return-based measures can be computed for a shorter frequency with daily closing tick by tick data.

Although the aforementioned studies provide relevant suggestions about the development of Islamic benchmark rates, RSAs offered to IIFS the possibility to opt for an appropriate benchmark rate that is in line with international standards as long as it is shari`ah compliant. The lack of standardisation and the raise of uncertainty during the early stage of the transition period urged RSAs and market players to shed some

[12] See Omar et al (2010) and Zangeneh and Salam (1993), for the theoretical understanding of adopting the CAPM model to construct an Islamic interbank benchmark
[13] See the studies by Sharpe, (1964) and Ross, (1976), for the theoretical understanding of the capital asset pricing model and the Arbitrage Pricing theory, respectively.

lights on the potential issues related to transitioning from LIBOR to RFRs subject to their exposure. In this regard, the recent study by IIFM[14] proposed directives and recommendations to mitigate the potential risks related to transitioning from LIBOR (IIFM, 2021).

Strictly speaking, the transition from LIBOR to RFRs might trigger some challenges for Islamic Banking transactions[15]. Although LIBOR is a forward-looking rate, enabling banks to calculate the interest at the start of the contract, shifting to RFRs (given the rates are overnight) might be challenging for Islamic banks due to their backward-looking nature[16]. Overnight rates must be compounded in arrears over the actual interest period; thus, the borrower will not be able to know for certain the interest payment amount until shortly before the end of the period[17]. The backward-looking of RFRs represents a lack of complete certainty on the products` terms, leading to excessive (*gharar*) uncertainty[18].

Similarly, a smooth transition from LIBOR to RFRs requires efforts to discontinue LIBOR in legacy contracts (FSB, 2021c). Thus, the transition from LIBOR to RFRs on Islamic Banking transactions may trigger issues[19] related to a number of areas besides the *Shari`ah* risk related to (*gharar*) such as pricing, accounting, liquidity risk, operational risk, credit risk, market risk, supervisory and regulatory risks (including legacy contracts and documentation) (IIFM, 2021, Clyde and CO, 2021).

In terms of pricing, the LIBOR includes the bank`s credit risk. It also incorporates a liquidity premium contingent on the relevant terms (Clyde and CO, 2021). The RFR, being overnight rates based on actual transactions, does not include these elements. This means that an RFR could be a lower rate than LIBOR, which may leave a pricing

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[14] IFN (2021a), IIFM introduces Islamic solutions for risk-free rate benchmark as LIBOR phases out, https://www.islamicfinancenews.com/daily-cover-story-iifm-introduces-islamic-solutions-for-risk-free-rate-benchmark-as-libor-phases-out.html

[15] Watson Farley and Williams (2021), LIBOR Transition, Implications for Islamic Finance, https://www.wfw.com/articles/libor-transition-implications-for-islamic-finance/

[16] Dentons (2021), LIBOR transition and Islamic finance in the GCC – accelerating the transition https://www.dentons.com/en/insights/articles/2021/august/17/libor-transition-and-islamic-finance-in-the-gcc

[17] DLA Piper (2020): The demise of LIBOR: Is it an issue for Islamic banking? https://www.dlapiper.com/en/us/insights/publications/2020/04/finance-and-markets-global-insight-issue-18/the-demise-of-libor-is-it-an-issue-for-islamic-banking/

[18] Clifford Chance, (2020), Transitioning from LIBOR: Implications for Islamic Finance, https://www.cliffordchance.com/content/dam/cliffordchance/briefings/2020/07/transitioning-from-libor-implications-for-islamic-finance.pdf

[19] IFN (2021b), LIBOR Transition: Challenges for Islamic Banks, https://www.islamicfinancenews.com/libor-transition-challenges-for-islamic-banks.html

gap (Clyde and CO, 2021). As a result, various financial risks such as market risk and liquidity risk might be triggered.

Accounting challenges may also arise due to the following issues: (i) relevance of modification in financial assets and financial liabilities concept as defined in generally accepted accounting principles; (ii) treatment of rental or profit amount in executory contracts (where performance remains outstanding) and their related accounting; (iii) treatment of profit amount in equity or quasi-equity type contracts; and (iv) treatment of agency fee where it is based on variable benchmark rate such as LIBOR (IIFM, 2021). In addition, Internal controls need to be updated along with accounting and financial processes. This includes debt compliance, inputs used in valuation models, and potential income tax consequences[20].

From supervisory and regulatory perspectives, RSAs should consider the appropriate RFR to be chosen, and how to incorporate it into the financing agreement (Clyde and CO, 2021). Failing to establish a comprehensive framework, therefore, may engender internal issues leading to reputational and operational risks.

Based on the aforementioned insights, introducing a new benchmark needs to consider all potential issues that may arise in relation to various stakeholders including customers, bankers, regulators, and supervisors to ensure transparency and compliance. Intuitively, RSAs in jurisdictions offering Islamic financial services should focus on the various implications of transitioning from LIBOR to RFRs to maintain confidence among stakeholders as well as the soundness of the Islamic financial sector.

Interestingly, the IFSB conducted a questionnaire survey analysis to collect inputs from RSAs in jurisdictions offering Islamic financial services regarding the potential challenges that Islamic financial institutions may face during the transition period (*IIFS, Stability Report 2022*). The survey was responded to between November and December 2021, by 24 RSAs representing 21 countries in Asia, Africa, and the Middle east regions. In addition to RSAs, the IsDB has been incorporated in the study due to its efforts and initiatives in fulfilling economic sustainability and financial stability in member countries.

[20] Mark D. Mishler (2020), End of LIBOR: How all industries, not just banks, can prepare, Journal of Accountancy: https://www.journalofaccountancy.com/issues/2020/aug/end-of-libor-how-to-prepare.html

Several issues (potential risks) that may arise due to the transitioning from LIBOR to alternative RFRs have been highlighted. It was found that profitability calculation and market risk are most likely to arise when transitioning from LIBOR to RFRs as stated by 63.16% and 57.89% of the respondents. Furthermore, 52.63% of the respondents revealed that operational and regulatory risks may arise due to the transition process, whereas 47.37% of the respondents admitted that the transition process may trigger liquidity risk as well as *shari`ah* risks. In addition, the survey`s results showed that 36.84% of the respondents revealed that credit risk is most likely to arise when replacing the LIBOR with RFRs, whereas the accounting and reputational issues may be triggered along the process as mentioned by 26.32%. Finally, the presence of governance risk was identified by 21.09% of the respondents.

As an attempt to mitigate the aforementioned potential transitioning risks, RSAs in jurisdictions offering Islamic financial services considered various preliminary measurements such as: (i) issuing circulars to the banks to set plans, (ii) setting internal goals and deadlines for the transition from LIBOR, and (iii) implementing permanent reviews through specialized work teams to determine the extent of commitment and progress. Furthermore, the survey questionnaire provided relevant inputs on the Alternative Rate(s) that RSAs have adopted during the transition period. RSAs have been working on developing alternative rate(s) under consideration as part of their transitional arrangements on LIBOR`s abolishment. The outcome of the survey provides relevant inputs on RSAs potential alternative rates under consideration. Most RSAs considered the overnight reference rates in addition to international rates such as SOFR, SONIA, €STR, and TONAR to ease financial transactions during the transition period.

Admitting that the previous IFSB`s assessment attempted to identify the potential challenges related to LIBOR`s abolishment as preliminary actions/measures utilized by regulators (*IIFS, Stability Report 2022*), this research paper focuses on identifying the implemented policy measures related to various challenges that RSAs have faced when transitioning away from LIBOR. The outcome of this analysis enables us to assess how RSAs and market players in jurisdictions offering Islamic financial services have mitigated the adverse impact of LIBOR discontinuation, depending on their Islamic financial institutions` exposure.

SECTION 3: RESEARCH METHODOLOGY AND DATA

3.1 Research Methodology

This research paper opts for a qualitative methodology to gather inputs from RSAs and market players (Islamic banks) on the various policy measure that have been taken to mitigate the challenges related to LIBOR abolishment. The data used in this study is collected via questionnaire survey distributed online. The survey was responded to between March and April 2022 by 75 participants representing 11 RSAs and 64 IIFS from countries in Asia, Africa and Middle-East regions (See section 3.2 for further details).

The survey comprised mainly closed-ended questions with codes to indicate options a respondent might wish to select. In some other instances, open-ended questions were also included for the respondents to freely express their opinion on related matters beyond the options provided. Owing to the exploratory nature of the research, data elicited from respondents were subjected to descriptive data analysis only, mainly based on simple percentages and frequency to show relative importance.[21]

The survey questionnaire includes questions related to (i) LIBOR`s use and application across jurisdictions offering Islamic financial services, (ii) exposures and fallbacks, (iii) RFRs use and application across jurisdictions, (iv) major transitioning financial risks, (v) regulatory and supervisory challenges, and (vi) the additional roles that the IFSB can play during the transition phase. The survey is developed based on the outcomes of previous IFSB`s assessments of the transition phase (IIFS, Stability Report 2022), as well as the Financial Stability Board`s recent publication on supervisory issues associated with benchmark transition (FSB, 2020; 2021a, 2021b, 2021c).

The first part of the survey aims to collect inputs on LIBOR`s application across jurisdictions offering IIFS. The second part instigates Islamic financial institutions` exposure to LIBOR and specific fallbacks considered to avoid any adverse effect of LIBOR legacy contracts on the stability of Islamic financial institutions. The third part focuses on RFRs use and application across jurisdictions. The fourth and the fifth parts attempt to gather inputs on the various policy measures that RSAs have adopted subject to the occurrence of major transitioning financial challenges and regulatory and supervisory issues, respectively. Finally, the sixth part highlights the additional roles of the IFSB in providing guidance and recommendations to RSAs in jurisdictions offering

[21] The analysis is based on pooled data which may conceal jurisdictional or institutional peculiarities. This concern is addressed in some instances in this paper in cases where such a peculiarity is considered material and relevant information is available.

Islamic financial services to ensure resilience and stability during the transition phase. In a nutshell, this study aims to provide relevant insights on the recent development made by RSAs in jurisdictions offering Islamic financial services in terms of policy measures to mitigate the adverse effect of the transition phase from financial, regulatory and supervisory perspectives.

3.2 Data

This research paper aims at identifying the early responses to LIBOR discontinuation in jurisdictions offering Islamic financial services using a survey questionnaire. The sample is composed by 75 mainly 11 RSAs and 64 IIFS (full-fledged Islamic banks and windows) from systemically important jurisdictions as illustrated in Table 1. The cooperation of the respondents was sought especially in terms of ensuring that the responding officer was the person with the relevant responsibility to do so and that the permission of relevant superiors or authorities was obtained where necessary. The responses provided by an institution are assumed to reflect its perspectives on the issues raised.

Table 1 List of Variables

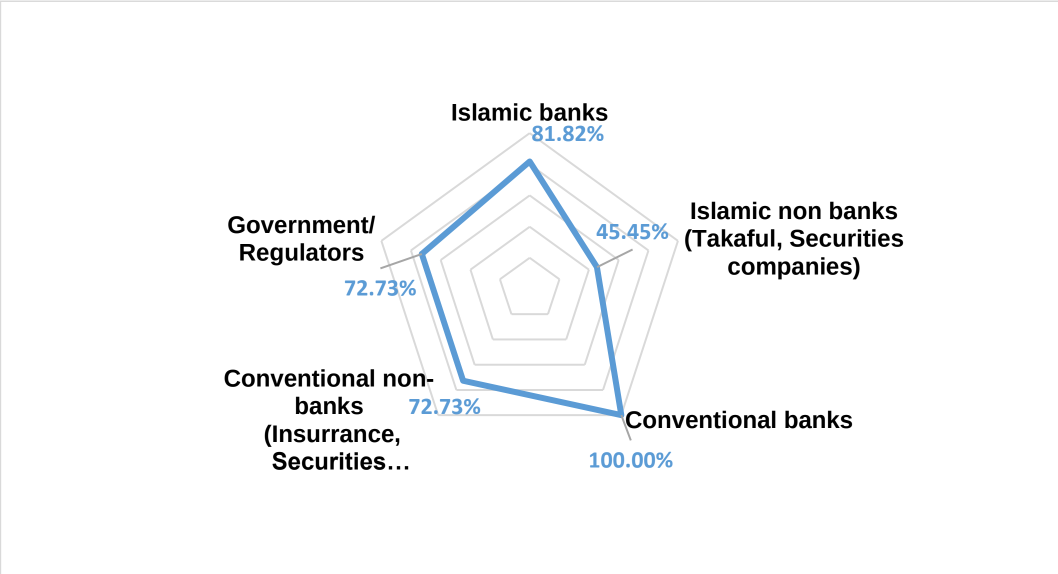
Countries	**RSAs**	**Number of IIFS**
Bahrain	Central Bank of Bahrain	3 IIFS
Indonesia	Financial Services Authorities (OJK) Indonesia	3 IIFS
Kuwait	Central Bank of Kuwait (CBK)	5 IIFS
Malaysia	Bank Negara Malaysia	18 IIFS
Mauritius	Central Bank of Mauritius	NA
Nigeria	NA	4 IIFS
Oman	Central Bank of Oman	7 IIFS
Pakistan	State Bank of Pakistan	18 IIFS
Philippines	Bangko Sentral ng Pilipinas	
Qatar	Qatar Central Bank	4 IIFS
Saudi Arabia	Saudi Arabia Central Bank (SAMA)	NA
Turkey	Banking Regulation and Supervisory Agency (BRSA)	NA
United Arab Emirates	NA	2 IIFS

SECTION 4: RESULTS

4.1 General Background

LIBOR has been used disproportionally by various financial institutions across jurisdictions (See Figure 1). All RSAs indicate that conventional banks have been using LIBOR as a benchmark for financial transactions, whereas 72% of RSAs revealed that LIBOR has been utilised for government and regulation matters.

Figure 1: LIBOR`s Utilisation by Financial Institution

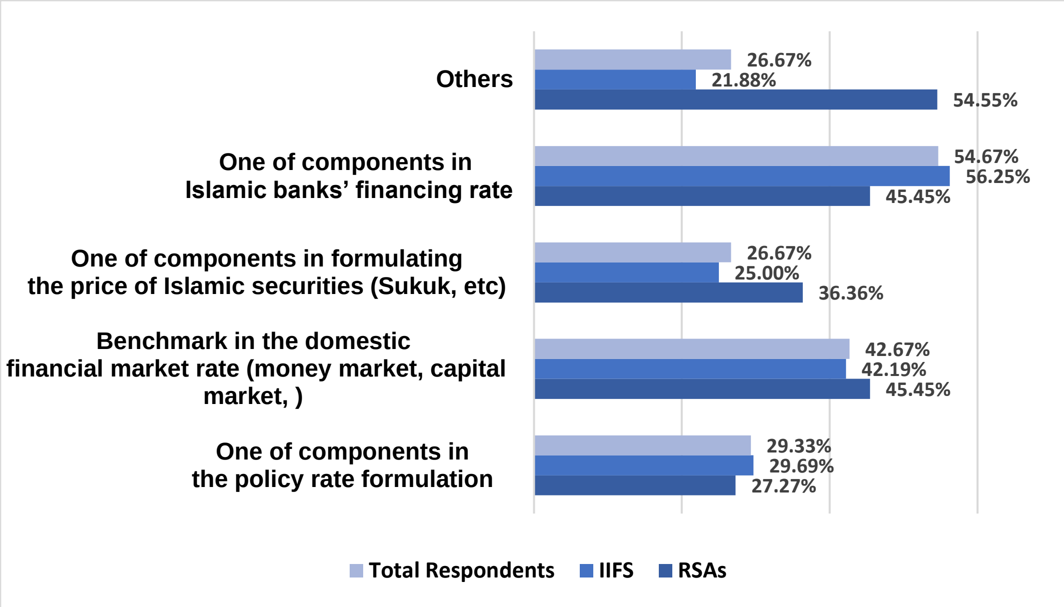


Source: IFSB Survey

The survey results also indicate that LIBOR has been adopted by conventional non-bank institutions as stated by 72% of the RSAs. Finally, Islamic banks and Islamic non-banks institutions have used LIBOR for financial transactions as mentioned by 81% and 45% of RSAs, respectively. For a better understanding of the use of LIBOR across the selected jurisdictions relevant insights are provided in Figure 2.

Figure 2 shows that before its abolishment, the majority of the respondents admitted the use of LIBOR as one of the components in formulating Islamic banks` financing rate, as well as a benchmark in the domestic financial market rate formulation. Although, RSAs have been opting for LIBOR when formulating the price of Islamic securities rate and Islamic banks financing rate equally, results indicate that market players (IIFS) were more into using LIBOR as one of the components of financing rate, which is mostly attributed to the size of the Islamic banking sector compared to ICM *(IFSI Stability Report, 2021)*.

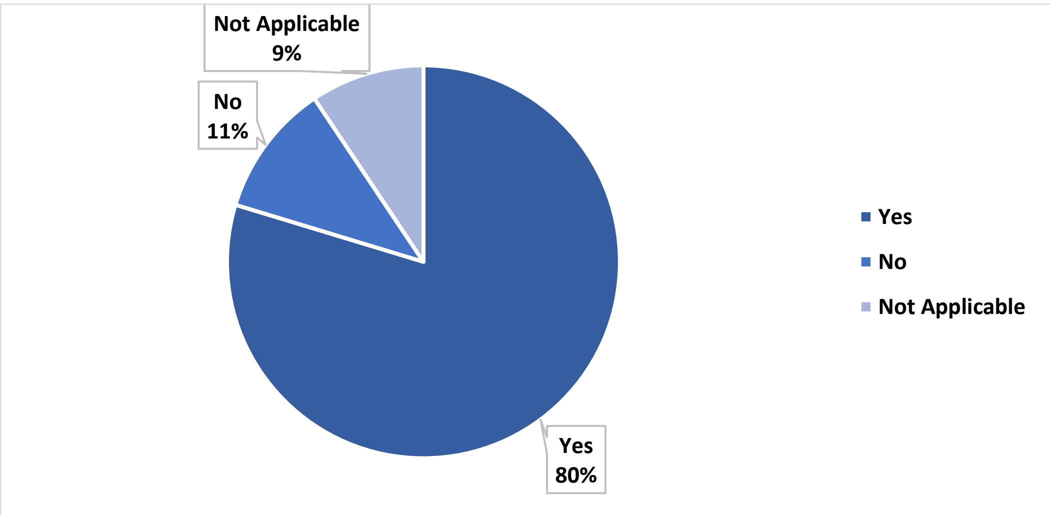
Figure 2: LIBOR`s application by instrument across the selected Jurisdictions



Source: IFSB Survey

Results also indicate that LIBOR has been used as (i) one of the components in policy rate formulation, (ii) a component in formulating the price of Islamic securities, and (iii) for other purposes as indicated by 26% of the respondents. More precisely, it is found that LIBOR was mostly employed in some specific financial operations, such as a benchmark for (i) USD denominated financial market rate, (ii) foreign currency investment Portfolio, deposits and advances and pricing provisions and extension of external funds. Other local reference rates, however, have been used for domestic transactions, which is reflected in Figure 3.

Figure 3: Application of Domestic Rates by IIFS across the selected jurisdictions



Source: IFSB Survey

Figure 3 shows that the majority of Islamic banks in our sample indicate the use of domestic rates in their financial transaction. Based on the survey results, several domestic rates have been provided by RSAs. For instance, The Central Bank of Bahrain is utilizing the Bahraini Dinar Interbank Offer Rate (BHIROR) as a benchmark. The Banking Regulation and Supervision Agency Turkey (BSRA) revealed that IIFS are applying their participation rates. Furthermore, Borsa Istanbul has started publishing TLREFK Turkish Lira Overnight Participation Reference Rate for Islamic banks[22], meaning that different products such as securities, derivatives, loans, deposits, and issued bonds are priced concerning TLREF by the Turkish banking sector.

Islamic banks in Indonesia are mostly applying the Bank Indonesia 7 Day Reverse Repo Rate for lending and deposit facility between banks and the central bank, whereas the Overnight index Average (IndoNIA) for overnight financial transactions. Jakarta Interbank Offered Rate (JIBOR), however, is mainly used for financial transactions with periods more than overnight.

The Malaysian domestic industry is transitioning towards RFR by the adoption of MYOR-i (introduced in 2022). It is calculated as the volume-weighted average rate of return on Shari'ah-compliant unsecured overnight MYR interbank placements. Further on MYOR-i.[23] KLIBOR (introduced in 1987) which is a submission-based reference rate, similar to LIBOR, has been phased out for tenures 2M and 12M, and the remaining tenures will be reviewed in 2H 2022. Moreover, banks are also using the cost of funds (COF), which is an internal rate determined by banks for the pricing of deposits and financing.

The Central Bank of Oman (CBO) has advised banks to put in place a suitable process to identify and use appropriate Alternative Reference Rates based on respective currency. CBO also indicated that most Islamic banks add a premium on published Weighted Average Interest Rates on Deposits published by CBO every month, for consumer/corporate transactions. Some other Islamic banks link their financing to their bank's published monthly expected deposit rate, which is locally called "card rate" or "on-shelf rate".

[22] See Borsa Istanbul for further details on TLREFK adoption https://borsaistanbul.com/en/sayfa/7956/tlrefk-data

[23] https://www.bnm.gov.my/documents/20124/938039/pd-myor-i.pdf

In a nutshell, Islamic banks in Oman are using the domestic rate to price the interbank money market transaction in OMR like *Wakalah* or Repo, Corporate loans in OMR and customer deposits in OMR. These rates vary from OMIBOR, CBO Repo rate and current market deposit rates. The rates are either declared on official channels like CBO page on Bloomberg and Reuters or communicated directly between the local banks.

QCB interest rate framework embraces three policy rates namely, QCB Deposit Rate (QCBDR), QCB Lending Rate (QCBLR), and QCB Repurchase Rate (QCB Repo or QCBRR). QCBDR and QCBLR are the interest rates announced by QCB on overnight deposit and loan transactions between QCB and local banks through the Qatar Money Market Rate Standing Facility (QMR), respectively. The QCBLR is the key rate used by QCB to convey signals to the market revealing adjustments to its monetary policy stance. The QMR facility is a double-featured monetary instrument encompassing two standing facilities, lending, and deposits. All commercial banks operating in Qatar can request access to the QMR facility where all transactions are executed electronically through the QMR system. Both facilities of the QMR are of various maturities ranging from 1 day (overnight) to 30 days with the primary objective of influencing the money market rates. Interest rates are fixed over the course of the day but (positively) vary with maturity over the 30 monetary-policy-day intervals and are computed daily, based on QCBDR for deposit transactions and QCBLR for loan transactions. Deposit and loan transactions per bank per day are subject to ceilings set by QCB.

The Saudi Central Bank asserted that the alternative rates differ depending on the currency of the transaction, whereas IIFS are currently using Saudi Arabian benchmark rates such us SAIBOR and SAIBID. Emirati Islamic banks are also utilizing the Emirates Interbank Offered Rate (EIBOR) for 1M, 3M, 6M, 12M tenors for denominated financial transactions wherever applicable.

The state bank of Pakistan indicated the use of the Karachi Interbank Offer Rate (KIBOR) for PKR-denominated transactions. KIBOR is mainly utilized for financing/Asset and Sukuk investments. KIOBR rates are applied for 3 months to 1 year depending upon the tenor of the facility. The rates are revised on a periodical basis concerning the KIBOR applied.

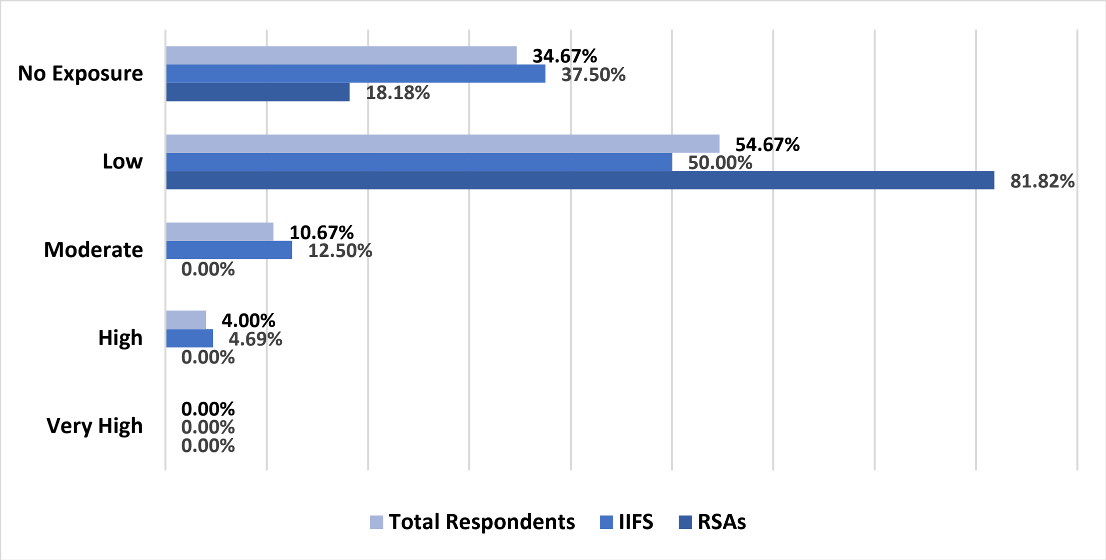
Bank of Mauritius asserted that financial institutions were free to choose their benchmark rates in the following denominated currencies. For instance, Fed funds rate or Secured Overnight Financing Rate (SOFR) is mostly used for USD, whereas the European Overnight Index Average (EONIA) is employed for transactions with European countries. Last but not least, the Sterling Overnight Index Average (SONIA) is utilized for GBP-denominated transactions. Finally, Islamic banks in Nigeria adopt CBN monetary policy rate to benchmark the pricing of financial transactions besides the Nigeria Interbank Offered Rate (NIBOR) plus Cost of Fund plus Risk Premium. More precisely, Islamic banks in Nigeria do not have significant exposure to LIBOR-linked contracts because local contracts are based on markup to the Central Bank of Nigeria (CBN) monetary policy rate (MPR). The most notable exception to this is the pricing of foreign trade lines, Foreign Direct Investments (FDIs), and Foreign Portfolio Investments (FPIs), in which case, counterparties are more comfortable with internationally acceptable and agreeable benchmarks like the LIBOR.

The Central Bank of Kuwait (CBK) has adopted the Profit Rate which is based on the Central Bank of Kuwait discount rate plus Margin. For the local currency, the Kuwait Interbank Offered Rate was not abolished because it is well monitored by the CBK and it does not have any Governance issues. With regards to LIBOR abolishment, however, the CBK did not interfere in specifying a certain rate but encouraged banks to decide, based on their internal policy.

4.2 Exposures and Fallbacks on LIBOR

In terms of total exposure to LIBOR, Figure 4 shows that the majority of the respondents admitted to having low exposure to LIBOR. Respondents` feedback revealed that few Islamic financial institutions only had insignificant numbers of agreements based on LIBOR rates for funds they have provided externally or funds they have extended to other financial institutions. Most of the banks (especially, Islamic retail banks) do not have significant exposure to LIBOR-linked contacts. A large number of Islamic banks used either rates that are fixed or domestic rates. In contrast, the usage of LIBOR was noted mainly for foreign currency (mainly USD) floating rate instruments. Only 35% of the respondents expressed their non-exposure to LIBOR, whereas moderate and high exposures were found for 11% and 4% of the respondents, respectively

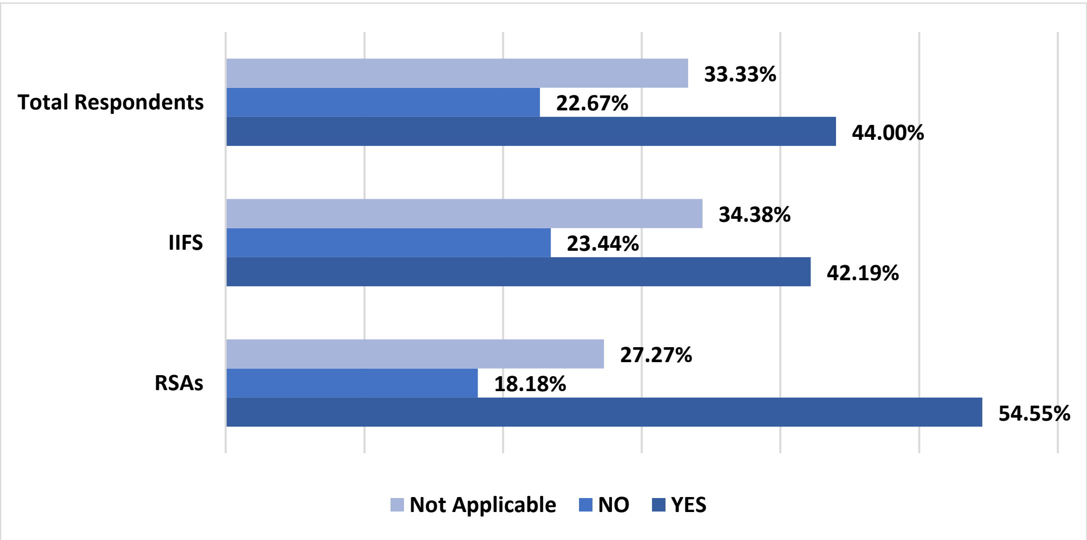
Figure 4: Total Exposure to LIBOR



Source: IFSB Survey
Note: The magnitudes of exposure levels (No exposure, Low exposure, Moderate exposure and high exposure) capture the rate/values of LIBOR-based transactions compared to the total balance sheet exposure. Overall, exposure to LIBOR has not exceeded 10% of total IIFS balance sheet exposure. Admitting that Islamic banks assets/size varies from one jurisdiction to another, what is considered low exposure for certain countries might be highly significant for others and vice versa. Most IIFS transactions are denominated in local currency, whereas LIBOR is only used for certain international transactions denominated in foreign currency, which explains the significantly low exposure to LIBOR across various jurisdictions.

To mitigate the adverse effect of IIFS and RSAs` exposure to LIBOR, Figure 5 illustrates strategies undertaken by IIFS to phase out LIBOR and transition towards RFR, with the majority of the respondents indicating the utilization of fallback language.

Figure 5: Fallbacks on total Exposure to LIBOR



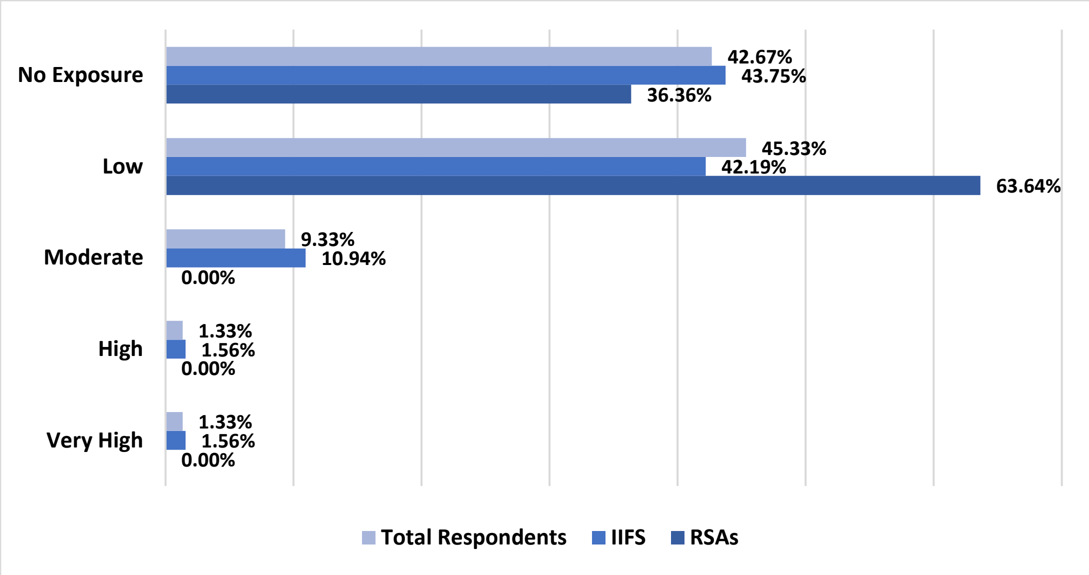
Source: IFSB Survey

RSAs have urged financial institutions (including IIFS) to identify fallback options available to them as part of existing documentation, as well as initiating consultations with respective counterparty, in case such fallback clauses are not specifically documented as per the financial agreements, to find and agree on another suitable option. IIFS have been advised to incorporate fallback clauses in all financial contracts that reference LIBOR, by referring to market standards prescribed by accredited agencies such as ISDA in collaboration with IIFM, or fallback language proposed by the US Alternative Reference Rates Committee (ARRC). In the same context, market players have been exploring different approaches like using secured overnight SOFR or Term SOFR as benchmarks. LIBOR and SOFR are different rates and thus the transition requires a credit adjustment spread to make the rate levels more comparable. As known, LIBOR is produced in various tenors and SOFR is an overnight rate. Another critical difference between LIBOR and SOFR is that LIBOR is based on unsecured transactions and is intended to include the price of bank credit risk. SOFR, on the other hand, is a near risk-free rate that does not include any bank credit component, as the transactions underpinning SOFR are fully secured by U.S. Treasuries. To address these issues, International Swaps and Derivatives Association (ISDA) sought market participants' views on several approaches to determining Credit adjustment spread. Thus, a significant majority across different types of market participants preferred the 'historical mean/median approach,' which is based on the 5-year historical median difference between USD LIBOR and SOFR, for the Credit adjustment spread.

Results also show that 23% of the respondents revealed that fallbacks were either considered on an instrument-by-instrument basis or already embedded in existing contracts before the LIBOR abolishment decision took place. Finally, 33% of the respondents affirmed the non-applicability of fallbacks due to the lack of exposure to LIBOR.

With regards to LIBOR`s tough legacy contracts, Figure 6 reveals that the majority of the respondents affirmed the lack of exposure/low exposure in their jurisdiction, whereas it tends to be moderate and manageable for 9% of the total respondents. This indicates that *Shari'ah-compliant* LIBOR exposure represents a very small portion of total LIBOR exposure in the derivative market. Furthermore, the overall balance sheet exposure is small relative to the total balance sheet, implying that IIFS`s exposures have minimal legacy contracts.

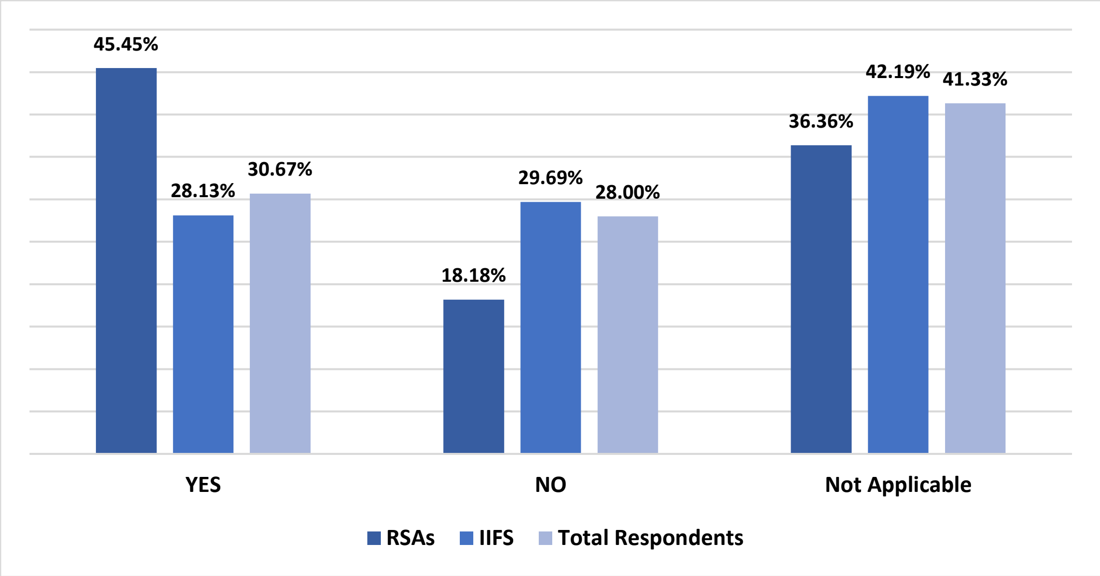
Figure 6: Exposure to LIBOR`s tough legacy contracts



Source: IFSB Survey
Note: The magnitudes of exposure levels (No exposure, Low exposure, Moderate exposure and high exposure) capture the rate/values of LIBOR-based transactions compared to the total balance sheet exposure. Overall, exposure to LIBOR has not exceeded 10% of total IIFS balance sheet exposure. Admitting that Islamic banks assets/size varies from one jurisdiction to another, what is considered low exposure for certain countries might be highly significant for others and vice versa. Most IIFS transactions are denominated in local currency, whereas LIBOR is only used for certain international transactions denominated in foreign currency, which explains the significantly low exposure to LIBOR across various jurisdictions.

In revanche, high exposure to tough legacy contracts has been indicated by less than 2% of the respondents. This is attributed to the fact that few IIFS have investment and repo transactions based on LIBOR; in addition to Sukuk investment/issuance (both asset and liability respectively) that are dependent on US swap rates (which is based on LIBOR) plus a credit spread. Overall, IIFS`s exposure is significantly low, as expressed by their respective RSAs, meaning that the stability of the Islamic banking sector is less likely to be harmed when transitioning from LIBOR to RFRs. Due to the minimal exposure of the Islamic banking sector to LIBOR`s tough legacy contracts, Figure 7 shows that the majority of the respondents, comprising RSAs and IIFS have not used specific fallbacks on LIBOR`s tough legacy contracts.

Figure 7: Fallbacks on LIBOR`s tough legacy contracts

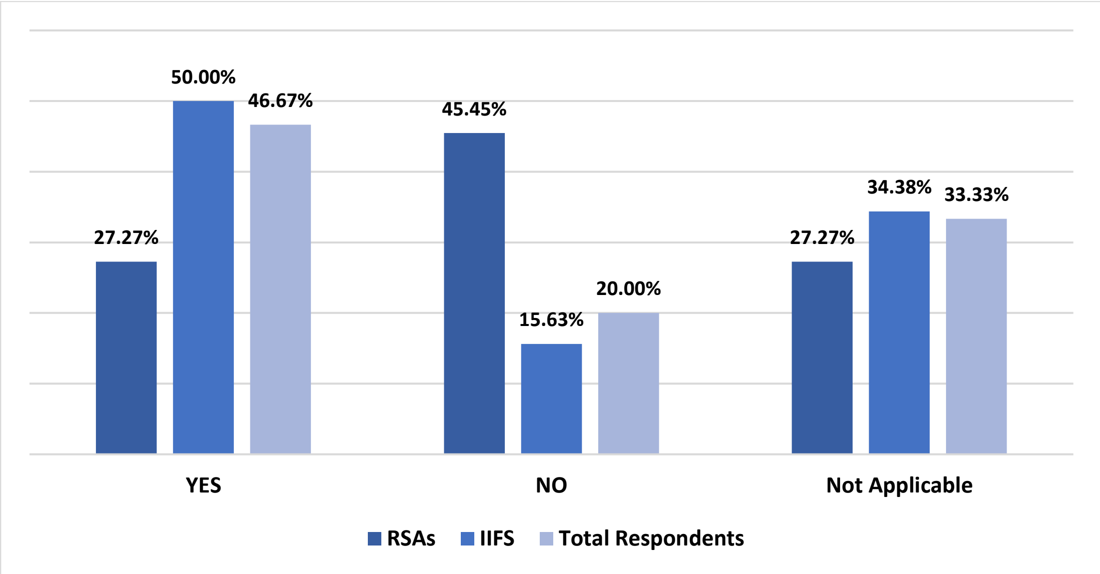


Source: IFSB Survey

In contrast, general fallbacks have been considered instead of specific ones. General fallback language was included in the documentation of legacy contracts. The fallback clauses incorporated in the financing documents indicates that Banks are entitled to change the reference rate at any time, subject to compliance with Shariah. Furthermore, IIFS have allowed for customer discussion and negotiation in use of new rates and adjustment spread to be used, subject to market convention.

Only, 31% of the respondents have adopted specific fallbacks to LIBOR tough legacy contracts. Indeed, IIFS have conducted consultations with their respective legal councils to introduce fallback language when addressing existing and new contracts related to shariah-compliant products. Furthermore, active negotiations with customers have been undertaken to ensure the local regulatory timeline and Shariah requirements are met. In addition to the incorporation of the US Alternative Reference Rates Committee (ARRC), provisions have incorporated fallback languages that are in line with ISDA standards which for Islamic/shariah terms means the execution of the ISDA-IIFM language on a bilateral basis for corporate and investment banking. Intuitively, customers can choose to fallback to either the cost of fund (COF) or SOFR or any other reliable alternative Risk-Free Rate (RFR). Interestingly, Term SOFR is a forward-looking rate based on transactions in the large and growing SOFR derivatives markets, including SOFR futures and SOFR overnight index swaps (OIS) transactions. To ensure a smooth transition from LIBOR to RFRs, respondents provide additional feedback with regards to the dynamic assessment that has been undertaken along the process when applicable. Figure 8 illustrates that the majority of the respondents have considered a dynamic assessment.

Figure 8: Dynamic assessment of the transition period

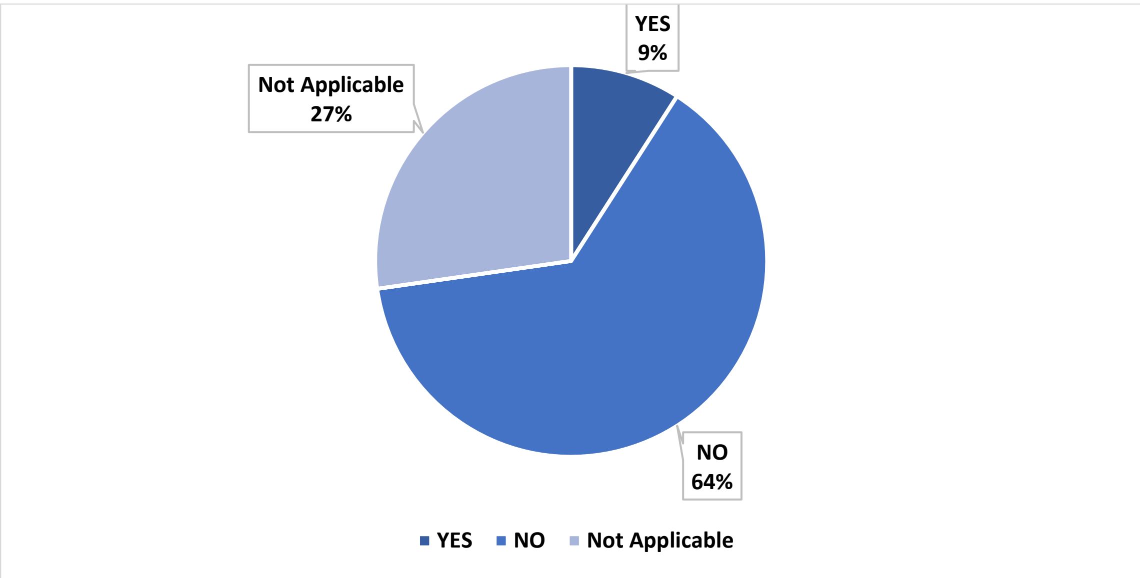


Source: IFSB Survey

The dynamic assessment enables IIFS to identify their exposures to LIBOR to complete the remediation to non-USD LIBOR exposures. Furthermore, assessments were performed to ascertain whether the change in contractual terms meet the requirements of the practical expedient and does not result in derecognition or modification of financial instruments and discontinuation of hedge accounting, which may have profit and loss implication.

The dynamic assessment has been adopted by IIFS based on RSAs instruction and supervision to ensure the stability of the Islamic banking sector during the transition period. Several working groups were formed across jurisdictions to assess the impact of transition and discuss common challenges. IIFS were required to submit quantitative and qualitative reports to their respective RSAs to monitor the transition process. More precisely, each bank was required to assess the impact in terms of total gross exposures of contracts referencing LIBOR on their respective balance sheet (asset and liability side) and derivatives and submit information on their exposures. Overall, respondents indicate that there were no major financial stability risks resulting from the LIBOR transformation. The fallbacks to LIBOR exposure have been adopted for Islamic and conventional banks equally, implying that Islamic banks` specific policy measures have not been employed by the majority of RSAs and IIFS (See Figure 9).

Figure 9: Islamic Banks Specific Policy Measures



Source: IFSB Survey

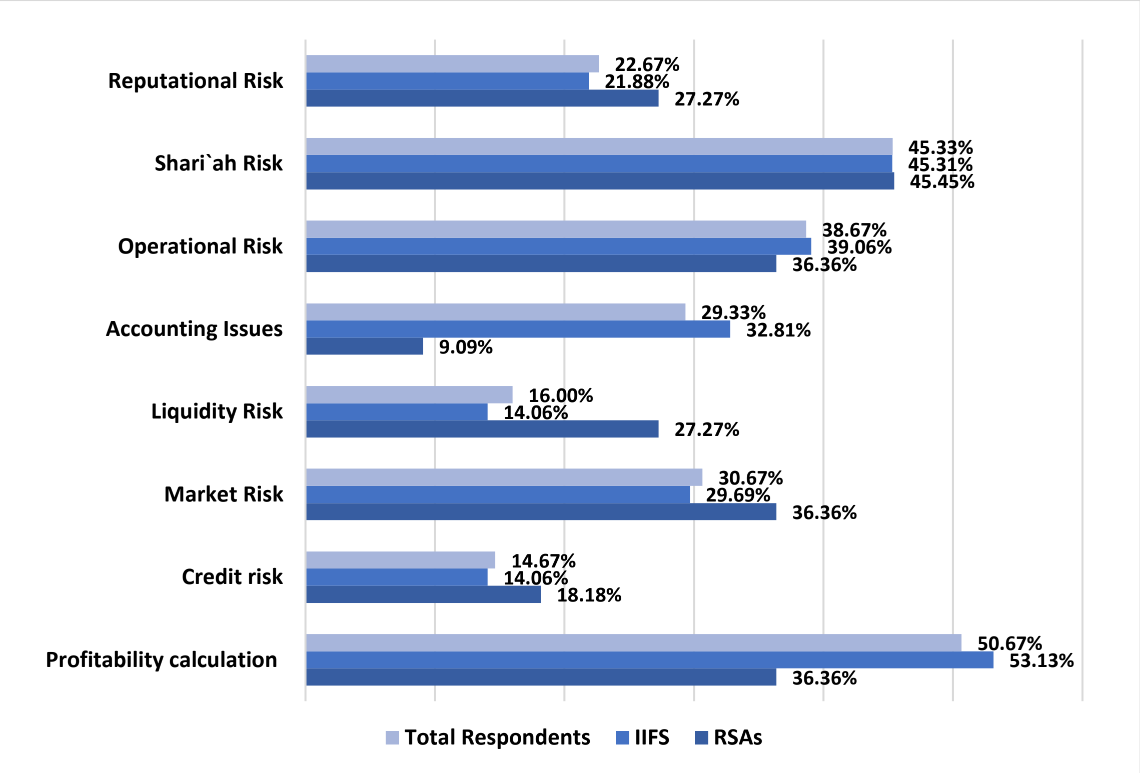
According to Figure 9, Islamic banks` specific policy measures have only been adopted by 9% of RSAs. The policy measures attempted at providing clarity to the industry on the Shariah issues related to RFRs, such as the use of backward-looking compounded setting in-arrears (CSIA) method to derive the RFR term rate for Islamic financing facility.

4.3 Policy Measures on Major Transitioning Risks

Figure 10 shows the major risks that the Islamic banking industry might face when shifting from LIBOR to RFRs. The majority of the respondents admitted that profitability and pricing calculation have occurred when replacing LIBOR with RFRs the rise of profitability and pricing calculation issues have trigged various risks such as credit risk, market risk, liquidity risk, accounting risk, operational risk, reputational risks. Pricing calculation has a strong impact on banks` operations as IIFS provides financings to various sectors. Mispricing, therefore, might be explained in terms mismatch between the cost of financing and earned profit, leading to unexpected losses from the bank`s side. The lack of accuracy and consistency in terms of pricing engenders an accounting issue as current values might not necessarily reflect the current economic conditions. Following the changes in pricing, operational issues occur due to the compatibility issues between various systems of financial institutions.

In terms of market risk, IIFS assets and liabilities are subject to market conditions, meaning that pricing calculation is a fundamental key element to predict future trends and mitigate excessive volatility using appropriate mitigation techniques. The lack of proper pricing, therefore, might result in biased expectations, leading to unappropriated investment decisions. In this regard, the occurrence of both risks or one of them may trigger liquidity risk as the bank might be unable to handle short- and long-term obligations in distress situation due to insufficient funds raised, or mismatch related to the generated income/profit, leading to solvency issues. Intuitively, insolvency will hurt banks` reputation as they were not able to ensure their resilience when facing severe economic conditions or global operational changes.

Figure 10: Major Transitioning Risks



Source: IFSB Survey

To mitigate these issues, IIFS were instructed to develop integrated systems before offering RFRs. More precisely, systems were upgraded to ensure correct profit calculation and accounting, besides the identification of financial exposures and define accounting tax approaches. Amendments to the pricing methodology have been considered to address credit and tenure risk premium. For instance, credit adjustment spread has been used for all transactions and adjustment in pricing. Then, IIFS were requested to initiate awareness, training, and education programmes for LIBOR transition within the organisation and, specifically for customers to ensure transparency in terms of decision-making.

The majority of the respondents also highlighted the Shariah compliance risk arising from the uncertainty (*gharar*) posed by the use of backward-looking compounded setting in-arrears (CSIA) method in deriving the term rate to calculate the installment payment for Islamic financing facility at each payment interval. Uncertainty (*gharar*) from the adoption of average RFR or backward-looking term rate at the point of payment has been mitigated via proper determination and disclosure of the ceiling price and formula to derive the periodic payment amount to the customer at the inception of the contract.

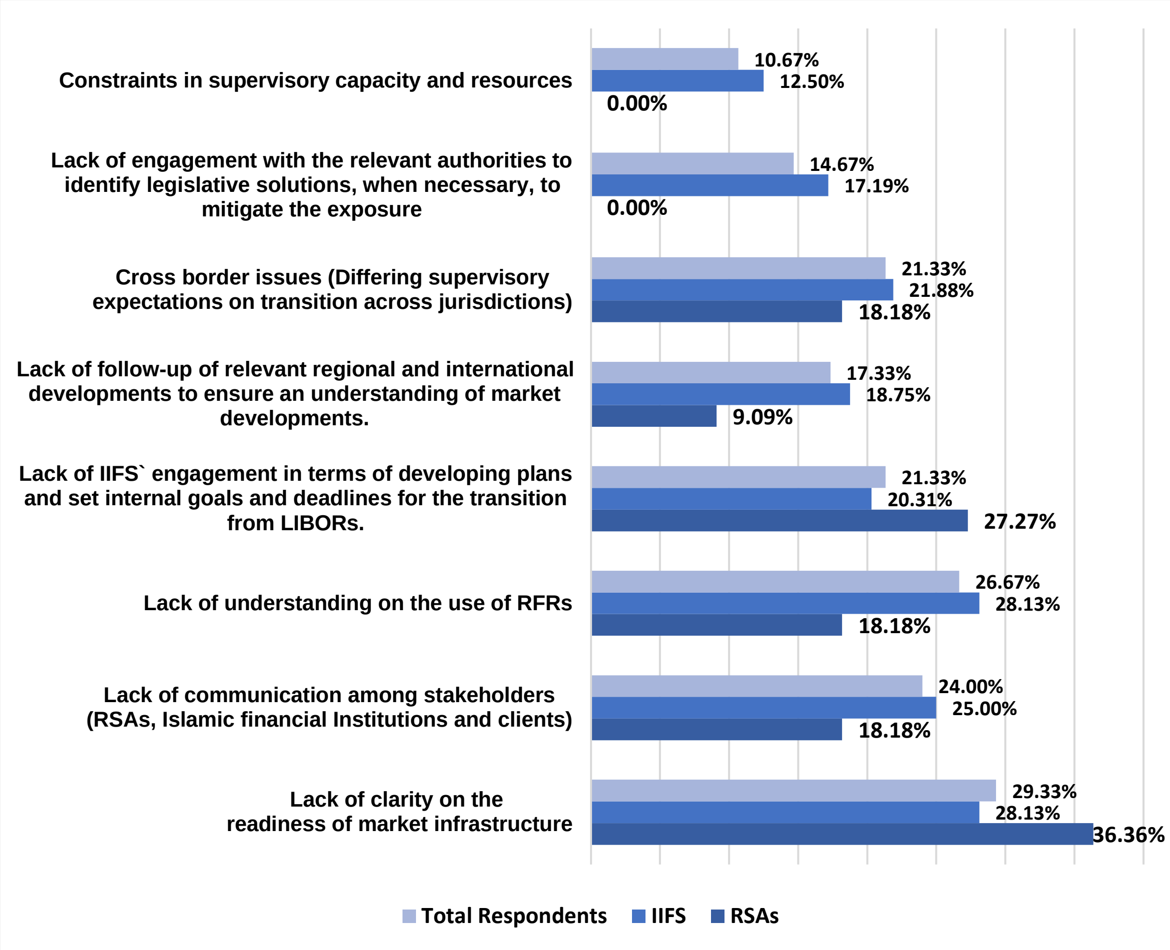
Shariah compliance risk could also be related to the lack of customer consent in transitioning to the alternative benchmark rate following LIBOR cessation. Therefore, IIFS needed to determine the appropriateness of invoking the deemed consent mechanism to signify customers' consent. Intuitively, IIFS indicated that Shariah risk was mitigated by following IIFM standard structures, in addition to the utilization of the term SOFR which is a forward-looking rate for Islamic transactions.

4.4 Policy Measures on Supervisory and Regulatory Challenges

When transitioning from LIBOR to RFRs, RSAs and IIFS have faced several challenges from regulatory and supervisory perspectives. Figure 11, therefore, illustrates the main issues raised by the respondents. Then, detailed explanations are provided about the actions taken and the adopted policy measures to ensure a smooth transition process.

Figure 11 indicates that various issues have been triggered when transitioning from LIBOR to RFRs such as (i) the lack of clarity on the readiness of market infrastructure to accommodate RFRs; (ii) the lack of engagement with the relevant authorities to identify legislative solutions when necessary; and (iii) the existence of constraints in supervisory capacity and resources.

Figure 11: Supervisory and Regulatory Challenges



Source: IFSB Survey

To mitigate these challenges, RSAs have issued requirements for banks to report their readiness and provide regular updates on implementation of banks' plan. Strictly speaking, committees and working Groups have been formed to monitor, manage and implement the affected infrastructure. IIFS were required to conduct internal meetings with relevant stakeholders to set up working committee, develop alternative fallback provisions, and assess transition risks and challenges. In addition, direct engagement sessions were held to understand the selected bank's LIBOR transition preparedness/ readiness overall and any challenges in meeting their requirements. IIFS, therefore, were required to furnish their respective RSAs with updates on their transition plans. Their inputs were useful for identifying regulatory and legal issues to consider the appropriate solutions when necessary and ensuring a smooth transition process.

Results also show that issues related to RFRs understanding and communication among stakeholders have also been raised by respondents. RSAs therefore, have guided banks and urged them to initiate awareness, training and educational programmes for LIBOR transition within the organisation and, specifically for customers. Guidelines have been circulated to urge the industry to engage clients/counterparties for the transition. This has helped IIFS to become proactive in their engagement with clients/counterparties. Similarly, regular communication has been put in place, between banks and RSAs on the progress of LBOR.

In the same context, respondents also highlighted the occurrence of cross-border issues due to different supervisory expectations across jurisdictions. Although most LIBOR-based transactions are international in nature, there was always a risk of cross-border legal and regulatory issues. To this extent, detailed guidance to banks has been put in place to mitigate measures. IIFS has been actively engaging with standard-setting bodies and market players to provide industry-wide feedback to streamline supervisory expectations. External consultants have also been hired in some jurisdictions to provide advice on the LIBOR transition implementation. Last but not least, the lack of follow-up of relevant regional and international developments has been highlighted because, during the early stage of the transition, preparations were still under development and pending finalisations. This implies that following up on global developments was very challenging. Interestingly, closer to the end of 2021, things become clearer to catch up on preparedness and readiness.

4. 5 Additional Roles of the IFSB

The IFSB as an International standard-setting body interested in Islamic finance kept guiding RSAs and market players to ensure the stability of the Islamic banking sector during the transition process. Based on the survey results, respondents highlighted relevant additional roles that the IFSB can play to foster the resilience of the Islamic banking sector. Given that the IFSB has access to LIBOR-related information on its members, respondents indicated that it is strongly needed to provide an assessment that gives an overall picture of the transition, impact, and mitigation to Islamic finance globally, and where possible to also provide any differences with the conventional counterparts. The assessment may include (i) conducting a comparative assessment on alternative risk-free rates adopted by member countries in anticipation of LIBOR cessation and (ii) engaging members to document challenges and solutions during the transition for the outcome to be shared among members. Intuitively, this will help the IFSB and other market-based institutions in promoting and introducing standardised approaches for the adoption of various pricing methodologies replacing LIBOR to ensure the smooth functioning of the Islamic markets.

Respondents also raised the need for a set of guidelines or principles on the key components of a sound and effective shariah governance on Islamic products that use RFR as benchmark. This will help clarify the supervisory roles on awareness and understanding of LIBOR transition and RFRs in Islamic banking. In addition to that, organizing and facilitating training for the Islamic financial services industry, especially on related issues will be appropriate to strengthen the regulatory and supervisory actions during the transition period. Last but not least, participants expressed the need for clarification about contractual obligations in absence of fallback language provisions such as clarifying the use of SOFR rates` applicability on different tenors reflecting credit and liquidity premiums.

Based on the aforementioned participants` feedback, the IFSB shall keep supporting the industry by providing guidance and standards addressing the emerging issues related to the Islamic banking sector. Being represented in the AAOIFI alternative benchmark rate`s working group, the IFSB is actively engaging with various stakeholders to develop a governance document that addresses the issues that have been raised in this working paper. Further actions will be taken along the process individually and in collaboration with international standard setters interested in Islamic finance when necessary.

SECTION 5: POLICY IMPLICATIONS AND CONCLUSION

5.1 Policy Implications

The transition process has been well managed as IIFS has not experienced any significant instability issues related to transitioning away from LIBOR due to IIFS`s low exposure to LIBOR, which is in line with (FSB, 2022). This indicates that LIBOR was being used by sovereigns and IIFS for international transactions denominated in foreign currency, whereas local reference rates were applicable for domestic transactions. In terms of LIBOR`s legacy contracts, most IIFS have conducted a dynamic assessment of their exposure based on the directives of their respective RSAs. Then, general and specific fallback languages have been included in contracts and legal documents to ensure a smooth transition process and protect the interest of all parties.

In terms of major transitioning risks, the majority of RSAs and IIFS have witnessed the presence of profitability and pricing calculation challenges, leading to an increase of four major risks namely, credit risk, market risk, liquidity risk and accounting risk. To mitigate these risks, major amendments to the pricing methodology have been considered such as the use of credit adjustment spread for all transactions. Furthermore, systems were upgrade to ensure correct profit calculation and disclosure requirements.

Shari`ah risk was considered the second major issue when transitioning from LIBOR due to RFRs` backward-looking. This risk was mainly mitigated by following IIFM standard Structures, in addition to the utilization of the term SOFR, which is a forward-looking rate for Islamic transactions. Although the Shariah compliance risk might be linked to the lack of customer consent in transitioning to RFRs, a deemed consent mechanism has been incorporated to ensure customers` consent. Admitting that operational and reputational risks have also occurred during the transition period, specific awareness programs have been initiated within financial institutions and for customers to ensure transparency.

From a supervisory and regulatory point of view, several challenges have been highlighted when transitioning from LIBOR to RFRs such as:

(i) The lack of clarity on the readiness of market infrastructure to accommodate RFRs
(ii) The lack of understanding of the use of RFRs
(iii) The lack of communication among stakeholders
(iv) The lack of IIFS engagement in terms of developing plans and set internal goals have been highlighted
(v) Cross-border issues due to different supervisory expectations across jurisdictions
(vi) lack of follow-up of relevant regional and international developments to ensure an understanding of the market and;
(vii) The lack of engagement with the relevant authorities to identify legislative solutions when necessary has been raised

To this extent, committees and working Groups have been formed to monitor, and manage the various challenges that IIFS have faced. Guidelines have been issued to IIFS for disclosure and timeline preparation, in addition to the circulation of specific directives to initiate awareness and training programmes. Interestingly, these steps were useful for identifying the appropriate solutions for regulatory and supervisory issues when transitioning from LIBOR to RFRs.

From the IFSB perspective, transitioning away from LIBOR represents operational challenges rather that regulatory issues. RSAs efforts to catch-up with the change in reference rates has been so far successfully as the Islamic banking industry remained stable during the transition period. In contrast, additional efforts can be made to foster the resilience of the Islamic banking sector such as, (i) providing a set of guidelines or principles on the key components of a sound and effective shariah governance on Islamic products that use RFR as a benchmark; and (ii) conducting a comparative assessment on alternative risk-free rates utilized by member countries.

From an Islamic banking point of view, there is a need to focus on the peculiarity of the contractual terms in their various extant products to ensure Sharīʿah-compliance while it presents additional transitional complexities relative to the conventional banks *(IIFS, Stability Report, 2022)*. More precisely, the Shari`ah-compliance implies that parties agree in advance to a pre-agreed rental rate in an *ijārah* transaction or to a pre-agreed cost and mark-up in a *murābahah* transaction is at variance with the backward-looking rates used in the RFR where the amount payable is only determinable a few days before the payment due date. While there are ongoing efforts to come up with an acceptable Islamic RFR, in the interim, the effect on Islamic finance might be the relative complexity of offering a Shari`ah-compliant floating rate structure, as well as limitations in engaging in dual financing together with a conventional financing institution *(IIFS, Stability Report, 2022)*. To this extent, further clarification needs to be provided about the use of RFRs in Islamic banking. These steps can enable the IFSB and other stakeholders to introduce standardized approaches about the implementation of the pricing methodologies replacing LIBOR for smooth functioning of the Islamic banking sector.

5.2 Conclusion

This study aims at determining the early policy responses of RSAs and IIFS when transitioning from LIBOR to RFRs in jurisdictions where Islamic financial services is provided. A survey questionnaire is constructed to gather inputs on (i) LIBOR`s use and application across jurisdictions offering Islamic financial services, (ii) exposures and fallbacks, (iii) RFRs use and application across jurisdictions, (iv) major transitioning financial risks, (v) regulatory and supervisory challenges, and (vi) the additional roles that the IFSB can play during the transition phase.

Results show that the exposure of RSAs and IIFS to LIBOR was significantly low, which explains the lack of significant market disruptions upon the cessation of LIBOR. This is due to the fact LIBOR was mainly used for international transactions, whereas local rates were applicable for domestic transactions. During the transition period, several financial and regulatory challenges have been triggered, followed by immediate regulators and market players` actions to mitigate them. The main policy measures include (i) the incorporation of fallback languages for tough legacy contracts, (ii) systems` updates for profit calculation, financial information disclosure, and financial risks assessment, (iii) the introduction of Term SOFR to avoid shari`ah issues as it is considered a forward-looking, (iv) incorporating a consent` mechanism to get customers` consent when shifting from LIBOR to RFRs. Additional measures have been implemented to initiate awareness, and capacity building leading to a better understanding of the new RFRs` application for bankers and customers respectively.

The various policy responses adopted by RSAs and IIFS actions showed their effectiveness in ensuring a smooth transition from LIBOR, which explain the resilience of the Islamic banking sector during the transition phase. Based on the survey`s outcomes, The IFSB shall continue supporting the industry by providing guidance and standards addressing the emerging issues related to the Islamic banking sector. Being represented in the AAOIFI alternative benchmark rate`s working group, the IFSB is actively engaging with various stakeholders to develop a governance document that addresses the issues that have been raised in this working paper. Further actions will be taken along the process individually and in collaboration with international standard-setting bodies interested in Islamic finance.

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