



ISLAMIC FINANCIAL SERVICES BOARD

ISLAMIC FINANCIAL SERVICES INDUSTRY

STABILITY REPORT

2019

July 2019

Published by

Islamic Financial Services Board
Level 5, Sasana Kijang, Bank Negara Malaysia
2, Jalan Dato' Onn, 50480 Kuala Lumpur, Malaysia
Email: ifsb_sec@ifsb.org

ISBN 978-967-5687-67-9

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, or stored in any retrieval system of any nature without prior written permission, except for permitted fair dealing under the Copyright, Designs and Patents Act 1988, or in accordance with the terms of a licence issued by the Copyright Licensing Agency in respect of photocopying and/or reprographic reproduction.

Application for permission for other use of copyright material, including permission to reproduce extracts in other published works, shall be made to the publisher(s). Full acknowledgement of the author, publisher(s) and source must be given.

Disclaimer: The views expressed in this publication are those of the IFSB Secretariat and do not necessarily represent the views of the IFSB's Council, Executive Committee, and Technical Committee.

Recommended citation: Islamic Financial Services Board. 2019. Islamic Financial Services Industry Stability Report. Kuala Lumpur, Malaysia, July.

© 2019 Islamic Financial Services Board

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 comprehensive due process as outlined in its Guidelines and Procedures for the Preparation of Standards/Guidelines, which involves, but is not limited to, the issuance of exposure drafts, the 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.

ASSUMPTIONS AND CONVENTIONS

IFSI Stability Report “2019” implies that the Report covers the activities for year 2018, and it is published in the year 2019.

In this IFSI Stability Report 2019, the following conventions are used:

- “1H18” means first half of the year 2018.
- “3Q18” means Quarter 3 of the year 2018.
- “Billion” means a thousand million.
- “Trillion” means a thousand billion.
- “IFSB Staff Workings” means figures indicated in the corresponding table are based on the IFSB staff estimates or calculations.
- “PSIFIs” implies that the data used in a corresponding table are obtained from the IFSB’s Prudential and Structural Islamic Finance Indicators database.
- ‘SR2018’ refers to IFSB Stability Report 2018
- The data and analysis in the *IFSI Stability Report* are compiled by the IFSB staff from various sources and are assumed to be correct as at the time of publication. The data analysed corresponds to the latest data available to the IFSB.
- Data for *şukūk* outstanding and Islamic funds are for full-year 2018. The data for Islamic banking are as at the end of June 2018 (2Q18); and for *takāful* are as at end-2017.
- In all cases, where data for the periods indicated above are not available to the IFSB Secretariat, the latest available data to the IFSB Secretariat have been used.
- Data used are mainly from primary sources (regulatory authorities’ statistical databases, annual reports and financial stability reports, official press releases and speeches, etc.) as well as the IFSB’s PSIFI database, and IFSB surveys.
- Where primary data are unavailable, third-party data providers have been used.

As much as possible, the data used and figures provided in the IFSI Stability Report 2019 have been checked for accuracy, completeness, and timeliness. Discrepancies in the sums of component figures and totals shown are likely due to rounding-off effect. Where errors are observed, corrections and revisions will be incorporated in the online version of the IFSI Stability Report available for free download at www.ifsb.org.



TABLE OF CONTENTS

LIST OF BOXES, FIGURES, TABLES AND CHART/GRAPHS	vi
LIST OF ABBREVIATIONS	viii
GLOSSARY	xii
FOREWORD	1
EXECUTIVE SUMMARY	3
1.0 DEVELOPMENT REVIEW: ISLAMIC FINANCIAL SERVICES INDUSTRY (IFSI)	9
1.1 Size of the Industry and Jurisdictions with Systemic Importance	9
1.2 Islamic Banking	12
1.3 Islamic Capital Markets	18
1.3.1 Şukūk	18
1.3.2 Islamic Equities	21
1.3.3 Islamic Funds	23
1.4 Takāful	29
1.4.1 Overview of the Global Insurance Industry	29
1.4.2 Number of Takāful Operators and Windows Globally	34
1.4.3 Regulatory Development in the Distribution of Takāful Products	34
2.0 ISLAMIC FINANCE AND THE CHANGING GLOBAL FINANCIAL ARCHITECTURE	35
2.1 Global Developments and Impact on the IFSI	35
2.1.1 Financial Stability Board	36
2.1.2 Basel Committee on Banking Supervision	36
2.1.3 International Organization of Securities Commissions	36
2.1.4 International Association of Insurance Supervisors	37
2.2 Recent Initiatives Undertaken by the IFSB	38
2.2.1 IFSB Standards Implementation Survey 2018	38
2.2.2 IFSB Standards Implementation Status (among IFSB member jurisdictions)	38
2.2.3 IFSB Standards Implementation Status – standard by standard	39
2.2.4 IFSB Standards Implementation Status – by sector	42
2.2.5 Challenges in Implementation	42
2.2.6 Implementation Support	43
2.3 Other IFSB Initiatives	44
2.3.1 Update on Standards under Development	44
2.3.2 Synopsis of IFSB Research Projects	46
2.3.3 PSIFIs Database: A Repository of Global Islamic Finance Data	47
3.0 ASSESSMENT OF THE RESILIENCE OF THE ISLAMIC FINANCIAL SYSTEM	55
3.1 Introduction	55
3.2 Islamic Banking: Assessment of Resilience	55
3.2.1 Profitability	56
3.2.2 Liquidity	59
3.2.3 Financing Exposures	62
3.2.4 Asset Quality	63
3.2.5 Regulatory Capital	66
3.2.6 Foreign Currency Funding	68
3.2.7 Leverage	70
3.3 Islamic Capital Market: Assessment of Resilience	71
3.3.1 Şukūk	71
3.3.2 Islamic Equity Market	75
3.3.3 Islamic Fund Market	75
3.4 Takāful: Assessment of Resilience	77
4.0 EMERGING ISSUES IN ISLAMIC FINANCE	93
4.1 Blockchain Technology and Islamic Finance: Supervisory and Regulatory Concerns	93
4.1.1 The Bitcoin System	93
4.1.2 Distributed Ledger Systems	95
4.1.3 Applications of Blockchain and DLT from the Regulatory Perspective	97
4.1.4 Blockchain-based Islamic Financial Services	99
4.1.5 Conclusion	100



LIST OF BOXES, FIGURES, TABLES AND CHART/GRAPHS

BOXES	
1.1	Overview of the Islamic Finance Framework at Astana International Finance Centre
2.1	Islamic Banking in Kuwait: Development, Regulations and Supervision
3.1	Developments in the Islamic Banking Industry in Nigeria
FIGURES	
2.2.1	IFSB Standards Implementation Survey 2018 – An Overview
2.2.2	Implementation Status 2017 vs. 2018 – Overall Comparison
2.2.3	Implementation Status 2017 vs. 2018 – Consistent RSA Members Comparison
2.2.4	IFSB Banking Standards that Have Reached “Complete” Status (2018)
2.2.5	The “Complete” Status of Each Standard of IFSB
2.2.6	IFSB ICM Standards that Have Reached “Complete” Status
2.2.7	IFSB Takāful Standards that Have Reached “Complete” Status
2.2.8	IFSB Cross-sectoral Standards that Have Reached “Complete” Status
2.2.9	Implementation Level across Sectors (2018)
2.2.10	Challenges in Implementing IFSB Standards (2018)
2.2.11	IFSB Initiatives to Support Implementation
2.3.3.1	Steps Forward for the PSIFI Project
3.2.1	Key Indicators for the Assessment of Islamic Banking Resilience
TABLES	
1.1.1	Breakdown of Global IFSI by Sector and Region (USD billion) (2018)
1.3.2.1	Total Returns of S&P Global 1200 Index vs. S&P Global 1200 Sharī'ah Index (2018)
1.3.2.2	Total Returns of S&P Global BMI Index vs. S&P Global BMI Sharī'ah Index (2018)
1.4.1	Breakdown of Takāful Contributions Growth by Business Segment (2017)
3.3.1.1	Demand Comparison for Selected Şukūk Issued in 2018
3.3.1.2	Pricing of Selected Sovereign Şukūk and Bonds Issued in 2018 (Domestic Market)
CHARTS/GRAPHS	
1.1.1	Sectoral Composition of the Global IFSI (2018)
1.1.2	Islamic Banking Share in Total Banking Assets by Jurisdiction (2Q18)
1.1.3	Islamic Banking Assets in Jurisdictions with an Islamic Finance Sector of Systemic Importance (2Q18)
1.1.4	Şukūk Outstanding in Jurisdictions with an Islamic Finance Sector of Systemic Importance (2Q18)
1.1.5	Breakdown of IFSI by Region (2Q18)
1.1.6	Share of Global Islamic Banking Assets (2Q18)
1.2.1	Islamic Banking Assets and Market Share (2Q18)
1.2.2	Islamic Banking Assets (2008–18F)
1.2.3	Compound Average Growth of Key Islamic Banking Statistics (2Q16–2Q18)
1.2.4	Aggregate Islamic Banking Assets and Growth Rates (y-o-y) for Analysed Countries (4Q13–2Q18)
1.2.5	Aggregate Financing and Financing Growth Rates in Analysed Countries (4Q13–2Q18)
1.2.6	Aggregate Deposit and Deposit Growth Rates in Analysed Countries (4Q13–2Q18)
1.2.7	Islamic Banking Average Annual Growth by Country (y-o-y) (2017 and 2Q18)
1.3.1.1	Şukūk Issuance Trend (2005–18)
1.3.1.2	Sovereign Şukūk Issuance by Jurisdiction (2018)
1.3.1.3	Corporate Şukūk Issuance Trend (2005–18)
1.3.1.4	Corporate Şukūk Issuance by Jurisdiction (2018)
1.3.1.5	Overall Şukūk Issuances by Jurisdiction (2018)
1.3.1.6	Şukūk Issuances by Sector (2018)
1.3.1.7	Şukūk Maturity Trend of New Issuances (2008–18)
1.3.2.1(a)	Ten-year Historical Performance (2009–19)
1.3.2.1(b)	Ten-year Historical Performance of the Financials Sector (2009–19)
1.3.2.2	Number of Constituents (2018)
1.3.2.3	Average Market Capitalisation per Constituent (2018)
1.3.2.4(a)	Sector Allocation (2018)

LIST OF BOXES, TABLES, CHARTS AND DIAGRAMS

CHARTS/GRAPHS	
1.3.2.4(b)	S&P 1200 Sector Performance (2018)
1.3.3.1	Assets under Management and Number of Islamic Funds (2008–18)
1.3.3.2	Islamic Fund Assets by Domicile (2018)
1.3.3.3	Islamic Fund Assets by Geographical Focus (2018)
1.3.3.4	Islamic Fund Assets by Asset Class (2018)
1.4.1	Global Takāful Gross Contribution (USD million) (2011–17)
1.4.2	Takāful Contribution by Key Region (2017)
1.4.3	Takāful Contribution/Total Sector Gross Premiums (%) (2017)
1.4.4	Share of General and Family Takāful by Key Region (2017)
1.4.5	Number of Takāful Operators and Windows Globally (2018)
1.4.6	Number of Takāful Operators by Region (2018)
2.3.3.1	PSIFIs Database Participants by Year and Region (2014–19)
3.2.1.1	Global Islamic Banking Weighted Average ROA and ROE (4Q13–2Q18)
3.2.1.2	Islamic Banking Average ROA by Country (4Q13–2Q18)
3.2.1.3	Islamic Banking Average ROE by Country (4Q13–2Q18)
3.2.1.4	Islamic Banking Net Profit Margin by Country (4Q13–2Q18)
3.2.1.5	Islamic Banking Cost-to-Income by Country (4Q13–2Q18)
3.2.2.1	Islamic Banking Liquid Assets Ratio (4Q13–2Q18)
3.2.2.2	Islamic Banking Liquid Assets to Short-term Liabilities by Country (4Q13–2Q18)
3.2.2.3	Liquidity Coverage Ratio for Stand-alone Islamic Banks by Country (4Q15–2Q18)
3.2.2.4	Net Stable Funding Ratio for Stand-alone Islamic Banks by Country (4Q14–2Q18)
3.2.3.1	Weighted Average Concentration of Financing in Selected Economic Sectors (2Q18)
3.2.3.2	Islamic Banking Sectoral Composition of Financing by Country (2Q18)
3.2.4.1	Global Islamic Banking Average Gross Non-performing Financing to Total Financing (4Q13–2Q18)
3.2.4.2	Islamic Banking Average Gross Non-performing Financing to Total Financing by Country (4Q13–2Q18)
3.2.4.3	Global Islamic Banking Weighted Average Concentration of NPF in Selected Economic Sectors (2Q18)
3.2.4.4	Islamic Banking Sectoral Composition of and NPF by Country (2Q18)
3.2.5.1	Global Islamic Banking Average Capital Adequacy Ratios (4Q13–2Q18)
3.2.5.2	Islamic Banking Average Total Capital Adequacy Ratio by Country (4Q14–2Q18)
3.2.5.3	Islamic Banking Average Tier-1 Capital Adequacy Ratio by Country (4Q14–2Q18)
3.2.6.1	Global Islamic Banking Average Foreign Currency Funding and Financing to Total Funding and Financing (4Q13–2Q18)
3.2.6.2	Islamic Banking Average Foreign Currency Funding to Total Funding and Average Foreign Currency Financing to Total Financing by Country (2Q18)
3.2.7.1	Islamic Banking Leverage Ratio by Country (4Q13–2Q18)
3.3.1.1	Global Şukūk Outstanding and Şukūk Assets Growth (2003–18)
3.3.1.2	Top 10 Global Şukūk Outstanding Jurisdictions (2018)
3.3.1.3	Global New Şukūk Issuances by Structure (2018)
3.3.1.4	Geographical Distribution of Selected Şukūk Papers Issued in 2018
3.3.1.5	Investors' Breakdown of Selected Şukūk Papers Issued in 2018
3.3.1.6	Şukūk and Bond Yields Comparison in Secondary Market (2018)
3.3.2.1	Price Returns of DJIM Developed Markets and DJIM Emerging Markets Indices (2018)
3.3.2.2	Price Returns of DJIM Equity Indices by Region (2018)
3.3.2.3	Returns of Islamic Funds by Asset Type (2018)
3.3.2.4	Historical Returns of Islamic Funds by Asset Type (2014–18)
3.3.2.5	Returns of Islamic Funds by Geographical Focus (2018)
3.3.2.6	Composition of Islamic Funds by Asset Size (2018)
3.4.1	Return on Assets (2012–16 and 2017)
3.4.2	Return on Equity (2012–16 and 2017)
3.4.3	Loss Ratio General Takāful (2012–16 and 2017)
3.4.4	Loss Ratio Family Takāful (2012–16 and 2017)
3.4.5	Expense Ratio (2012–16 and 2017)
3.4.6	Combined Ratio for General Takāful (2012–16 and 2017)
3.4.7	Combined Ratio for Family Takāful (2012–16 and 2017)
3.4.8	Investment Composition of General and Family Takāful (2017)



LIST OF ABBREVIATIONS

ABBREVIATIONS	
AAOIFI	Accounting and Auditing Organization for Islamic Financial Institutions
ABA	Activities-Based Approach
ABCP	Asset-Backed Commercial Paper
AI	Artificial Intelligence
ALM	Asset Liability Management
AML	Anti-Money Laundering
AuM	Assets under Management
BCBS	Basel Committee on Banking Supervision
BCO	Banking Companies Ordinance
BDSC	Banking Disputes Settlement Committee
BFSO	Banking and Financial Services (Amendment of Laws) Ordinance
BOFIA	Banks and Other Financial Institutions Act
CAGR	Compound Annual Growth Rate
CAR	Capital Adequacy Ratio
CBN	Central Bank of Nigeria
CCL	Commercial Court Law
CDD	Customer Due Diligence
CEBS	Committee of European Banking Supervisors
CFT	Combating the Financing of Terrorism
CI	Cost-to-Income
CIS	Collective Investment Scheme
CMB	Capital Markets Board
CML	Capital Market Law
CPICM	Core Principles for Islamic Finance Regulation [Islamic Capital Market Segment]
CPIFR	Core Principles for Islamic Finance Regulation
CRAR	Capital to Risk-weighted Asset Ratio
CSB	Central Sharī'ah Board
CSC	CBN Sharī'ah Council
CVA	Credit Valuation Adjustment
DCR	Displaced Commercial Risk
DJIM	Dow Jones Islamic Market
DLT	Distributed Ledger Technology
EBA	European Banking Authority
ECB	European Central Bank
ECF	Equity Crowdfunding
ECL	Expected Credit Losses
ED	Exposure Draft
ELAR	Eligible Liquid Assets Ratio
ETF	Exchange-Traded Fund
EU	European Union
FAPC	Fit and Proper Criteria
FAS	Financial Accounting Standard
FATF	Financial Action Task Force
FDR	Financing-to-Deposits Ratio
FFR	Financing-to-Funding Ratio
Fintech	Financial Technology
FIS	Facilitating the Implementation of Standards

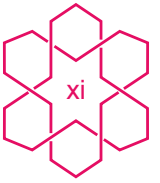


ABBREVIATIONS	
FMI	Financial Market Infrastructure
FMRA	Financial Markets Regulation Authority
FSA	Financial Services Act
FSAP	Financial Sector Assessment Programme
FSB	Financial Stability Board
FSC	Federal Shari'ah Court
FSCF	Financial Stability Coordination Forum
FSI	Financial Soundness Indicators
FX	Foreign Exchange
GAAP	Generally Accepted Accounting Principles
GCC	Gulf Cooperation Council
GFC	Global Financial Crisis
GIMAR	Global Insurance Market Report
GP	General Provisions
GRE	Government-Related Entities
G-SIB	Global Systemically Important Bank
G-SIFI	Global Systemically Important Financial Institution
G-SII	Global Systemically Important Insurer
HQLA	High-Quality Liquid Assets
HSSA	High Shari'ah Supervisory Authority
IAH	Investment Account Holders
IAIS	International Association of Insurance Supervisors
IASB	International Accounting Standards Board
IB	Islamic Bank
IBE	Islamic Banking Entity
IBRF	Islamic Banking Regulatory Framework
IC	Insurance Control
ICD	Islamic Corporation for the Development of the Private Sector
ICIS	Islamic Collective Investment Schemes
ICM	Islamic Capital Market
ICPs	Insurance Core Principles
ICS	Insurance Capital Standard
IsDB	Islamic Development Bank
IFRS	International Financial Reporting Standards
IFSA	Islamic Financial Services Act
IFSB	Islamic Financial Services Board
IFSI	Islamic Financial Services Industry
IIFS	Institutions offering Islamic Financial Services
IILM	International Islamic Liquidity Management Corporation
IMF	International Monetary Fund
IO	International Organisations
IOSCO	International Organization of Securities Commissions
IRB	Internal Ratings-Based
IRR	Investment Risk Reserve
IRRBB	Interest Rate Risk in the Banking Book
ISAU	Internal Shari'ah Audit Unit
ISC	Insurance Supervision and Control
ISCU	Shari'ah Compliance Unit
ISRU	Internal Shari'ah Review/Audit Unit/Department
LA/SL	Liquid Assets to Short-term Liabilities Ratio
LCR	Liquidity Coverage Ratio
LSCIC	Law on Supervision of Cooperative Insurance Companies
LSPB	Law of Settlement Preventing Bankruptcy



LIST OF ABBREVIATIONS

ABBREVIATIONS	
M&A	Mergers and Acquisitions
MAV	Market Adjusted Valuation
MCCOs	Mutuals, Cooperatives and Community-based Organisations
MCR	Minimum Capital Requirement
MDB	Multilateral Development Banks
MENA	Middle East and North Africa
ML/FT	Money Laundering and Financing of Terrorism
MTPL	Motor Third Party Liability
NIFI	Non-Interest Financial Institutions
NPF	Non-Performing Financing
NPL	Non-Performing Loans
NSFR	Net Stable Funding Ratio
OECD	Organization for Economic Cooperation and Development
OIC	Organisation of Islamic Cooperation
OMR	Omani Rial
OPEC	Organization of the Petroleum Exporting Countries
ORSA	Own Risk and Solvency Assessment
OTC	Over the Counter
P2P	Peer to Peer
PCR	Prescribed Capital Requirement
PD	Primary Dealer
PER	Profit Equalisation Reserve
PIF	Participants' Investment Fund
PRF	Participants' Risk Fund
PSIA	Profit/Loss-Sharing Investment Accounts
PSIFs	Prudential and Structural Islamic Financial Indicators
PVA	Prudent Valuation Adjustment
RAP	Resolvability Assessment Process
RBA	Risk-Based Approach
REIT	Real Estate Investment Trust
ROA	Return on Assets
ROE	Return on Equity
RRP	Resolution and Recovery Plan
RSA	Regulatory and Supervisory Authority
RSBM	Resident Sharī'ah Board Member
R-SbM	Reduced Sensitivities-based Method
RTO	Retakāful Operator
RTU	Retakāful Undertaking
RWA	Risk-Weighted Assets
SA	Standardised Approach
SAC	Sharī'ah Advisory Council
SAGs	Standards and Guidelines
SB	Sharī'ah Boards
SbM	Sensitivities-Based Method
SCD	Sharī'ah Compliance Division
SCDIS	Sharī'ah-Compliant Deposit Insurance Scheme
SDIF	Saving Deposit Insurance Fund
SEC	Securities and Exchange Commission
SEPC	Securities and Exchange Commission of Pakistan
SGF	Sharī'ah Governance Framework
SGS	Sharī'ah Governance Systems
SHF	Shareholders' Fund
SME	Small and Medium Enterprises



ABBREVIATIONS	
SP	Specific Provisions
SPV	Special Purpose Vehicle
SRI	Introducing Social Responsible Investment
SRP	Supervisory Review Process
SSB	Sharī'ah Supervisory Board
STC	Simple, Transparent and Comparable
TA	Technical Assistance
TFC	Term Finance Certificate
TLAC	Total Loss-Absorbing Capacity
TN-2	IFSB Technical Note 2
TO	Takāful Operator
TOR	Terms of Reference
TU	Takāful Undertaking
UAE	United Arab Emirates



GLOSSARY

Commodity <i>Murābahah</i> or <i>Tawarruq</i>	A <i>murābahah</i> transaction based on the purchase of a commodity from a seller or a broker and its resale to the customer on the basis of deferred <i>murābahah</i> , followed by the sale of the commodity by the customer for a spot price to a third party for the purpose of obtaining liquidity, provided that there are no links between the two contracts.
<i>Ijārah</i>	A contract made to lease the usufruct of a specified asset for an agreed period against a specified rental. It could be preceded by a unilateral binding promise from one of the contracting parties. An <i>ijārah</i> contract is binding on both contracting parties.
Islamic window	That part of a conventional financial institution (which may be a branch or a dedicated unit of that institution) that provides both fund management (investment accounts) and financing and investment that are Sharī'ah-compliant, with separate funds. It could also provide <i>takāful</i> or <i>retakāful</i> services.
<i>Maqāṣid al-Sharī'ah</i>	The fundamental principles of Sharī'ah, which aim to promote and protect the interests of all human beings and avert all harm that impairs their interests.
<i>Muḍārabah</i>	A partnership contract between the capital provider (<i>rabb al-māl</i>) and an entrepreneur (<i>muḍārib</i>) whereby the capital provider would contribute capital to an enterprise or activity that is to be managed by the entrepreneur. Profits generated by that enterprise or activity are shared in accordance with the percentage specified in the contract, while losses are to be borne solely by the capital provider unless the losses are due to misconduct, negligence or breach of contracted terms.
<i>Murābahah</i>	A sale contract whereby the institution offering Islamic financial services sells to a customer a specified kind of asset that is already in its possession, whereby the selling price is the sum of the original price and an agreed profit margin.
<i>Mushārahah</i> (<i>Sharikat al-'Aqd</i>)	A partnership contract in which the partners agree to contribute capital to an enterprise, whether existing or new. Profits generated by that enterprise are shared in accordance with the percentage specified in the <i>mushārahah</i> contract, while losses are shared in proportion to each partner's share of capital.
<i>Retakāful</i>	An arrangement whereby a <i>takāful</i> undertaking cedes a portion of its risks on the basis of treaty or facultative <i>retakāful</i> as a representative of participants under a <i>takāful</i> contract, whereby it would contribute a portion of the contribution as <i>tabarru'</i> into a common fund to cover against specified loss or damage.
Sharī'ah	The practical divine law deduced from its legitimate sources: the Qur'ān, Sunnah, consensus (<i>ijmā'</i>), analogy (<i>qiyās</i>) and other approved sources of the Sharī'ah.
Sharī'ah board	An independent body set up or engaged by the institution offering Islamic financial services to supervise its Sharī'ah compliance and governance system.
Sharī'ah non-compliance risk	An operational risk resulting from non-compliance of the institution with the rules and principles of Sharī'ah in its products and services.
<i>Ṣukūk</i>	Certificates that represent a proportional undivided ownership right in tangible assets, or a pool of tangible assets and other types of assets. These assets could be in a specific project or specific investment activity that is Sharī'ah-compliant.
<i>Takāful</i>	A mutual guarantee in return for the commitment to donate an amount in the form of a specified contribution to the participants' risk fund, whereby a group of participants agree among themselves to support one another jointly for the losses arising from specified risks.
<i>Tawarruq</i>	A <i>murābahah</i> transaction based on the purchase of a commodity from a seller or a broker and its resale to the customer on the basis of deferred <i>murābahah</i> , followed by the sale of the commodity by the customer for a spot price to a third party for the purpose of obtaining liquidity, provided that there are no links between the two contracts.
<i>Wadī'ah</i>	A contract for the safekeeping of assets on a trust basis and their return upon the demand of their owners. The contract can be for a fee or without a fee. The assets are held on a trust basis by the safekeeper and are not guaranteed by the safekeeper, except in the case of misconduct, negligence or breach of the conditions.
<i>Wakālah</i>	An agency contract where the customer (principal) appoints an institution as agent (<i>wakīl</i>) to carry out the business on his behalf. The contract can be for a fee or without a fee.
<i>Zakāh</i>	An obligatory financial contribution disbursed to specified recipients that is prescribed by the Sharī'ah on those who possess wealth exceeding a minimum amount that is maintained in their possession for one lunar year.



FOREWORD

The seventh edition of the Islamic Financial Services Board's (IFSB) *Islamic Financial Services Industry (IFSI) Stability Report* takes place a decade after the Global Financial Crisis (GFC) and at a time when the various financial reforms arising from the crisis are now being finalised and operationalised. New challenges have since emerged from evolving market structures due mainly to advancements in financial technology, increasing activities of the non-bank financial institutions, as well as increasing cyber risks among other operational issues.

The global financial system is faced with declining growth, increasing public and corporate debt, and building up of financial vulnerabilities which may have implication for its stability and resilience. Notwithstanding, the IFSI, especially in the past three years, has recorded significant financial growth performance and resounding recovery. In 2018 specifically, this growth is hinged on, among other factors, the rebound in prices of oil and other export commodities as well as a notable improvement in the investment climate in most jurisdictions with a significant Islamic finance presence.

The total worth of the IFSI, which surpassed a landmark USD 2 trillion for the first time in 2017, has further increased to USD 2.19 trillion in 2018 on the back of significant improvement across the three sectors of Islamic banking, the Islamic capital market and *takāful*. There is also an improvement in the resilience of the IFSI based on satisfactory financial stability indicators and compliance with most international regulatory requirements, especially when compared to conventional banks in most jurisdictions with significant presence of Islamic finance as well as in the United States and the European Union.

Notwithstanding, the improvement recorded by the IFSI in 2018 is at a slower pace of growth when compared to 2017. Moreover, uneven economic recovery and performance of the IFSI is noted across jurisdictions. This is hinged on jurisdictional peculiarities driven by, among other factors, the effect of continuing trade tensions on investment sentiments, uncertainties arising from regional political impasse in the Gulf Co-operation Council (GCC) and Brexit, economic sanctions and consequential significant currency depreciation, as well as inflation and heightened foreign exchange exposure in a few jurisdictions with a significant Islamic finance system.

The IFSB closely monitors developments in the global financial system generally, and specifically in its member jurisdictions. In line with its core mandate, the IFSB has issued several standards, guidance/technical notes and research papers that generally complement the work of other international standard setters but, most importantly, cater for the specificities of the IFSI. In this regard, since

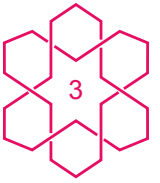
the publication of the 2018 report, the IFSB has issued three new standards across the three sectors of the IFSI, along with four working papers, and has conducted numerous workshops on the implementation of its standards. Presently, the IFSB is working on 10 standards and guidance/technical notes across the three sectors, as well as on five research working papers on various aspects relating to emerging issues in the IFSI, most of which are expected to be published in the coming year.

The *IFSI Stability Report 2019*, as a flagship publication of the IFSB, tracks developments and trends as well as examines the resilience of the three sectors of the IFSI. The report examines the implications for the global IFSI of recent economic developments and changes in the global regulatory and supervisory frameworks. It also includes a dedicated chapter on the regulatory and supervisory developments in the IFSI arising from blockchain technology, as well as box article contributions from the Central Bank of Kuwait, the Central Bank of Nigeria, and the Astana International Financial Centre on the developments and prospects of the IFSI in their respective jurisdictions.

The analysis and information in the *IFSI Stability Report 2019* has been provided by a core team from the Technical and Research Department of the IFSB Secretariat, led by Dr. Jamshaid Anwar Chattha, Assistant Secretary-General, Technical and Research. Team members comprise Dr. Abideen Adeyemi Adewale (Project Manager), Mr. Syed Faiq Najeeb, Ms. Aminath Amany Ahmed, Mr. Tarig Mohamed Taha Abdelgadir and Dr. Dauda Adeyinka Asafa. Other members include Dr. Md Salim Al Mamun, Mr. Mohamed Sani Tazara, Mr. Ahmad Al-Shammari, Mr. Jhordy Kashoogie Nazar, Mr. Madaa Munjid, Mr. Hamizi Hamzah, Ms. Mardhiah Muhsin and Mr. Mohamad Farook bin Naveer Mohideen. External contributors and consultants are Professor Volker Nienhaus and Mr. Peter Casey. Mrs. Siham Ismail, Ms. Rosmawatie Abdul Halim, and Mrs. Nirvana Jalil Ghani, also from the IFSB, and Abdul Hamid Abdul Wahab (IFSB Research Fellow) provided assistance in the editing, formatting and publication of the final document. Finally, it is also worth acknowledging that the Report has immensely benefited from comments and suggestions from the IFSB Members.

As always, it is my fervent hope that the *IFSI Stability Report 2019* will provide a better understanding of trends and developments in the IFSI across jurisdictions and sectors, of the workings of the IFSB, and of both the extant and emerging issues that affect the stability and resilience of the IFSI.

Dr. Bello Lawal Danbatta
Secretary-General
Islamic Financial Services Board
July 2019



EXECUTIVE SUMMARY

The IFSB's *Islamic Financial Services Industry (IFSI) Stability Report 2019* assesses key issues and provides insights on matters relating to the development, soundness, resilience and future outlook of the global IFSI in general and in the IFSB member jurisdictions in particular. Over the seven years of its publication, the report has attracted interest beyond the IFSB's member jurisdictions, including from those that have a substantive interest in the stability and resilience of Islamic finance. The report's broad coverage of pertinent issues across the three sectors of the IFSI – Islamic banking, Islamic capital market and *takāful* – is complemented by analyses of financial stability and resilience indicators based mainly on data extracted from the IFSB's Prudential and Structural Islamic Financial Indicators (PSIFIs) database.

As in its previous editions, the *IFSI Stability Report 2019* is divided into four chapters. Chapter 1 provides updates on the key trends in growth and developments across the Islamic banking, Islamic capital market and *takāful* sectors since the last report in July 2018. Chapter 2 tracks initiatives and developments in the other international financial standard-setting bodies with emphasis on aspects that directly relate to the complementary role played by the IFSB. In addition, the various initiatives of the IFSB since the last report are highlighted, including a synopsis on the IFSB standards implementation survey, standards development, research and working papers, and various industry collaborations.

Chapter 3 provides a detailed assessment of the resilience of the three sectors of the IFSI based on technical analyses and interpretation of the likely implications of selected stability indicators.

Chapter 4 covers emerging issues in the IFSI, with a particular focus on the regulatory and supervisory concerns for the IFSI arising from the developments in blockchain technology. Included in the chapters are box article contributions from the Central Bank of Kuwait, the Central Bank of Nigeria and the Astana International Financial Centre on the developments in and prospects for the IFSI in their respective jurisdictions.

Size and Resilience of the IFSI

In 2018, the IFSI recorded a continuous improvement for a third straight year in terms of its total worth. The combined total worth of the three broad sectors of the IFSI is estimated at USD 2.19 trillion as at 2Q18, compared to the USD 2.05 trillion recorded at the end of 2017. Notwithstanding, the IFSI recorded a slower growth rate of 6.9% compared to the 8.5% growth rate recorded between 2016 and 2017 which saw the total worth of the IFSI grow from USD 1.89 trillion to over USD2 trillion for the first time. The decline in growth rate of the IFSI is explained by, among other geopolitical and economic factors, the prolonged depreciation of the local currency in US Dollar terms in some jurisdictions with a strong presence of Islamic finance, especially in the period of 2017 to Q318.

In specific terms, the dominance of the Islamic banking sector's share in total IFSI asset worth shrank by 4% to 72% in 2Q18, as the sector grew by only 0.9% which is a sharp decline relative to the 4.3% growth recorded in 2017. The Islamic capital market segment increased its share of the total worth of the IFSI by 4% to 27% in 2018. This is despite the relative slower growth recorded in terms of both *shukūk* outstanding and Islamic funds' assets, which declined by 1% and 8.5%, respectively, in 2018 compared to their 2017 figures. Notwithstanding a year-on-year (y-o-y) 4.3% growth recorded in gross *takāful* contributions as at the end of 2016, the sector's share of the total worth of the IFSI remains at 1.3% at the end of 2017.

Islamic Banking

Size, Structure Trends: In 2018, the number of jurisdictions with a systemically important Islamic banking sector remains unchanged at 12, as in 2017. Nonetheless, with the exception of one jurisdiction that experienced a marginal decline, all the jurisdictions, including two with a dual banking system, recorded an increased share of Islamic banking assets relative to their total banking sector assets. In aggregate, these jurisdictions account for a marginally lower share of the global Islamic banking assets, at 91% in 2018, compared to 92% in 2017. The GCC region, despite recording a marginal growth in Islamic banking assets, still accounts for the largest share of the global Islamic banking assets. It is followed by the Asian region, which recorded a reduced share. Although the sub-Saharan Africa region's share of global Islamic banking assets remains low, its prospects seem bright given the various efforts and initiatives towards entrenching the IFSI in the region. On a country-by-country basis, 11 out of the 22 jurisdictions covered in the IFSB PSIFIs database recorded a double-digit growth in assets, while at least nine jurisdictions recorded a similar feat in financing growth. In terms of growth in deposits, one jurisdiction recorded a double-digit growth rate, while at least eight other jurisdictions recorded improvements of at least 2 percentage points compared to 2017.

Resilience: Spurred by a rebound in oil prices and improved asset quality due to credit growth, among other reasons, the improving resilience of the global Islamic banking sector recorded in the previous two years is sustained in 2018. Except in a few instances, most of the stability indicators are in satisfactory conformance to minimum international regulatory requirements, and compare favourably with those of conventional banking in both the US and the EU. Both the return on assets (ROA) of 1.8%, and return on equity (ROE) of 16.3% of the global Islamic banks are greater than their respective moving averages for the past five years at 1.6% and 13.6% respectively. The ROE for the global Islamic banking sector is also greater than those recorded by conventional banks over the same period in both the US and the EU at 11.9% and 7.2% respectively.



Both the net profit margin and income to expense ratios remain around their global historical averages on account of divergent performance across jurisdictions. The improved performance recorded in most jurisdictions regarding both indicators is attenuated by the poor performance in a few jurisdictions on account of increasing operating expenses due to operational inefficiency, cash maintenance costs, and expenses on technological initiatives.

An excess liquidity quagmire is still prevalent in a number of jurisdictions, due mainly to lack of Sharī'ah-compliant avenues for liquidity management. In some other jurisdictions, there is an issue of liquidity shortages due to macroeconomic pressures, runaway inflation rates and negative economic outlooks triggering increased deposit withdrawals. All but one of the jurisdictions covered in this report are yet to commence the implementation of the liquidity coverage ratio (LCR) and net stable funding ratio (NSFR) as regulatory standards on liquidity. Nonetheless, based on the financing-to-deposits ratio (FDR) and liquid assets ratio, the liquidity situation in most jurisdictions is satisfactory. In fact, two jurisdictions record an FDR ratio of above 100%, with many others following closely on account of sustained long-term funding and a high volume of corporate deposits.

The financing exposure of global Islamic banking in 2018 is mostly concentrated in wholesale and retail trade financing. This is closely followed by the household sector, driven mainly by favourable labour market conditions and continued income growth which support households' repayment capacity, especially in some emerging markets. While financing for agriculture, real estate and construction has regional concentrations and is still relatively low compared to other sectors, about one-fifth of the global Islamic banks' financing exposure is in the manufacturing sector.

The Islamic banking industry continues to enhance the quality of its assets. This is based on a consistent improvement in the asset quality of Islamic banks and windows. The global Islamic banking average non-performing financing (NPF) ratio of 4.9% compares favourably to a higher ratio of 5.6% registered in 2017. Nonetheless, the Islamic banking sector's NPF is still higher than those of conventional banks in both the EU and the US, with an average NPF of 3.6% and 1%, respectively, during the same period. Plausible reasons include, but are not limited to, economic sanctions and the consequential slow-down in growth recorded in some jurisdictions. On a sector-by-sector basis, the NPF also mirrors the global financing exposure of Islamic banks, with the highest NPF recorded in the manufacturing and household sectors.

In general, the total capital and Tier-1 capital adequacy ratios in most jurisdictions are both stable and above regulatory requirements. On average, however, these ratios declined mainly on account of economic sanctions and economic turbulence, respectively, witnessed especially in the two jurisdictions (Iran and Sudan) with fully Sharī'ah-compliant Islamic banking systems. These two jurisdictions' Islamic banking sectors also face heightened foreign exchange

exposure resulting in economic slowdown, fluctuations in foreign currency exchange, and inflation. This is in contrast to the Islamic banking sector in most other jurisdictions, which record foreign currency exposure that is generally around their historical average. In terms of leverage, all but one of the 11 jurisdictions covered for this purpose have leverage ratios above the regulatory requirements as per the Basel Committee on Banking Supervision (BCBS) and the IFSB standards.

Islamic Capital Market

The Islamic capital market (ICM) sector continues to record improved developments in 2018. The sector accounts for 27% of global IFSI asset, worth about USD 591.9 billion. *Shukūk*, notwithstanding recording a slower growth in 2018 compared to 2017, still dominates the ICM sector due largely to the strong sovereign and multilateral issuances in key Islamic finance markets to support respective budgetary expenditures, as well as first new issuances in other jurisdictions. Similar to the trend observed in the global equity markets, the Islamic funds asset also declined in 2018 by 8.5% compared to 2017 due to, among other reasons, moderation in economic growth and continuing geopolitical challenges, tightening international liquidity conditions, etc.

Shukūk: The growth trend in *shukūk* issuance observed in 2017 continued in 2018, with sovereign issuances from 13 jurisdictions accounting for the majority of issuances in 2018. Moderation is observed in sovereign issuances, especially from the GCC on account of a positive rebound in the price of oil. This also saw a change in the structure of *shukūk* issuances, where the hybrid structure (which was the most preferred and most prominent structure for sovereign *shukūk* in 2017) was the third preferred structure in 2018 after *murābahah* and *ijārah* contracts.

Another notable difference from 2017 is the remarkable 55% increase in corporate *shukūk*, with issuances in 10 jurisdictions – including three non-OIC member countries. Malaysia maintained its position as the jurisdiction with the largest volume of *shukūk* outstanding and, together with Indonesia, Saudi Arabia, Turkey and the United Arab Emirates, accounted for a 91% share of total *shukūk* outstanding. The share of *shukūk* issuance by multilateral development banks and international organisations declined, as only the Islamic Development Bank (IsDB) and the International Islamic Liquidity Management Corporation (IILM) issued *shukūk* in 2018. Moreover, on a sector-by-sector basis, the government and financial services sectors maintained their relative prominence in 2018.

Overall, the demand for new *shukūk* issued in the primary market, as measured by times oversubscription, has continued to be positive but relatively moderate compared to historical demand amid the generally less favourable market conditions. Similar to the trend in the preceding two years, based on available information, tranche allocations continue to have a regional bias. In terms of the pricing of selected sovereign *shukūk* and bonds issued in 2018, it is observed that while *shukūk* are still prevalently priced at a



premium, more jurisdictions issued *shukūk* at lower rates compared to risk-identical bonds. Perhaps as reflected in the secondary market yield, such pricing could be linked to a shift in the historical trend of investors expecting higher yields on *shukūk* in contrast to bond instruments with similar financial risk.

Generally, the prospects for *shukūk* in 2019 seem very bright hinged on the proposed new issuances in both the UK and Kazakhstan, as well as laudable initiatives introduced in other jurisdictions. Notable examples of this include the launch of a primary dealers' programme for sovereign *shukūk* in Saudi Arabia in July 2018, as well as the commencement of *shukūk* trading on Borsa İstanbul via the Committed Transactions Market (CTM) of *shukūk*.

Equity Indices: Similar to the trend observed in 2017, most Islamic equity indices performed better than conventional benchmarks in 2018. Plausible reasons could be, among others, the exclusion of the worst-performing sector – mostly financials – from Islamic indices. It could also be attributed to a higher proportionate exposure of the Islamic indices to the health-care sector, one of only two sectors that recorded positive returns in 2018. This contrasts to the proportionately high exposure of the conventional indices to sectors that performed poorly in 2018, such as industrials and materials.

Islamic Funds

In 2018, the performance of the Islamic funds subsector was mixed. While it recorded contraction in certain aspects, notable improvement was recorded in some others. For instance, returns across all asset classes except real estate contracted compared to 2017 and recorded the Islamic funds subsector historical lowest rate in the past five years. In addition, the average size of funds also recorded a contraction, from USD 79.8 million in 2017 to USD 75.02 million as at the end of 2018. The biggest decline is recorded in the commodities asset class due to, among other reasons, a stronger US Dollar and concerns arising from trade tensions.

A notable increase is recorded in the number of Islamic funds in 2018 to 1,292 funds, of which 860 are active, compared to the 1,161 Islamic funds, of which 821 were active, in 2017. The value of USD 67.4 billion of assets under management (AuM) in 2018 compares favourably to the AuM of USD 66.7 billion recorded in 2017, representing a y-o-y marginal increase of 1%. This could be linked to the increase in the number of Islamic funds with AuM of above USD 95 million, a significant increase compared to 2017.

Of the 34 jurisdictions where Islamic funds are domiciled, Malaysia and Saudi Arabia remain the most prominent, collectively accounting for about 66% of total AuM. Interestingly, while there is no change in the geographical focus of investments made by Islamic funds, three notable non-Organisation of Islamic Cooperation (OIC) domiciles for Islamic funds in 2018 are Ireland, Luxembourg and the US. Structure-wise, equity, money market and commodities are the main asset classes of global Islamic funds in 2018.

Takāful

In the past five-year period, the Islamic insurance sector has been expanding faster than conventional insurance – although from a much lower base – growing at a compound annual growth rate of 24% (2013–17) to USD 154 million for general business and by 31% for life (USD 560 million). There are an estimated 306 *takāful* institutions, including *retakāful* and *takāful* windows, offering *takāful* products in at least 45 countries globally, mostly in the GCC, Middle East and North Africa (MENA) and South-East Asia. The majority of the jurisdictions have developed specific *takāful* sector regulations.

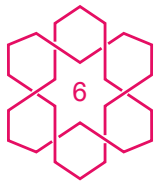
The total contributions of *takāful* markets grew on average by 4.3%, estimated at USD 26.1 billion, in 2017. As was the case in 2016, the GCC remains the largest global *takāful* market in 2017 with a contribution worth about USD 11.71 billion, accounting for 45% of the total global *takāful* contributions.

Generally, most jurisdictions recorded a high retention ratio. This high retention was observed for all personal lines (motor, medical and health, and personal accident), which accounted for more than 80% of the total contributions written in 2017 thus highlighting the importance of *retakāful/reinsurance* in reinforcing underwriting capacity, by spreading the risks at the industry level and enhancing the capacity to underwrite complex risks. This is without prejudice to the capacity of some *takāful* operators with significant underwriting strength to develop tailor-made products and lesser dependence on facultative *retakāful/reinsurance* markets.

With the exception of a few countries, the expense ratio declined during 2017 as compared to the six-year average (2012–16) across the countries in the sample. Plausible reasons include greater deployment of technology and other institution-specific factors such as innovative products and technology-driven, cost-effective distribution channels for personal lines (i.e. online, mobile or digital platforms).

In spite of the increase in the combined ratio observed in the general *takāful* markets, the markets remain profitable due to earnings from other sources, such as commission income from *retakāful/reinsurers* and investment income, which offset the losses. Generally, the overall outlook for the *takāful* sector is positive, in spite of the economic headwind. In general business, the compulsory lines of business such as medical and motor are expected to continue to drive the growth.

On the regulatory side, significant development milestones over the year include the implementation of Phase II of the liberalisation of motor and fire tariffs; the introduction of direct distribution channels and improvements to incentive structures under the Life Insurance and Family Takāful (LIFE) Framework; and the “Protection Cover” initiative. The industry is also preparing for the implementation of new International Financial Reporting Standards for insurance contract (IFRS 17), stress testing, and measures to strengthen the professionalism of insurance and *takāful* intermediaries.



Changes in the Global Financial Architecture

With due cognisance to the IFSI being an important part of the global financial ecosystem, the IFSB *IFSI Stability Report* also tracks developments in the global regulatory systems, especially those that have had, or will have, an impact on the IFSI and the work of the Islamic Financial Services Board (IFSB).

The *IFSI Stability Report 2019* takes cognisance of the implementation of the G20 financial regulatory reforms and will continue to keep tab on the effects of these reforms on the IFSI in the three IFSB jurisdictions that are G20 members. In fact, as per the current report, two of the three countries are categorised as having a systemically important Islamic banking sector. In addition, the six recommendations of the International Organization of Securities Commissions (IOSCO) on improving regulatory reporting and transparency are being tracked given their applicability to conduct in the ICM sector.

The BCBS, for its part, has, since the issuance of the *IFSI Stability Report 2018*, issued a number of supervisory documentations that relate to the IFSI and the future work of the IFSB. These BCBS documents may help to enhance the stability of the IIFS via early detection and prevention of any deterioration in governance, as well as by the treatment of extraordinary monetary policy operation in the NSFR which very much relates to a section in the IFSB's Guidance Note 6. The BCBS also updated its framework for Pillar 3 on disclosure requirements towards promoting market discipline. The IFSB has, on its part, issued a standard (IFSB-22) - Revised Standard on Disclosures to Promote Transparency and Market Discipline for Institutions Offering Islamic Financial Services [Banking Segment] - that incorporates these updates by the BCBS. The IFSB is also currently reviewing its *Standard on Capital Adequacy* (IFSB-15) and, in this process, also takes cognisance of the changes made by the BCBS, especially those relating to the Standardised Approach and the Internal Rating Base Approach to the calculation of market risk capital charges.

The *IFSI Stability Report 2019* also takes note, and provides excerpts, of the various issues and application papers by the International Association of Insurance Supervisors (IAIS). Highlights are also provided on the Common Framework for the Supervision of Internationally Active Insurance Groups (ComFrame), the Insurance Core Principles, as well as the public consultation document on a holistic framework for systemic risk in the insurance sector by the IAIS.

Recent Initiatives of the IFSB

Research Papers: Since the *IFSI Stability Report 2018*, the IFSB has issued two working papers relating to the operation of *takāful* windows and consumer protection in *takāful*. In 2019, the IFSB plans to issue five working papers – three relating to the Islamic banking sector with a focus on the risk-sharing practices in Islamic banks, intersectoral linkages in the IFSI, anti-money laundering and combating financing of terrorism. The other two papers focus on activities in the ICM sector – relating to the conduct of intermediaries, and regulatory and supervisory issues arising from Sharī'ah-compliant hedging instruments.

IFSB Standards Implementation Survey 2018

The IFSB Standards Implementation Survey is an annual survey exercise, tracked by the IFSB, and covers all IFSB member regulatory and supervisory authorities (RSAs) globally. Compared to the 2017 survey, in general, there is an increase in terms of number of standards being implemented by the member RSAs in 2018, except for the "Final Rule Published" status which has a slight decrease (from 38% to 36%). The main y-o-y difference in implementation is noted in the "No Planning" and "Planning" stages, which both saw a 6% increase.

Other IFSB Initiatives

In addition to activities aimed at facilitating the implementation of the IFSB standards, the IFSB PSIFs database (which forms the basis of the analysis of the Islamic banking sector in this report) is being extended to both the ICM and *takāful* sectors. The IFSB is therefore, in addition to its revised detailed financial statement template, also revising its PSIFs compilation guides and exploring the possibility of developing a web-based system to enhance the database's usability and accessibility.

Emerging Issues in Islamic Finance

A chapter of this report is dedicated to the Bitcoin blockchain as part of a broader FinTech movement, which has spread rapidly in the years since the Global Financial Crisis (GFC). The chapter identifies some of the regulatory and supervisory concerns, and proposes that an understanding of the functioning of these components be a precondition for an assessment of their strengths and weaknesses in the financial industry in general and in Islamic finance in particular. The Bitcoin system is taken as a point of reference and the examples selected are those relevant for Islamic finance.



Islamic Financial Services Industry (IFSI) Development Review



Downside Risks of the Global Economy:

- Normalisation of interest rates in advanced economies
- Escalating tension of trade war
- Currency depreciation in key emerging economies
- Brexit uncertainties



Global IFSI Maintains Positive Growth:

The global IFSI maintained its positive growth by **6.9% growth (y-o-y)** with the IFSI's total worth estimated at USD 2.19 trillion (2Q18).

The overall growth was achieved despite the prolonged depreciation of several emerging markets' currencies from 2017 towards Q318, which led to declines in the dollar values of assets.



SECTORAL ANALYSIS



Growth (y-o-y):
0.9%
Share of IFSI:
71.7%

Islamic Banking



Growth (y-o-y):
26.9%
Share of IFSI*:
27.0%

Islamic Capital Market



Growth (y-o-y):**
4.3 %
Share of IFSI:
1.3%

Takāful

*) Islamic capital market share comprise *shukūk* and Islamic funds assets as at end 2018

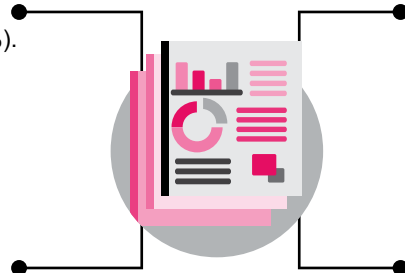
**) Takāful as per end 2017



STYLISTED FACTS

Islamic finance assets are still concentrated in the GCC region (42.3%) and Asia (28.2%).

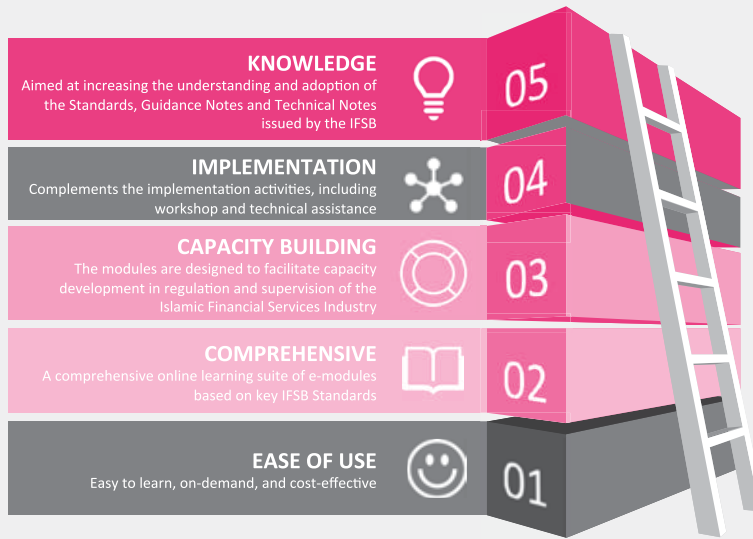
91% of Islamic banking assets are concentrated in jurisdictions where Islamic finance is of systemic importance



Islamic banking is considered as systemically important in 12 IFSB jurisdictions

80% of *shukūk* outstanding are concentrated in jurisdictions where Islamic finance is of systemic importance

IFSB E-LEARNING PACKAGES



Core Principles

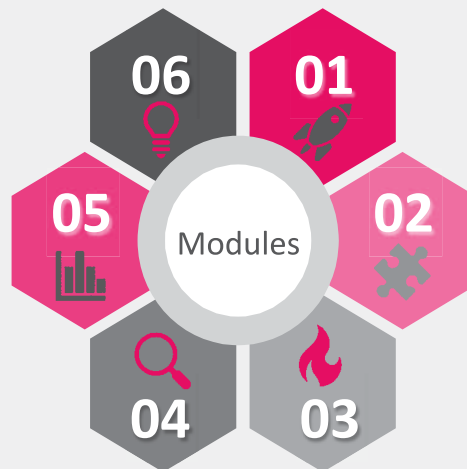
- IFSB-17: Core Principles for Islamic Finance Regulation (Banking Segment)

Supervisory Review Process

- IFSB-16: Revised Key Elements In The Supervisory Review Process

Conduct of Business

- IFSB-9: Conduct of Business for IIFS



Capital Adequacy

- IFSB-15: Revised Capital Adequacy

Risk Management

- IFSB-1: Guiding Principles of Risk Management
- IFSB-14: Risk Management for Takāful Undertakings

Governance

- IFSB-10: Sharī'ah Governance Systems
- IFSB-6: Governance for Islamic Collective Investment Scheme
- IFSB-8: Governance for Takāful Undertakings

FULL MEMBER	ASSOCIATE MEMBER	OBSERVER MEMBER	NON MEMBER	Ruby	Sapphire	Emerald	Gold
<ul style="list-style-type: none"> 3 Complimentary Access* All Modules Online Support Certificate Learning Progress Report to HR** 	<ul style="list-style-type: none"> 2 Complimentary Access* All Modules Online Support Certificate Learning Progress Report to HR** 	<ul style="list-style-type: none"> 1 Complimentary Access* All Modules Online Support Certificate 	<ul style="list-style-type: none"> All Modules Online Support Certificate 	10% Discount when register up to 15 paid users	30% Discount when register up to 30 paid users	50% Discount when register up to 100 paid users	70% Discount when register for more than 100 paid users
4 th user and above:	3 th user and above:	2 nd user and above:	Fee:				
\$ 100	\$ 100	\$ 100	\$ 200				
<small>Valid for 12-month</small>	<small>Valid for 12-month</small>	<small>Valid for 12-month</small>	<small>Valid for 12-month</small>				

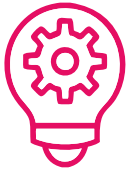
Note:
 * Fees are chargeable for each person.
 (*) Certificate and Learning Progress Report will not be provided for the Complimentary Access Users
 (**) Learning Progress Report to HR will be provided quarterly to Full Members and half-yearly to Associate Members

Download User Registration Form

URL: https://www.ifsb.org/ifsb/uploadfile/download.php?uf_id=8204

Download User Registration Form – Complimentary for Members

URL: https://www.ifsb.org/ifsb/uploadfile/download.php?uf_id=8203



1.0 DEVELOPMENT REVIEW: ISLAMIC FINANCIAL SERVICES INDUSTRY (IFSI)

1.1 SIZE OF THE INDUSTRY AND JURISDICTIONS WITH SYSTEMIC IMPORTANCE

The global economy in 2018 was characterised by steady growth. Although the normalisation of monetary policy in advanced economies was still tinged with uncertainties, and despite geopolitical tension, the trajectory of global economic growth remains positive, though with a softened momentum of growth. In particular, geopolitical tension has cast a shadow over global economic prospects in both advanced and emerging economies and decreased the global economic sentiment. In response, an estimated 120 economies that account for three-quarters of the world GDP have experienced a deceleration in growth in year-on-year terms in 2018, which led to downward revisions for several economies¹.

The downside risks of the global economy are more weighted than the upside risks in a number of advanced, emerging and developing economies. The downside risk in a number of advanced, emerging and developing economies could be linked to several factors – notably, lower growth of manufactured goods due to lower trade volumes in the midst of escalating tensions arising from the trade war. In the sphere of financial markets, the normalisation of interest rates was still ongoing which caused net capital outflows due to higher uncertainties in the emerging economies and eventually led to continued currency depreciation in 2018. Several emerging market currencies, however, have staged recoveries from their 2018 low valuations, especially since the 3Q18.

The Bank of England once again raised its policy rate in a bid to manage the Brexit deadlock uncertainties, while the European Central Bank tapered its net asset purchases in 2018 until 3Q18, but pulled back gradually by 4Q18. The US economy experienced a softened economic growth due to unwinding fiscal stimulus and overshoot of interest rates. A similar situation is apparent with regard to the oil-producing and emerging-exporting countries, whereby they experienced volatility in crude oil prices, which plummeted at the end of 2018. All of these factors were key drivers of slower global economic activity in 2018.

Global IFSI Maintains Growth but at a Slower Pace at USD 2 Trillion Assets Volume Range

Under these conditions, the global IFSI still managed to maintain positive growth, albeit more slowly than last year. The industry's total worth² across its three main sectors (banking, capital markets and *takāful*) is estimated at USD 2.19 trillion in 2018 (see Table 1.1.1), marking a year-on-year (y-o-y) 6.9% growth in assets in US Dollar terms [SR2018³: USD 2.05 trillion]. The growth was contributed actively by all three sectors of the IFSI, but the key rebound in performance was experienced by the Islamic capital markets. The overall growth was achieved despite the prolonged depreciation of several emerging market currencies from 2017 towards 3Q18, which led to declines in the dollar values of assets there.

The global *shukūk* outstanding continued its positive growth trend by 22%, albeit with slower growth than last year, to close at USD 530.4 billion as at end-2018 [2017: USD 434.8 billion] on the back of strong sovereign and multilateral issuances in key Islamic finance markets to support respective budgetary expenditures. Market debuts included Indonesia's first green sovereign *shukūk* to finance eco-friendly environment projects and the sovereign issuance by Morocco. Meanwhile, in line with the deteriorating performance of equity markets in both advanced and emerging market equity indices in 2018, Islamic funds⁴ assets have decreased by 8.5% to close at USD 61.5 billion as at end-2018 [2017: 66.7 billion]. Despite this slower growth, the two sectors of the ICM account for a higher share in the Islamic finance industry, with 27% of the global IFSI assets [2017: 22.8%] – entrenching the ICM further as a key and viable component of the global IFSI (see Chart 1.1.1).

¹ IMF World Economic Outlook Update, January 2018.

² The figure quoted here is in fact a composite made up by adding assets in the banking sector and Islamic funds to the value of *shukūk* outstanding and to *takāful* contributions. The latter is a measure of income, rather than assets, and elsewhere there may be elements of double-counting – for example, if a bank holds *shukūk*. The figure is nevertheless the best measure we can offer in the current state of data availability.

³ SR2017 = IFSB *IFSI Stability Report 2017*; SR2016 = IFSB *IFSI Stability Report 2016*.

⁴ Funds that are marketed and offered generally with their data publicly available, and excluding private equity funds.

Table 1.1.1 Breakdown of the Global IFSI by Sector and Region⁵ (USD billion, 2018*)

Region	Banking Assets	Şukūk Outstanding	Islamic Funds Assets	Takāful Contributions	Total	Share %
Asia	266.1	323.2	24.2	4.1	617.6	28.2%
GCC	704.8	187.9	22.7	11.7	927.1	42.3%
MENA (ex-GCC)	540.2	0.3	0.1	10.3	550.9	25.1%
Africa (ex-North)	13.2	2.5	1.5	0.01	17.2	0.8%
Others	47.1	16.5	13.1	--	76.7	3.5%
Total	1,571.3	530.4	61.5	27.7	2,190	100.00%

* Data for şukūk outstanding and Islamic funds are for full-year 2018; for Islamic banking, are as at June 2018 (1H18); and for takāful are as at end-2017.

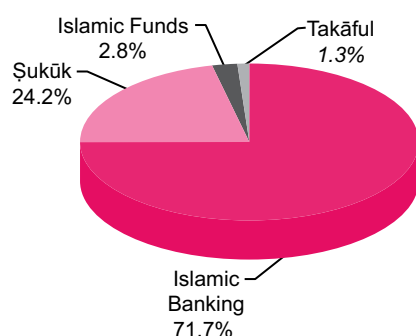
Note: (a) Data are mostly taken from primary sources (regulatory authorities' statistical databases, annual reports and financial stability reports, official press releases and speeches, etc. and including IFSB's PSIFI database).

(b) Where primary data are unavailable, third-party data providers have been used, including Bloomberg.

(c) Takāful contributions are used as a basis to reflect the growth in the takāful industry.

(d) The breakdown of Islamic funds' assets is by domicile of the funds, while that for şukūk outstanding is by domicile of the obligor.

Source: IFSB Secretariat Workings

Chart 1.1.1 Sectoral Composition of the Global IFSI (2018)


Source: IFSB Secretariat Workings

The global Islamic banking industry experienced only 0.9% growth in assets to close at approximately USD 1.57 trillion [2Q17: USD 1.56 trillion] and thus its share in the overall IFSI has slightly contracted to 71.7% [2017: 76%]. This lacklustre growth over the period is due mainly to the depreciation of local currencies in terms of the USD, especially in some emerging economies with a significant Islamic banking presence. The major declines of asset values among the Islamic banking jurisdictions are in Iran and Sudan, which are among the largest Islamic banking asset domiciles. As for the *takāful* industry, the gross contributions of the global *takāful* industry also recorded a 6.1% increase to close at USD 27.7 billion as at end-2017 [2016: USD 26.1 billion], however its share in the global IFSI remains unchanged at 1.3% [SR2018⁶: 1.3%].

...Slower Pace of Domestic Market Share Consolidation

Despite the slower global asset growth performance, the domestic market share for Islamic banking in relation to the total banking sector still continued to increase in a large number of countries, though at a slower pace. Between 2Q17 and 2Q18, tracking a list of 36 jurisdictions (see Chart 1.1.2), Islamic banking experienced an increase in domestic market share in 19 countries while remaining constant in six others (including Iran and Sudan, which have 100% market shares). Meanwhile, the number of jurisdictions with declining market shares has increased from six jurisdictions in 2Q17 to 11 jurisdictions in 2Q18 among which are Qatar, Turkey and Egypt which are three key Islamic banking markets.⁷

Based on the above, the list of jurisdictions where Islamic finance has achieved domestic systemic importance⁸ is 12 in 2Q18, which is consistent with 2Q17. Furthermore, the two jurisdictions with more than a 50% share for Islamic banking – aside from Iran and Sudan – have further increased market penetration. Brunei continued as the most prominent, where Islamic banking now accounts for 63.6% [2Q17: 61.8%] of the domestic market. Saudi Arabia had a consistent penetration of a 51.5% share in 2Q18 [2Q17: 51.5%].

⁵ For purposes of regional classification, Iran is included in "MENA (ex. GCC)", while Turkey is included in "Others".

⁶ SR2018 refers to IFSB Stability Report 2018.

⁷ The 11 jurisdictions with a decline in domestic Islamic banking market shares are Algeria, Bosnia & Herzegovina, Egypt, Kenya, Kyrgyz Republic, Mauritius, Qatar, Senegal, Thailand, Turkey and the UK.

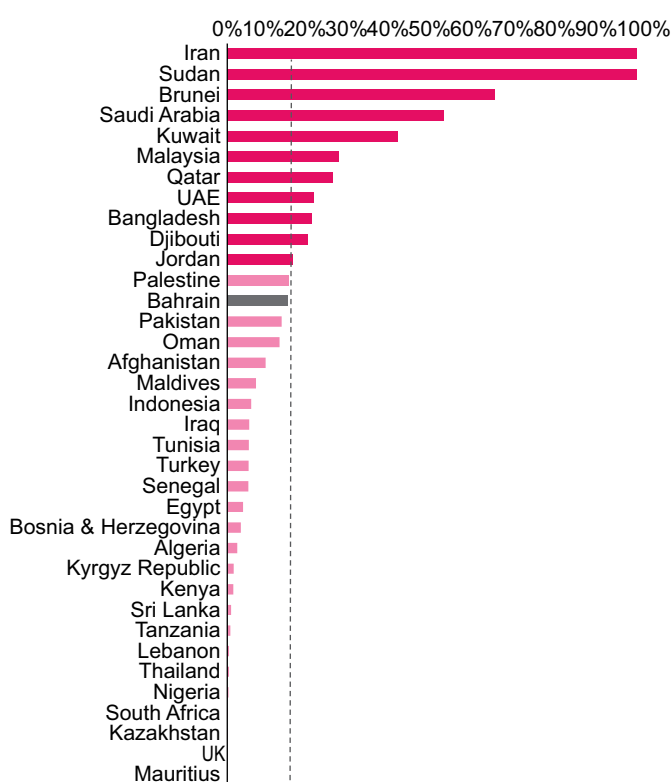
⁸ This report considers the Islamic financial sector as being systemically important when the total Islamic banking assets in a country comprise more than 15% of its total domestic banking sector assets. The report uses the Islamic banking segment as the criterion for systemic importance of Islamic finance, since about 76% of Islamic financial assets are held within the banking sector. A recognition of systemic importance is also considered for jurisdictions that are within one percentage point of the 15% benchmark, provided they have active involvement (among the top 10) in the other two sectors of the IFSI – Islamic capital markets and *takāful*.



Improvements in market share were also made across other systemically important jurisdictions, including Kuwait at 40.6% (2Q17: 39.3%), Malaysia⁹ 26.5% (2Q17: 24.9%), UAE 20.6% (2Q17: 20.0%), Bangladesh 20.1% (2Q17: 19.8%) and Jordan 15.6% (2Q17: 15.5%). Qatar was still the only important jurisdiction that experienced a decline in market share, to 25.2% (2Q17: 25.7%). Collectively, the 12 systemically important Islamic finance jurisdictions are now host to a slightly decreased 91% of the global Islamic banking assets (2Q17: 92%) and also a slightly decreased 80% of the global *shukūk* outstanding (2Q17: 82%) (see Charts 1.1.3 and 1.1.4).

Regionally, the GCC continued as the largest domicile for Islamic finance assets (see Chart 1.1.5); in 2018, the region experienced a modest increase in its share in global Islamic finance assets to 44.9% (SR2017: 42.0%). The share of MENA excluding GCC (MENA ex-GCC) has also increased moderately to 34.4% (SR2017: 29.1%). Asia is the only region that showed a decreased market share of the global IFSI, to 16.9% (SR2017: 24.4%), although asset values are increasing.

Chart 1.1.2 Islamic Banking Share in Total Banking Assets by Jurisdiction (2Q18)

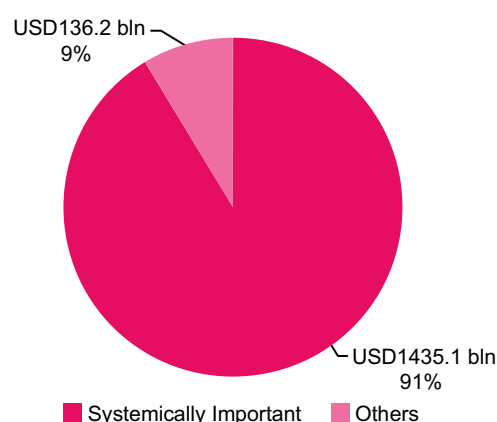


Notes:

- The countries in dark red coloured bars indicate those that satisfy the criterion of having a more than 15% share of Islamic banking assets in its total domestic banking sector assets and, hence, are categorised as systemically important (see footnotes 9, 10 and 11).
- A recognition of systemic importance is considered for a jurisdiction that is within one percentage point of the 15% benchmark, provided it has active involvement (is among the top 10 jurisdictions) in the other two sectors of the IFSI – Islamic capital markets and *takāful*. Such jurisdiction, for instance Bahrain is shaded in grey bar.
- Palestine, though within one percentage point of the 15% benchmark is not considered systemically important due to having no active involvement in the other two sectors of the IFSI.
- Yemen, which has previously been classified as having achieved domestic systemic importance, is not included in this IFSI Stability Report 2019, due to a lack of availability of credible data.

Source: IFSB Secretariat Workings (see note in Table 1.1.1)

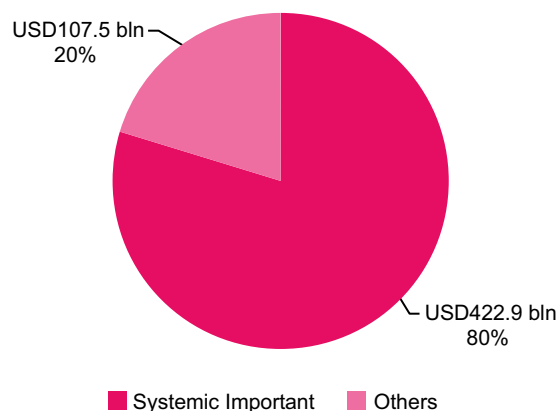
Chart 1.1.3 Islamic Banking Assets in Jurisdictions with an Islamic Finance Sector of Systemic Importance (2Q18)



*Based on the domicile of obligors.

Source: IFSB Secretariat Workings

Chart 1.1.4 *Shukūk* Outstanding in Jurisdictions* with an Islamic Finance Sector of Systemic Importance (2Q18)

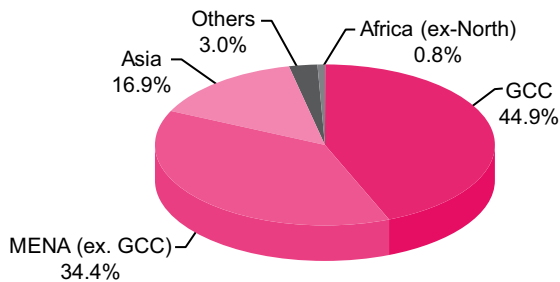


*Based on the domicile of obligors.

Source: IFSB Secretariat Workings

⁹ Based on Islamic banks regulated by the Bank Negara Malaysia and excluding development financial institutions (DFIs) regulated by the Ministry of Finance, Malaysia. The share for Islamic banking in Malaysia is almost 30% if DFIs are also included in the banking sector pool of assets.

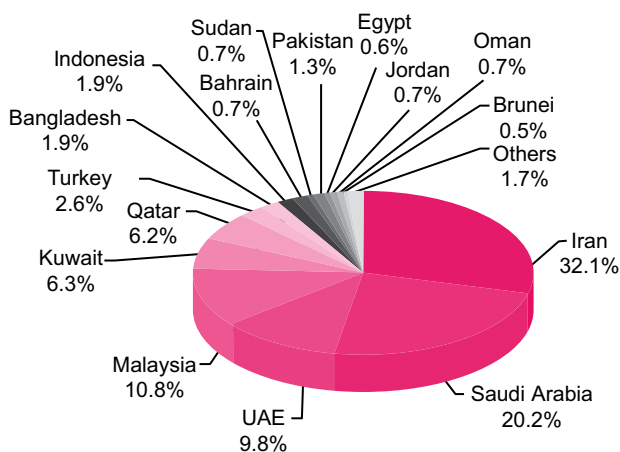
Chart 1.1.5 Breakdown of IFSI by Region (%) (2Q18)



Source: IFSB Secretariat Workings

In terms of the top jurisdictions for Islamic banking assets, Iran sustained its historical position as the largest market, accounting for a slightly decreased 32.1% of the global Islamic banking industry in 2Q18 (see Chart 1.1.6). This is followed by Saudi Arabia at 20.2% (2Q17: 20.4%), Malaysia 10.8% (2Q17: 9.1%), UAE 9.8% (2Q17: 9.3%) and Kuwait 6.3% (2Q17: 6.0%), which complete the top five. In 2018, Malaysia in particular experienced an increase of estimated Islamic financing market share by about 71%, which became the key driver of the growth of Islamic finance in the region. The other countries in the top 10 Islamic banking jurisdictions, in order of size, are Qatar, Turkey, Bangladesh, Indonesia and Bahrain.

Chart 1.1.6 Share of Global Islamic Banking Assets* (%) (2Q18)



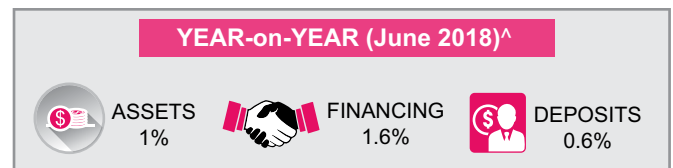
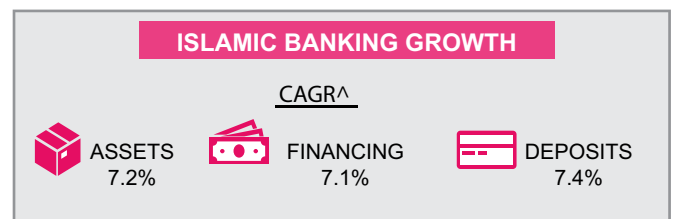
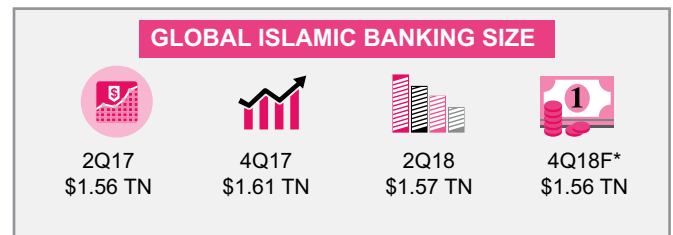
*The share is apportioned in US Dollar terms.

Source: IFSB Secretariat Workings

Overall, the global IFSI is well placed to maintain its positive growth trajectory, experiencing asset increases across all three of its main component markets. Despite the slower growth due to the depreciation of local currencies which affected the Islamic banking asset values, the market has managed to increase the asset value from the USD 2 trillion mark it attained for the first time in 2017 to USD 2.19 trillion, and has achieved domestic market share entrenchment for its Islamic banking sector in at least 20 countries. In the following subsections of Chapter 1, the growth and

developments across the three key sectors of the global IFSI will be analysed in detail, followed by further analyses from a stability and resilience perspective in Chapter 3 of this report.

1.2 ISLAMIC BANKING



* Forecast.

^ Compound Annual Growth Rate (December 2013 – June 2018). Data used in calculating CAGR, as well as growth rates for assets, financing and deposits, were obtained from the Prudential and Structural Islamic Financial Indicators of the IFSB, and include data from both Islamic banks and windows in Bangladesh, Indonesia, Malaysia, Oman, Pakistan and Saudi Arabia, and from Islamic banks in Brunei, Iran, Jordan, Kuwait, Lebanon, Nigeria, Palestine, Qatar, Sudan, Turkey and the UAE. Aggregate growth rates for deposits, including CAGR, exclude Brunei, Kuwait and Qatar due to data limitations. The UK data were not used for growth calculations due to their short time series, but were used to calculate aggregate asset, financing and deposit values for 4Q17 and the first two quarters of 2018.

The aggregate US Dollar value of global Islamic banking assets increased by just 0.9% in the year to 2Q18 (y-o-y)¹⁰. Similar to 2017, depreciation in exchange rates of several Islamic banking jurisdictions was the main driver for lacklustre aggregate growth figures and the disparity between US Dollar and local currency growth rates. The most notable declines¹¹ in asset values emerged from the only two jurisdictions with fully Shari'ah-compliant Islamic banking sectors; Iran and Sudan. Iran and Sudan saw their currencies depreciate by 23.5% and 74.2%, respectively, and together saw their asset values decline by a combined USD 45.7 billion between 2Q17 and 2Q18, a figure representing 2.9% of the global Islamic banking assets in 2Q17.

¹⁰ Growth rates (other than compound annual growth rate, or CAGR) for assets, financing and deposits are calculated on a y-o-y basis.

¹¹ Corrections have also been made to Islamic banking values in Egypt, Lebanon, the Kyrgyz Republic and the US, which contributed to the low aggregated growth rates.

Analysis of the expansion in Islamic banking services reveals that the majority of countries made market-share gains, with only Qatar and Turkey recording asset growth rates that were exceeded by the progress of conventional banks there (see Chart 1.2.1).

The Islamic banking industry in Malaysia reported consistent and stable growth indicators in the year to 2Q18 owing to positive income and labour market conditions, and now captures 26.5% (2Q17: 24.9%) of the Malaysian commercial banking system. Bangladesh and Indonesia have also improved their shares of Islamic banking services, registering 20.1% (SR2018: 19.8%) and 5.7% (SR2018: 5.4%), respectively, as at 2Q18. Brunei, meanwhile, reversed a decline in its financing figures reported in SR2018 (-9.4%), to register an improvement of 6.9% in 2Q18 following policy changes by the Autoriti Monetari Brunei Darussalam (AMBD) in 3Q17 intended to encourage home ownership and stimulate the domestic property market. These changes allowed banks to increase the total debt service ratio (which is total monthly debt obligations as a proportion to total net monthly income) by 10% to 70%, providing a boost to financing volume and contributing to an improved share of Islamic banking assets of 63.6% (2Q17: 61.8%). Brunei still maintains the highest domestic share of Islamic banking assets after Iran and Sudan.

Afghanistan, meanwhile, welcomed its first full-fledged Islamic bank in 2Q18 following the conversion of a conventional bank. With six existing Islamic windows in the country, the Islamic banking sector's market share in Afghanistan has now jumped to 9.1%, up from 5.4% in 2Q17. Also in Central Asia, Kazakhstan now has two Islamic banks after the National Bank of Kazakhstan issued, in 2017, a licence for the conversion of a conventional bank to an Islamic bank, while simultaneously introducing specific regulatory requirements on accounting and prudential ratios that take into consideration Islamic banking operations. Attention to the development of a regulatory framework for Islamic banking has also been a key focus in the Kyrgyz Republic, among which was the approval of a new Islamic banking contract and increasing the aggregate financing limit of banks. Such developments contribute to a positive outlook for a promising Islamic banking sector there to build on its existing 1.5% market share.

In Pakistan, assets of Islamic banks and windows have grown their market share to 12.9% in 2Q18 (2Q17: 11.6%), while Bangladesh's eight Islamic banks and 16 windows have now pushed their aggregate market share above the 20% mark to account for 20.1% of the Bangladeshi banking system in 2Q18, continuing a trend of steady growth in recent years.

In the GCC¹², Qatari Islamic banks have lost market share for the second consecutive year, declining by 0.5% and ending 2Q18 with a 25.2% share of the banking industry. A three-way merger proposition involving a conventional bank and two of the country's four Islamic banks collapsed in mid-2018. Nevertheless, a merger is still being considered by two of these banks, the success of which is expected to create improved efficiency amid geopolitical tensions, and establish an Islamic bank with about 6% share of the Qatari banking system.

Bahrain's Islamic banks, on the other hand, continued their recovery following the 2Q16 marginal decline. The Kingdom's Islamic banking system had 14.3% of the country's banking assets as at 2Q18 (2Q17: 14.1%), The UAE's Islamic banking assets have crossed the 20% mark to represent 20.6% of its domestic banking sector, up from 19.9% in 2Q17. After its establishment in 2016, the Shari'ah Board of the Central Bank of the UAE (CBUAE) held its first meeting in 2018; and in July of that year, it was announced that Islamic banks and windows in the Emirates were required to comply with the Shari'ah standards issued by the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) from September. The CBUAE also planned to conduct a study on Islamic finance in the UAE in 2018 amid its efforts to accelerate growth of the sector in a competitive manner. Oman's Islamic banking industry, meanwhile, maintained its growth trajectory towards systemic importance, gaining 0.9 percentage points to capture 12.4% of the domestic banking system in the Sultanate as at 2Q18.

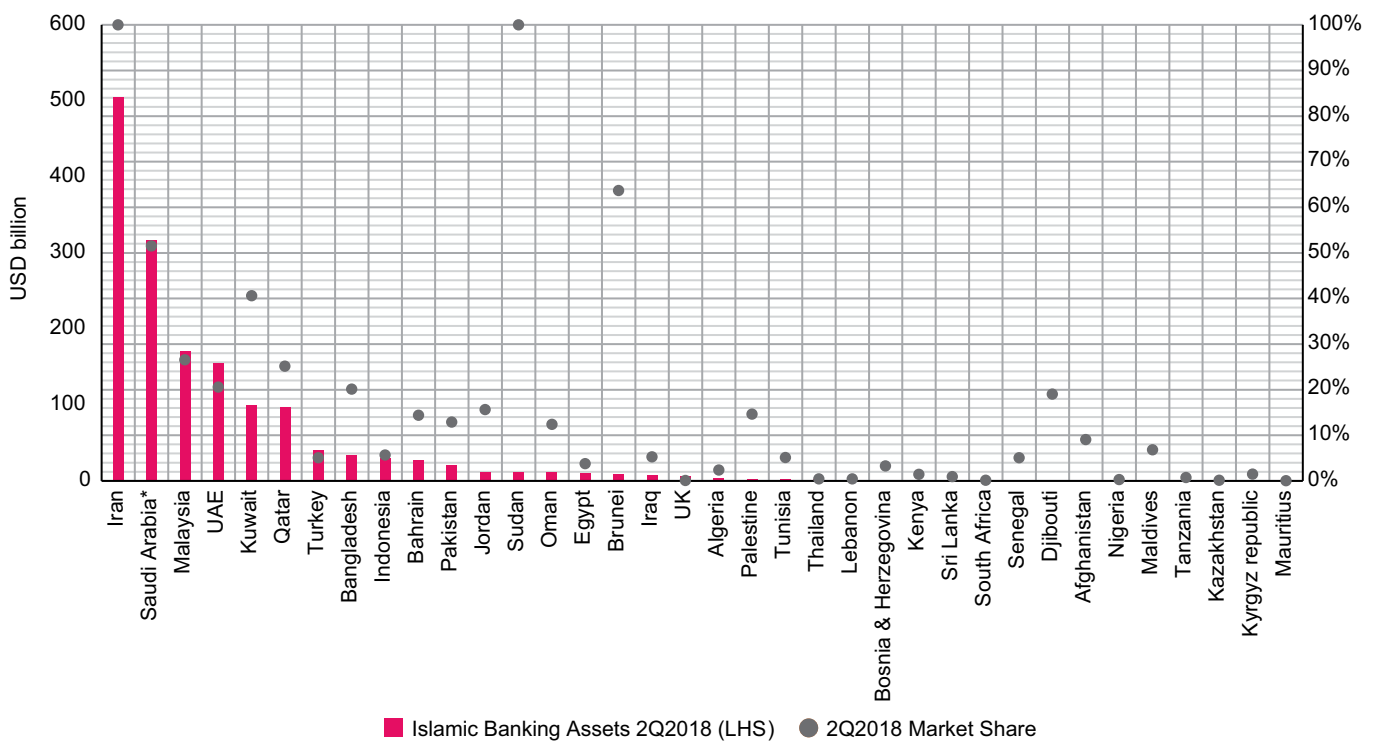
Elsewhere in the Middle East, Jordan maintained its position in the list of jurisdictions in which the Islamic financial sector is regarded as systemically important, with the Kingdom's Islamic banking share increasing marginally to 15.6% of its total banking sector assets (15.5% in 2Q17). This follows a moderate increase in Jordan's Islamic banking asset base (4.1%) exceeding growth in the overall Jordanian banking sector, which registered 2.9% growth between 2Q17 and 2Q18. Palestine's Islamic banks are close to Jordan's in Islamic banking share, now standing at 14.6% (2Q17: 12%) after registering a 14.2% asset growth rate in 2Q18.

¹² Data limitations have restricted discussion of Islamic banking market share in Kuwait and Saudi Arabia.

The African continent has witnessed several developments highlighting its significant potential for the Islamic banking industry. Nigeria’s non-interest banking has maintained its share of total domestic banking assets, at 0.3% in 2Q18 (SR2018: 0.3%). Several participation banks have opened their doors in Morocco since May 2017, and Tunisia is in the midst of enhancing its regulatory framework to support further expansion of the Islamic banking industry’s 5.1% market share. Algeria is following its neighbours’ footsteps, preparing to allow a few banks to launch Sharī’ah-compliant banking products and putting in place relevant regulatory guidelines. Uganda is yet to operationalise its Islamic banking regulation, which was gazetted in early 2018, while Kenya is considering a proposed Islamic banking regulatory framework that aims to encourage growth of the sector and attract foreign cash inflows to a country that is already home to three Islamic banks and a few Islamic windows. In addition, with the support of multilateral organisations, Islamic banks have been established in several African countries including Benin, Côte d’Ivoire, Mali and Senegal.

Currency exchange rates that are not pegged to the US Dollar in key Islamic banking markets, coupled with difficult economic conditions in a few Islamic banking jurisdictions, will continue to have significant influence on the value of global Islamic banking assets and other aggregate indicators of the industry. Consequently, the value of global Islamic banking assets is forecast to decline from USD 1.61 trillion in 2017 to approximately USD 1.56 trillion in 2018¹³ (see Chart 1.2.2). Geographical concentration of Islamic banking assets remains substantial and similar to 2Q17, with 91.2% of these assets in countries in which the Islamic financial sector is considered systemically important. The top 10 Islamic banking jurisdictions by asset size¹⁴ account for 93.7% of the global Islamic banking industry, slightly higher than its 93.2% level in 2Q17, while the top five countries – namely Iran, Saudi Arabia, Malaysia, the UAE and Kuwait – are home to more than 79% of the industry’s assets globally.

Chart 1.2.1 Islamic Banking Assets and Market Share (2Q18)[^]



*2Q18 data unavailable; 2Q17 data used.

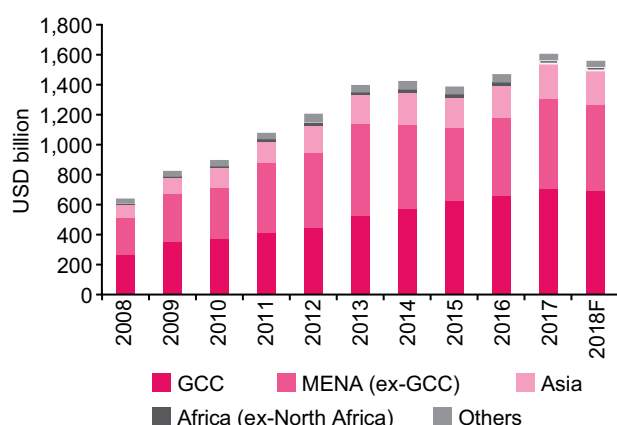
[^] Where 2Q18 data were not available, the latest available figures were used.

Source: PSIFIs IFSB Secretariat Workings

¹³ This forecast was derived by projecting forward jurisdiction-specific average year-end asset growth rates (2017 and 2016) and adjusting for applicable end-2018 exchange rates. Data were obtained from jurisdictions covering approximately 96.5% of the global Islamic banking industry by asset size (2Q18).

¹⁴ These jurisdictions are (in order of size) Iran, Saudi Arabia, Malaysia, the UAE, Kuwait, Qatar, Turkey, Bangladesh, Indonesia and Bahrain.

Chart 1.2.2 Islamic Banking Assets (2008–18F)



Source: PSIFIs, IFSB Secretariat Workings

Overview of Islamic Banking in Key Markets¹⁵

Compound annual growth rates for Islamic banking continue to be moderate in light of lower asset growth rates in recent years. In US Dollar terms, and across 17 jurisdictions, Islamic banking assets were affected by prolonged currency depreciation trends and economic uncertainties in several key Islamic banking jurisdictions, and expanded at a CAGR of 7.2% between 4Q13 and 2Q18. CAGR was reported at 8.8% in 2Q17 and 9.9% in 2Q16 (see Chart 1.2.3).

The country-wise coverage for the 2018 growth analysis was expanded by the addition of Lebanon (from 2013), Palestine (from 2016) and the UK (from 2017), and coincided with 2Q18 witnessing the lowest annual (y-o-y) aggregate growth rates throughout the analysis period (see Charts 1.2.4, 1.2.5 and 1.2.6), due primarily to exchange rate depreciations. The value of assets among analysed countries increased by 1%, financing by 1.6% and deposits by 0.6%.

Analysis of country-level growth rates¹⁶ shows 11 jurisdictions, out of 17 included in this year's analysis, achieving double-digit asset growth rates in the year to 2Q18. This can be attributed, in at least nine of these countries, to financing growth that was also in the double digits. Deposits, on the other hand, grew by at least 2 digits in eight countries, out of 14 for which data were available, with one country, Sudan, reporting more than a doubling in its deposit base (see Chart 1.2.7).

Relative maturity of the industry, coupled with economic headwinds and credit rating downgrades, have led to a moderation in growth rates in the Sultanate of Oman, with assets, financing and deposits now growing at 14.7%, 21.5% and 18%, respectively – much lower than reported since the establishment of Islamic banking in the Sultanate in 2012. Other GCC Islamic banks are yet to return to their pre-2016 performance, with their growth rates in 2Q18 among the lowest in the sample. As reported in SR2018, Saudi Arabia's banking industry (Islamic and conventional) recovered from a decline in its aggregate deposits reported in 2Q16, registering 2.7% growth in 2Q17; however, deposits in the Saudi banking system appear to have declined by 1.2% in the year to 2Q18. The Islamic banking sector in the Kingdom increased its deposit base by 2.3% in the same period, with its assets growing at 2.4% (overall Saudi banking sector: 0.8%), and financing continuing a trend of relative stagnation, registering a 0.5% increase. Islamic banks in Kuwait increased their assets by 5.2%, up from 3.6% reported in 2Q17, while the UAE's growth rates remain the second-highest in the GCC, after Oman, with Islamic banking assets growing at 6.7% and financing at 5.1% – exceeding average asset growth of the overall banking sector there (3.6%). Qatar, on the other hand, appears to have experienced a 2.9% drop in average financing by its Islamic banks in 2Q18. Geopolitical tensions may have contributed to uncertainty for the Qatari banking sector, the outlook for which has been changed to negative by Moody's in 3Q18. Nevertheless, the decline in average financing was countered by an increase in *sukūk* holdings as banks moved to safer investments. This partially contributed to a 4.5% increase in the asset base of Qatari Islamic banks.

Turkish participation banks registered their highest growth rates since 2013, with assets, financing and deposits growing by at least 30% each. In Iran, the banking sector continued reporting high growth performance, increasing its deposit base by 22% in the year to 2Q18, contributing to a 22.9% expansion in assets and 23.9% growth in financing during the same period while continuing a trend of double-digit growth rates in the country's assets, financing and deposits throughout the analysis period. Sudanese banks registered the highest growth figures in the sample, with assets growing by 87.9%, deposits by 114% and financing by 60.5%. These figures, however, come on the back of inflation rates that have climbed gradually from 14.3% in 2Q16 to over 63% in 2Q18. Economic pressures in Iran and Sudan appear to be continuing into 2019. While market shares of Islamic banking in the two countries would not be affected, and local currency asset values and growth rates are generally quick to adjust to volatile currencies, these economic challenges would continue to have implications for the global value of Islamic banking assets and resilience indicators.

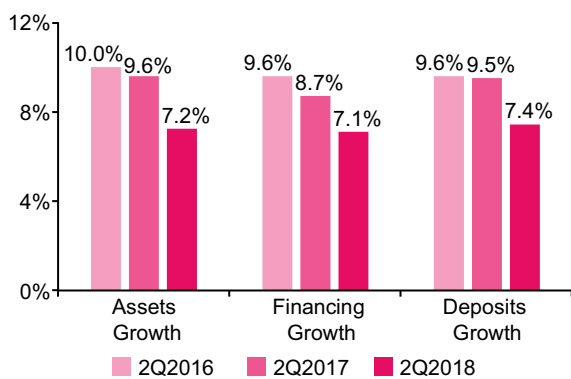
¹⁵ Data used in calculating CAGR, as well as growth rates for assets, financing and deposits, were received from local banking regulatory authorities in the relevant jurisdictions and include data from both Islamic banks and windows in Bangladesh, Indonesia, Malaysia, Oman, Pakistan and Saudi Arabia, and from Islamic banks in Brunei, Iran, Jordan, Kuwait, Lebanon, Nigeria, Palestine, Qatar, Sudan, Turkey and the UAE. Aggregate growth rates for deposits, including CAGR, exclude Brunei, Kuwait and Qatar due to data limitations. The UK data were not used for growth calculations due to their short time series, but were used to calculate aggregate asset, financing and deposit values for 4Q17 and the first two quarters of 2018.

¹⁶ This analysis is performed using local currency assets, financing and deposit figures for each jurisdiction to eliminate the impact of exchange rate fluctuations.

Malaysia's Islamic banks and windows reported a healthy expansion in their aggregate assets and financing (11.7%) driven by growing acceptance of Shari'ah-compliant home financing solutions. The Islamic banking sector in Malaysia now aims to go beyond quantitative growth to explore qualitative progress, evidenced by the launch of the value-based intermediation in 2017 – an initiative through which Islamic banking institutions transform their day-to-day business activities to ensure that they deliver sustainable and positive impact on the community, economy and the

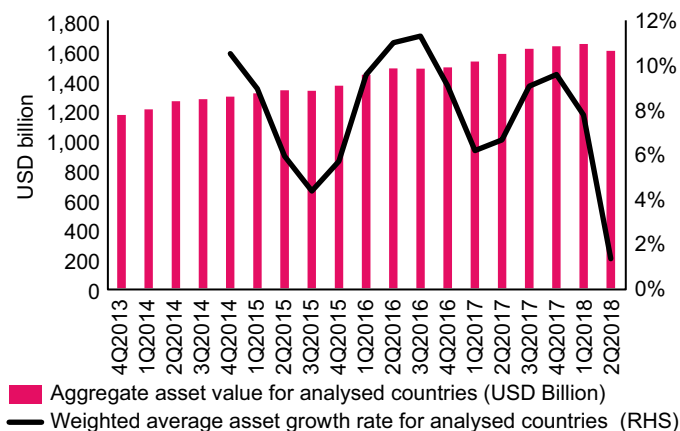
environment¹⁷. PSIFIs data show that deposits in Malaysia have grown by 9.8% in 2Q18, with the Investment Account Platform (IAP), which was launched in 2016, seeing a fourfold increase in funds raised and undergoing enhancements that include mutual recognition of participating banks' customer due-diligence practices. The Indonesian Islamic banking sector continues to grow in the double digits, with assets growing at 14.5%, while financing and deposits registered 11.2% and 13%, respectively. These figures, however are nearly half of those reported one year earlier, on account of restrained economic growth.

Chart 1.2.3 Compound Average Growth of Key Islamic Banking Statistics (2Q16–2Q18)¹⁸



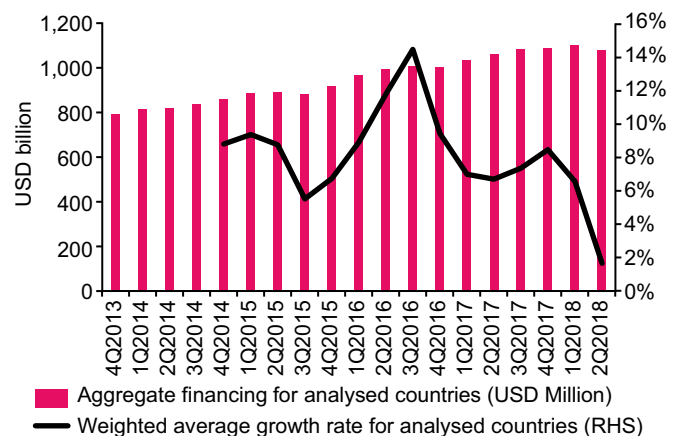
Source: PSIFIs, IFSB Secretariat Workings

Chart 1.2.4 Aggregate Islamic Banking Assets and Growth Rates (y-o-y) for Analysed Countries (4Q13–2Q18)



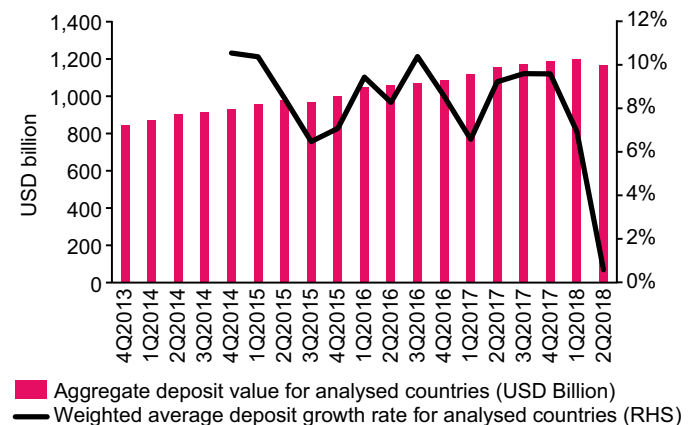
Source: PSIFIs, IFSB Secretariat Workings

Chart 1.2.5 Aggregate Financing and Financing Growth Rates in Analysed Countries (4Q13–2Q18)



Source: PSIFIs, IFSB Secretariat Workings

Chart 1.2.6 Aggregate Deposit and Deposit Growth Rates in Analysed Countries (4Q13–2Q18)



Source: PSIFIs, IFSB Secretariat Workings

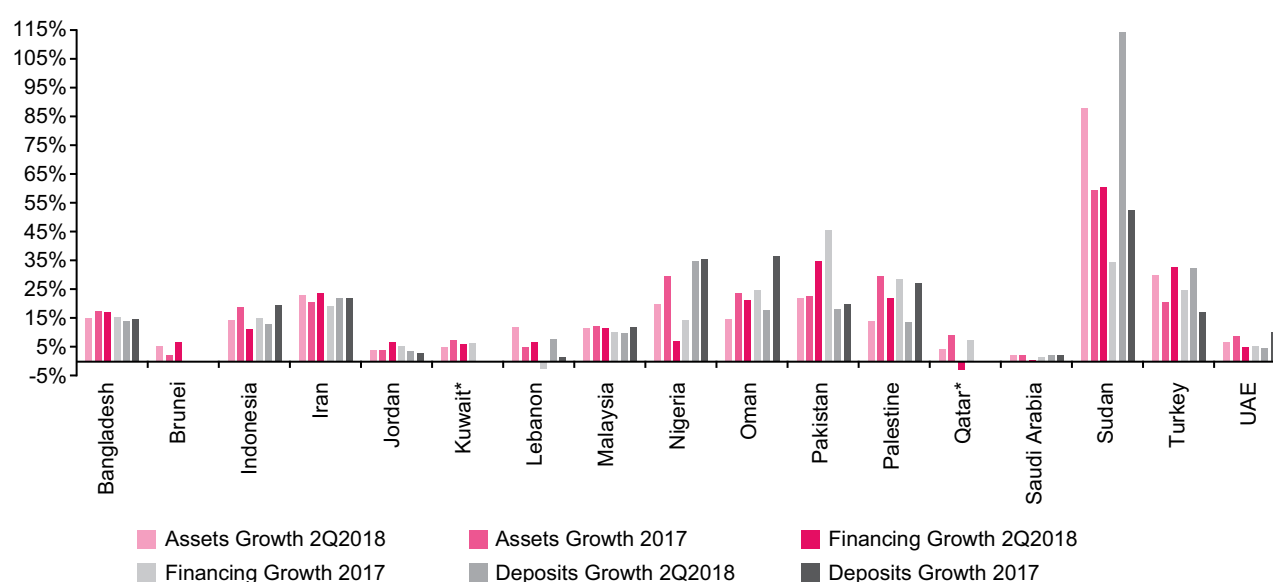
¹⁷ Bank Negara Malaysia, *Financial Stability and Payment Systems Report 2017*.

¹⁸ The term "deposits" in this section includes remunerative funding (*murābahah*, commodity *murābahah*, etc.), non-remunerative (current accounts, *wad'ah*), and unrestricted profit-sharing investment accounts (UPSIA), which are treated as equity in the financial statements of Islamic banks in some jurisdictions and as liabilities in others.

The Pakistani Islamic banking sector has gradually been able to transform the structure of its asset composition in the last six years, moving from an almost equal distribution of assets between financing and *shukūk* holdings in 2013 (31.1% financing; 29.7% for *shukūk*), to greater concentration on financing as consumer awareness grows and Islamic banking establishes a more robust branch network. Financing in Pakistan grew by 35.4% in 2Q18 to constitute 53.5% of total assets (2Q17: 48.0%), and contributing to asset growth rate of 22%. The State Bank of Pakistan has issued a licence for a new Islamic window in 3Q18, and devised three Shari'ah-compliant refinancing schemes in 1Q19 that allow Islamic banks to provide

cheaper refinancing facilities to three priority sectors: small and medium enterprises (SMEs), renewable energy and agriculture¹⁹. In addition, State Bank of Pakistan has issued Islamic financing facility for low cost housing for special segments. These developments may allow the Islamic banking sector in Pakistan to further expand its financing avenues, yield higher growth rates and improve its profitability figures. In Bangladesh, the Islamic banking sector has shown a stable growth trajectory, with assets, financing and deposits increasing by 15.2%, 17.1% and 14.2%, respectively, at par with expansion rates shown in previous years.

Chart 1.2.7 Islamic Banking Average Annual Growth by Country (y-o-y) (2017 and 2Q18)



Source: PSIFIs, IFSB Secretariat Workings

*Deposit data for Islamic banks in Brunei, Kuwait and Qatar were not available.

The majority of analysed countries displayed reasonable growth levels in key Islamic banking indicators. Assets, in local currencies, showed healthy growth rates in many jurisdictions. Exchange rates continue to affect the global value of the industry, and trends from previous years continue to prevail as challenging economic conditions and reliance on the oil sector in certain jurisdictions impact on the development of the banking sector in general, both conventional and Islamic. Countries in North and sub-Saharan Africa continue to make efforts to set up

appropriate regulatory frameworks and forge economic ties aimed at introducing Islamic banking services and attracting foreign cash inflows. These initiatives are to be seen as contributing to the industry's long-term prospects. The concentration of assets in few jurisdictions is an area of concern for the development of Islamic banking, as industry numbers tend to be easily swayed by any large jurisdiction's conditions. Further assessments on the fundamentals and resilience of the Islamic financial services industry are covered in Chapter 3 of this report.

¹⁹ State Bank of Pakistan, "SBP's Incentive Schemes" (<http://www.sbp.org.pk/Incen/index.asp>)

1.3 ISLAMIC CAPITAL MARKETS

The global capital markets in 2018 were affected by a number of factors, including a moderation in economic growth and continuing geopolitical challenges. Trade uncertainty came to the forefront following the announcement that the US would impose tariffs on steel and aluminium imports, which weighed most heavily on the equity markets. Markets were also affected by the hike in interest rates by the US Federal Reserve and the resulting tightening of international liquidity conditions and increase in cost of borrowing. Oil prices also experienced volatility in 2018, starting the year with a continued rebound in price, but eventually plummeted in the fourth quarter.

The following sections review the developments and trends in the global Islamic capital markets in 2018, across its three major asset classes, *sukūk*, Islamic equities and Islamic funds.

1.3.1 *Şukūk*

Amidst the more challenging global conditions, new *şukūk*²⁰ issuances in 2018 reached USD 93 billion, demonstrating a growth of 1.7% from the previous year (2017) (see Chart 1.3.1.1).²¹ While growth was more subdued in 2018 compared to the double-digit growth observed in 2017 which was a result of large issuances, particularly from GCC sovereigns (2017: 22.8%), several positive trends emerged in 2018, including a promising increase in corporate issuances.

Notably, conventional bond issuances also saw a decline in 2018 across a number of jurisdictions including the GCC, which suggests that the overall slowdown in both bond and *şukūk* issuances may also have been due in part, aside from the volatility in financial markets and tightening financing conditions, to the higher oil prices during the first nine months of 2018 which reduced the borrowing needs for some sovereigns.

The following subsection analyses the growth and development trends of the *şukūk* market over the past year, while section 3.3 (in Chapter 3) assesses the *şukūk* market's resilience fundamentals.

Sovereign *Şukūk*

Sovereign issuances once again accounted for the majority of issuances – specifically, 74% of total issuances – in 2018. However, total *şukūk* issuances by sovereigns dropped by 9% in 2018.

Sovereigns from 13 jurisdictions issued *şukūk* during the year, which notably included a debut issuance by Morocco – a five-year local currency-denominated *şukūk*, amounting to USD 106 million with an annual yield of 2.66%.

Malaysia reclaimed its historical position as the largest sovereign issuer in 2018. While sovereign issuances by Saudi Arabia were more muted compared to the previous year, it remained the second-largest issuer in 2018. Indonesia was the third-largest sovereign issuer, continuing to be highly active in the sovereign market with a considerable increase in the number of issuances.

Notably, a trend towards sustainable and green *şukūk* issuances was strengthened in 2018 by the issuance of the first sovereign green *şukūk* by the government of Indonesia.

Corporate *Şukūk*

Corporate *şukūk* issuances saw a significant boost in 2018, amounting to a total of USD 24.4 billion in 2018, which represents a 55% increase from the previous year. Increases in corporate issuances were led by the large issuances from the UAE, as well as from three other jurisdictions, Malaysia, Saudi Arabia and Turkey.

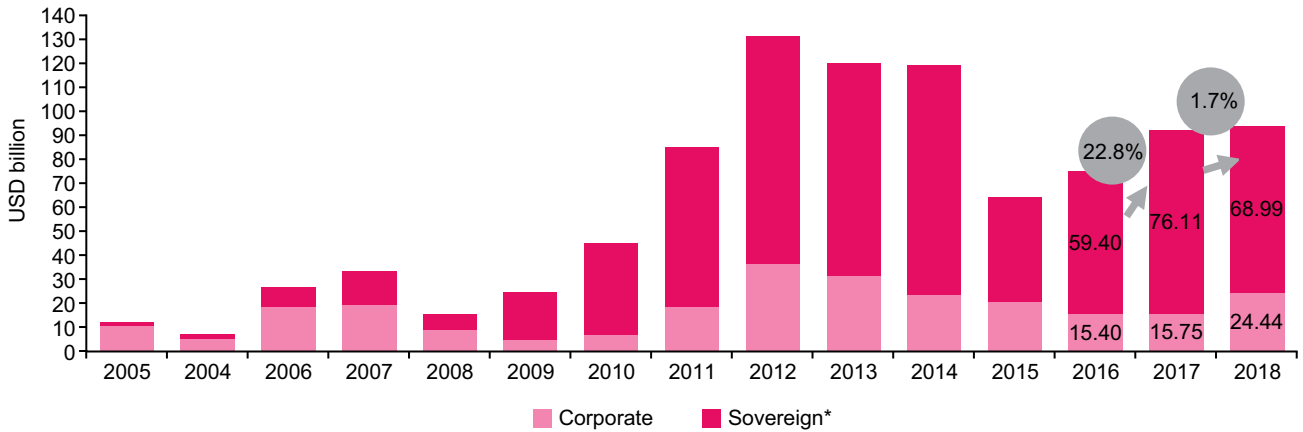
In 2018, a total of 10 jurisdictions raised funds in the corporate *şukūk* market [2017: nine jurisdictions]. These included corporates from three non-OIC member countries from Europe – Ireland, Netherlands and the United Kingdom.

²⁰ *Şukūk* are certificates of investment in underlying assets, services or investment activities that generate fixed or floating returns according to Islamic principles. The instruments offer an alternative funding tool to conventional bonds that can be structured and utilised for a vast array of purposes. In recent years, *şukūk* products have seen significant innovation with the introduction of hybrid, convertible, perpetual, retail and regulatory capital *şukūk*.

²¹ *Şukūk* outstanding is discussed in Chapter 3 of this report.

In terms of issuances by jurisdiction, in 2018, Malaysia continued to be the biggest corporate issuer, followed by the UAE. The year's *shukūk* issuances were considerably boosted by issuances from the UAE, which included a USD 1 billion senior unsecured issuance from Dubai Islamic Bank as part of its USD 5 billion *shukūk* programme, as well as a USD 750 million Basel III-compliant Tier-1 perpetual *shukūk* issuance by Abu Dhabi Islamic Bank.

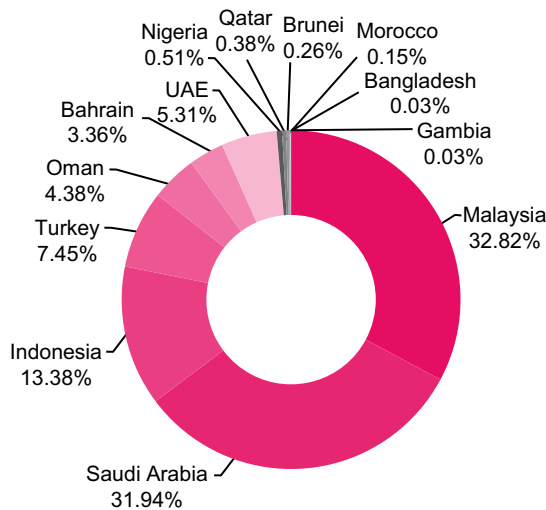
Chart 1.3.1.1 *Shukūk* Issuance Trend (2005–18)



*Includes all government-related entities (GREs), multilateral development banks (MDBs) and international organisations (IOs). For the purposes of this report, “GREs” refers to *shukūk* obligors with a shareholding structure representing more than two-thirds (66.67%) of government ownership through either ministries, authorities, etc. or other GREs such as sovereign wealth funds.

Source: IFSB Secretariat Workings

Chart 1.3.1.2 Sovereign^ *Shukūk* Issuance by Jurisdiction (2018)

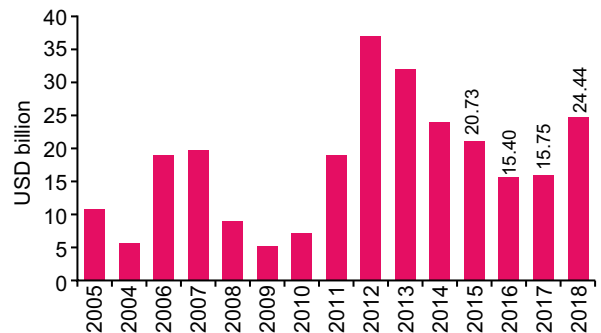


^ Includes all GREs, MDBs and IOs.

*MDBs and IOs for 2018 include *shukūk* issuances by the IsDB, and the ICD, and the Malaysia-based IILM.

Source: IFSB Secretariat Workings

Chart 1.3.1.3 Corporate *Shukūk* Issuance Trend (2005-18)



Source: IFSB Secretariat Workings

Other large issuances from the UAE include a USD 1 billion issuance from the port and terminal operator DP World, in addition to a number of sizeable issuances from Islamic banks and other corporate issuers. Most notably, they include a resized issuance after the restructuring of the Dana Gas *Shukūk*. From Malaysia, one of the notable corporate issuances during the year was HSBC Amanah’s United Nations (UN) Sustainable Development Goals (SDGs) *Shukūk*, the proceeds of which will be used to support eligible businesses within seven UN SDGs selected by HSBC.

Looking at *shukūk* issuance activity across both the sovereign and corporate *shukūk* markets, issuances took place in 16 jurisdictions in 2018. Malaysia retained its position as the overall largest issuer of *shukūk* in terms of volume, but with its proportionate share of issuances continuing to become smaller as other jurisdictions step up *shukūk* issuances. Saudi Arabia is the second-largest overall issuer, but with a drop from the previous year due to its lower volume of sovereign issuances in 2018. UAE moved up to third-largest issuer due to its increase in corporate issuances; while Indonesia, which moved down from third to fourth rank, also had an increase in its overall share of total *shukūk* issuances. Turkey moved up to fifth-largest issuer due to increased activity in 2018 despite the economic challenges faced during the year.

Analysing *shukūk* issuances in 2018 by sector, the government and financial services sectors continue to have the largest volume of *shukūk* issuances, accounting collectively for 79% of total issuances (see Chart 1.3.1.6). Corporate issuances in 2018 were also underpinned to a lesser extent by utilities, industrials, real estate and energy sectors.

Not surprisingly, the maturity profiles of *shukūk* issued in 2018 were predominantly concentrated towards longer-term issuances. Over 50% of issuances are *shukūk* with maturities of 5–10 years and longer than 10 years. Notwithstanding, in 2018, the most notable trend was an increase of issuances of *shukūk* with shorter maturity (1–3 year), which registered a noteworthy increase.

Summary and Challenges

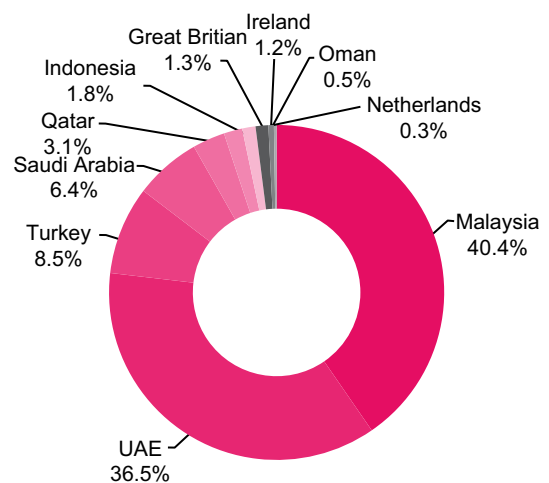
While total sovereign issuances declined by 9% in 2018, this was offset by an increase in corporate issuances by 55%. While the changes in some of the macroeconomic fundamentals in 2018 have slowed the pace of new issuances of *shukūk* by some sovereigns, this impact was compensated by new entrants and an increase in corporate issuances. The primary *shukūk* market, in general, remains healthy.

Shukūk issuances to support green and sustainable financing goals continued in 2018, particularly from the Asian region, and this is reflective of a similar global trend in the bond market. In addition to the first sovereign issuance of a green *shukūk* by Indonesia, Malaysia also took steps to boost green *shukūk* issuances by extending, in April 2018, its *shukūk* grant scheme which allows tax deduction of issuance costs for issuers and tax exemptions for investors of green *shukūk*. This trend is expected to continue, as green *shukūk* are likely to benefit from favourable alignment, due to the expanding demand for asset managers to make sustainable policy investments as a result of investor preference as well as regulators’ initiatives to encourage sustainable financing.

Going into 2019, *shukūk* issuances are expected to continue to see robust growth given the lower levels of oil prices projected for the year and the increase in infrastructure spending, as well as the continuing need for deficit financing. Favourable developments in the *shukūk* sphere include the launch of a primary dealers’ programme for sovereign *shukūk* in Saudi Arabia in July 2018, as well as the commencement of *shukūk* trading on Borsa İstanbul via the Committed Transactions Market of *shukūk* (CTM). In other positive developments for the *shukūk* market, the inclusion of eligible *shukūk* in the JP Morgan Emerging Market Bond Index (EMBI) series from 2019 is noteworthy. This is likely to help boost the appeal of *shukūk* to more global investors, as well as contribute to increased liquidity of *shukūk*, potentially diversifying the investor base away from the buy-and-hold trend for *shukūk*.

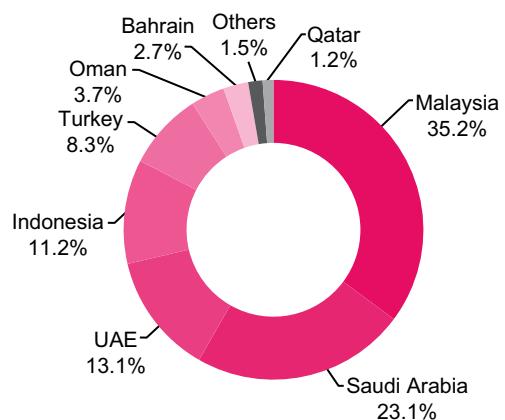
Overall, the outlook for *shukūk* remains positive for 2019 as new jurisdictions such as Kazakhstan aim to issue sovereign *shukūk* in the near future, and the UK plans to reissue sovereign *shukūk* in 2019.

Chart 1.3.1.4 Corporate Shukūk Issuance by Jurisdiction (2018)



Source: IFSB Secretariat Workings

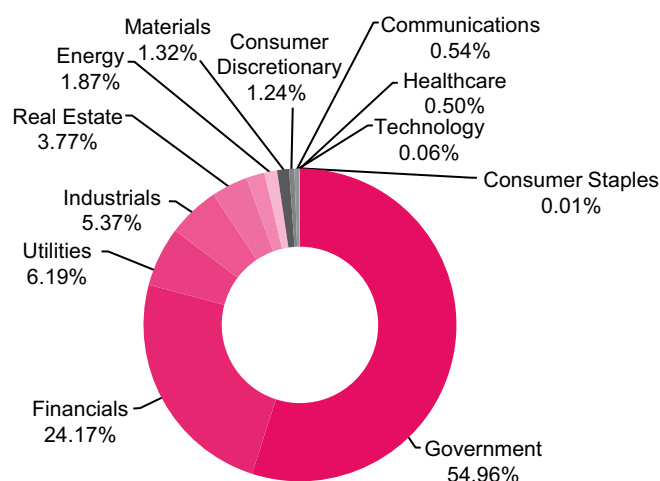
Chart 1.3.1.5 Overall Shukūk Issuances by Jurisdiction^ (2018)



Note: Based on obligor’s domicile.
^Excluding MDBs and IOs

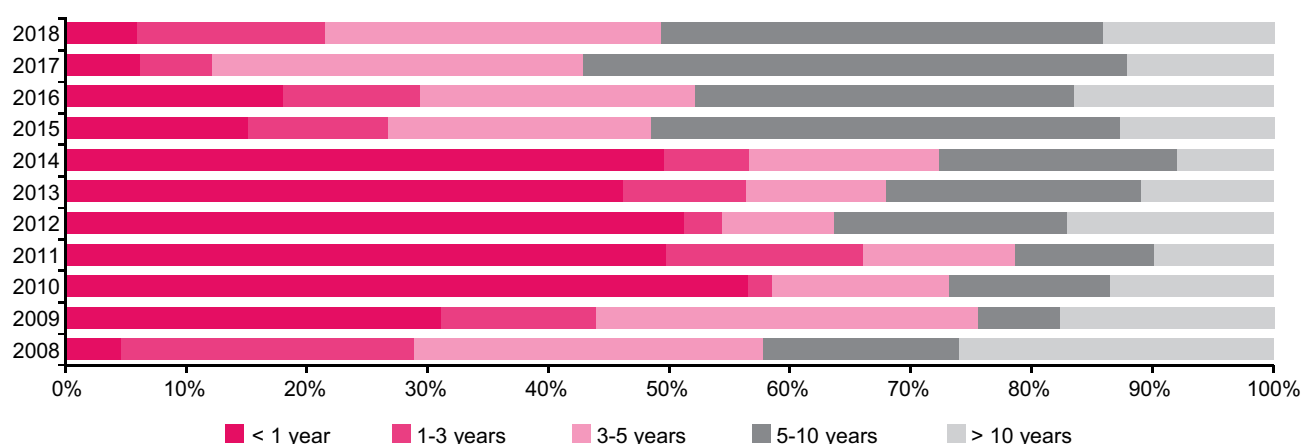
Source: IFSB Secretariat Workings

Chart 1.3.1.6 Şukūk Issuances by Sector (2018)



Source: IFSB Secretariat Workings

Chart 1.3.1.7 Şukūk Maturity Trend of New Issuances (2008-18)



Source: Bloomberg, IFSB

1.3.2 Islamic equities

The equity markets experienced extreme volatility in 2018, which saw a year of overall weak returns across global equity markets, including a 12.5% drop in the FTSE All-World index, the biggest percentage decline to date since the GFC in 2008.²² As discussed in the preceding section, markets were affected by the trade conflict between the United States and China, fears over rising interest rates, and continuing geopolitical uncertainties such as Brexit.

However, comparing Islamic indices with similar conventional indices, the Islamic equity markets did relatively better in 2018. Analysing the YTD returns of Islamic equity indices versus conventional indices as well as the total returns over three-year and five-year horizons, while there was a considerable drop in returns in 2018 for both the conventional and Sharī'ah indices, the latter performed comparatively better across all indicators.

Table 1.3.2.1 Total Returns of S&P Global 1200 Index vs. S&P Global 1200 Sharī'ah Index (2018)

	S&P Global 1200 Index	S&P Global 1200 Sharī'ah Index
2018	-8.17%	-4.79%
3 Yr	7.39%	8.64%
5 Yr	5.29%	6.76%
10 Yr	10.29%	11.11%

Source: S&P

Table 1.3.2.2 Total Returns of S&P Global BMI Index vs. S&P Global BMI Sharī'ah Index (2018)

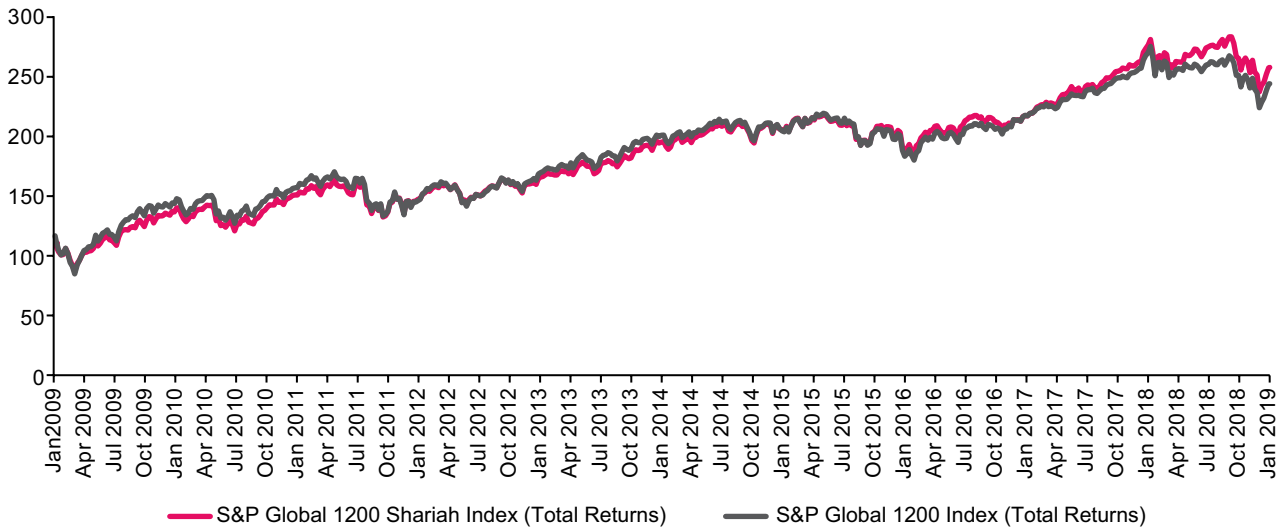
	S&P Global BMI Index	S&P Global BMI Sharī'ah Index
2018	-9.67%	-6.47%
3 Yr	7.02%	8.24%
5 Yr	4.72%	6.22%
10 Yr	10.36%	11.30%

Source: S&P

²² Thomson Reuters, 2018.

Looking at the longer-term trend, over a 10-year horizon from Jan-2009 to Jan-2019, the S&P Global 1200 Sharī'ah Index also generated overall higher returns than its conventional benchmark at 11.11%, compared to 10.29% returns generated by S&P Global 1200 during the same period. A similar long-term trend was also observed between other comparable conventional and Islamic indices.

Chart 1.3.2.1(a) Ten-year Historical Performance (2009–19)

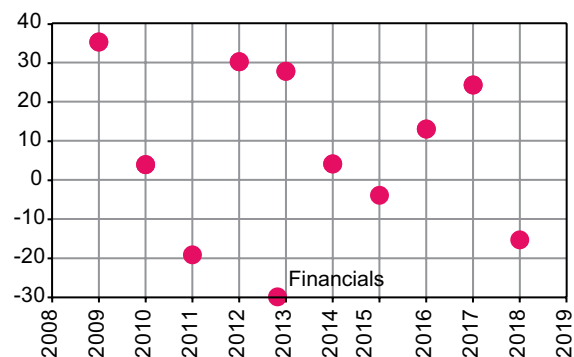


Note: Data have been rebased at 100.

Source: Bloomberg, IFSB

It is noteworthy that while the conventional index outperformed the Sharī'ah index from 2009 to 2015, the Sharī'ah index has performed better than the conventional index since mid-2015. The differences in performance of the two indices could be explained by the differences in the sector composition of the constituents of each index. The Sharī'ah index consists of a smaller subset of the constituents of the conventional index after the Sharī'ah screening has excluded any Sharī'ah non-compliant stock. Looking at the trend over time for the financial sector that contributes to the largest difference between the composition of the conventional index and the Sharī'ah index, the performance of the financial sector alone does not explain the observed trend (see Charts 1.3.2.1(a) and 1.3.2.1(b)). Thus, the observed difference in the long-term performance trend over time between the conventional and Sharī'ah indices could possibly be a result of the improving performance of Sharī'ah-compliant constituents of the Sharī'ah index generally, rather than being due only to the exclusion of a great proportion of financials or a greater differential exposure to a specific sector.

Chart 1.3.2.1(b) Ten-year Historical Performance of the Financials Sector (2009–19)

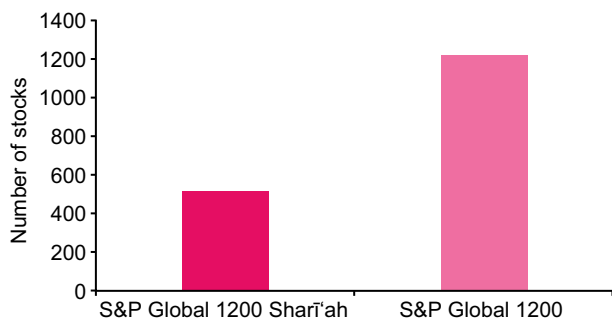


Source: S&P, IFSB

In terms of overall market capitalisation, while the S&P Global 1200 Index substantially outnumbers the S&P Global 1200 Sharī'ah Index,²³ the average market capitalisation of S&P Global 1200 Sharī'ah was higher at USD 38.5 billion from 512 stocks, compared to S&P Global 1200 at USD 32.6 billion from 1,218 stocks. Similarly, other indices such as the S&P Global BMI Sharī'ah Index also reflected higher market capitalisation in relation to the S&P Global BMI Index.

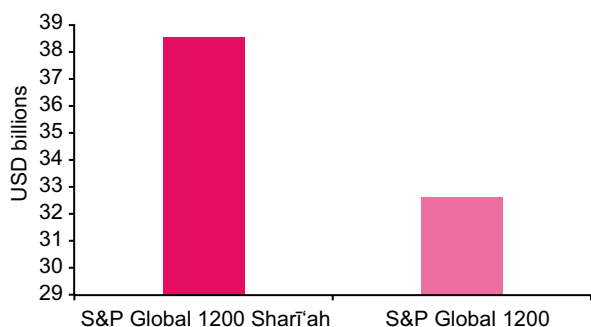
²³ The S&P Global 1200 Sharī'ah comprises all Sharī'ah-compliant constituents of the S&P Global 1200. The S&P Global 1200 captures approximately 70% of global market cap. The underlying index (S&P Global 1200) is screened for Sharī'ah compliance based on the defined methodology (<https://us.spindices.com/indices/equity/sp-global-1200-Sharī'ah>), with only compliant stocks remaining in the Sharī'ah index.

Chart 1.3.2.2 Number of Constituents (2018)



Source: S&P

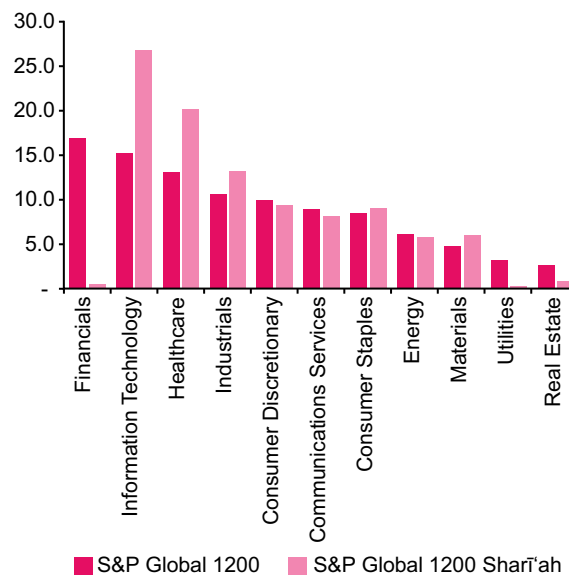
Chart 1.3.2.3 Average Market Capitalisation per Constituent (2018)



Source: S&P

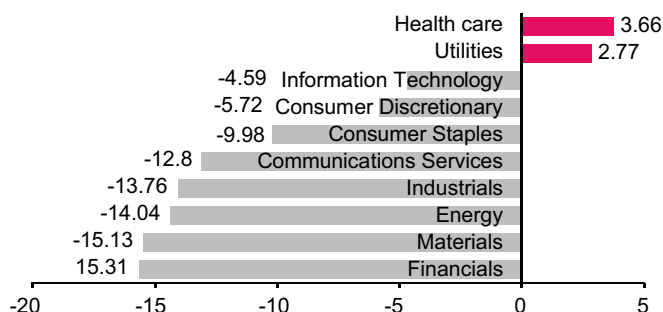
The relatively better performance of S&P and Dow Jones Shari'ah-compliant benchmarks in relation to their conventional counterparts could be partially attributable to the exclusion of most financials from Islamic indices, which was the worst-performing sector for the year, as well as a higher proportionate exposure to the health-care sector, which was one of the only two sectors that had positive returns in 2018 (see Charts 1.3.2.4(a) and 1.3.2.4(b)). However, the sector allocations also indicate that the Shari'ah index had greater proportionate exposure to some sectors such as industrials and materials that performed poorly. Therefore, the slightly better performance of the Shari'ah index may also be, as discussed in preceding paragraphs, due to generally better performance of Shari'ah-compliant constituents across sectors, rather than only sectoral exposures. Nonetheless, both Shari'ah and conventional indices had negative annual returns in 2018, except for the health-care and utilities sectors (see Chart 1.3.2.4(b)).

Chart 1.3.2.4(a) Sector Allocation (2018)



Source: S&P

Chart 1.3.2.4(b) S&P 1200 Sector Performance (2018)

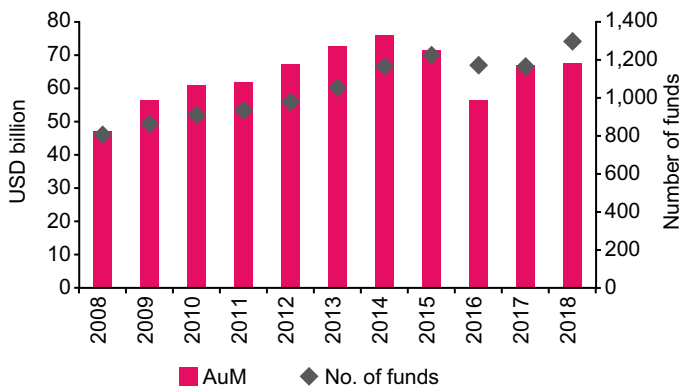


Source: S&P

1.3.3 Islamic funds

Islamic funds increased to a total of 1292 primary share funds (2017: 1161 Islamic funds) holding about USD 67.4 billion of assets under management (AuM) as of end-2018 [2017: USD 66.7 billion AuM]. Notably, while the number of Islamic funds increased by 11% after a slight drop the previous year, the total AuM increased by a mere 1.0% indicating that the overall size of funds have not seen a significant increase. Out of the total number of Islamic funds, 860 funds are classified as active, holding about USD 61.5 billion AuM [2017: 821 active funds accounting for USD 61.7 billion AuM], indicating that while the number of Islamic funds has increased over the past year, the average size of funds has seen a contraction from USD 79.8 million in 2017 to USD 75.02 million as at the end of 2018.

Chart 1.3.3.1 Assets under Management and Number of Islamic Funds (2008–18)



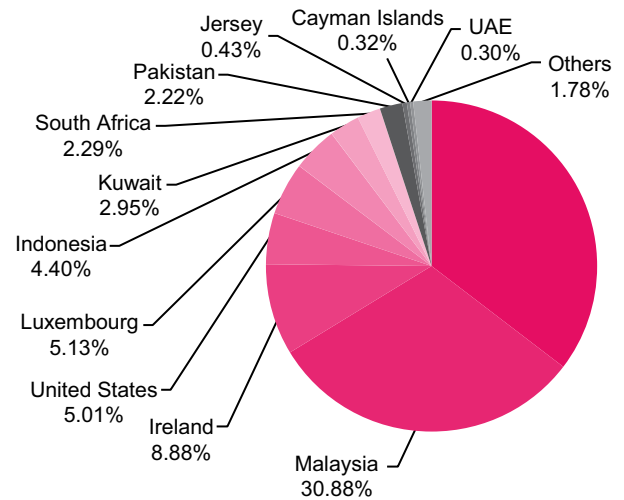
Source: Bloomberg (Islamic funds primary share), IFSB

The distribution of Islamic funds still remains concentrated in five jurisdictions which account for about 85% of the total Islamic funds' AuM in 2018 [2017: 88%]. The remaining 15% AuM is distributed across 29 jurisdictions (including offshore domiciles) [2017: 12%]. The total number of jurisdictions where Islamic funds are domiciled has not changed, remaining at 34 jurisdictions.

The two key domiciles for Islamic funds are Malaysia and Saudi Arabia, which collectively account for about 66% of total AuM. Saudi Arabia still remains the largest domicile, holding 34% of the total Islamic funds AuM, although its share has continued to decline over the last three years [2017: 37%; 2016: 38%; 2015: 40%], while Malaysia, as the second largest in terms of volume, increased to about 32% of total AuM in 2018 [2017: 31.7%; 2016: 29%; 2015: 28%] (see Chart 1.3.3.2).

Notably, the three next largest domiciles for Islamic funds are Ireland (9%), United States (5%) and Luxembourg (5%), all of which are non-OIC jurisdictions.

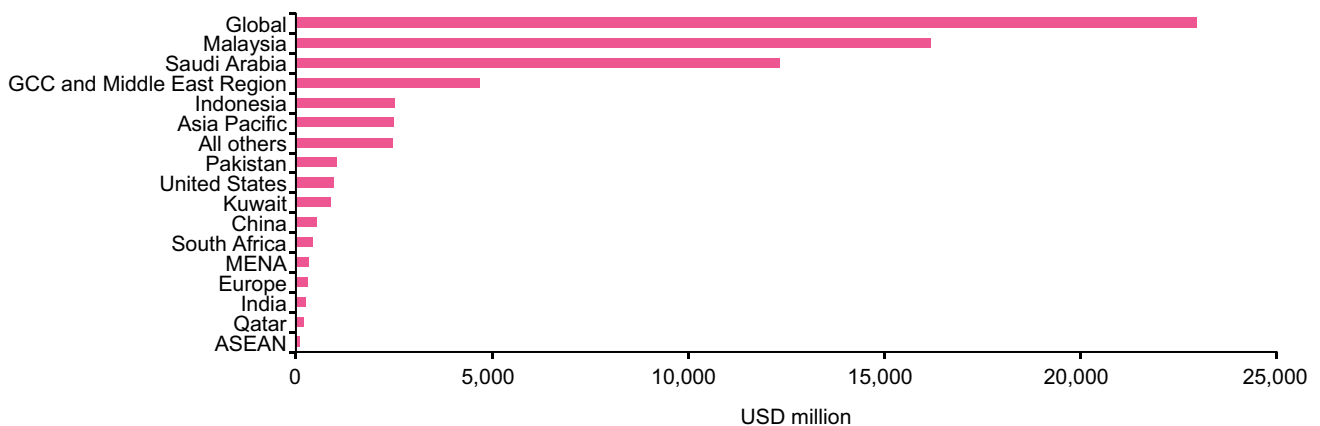
Chart 1.3.3.2 Islamic Fund Assets by Domicile (2018)



Source: Bloomberg (Islamic funds primary share), IFSB

The geographical focus of investments made by Islamic funds remains largely consistent with previous years, particularly the top five categories, with the largest being funds that have a global focus (33%). However, a large number of funds also have a domestic focus, particularly on Malaysia (24%) and Saudi Arabia (18%). The geographical focus on emerging markets has also increased in 2018 compared to previous years.

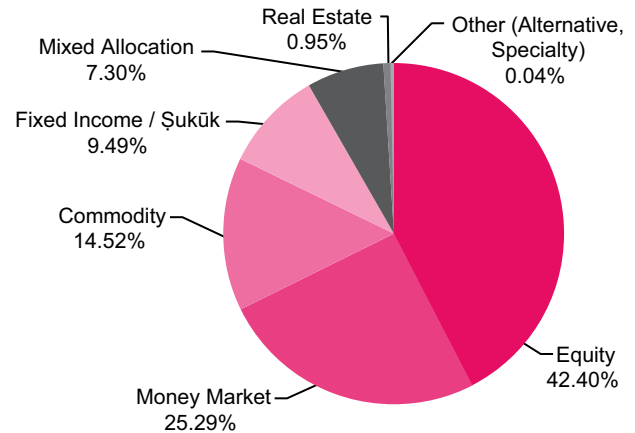
Chart 1.3.3.3 Islamic Fund Assets by Geographical Focus (2018)



Source: Bloomberg, IFSB

Looking at the structure of global Islamic funds by asset classes (see Chart 1.3.3.4), the three major asset classes were equity, money market and commodities. The majority of funds were equity-focused (42%), with an increase in volume to USD 28.6 billion [2017: 42%, USD 27.8 billion]. The volume of money market-based funds dropped slightly to 25%, totalling USD 17.03 billion AuM [2017: 26%, USD 17.3 billion]; while commodity-based funds increased to 15% share of total Islamic funds, making up USD 9.8 billion AuM [2017: 14%, USD 9.5 billion]. Other significant asset classes for Islamic funds include fixed income/*ṣukūk* funds (USD 6.4 billion) and mixed allocation funds (USD 4.9 billion).

Chart 1.3.3.4 Islamic Fund Assets by Asset Class (2018)



Source: Bloomberg, IFSB

DEVELOPMENTS OF THE ISLAMIC FINANCIAL SERVICES INDUSTRY

Key Takeaways:

- Amidst the softened momentum of growth recorded in the global financial system in 2018 due to, among other reasons, geopolitical tensions and escalating trade wars the global IFSI has recorded a 6.9% (y-o-y) growth rate as at 2Q18, and is estimated to be worth about USD 2.19 trillion.
- The positive rebound in the price of oil, and improved asset quality due to credit growth, among other reasons, were instrumental in the growth recorded during the period in certain jurisdictions with a significant presence of Islamic finance. However, some other jurisdictions have also been faced with inflation and local currency depreciation from 2017 towards 3Q18, which led to declines in the dollar values of assets there.
- The three sectors of the IFSI – that is, Islamic banking, Islamic capital markets (ICM) and *takāful* – all contributed to growth of the industry. The key rebound in performance was experienced by the ICM, which now accounts for 27% of the global IFSI assets (23% in 2017) – entrenching the ICM further as a key and viable component of the global IFSI.
- The positive performance recorded in the ICM is due to the sovereign and multilateral *ṣukūk* issuances in key Islamic finance markets to support respective budgetary expenditures. There were also a number market debuts of sovereign issuances, including green sovereign *ṣukūk* to finance eco-friendly environment projects.
- As a reflection of the deteriorating performance of equity markets in both advanced and emerging market equity indices in 2018, Islamic funds' assets also recorded a decrease of 8.5% compared to 2017. However, a notable increase is recorded in the number of Islamic funds in 2018 – to 1,292 (from 1,161 funds in 2017), of which 860 are active (821 in 2017).
- The Islamic banking sector retained its dominance in the global IFSI. The domestic market share for Islamic banking in relation to the total banking sector continued to increase in at least 20 countries, remained constant in six, and declined in 10 jurisdictions among the 36 jurisdictions covered in the IFSR 2019.
- The Islamic banking sector's performance grew by a mere 0.9% in 2018, compared to 4.3% in 2017, and now accounts for 72% (76% in 2017) of the total value of IFSI assets. This lacklustre growth over the period is due mainly to the depreciation of local currencies in terms of the USD, especially in some emerging economies with a significant Islamic banking presence.
- The share of global *takāful* industry in the global IFSI remains unchanged at 1.3%.
- Global *takāful* contributions grew by 4.3% (y-o-y and in nominal terms) in 2017, with a six-year (2012–17) compound average growth rate of almost 6.9%. An estimated 306 *takāful* institutions, including *retakāful* and *takāful* windows, now offer *takāful* products in at least 45 countries globally.
- Despite the declining growth of the global IFSI, overall the IFSR 2019, based on the various analyses contained therein, posits that the global IFSI is well placed to maintain its positive growth trajectory, experiencing asset increases across all three of its main component markets.

A decorative background consisting of a tunnel-like structure formed by a series of concentric, slightly offset rings of grey dots. The dots are arranged in a way that creates a strong sense of depth and perspective, drawing the eye towards the center of the tunnel. The dots are of varying sizes and are set against a white background.

Box 1.1
**Overview of the Islamic Finance Framework
at the Astana International Financial Centre
(AIFC)**



Background

Kazakhstan is an attractive location for the amplification of Islamic finance, as well as a gateway to the countries of Central Asia, the Eurasian Economic Union and the Caucasus. Therefore, Islamic finance has been chosen as one of the core pillars of the Astana International Financial Centre (AIFC). The Constitutional Law of the AIFC was adopted in December 2015, which defined the AIFC as a territory within the city of Nur-Sultan with a special legal regime based on English Common Law principles. The objectives of the AIFC are to attract investments into the economy of Kazakhstan by creating an attractive ecosystem for financial services, developing local capital markets, ensuring their integration with international capital markets, and developing the banking and insurance (including Islamic finance markets) of the Republic of Kazakhstan.

The regulatory framework of the AIFC on Islamic finance consists of Islamic Finance Rules (IFR), Islamic Banking Business Prudential Rules (IBB), and Takāful and Retakāful Prudential Rules (TRR).

The overall approach or philosophy for the development of rules for regulation of Islamic finance activities carried out in the AIFC is based on the following key objectives:



developing a regime which is compliant with relevant IFSB standards



ensuring compliance with applicable international standards like BCBS standards for banking regulation, IOSCO and IAIS standards and IFSB Core Principles for Islamic Finance Regulation;



facilitating entry, establishment and growth of Islamic finance businesses in the AIFC.

The rules addressing the regulation of Islamic finance activities carried out in the AIFC are aimed at addressing all Islamic finance activities, including those of Islamic asset management firms, Islamic investment advisory firms, Islamic corporate finance advisory firms, Islamic financing companies, Islamic wealth management firms, Islamic trust services providers, Islamic liquidity management companies, Islamic brokerage companies, Islamic investment banks, Islamic banks (IB), and *takāful* and *retakāful* operators.

Considering the initial stages of evolution of the AIFC as a market, the commercial imperative to focus on development of the AIFC market and the consequent need to offer a wide variety of choices for commercial organisation of business, Astana Financial Services Authority (AFSA)'s Islamic finance regime allows operation of Islamic windows. Despite the views that Islamic windows are problematic to operate and to regulate, from the perspective of ensuring Shari'ah compliance, it has come to be accepted as an established concept or model of operation of Islamic financial services.

Islamic windows are essential to facilitate business growth in the initial stages of the AIFC, as they offer a viable and effective avenue for conventional financial services firms to set up Islamic financial institutions in the AIFC. Typically, large conventional banks, including global banks, have found Islamic windows a convenient mode to enter new markets to deliver Islamic finance services.

Regulatory Regime for Islamic Banking Business

Treatment of Profit/Loss-Sharing Investment Accounts

Profit/loss-sharing investment accounts (PSIAs) are one of the most common product concepts employed by IBs for raising funds. In the framework of the AIFC regulation, the following policy choices have been made:

- (a) both restricted and unrestricted PSIAs (RPSIA and UPSIA) are offered by the IBs operating in the AIFC.
- (b) Restricted PSIAs are regulated in a manner that is consistent with the regulation of asset management activity.
- (c) Islamic banking business rules for UPSIAs allow profit smoothing and apply a displaced commercial risk (DCR) capital requirement to ensure that the profits reserved for effective profit smoothing preclude any stress events arising due to under-performance of the UPSIA pool. These provisions are consistent with the IFSB Standard 15, which deals with all the capital adequacy rules of Islamic banks.
- (d) It was decided that Alpha, which is the ratio of actual risk transferred to shareholders – that is, the DCR in the situation of “full” risk of the actual profit being below the benchmark, but not the risk of IAH losses transferred to shareholders, would be pegged at 0.35 (35%). This is considering the early stage of growth of the AIFC and lack of risk data to use the methodology suggested by IFSB to calibrate Alpha.

Regulatory Regime for Islamic Banking Business

Capital Requirements

An IB's total capital resources are defined as the sum of its Tier 1 and Tier 2 capital. The definitions of T1 capital are identical to that of Basel III. The only deviations are related to capital instruments, which are defined in Basel III but could not be included in IFSB-15 due to their being Shari'ah non-compliant.

The definition of eligible CET 1 capital excludes profit equalisation reserves (PER) and investment risk reserves (IRR), which are required to be maintained by IBs managing UPSIAs for the purpose of holding capital to meet their displaced commercial risk capital requirement. Although PER and IRR are called reserves, they should not be considered as part of Tier 1 capital of an Islamic bank, because they are part of the equity of investment account holders (IAHs) and consequently do not have the requisite loss absorbency to qualify as CET 1 capital.

The IBB rules impose regulatory requirements on IBs to establish, implement and maintain robust risk management systems and controls which are appropriate for the nature, scale and complexity of its business and for its risk profile. The IBB rules require an IB to meet minimum risk-based capital requirements based on risk exposures in the categories of credit risk, market risk and operational risk. The methodology of measurement of risk exposures in these categories and consequent calculation of capital requirements to address these risk exposures specified in the IBB rules are consistent with IFSB-15 and with the rules of benchmark jurisdictions.

The capital adequacy framework, including the capital conservation buffer set out in the AIFC IBB rules, is fully consistent with IFSB-15 and the Basel III capital adequacy framework. The IB is also required to comply with all the risk management and governance requirements spelt out in the AIFC IBB rules including the liquidity risk management requirements

Internal Capital Adequacy Assessment

IBB rules include provisions requiring an IB to carry out an internal capital adequacy assessment process, or ICAAP. Such a process, and the tools involved in it, should also enable the IB to demonstrate that it has implemented methods and procedures to ensure, on an ongoing basis, that it has adequate capital resources to support the nature and level of its risks and reflect the nature, scale and complexity of the IB's operations.

The IBB rules impose a requirement to carry out an assessment under their ICAAP process on an annual basis, and to submit a report documenting the outcome of that ICAAP assessment to the AFSA, at least once in every 12-month period.

Regulatory Regime for Takāful and Retakāful Business

Capital Requirements

The purpose of any prudential regime for *takāful* and *retakāful* operators is to ensure that such undertakings hold sufficient capital to be able to meet claims from policyholders as they arise and continue to operate on a going-concern basis. In the development of the policy approach, it was critical to ensure a level-playing field for *takāful* operators and conventional insurers to avoid any potential regulatory arbitrage. Therefore, *takāful* operators are allowed to write covers for all classes of general *takāful*, family *takāful* and all classes and categories of *retakāful*.

In the case of risk-based capital and solvency rules for *takāful* undertakings, there are currently no global standards and many of the jurisdictions have adopted some form of customisation of the solvency rules for conventional insurers.

The *takāful* operator is required to comply with all the prudential, risk management and solvency requirements prescribed in the TRR rules. Under the TRR rules, the *takāful* operator is required to meet a minimum capital requirement (MCR) in the amount of USD 7 million both at the time of licensing and on an ongoing basis. Eligible capital for a *takāful* operator must be calculated using the eligibility criteria and formulas set out in schedule 4 of the AIFC TRR rules. An AIFC-incorporated *takāful* operator must at all times have eligible capital equal to or higher than the amount of its MCR. The *takāful* operator is expected to maintain, at all times, adequate eligible capital to exceed its prescribed capital requirement (PCR) which is calculated as the higher of the following: 150% of the AIFC-incorporated *takāful* operator's MCR; and AIFC-incorporated *takāful* operator's risk-based capital requirement.

Own Risk and Solvency Assessment (ORSA) Process

In addition to the MCR and PCR requirements described in the previous section, an AIFC-incorporated *takāful* operator is required to complete an ORSA process, which is defined in the TRR rules, with the aim of assessing the actual risk exposures faced by the *takāful* operator.

The *takāful* operator is expected to use the risk profile arrived at using this exercise to calculate its own estimate of capital required to maintain its solvency in all plausible future scenarios. In this exercise, the capital requirements for the shareholders' fund of the *takāful* operator must be reflective of the risks directly borne by the *takāful* operator, while the capital requirements for the individual *takāful* funds managed by it must be reflective of the risks borne by those *takāful* funds.



Regulatory Regime for Islamic Banking Business

Need for Qard

If the eligible capital available in a *takāful* fund is not adequate to meet the applicable capital requirements as defined in the TRR Rules, the resulting deficit in capital should be considered as an estimate of the potential qard that may need to be extended by the *takāful* operator to ensure capital adequacy of the relevant *takāful* fund.

The eligible capital available in the shareholders' fund of a *takāful* operator must only be available to support risks borne by the *takāful* operator, as well as any

potential qard it may need to provide to its *takāful* funds. It is useful to note here that the AIFC TRR rules do not include any obligation or mandatory requirement for a *takāful* operator to provide qard support to any of its *takāful* funds. However, it is possible that the AFSA may exercise its supervisory powers as part of its normal supervision, or as a consequence of the outcome of the ORSA process, to require a *takāful* operator to provide capital support to any of its *takāful* funds in distress, using the qard mechanism.

1.4 TAKĀFUL

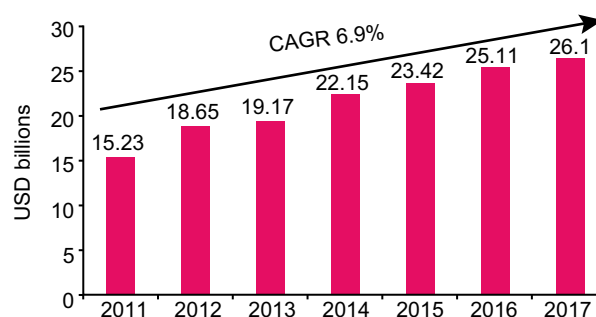
1.4.1 Overview of the global insurance industry

This section provides an overview of trends in the growth and development of the *takāful*²⁴ market across countries and regions in 2017, including a highlight of the growth pattern in the global insurance industry. The data presented are derived mostly from published documents of RSAs of the countries covered and from publications of the Swiss Re Institute.

The total direct premiums written in the global insurance industry improved 1.5% (in real terms²⁵), estimated at USD 4,892 billion in 2017, from USD 4,703 billion in 2016, after a 2.2% increase in 2016.²⁶ Global life premiums increased slightly by 0.5% (USD 2,657) in 2017, compared to a growth rate of 1.4% in 2016, mainly due to the contraction of life premiums in advanced markets, which fell by 2.7% compared to 1.9% in the previous year.

Low financial markets returns lingering over the past few years remain a challenge to the sector. Global general business insurance premiums grew by 2.8% (USD 2,234 billion) in 2017, compared to 3.3% in 2016, slightly above the 10-year average of 2.1%.²⁷ Premium growth observed in advanced and emerging markets in 2017 was on the strength of improving pricing experienced in personal lines such as health and motor.²⁸ For both the life and general business sector, China remains the key driver of emerging markets growth in 2017, a trend that has continued over the past few years.

Chart 1.4.1 Global Takāful Gross Contribution, (2011–17)



Note: Dataset from 24 countries.

Source: IFSB Secretariat Workings

Global Takāful Industry

Amidst the slowdown in the economic environment, rising inflation, and exchange rate pressures in countries where the *takāful* market is provided, the total *takāful* contributions grew by 4.3% (in nominal terms²⁹) in 2017 to an estimated USD 26.1 billion, from USD 25.11 billion reported in 2016³⁰. For the six-year period 2012–17, the industry's contributions grew at a compound average growth rate of almost 6.9% (see Chart 1.4.1).³¹ By region, the GCC retains its lead in 2017 as the largest global *takāful* market, with contributions estimated at USD 11.71 billion, accounting for over 44% of the total global contributions, followed by the Middle East and North Africa (ex-GCC) (USD 10.30 billion) at 31.4%; South and Pacific Asia (USD 5.2 billion) at 22%; and Sub-Saharan Africa (USD 0.5 billion) at 2% (Chart 1.4.2). Country-wise, Iran,³² Malaysia, Saudi Arabia³³ and the UAE are the major Islamic insurance markets, accounting in total for more than 87% of total contributions in 2017. The total contributions from general and family *takāful* in 2017 are estimated (in USD nominal value) as USD 71.59 billion (72.6%) and USD 18.94 billion (27.4%), respectively.

²⁴ The financial performance of the global *takāful* industry remains challenging to gauge, as information concerning *takāful* operations is mostly irregular and scant for most operators. For aggregate data, data inputs were derived from insurance/*takāful* authorities and based on annual reports of *takāful* operators, where available.

²⁵ "Real terms" indicates adjusted for inflation (measured using local consumer price indices).

²⁶ See Swiss Re Sigma, *World Insurance in 2017*, No. 3/2018, p. 7.

²⁷ Ibid.

²⁸ See Swiss Re Institute Marsh's global insurance market index.

²⁹ The data are based on nominal figures, converted into USD (by average or end-of-year exchange rates).

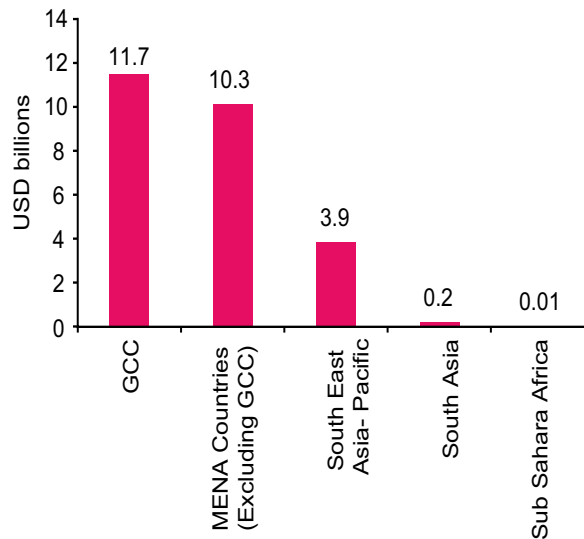
³⁰ The figure for 2016 was adjusted to properly reflect the new information available, in particular from South Asia and Africa; hence, it differs to some extent from that appearing in the SR18.

³¹ Estimation is based on the available country-level dataset derived from the annual reports of insurance supervisory authorities and insurance associations of 24 countries.

³² Similar to Saudi Arabia, the Iran insurance market has been adjudged fully Islamic.

³³ Where the market size is the same as that of the overall insurance industry, as all insurance companies operating in the Kingdom follow a cooperative model, which has been adjudged Sharī'ah-compliant.

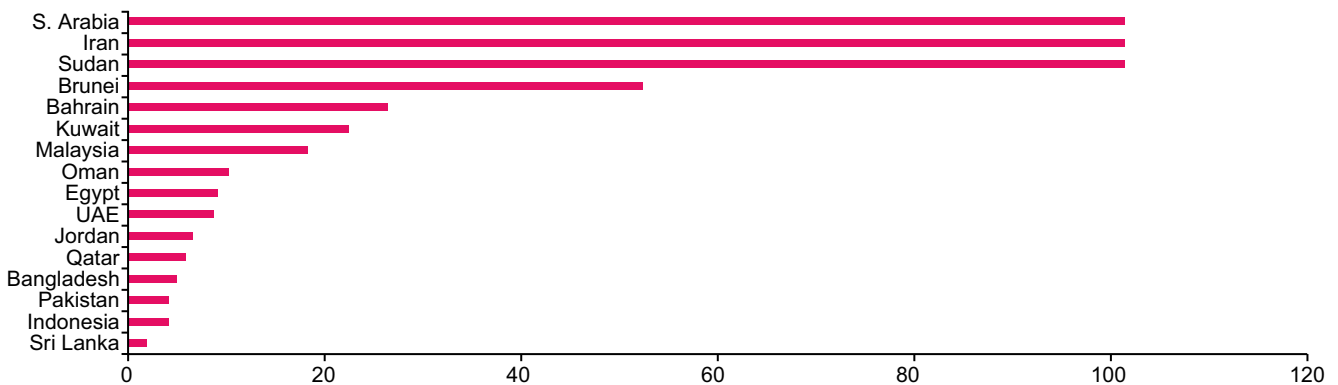
Chart 1.4.2 Takāful Contribution by Key Region (2017)



Source: IFSB Secretariat Workings 2019

Chart 1.4.3 illustrates countries where *takāful* contributions as a percentage of the insurance sector total premium were at least 2% in 2017. Three countries (i.e. Iran, Saudi Arabia and Sudan) operate a wholly Islamic insurance market; whereas, in others, the *takāful* sector exists alongside the conventional insurance industry. Moreover, only five countries crossed the threshold of 10% in 2017: Brunei (51%); Bahrain (26%); Kuwait (22.1%); Malaysia (18.1%); and Oman (10.1%).

Chart 1.4.3 Takāful Contribution/Total Sector Gross Premiums (%) (2017)



Source: IFSB Secretariat Workings, 2019

Gulf Cooperation Council Countries

The economic slowdown in the GCC countries stifled the growth of *takāful* contributions by 6.87%³⁴, reducing it to an estimated USD 11.71 billion in 2017 (USD 12.57 billion: 2016). However, the region maintains its lead as the largest global *takāful* market, with a share of over 44% (see Chart 1.4.2). The contraction in the general business in Saudi Arabia (the largest Islamic insurance market) was the main cause of the drag on overall contributions. General business segments, which represented 45% of total contributions written in Saudi Arabia, declined by 4.9%, while motor business lines (accounting for 68.2% of general business segment) declined by 8.4% at the end of 2017³⁵.

The recovery in oil prices since mid-2017 was not enough to boost economic growth in the GCC, due to oil production cuts and the resulting decline in revenues (i.e. GDP growth in Saudi Arabia fell 0.7%).

Given that the contributions growth in general business *takāful* segments closely follows economic growth, the cut in public spending on social and infrastructure development has adversely impacted contributions growth in the general business segment in Saudi Arabia. A similar situation is evident in other countries. Qatar, for instance, has cut public spending on non-FIFA World Cup³⁶ related projects.

³⁴ The data are based on nominal figures, converted into US Dollars (by average or end-of-year exchange rates).

³⁵ Saudi Arabian Monetary Authority Annual Report 2018.

³⁶ Qatar is the host of the 2022 FIFA World Cup.

The UAE has been fairly resilient in the face of the growth headwind, reporting an estimated double-digit growth of 13.2% in 2017, compared to Oman, Qatar and Bahrain with a modest growth of 9%, 8.5% and 4.2%, respectively. The sector has benefited from the increase in demand, resulting from the introduction of compulsory cover in medical and liability business (see Table 1.4.1)³⁷. General *takāful* made up 87% of the gross contributions in Kuwait (USD 276.4 million). Motor and medical were the largest lines, controlling 40% and 22%, respectively. Meanwhile, the general *takāful* segment in Saudi Arabia and the UAE, has benefitted from regulatory changes such as setting minimum pricing for motor insurance and the introduction of mandatory health insurance for workers (Table 1.4.1)³⁸. Oman is also implementing its mandatory health insurance scheme for private sector employees, including expatriates and visitors before the close of the year 2019.

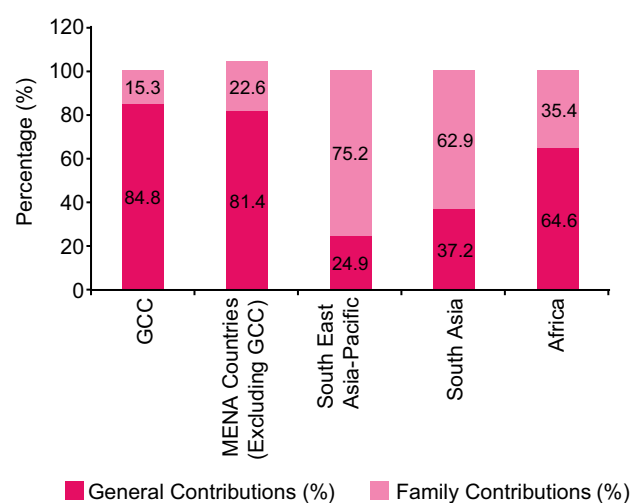
Family *takāful* is relatively small compared to the general *takāful* business in the GCC, accounting for less than one-fifth of the total *takāful* contributions in 2017 (see Chart 1.4.1). The region's family *takāful* penetration is much lower than the life insurance sector, estimated at 0.3% in 2017³⁹. Family *takāful* business in the UAE ranked highest in the region, with a double-digit growth rate of roughly 13% in 2017, driven by demand from a large expatriate population and an expanding middle class. Family *takāful* business in Kuwait grew by 20.6% in 2017, accounting for 13% of the gross *takāful* contributions, mainly contributed by group family *takāful*⁴⁰. In Oman, family *takāful* grew by 19% in 2017, slightly above the 2016 record (18%), with individual family products accounting for a significant portion of the sales⁴¹. In Saudi Arabia, contributions from the family line⁴² improved to 8.5% in 2017 (1.5%: 2016), due mainly to the introduction of mortgage cover and increasing activities of the bancassurance channel (i.e. providing multiple services through one touchpoint)⁴³. Contributions from family *takāful* underperformed in both Bahrain and Qatar amidst the economic slowdown (Table 1.4.1). Given the low penetration rate, the increasing awareness and acceptance of and demand for family *takāful* products, and the growth of private-sector employment, the family *takāful* sector is likely to grow further.

Table 1.4.1 Breakdown of Takāful Contributions Growth by Business Segment (2017)

Country	Total Contribution Growth (%)	General Takāful Growth (%)	Family Takāful Growth (%)
Saudi Arabia	-1.1	-1.2	8.5
UAE	13.2	13.6	13.3
Kuwait	4.6	-1.84	20.6
Oman	13.6	7.5	19
Bahrain	5.3	6.2	1.2
Qatar	4.1	8.5	-0.37

Source: IFSB Secretariat Workings⁴⁴

Chart 1.4.4 Share of General and Family Takāful by Key Region (2017)



Source: IFSB Secretariat Workings

In recent years, there has been improvement in insurance sector regulatory frameworks, including those specific to the *takāful* sector. The regulations have been strengthened in line with global standards and best practices. Although regulatory development across the region varies widely, a range of regulatory measures is being introduced to address both prudential and regulatory issues, and with greater emphasis on enforcement.

A number of insurance authorities (e.g. in Bahrain, Oman, Saudi Arabia, the UAE, and independent financial centres such as the Dubai International Financial Centre and Qatar Financial Centre) have implemented a series of new guidelines to address issues of capital requirements, the basis for calculating technical provisions and their actuarial verification, and assets allocation limits. In Oman, the Capital Market Authority has introduced a risk-based supervision framework with more stringent, risk-based capital requirements, with the aim of driving consolidation among smaller firms and thus further strengthening the insurance market.⁴⁵ Line-specific regulations such as a unified motor policy and a mandatory health insurance scheme introduced in countries such as Saudi Arabia and the UAE provide pricing guidelines for motor and health-care covers – the two main lines that contribute a significant proportion of the overall contributions.

Presently, the Kuwaiti insurance sector is facing challenges on both the regulatory and operational fronts. Although there have been several initiatives to create new insurance regulations that would take into account recent developments in the industry, the country's insurance laws (which were implemented in 1961) remain outdated.

³⁷ Saudi Arabian Monetary Authority Annual Report 2018.

³⁸ Ibid

³⁹ Swiss Re Institute, *Re/insurance in the Middle East and Pakistan* (2017).

⁴⁰ Ministry of Commerce and Industry (MOCI) Annual Report 2017; Kuwait Insurance Federation Annual Report 2017.

⁴¹ Capital Market Authority of Oman Annual Report, 2018.

⁴² Referred to as the "Savings and Protection" business in Saudi Arabia, and the "Protection and Life" business in the UAE.

⁴³ See footnote 19.

⁴⁴ The dataset of Saudi Arabia, UAE and Kuwait were derived from the insurance regulator's 2018 annual report. In Oman, it was derived from institutional-level data.

⁴⁵ Saudi Arabian Monetary Authority Annual Report 2018; Ministry of Commerce and Industry (MOCI) Annual Report 2017; Capital Market Authority of Oman Annual Report 2018.

Overall, the prospects for growth of the *takāful* sector in the GCC remain positive, as *takāful* operators are realigning their strategic focus towards meeting the needs of the market. Governments' expansionary fiscal policies are expected to drive economic activities. In addition, a series of regulatory initiatives introduced in the sector is expected to drive the sector's growth and boost its attractiveness. With respect to family *takāful*, given the low penetration rates, the increasing awareness and acceptance of Sharī'ah-compliant product offerings among the large Muslim population is likely to support growth.

The Middle East and North Africa (MENA)

Total contributions in the *takāful* sector in the MENA region (ex-GCC) grew on average by 8.2% (USD 10.2 billion⁴⁶) in 2017, accounting for 31% of the global *takāful* contributions (see Chart 1.4.2). Countries in this region include Algeria, Egypt, Iran, Jordan, Palestine, Sudan, Tunisia and Turkey. Iran, the largest market in the region, grew by 2.5% to USD 7.9 billion, accounting for more than two-thirds of the total contributions.⁴⁷ The contributions from the general *takāful* segment in Egypt showed an impressive growth of 34% (albeit from a very low level), where family *takāful* contributions shrank to 5.5% in 2017. On aggregate, both segments pooled USD 58.8 million, which represents almost 9% of the insurance market gross written premium in 2017.⁴⁸ In Jordan, the contribution is estimated to have grown by 3.4% to reach USD 88.86 million in 2017, accounting for 10.6% of the market aggregates (USD 838 million) in 2017.⁴⁹ The two *takāful* operators in Jordan (i.e. Islamic Insurance Co. and Solidarity First Insurance) were among the top five insurers controlling around 46% of the market premiums in 2017. In Sudan, the *takāful* industry registered an average growth rate of 18%, estimated at almost USD 450 million⁵⁰, with general *takāful* accounting for at least 90% of the total contribution. The low volume of family *takāful* business is attributed to a lack of awareness and inadequate coordination between the relevant authorities responsible for insurance market developments.⁵¹

In aggregate, the slow growth trajectory recorded in these countries is evident from the high levels of inflation, mostly driven by political instability on the one hand, and currency depreciation on the other, thus limiting consumption and business activities.

Takāful in Turkey received a boost following the implementation of the participatory insurance regulatory framework. Similarly, in Algeria, Morocco, and Tunisia, *takāful* regulations are presently being drafted. The regulations are expected to provide the requisite framework for the take-off of *takāful* companies and *takāful* windows operators who wish to market *takāful* both general and family *takāful* products based on Sharī'ah standards and rules.

Takāful in Tunisia, Algeria and some other countries in the region remains in its nascent stage, but is growing steadily. For instance, three *takāful* operators are currently operating in Tunisia. The new *takāful* rules introduced in these countries are expected to strengthen the sector. However,

takāful operators in these markets will have to compete with well-established conventional players. How well the *takāful* operators are able to deploy their marketing strategies in line with the value propositions offered by *takāful* will determine their success. Notwithstanding, slow economic activity in these countries presents an additional challenge.

South-East Asia

Takāful contributions in South-East Asia are estimated to have reached USD 3.86 billion in 2017, up from USD 2.82 billion in 2016, contributed mainly by three countries: Malaysia, Indonesia and Brunei. Malaysia accounted for over 70% of this volume (USD 2.77 billion), Indonesia for 25% (USD 972 million) and Brunei for 3% (USD 114 million). Together, they account for roughly 15% of the global *takāful* contributions. Unlike in the GCC and the MENA (ex-GCC) regions, family *takāful* dominates the business in South-East Asia, accounting for more than three-quarters of the total *takāful* contributions in 2017.

In 2017, the *takāful* sector in Malaysia, which represents 17% of total premiums of the local insurance market maintained its steady growth both in the general and family segments. General *takāful* recorded a positive growth of 10% (USD 630 million) supported by growth in the motor as well as medical and personal accident segments. Competition is also becoming intensified in the fire business due to a surge in contributions and increased margin.⁵² Family *takāful* grew by 6% (USD 1.07 billion), supported by increased demand for mortgage-related term policies as a result of growth in Islamic financing.⁵³ The positive growth pattern recorded in the sector over the past few years reflects the rising affluence of Malaysians amid strong economic fundamentals and acceptance of *takāful* products among the majority population.⁵⁴ Relative to the overall life market, family *takāful* business in Malaysia is increasingly gaining share in the domestic insurance market and accounted for 30% of the new business premiums in the overall life market.⁵⁵ Notably, the agency and bancassurance channels have been the main drivers of new business, accounting for over 80% of the total new premiums of the life insurance sector. The online distribution channel is still fairly new, but is increasingly being utilised as an alternative distribution channel. Since July 2017, the insurance supervisor in Malaysia has directed *takāful* operators to offer pure protection term products through direct distribution channels. The *takāful* operators are thus expected to fully leverage on the outreach potential of multiple distribution channels and to innovate their products. However, new business growth may be constrained in the next few years as the industry adapts to new regulatory requirements for investment-linked (IL) business whose sales contributed 44% of the insurance sector's new business premiums last year. Among others, the revised guidelines require sustainable pricing, sustainability tests of coverage, and more conservative investment return illustrations in sales and marketing materials.

Significant regulatory milestones achieved over the years in Malaysia include the implementation of Phase II of the liberalisation of motor and fire tariffs; the introduction of direct distribution channels and improvements to incentive structures under the Life Insurance and Family

⁴⁶ The data are based on nominal figures, converted into USD (by average or end-of-year exchange rates).

⁴⁷ Iran data sources: *Central Insurance of Iran Annual Report 2016/17*.

⁴⁸ *Financial Regulatory Authority of Egypt Annual Report 2017*.

⁴⁹ *Jordan Insurance Federation (JOIF) Annual Report 2018*.

⁵⁰ in local currency nominal terms.

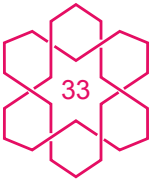
⁵¹ *Insurance Supervisory Authority of Sudan Annual Report 2017*.

⁵² Bank Negara Malaysia (BNM), *Financial Stability and Payment System Report 2017*

⁵³ *Ibid.*

⁵⁴ *Ibid.*

⁵⁵ *Ibid.*



Takāful (LIFE) Framework; and the “Protection Cover” initiative, stress testing, and measures to strengthen the professionalism of insurance and *takāful* intermediaries.⁵⁶ A notable development during 2017 is the process of splitting of *takāful* operators with composite licences into separate ones for family and general *takāful*, as required under the *Financial Services Act 2013* and the *Islamic Financial Services Act 2013*. This requirement will encourage management to be more focused in their request for compliance with the higher capital requirements demand, as well as to optimise returns on the increased capital deployed.

Islamic insurance (Sharī'ah life) in Indonesia has seen a faster rate of growth than conventional business in the past few years (albeit from a much lower base), growing at a CAGR of 24% between 2013 and 2017 for general *takāful* business (USD 154 million) and 31% for family *takāful* business (USD 560 million).⁵⁷ Similar to Malaysia, the family *takāful* segment dominates the market, accounting for more than three-quarters of *takāful* contributions. In 2017, Indonesia ranked as the 24th largest life insurance market globally with premium volume (at USD 19.3 billion) growing by 27% (in real terms).⁵⁸ Besides China, the Indonesian market is considered one of the best-performing life insurance markets in the world.

Family *takāful* is identified as a significant growth driver; therefore, a consistent growth of Islamic insurance among (predominantly Muslim) consumers will boost protection penetration, which currently stands at 1.98%. Furthermore, the *takāful* sector is expected to benefit from developments in the broader Sharī'ah ecosystem embedded in Indonesia's Financial Services Master Plan.⁵⁹ Many insurers with Sharī'ah windows are required by the new law to spin off their Sharī'ah business units into fully capitalised subsidiaries by 2024.

In Brunei Darussalam, *takāful* contributions declined by 0.3% in 2017, to USD 114.1 million despite a premium growth of 4.4% in the general *takāful* segment. The decline in *takāful* contributions was due to a 14.5% decline in the family sector. However, total *takāful* contributions still represent more than half of the total gross premiums/contributions.

South Asia

The total *takāful* contribution in the South Asian region expanded by 17.4% – to USD 225.77 million – in 2017, from USD 192.4 million in 2016, accounting for 0.9% of the global contributions. Countries in this region include Bangladesh, Pakistan and Sri Lanka. In Bangladesh, over two-thirds of total contributions written is attributed to family *takāful* which recorded a negative growth of 0.09% in 2017, whereas general *takāful* showed a positive growth of 2.98% within the same period.

In Pakistan, the aggregate contributions from both family and general business grew by 14% – to USD 195 million – in 2017, accounting for almost half of the region's total contributions, and representing 6.9% of the total insurance sector's premium. Family *takāful* showed strong growth of 18% in 2017, accounting for more than two-thirds of the total contributions.

There are five full-fledged *takāful* operators (i.e. two family and three general) currently operating in Pakistan. The *takāful* sector in recent years has increased its market share due to greater consumer acceptability and the entrance of conventional insurers into the sector as windows *takāful* operators.⁶⁰ The strong growth recorded in the family segments is a reflection of the improving political and economic environment, tax incentives, adoption of modern distribution channels, innovative products and wider use of technology. Consequently, Pakistan's insurance penetration ratio increased from the 0.77% reported in 2016 to 0.84% in 2017. This presents a vast potential for growth in the industry for which a deliberate effort is needed. The SECP is contemplating a comprehensive road map and engaging with all stakeholders, as it aims to expand the insurance market's contribution to the Pakistani economy.

Sub-Saharan Africa

Takāful operations are still insignificant in Sub-Saharan Africa, with the contributions estimated at USD 10.2 million in 2017 (mainly from Kenya, Nigeria and the Zambia). The region represents the greatest growth potential, with more than 30% of its population as Muslims.⁶¹ Kenya recently introduced draft *takāful*-specific guidelines, and countries such as Tanzania, Zambia and Mozambique are taking similar steps. *Takāful* Insurance of Africa, the only Sharī'ah-compliant insurance provider in Kenya, was established in 2011. In 2017, contributions from *micro-takāful* class of business grew to USD2.53m, the fastest recorded in this business segment in Kenya.⁶²

In Tanzania, following the implementation of Islamic insurance regulatory framework, three applications for *takāful* operating license are currently under vetting by the insurance regulator. The introduction of Islamic insurance in Tanzania is expected to promote the growth of Islamic banking, as well as help to increase insurance penetration.⁶³

Currently, there are five *takāful* operators, two full-fledged (Jaiz *Takāful* and Noor *Takāful*) and three *takāful* windows operating in Nigeria, including *takāful* windows, after the country's insurance regulator issued *takāful* guidelines in an effort to deepen insurance penetration. *Takāful* is springing up in other African countries such as Gambia, Mauritania, Senegal and South Africa.⁶⁴ A new Islamic insurer has been established in Somaliland⁶⁵, backed by some of Africa's largest players in the insurance industry. The new company called Horn of Africa Insurance offers motor, property, medical and marine insurance along Sharī'ah rules.⁶⁶

⁵⁶ Ibid., p.77

⁵⁷ *Financial Service of Indonesia (OJK) Annual Report 2018*.

⁵⁸ Swiss Re Institute, World insurance in 2017.

⁵⁹ Fitch Indonesia, *Takāful Dashboard Report 2017*.

⁶⁰ *SECP Annual Report 2016*.

⁶¹ Worlds-Muslim-population-more-widespread-than-you-might-think.

www.pewresearch.org/fact-tank/2017/01/31/worlds-muslim-population-more-widespread-than-you-might-think/

⁶² Association of Kenya Insurers (AKI) Annual Report 2018

⁶³ Tanzania Insurance Regulatory Authority (TIRA) Annual Report 2018

⁶⁴ *Global Takāful Directory 2019* (published by Middle East Insurance Review).

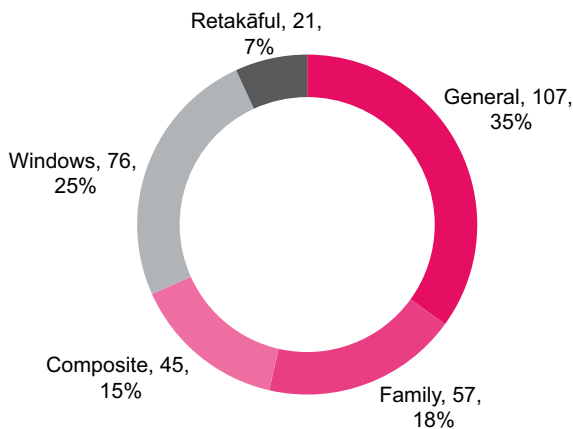
⁶⁵ Somaliland is a semi-autonomous territory that proclaimed its independence in 1991.

⁶⁶ Middle East Insurance Review October 2018, edition 28.

1.4.2 Number of takāful operators and windows globally

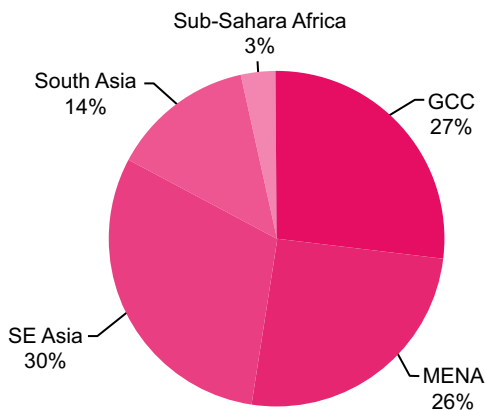
In reference to the recently published Global *Takāful* Directory 2019, the total number of *takāful* institutions is estimated at 306, including *retakāful* and *takāful* windows offering *takāful* products in at least 45 countries. The majority of these countries have developed specific regulations on the sector, designed for the development of the *takāful* market.⁶⁷ By region, South-East Asia has the largest number of *takāful* institutions (30%), followed by GCC and MENA with 27% and 26%, respectively (see Chart 1.4.5). Breakdown by type of operations is also illustrated in Chart 1.4.6. Given the significant presence of Muslim populations in these countries, *takāful* has significant opportunities to provide sound financial protection that is in line with consumers' religious sensibilities. However, the success of *takāful* operators depends on establishing strong business profiles, as more established insurers are already benefiting from greater brand awareness and established distribution networks. Furthermore, additional support from Sharī'ah scholars in promoting *takāful* products is essential for the growth of the *takāful* sector.

Chart 1.4.5 Number of Takāful Operators and Windows Globally (2018)



Source: Global *Takāful* Directory 2019

Chart 1.4.6 Number of Takāful Operators by Region (2018)



Source: Global *Takāful* Directory 2019

1.4.3 Regulatory development in the distribution of takāful products

Distribution of *takāful* products vary across the markets and between business segments. While a number of markets rely on agents and brokers to generate most general *takāful* business, others use direct channels. The perceived lack of transparency in the sales and marketing process and lack of compliance with international standards are some of the challenges limiting the growth of family *takāful* contributions. The expression of consumers' trust and confidence in the market, as well as the transparency in the sales process are necessary for sustainable growth in *takāful* contributions and market share.

Recently, bancassurance has contributed to increasing contributions of family *takāful* particularly, in Malaysia, UAE, Kuwait, Pakistan and Oman. Typically, this is achieved through regulatory requirements such as: restriction on the extent to which banks can act in the distribution of products and limiting the products only to retail lines. However, in some jurisdictions, supervisors give banks a greater latitude to provide advice to customers as to suitability of products to their needs. Regarding the remuneration of the banks, the Central Bank of Oman, for instance, allow sharing of marketing expenses, and expressly prohibits profit commission; and bundling of *takāful* and banking products.

The emergence of alternative distribution channels and the growing preference to purchase *takāful* products via internet has attracted regulatory supports in some jurisdictions. For example, the mechanism adopted by the Central Bank of Bahrain (CBB) to address these channels is through 'appointed representative' model which allows for the use of aggregator websites on the basis that each *takāful* operator is ultimately responsible for ensuring that the aggregator complies with the local regulatory requirements (i.e. record keeping and conduct of business and anti-money laundering requirements). This model affords *takāful* operators greater latitude to develop alternative distribution models which can be operated in line with their individual risk appetites.

In addition to reducing overheads, it is believed that online digital platforms offer consumers more affordable and simpler products such as travel, short term life, personal accident and compulsory motor third party liability insurance. The Financial Regulatory Authority in Egypt also allows individual insurance brokers to participate in the electronic marketing and distribution system of common classes of insurance. The move is to eliminate the problems faced in manual issuance of compulsory motor insurance policies, such as falsified documents and under-reporting premiums to insurers.

⁶⁷ Ibid.

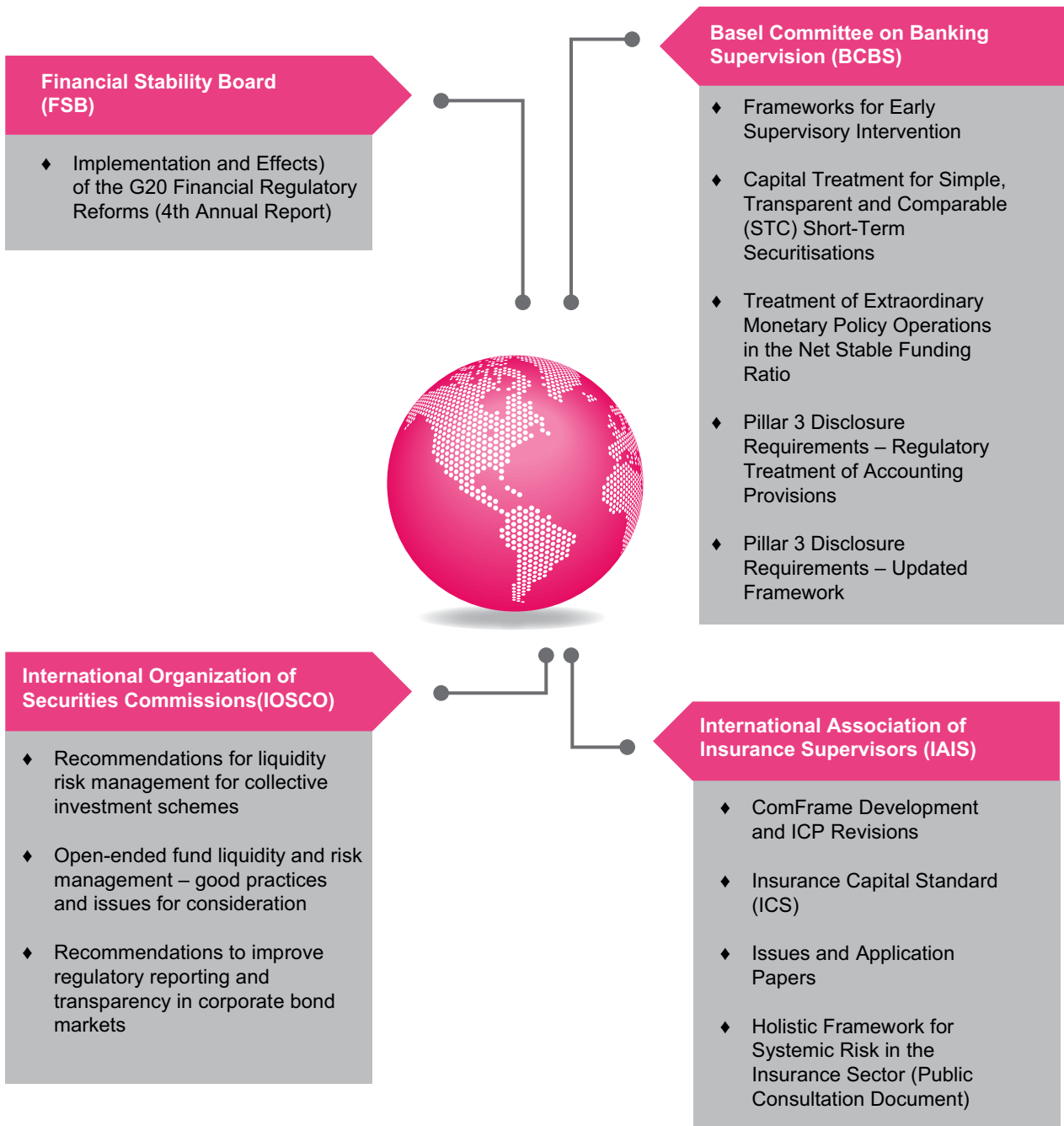


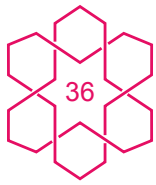
2.0 ISLAMIC FINANCE AND THE CHANGING GLOBAL FINANCIAL ARCHITECTURE

2.1 GLOBAL DEVELOPMENTS AND IMPACT ON THE IFSI

There have been some notable developments in the global regulatory landscape in the course of the year which are likely to impact on the Islamic financial services industry and on the work of the IFSB.

Global standard setters for the banking, securities and insurance sectors, including the BCBS, IOSCO, IAIS as well as the Financial Stability Board (FSB), have issued a number of documents including standards, final reports, consultation reports and survey reports in 2018. The IFSB, being the complementary global standard setter for the Islamic banking, Islamic capital markets and *takāful* sectors, monitors the work streams of global standard setters closely, and this section provides an update on those documents that have key relevance for the IFSB’s standard-setting work





2.1.1 Financial Stability Board

◆ Implementation and Effects of the G20 Financial Regulatory Reforms (4th Annual Report)

The FSB's fourth annual implementation report, published in November 2018, describes the progress by FSB jurisdictions in implementing G20 regulatory reforms to ensure a safer and more resilient financial system. The report's four main themes are: (1) building resilient financial institutions; (2) ending too-big-to-fail; (3) making the derivatives market safer; and (4) enhancing the resilience of non-bank financial intermediation.

Three IFSB jurisdictions including Saudi Arabia, Turkey and Indonesia, which are also members of the G20 countries are included in the coverage of the FSB's report. In these jurisdictions, Islamic finance either already has significant market share, or has potential for rapid growth. The IFSB will remain cognisant of the ongoing implementation of these reforms and its effect on the IFSI especially in these jurisdictions.

2.1.2 Basel Committee on Banking Supervision

The BCBS has issued in 2018 the following publications that may impact on the current or future work of the IFSB:

◆ Framework for Early Supervisory Intervention

The Framework for Early Supervisory Intervention presents proactive measures taken by the many national supervisors that can be adopted by IFSB member jurisdictions, and can help in supervising institutions offering Islamic financial services (IIFS), detecting and preventing any deterioration in their governance, and monitoring their financial position or stability.

◆ Capital Treatment for Simple, Transparent and Comparable (STC) Short-Term Securitisations

Capital treatment for STC short-term securitisation may be incorporated in the ongoing review of the IFSB's revised Capital Adequacy Standard for institutions offering Islamic banking services. Any IIFS that has securitisation exposure that meets the STC criteria may benefit from the lower risk weight as per this standard.

◆ Treatment of Extraordinary Monetary Policy Operations in the Net Stable Funding Ratio

This revision allows for reduced required stable funding factors for central bank claims with a maturity of more than six months, subject to a floor of 5%, with the objective of providing greater flexibility in the treatment of extraordinary central bank liquidity-absorbing monetary policy operations. It takes immediate effect and affects section 3.3.1 of the IFSB Guidance Note 6 (GN-6). However, as IIFS are not significantly exposed to liquidity-absorbing monetary policy operation, the revision is considered less significant for the activities of IIFS. The IFSB has taken note of this development, and will be taking it on board whenever the need to review GN-6 arises.

◆ Pillar 3 Disclosure Requirements – Regulatory Treatment of Accounting Provisions

The amendment to the Pillar 3 Disclosure Requirements relating to the regulatory treatment of accounting provisions aims to provide users with disclosures that reflect any transitional effects of the adoption of the expected credit loss (ECL) model on regulatory capital. The IFSB has included the provision of this technical amendment in its new disclosure standard – *IFSB-22: Revised Disclosures to Promote Transparency and Market Discipline for Institutions offering Islamic Financial Services* issued in December 2018.

◆ Pillar 3 Disclosure Requirements – Updated Framework

The BCBS issued an updated Pillar 3 Disclosure Requirements to complement the earlier publications of January 2015 and March 2017, thereby completing the review on its Pillar 3 framework. Pillar 3 of the Basel framework seeks to promote market discipline through regulatory disclosure requirements. The revised Pillar 3 framework reflects the BCBS's December 2017 Basel III post-crisis regulatory reforms. IFSB-22 also incorporated the changes made to the Pillar 3 Framework of the Basel III capital accord.

◆ Revisions to the Minimum Capital Requirements for Market Risk

The BCBS made a number of changes to the standardised approach, as well as to the Internal Rating-Based Approach, for the calculation of market risk capital charges. These changes will be considered as part of the current review of the IFSB's Revised Capital Adequacy Standard (IFSB-15). The working group on this project will study the document and determine which of the approaches suit the business activities of the IIFS.

2.1.3 International Organization of Securities Commissions

◆ Recommendations for Liquidity Risk Management for Collective Investment Schemes

The IOSCO published its final recommendations on liquidity risk management for collective investment schemes (CIS) in February 2018, which seeks to improve the liquidity risk management practices of open-ended CIS.

In connection with these recommendations, IOSCO also issued its report entitled *Open-ended Fund Liquidity and Risk Management – Good Practices and Issues for Consideration*. The report is intended to assist regulators by providing a reference guide that illustrates how various jurisdictions regulate liquidity risk practices within their remit, as well as to assist the industry by providing examples of where, when and how certain tools have been used in the past and how they can be used in the future.

While the IFSB currently has a standard on governance of Islamic CIS, work on liquidity risk management for Islamic CIS has yet to be done.

◆ Recommendations to Improve Regulatory Reporting and Transparency in Corporate Bond Markets

The IOSCO report entitled *Regulatory Reporting and Public Transparency in the Secondary Corporate Bond Markets*, published in April 2018, provides recommendations for improving the information on secondary corporate bond markets available to both regulators and the public. The six recommendations are in relation to the availability of data on corporate bond markets, regulatory reporting, and transparency in the secondary corporate bond markets.

The IOSCO recommendations are equally applicable to the Islamic capital market.

2.1.4 International Association of Insurance Supervisors

◆ ComFrame Development and Insurance Core Principles (ICP) Revisions

In July 2018, IAIS launched a major consultation covering a proposed revision of a set of ICPs and ComFrame-related material integrated with ICPs on the following themes: suitability of persons; corporate governance; supervisory review and reporting; preventive measures, corrective measures and sanctions; exit from the market and resolution; investments; enterprise risk management for solvency purposes; group-wide supervision; supervisory cooperation and coordination; and the revised introduction to ComFrame.

In November 2018, the IAIS published a revised ICP-6: *Change of Control and Portfolio Transfers*. IAIS also launched four draft revised ICPs: ICP-8: *Risk Management and Internal Controls*; ICP-15: *Investment*; ICP-16: *Enterprise Risk Management (ERM) for Solvency Purposes*; and ICP-20: *Public Disclosure*.

The complete version of ComFrame (including Insurance Capital Standard (ICS) Version 2.0) integrated with the ICPs will be published. Consequently, the IFSB will commence preparing *Core Principles for Islamic Finance Regulation for Takāful/Retakāful*.

◆ Insurance Capital Standard

In July 2018, the IAIS published a draft ICS Version 2.0 for public consultation and a quantitative field testing package. This version covers issues related to the monitoring period, and the technical aspects of the design and calibration, of ICS Version 2.0. The draft ICS Version 2.0 seeks to reduce the differences in valuation of the two approaches that were discussed in ICS Version 1.0 – that is, (i) market-adjusted valuation, and (ii) GAAP with adjustments valuation.

In its Strategic Performance Plan (SPP) 2019-2021, the IFSB is planning to revise its *Standard on Solvency Requirements for Takāful (Islamic Insurance) Undertakings* (IFSB-11). ICS will provide guidance throughout the revision process.

◆ Issues and Application Papers

- *Issues Paper on Index-Based Insurances, Particularly in Inclusive Insurance Markets*

This Issues Paper provides background on the reasons why various promoters have sought to develop index-based insurance, and discusses the scope of index-based insurances. This work will be relevant to any future IFSB work on *microtakāful*.

- *Issues Paper on Climate Change Risks to the Insurance Sector*

This Issues Paper aims to raise insurers' and supervisors' awareness of the challenges presented by climate change, including current and contemplated supervisory approaches for addressing these challenges and associated risks. This work will be relevant to any future IFSB work on risk management.

- *Issues Paper on Increasing Digitalisation in Insurance and its Potential Impact on Consumer Outcomes*

This Issues Paper discusses the impact of the trend of increasing digitalisation in insurance on consumer outcomes and insurance supervision in light of ICP-19: *Conduct of Business*. The paper was used in the IFSB's recently published working paper: *Consumer Protection in Takāful* (WP-09).

- *Application Paper on the Composition and the Role of the Board*

This Application Paper aims to provide additional material to help with the practical interpretation and application of selected standards and guidance of ICP-5 and ICP-7. The paper will be useful for the revision of IFSB-8: *Guiding Principles on Governance for Takāful Undertakings*.

Application Paper on Supervision of Insurer Cybersecurity
This Application Paper provides guidance to supervisors seeking to develop or enhance their approach to supervising cyber risks, cyber security and cyber resilience of insurers, taking into account the principles of risk-based supervision and proportionality. This work will be relevant to any future IFSB work on risk management.

- *Application Paper on the Use of Digital Technology in Inclusive Insurance*

This Application Paper seeks to provide guidance to supervisors, regulators and policymakers when considering, designing and implementing regulations and supervisory practices with respect to the use of digital technology in inclusive insurance. The paper will be relevant to future IFSB research that relates to Fintech, Regtech and Islamic finance.

◆ Holistic Framework for Systemic Risk in the Insurance Sector (Public Consultation Document)

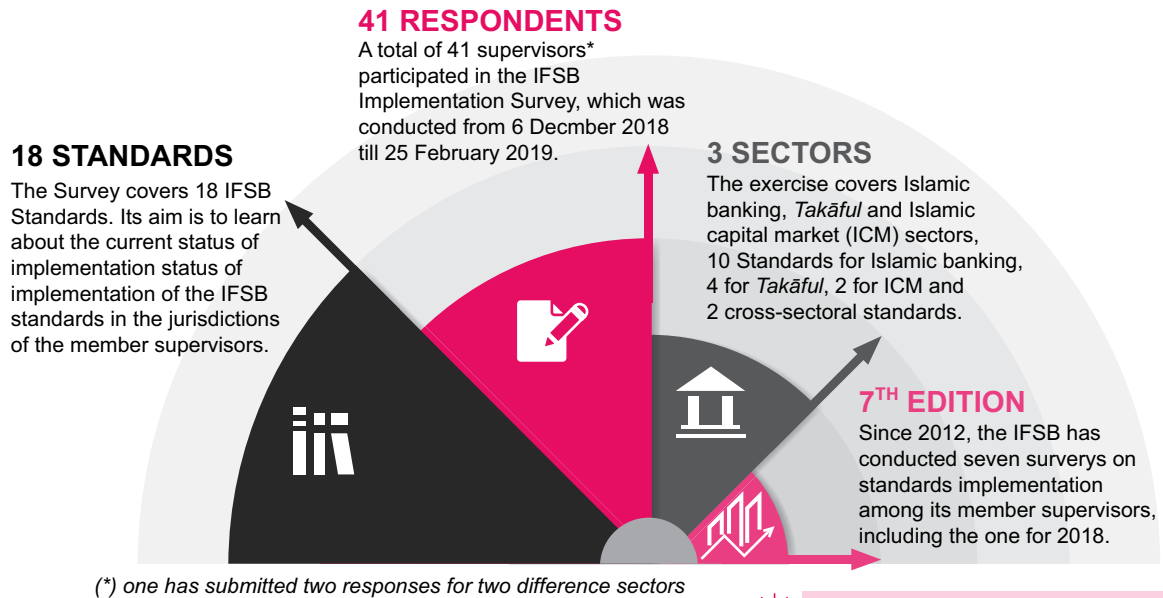
This document intends to provide a holistic framework that helps to assess and mitigate systemic risk in the insurance sector. It deliberates on the sources of systemic risk from two perspectives – at the sector-wide level and the individual insurer level – and examines the exposure connection between the insurance sector and the financial system in general. This work will be relevant to any future IFSB work on risk management.

2.2 RECENT INITIATIVES UNDERTAKEN BY THE IFSB

2.2.1 IFSB Standards Implementation Survey 2018

The IFSB Standards Implementation Survey is an annual survey exercise, undertaken by the IFSB, covering IFSB Regulatory and Supervisory Authority members (supervisors) globally. Figure 2.2.1 provides general information about the Standards Implementation Survey 2018, which was conducted online from December 2018 until February 2019.

Figure 2.2.1 IFSB Standards Implementation Survey 2018 – An Overview

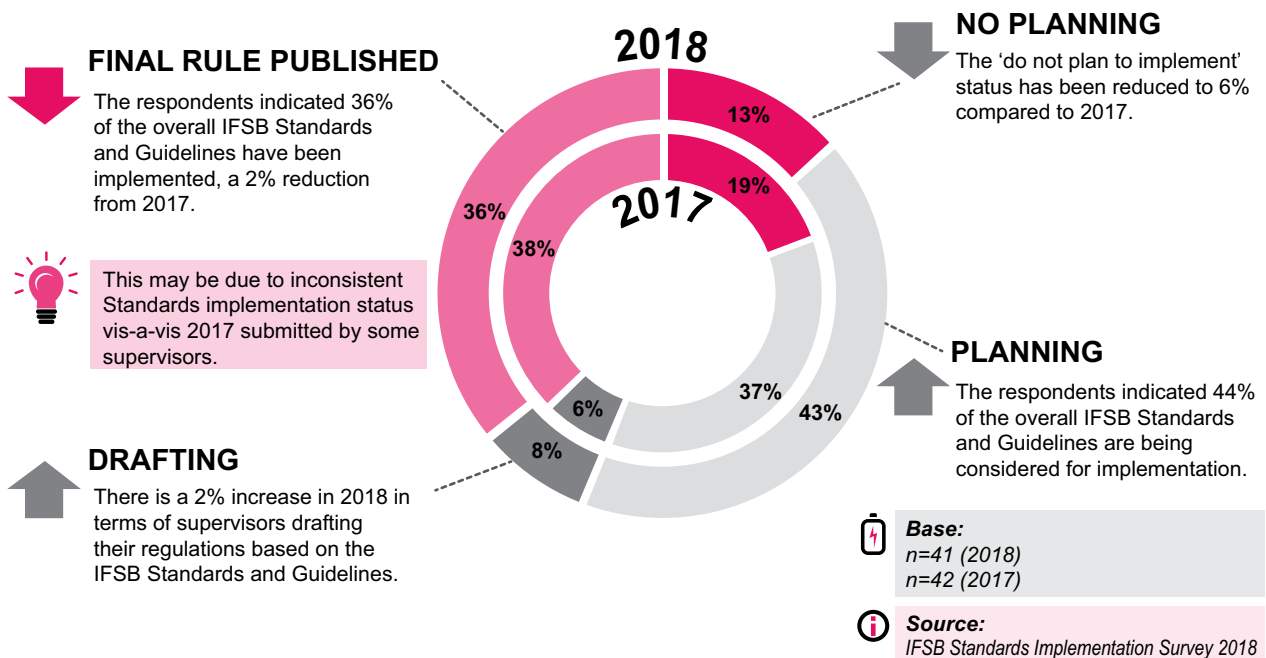


💡 42 supervisors* responded in 2018, compared to 36 in 2016.

📄 **Source:**
IFSB Standards Implementation Survey 2018.

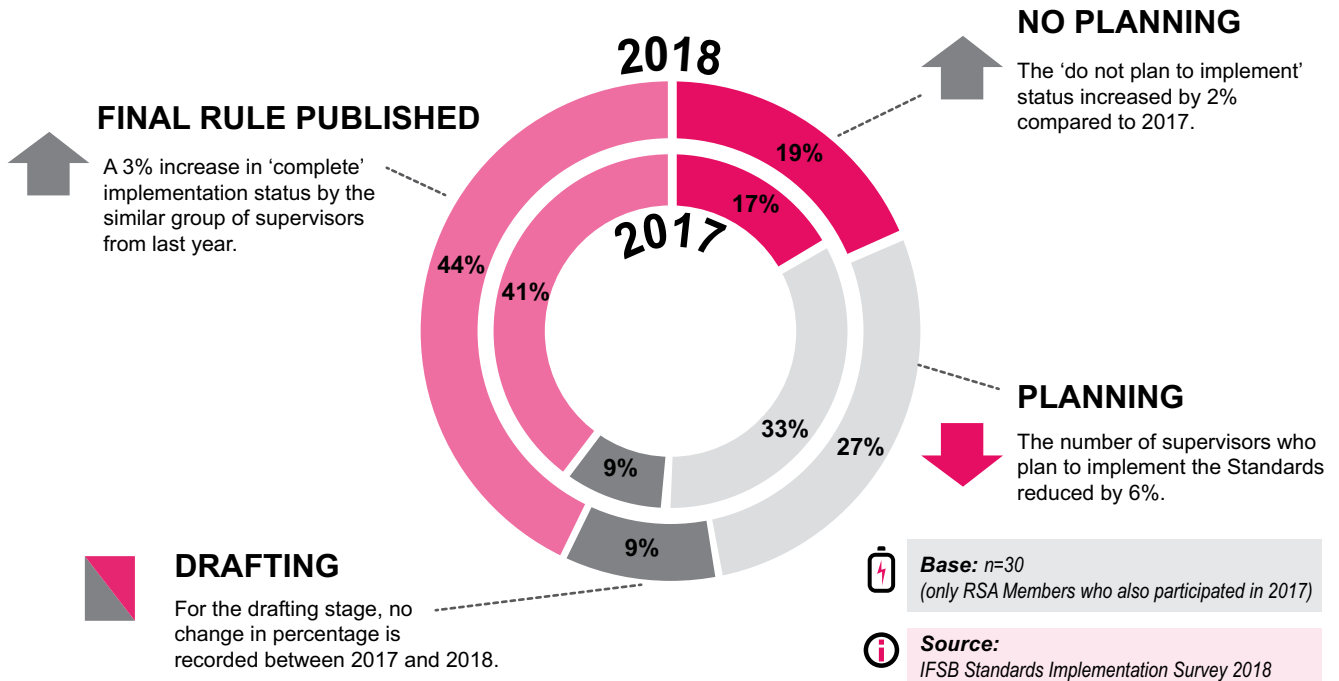
2.2.2 IFSB standards implementation status (among IFSB member jurisdictions)

Figure 2.2.2 Implementation Status 2017 vs. 2018 – Overall Comparison



A slightly different picture emerges when excluding RSAs that have not participated in previous years except the “No Planning” stage, where the status remains as an increase. This is visible in Figure 2.2.3.

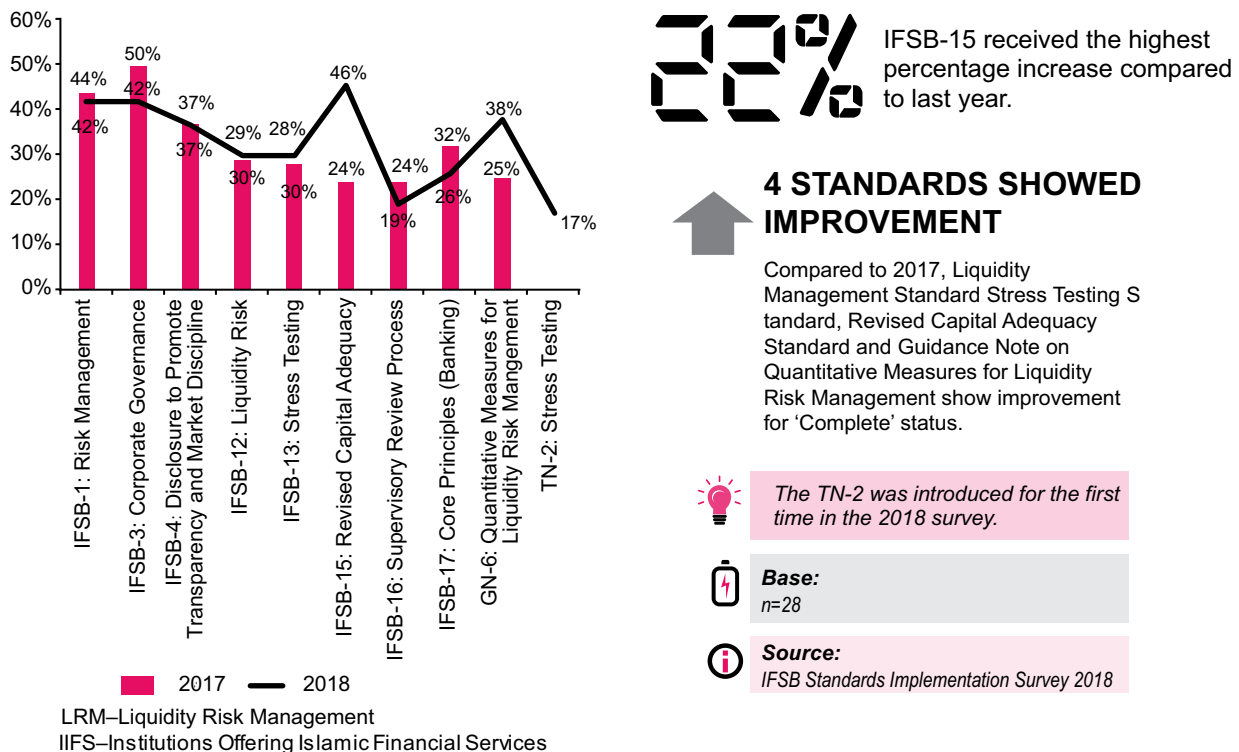
Figure 2.2.3 Implementation Status 2017 vs. 2018 – Consistent RSA Members Comparison



2.2.3 IFSB standards implementation status – standard by standard

With the exception of several banking standards and one for each of *takāful* and cross-sectoral standards, the majority of the standards across all sectors have seen a consistent performance trend since 2017. The breakdown of implementation by standard and by sector is shown in Figures 2.2.4, 2.2.6, 2.2.7 and 2.2.8.

Figure 2.2.4 IFSB Banking Standards that Have Reached “Complete” Status (2018)



A similar type of analysis is carried out for IFSB-15 (Revised Capital Adequacy Standard) (see Figure 2.2.5). However, the base size is reduced to 20 supervisors that also completed the survey in the previous year, to ensure a fair and equivalent comparison.

Figure 2.2.5 The “Complete” Status of Each Standard of IFSB

15% Determination of Alpha receives the highest percentage increase compared to last year.



IFSB-15 is an equivalent Standard to the Basel III capital framework issued by the IFSB in December 2013



Base: n=20
(only RSA Members who also participated in 2017)



Source:
IFSB Standards Implementation Survey 2018

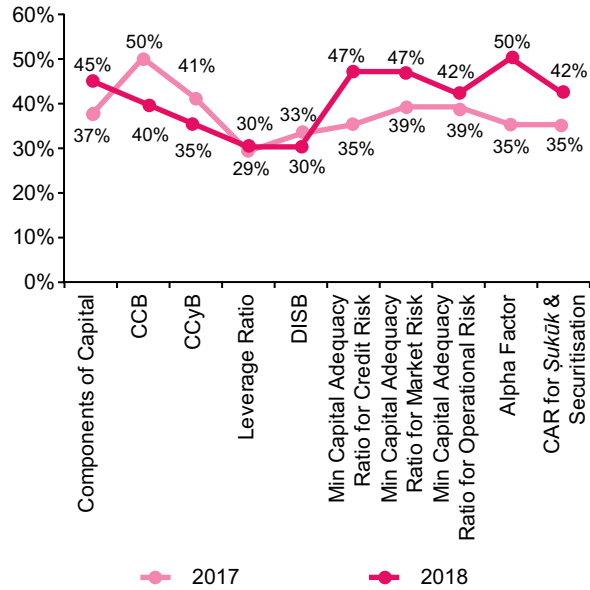


Figure 2.2.6 IFSB ICM Standards that Have Reached “Complete” Status

11% Implementation of IFSB-6 by the IFSB members improved to 42% in 2018 compared to 31% in 2017.



The IFSB-19 was excluded from the 2017 survey because it was issued only in April that year.



Base:
n=12



Source:
IFSB Standards Implementation Survey 2018

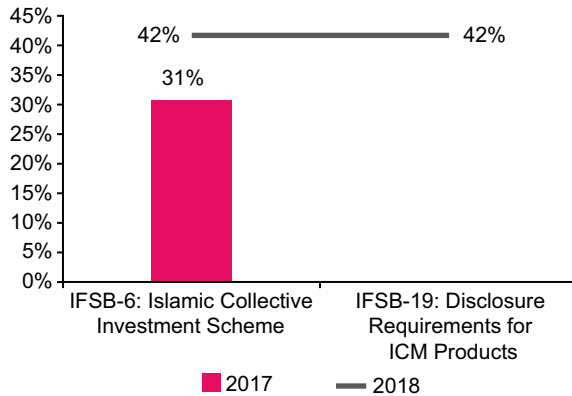
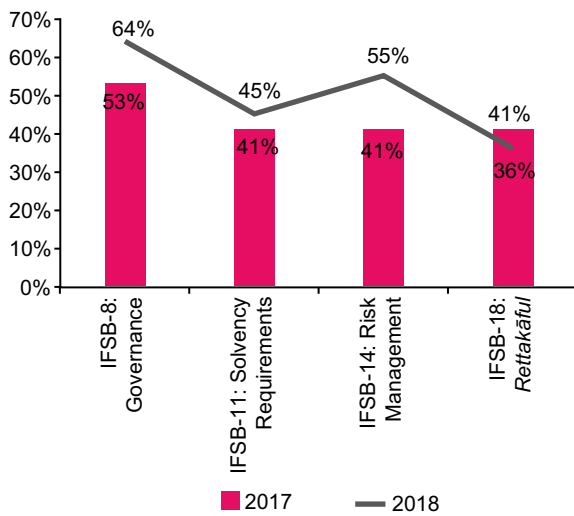


Figure 2.2.7 IFSB Takāful Standards that Have Reached “Complete” Status (2018)



14%

The Standard on Risk Management for Takāful Undertakings (IFSB-14) receives the highest percentage increase, compared to last year.

2 Standards showed improvement



Compared to 2017, two *takāful* standards are showing improvement for ‘Complete’ status, namely; Risk Management for Takāful Undertakings and Guiding Principles on Governance for Takāful Undertakings



IFSB-20 on key elements in the supervisory review process of *takāful/retakāful* undertakings is not measured in the 2018 survey



Base: n=11



Source: IFSB Standards Implementation Survey 2018

Figure 2.2.8 IFSB Cross-sectoral Standards that Have Reached “Complete” Status (2018)

1%
1%

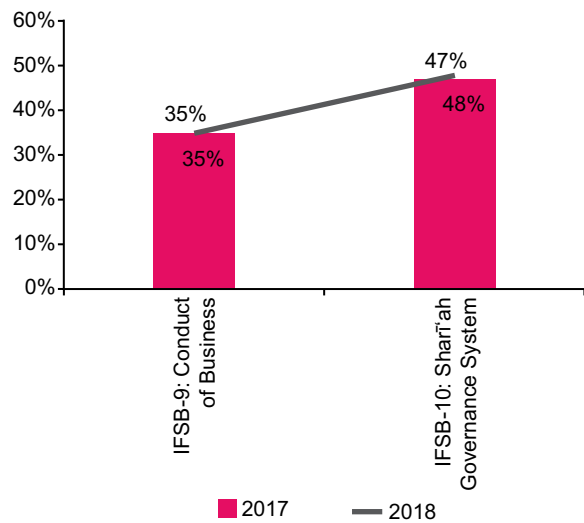
Implementation of IFSB-10 by the IFSB members improved by 1% to 48% in 2018 from 47% in 2017.



Base: n=27



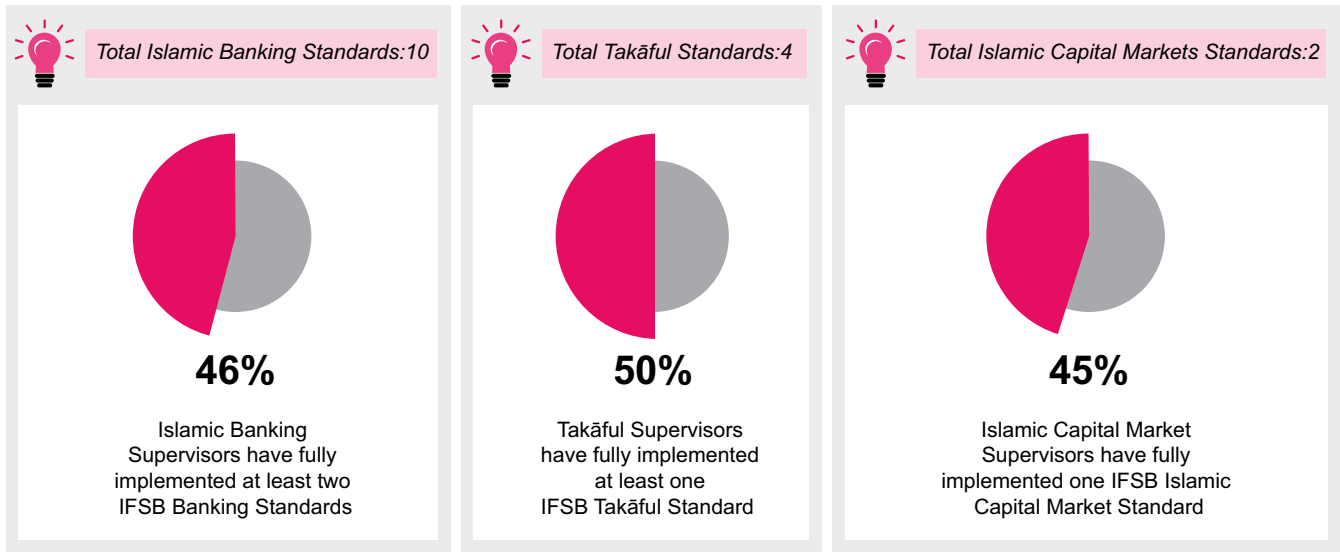
Source: IFSB Standards Implementation Survey 2018



2.2.4 IFSB standards implementation status – by sector

From the 41 sample supervisors, Figure 2.2.9 illustrates that more than 50% of supervisors reported that they have not implemented at least two banking standards and one Islamic capital market standard. However, half of the *takāful* sector supervisor respondents recorded that they had adopted *takāful* standards to be part of their published rules and regulations.

Figure 2.2.9 Implementation Level across Sectors (2018)

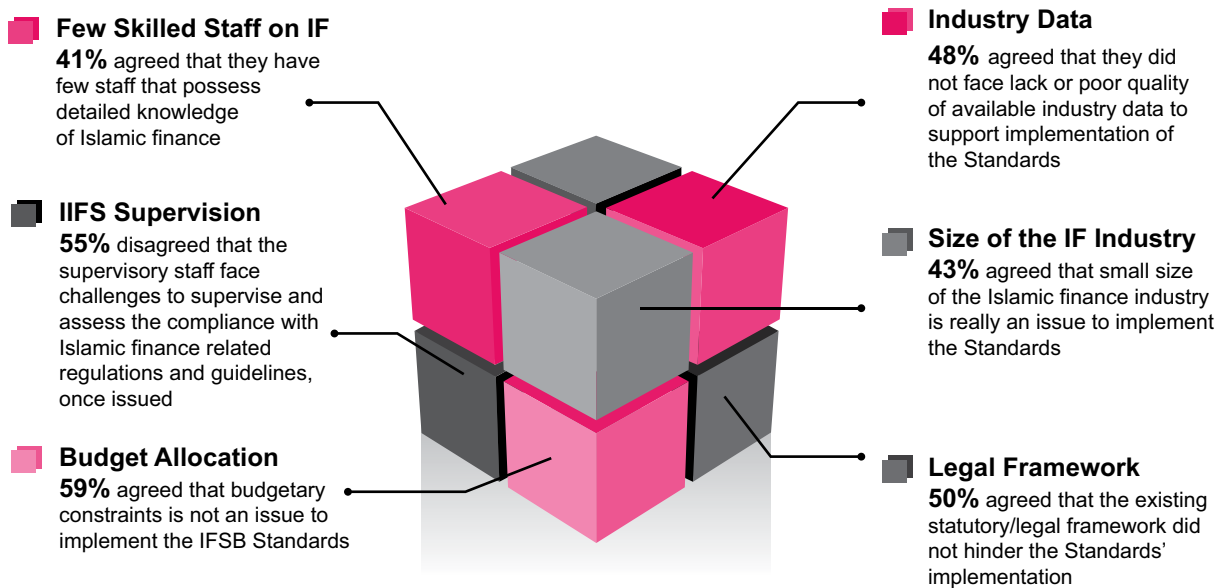


Source:
IFSB Standards Implementation Survey 2018

2.2.5 Challenges in implementation

Figure 2.2.10 indicates that overall, while there are challenges relating to implementation of IFSB standards due to small size of the IFSI and few number of staff with detailed Islamic finance knowledge, the supervisors generally indicated there is less challenge in terms of supervision, budget allocation, and legal framework.

Figure 2.2.10 Challenges in Implementing IFSB Standards (2018)



IF - Islamic Finance
IIFS - Institutions offering Islamic Financial Services

Source:
IFSB Standards Implementation Survey 2018

2.2.6 Implementation support

Supervisors were asked to indicate those areas where they wished to receive support from the IFSB Secretariat. The majority of the proposed and current activities are rated as support desired for implementation. Support is desired especially in the form of preparing technical/explanatory notes, organising more face-to-face workshops on implementing the standards, and continuing to provide policy advice via email/phone.

Figure 2.2.11 shows the breakdown of rating for the IFSB's existing initiatives and for upcoming initiatives, in terms of the support desired by member supervisors.

Figure 2.2.11 IFSB Initiatives to Support Implementation

Existing



83% request more face-to-face Workshops



59% prefer the IFSB to continue offering Technical Assistance



71% value the work of the IFSB on Policy Advice via email/call

“
FINTECH IS THE MOST POPULAR TOPIC SUGGESTED TO THE IFSB TO ISSUE TECHNICAL / EXPLANATORY NOTE ON.
”

Upcoming



46% believe that the webinar (e-workshop) is going to be useful



61% support the plan of the IFSB to prepare technical/explanatory notes



43% support the IFSB to introduce an Impact and Consistency Assessment Programme



44% agree that the IFSB should develop more e-learning courses.



Source:

IFSB Standards Implementation Survey 2018

2.3 OTHER IFSB INITIATIVES

2.3.1 Update on standards under development

BANKING

THE IFSB IS CURRENTLY DEVELOPING FOUR STANDARDS WITHIN ITS ISLAMIC BANKING WORKTEAM



CORE PRINCIPLES FOR EFFECTIVE ISLAMIC DEPOSIT INSURANCE SYSTEMS

The International Association of Deposit Insurers (IADI) and the IFSB have partnered to jointly develop a set of core principles for the development and implementation of an effective Islamic deposit insurance system, taking into consideration the specificities of Islamic banks, while complementing the existing international standards, principally IADI Core Principles.



SHARĪ'AH-COMPLIANT LENDER OF LAST RESORT (SLOLR) FACILITIES

The IFSB's Guidance Note on SLOLR Facilities aims to serve as a benchmark for central banks in establishing and operationalising an SLOLR framework that applies to full-fledged Islamic commercial banks and Islamic subsidiaries of conventional banks. It is intended to be an operational document to assist RSAs in devising and implementing SLOLR arrangements.



REVISED CAPITAL ADEQUACY STANDARD (RCAS)

The IFSB's RCAS standard aims to provide an updated framework for regulatory capital components for IIFS that comply with Sharī'ah rules and principles as well as the latest BCBS criteria. The standard will revise and supersede IFSB-15 and provide standardised approaches for identifying and measuring risks in Sharī'ah-compliant products and services and in assigning risk weights (RW) thereto. The standard will also enhance the capital adequacy treatment for IIFS in the securitisation and *ṣukūk* issuance process in line with the current global regulatory standards and developments in the IFSI.



RESOLUTION AND RECOVERY PLAN (RRP) FOR IIFS

The IFSB's Technical Note on RRP for IIFS aims to develop guidance on regulatory and supervisory best practices for recovery and resolution issues of insolvent IIFS in an effort to fill the gap in the IIFS regulatory development. The TN is also expected to promote a sound and prudent regulatory framework for resolution and recovery issues on IIFS from both micro- and macroprudential framework perspectives.

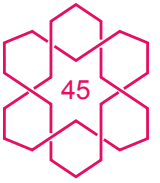
ISLAMIC CAPITAL MARKET

THE IFSB IS CURRENTLY DEVELOPING ONE STANDARDS WITHIN ITS ISLAMIC CAPITAL MARKET WORKTEAM:



INVESTOR PROTECTION IN ISLAMIC CAPITAL MARKETS (IPICM)

The IFSB's IPICM standard aims to identify Islamic finance-specific issues that need to be considered within capital market regulatory frameworks for investor protection. It intends to define best practices for investor protection in relation to the specific types of Sharī'ah-compliant capital market instruments and practices and to increase harmonisation of regulatory practice



TAKĀFUL

THE IFSB IS CURRENTLY DEVELOPING TWO STANDARDS WITHIN ITS TAKĀFUL WORKSTEAM:



DISCLOSURES TO PROMOTE TRANSPARENCY AND MARKET DISCIPLINE (TMD) FOR TAKĀFUL/RETAKĀFUL UNDERTAKING

The IFSB's TMD *takāful/retakāful* standard aims to facilitate access to relevant, reliable and timely information by *takāful* market actors generally, and by *takāful* participants in particular, thereby enhancing their capacity to monitor and assess the performance of *takāful* undertakings.



CORE PRINCIPLES FOR ISLAMIC FINANCE REGULATION: TAKĀFUL

The CPIFR- *takāful* standard aims to provide an international benchmark to promote a sound regulatory and supervisory system for the *takāful* sector. It aims to promote a fair, safe and stable *takāful* sector for the benefit and protection of the interest of participants, beneficiaries and claimants, as well as contributing to the stability of the Islamic financial system. A hierarchical structure of principles, standards and guidance material, consistent with that of the IAIS Core Principles, is being proposed.

THE IFSB IS CURRENTLY DEVELOPING TWO STANDARDS WITHIN ITS CROSS-SECTORAL WORKSTEAM:



TECHNICAL NOTE ON FINANCIAL INCLUSION AND ISLAMIC FINANCE

The aim of this TN is to provide guidance on good practices in regulating the financial sector to enhance financial inclusion through Islamic finance, while considering proportionality in balancing the benefits of regulation and supervision against the risks and costs. The TN also covers recent developments in enhancing financial inclusion through digital finance and financial technology (FinTech), and explores practical modalities for the integration of social finance models in Islamic finance.



REVISED GUIDING PRINCIPLES ON SHARĪ'AH GOVERNANCE FRAMEWORK FOR IIFS

The IFSB and the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) have partnered to jointly provide a revised set of Guiding Principles on the key components of a sound and effective Sharī'ah governance system for IIFS. The joint standard intends to synergise efforts by both the IFSB and AAOIFI to provide consistent and harmonised Sharī'ah governance guidelines for IFSI stakeholders.

2.3.2 Synopsis of IFSB research projects

The IFSB, in line with its mandate to undertake research on pertinent issues in the IFSI, has, since the publication of the *IFSI Stability Report 2018*, issued four Working Papers. IFSB Working Papers are research-based publications intended to lay the groundwork for future standards development and implementation.



WP-08: WORKING PAPER ON ISSUES ARISING FROM THE REGULATION OF TAKĀFUL CAPITAL REQUIREMENTS (July 2018)

This paper provides a review of the process of solvency assessment for *takāful* undertakings as described in IFSB-11 and investigates the supervisory and market practices in relation to its capital requirements. The focus is mainly on four major aspects of *takāful* capital requirements: *takāful*-specific regulation, policyholders' protections, surplus sharing and distribution, and the priority of policyholders. The paper also recognises that different levels of regulatory development are a challenge to the development of the *takāful* industry, and emphasises the need for RSAs to address related issues through setting up appropriate guidelines for the efficient operation of *takāful* undertakings and the protection of policyholders.



WP-09: WORKING PAPER ON CONSUMER PROTECTION IN THE TAKĀFUL INDUSTRY (January 2019)

The conduct of business of providers and intermediaries of insurance products (including *takāful*) in relation to consumers is a matter of widespread regulatory attention. This paper examines issues relating to the likelihood of unfair treatment of customers in the *takāful* industry. It describes the rationale for, nature and implementation of consumer protection regulation from a conceptual perspective. Empirical evidence is also provided from the literature and from a survey conducted to collect information on regulatory measures currently applied to the business conduct of *takāful* operators (TOs) and intermediaries. The survey covered RSAs with responsibility for *takāful* from 11 jurisdictions. The views and practices of 29 TOs from four jurisdictions were also surveyed. Based on the analysis and discussion, areas for potential development of IFSB standards are identified, and examples provided in the annexure of practices that could be recommended in such standards.



WP-10 RISK SHARING IN ISLAMIC BANKING (May 2019)

A trend analysis based on extant related data indicates a continuing limited use of the risk-sharing contracts in Islamic banking across jurisdictions. There are also concerns about the application of such risk-sharing financial transactions, which in some instances have consequential peculiar risks, as well as governance and regulatory issues for the unrestricted investment account holders (UIAH). A questionnaire survey was sent to IFSB member organisations, to which 68 Islamic banks and 14 RSAs from various IFSB jurisdictions responded. Results obtained provide evidence of the limited use of profit-sharing contracts for financing purpose in the IFSI, as well as of the prevalent governance practices relating to the rights of the UIAH in various member jurisdictions. This research is a prelude to a proposed IFSB future forthcoming research on cross-country analysis of the practice of profit-sharing investment accounts which aims to promote good practices and suggestions to monitor the peculiar risks of risk-sharing contracts in Islamic finance.



WP-11: INVESTIGATING INTER-SECTORAL LINKAGES IN ISLAMIC FINANCIAL SERVICES INDUSTRY (May 2019)

This working paper derives from the notion that notwithstanding the importance of the financial soundness of each of the sectors making up the Islamic financial system, sustainable systemic stability depends on a comprehensive understanding of the complex interactions and interdependencies among and between these sectors. Based on the limited data extracted from the IFSB PSIFIs database, a maximum entropy algorithm was used to create an intersectoral bilateral exposure upon which an intersectoral analysis of the links between the financial and non-financial sectors was carried out in four IFSB jurisdictions. The paper provides strong arguments for the imperatives of having requisite Islamic financial sector data on a granular basis that provide an indicative picture of both interconnectivity as well as vulnerabilities within the IFSI in order to guide a macroprudential policy framework.



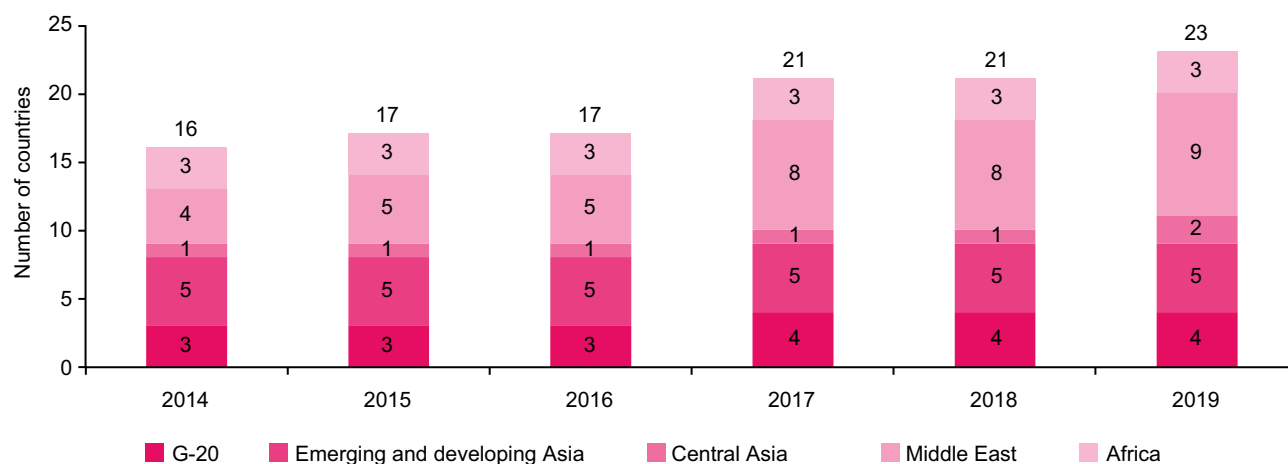
2.3.3 PSIFIs database: A repository of global Islamic finance data

While the Global Financial Crisis has highlighted the need for data availability which could help measure the soundness of the financial sectors from micro- and macroprudential perspectives for both conventional and Islamic financial systems, IFSI stakeholders have reiterated the need for a well-developed global database on Islamic finance to track the progress of the industry and review its risks and vulnerabilities. In response, in April 2015, the IFSB launched its *Prudential and Structural Indicators for Islamic Financial Institutions (PSIFIs) Database*. The database was mandated by Article 4 of the IFSB Articles of Agreement.

Development of the PSIFIs Database

The PSIFIs database covers aggregated data of Islamic banking institutions at the country level, compiled by RSAs of the participating countries. Separate data are provided on stand-alone Islamic banks and Islamic windows of conventional banks in those jurisdictions where they are available. The PSIFIs statistics currently cover macro-level data on the Islamic banking sector collected directly from RSAs of 21 IFSB member countries.⁶⁸ Apart from four G20 members (Indonesia, Saudi Arabia, Turkey and the United Kingdom), the countries include five from emerging and developing Asia (Bangladesh, Brunei Darussalam, Iran, Malaysia and Pakistan), two from Central Asia (Afghanistan and Kazakhstan), nine from the Middle East (Bahrain, Jordan, Kuwait, Lebanon, Libya, Oman, Palestine, Qatar and United Arab Emirates), and three from Africa (Egypt, Nigeria and Sudan). Most of these countries have a significant share of Islamic finance in their jurisdictions, with 12 countries (Bahrain, Bangladesh, Brunei, Djibouti, Iran, Jordan, Kuwait, Malaysia, Saudi Arabia, Sudan and the UAE) where the Islamic banking sector is considered systemically important on the basis of having 15% or more market share of Islamic banking assets in their domestic banking sectors. Overall, the PSIFIs member countries collectively hold more than 95% of global Islamic banking assets at the end of the second quarter of 2018. The trend in participation of countries in the PSIFIs project by year and by region is shown in Chart 2.3.3.1.

Chart 2.3.3.1 PSIFIs Database Participants by Year and by Region (2014–19)



Source: IFSB Secretary Workings

⁶⁸ Two more jurisdictions (Kazakhstan and Libya) joined the project in January 2019, bringing the total number to 23.

The IFSB developed its project on PSIFIs in several different phases with an ultimate objective to document the structural development and soundness of Islamic finance. With the launch of Phase IV of the project in January 2017, the IFSB initiated work to expand the project to the Islamic capital market and *takāful* sectors (Figure 2.3.3.1). Following completion of the background work, including undertaking a survey to understand data needs and preparing compilation methodologies for these new sectors, the IFSB has invited RSAs to join the working groups for these new sectors, and plans to start collecting data from participating RSAs in 2019. In parallel, the IFSB is also working closely with PSIFIs member countries to enhance reporting of current PSIFIs data on the Islamic banking sector, particularly sectoral information in the additional indicators.

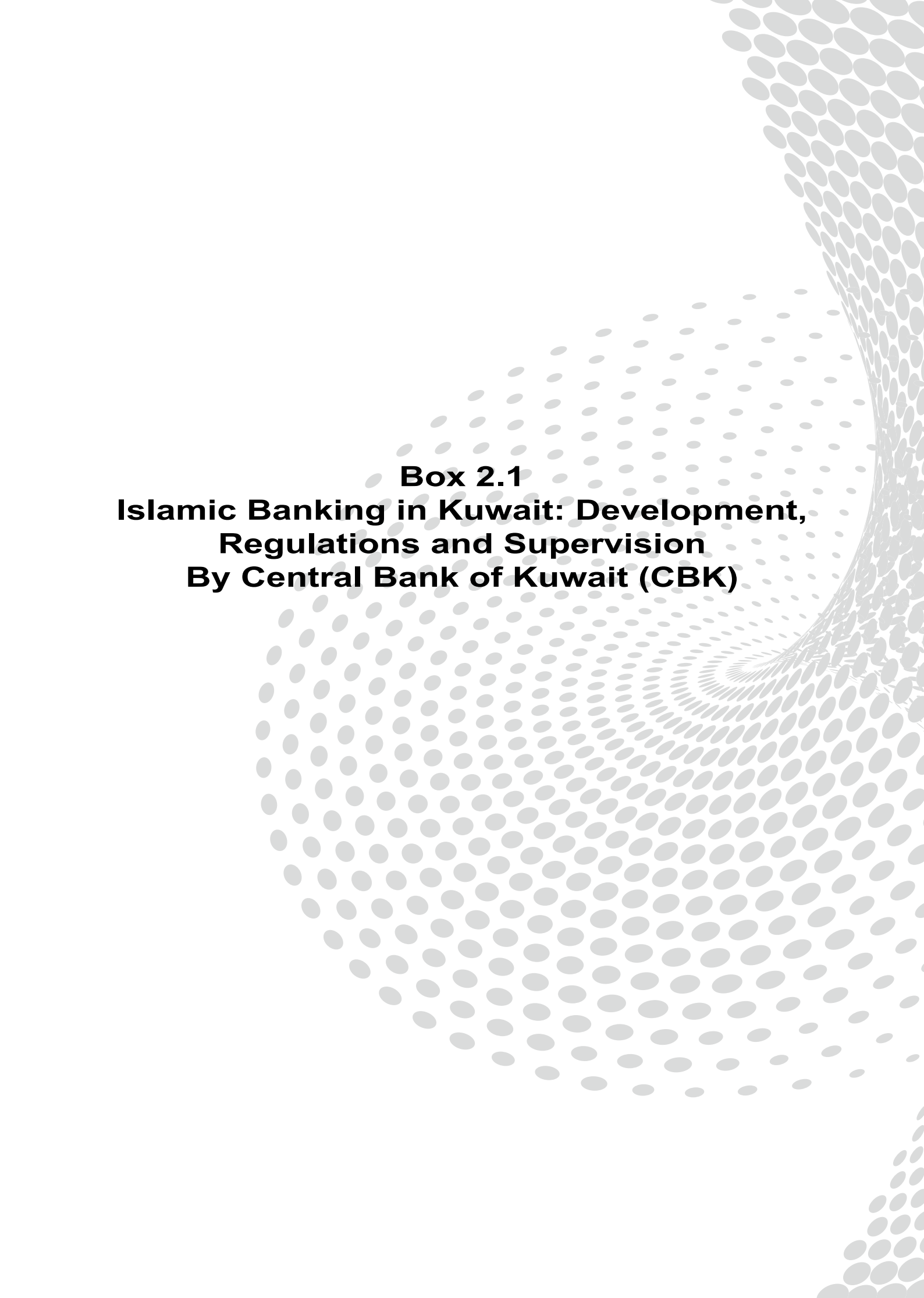
Figure 2.3.3.1 Steps Forward for the PSIFI Project



The Utilisation of the PSIFIs Database

The PSIFIs database provides useful inputs to a broader surveillance framework, and can be used alongside other relevant indicators of economic and financial positions of a jurisdiction. Supervisory authorities can conduct macro-level stress tests using PSIFIs data on capital adequacy, asset quality, profitability, liquidity, and exposure to risks to understand vulnerability to shocks and capacity to absorb the resulting losses. The IFSB's *IFSI Stability Reports* complement the PSIFIs database, by incorporating analytical analyses on the strengths and vulnerabilities of the global IFSI, and using the PSIFIs data to calculate different performance indicators of the Islamic banking sector.

It is worth noting that the standardised indicators of PSIFIs have been developed in such a way as to allow cross-country comparison of Islamic banking sectors. Parallel indicators also enable comparison between the Islamic banking sector and the conventional banking sector within a jurisdiction.

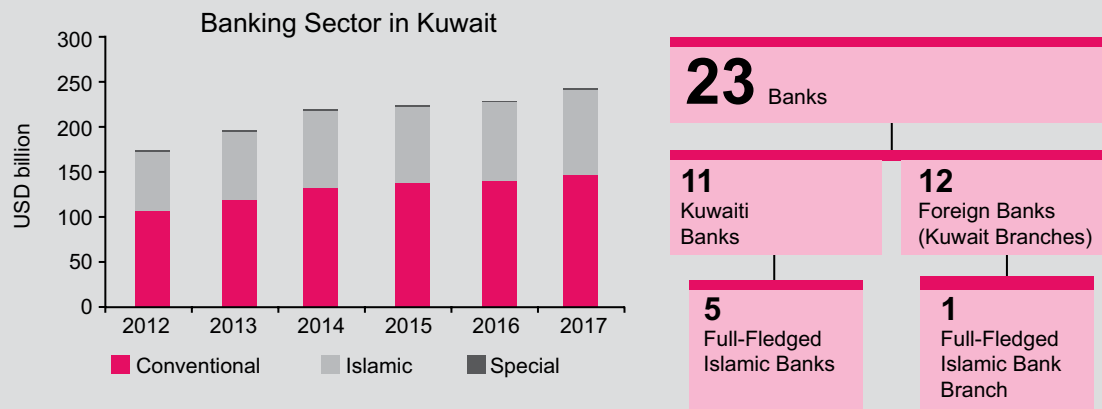
A decorative background consisting of a tunnel-like structure formed by concentric, slightly offset rings of grey dots. The dots are arranged in a way that creates a strong sense of depth and perspective, drawing the eye towards the center of the tunnel. The dots are of varying sizes and are set against a white background.

Box 2.1
**Islamic Banking in Kuwait: Development,
Regulations and Supervision**
By Central Bank of Kuwait (CBK)

Introduction – Overview of Financial System and CBK’s Role in Islamic Finance

Kuwait’s financial system continues to remain bank-centric, with the banking sector accounting for around 88% of the domestic financial sector. Kuwait operates a dual system where Islamic and conventional financial institutions co-exist. The banking sector is the most developed part of the Islamic finance industry and consists of full-fledged Islamic banks only, as Islamic windows are not permitted in the jurisdiction by the CBK (Figure 1). Other segments of the Islamic finance industry include investment companies, investment funds, insurance (*takāful*), and reinsurance (*retakāful*) companies. The *shukūk* market has remained small and has been dominated by corporates issuing outside Kuwait due to substantial fiscal surpluses in the past decade and the limited legal framework for issuance.

Figure 1



Source: Central Bank of Kuwait

As a regulator, the CBK governs Kuwait’s domestic banks, foreign banks operating in the country, as well as finance and exchange companies. For the banking system, both conventional and Islamic system are operated under the Banking Law No. 32 of the year 1968, *Concerning Currency, the Central Bank of Kuwait and the Organization of the Banking System*. With respect to Islamic banks, a specific chapter has been introduced in Law 32 in the year 2003 which covers the Islamic banks’ establishment and operations. The Law defines Islamic banks as Sharī’ah-compliant banks, providing services through instruments and structures such as *murābahah*, *mushārahah* and *muḍārahah*. The Law requires each Islamic bank to form an independent Sharī’ah Supervisory Board (SSB) for Sharī’ah compliance. So successful were these rules that two of Kuwait’s conventional banks opted to become fully Sharī’ah-compliant, while two more Islamic banks were created from scratch.

Kuwait’s Islamic banking industry has grown rapidly to become an important part of the domestic and global Islamic financial system. The first Islamic bank, Kuwait Finance House (KFH), began operations in 1978. At end-2018, five of the 11 locally registered commercial banks and one of the 12 branches of foreign banks have been conducting business in accordance with Sharī’ah. Market share (in terms of total assets) of Islamic banks has increased rapidly between 2005 and 2017 and has stabilised at around 40%. This 40% share in the consolidated banking system represents one of the most significant presences of Islamic banking in any country across the globe with a dual banking system. This underscores the effectiveness of CBK’s endeavours in ensuring a level playing field for both types of banks (Figure 1).

Internationally, Kuwait has played a pivotal role in the establishment of numerous international institutions. For instance, Kuwait is a founding member of the IFSB, which began operations in March 2003. Kuwait’s pivotal role within the IFSB continues. The CBK is a member of the IFSB’s Technical Committee, and in 2008 CBK’s Governor was IFSB Chairman and returned to the role again in 2018. The CBK is also a founding member of International Islamic Liquidity Management Corporation (IILM), which was established in 2010 to introduce and facilitate effective cross-border Sharī’ah-compliant liquidity management solutions. The CBK’s Governor is the current Chairman of the IILM’s Board Executive Committee.

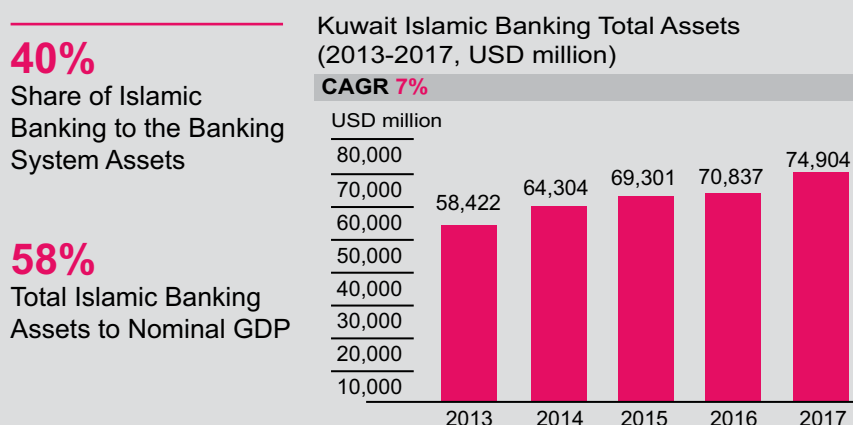
Islamic Banking Sector Performance and Structure

Balance Sheet Composition and Key Players

The assets of Kuwait's Islamic banks are mainly debt-based instruments; thus, their risk profile has broad similarities with those of conventional banks. Financing items, which are concentrated in real estate, personal financing and inter-bank placements, account for about 60% of the total assets of Islamic banks. Most transactions are in the form of *murābahah*, followed by *ijārah* transactions. The contribution of *mushārakah* and *muḍārabah* contracts are negligible in the balance sheets. Investment activities are relatively moderate. Off-balance-sheet commitments, which represent 10–20% of Islamic banks' assets, include letters of credit, acceptances and guarantees.

Islamic banking assets grew at a CAGR of 6.7% from 2013 to 2017, with USD 50.7 billion in financing assets as of 2017, accounting for 40% of the domestic market. Islamic banks held 40% – or USD 63.1 billion – of Kuwait's total deposits accounts in 2017 (Figure 2). Kuwait's Islamic banking sector includes D-SIBs with complex conglomerate structures. The largest Islamic bank in Kuwait accounts for around 23% of the total banking system assets, and over 51% of the Islamic banking assets, and has substantial cross-sector and cross-border operations. The other Islamic banks also have subsidiaries or associate companies with significant equity in financial and non-financial corporate subsidiaries.

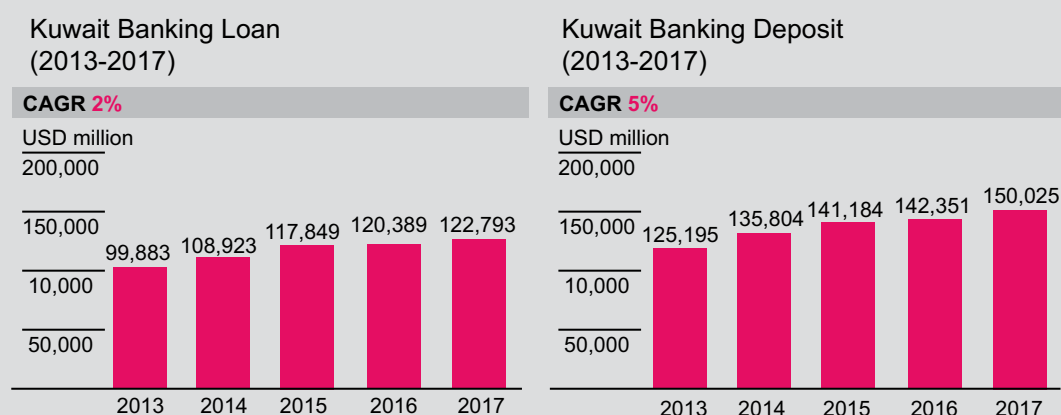
Figure 2



Source: Central Bank of Kuwait

The growth in consolidated banking system deposits picked up in 2017, increasing by 7%, compared to much slower growth of 2.4% recorded a year earlier (Figure 3). Deposits both within Kuwait and abroad enjoyed healthy growth, increasing by 6.6% and 8.8%, respectively (Figure 3). Overall, loans achieved a CAGR of 2% from 2013 to 2017, reaching USD 122.8 billion in 2018 yet this lending has been responsibly deployed. Non-performing loans (NPLs) fell to a historic low of 1.6% in 2017, compared with 12.1% in 2009, which has been made possible by the banks' strenuous efforts in line with CBK's instructions and through its active engagement.

Figure 3



Source: Central Bank of Kuwait

The Islamic banking players are as follows:

- ◆ Kuwait Finance House (KFH) was established in 1977. KFH is the world's third-largest Islamic bank by assets, with operations in seven countries including Bahrain, Germany, Malaysia, Saudi Arabia and Turkey. It has a 51% share of Kuwait's Islamic banking assets as of 2017.
- ◆ Ahli United Bank was founded in 1941, then converted to an Islamic bank in 2010. By 2017 it had a 17% share of Kuwait's Islamic banking assets.
- ◆ Boubyan Bank, which is majority-owned by National Bank of Kuwait, was founded in 2003 and is now Kuwait's number three Islamic bank by assets.
- ◆ Kuwait International Bank, another bank that converted to a full-fledged Islamic bank, has a 45-year record of accomplishments and holds 8% of Kuwait's Shari'ah compliant bank assets.
- ◆ Warba Bank is another Islamic bank established in 2010. By 2017 it had accumulated 8% of Kuwait's Islamic banking assets.
- ◆ Al Rajhi Bank (Kuwait) is a foreign branch of Saudi Arabia's Al Rajhi Bank, the world's biggest Islamic bank. It launched operations in Kuwait in 2010.

Financial and Regulatory Ratios

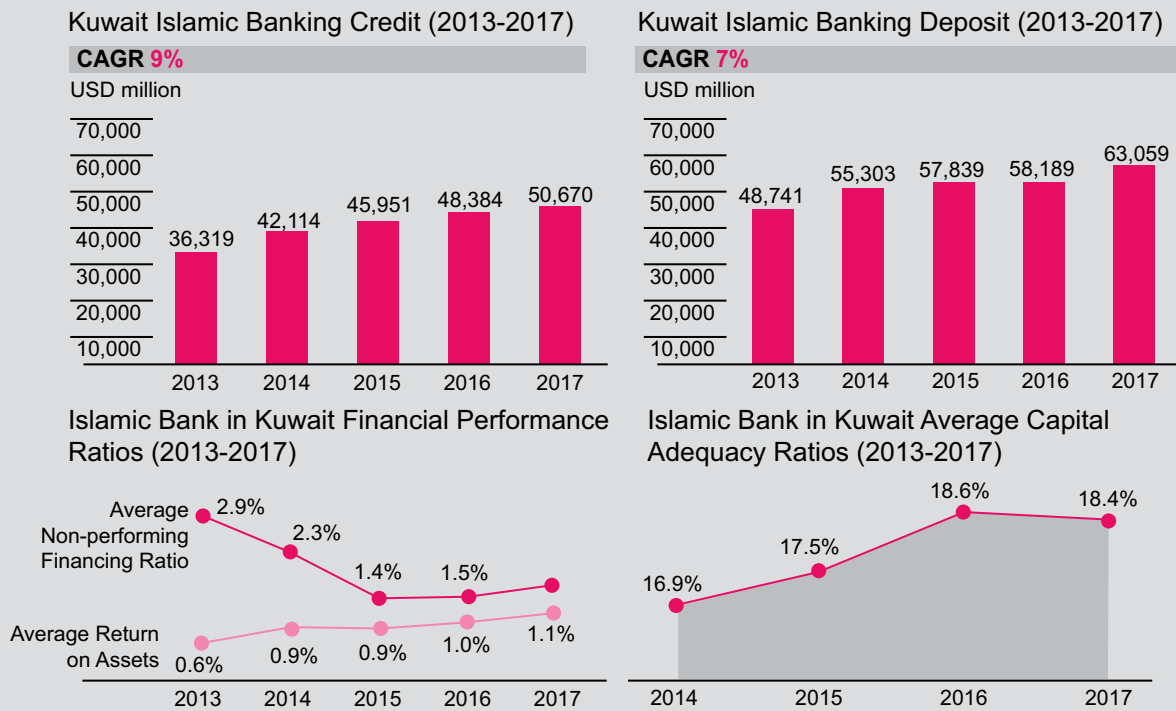
The industry metrics show that Kuwait's Islamic banks are strong, safe and solvent. The following summarises the key matrix indicators:

Financial Indicators

- ◆ **Credit Growth:** Islamic banks are writing more financings than ever before. Combined, the country's five Islamic banks had provided borrowers with financings worth USD 50.7 billion as of the end of 2017, up from USD 48.4 billion a year earlier. CBK data show that in 2017 income from financings accounted for 86.0% of banking sector income. Financing to retail clients generated 61.9% of profit income, with the remainder derived from corporate borrowing. Profit income growth is also accelerating, achieving a 10% increase in 2017 versus 9% in 2016 (Figure 4).
- ◆ **NPF:** Islamic banks have also been successful in expanding without deterioration of their asset quality. (The number of non-performing financings has tumbled since 2013.) The gross NPLR, on a consolidated basis, has further dropped to a historically low level of 2.2% (compared to 1.9% for conventional banks) as of December 2017 (Figure 4).
- ◆ **Deposits:** The total deposits amounted to USD 63.1 billion, including proportion due to banks and other financial institutions. More Kuwaitis are choosing to keep their cash savings at the country's Islamic banks, which saw private and governmental deposits reaching a record high of USD 51.5 billion at the end of 2017, up 6.7% from a year earlier (Figure 4).
- ◆ **Total revenues and efficiency were** USD 2.6 billion in 2017, from USD 1.7 billion in 2013, while return on assets averaged 1.05% in 2017, up from 0.60% in 2013. The Islamic banks in Kuwait have diversified revenue streams. A wide spectrum of banking activities provides 60% of income, such as property purchases and sales, leasing and trading. The remaining 40% is largely derived from treasury and investment activities. Real estate, personal financing and inter-bank financing provide about 60% of Islamic banks' total assets. The majority of transactions are *murabahah*, that represent 46% of the total financing portfolio, while *tawarruq* is the second most popular transaction type that represent 30% of the financing portfolio.

On the other hand, banks' net income, on consolidated basis, grew by 8.9% in 2017, at a relatively stronger pace compared to 5.8% growth recorded in 2016. Both return on assets as well as on equity inched up as growth in net income outpaced the growth in assets and equity. Efficiency of the banking sector improved further as their cost to income ratio declined to 38.8%, though conventional banks continued to remain, on average, more cost efficient than their Islamic counterparts.

Figure 4

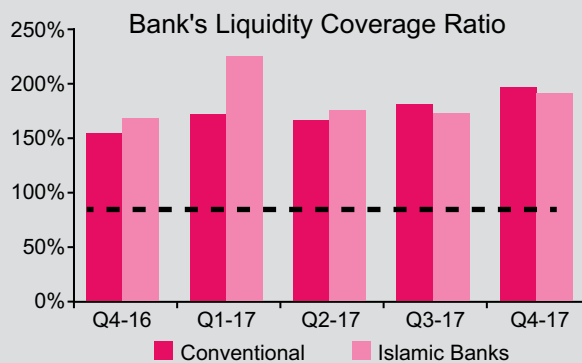


Source: Central Bank of Kuwait

Regulatory Indicators

- ◆ The CBK has set a minimum **capital adequacy ratio (CAR)** — which measures bank capital and is used to protect deposits and support sector stability — of 13% for the country’s banks. Among Islamic banks, the average was 18.2% in 2017 (Figure 4). The CBK applies 0.5 alpha in the CAR for Islamic banks.
- ◆ **Banks’ leverage ratio** was 10.2% for all banks in 2017. CBK data shows the leverage ratio as significantly exceeding the 3% minimum suggested by the Basel Committee and the IFSB. This indicates banks’ strong capacity to extend credit without the risk of breaching the leverage ratio.
- ◆ Banks’ healthy liquidity levels are also evident from their **Liquidity Coverage Ratios (LCR)**, which range from 160% to 345% and their **Net Stable Funding Ratios (NSFR)**, which range from 97% to 121%. While CBK has been monitoring the LCR during 2015, the regulation has been phased in from 2016 at 70% and will be gradually increased to reach 100% by 2019. As evident from the data available for 2017, both conventional and Islamic banks are well above the 80% benchmark (for 2017) or even ultimate benchmark of 100% due in 2019 (Figure 5). While the LCR of Islamic banks was somewhat higher in the first two quarters of 2017 when compared with conventional banks, the trend has reversed during the second half of 2017.

Figure 5



Source: Central Bank of Kuwait

The Regulatory and Supervisory Framework

The CBK regulates and supervises Islamic and conventional banks. In light of the special nature of Islamic banks, a Law was issued in 2003 that provides explicit recognition of Islamic banks' practices and products and gives the CBK the required legal underpinnings for establishing prudent regulatory and supervisory policies and controls for Islamic banks in our jurisdiction, consistent with relevant international standards.

To ensure a level playing field, Islamic banks are subject to the same prudential regulations as conventional banks, with some modifications to reflect the unique aspects of Islamic finance as per the IFSB standards. The CBK continues to adopt and implement the IFSB standards, taking into account the local circumstances. The following summarises the CBK's regulatory and supervisory approach for Islamic banks in the jurisdiction:

- ◆ To ensure consistent supervisory approaches, the CBK has prepared a comprehensive regulatory and supervisory manual for Islamic banks, **containing a detailed set of policies, standards, controls and instructions**. Moreover, the CBK has ensured that the recent regulatory reforms are consistent with, and drawn from, the prudential framework of the BCBS and the IFSB, to provide level playing fields in the industry. For instance, among others, Basel III **regulatory reforms such as capital, leverage and LCR and NSFR** have been issued separately for conventional banks and Islamic banks after extensive dialogue with local and international stakeholders.
- ◆ In June 2014, the CBK instructed banks, including Islamic banks, operating in the jurisdiction to comply with the Basel III requirements for banks to maintain a minimum CAR ratio of 13%. Later that year, banks were also instructed to maintain a minimum **leverage ratio of 3%**, also setting a LCR to ensure banks possess sufficient high-quality liquid assets if they face a sudden liquidity squeeze. In October 2015, banks were required to **meet the NSFR ratio** to meet the global liquidity standards.
- ◆ The CBK also introduced **bank stress testing in 2008**, enhancing these procedures in 2014. Banks, including Islamic banks, must conduct bi-annual constrained-bottom up stress testing and an Internal Capital Adequacy Assessment Process (ICAAP). The results are then analysed by the CBK to gauge the resilience of individual banks against potential shocks, as well as the broader sector.
- ◆ To ensure an effective and robust Sharī'ah-compliance culture at the Islamic banks, the **Sharī'ah Governance instructions** were issued in December 2016. The issuance of these instructions was in line with the continuing efforts exerted by the CBK to promote Islamic banking activities in the State of Kuwait and, accordingly, to develop Sharī'ah supervisory regulations for Islamic banks as per applicable best practices. The aforesaid instructions replace the CBK's instructions regarding "*Rules and Conditions for the Appointment and Responsibilities of the Sharī'ah Supervisory Board in Islamic Banks*" issued on June 15th and June 19th, 2003 and complement the instructions related to "*Rules & Standards of Corporate Governance in Kuwaiti Banks*" issued in 2012. The new instructions provide a comprehensive framework, clearly outlining the duties and responsibilities of the Sharī'ah Supervisory Board, Internal Sharī'ah Audit, and External Sharī'ah Audit.
- ◆ **Sharī'ah-compliant** liquidity management instruments such as reverse commodity *murābahah (tawarruq)* continue to be strengthened to provide equal investment opportunities to Islamic banks in their day-to-day operations. Moreover, to ensure availability of liquidity to Islamic banks in times of stress, the CBK have also put in place a Sharī'ah-compliant lender-of-last-resort (LOLR) facility mechanism for Islamic banks.
- ◆ In terms of supervisory approach for Islamic banks, the CBK applies the combination of micro-prudential (such as CAMEL-BCOM method, OSS, ICAAP, Stress Testing) and macro-prudential measures. In particular, for macro-prudential framework, **forward-looking loan loss provisioning** introduced in 2007 has contributed to smooth credit supply over the business cycle. Other broad based tools for banks including Islamic banks include counter cycle capital buffers, capital conservation buffers and leverage ratio. Similarly, for **household sector** tools such as the caps on loan to income (LTI) and DSTI prompted the interdiction of targeted cap on loan-to value (LTV) ratio.

Conclusion

Kuwait's experience underscores the important role of an enabling regulatory framework in facilitating the growth and stability of Islamic banking. The CBK is keen to continue its intensive efforts to provide the necessary environment to further the development of Islamic banking in Kuwait. In this respect, the CBK's banking regulations and supervisory processes will continue to be aligned with the latest Basel III and IFSB regulatory reforms.



3.0 ASSESSMENT OF THE RESILIENCE OF THE ISLAMIC FINANCIAL SYSTEM

3.1 INTRODUCTION

The last decade or so following the Global Financial Crisis has witnessed concerted efforts by regulatory and supervisory authorities as well as international standard-setting organisations to come up with policy measures and guidelines that not only strengthen the resilience of the financial system but also mitigate hidden vulnerabilities that may trigger systemic risks. In the case of the IFSI, the IFSB has been at the vanguard, not only developing prudential standards and Technical/ Guidance Notes peculiar to the IFSI, but also complementing the work of the conventional standard-setting organisations.

Despite the pervasiveness of the effect of the GFC, the effectiveness of the various prudential regulations seems commendable as global financial stability seems to have been generally proven. The outlook for the financial system appears generally accommodative, and with notable expansion noted in various segments of the financial ecosystem. The IFSI, for instance, has recorded year-on-year improvements in its various stability indicators as a show of its resilience and has also attained a global worth of over USD 2 trillion. Nonetheless, there are new challenges developing – from escalating trade tensions, volatility in the price of oil and commodities, economic slowdown and foreign exchange shortage and exposure, to regional political impasses, uncertainties surrounding

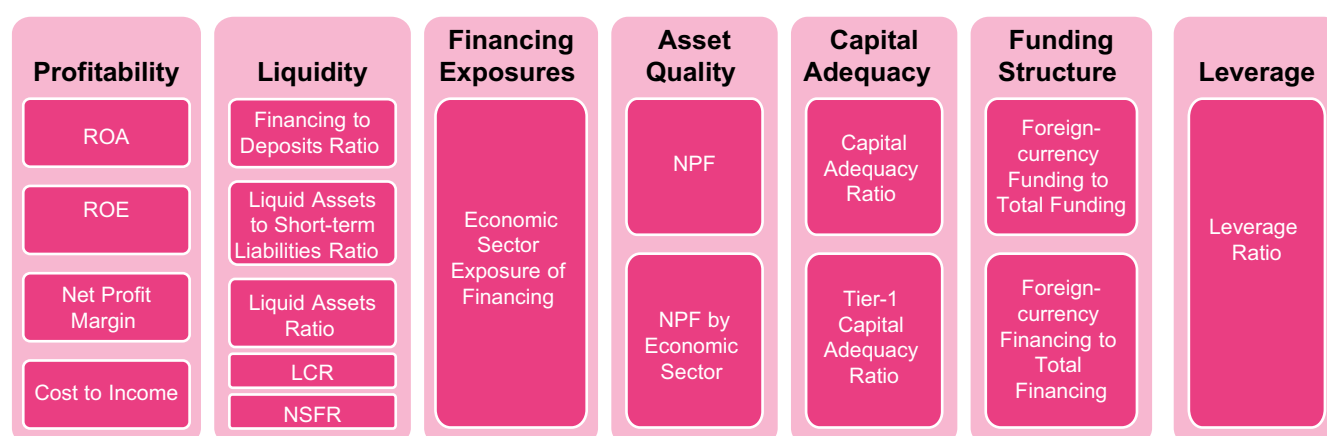
Brexit, cybersecurity threats, advancements in financial technology, increased systemic risks due to financial interlinkages, and economic sanctions, among many other challenges. While these issues are not peculiar, they either in isolation or in composite affect a number of jurisdictions where Islamic finance is prominent.

This chapter focuses on the resilience of the IFSI, with specific attention paid to each of the three sectors. A number of prudential and structural indicators are used in the analysis of the stability and resilience of the various sectors, and plausible reasons for the outcomes and their likely implications are explained.

3.2 ISLAMIC BANKING: ASSESSMENT OF RESILIENCE⁶⁹

This section examines the resilience aspects of Islamic banking for the period 2Q17 to 2Q18, and in certain cases for the period 4Q16 to 4Q17 where comparisons are made to the conventional banking sector in each jurisdiction. Resilience in this report is assessed by utilising key profitability, liquidity, asset quality, capital adequacy and leverage indicators, as well as Islamic banking exposures to foreign currency (in both funding and financing) and certain economic sectors, such as real estate and households. Figure 3.2.1 highlights the key ratios and indicators used throughout this section.

Figure 3.2.1 Key Indicators for the Assessment of Islamic Banking Resilience

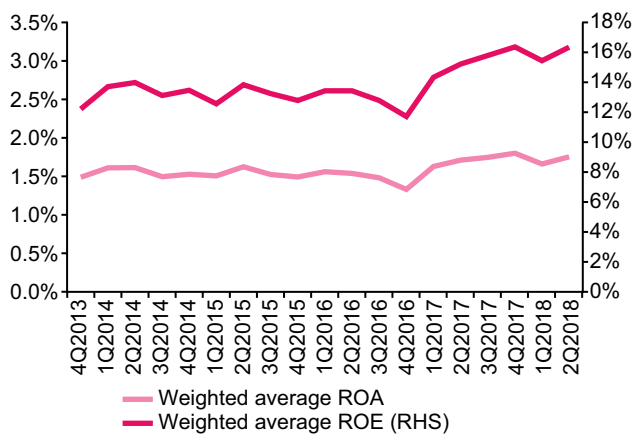


⁶⁹ Differences may be observed in the figures contained in this section and those reported in IFSI Stability reports of previous years. Such differences arise from backdated inclusion of data from new jurisdictions in this year's report, as well as revisions of previously reported data in PSIFs by certain jurisdictions.

3.2.1 Profitability

Average return on assets (ROA) and return on equity (ROE) for stand-alone Islamic banks⁷⁰ stood at 1.8% (2016: 1.3%) and 16.3% (2016: 11.7%), respectively, in 2017, higher than their moving averages⁷¹ (1.6% and 13.6%, respectively) and representing their highest level during the analysis period. These levels were largely sustained in 2Q18 (see Chart 3.2.1.1), and compared favourably to banks in the United States and the European Union, whose returns on equity in the same period were 11.9% and 7.2%, respectively.

Chart 3.2.1.1 Global Islamic Banking Weighted Average ROA and ROE (4Q13–2Q18)⁷²



Source: PSIFIs, IFSB Secretariat Workings

With the exception of Qatar, Islamic banks in the GCC have all improved their profitability indicators in 2017 after improved economic conditions and a relative oil price recovery as the OPEC basket price rose from USD 45.36 at end-June 2017 to USD 75.68 by end-June 2018. The UAE, for instance, experienced higher real GDP growth for the non-oil sector, supported by a rise in non-hydrocarbon exports and leading to a positive external position in 2017⁷³. Geopolitical tensions may have affected Qatari Islamic banks, but only to a limited extent, as they saw minor declines in their 2017 profitability indicators, with ROA going from 1.8% to 1.7%, and ROE from 16.9% to 16.7% – a trend similar to that of their conventional counterparts. Meanwhile, following two years of economic headwinds,

GDP contraction, sovereign rating downgrade and OPEC-agreed output cuts to oil production in 2017, the economy of the Sultanate of Oman was bolstered by a rebound in oil prices in the second half of 2017 that contributed significantly to a reported growth in nominal GDP in the same year and a positive outlook for 2018.⁷⁴ Omani Islamic banks were buoyed by the 2017 economic recovery, moving their average ROA (0.5%) and ROE (2.9%) into positive territory for the first time since the establishment of Islamic banking in the Sultanate in December 2012 as Islamic banks there gradually mature, develop operational efficiencies and transform their asset composition towards more profitable instruments. Naturally, these levels are still behind those of the overall Omani banking sector (Islamic and conventional), which reported an average ROA of 1.5% and an average ROE of 9.9% at the end of 2017. Net profit margin and cost to income ratios have also reflected the profit-generating capacities of Oman's Islamic banks, with the former sustaining its second consecutive year of positive figures to stand at 28.6% in 2017 (see Chart 3.2.1.4), and the latter registering at 63.7% (see Chart 3.2.1.5), and improving even further in the first half of 2018.

Saudi Arabia also saw its Islamic banks improve their ROA and ROE in 2017 to 2.4% and 15.3%, respectively, levels that increased even further in the first half of 2018 (ROA 2.5%, ROE 16.6%), representing a rebound from 2016 (ROA: 2%; ROE: 13.4%) when the Kingdom's banks experienced increased funding cost as the government cut back on its spending and withdrew some of its deposits in order to control a widening national budget deficit. Liquidity pressures appear to have eased in 2017, normalising funding expenses which, relative to 2016, saw a sharp decline, and boosting profitability indicators for Saudi Islamic banks. Similar to Saudi Arabia, profitability figures for UAE Islamic banks rebounded just as NPF levels declined, with 2Q18 ROA at 1.7% (2Q17: 1.6%) and ROE at 14% (2Q17: 12.9%).

Egypt (41%) and Sudan (48%) reported the highest ROE numbers in the sample at end-2017. Inflation in Sudan may have contributed to the unusually high profit numbers, as the Central Bank of Sudan depreciated the Sudanese Pound by 74.2% in early 2018, with average ROE soaring to 129% and net profit margin to 73% in 1Q18. The cost-to-income ratio has also dipped to a low of 20.4% in the same quarter as income increased.

⁷⁰ "Stand-alone Islamic banks" refers to full-fledged Islamic banks and Islamic subsidiaries of conventional banks, but excludes Islamic windows of conventional banks.

⁷¹ The moving average was calculated using quarterly data between 4Q13 and 4Q17, reflecting the time period for which data are available in the PSIFIs database to facilitate the calculation.

⁷² Total assets used as weight (denominator) for weighted average ROA calculation exclude off-balance sheet items. This calculation is based on data from 21 jurisdictions contributing to the IFSB's PSIFIs database (excluding Egypt and Iran, due to data limitations, and Afghanistan, which had no full-fledged Islamic banks until 2Q18). Calculations of weighted average ROA and ROE exclude data of Islamic windows. Data for Palestine were included from 4Q16, and for the UK from 4Q17.

⁷³ Central Bank of the UAE, *Financial Stability Report 2017*.

⁷⁴ IMF, *World Economic Outlook*, October 2018.

ASSESSMENT OF THE RESILIENCE OF THE ISLAMIC FINANCIAL SYSTEM

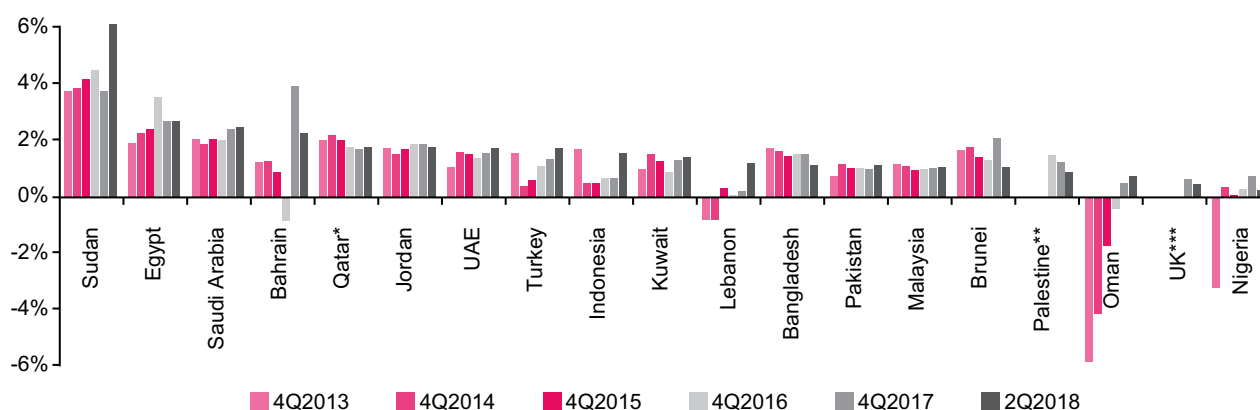
The Indonesian Islamic banking sector's profitability still lags behind that of its conventional counterpart, stagnating at 0.7% ROA at end-2016 and 2017, although the quarters in between recorded higher returns. ROE followed the same pattern, remaining virtually unchanged at 6.6% by 2017 year-end but reporting as high as 12.1% ROE in 2Q17 and 3Q17. Malaysia's Islamic banks have shown consistent stability in ROA figures, although appearing to generate slightly less profits out of their assets than their conventional counterparts, recording either 1% or 1.1% ROA in each of the 16 quarters between 2Q14 and 2Q18, while ROE average has remained close to its historical average (since 2013: 15.3%) at 15.1%. The overall Malaysian banking system reported an average ROA of 1.5% and ROE of 13%.

Following four years of recession, Brunei's economy showed signs of recovery, turning a -2.5% GDP growth rate in 2016 into 1.3% growth in 2017 spurred by the oil and gas sector and enabling Islamic banks there to maintain a positive average ROA at 2.7% in 2017, with ROE increasing to 15.9% from 9.4% a year earlier (see Charts 3.2.1.2 and 3.2.1.3). However, this recovery was short-lived, as the Bruneian economy recorded a -2.8% real GDP growth to 2Q18 (y-o-y) with both ROA and ROE figures dropping to 1.1% and 10%, respectively, while cost-to-income numbers rose to over 51% for the first time since 2013.

Prior to a rebound in 2Q18, ROA of Pakistan's Islamic banking institutions remained virtually unchanged between 2016 and 2017 at 1%. While ROE saw a decline for both Islamic banks and the overall Pakistani banking system in 2016 it remained unchanged in 2017 owing to increased operational expenses and technology-based initiatives for enhancing financial outreach.⁷⁵ In Bangladesh, and in spite of increased NPL rates in its banking sector, Islamic banks were able to maintain their average ROA unchanged at 1.5% between 2016 and 2017, which then declined slightly to 1.2%, albeit still higher than the overall ROA rate in the country (0.3%) and those calculated for private banks (including Islamic banks) (0.57%). ROE trends there were not too different, increasing in 2017 from 25.6% to 28.6% and then declining to 20.5% by 2Q18 while still maintaining their superior performance over private banks (8.2%) and the overall banking system (4.4%).

Islamic banks in Turkey appear to be benefiting marginally from a general improvement in asset quality underpinned by rapid credit growth, with ROA and ROE increasing by 0.6% and 8.6% from 2016 levels to stand at 1.4% and 21.1%, respectively. (The corresponding overall banking sector figures in Turkey in 4Q17 were 2% and 16%.)

Chart 3.2.1.2 Islamic Banking Average ROA by Country (4Q13–2Q18)[^]



[^] Excludes Islamic windows.

* Includes IFSB Secretariat's workings until 4Q15.

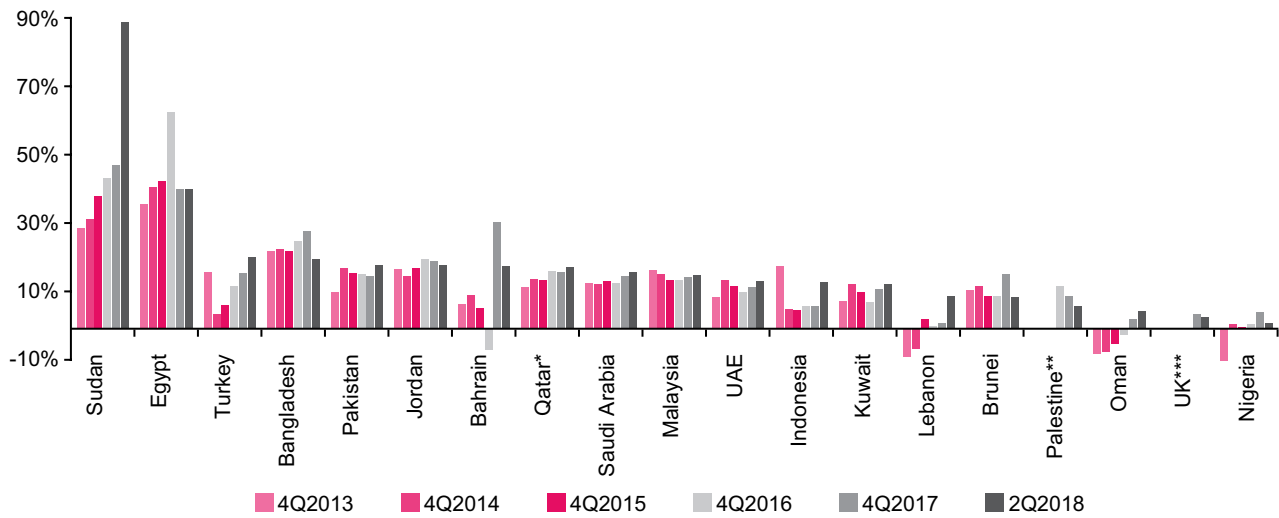
** Data available from 4Q16.

*** Data available from 4Q17.

Source: PSIFIs, IFSB Secretariat Workings

⁷⁵ State Bank of Pakistan, *Financial Stability Review 2017*.

Chart 3.2.1.3 Islamic Banking Average ROE by Country (4Q13–2Q18)[^]



[^] Excludes Islamic windows.

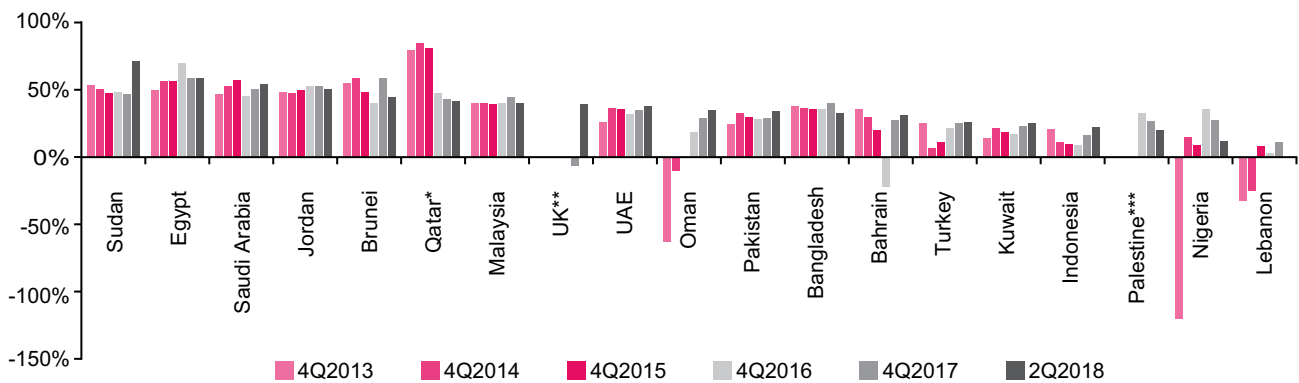
* Includes IFSB Secretariat's Working until 4Q15.

** Data available from 4Q16.

*** Data available from 4Q17.

Source: PSIFIs, IFSB Secretariat Workings

Chart 3.2.1.4 Islamic Banking Net Profit Margin by Country (4Q13–2Q18)⁷⁶



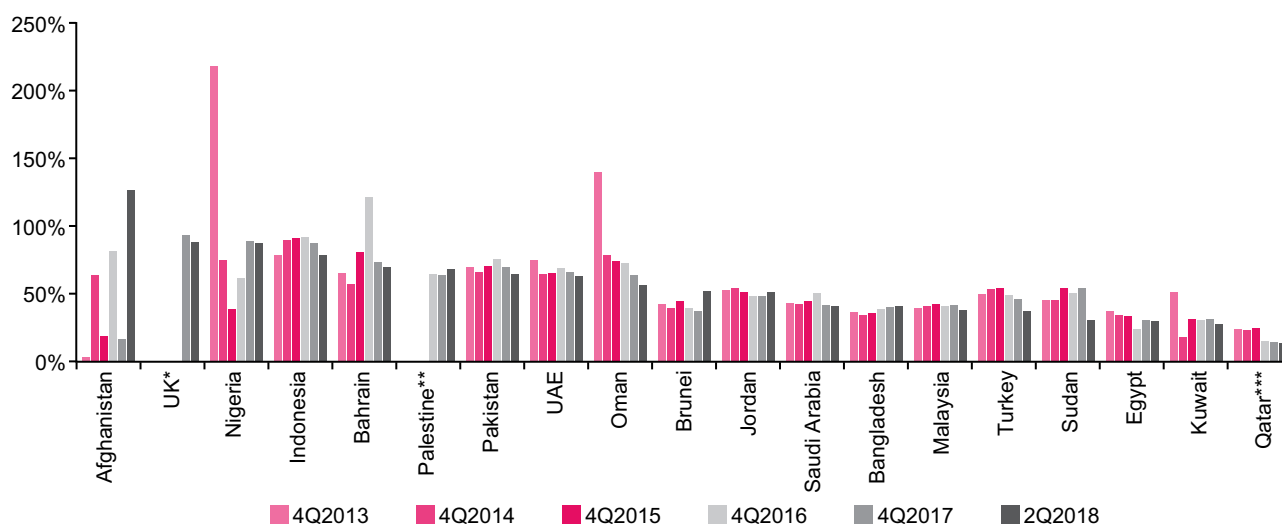
* Includes IFSB Secretariat's Working until 4Q15.

** Data available from 4Q17.

*** Data available from 4Q16.

Source: PSIFIs, IFSB Secretariat Workings

⁷⁶ Net profit margin = net income (before extraordinary items, taxes and zakāh/gross income).

Chart 3.2.1.5 Islamic Banking Cost-to-Income by Country (4Q13–2Q18)⁷⁷

* Data available from 4Q17. ** Data available from 4Q16. *** Includes IFSB Secretariat's Working until 4Q15.

Source: PSIFIs, IFSB Secretariat Workings

3.2.2 Liquidity

Liquidity continues to be a concern among several jurisdictions with Islamic banking assets, with some jurisdictions maintaining large amounts of liquidity due to the lack of Shari'ah-compliant avenues for liquidity management, and others facing liquidity shortages due to macroeconomic pressures, runaway inflation rates and negative economic outlooks that lead to increased deposit withdrawals.

In the absence of implementation of the latest liquidity measures (liquidity coverage ratio and net stable funding ratio) by the majority of jurisdictions included in PSIFIs, this stability report continues to perform country-specific analysis of the financing-to-deposits ratio,⁷⁸ alongside LCR and NSFR where available. One jurisdiction, Oman had an FDR ratio above 100% in 2Q18 (104.2%).

The UK's Islamic banking FDR rose steadily from 89.4% at 4Q17 to 98.6% in 2Q18 levels, after financing sustained its growth trends and exceeding those of deposits. The liquid assets ratio for the UK was the third-lowest (after Iran's and Indonesia's) among the sample countries (see Chart 3.2.2.1), and Islamic banking liquid assets to short-term liabilities ratio was at 20.1% (see Chart 3.2.2.2). Nevertheless, the UK has already implemented the latest regulatory standards on liquidity, with both LCR (256%) and NSFR (128.2%) reported by Islamic banks there

being comfortably above regulatory requirements as at 2Q18 and capable of providing buffer against any negative implications arising from the UK's planned exit from the EU in 2019 (see Charts 3.2.2.3 and 3.2.2.4).

In the GCC, and with the exception of 1Q18, Omani Islamic banks and windows have consistently recorded an overall FDR above 100% as they continue to seek avenues to boost profitability while relying on deposits and other funding sources, such as capital and interbank funding, to cover the gap and to meet credit demand. The Omani Islamic banking sector appears to have a sufficient buffer to manage short-term liquidity, with LCR above regulatory requirements (125%), however, it may not have sufficient stable funding as its NSFR levels were below the required 100% in 2Q18. In neighbouring Saudi Arabia, the LCR for Saudi Islamic banks was recorded at 155% in 2Q18, while the average FDR and liquidity ratio of Saudi Islamic banks registered minor improvements in 2Q18, standing at 86.5% (2Q17: 90.3%) and 27.9% (2Q17: 26.6%), respectively. 2Q18 saw deposits in Saudi Arabia's Islamic banks climb to their highest level throughout our observation period, exceeding the previous high recorded in 2Q15 after dipping in 2016 as government entities moved their funds from the banking system to newly issued government bonds. This contributed to a relative improvement in liquidity indicators for the Kingdom's Islamic banks and windows in 2Q18.

⁷⁷ Cost to income = operating costs / gross income.

⁷⁸ FDR is a widely used ratio that assesses the ability of financial institutions to support unforeseen needs. Deposits for the purposes of FDR calculation include unrestricted profit-sharing investment accounts, remunerative funding (*murābahah*, commodity *murābahah*), non-remunerative funding (current accounts, *wadī'ah* accounts) and exclude interbank funding.

On the back of a slowdown in financing and sustained funding conditions, the liquidity position of the Islamic banking sector in the UAE appeared to improve slightly, with all liquidity indicators tracked by this report increasing from 2Q17 to 2Q18. Qatar, meanwhile, saw a decline in Islamic banks' liquidity indicators due to non-resident deposit withdrawals following regional political tensions in 2Q17. Nevertheless, Qatari Islamic banks appear to have stabilised their liquidity positions to some extent by 2Q18, utilising public sector deposits to cover existing gaps and relying more on longer-term funding modes, leading to a liquid assets ratio of 35.7% (2Q17: 31.3%; overall Qatari banking section in 2017: 28.2%) and liquid assets covering 64.8% of short-term liabilities (2Q17: 55.4%; overall Qatari banking section in 2017: 54.2%). LCR reported by Qatari Islamic banks showed a similar pattern with a drop in 2Q17 and a rebound to around its historical levels by 2Q18, while always being above the minimum regulatory requirements. Average NSFR was reported at 99% by Qatari Islamic banks with the required minimum set by Qatar Central Bank at 100% from 2018.

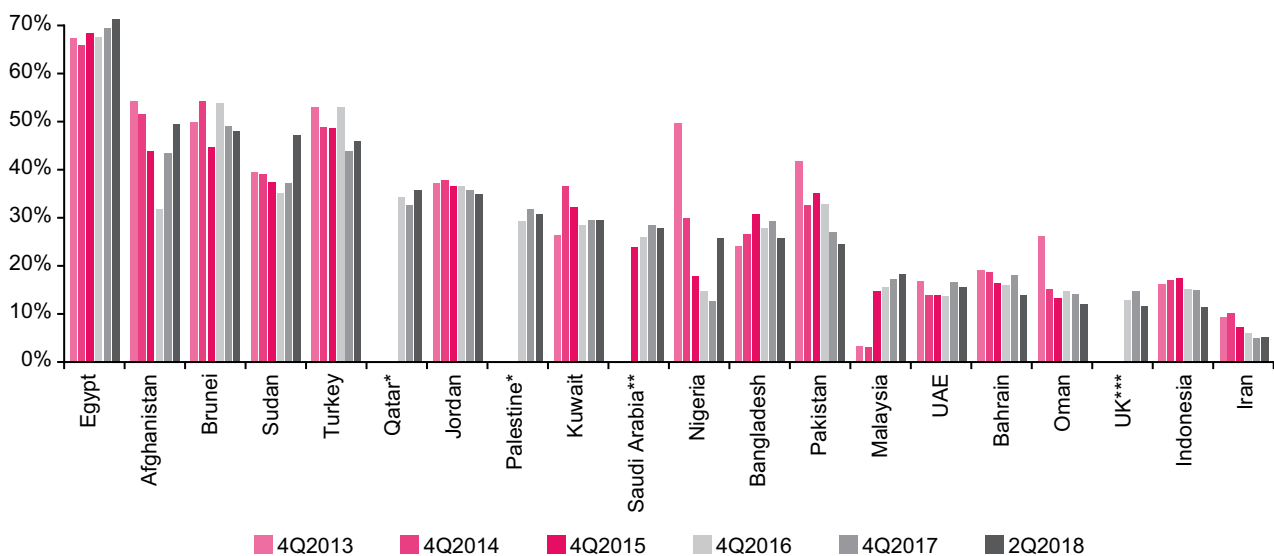
The Pakistani full-fledged Islamic banks continue to maintain liquidity ratios above the 100% mark since their reporting began in 2017 with LCR (114%) and NSFR (138%) in 2Q18. FDR there continued its gradual rise throughout the analysis period to stand at 65.1% in 2Q18, up from 56.8% a year earlier, and 33.8% in 2013, alongside a reduced liquid assets to total assets ratio and liquid assets to short-term liabilities ratio. However, Islamic banks in Pakistan have traditionally held large amount of liquidity due to the lack of Shari'ah-compliant avenues for investment, and the State Bank of Pakistan (SBP) continues its *shukūk* issuance on

behalf of Government of Pakistan. This effort and other initiatives by the SBP have assisted Islamic banks in Pakistan to effectively manage their liquidity. Bangladesh Islamic banks and windows, on the other hand, reported their highest FDR throughout the analysis period in 2Q18, at 98.8% (2Q17: 96.3%), and their liquid assets ratio dropped to 25.8% (2Q17: 28.7%) on the back of accelerating credit growth. While still above the 100% requirement, the LCR in Bangladesh's Islamic banks showed a declining trend between 2015 and 2017, but has since been stable around 110–115%, while the NSFR has been maintained around the 110-115% range since 2015.

Malaysia's Islamic banking sector maintained an FDR of 96.9% in 2Q18, slightly higher than a year earlier (95.3%) and nearly 9% up from the 2013 levels, at a time when deposits in the South-East Asian country continue to grow supported by higher volume of business deposits and profitability. Indonesian Islamic banks continued a trend of declining FDR, now at 86.5%, nearly 4% lower than a year earlier and down from 99% in 2013.

Meanwhile, the average LCR for Turkish Islamic banks is now at 183%, up from 159% in 2Q17, while FDR has been relatively stable over the year to 2Q18 as banks have been able to attract deposits to match rapid growth in credit demand, leading to a marginal increase in FDR from 83.7% to 84%, but showing a marked decline when compared with the 2013 levels (97.7%). Afghanistan, Lebanon and Nigeria all reported Islamic FDR rates below 50% as Islamic banks, particularly in Nigeria and Afghanistan, are yet to effectively mobilise deposits and expand their financing network.

Chart 3.2.2.1 Islamic Banking Liquid Assets Ratio (4Q13–2Q18)⁷⁹



* Data available from 4Q16.

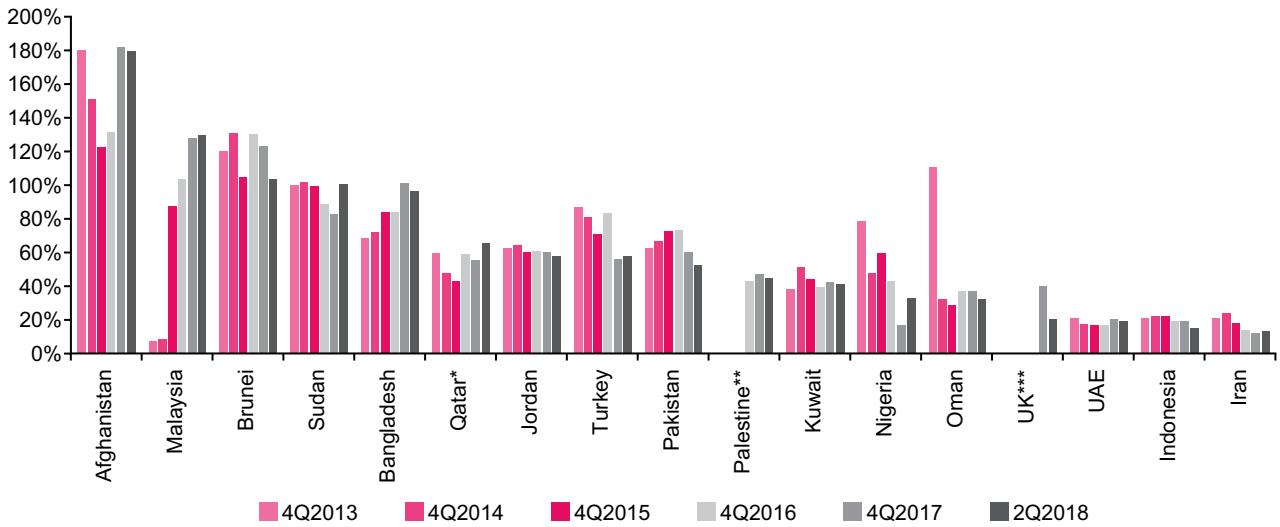
* Data available from 1Q15.

*** Data available for 4Q16, and 4Q17 onwards.

Source: PSIFIs, IFSB Secretariat Workings

⁷⁹ Liquid asset ratio = liquid assets / total assets. "Liquid assets" usually consist of assets maturing within one year (preferably on a remaining maturity basis), held either in cash or near-cash equivalents – that is, readily convertible into cash with little or no loss of value. An amount of broad liquidity assets may comprise: (i) currencies, (ii) deposits and other financial assets available on demand or within at most three months (including interbank position), and (iii) securities traded in liquid markets, readily convertible into cash, with insignificant risk of change in value under normal circumstances..

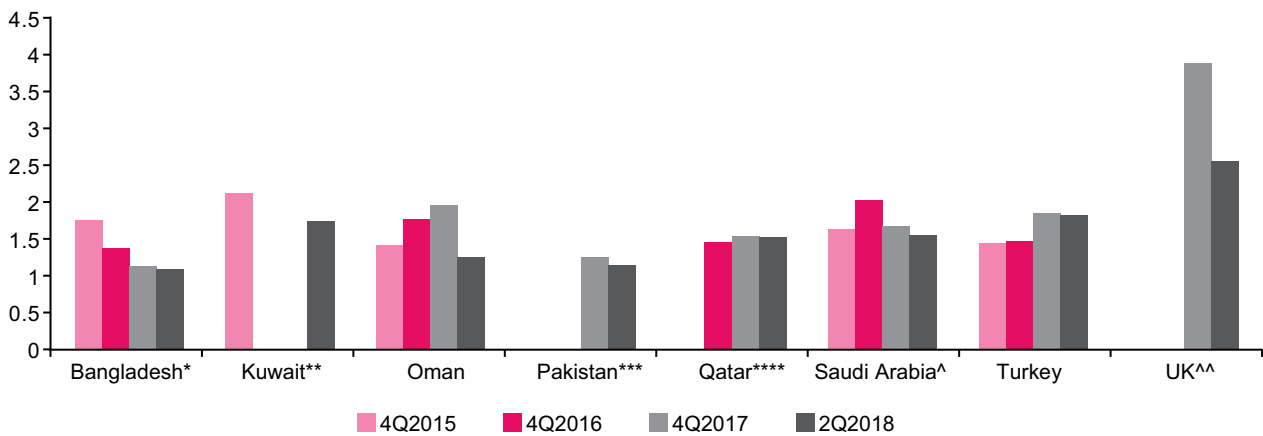
Chart 3.2.2.2 Islamic Banking Liquid Assets to Short-term Liabilities by Country (4Q13–2Q18)



* Includes the IFSB Secretariat’s Workings until 4Q15.
 ** Data available from 4Q16.
 *** Data available from 4Q17.

Source: PSIFIs IFSB Secretariat Workings

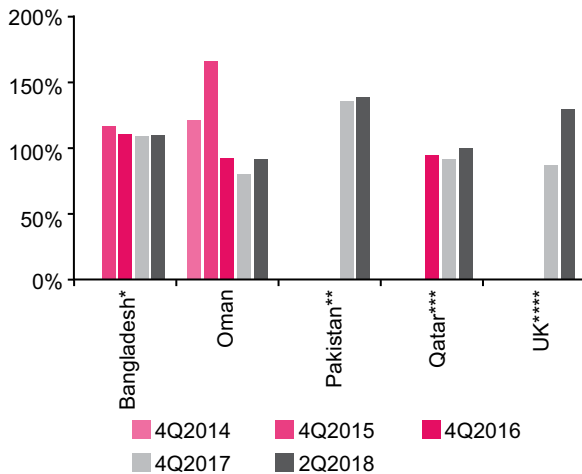
Chart 3.2.2.3 Liquidity Coverage Ratio for Stand-alone Islamic Banks by Country (4Q15–2Q18)



* Data available from 2Q15.
 ** Data available from 1Q15 to 2Q16, and for 2Q18.
 *** Data available from 1Q17.
 **** Data available from 4Q16.
 ^ Data available from 1Q15.
 ^^ Data available from 4Q17.

Source: PSIFIs

Chart 3.2.2.4 Net Stable Funding Ratio for Stand-alone Islamic Banks by Country (4Q14–2Q18)



* Data available from 2Q15.
 ** Data available from 1Q17.
 *** Data available from 4Q16.
 **** Data available from 4Q17.

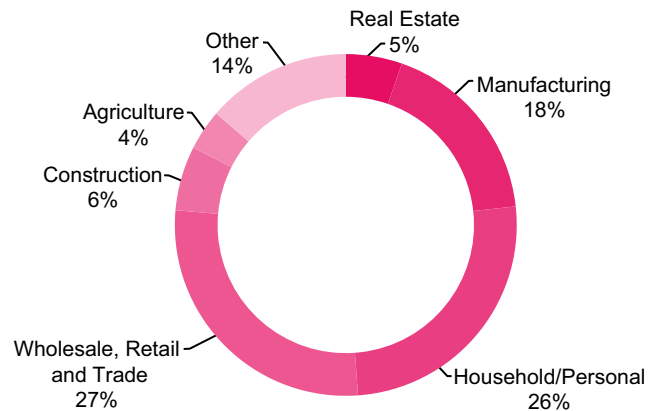
Source: PSIFIs

3.2.3 Financing exposures

Previous years' reports have shown Islamic financing as being concentrated in the household sector,⁸⁰ with about 42% of total financing. The sample for this year's report has been enhanced by the inclusion of financing data from Iran which, as the largest Islamic banking domicile globally, has shifted the weighted average Islamic financing concentration away from household and towards wholesale, and retail trade, which accounted for 27% of overall Islamic financing in 2Q18 (see Chart 3.2.3.1).⁸¹ This was followed by household at 26%, manufacturing at 18%, construction at 5% and real estate at 4%.

In Malaysia, where households received 58% of total Islamic financing, the highest level among sample countries on the back of favourable labour market conditions and continued income growth to support households' repayment capacity. High levels of household share of financing were also observed in Oman (44.8%) and Saudi Arabia (42.3%)

Chart 3.2.3.1 Weighted Average Concentration of Financing in Selected Economic Sectors (2Q18)⁸²



Source: PSIFIs, IFSB Secretariat Workings

Real estate and construction financing continues to play a major role in Bahrain, with a combined share of 32.9% of Islamic financing in the Kingdom at the end of 2Q18. A similar focus on real estate and construction was observed in Jordan (37.8%) and Kuwait (29.5%). The UAE's banking sector's (Islamic and conventional) exposure to real estate is on the rise, climbing by 18.1% in 2017 to constitute 19.9% of total loans as at year end.⁸³ The Emirates' Islamic banking sector's expansion of its exposure to real estate was more aggressive during the same period, increasing by 24.4% to account for 15.6% of total financing in 2017 and 15.5% in 2Q18.

In Brunei, the household sector's share of Islamic financing was on a declining trend between 2013 and 2Q15, dropping from 39.9% to 29.3%. Autoriti Monetari Brunei Darussalam (AMBD) issued several regulatory notices in 2015, which, among other things, provided flexibilities to banks to increase their portfolio of unsecured personal financing facilities to 40% (from 30%) of total credit facilities, and to set a higher limit on the amount of unsecured personal financing relative to net monthly salary. These measures spurred growth into the household financing sector, whose share rose steadily from 3Q15 to stand at 40.2% of total financing as at the end of 2017.

⁸⁰ Further analysis on NPF by economic sector is included in the "asset quality" section.

⁸¹ It should be noted that the sectoral composition of financing varies greatly between countries and regions, and the weighted average may not reflect a balanced view of global economic sector exposures for Islamic banking.

⁸² Weighted average concentration of financing is based on data from Bangladesh, Brunei, Indonesia, Iran, Jordan, Malaysia, Oman, Saudi Arabia and the UK.

⁸³ Central Bank of the UAE, *Financial Stability Report 2017*.

Islamic banks in the UK allocated, on aggregate, 77% of their financing to the real estate sector (see Chart 3.2.3.2), making it the jurisdiction with the highest concentration of any given sector among sample countries. The impact of Brexit on asset prices and GDP growth remains to be seen and is possibly dependent on the nature of the arrangement agreed between the EU and the UK for the latter's exit. S&P predicts house prices could fall by as much as 10% by the year 2020 in a no-deal Brexit scenario,⁸⁴ resulting in a possible slide in asset quality, although this may be cushioned by strong capitalisation of UK Islamic banks.⁸⁵

Chart 3.2.3.2 Islamic Banking Sectoral Composition of Financing by Country (2Q18)⁸⁶



Source: PSIFIs

3.2.4 Asset quality

The Islamic banking industry continues to enhance the quality of its assets, with data between 4Q13 and 2Q18 showing a consistent improvement in measures of asset quality of Islamic banks and windows, registering an average NPF ratio of 4.9% as at 2Q18, down from 5.6% a year earlier (see Chart 3.2.4.1). In spite of this improvement, and as reported in previous IFSI stability reports, the Islamic banking sector's NPF is still higher than those of banks in the EU (3.6%)⁸⁷ and the US (1%),⁸⁸ and than the world average (2017: 3.4%),⁸⁹ possibly due to elevated currency, economic and geopolitical risks in some emerging markets that are home to a large proportion of Islamic banking activities worldwide. The highest NPF figure in the sample was reported by Islamic banks in Lebanon, which more than tripled its 2013 levels to stand at 12.5% in 2Q18, whereas Egypt, Indonesia, Pakistan and the UAE registered overall improvements in asset quality during the year to 2Q18 (see Chart 3.2.4.2).

Despite the lifting of US economic sanctions on the Sudan in October 2017, which was expected to ease foreign currency shortage and cross-border economic activity for the north-east African country, Sudanese banks continued to face significant economic pressures, including a reported recession in 2018 with real GDP contraction of 2.33%,⁹⁰ an inflation rate exceeding 63%⁹¹ as at 2Q18, a depreciating currency and a widening budget deficit. Nevertheless, the Sudanese banking sector maintained its average NPF rates below 5% throughout 2017 and the first half of 2018 as the Central Bank of Sudan attempts to implement policies aimed at stabilising prices and exchange rates. However, sustaining NPF rates at these levels would continue to be a significant challenge for Sudanese banks, as the economic downturn showed no signs of recovery in 2018, which could amplify any existing liquidity pressures and profitability indicators.

⁸⁴ S&P, "Countdown to Brexit: No Deal Moving Into Sight", 30 October 2018.

⁸⁵ Zawya, "Report Assessing the Implications of a No-Deal Brexit for Islamic Finance", 18 February 2019.

⁸⁶ Data are reported in the IFSB's PSIFIs database as submitted by the regulatory and supervisory authority of each respective jurisdiction.

⁸⁷ European Banking Authority, Risk Dashboard – data as of Q218.

⁸⁸ Federal Reserve Bank of St. Louis, Federal Reserve Economic Data.

⁸⁹ The World Bank, DataBank – World Development Indicators.

⁹⁰ IMF data: Middle East and Central Asia (October 2018).

⁹¹ Central Bank of Sudan, Economic & Financial Statistics Review - April-June 2018

NPF in Iran continues to be in the double digits at 11.4%, showing a 0.4% decline from a year earlier. Political developments have led to the re-imposition of certain economic sanctions on Iran in late 2018, with the Iranian Riyal continuing to depreciate against hard currencies, losing around 30% of its value against the US Dollar in the year to 2Q18 after less-than-anticipated foreign investment inflows. Official inflation rates were recorded at 15.9% in October 2018, rising to 20.6% by January 2019⁹² which could lead to elevated liquidity risks, and weaken asset quality with banks releasing more capital to absorb such losses.

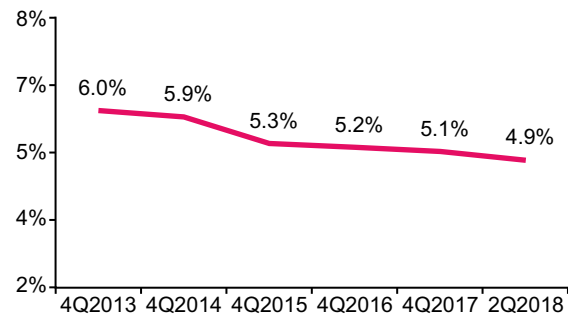
Meanwhile in Bahrain, and after dropping to 9.4% in 2Q17, NPF has returned to double digits, with 11.7% of financing classified as non-performing in 2Q18, an increase primarily attributed to the manufacturing and construction sectors. NPF rates in Oman continue to be the lowest among jurisdictions for which data were analysed in spite of showing an increase of 0.2% to stand at 0.6% in 2Q18. Saudi Arabia's Islamic banking NPF rates have been on an upward trend, although they remain low and without significant or alarming volatility, having increased from around 1% in 2Q17 to 1.2% in 2Q18, possibly as an after-effect of the 2016 liquidity squeeze. The UAE's NPF numbers are higher than those of Saudi Arabia and Oman, but on a declining trend, settling at 6.1% in 2Q18, down from 7.4% a year earlier (overall banking system in the UAE: 6.7%), and an all-time high of 10.8% in 1Q14 and reflecting a drop in the gross amount of non-performing financing throughout the analysis period.

Asset quality numbers for Qatar's Islamic banks continue to be among the lowest in the sample, similar to Saudi Arabia's and second only to Oman's, with an average NPF rate of 1.2%. It is notable, however, that this number appears to be on an upward trend since 4Q16, when it registered 0.6%, and 2Q17, when it was at 0.8%, with default rates from the retail sector in particular seeing a significant rise. Other countries in the region registered relatively stable NPF figures, including Jordan (2.8%), Palestine (1.7%) and Kuwait (2.2%).

Turkish Islamic banks have been able to reduce their average NPF ratio to 3.2% in 2Q18, which was among the lowest reported since 2013, supported by a rapid increase in financing base (both retail and corporate), debt restructuring and increased instalment caps, as well as positive economic growth and supportive macroprudential policies and incentives.

2Q18 marked the lowest NPF ratio recorded throughout the analysis period for Pakistan's Islamic banking sector, dropping to 2.7% from 3.7% in 2Q17 on the back of strong financing growth figures. NPF conditions in Bangladesh, on the other hand, were in stark contrast to those of Pakistan in 2Q18, as Islamic banks and windows there recorded their highest average NPF rate throughout the analysis period, at 5%, and up from 4.7% a year earlier. Bangladesh Bank continues to take measures – including loan classification, rescheduling and restructuring of certain state-owned banks – to contain a general upward trend in NPL rates in the overall Bangladeshi banking industry, where the average NPL rate stood at 10.4% in 2Q18 (including both private and government banks). Islamic banks in Bangladesh are all private, and the NPL rate for Bangladesh's private banks only was 6%.

Chart 3.2.4.1 Global Islamic Banking Average Gross Non-performing Financing to Total Financing (4Q13–2Q18)⁹³

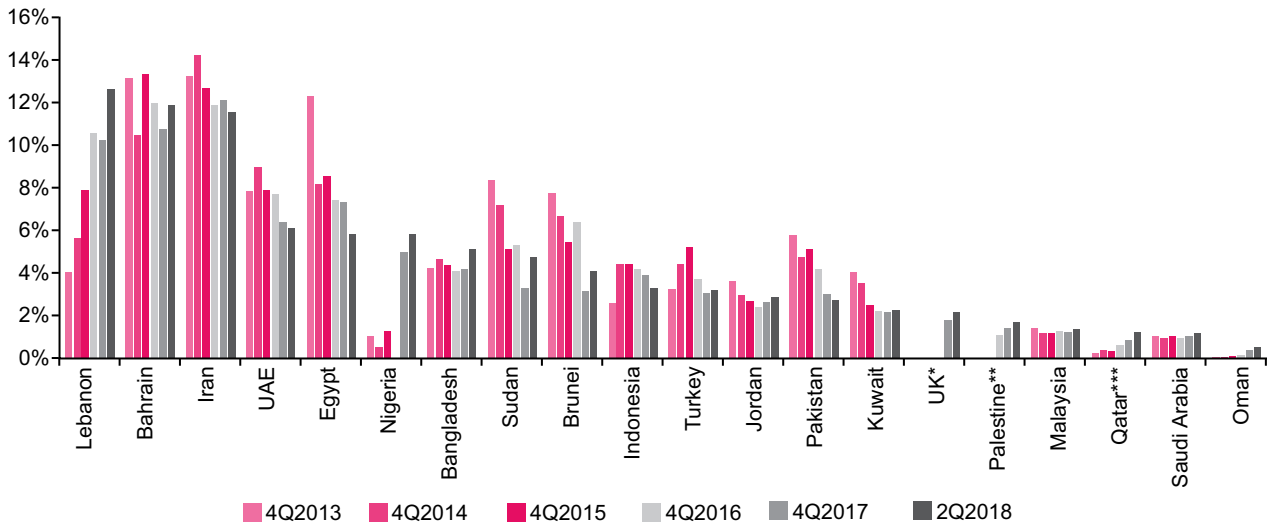


Source: PSIFIs, IFSB Secretariat Workings

⁹² *Tehran Times*, "Inflation rate at 20.6%", 22 January 2019.

⁹³ Average non-performing financing to total financing calculation is based on data from 21 jurisdictions contributing to the IFSB's PSIFIs database (excluding Afghanistan and Egypt, due to data limitations), with Palestine data included from 4Q16 and UK data from 4Q17.

Chart 3.2.4.2 Islamic Banking Average Gross Non-performing Financing to Total Financing by Country (4Q13–2Q18)



* Data available from 4Q17.

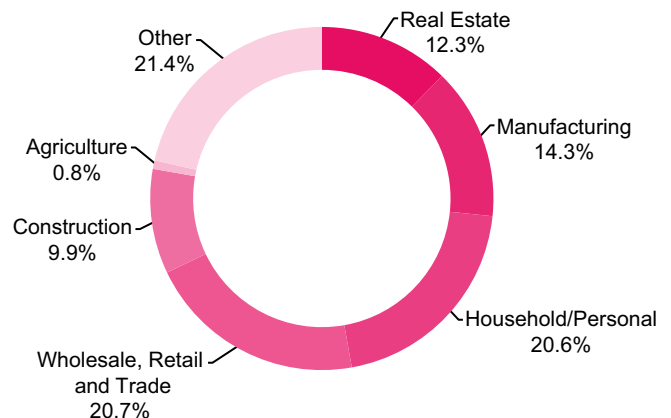
** Data available from 4Q16.

*** Includes the IFSB Secretariat's Workings until 4Q15.

Source: PSIFIs, IFSB Secretariat Workings

NPF data⁹⁴ (excluding Iran's)⁹⁵ highlight that wholesale and retail trade sector and the household segment as having the highest sectoral shares of NPF, and contributed to a combined 41.3% of total NPF as at 2Q18, followed by manufacturing (14.3%) and real estate (12.3%) (see Chart 3.2.4.3). Individual country comparisons between financing figures and NPF corroborate this picture. Households in all jurisdictions in the sample appear to have a lower share of NPF in comparison to their share of financing, with some of the largest gaps being in Brunei, Oman and Saudi Arabia. On the other hand, the wholesale, and retail trade sector accounts for a larger proportion of NPF than its financing in almost all jurisdictions in the sample, with particularly higher NPF rates in Bahrain, Brunei, Jordan and Oman. Data also show variations among jurisdictions in the quality of real estate and construction financing. For example, in Bangladesh, all sectoral NPF percentages appear to be relatively similar to their financing proportions, including construction (3.4% of total financing compared to 2.8% of total NPF) and real estate (6.2% of total financing, and 6.8% of total NPF). Jordan's Islamic banks have real estate and construction sectors' NPF contained within their share of financing, with both contributing lower NPF percentages than their respective financing proportions. Meanwhile, Bahrain's construction sector received 6% of total financing, but contributed 22.4% of total NPF in the country's Islamic banking sector. A similar trend was observed in Oman, where 40% of NPF was associated with construction in spite of receiving only 17.7% of financing. Chart 3.2.4.4 highlights NPF proportions for selected jurisdictions.

Chart 3.2.4.3 Global Islamic Banking Weighted Average Concentration of NPF in Selected Economic Sectors (2Q18)⁹⁶



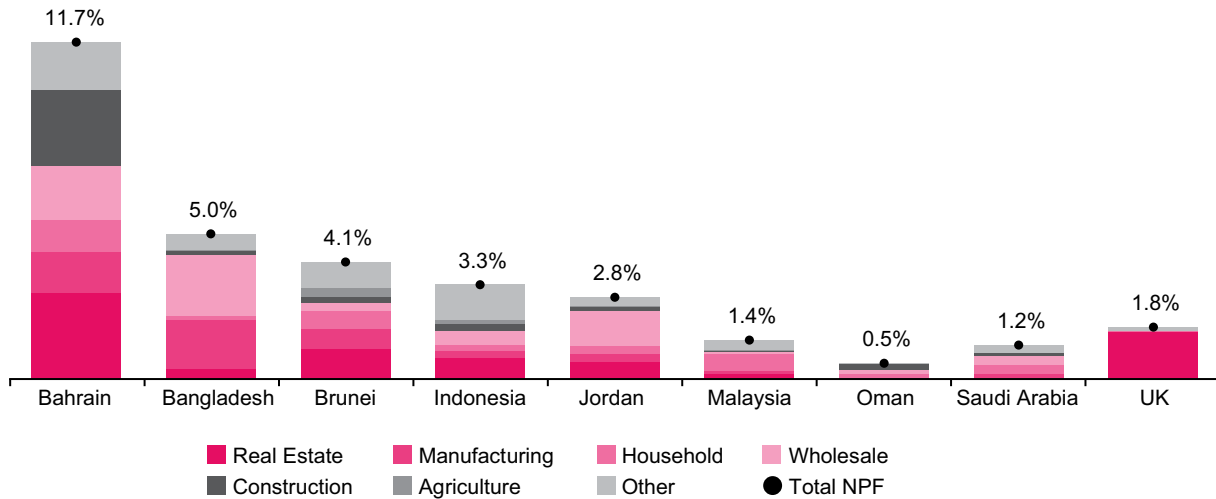
Source: PSIFIs, IFSB Secretariat Workings

⁹⁴ NPF ratio by sector = NPF amount in the sector / total NPF in the jurisdiction as at the end of the respective period.

⁹⁵ Comparisons between aggregate sectoral proportion of financing and aggregate sectoral proportion of NPF may not be possible with the current set of data, due to sample mismatch arising from the non-availability of Iran's sectoral NPF data. This report, therefore, utilises individual country comparisons of sectoral financing and NPF shares.

⁹⁶ Weighted average concentration of financing is based on data from Bangladesh, Brunei, Indonesia, Jordan, Malaysia, Oman, Saudi Arabia and the UK.

Chart 3.2.4.4 Islamic Banking Sectoral Composition of NPF by Country (2Q18)



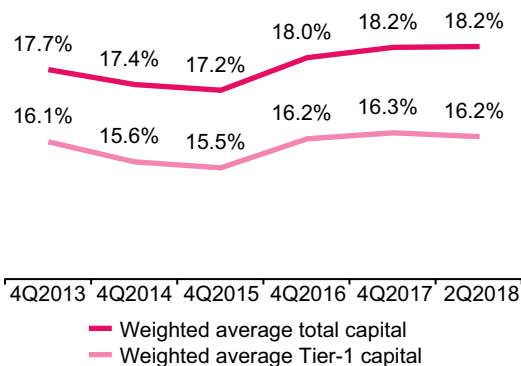
Source: PSIFIs

3.2.5 Regulatory capital

On average, total capital and Tier-1 capital adequacy ratios⁹⁷ across the Islamic banking industry declined to 12.3% and 10.7%, respectively, at end-2Q18, influenced primarily by the ongoing deterioration in capital adequacy ratios in Iran over the analysis period, with its total CAR dropping from 8.9% in 1Q14 to 4.6% in 2Q18 and Tier-1 capital declining from 4.9% to 3.4% in the same period. The decline in Iran's ratios explains the general declining trend of CARs for the Islamic banking industry – total and Tier-1 CARs would rise to 18.2% and 16.2%, respectively,⁹⁸ excluding Iran's data (see Chart 3.2.5.1). Recent political developments and the reintroduction of certain economic sanctions on Iran could lead to further uncertainty regarding the ability of its banks to keep their NPF levels down, re-enter the international banking scene and satisfy global regulatory standards, including capital requirements.

Omani Islamic banks were highly capitalised at inception, with an average capital adequacy ratio of 81.0% in 2013. Similarly, the only Nigerian Islamic bank had a 79.7% CAR as at end-2013. Growth in deposits and funding allowed Omani and Nigerian Islamic banks to improve fund mobilisation and enhance financing capacities to varying degrees. As at 2Q18, the Nigerian Islamic banking sector remains overcapitalised, with average CAR standing at 25%, suggesting less-than-optimal fund utilisation, whereas CAR of Omani Islamic banks reduced at a faster pace and was among the lowest in the sample, reaching an all-time low of 13.6% in 2Q18, 3.4% lower than end-2017. In addition to Nigeria, four other countries reported CARs above 20% in their Islamic banking sectors, namely Jordan (23%) Saudi Arabia (21.8%), UK (21.4%) and Indonesia (20.6%).

Chart 3.2.5.1 Global Islamic Banking Average Capital Adequacy Ratios (4Q13–2Q18)⁹⁹



Source: PSIFIs, IFSB Secretariat Workings

Saudi Arabian Islamic banks had, on average, a CAR of 21.8% in 2Q18 (overall Saudi banking sector: 20.9%), up from 21.2% a year earlier (overall Saudi banking sector: 19.2%) – an increase that can be linked to a virtually unchanged level of risk-weighted assets (RWAs) as banks increased their exposure to domestic sovereign instruments that carry zero risk weight, and the reduction of risk weight applicable to residential real estate to 75% from 100%. UAE Islamic banks also remained well-capitalised, increasing their average total CAR to 17.5% (2Q17: 16.7%) and common equity Tier-1 ratio to 16.3% (2Q17: 16%) supported by improved profits, retained earnings, and lower NPF rates, although these levels were slightly below those of the overall banking sector there. Bahrain's Islamic banks maintained relatively higher CARs compared to Qatar, Kuwait and the UAE, acting as a good buffer for their slightly elevated NPF rates.

⁹⁷ These ratios are calculated using the definitions prevailing for regulatory purposes in each jurisdiction. To the extent that these definitions change – for example, as a result of implementing new prudential regimes – this may lead to change in the ratios and affect the year-on-year comparisons.
⁹⁸ EU banks recorded an average CET1 ratio of 14.5% in 2Q18, with none of the banks in the sample having a ratio lower than 12%.
⁹⁹ Average CARs calculation excludes Iran and is based on data from 20 jurisdictions contributing to the IFSB's PSIFIs database (excluding Afghanistan, Egypt, Kuwait, Lebanon and Pakistan, due to data limitations). Qatar and Palestine's data are available from 4Q16, and UK data are available for 4Q16 and 4Q17 onwards.

ASSESSMENT OF THE RESILIENCE OF THE ISLAMIC FINANCIAL SYSTEM

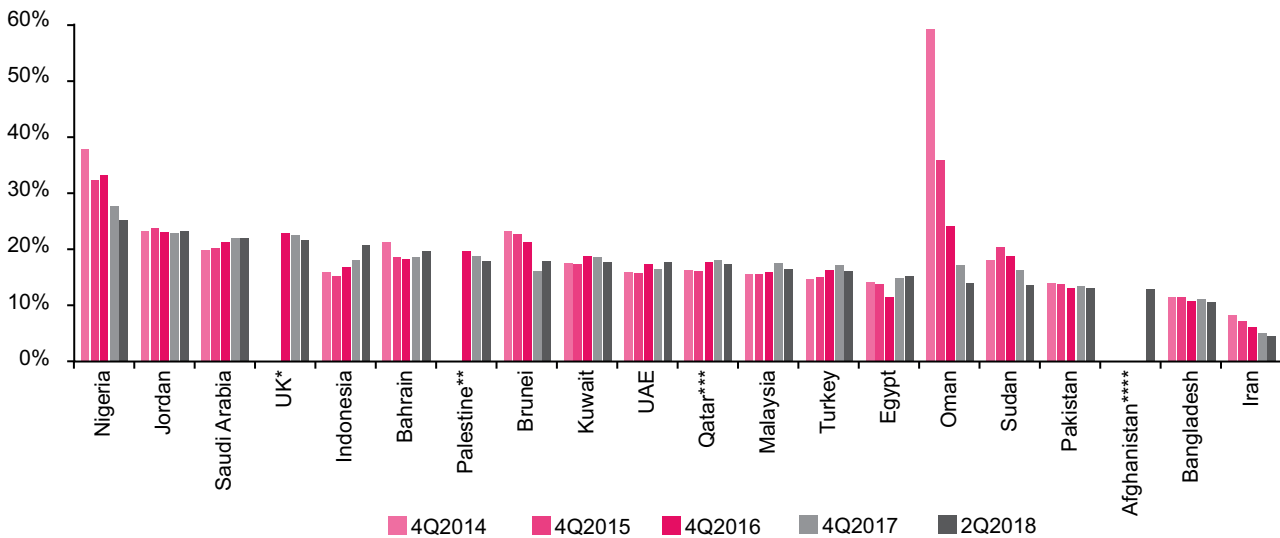
Sudan’s average CAR is still above regulatory requirements, but has been on the decline, reaching 13.6% in 2Q18, with much of the decline occurring in 2017; CAR registered 20.1% at the end of 1Q17, and declined to 14.9% within 12 months. With a turbulent economic environment in Sudan throughout 2018 that has shown no signs of abating in the early months of 2019, Sudanese banks may experience further weakening of their capital positions amid increased currency and inflationary uncertainties, and the ensuing consequences on NPF.

the capital conservation buffer requirements in 2019. The total capital adequacy and Tier-1 capital adequacy ratios for Malaysian Islamic banks stood at 16.4% and 12.8% (see Charts 3.2.5.2 and 3.2.5.3), respectively, which is well above regulatory requirements but lower than the overall banking system in the country, which registered a total CAR of 17.1% and a Tier-1 capital ratio of 14.3%. Neighbouring Indonesia reported its highest average CAR for Islamic banks since at least 2013, crossing the 20% mark to stand at 20.6% following a sustained fall in NPF since 2Q16.

As with other indicators, the Malaysian Islamic banking sector has reported stable and consistent levels of capitalisation throughout the review period on the back of healthy earnings and conservative earning retention policies, and as banks in Malaysia prepare for the full implementation of

Turkish Islamic banks remain well-capitalised, and had their CARs on a general upward trend until 1Q18, after which they witnessed a minor decline after above-average financing growth led to an upsurge in RWAs that was proportionately higher than growth in eligible capital levels.

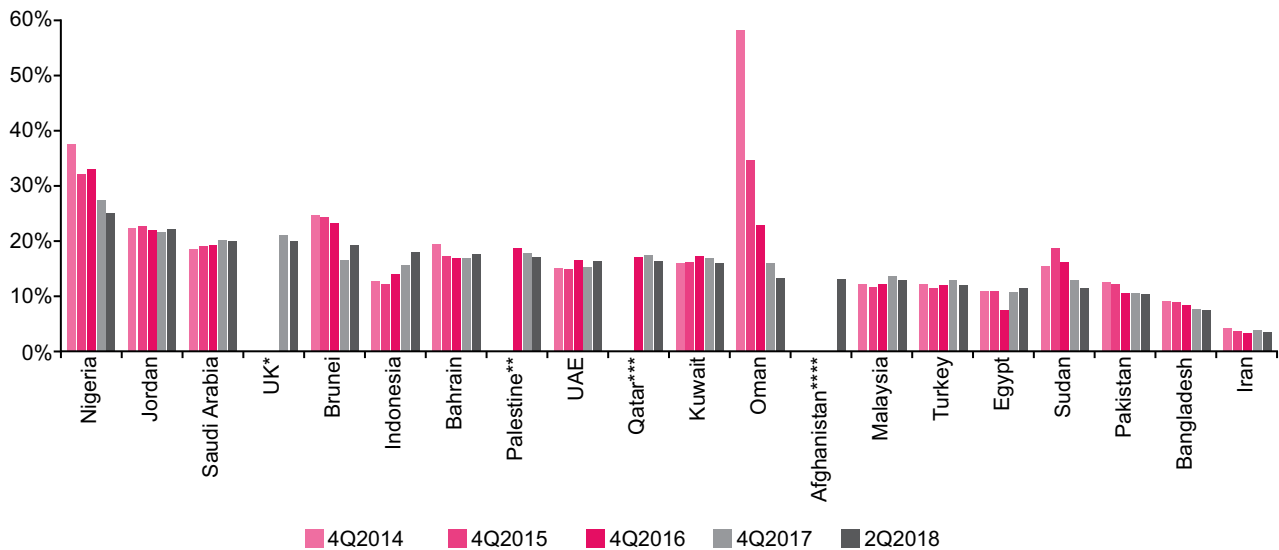
Chart 3.2.5.2 Islamic Banking Average Total Capital Adequacy Ratio by Country (4Q14–2Q18)



* Data available for 4Q16 and 4Q17 onwards. ** Data available from 4Q16. *** Includes IFSB Secretariat’s workings until 4Q15. **** Data available from 2Q18.

Source: PSIFIs, IFSB Secretariat Workings

Chart 3.2.5.3 Islamic Banking Average Tier-1 Capital Adequacy Ratio by Country (4Q14–2Q18)



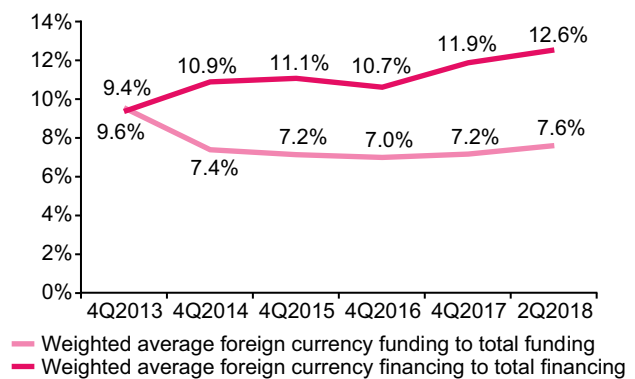
* Data available from 4Q17. ** Data available from 4Q16. *** Includes IFSB Secretariat's Workings until 4Q15. **** Data available from 2Q18.

Source: PSIFIs, IFSB Secretariat Workings

3.2.6 Foreign currency funding

The share of foreign currency funding in Islamic banking has been relatively stable in recent quarters, with several jurisdictions recording marginal increases in their foreign currency funding sources. However, this relative stability was neutralised by a few others that reduce reliance on foreign currency funds. Among the sample, Lebanon and Afghanistan's Islamic banking sectors had the highest foreign currency funding levels, at 80.8% and 64.8%, respectively. Iran and Sudan, in particular, are facing economic challenges linked to foreign currency and requiring careful monitoring of their exposures to foreign currency funding and financing, while Egypt appears to have turned a corner as the Egyptian Pound stabilised and banks replenished their foreign currency reserves (see Chart 3.2.6.1).

Chart 3.2.6.1 Global Islamic Banking Average Foreign Currency Funding and Financing to Total Funding and Financing (4Q13–2Q18)¹⁰⁰



Source: PSIFIs, IFSB Secretariat Workings

¹⁰⁰ The calculation of average foreign currency funding and financing ratios is based on data from 21 jurisdictions contributing to the IFSB's PSIFIs database (excluding Bahrain, Egypt, Kuwait, Nigeria, Palestine, Saudi Arabia and Turkey, due to data limitations). Qatar's data used from 4Q16, and UK data from 4Q17.

Banks in Lebanon appear to rely heavily on foreign currency funding and financing, with Islamic banks providing 92.3% of their financing in foreign currency. Banque du Liban (BdL) aims to continue attracting long-term foreign currency deposits through Lebanese banks in order to build its reserves and sustain the Lebanese pound's peg to the US Dollar¹⁰¹ following political events in late 2017 that threatened to destabilise the peg. Long-term foreign-currency deposits would help Islamic banks in the country in managing foreign-currency risks and meet demand for dollar credit. However, this may also hinder the central bank's efforts to contain dollarisation, as dollar funding of the overall Lebanese banking system constituted 68.7% of total deposits and loans accounted for 71% of total lending.

The Iranian currency hit record lows in the exchange market towards the end of 2018, with the central bank announcing measures to intervene and defend the Riyal which lost 15.5% of its value (using the official rate) in the six months to 2Q18. Further, data show that Iranian banks have given more in foreign currency financing in 2Q18 (15.8%) than at any other time since 2013, with only 5.7% of their funding being in the form of foreign currency. In light of the depreciating Riyal, foreign currency assets may preserve the banking system's asset values; however, they may be a source of vulnerability should some of these assets become non-performing.

Egypt allowed its currency to float in November 2016, which facilitated foreign currency inflows into the Egyptian banking system and allowed Egypt to access international financial markets and benefit from IMF funding programmes. Data

reflected an immediate uptick in the foreign currency funding of Egyptian Islamic banks, which rose from 20.1% in 3Q16 to 34% in the following quarter. The Egyptian Pound has since stabilised, only depreciating by 0.9% between 4Q17 and 2Q18, while Islamic banks still maintain their foreign currency funding at about 31.7% of their total funds, and foreign currency financing at about 24.8% of total financing. Foreign currency financing for Sudanese banks (which are all Islamic) constituted 13% of their total financing in 2Q18, up from 4.3% in 2Q17. This was mainly due to the depreciation in the Sudanese Pound in 1Q18. However, total foreign-currency funding were far below foreign currency financing in the country in 2Q18. Foreign currency conditions in Sudan therefore warrant careful monitoring following the steep and continued depreciation of the Sudanese Pound against the US Dollar in the 12 months to 2Q18 and subsequent downward adjustments in the following quarters.

Other countries in the sample had their foreign currency exposures generally within their historical trends, with minor increases in foreign currency funding and financing in the UAE and Brunei, while Malaysia was able to contain the depreciation in the Ringgit through positive economic performance in 2017 and several other measures, including the introduction of greater FOREX risk management flexibilities and the rebalancing of onshore demand and supply of foreign currency. Chart 3.2.6.2 highlights the proportions of foreign currency funding and financing against the total funding and financing reported by Islamic banks and windows in several jurisdictions.

Chart 3.2.6.2 Islamic Banking Average Foreign Currency Funding to Total Funding and Average Foreign Currency Financing to Total Financing by Country (2Q18)



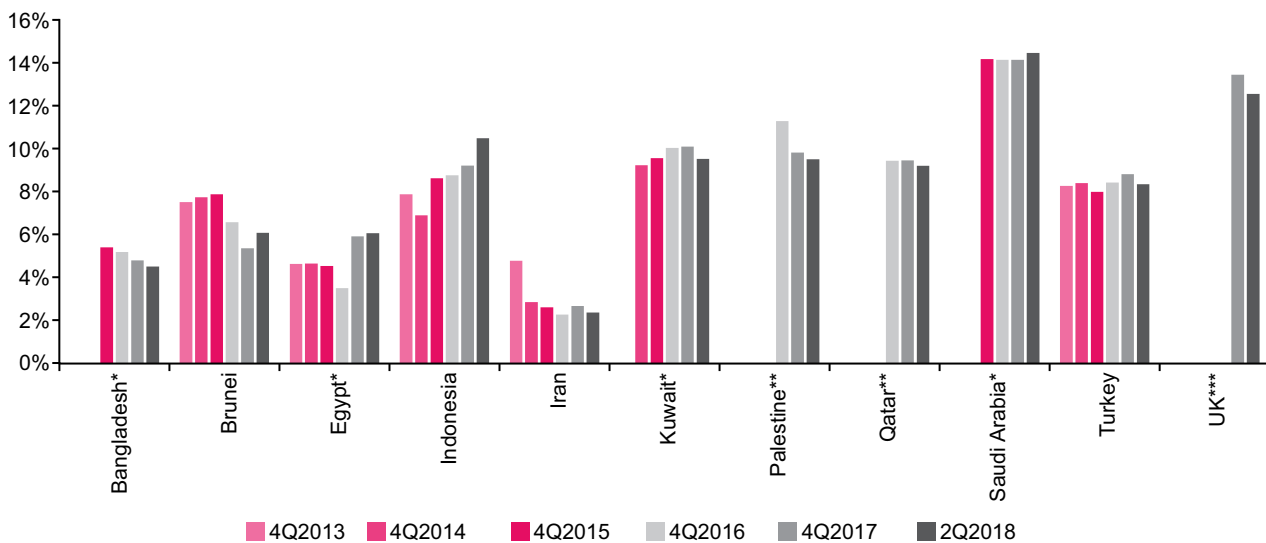
Source: PSIFIs

¹⁰¹ Reuters, "Lebanon banks suck in dollars to maintain peg, but economy stagnates", 16 August 2018.

3.2.7 Leverage

Considering the regulatory definition, leverage ratio¹⁰² is a measure that acts as a supplement to risk-based capital requirements in order to help restrict the build-up of leverage and prevent damage to the financial system, and economy, resulting from any occurring deleveraging process. As per the BCBS and IFSB standards, leverage ratio is applicable at the level of 3%. The regulatory leverage ratio was reported by 11 PSIFs-contributing jurisdictions all of which, aside from Iran, have exceeded the 3% requirement (see Chart 3.2.7.1). Iran's banks remain highly leveraged, with the Iranian banking sector's leverage ratio, like its capital ratio, on a downward trend, settling at 2.4% in 2Q18. The Central Bank of Iran planned to launch an asset quality review during the 2018-2019 financial year in order to measure recapitalisation needs and extent of non-performing assets in the banking sector. Such a review is expected to lead to precise requirements on certain banks to raise capital and demonstrate viability, while non-viable banks may be placed in orderly resolution. This process may help the Central Bank of Iran address financial stability issues, improve capitalisation levels and reduce leverage ratios of Iranian banks to meet international regulatory standards.

Chart 3.2.7.1 Islamic Banking Leverage Ratio by Country (4Q13–2Q18)



* Bangladesh started reporting leverage ratio data from 2Q15, whereas Kuwait and Saudi Arabia began in 4Q14 and 1Q15, respectively.

** Data available from 4Q16.

*** Data available from 4Q17.

Source: PSIFs

Summary

Overall, risks facing the Islamic banking industry are highly dependent on the underlying economic and regional dynamics across jurisdictions. For instance, risks associated with oil price volatilities and reported in previous IFSI stability reports were less material to the Islamic banking industry in the year to 2Q18 due to the upturn in oil prices and improved economic outlook in several Islamic banking jurisdictions. This helped ease liquidity pressures and improve asset returns. Nevertheless, the dependency of certain jurisdictions on the oil sector to support economic activity remains a vulnerability to the banking industry, including Islamic banks. Exposure to the real estate segment in some of these countries remains high and requires careful monitoring as political uncertainties or changes in investor sentiments could potentially undermine asset prices and jeopardise such exposures.

The majority of Islamic banking domiciles reported largely stable profitability, asset quality and liquidity indicators, and outperformed, in a few instances, their historical trends and the indicators for the conventional banking segment. Volatilities observed were well within historical norms. Emerging risks facing Islamic banks now, and affecting the outlook for 2019, appear to stem from underlying structural economic weaknesses in a few jurisdictions, including the only two jurisdictions with fully Shari'ah-compliant Islamic banking systems, facing higher inflationary trends and depreciating currencies – developments that could potentially destabilise liquidity, elevate NPF and erode capital. Foreign currency risks also remain a significant concern for regulators and Islamic banks alike, with a few jurisdictions implementing specific measures to stabilise exchange rates, and/or encourage hard-currency inflows to the official financial system.

¹⁰² Leverage ratio = Tier-1 capital / total exposure.

3.3 Islamic Capital Market: Assessment of Resilience

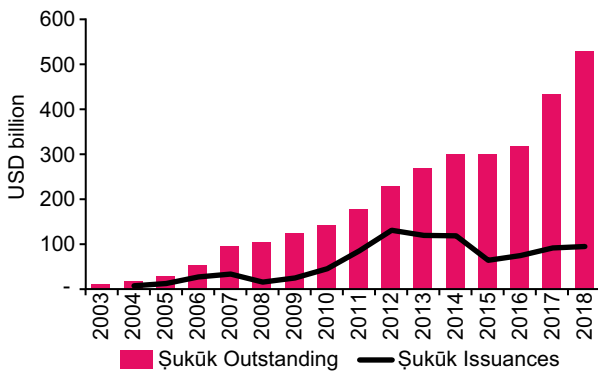
The following section reviews the performance and resilience of the global Islamic capital markets in 2018 across its three major asset classes – *shukūk*, Islamic equities and Islamic funds.

3.3.1 *Shukūk*

The global *shukūk* market continued its growth trend in 2018, with global *shukūk* outstanding increasing by 22% (see Chart 3.3.1.1). Although primary market issuances were more muted due to a moderation in sovereign issuances from the GCC region, it was a remarkable year for corporate issuances.¹⁰³ As of end-2018, the overall growth of the *shukūk* market over the last 15 years amounted to a CAGR of 30.6%.

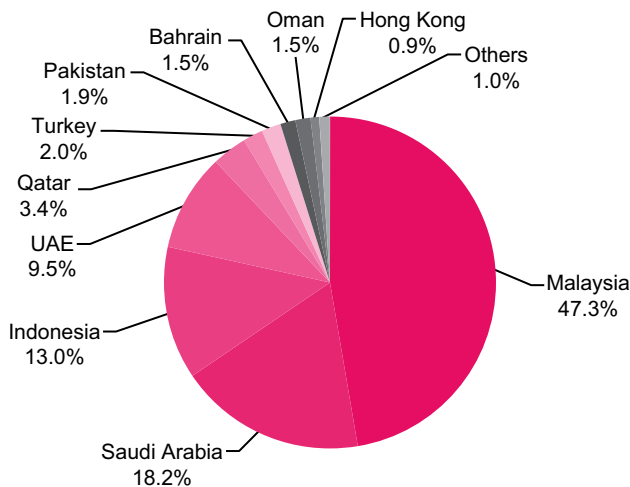
Malaysia maintained its position as the jurisdiction with the largest volume of *shukūk* outstanding (see Chart 3.3.1.2), accounting at end-2018 for a 47% share of the total *shukūk* outstanding. The top five *shukūk* outstanding jurisdictions in 2018 – Malaysia, Saudi Arabia, Indonesia, UAE and Turkey – accounted for a 91% share of total *shukūk* outstanding.

Chart 3.3.1.1 Global *Shukūk* Outstanding and *Shukūk* Assets Growth (2003–18)



Source: IFSB Secretariat Workings

Chart 3.3.1.2 Top 10 Global *Shukūk* Outstanding Jurisdictions* (2018)



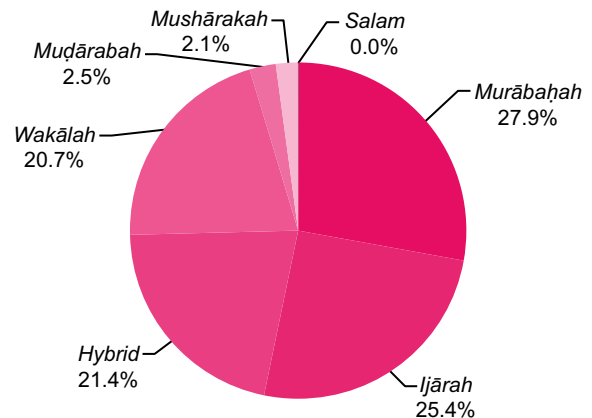
*Based on domicile of the *shukūk* obligor.

Source: IFSB Secretariat Workings

In terms of the volume of *shukūk* issuances by structure or the type of underlying Shari'ah contracts, *murābahah* contracts were the most prominent in 2018, accounting for almost 28% of issuances, while *shukūk* contracts based on *ijārah* moved up again in prominence to 25% of issuances. Hybrid structures (the most prominent category in 2017 due to the large size of sovereign issuances from Saudi Arabia based on hybrid contracts) made up about 21.3%. *Wakālah* contracts followed closely behind at 20.8% (see Chart 3.3.1.3). Across the top four categories of contract types, which account for 95% of *shukūk* issuances, a more balanced distribution is observed, ranging between from a 21% to 28% share of total *shukūk* issuances.

Among the less prominently utilised contract types, *mushārahah* contracts were used only by Malaysian issuers, while *muḍārahah* contracts were applied by a number of corporates and government-related entities from five jurisdictions, including Malaysia, Indonesia, UAE, Ireland and Turkey. *Salam* contracts were utilised by a single sovereign issuer to facilitate short-term liquidity management for Islamic financial institutions.

Chart 3.3.1.3 Global New *Shukūk* Issuances by Structure (2018)



Source: IFSB Secretariat Workings

The demand for new *shukūk* in the primary market, as measured by times oversubscription, has continued to be positive, but relatively moderate compared to historical demand. Exceptionally, the most oversubscribed was a dual-listed *shukūk* by a leading UAE industrial company, Senaat, which was 10 times oversubscribed, while an exchangeable *shukūk* issued by Malaysia's Khazanah National was oversubscribed by 5.5 times, the demand for the latter being primarily from fund managers. The Basel III-compliant Tier-1 *shukūk* issued by Abu Dhabi Islamic Bank and the USD 1 billion issuance by Dubai Islamic Bank were also oversubscribed, but relatively more moderately. Notably, Indonesia's first green sovereign *shukūk* and the debut sovereign issuance by Morocco also met with significant investor interest. Overall, the demand for new *shukūk* was remarkably positive amid the generally less favourable market conditions.

¹⁰³ See Chapter 1's subsection on *shukūk* market developments for a detailed coverage of the factors leading to this structural shift.

Table 3.3.1.1 Demand Comparison for Selected* Şukūk Issued in 2018

Şukūk Name**	Issue Size (USD million)	Issuer Type	Tenure (Years)	Rating	Oversubscription (Times)
FT Imperium Şukūk CI (Morocco sovereign) 10/23	106	Sovereign	5	Baa1 (Moody's)	3.60
Tabreed Şukūk 10/25	500	Corporate	7	Baa3 (Moody's)	1.5
Perusahaan Penerbit SBSN Indonesia III (Indonesia sovereign) 3/23	1250	Sovereign	5	Baa3 (Moody's)	3.1
ADIB Capital Invest 2 Ltd, UAE (Perp)	750	Corporate	Perp	A+ (Fitch)	3
DIB Şukūk 2/23 (UAE)	1000	Corporate	5	Baa1 (Moody's)	1.83
Oman Sovereign Şukūk SAOC 10/25	1500	Sovereign	7	Baa3 (Moody's)	2.6
FGN Şukūk (Nigeria sovereign) 12/25	363.9	Sovereign	7	B1 (Moody's)	1.32
Khazanah National Şukūk 2/23 (Malaysia)	320.8	Corporate	5	AAA (RAM)	5.5
Senaat Şukūk 12/25	300	Corporate	7	A (Fitch)	10

Perp = perpetual.

*Şukūk were selected to ensure some diversity by types, ratings, issuance size and jurisdictions (of obligors).

**Numbers in "Şukūk Name" indicate maturity date mm/yy.

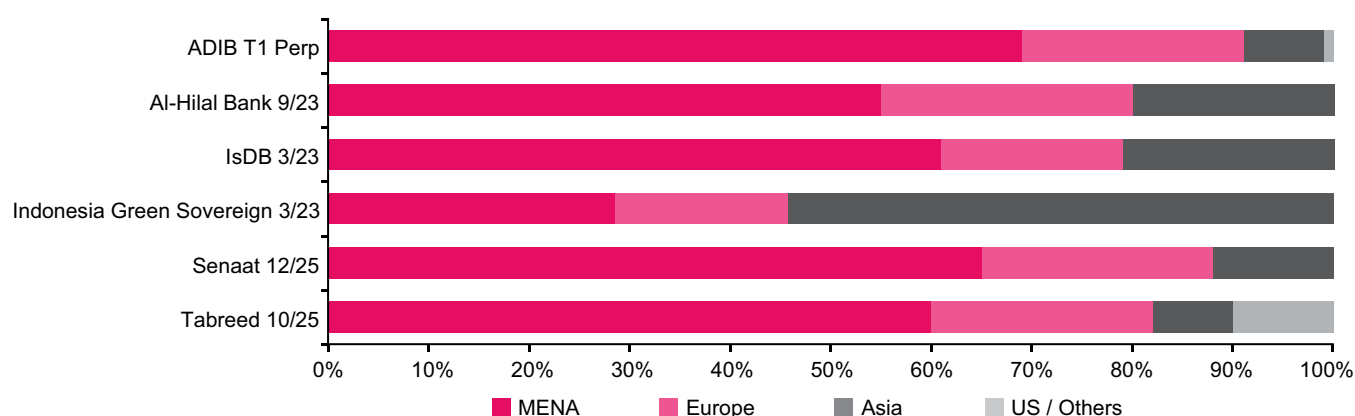
Source: Various references, IFSB

Similar to the trend in the preceding two years, based on available information, tranche allocations continue to have a regional bias, with şukūk issued in the Middle East being taken up mainly by investors from the MENA region, while those issued from Indonesia had more than 50% of subscriptions from Asian investors. However, investors from the MENA region were also the most active in subscriptions to the issuance by the multilateral IsDB, indicating high investor demand from the region. Europe also continues to be an important source of şukūk subscriptions, while there was a relatively smaller proportion of investors from the US/Others.

In terms of distribution of new şukūk issued by investor types, based on the sample analysed (see Chart 3.3.1.4), banks/private banks¹⁰⁴ and fund managers continue to make up the majority of buyers, collectively making up 80% or more of total subscriptions for the majority of şukūk in the sample.

Central banks were the majority subscribers for the şukūk issued by the AAA-rated multilateral development bank, IsDB, while also making up a small percentage of subscriptions for the sovereign issuances from Indonesia. Indonesia's green şukūk was also the most diversified in terms of investor allocation across the sample.

Chart 3.3.1.4 Geographical Distribution of Selected Şukūk Papers Issued in 2018



Perp = perpetual.

MENA = Middle East and North Africa; US = United States.

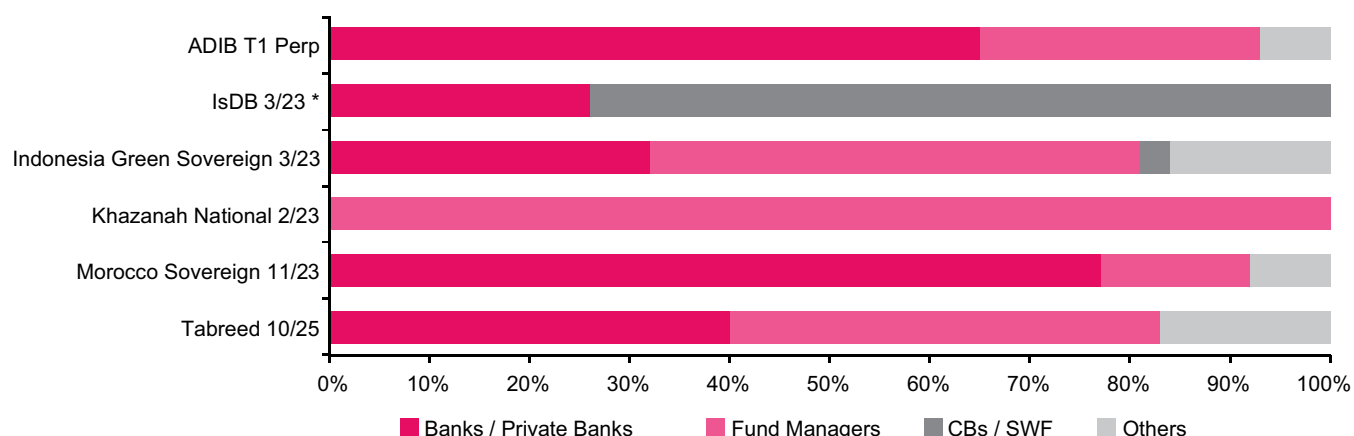
Note: Numbers in "Şukūk Name" indicate maturity date mm/yy.

Source: Various references, IFSB

¹⁰⁴ Comprising commercial banks, investment banks and private banks.



Chart 3.3.1.5 Investors' Breakdown of Selected Şukūk Papers Issued in 2018



Perp = perpetual.

CBs / SWF = Central Banks / Sovereign Wealth Funds; Others = Pension Funds, Takāful/Insurance Funds, etc.

*Investor allocation for IsDB 3/23 represents 26% to Banks and Fund Managers' categories combined.

Source: Various references, IFSB

An analysis of the pricing of selected sovereign *şukūk* and bonds issued in 2018 indicates that while *şukūk* are still prevalently priced at a premium, in 2018 more jurisdictions issued *şukūk* at lower rates than risk-identical bonds, including Bahrain, Morocco, and Saudi Arabia. Qatar continues to rate risk-identical *şukūk* and bonds at the same rate, as observed in previous years.

The analysis of secondary market yields in 2018 also indicates there may be a shift in the historical trend of investors expecting higher yields on *şukūk* in contrast to financial risk-identical bond instruments. Across the sample of bonds and *şukūk* outstanding in four jurisdictions (see Charts 3.3.1.1 to 3.3.1.5), Malaysia was an exception where *şukūk* continued to trade at a higher rate, whereas Saudi Arabia's *şukūk* consistently traded at a lower rate than risk-identical bonds. However, based on 2018 data for three other jurisdictions, Indonesia, Pakistan and Qatar, there is no consistent pattern that indicates that *şukūk* investors expected higher yields to identical bonds, as *şukūk* traded at lower yields and/or achieved very close rates to risk-identical bonds during some periods.

Table 3.3.1.2 Pricing of Selected Sovereign Şukūk and Bonds Issued in 2018 (Domestic Market)

Jurisdiction and Instrument Maturity*	Şukūk Profit Rate (%) [a]	Bond Coupon Rate (%) [b]	Spread (%) [a] – [b]
Bahrain (Şukūk 1/21 and Bond 8/21)	4.80	6.55	-1.75
Indonesia (Şukūk 3/28 and Bond 4/28)	4.40	4.10	0.30
Malaysia (Şukūk 11/23 and Bond 4/23)	4.10	3.76	0.34
Morocco (Şukūk 10/23 and Bond 10/23)	2.70	2.80	-0.10
Qatar (Şukūk 6/23 and Bond 6/23)	4.25	4.25	0.00
Saudi Arabia (Şukūk 4/25 and Bond 4/25)	3.50	4.00	-0.50
Turkey (Şukūk 9/20 and Bond 8/20)	24.40	23.00	1.40
UAE (Şukūk 9/23 and Bond 4/23)	4.40	3.53	0.87

*Maturity of the sample underlying *şukūk* and bond instruments indicated by mm/yy. The sample instruments were selected to ensure both had identical tenors; however, each may be issued on different dates within the year. Percentages in red (green) indicate higher (lower) of the two, while those in black indicate equality.

Source: Bloomberg, IFSB

Chart 3.3.1.6 Şukūk and Bond Yields Comparison in Secondary Market (2018)



*Numbers in name indicate maturity date mm/yy.

MGII = Malaysian Government Investment Issue Şukūk; MGS = Malaysian Government Security Bond.

KSA = Kingdom of Saudi Arabia Şukūk; KSA GB = Saudi Government International Bond.

INDOIS = Perusahaan Penerbit SBSN Şukūk; INDOGB = Indonesia Government Bond.

QAT S = Qatar SoQ Şukūk; QAT B = Qatar Government Bond.

PAK S = Pakistan International Şukūk; PAK B = Pakistan Government International Bond.

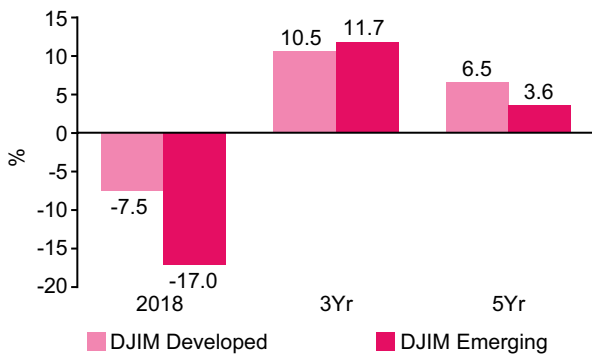
Source: Bloomberg, IFSB

3.3.2 Islamic equity market

In 2018, global equity markets suffered the biggest decline among the major asset classes. While US tax cuts helped boost the financial markets going into 2018, equities fell sharply in the last quarter of the year due to policy uncertainties, the escalating US–China trade conflict, reduced monetary stimulus, and global growth concerns that eroded investor confidence. The significant drop in equity markets during the last quarter more than reversed the gains made in the first three quarters, making it the worst year for the equity markets since the GFC.

Within this broader global context, looking at Islamic indices, the DJIM Emerging Markets Index also experienced a steep decline by 17.0% (2018: 37.8%), the emerging markets also being affected by the strengthening US Dollar, rising interest rates and trade tensions weighing on investor sentiment. Similarly, DJIM Developed Markets also dropped by 7.5% in 2018 (2017: 23.8%) (see Chart 3.3.2.1). However, on a three-year basis, the emerging market Islamic equity returns overtook developed markets returns, but fell behind on a five-year basis.

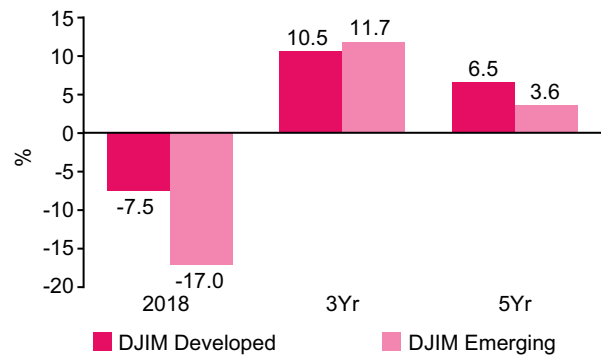
Chart 3.3.2.1 Price Returns of DJIM Developed Markets and DJIM Emerging Markets Indices (2018)



Source: Bloomberg, IFSB

Looking at regional equity indices (see Chart 3.3.2.2), only the DJIM GCC Index generated positive returns in a reversal from negative returns the previous year (2017: -2.2%), driven by rising oil prices and the strengthening of some GCC markets as a result of equity market reforms and expectations of foreign investor inflows that buoyed markets. In contrast, both the DJIM Europe and DJIM Asia Pacific indices saw steep declines in 2018 by 12.77% and 15.33%, respectively (2017: +25.6% and +25.9%, respectively). The poor equity market performance was the most pronounced in China, due to the effects of the prospective downturn in the trade outlook and the government’s deleveraging campaign to reduce risky lending following rapid build-up of debt. The DJIM Greater China Index dropped by 17.86% in 2018 (2017: 44.4%).

Chart 3.3.2.2 Price Returns of DJIM Equity Indices by Region (2018)

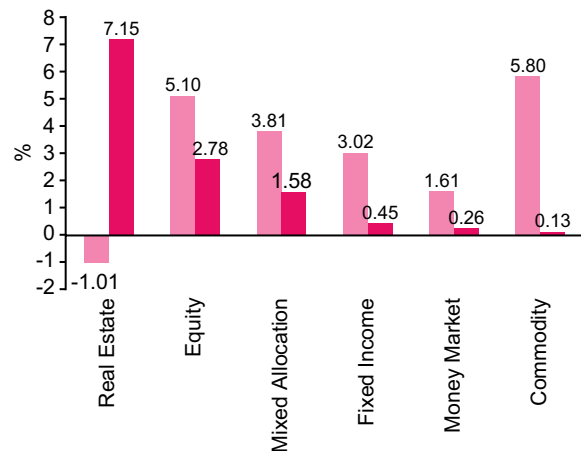


Source: Bloomberg, IFSB

3.3.3 Islamic fund market

Mirroring the poor returns in the equity markets, the Islamic funds market also saw a contraction in returns across all Islamic funds asset class types compared to 2017, with the exception of real estate, which was largely attributable to the performance of two funds in Saudi Arabia (see Chart 3.3.2.3).

Chart 3.3.2.3 Returns of Islamic Funds* by Asset Type (2018)**



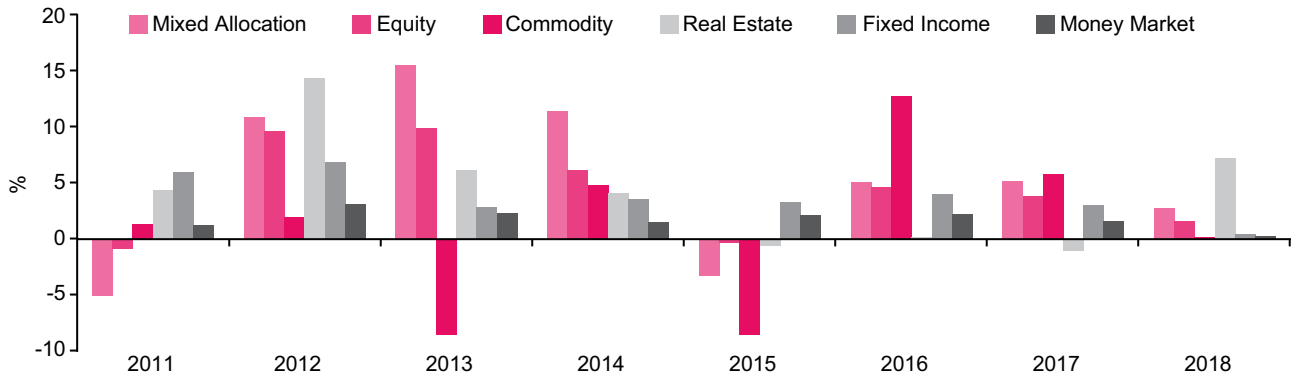
*Funds that are marketed and offered generally with their data publicly available, and excluding private equity funds.

**There may be some similarities, or even possibly overlaps, between the asset classes to the extent that a fund is qualified to be listed in more than one category (e.g. funds that invest in actual commodities vis-à-vis funds that invest in equities of the commodities sector). For the purposes of this report, the funds are categorised by asset class based on classifications as provided by Bloomberg.

Source: Bloomberg, IFSB

The commodities asset class, which was the best performer in 2016 and 2017, declined the most in 2018, as prices of many commodities moved lower, affected by a number of the aforementioned factors including a stronger US Dollar and an increase in US interest rates affecting raw material prices, concerns over international trade relations and the global economy, and risk-off behaviour because of the weak performance in the equities market, which impacted the overall performance of commodities and resulted in loss in value in the commodities asset class in 2018. Looking at historical returns, 2018 was the worst year for Islamic fund returns since 2015 across almost all asset types, with the exception of real estate.

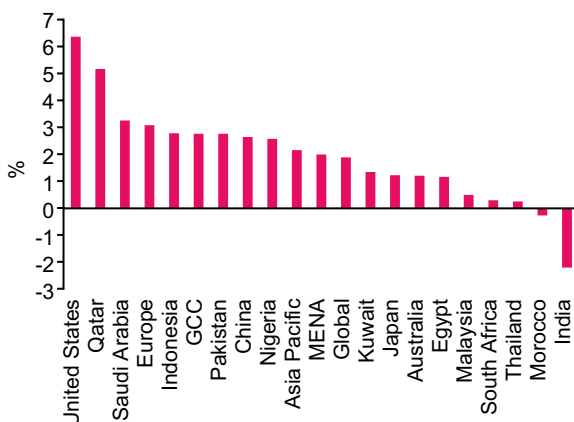
Chart 3.3.2.4 Historical Returns of Islamic Funds by Asset Type (2014–18)



Source: Bloomberg, IFSB

With respect to returns in terms of geographical focus on funds' investments, Islamic funds with a United States geo-focus, while yielding the best returns in 2018, declined relative to the previous two years (2017: 9.5%; 2016: 7.7%). Islamic funds focused on investments in the GCC region, as well as those focused specifically on Saudi Arabia and Qatar markets (which yielded negative returns in 2017), demonstrated a reversal in trend in 2018, with positive returns that were, in relative terms, on the higher end of the spectrum. The easing of restrictions on foreign ownership limits in Qatar and improving fundamentals helped drive the GCC markets. Stable US Dollar pegs, lower debt levels and robust foreign reserves may have contributed to reduced risk and shielded the region, in contrast to other emerging markets jurisdictions. Also in a reversal from the previous year, India-focused Islamic funds, which were the best performers of 2017, generated negative returns in 2018. Returns for Asia Pacific-focused funds (2.15%) also declined in comparison to the previous year (2017: 12.12%).

Chart 3.3.2.5 Returns of Islamic Funds by Geographical Focus (2018)

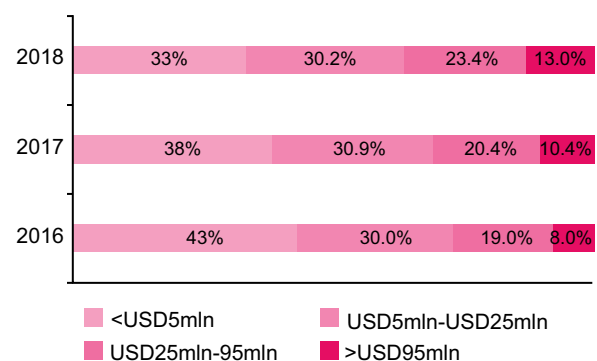


Source: Bloomberg, IFSB

Lastly, in terms of the issue of scale and size of Islamic funds (see Chart 3.3.2.6), the number of funds with AuM less than USD 5 million continued to shrink and the proportion

of funds in the range of USD 25–95 million AuM and funds with AuM of more than USD 95 million continued to grow. As of end-2018, 36% of Islamic funds have an AuM of more than USD 25 million (2017: 30.9%), indicating that smaller fund sizes (less than USD 25 million) still make up the majority of Islamic funds; the average size of active Islamic funds was USD 75 million in 2018.

Chart 3.3.2.6 Composition of Islamic Funds by Asset Size (2018)



Source: Bloomberg, IFSB

Summary and Challenges

In summary, the *ṣukūk* market continued to do well despite more adverse market conditions, although the growth rate was more subdued compared to the previous year. Investor demand for *ṣukūk* continues to be positive despite the challenging economic environment and weak performance across other asset classes. Notably, in 2018, there was a restructuring of the Dana Gas *ṣukūk* and issuance of a resized instrument, bringing closure to a case that had been of concern for the industry. The synchronised economic recovery seen in 2017 slowed down in 2018 and, while the year started favourably, the equity markets had a bad year overall, with Islamic fund returns also being affected. On a more positive note, the use of technology is expected to increase in capital markets, with the UAE-based Al Hilal Bank completing the first *ṣukūk* transaction using blockchain (distributed ledger) technology, to sell and settle in the secondary market a portion of its USD 500 million five-year *ṣukūk*.

While growth in the Islamic capital markets is expected to continue, supported strongly by growth and robustness of the *ṣukūk* market, the outlook is likely to be influenced by geopolitical developments as changes in trade policies and tariffs take shape, by the stability of oil prices and by the implementation of ongoing government reform policies in the GCC region. Markets are also vulnerable to the fear that an economic downturn is approaching, amid expected moderations in global earnings growth in the year ahead and a more subdued growth outlook overall.

3.4 TAKĀFUL: ASSESSMENT OF RESILIENCE

This section assesses the resilience of the *takāful* sector in 13 countries where the *takāful* market has a significant presence. They include the GCC countries (Saudi Arabia, UAE, Kuwait, Bahrain, Qatar and Oman), Iran, Malaysia, Brunei, and other emerging *takāful* markets such as Indonesia, Pakistan, Jordan and Bangladesh.

The information and estimates provided here are based on 2017 data, sourced mainly from the national supervisory authorities, insurance associations, the Thomson Reuters EIKON database, and also directly from primary sources, including published annual reports and financial statements of *takāful* companies. The country-level data obtained from insurance authorities are inclusive of the information on *takāful* windows, but exclude information on *retakāful* companies.

Generally, *takāful* operators are mainly focused on two overarching goals – namely, growing top-line revenue (contributions), while bolstering bottom-line profitability, mostly influenced by the prevailing economic environment. In pursuance of these goals, *takāful* operators are confronted with many challenges, some of which are within the scope of the operators (i.e. pricing of risk, underwriting discipline and risk management framework),¹⁰⁵ while others such as a low investment return environment, catastrophe-related losses and political instability are not within the industry's control. The capacity of the *takāful* sector to build the resilience needed to overcome these challenges will determine its viability over the long term.

In the light of the above, we review the performance of the *takāful* sector and trends underlying its performance using two major components – namely, profitability and underwriting performance. Assessment of the current

position and comparison with past trends is key to better understanding the dynamics of the sector as a whole.

Return on assets and return on equity are used to evaluate the performance of a *takāful* entity in the listed countries. ROA relates the profit generated by a *takāful* entity to its total assets, whereas ROE is calculated as after-tax earnings divided by shareholders' equity.¹⁰⁶

The metrics for underwriting performance are the loss ratio, the expense ratio, and the combined ratio.¹⁰⁷ The loss ratio is a ratio of claims/benefits incurred to earned premiums, where claims/benefits incurred include loss adjustment expenses incurred. It is measure of the actual risk coverage per unit of contributions that a *takāful* operator has already earned. *Takāful* operators aim to achieve a loss ratio below 100% to allow sufficient room to cover policy acquisition expenses and other expense, as well as to generate reasonable profits. At the same time, a high ratio (i.e. more than 100%) reflects that the company's premiums are not enough to cover claims. Loss ratio variabilities are caused by externalities such as economic factors (i.e. market competition, price/underwriting cycles) and catastrophic losses (e.g. natural disasters), among others. Depending on the rates and underwriting pricing, the ratio may increase (decrease) without any significant changes in the actual loss experience.

The data for each of these metrics are presented in country-level aggregates, allowing comparison between markets of different sizes over time such that the current data (2017) may be compared with the six-year average (2012–16). In addition, the discussion for each metric was performed separately for the general *takāful* and family *takāful* segments in the selected countries.

¹⁰⁵ Swiss Re Institute, *Re/insurance in the Middle East and Pakistan* (2017); S&P Global Rating, *GCC Insurance Sector Report 2017*.

¹⁰⁶ OECD (2016): Analytical tools for the insurance market and macro-prudential surveillance.

¹⁰⁷ Underwriting performance at a particular period is influenced by product pricing, risk selection, claims management, and marketing and administrative expenses.

Retention ratio

Generally, a high retention ratio indicates that a proportion of the underwriting risk is being assumed by the *takāful* companies, whereas a low retention ratio shows high reliance on the *retakāful*/reinsurance. Among the countries in the sample, Malaysia, Saudi Arabia and Brunei showed a high retention ratio above 80% in the general *takāful* segment in 2017. Those with the lowest ratio are within a range of 55% and 60% (i.e. UAE, Bangladesh and Oman). High retention was mostly in personal lines (motor, medical and health, and personal accident), which accounted for more than 80% of gross contributions in 2017. However, the retention level for commercial lines (marine, engineering, fire and transit risks) is low, ranging between 30% and 36%, and is much lower for energy and aviation lines. Low retention level indicates a limited capacity to retain larger and complex risks; therefore, it highlights the importance of *retakāful* in reinforcing underwriting capacity by spreading the risks and enhancing capacity to underwrite complex risks. The trend showed no significant change in virtually all the markets when the 2007 ratios were compared with the six-year average (2012–16). In the family *takāful* segments, retention ratio were relatively much higher, above 90%, especially in countries such as Bangladesh (99%), Brunei (97%), UAE (94%), Malaysia (92%) and Pakistan (90%).

Profitability

Overall, Islamic insurance generated positive returns (profit) in all the market in 2017, with Saudi Arabia outperforming other markets in terms of ROA (8.21%), (Chart 3.4.3). Modest improvement in pricing in the general business

and medical lines, triggered by regulatory changes, has supported the improved profitability of the insurance sector in Saudi Arabia.¹⁰⁸ Oman and Jordan showed an average ROA of 5.76% and 5.73%, respectively, in 2017. Compared with the six-year average, there has been significant improvement in profitability in Oman, reflecting strong underwriting and investment results. The insurance supervisor in Oman has implemented new minimum capital requirements, and all insurance operators have been listed in the country's capital market.¹⁰⁹

By contrast, countries such as Malaysia, Qatar and Indonesia registered a sharp drop in profitability, while slight declines were observed in Pakistan, UAE and Bahrain, due mainly to increasing pressure on underwriting margins, especially in some of the major business lines (i.e. motor and medicals). Furthermore, there has been a noticeable decline in the volume of contributions written in 2017, which invariably impacted negatively on profitability.

ROE shows a wider variance across the market, ranging from a high of 22.64% down to 1.64%, with Oman at the lower end and Malaysia at the upper end. The low ROE of the Oman market was a result of strong capitalisation driven by compliance with regulatory requirements (Chart 3.4.2). Relative to the six-year average, an upswing of roughly 3% ROE is observed in 2017 in a number of the markets (i.e. Malaysia, Jordan, Iran, Brunei and Bangladesh), reflecting a favourable combination of higher investment income and positive underwriting margin. On average, all the markets earned a positive ROE in 2017.

Chart 3.4.1 Return on Assets (2012–16 and 2017)

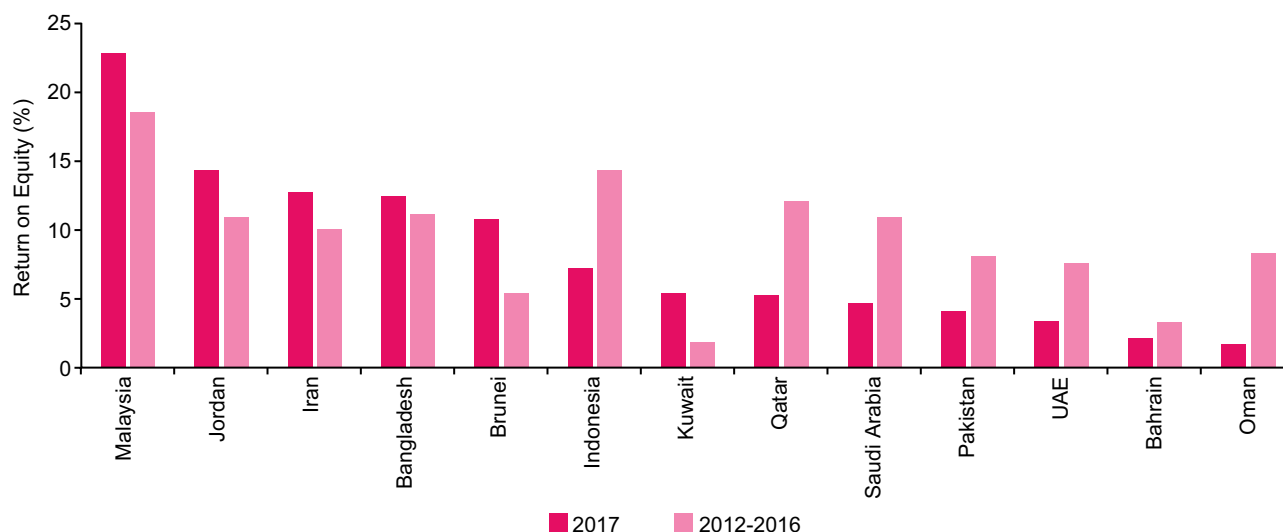


Source: IFSB Secretariat Workings

¹⁰⁸ Saudi Arabian Monetary Authority Financial Stability Annual Report 2018.

¹⁰⁹ Central Bank of Oman Financial Stability Report 2018.

Chart 3.4.2 Return on Equity (2012–16 and 2017)



Source: IFSB Secretariat Workings

Underwriting performance

Sound underwriting performance is a key element in a *takāful* undertaking's profitability and income generation, especially in the current low-yield environment.¹¹⁰ Underwriting performance is determined by product pricing, risk selection, claims management, and marketing and administrative expenses. This section reviews underwriting performance using three main indicators – the loss ratio, the expense ratio and the combined ratio.

Loss ratio

Charts 3.4.3 and 3.4.4 compare the trend in the loss ratios across the listed countries in 2017, and against the six-year average. The general *takāful* loss ratio rose until 2017, relative to the six-year average, in a number of countries (i.e. UAE, Kuwait, Jordan, Qatar, Oman and Bangladesh). The surge in the loss ratio experienced in these countries in 2017 was driven mostly by the frequently high claims severity experienced in the motor and medical lines (Chart 3.4.3). The loss ratio in Saudi Arabia and Indonesia was unchanged, but declined in Pakistan, Bahrain and Brunei. In Saudi Arabia, the introduction of a unified insurance database has helped operators to smooth claims experienced in 2017 and, combined with modest

improvement in the rate, has supported profitability of the general business sector in the country. By contrast, claims trends (high loss ratio) experienced in the UAE far outweigh the double-digit contributions growth, resulting in the low margin recorded in 2017. Compensations paid on fire incidence, in addition to motor and medical claims, drove the high loss ratio recorded in Kuwait. Series of losses (i.e. building collapse, petrochemical plant blast and a series of earthquakes) pushed the losses paid to a high level in Iran.¹¹¹ In Malaysia, the high loss ratio experienced was due mainly to the high frequency and severity of private car own damage claims, due to rising parts prices.¹¹² In recent times, a more efficient claims management practice and better risk selections among the *takāful* operators has led to an improved claim experience in many markets.¹¹³

In the family *takāful* segment, countries such as Kuwait, UAE and Malaysia experienced a loss ratio above 70% in 2017. By contrast, Iran, Brunei, Indonesia and Oman registered a decline in the loss ratio in 2017 compared to the six-year average. The low loss ratio (within a range of 20–30%) experienced in this segment in Bahrain, Qatar, Pakistan and Saudi Arabia should support its profitability

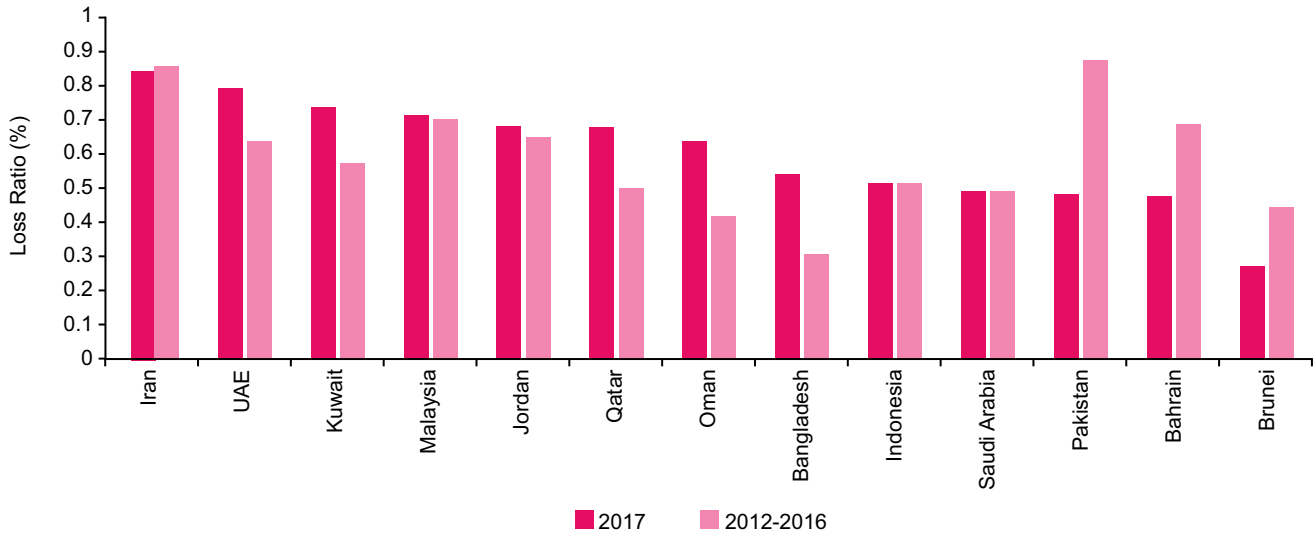
¹¹⁰ See Swiss Re Institute Sigma, *Profitability in General business Insurance: Mind the Gap*.

¹¹¹ *Central Insurance of Iran Annual Report 2016–2017*.

¹¹² BNM, *Insurance and Takāful Sector Report 2017*; Kuwait Insurance Federation Report 2017; *Central Insurance of Iran Report 2016–2017*.

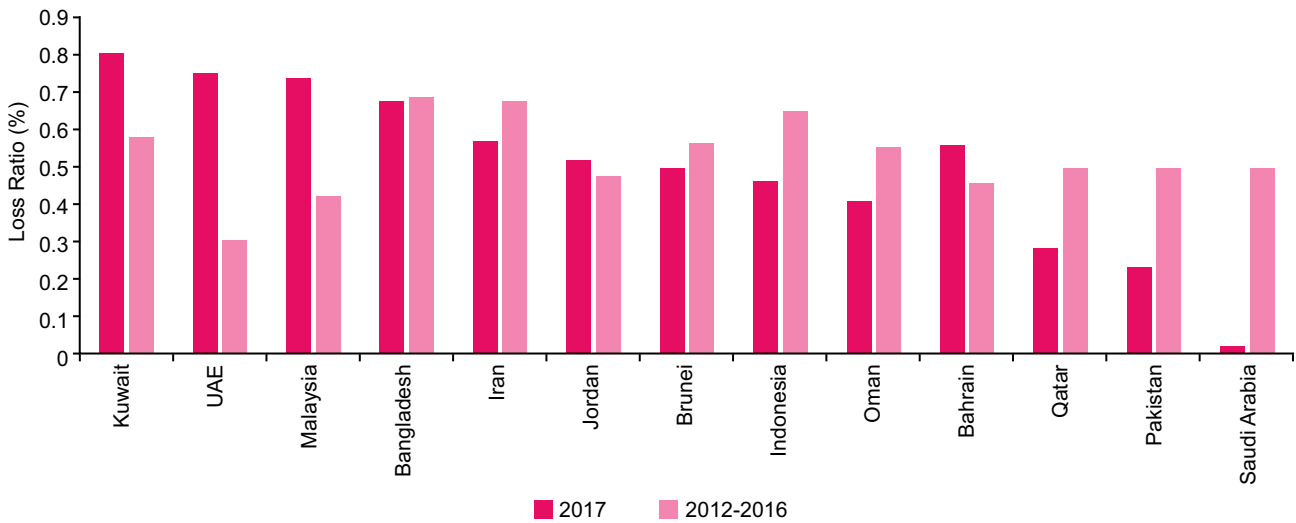
¹¹³ S&P Global Rating, *GCC Insurance Sector Report 2017*.

Chart 3.4.3 Loss Ratio General Takāful (2012–16 and 2017)



Source: IFSB Secretariat Workings

Chart 3.4.4 Loss Ratio Family Takāful (2012–16 and 2017)



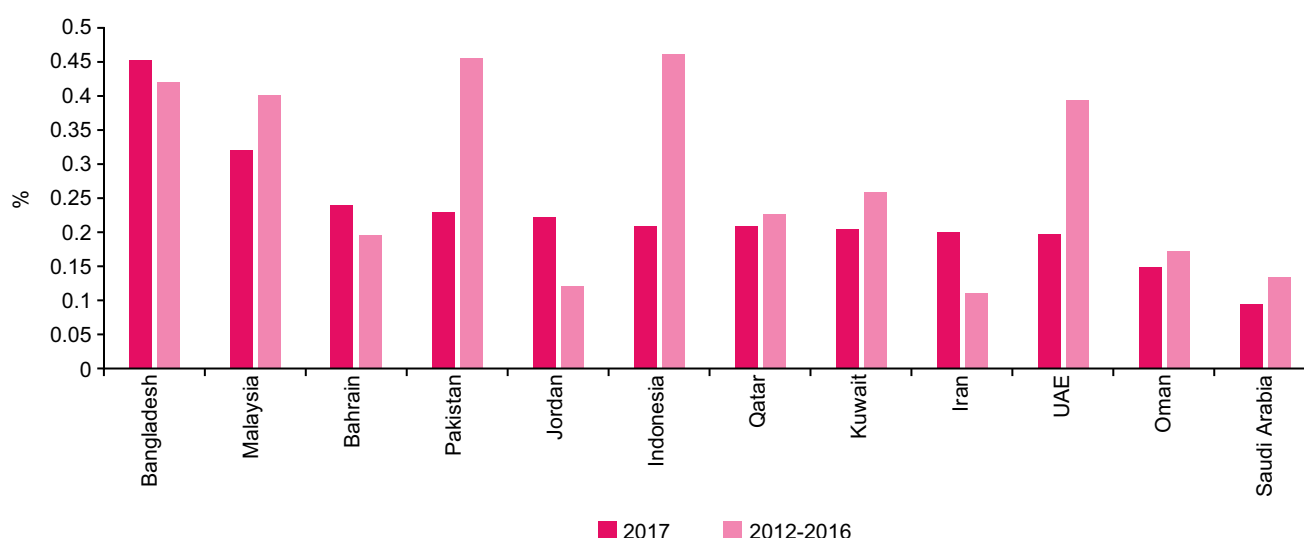
Source: IFSB Secretariat Workings

Expense ratio

Underwriting expense is estimated as the ratio of the sum of policy acquisition expenses (e.g. agency commissions, advertisements, property inspection costs and other administrative expenses) to contributions written. Gross contributions may be more appropriate as the denominator (rather than as earned contributions), as the expenses are incurred prior to and throughout the coverage period.¹¹⁴ However, different approaches are used by different supervisors (including both gross and net premiums written or earned). A high expense ratio may be due to a rise in market competition (e.g. high commissions and brokerage fees) or inflation in the territory of operation. Similar to the case of loss ratio, rates or underwriting pricing is a key determinant.

As shown in Chart 3.4.5, the ratio ranges from 10% to 45% of gross contributions of the *takāful* sector in the listed countries. Except in a few countries (Bangladesh, Iran and Jordan), the expense ratio shows an improvement during 2017 as compared to the previous year across the countries in the sample. The operators in Pakistan, Indonesia and UAE show the biggest improvement in the expense ratio in 2017. Greater deployment of technology, and other country-specific factors such as business mix and more cost-effective distribution channels for personal lines (car, home and travel insurance products) such as online, mobile or digital platforms, has further contributed to cost reduction and improvement in operational efficiencies.

Chart 3.4.5 Expense Ratio (2012–16 and 2017)



Source: IFSB Secretariat Working

The combined ratio

The combined ratio is calculated as the sum of the loss ratio and the underwriting expense ratio (Combined ratio = Loss ratio + Expense ratio). The combined ratio measures whether the contributions revenue of a *takāful* undertaking is sufficient to cover its underwriting operations. A ratio less (greater) than 100% means profits (losses) in the operation during the period. Although it is generally used in general business operations, it may be used to monitor the sufficiency of contributions revenue in the family segment.

Charts 3.4.6 and 3.4.7 illustrate the combined ratio of the *takāful* undertakings in the markets under review for 2017 and an average over six years. In the general *takāful* segment, only two markets (Iran and Malaysia) recorded a combined ratio above 100%, whereas in the remaining markets, *takāful* operators registered a combined ratio below 100%. Much improvement in the combined ratios

experienced in Indonesia, Bahrain, Pakistan, Saudi Arabia and Brunei was due to a combination of a lower loss ratio and expenses ratio posted by *takāful* operators. Further, combined ratio deteriorated in Kuwait, Jordan, Qatar and Oman in 2017, compared to the six-year average, due to increasing losses and declining rates. In spite of the increase in the combined ratio as observed in these general *takāful* markets, earnings from other sources, such as commission income from *retakāful*/reinsurers and investment income, offset the losses and the markets remain profitable. By contrast, a number of markets show improvement in the combined ratio for 2017, most noticeably in Indonesia, Pakistan and Bahrain. UAE and Malaysia also show a slight improvement. Those markets with the lowest combined ratio in the general *takāful* segment sector in 2017 achieved an improvement in profitability (see Charts 3.4.3 and 3.4.4).

¹¹⁴ "Analytical Tools for the Insurance Market and Macro-prudential Surveillance", *OCED Journal* (2016).

In the family segment, the combined ratio shows a rising trend in seven markets in 2017, whereas Indonesia, Brunei, Oman, Pakistan and Saudi Arabia show an improvement in the combined ratio within the same period. Much of the variation in the combined ratio stems from changes in the loss ratio, which are influenced, to a great extent, by line-

specific cycles, economic factors and catastrophe-related losses. The expense ratio at any point in time, which is relatively stable, reflects business models, business mixes and degrees of efficiency. The overall combined ratio mirrors choices regarding marketing, client segmentation, risk selection, pricing and claims administration.

Chart 3.4.6 Combined Ratio for General Takāful (2012–16 and 2017)



Source: IFSB Secretariat Workings

Chart 3.4.7 Combined Ratio for Family Takāful (2012–16 and 2017)



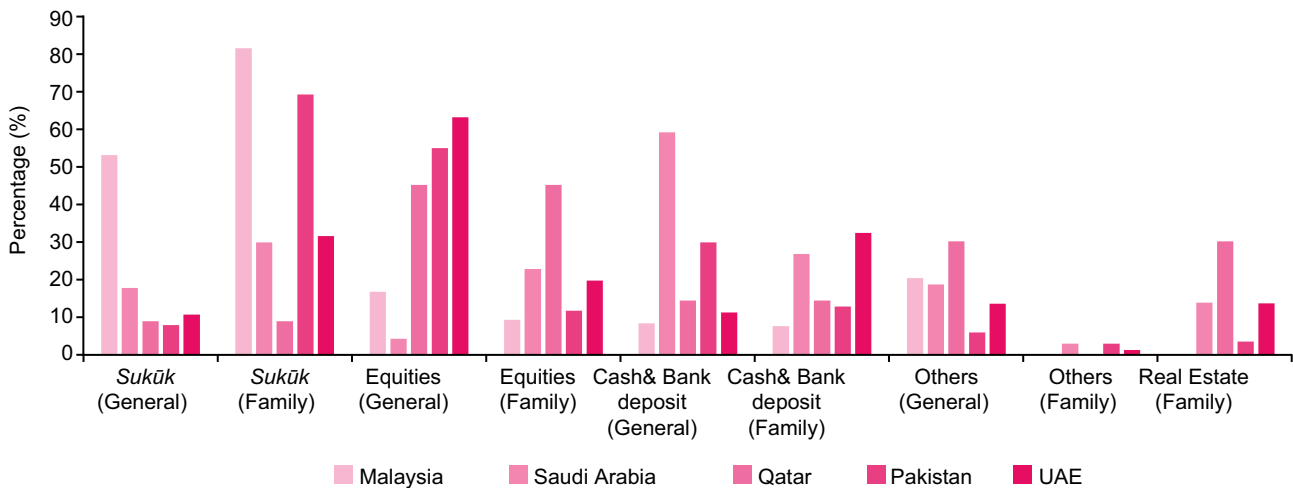
Source: IFSB Secretariat Workings

Investment composition

Based on the availability of data, this section captures the aggregate investment allocations of *takāful* companies in only five countries. We relied on the data provided by the insurance supervisors in these countries. Data collected for 2017 show a variance in the investments mix of family *takāful* business and that of general *takāful*. This illustrates that investment allocations and choice of *takāful* operators should reflect the needs of different *takāful* funds. Equally important is the fact that market conditions and instruments available in the respective markets also determine the investments mix. According to the available data for 2017, a noticeable variation is observed in the investment compositions between the general and family segments of *takāful* companies across the listed countries. More established Islamic finance markets such as Malaysia and Saudi Arabia have a large percentage of *shukūk* in their investments mix than do other countries, though the percentage is greater for family *takāful* than for general *takāful* (Chart 3.4.8). The operators in Saudi Arabia held more cash and bank deposits compared to other instruments, whereas the UAE, Qatar and Pakistan held a high proportion of equities in the general *takāful*

fund’s portfolio. Although the preference for equities is supported by fairly active and liquid stock markets in the region, profits from equity trading could be vulnerable to market volatilities and, of course, the volatility of oil prices. Recently, regulations in these countries have changed the investment regime to allow *takāful* operators to invest in a wider range of assets. This may lead to future changes in asset allocation, with operators holding a higher proportion of equities in their funds portfolios. Investments allocation in Malaysia was directed mainly towards *shukūk* issued by public institutions and the private sector. Investment in real estate is virtually absent in the general *takāful* investment portfolio. This is understandable considering the short-term nature of the fund, which dictates that the assets are in correspondingly short-term investments. Even in the family *takāful* segment, where it exists, it constitutes a small percentage, possibly due to regulatory requirements. Unit trust funds and other collective investments are grouped under (i.e. others) and are significant in the general *takāful* fund compared to family *takāful*, probably due to its near marketable nature.

Chart 3.4.8 Investment Composition of General and Family Takāful (2017)



Source: IFSB Secretariat Workings

Conclusion

The pressure on *takāful*'s margin has heightened the need for *takāful* operators to adapt to evolving methods and to adopt new technological approaches. *Takāful* operators are investing in new technologies to collect new data and making use of improved data-analytics capabilities. These, for example, can enhance timely response to decision making, better customer service and more efficient operations. Moreover, a number of regulatory developments and best practices are being

implemented across various countries with a bias towards technical pricing and capital requirements. This is with the aim to addressing the perceived market challenges such as poor pricing leading to declining technical profits and solvency ratios in compulsory business lines. Therefore, it is expected that the *takāful* sector across the market will continue to build capability to close the protection gap while dealing with challenges that can impact on its performance and viability.

RESILIENCE OF THE ISLAMIC FINANCIAL SERVICES INDUSTRY

Key Takeaways:**Islamic Banking**

- Except in a few instances, most of the stability indicators are in satisfactory conformance to minimum international regulatory requirements and compare favourably with those of conventional banking in the various jurisdictions and in both the US and the EU.
- As at 2Q18, key average profitability ratios are at their highest levels since 4Q13 (ROA 1.8%; ROE 16.3%). This performance is however, attenuated by the poor performance in a few jurisdictions on account of increasing operating expenses due to operational inefficiency, cash maintenance costs, and expenses relating to technological initiatives.
- The average capital adequacy ratios remain stable and above regulatory requirements in most jurisdictions (CAR 18.2%; Tier-1 16.2%). Also, average foreign financing is at its highest level since 4Q13, at 12.6% as well as average foreign currency financing, at 7.2%.
- Average non-performing financing is at its lowest level since 4Q13 at 4.9%, which compares favourably to a higher ratio of 5.6% registered in 2017. Nonetheless, the Islamic banking sector's non-performing financing (NPF) rate is still higher than those of conventional banks in both the EU and the US, with an average NPF of 3.6%.
- The wholesale, retail and trade sector received the highest proportion of financing from Islamic banks and windows: 27%, followed by household 26%, and manufacturing 5%.
- Notwithstanding the satisfactory results obtained in terms of liquidity based on the Funding to Deposit Ratio (FDR) on the back of a high volume of corporate deposit and long-term funding, all jurisdictions covered in this report except one are yet to commence the implementation of the liquidity coverage ratio (LCR) and net stable funding ratio (NSFR) as regulatory standards on liquidity.
- In a few jurisdictions, liquidity management issue seem prevalent due mainly to lack of Sharī'ah-compliant avenues for liquidity management, as well as liquidity shortages due to macroeconomic pressures, runaway inflation rates and negative economic outlooks triggering increased deposit withdrawals.

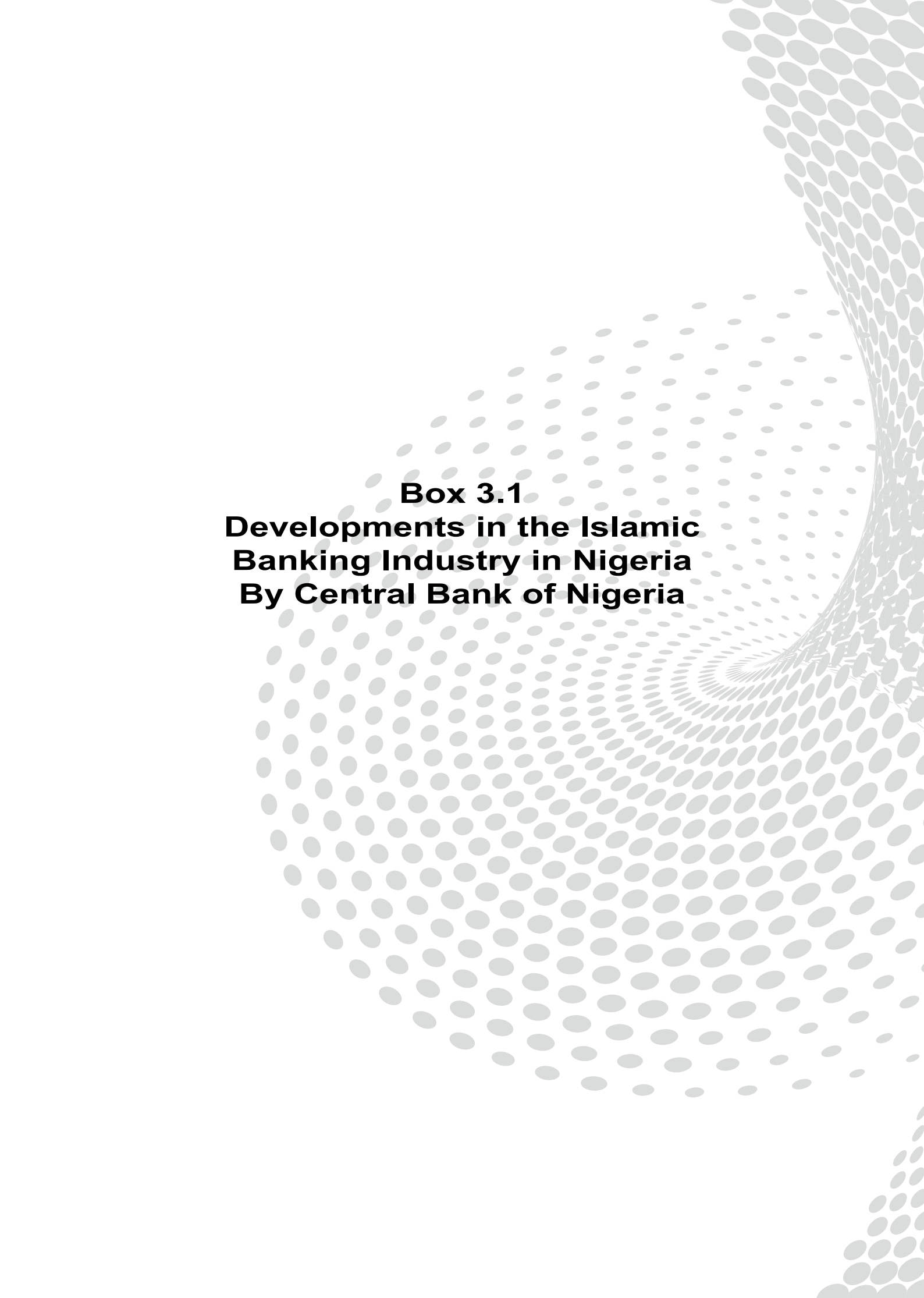
Islamic Capital Market

- Generally, the prospects for *ṣukūk* in 2019 seem very bright, hinged on the proposed new issuances as well as laudable initiatives introduced in various jurisdictions in 2018.
- Among the notable differences from 2017 is the remarkable 55% increase in corporate *ṣukūk*, with issuances in 10 jurisdictions – including three non- Organisation of Islamic Cooperation (OIC) member countries. Due to a rebound in oil prices and the reduced need to finance a national budget deficit, there has been a moderation in sovereign *ṣukūk* issuances, especially from the Gulf Cooperation Council (GCC).
- While there is no change in the jurisdictional concentration in terms of *ṣukūk* issuance, there is a change in terms of the structure. The hybrid structure (which was the most preferred and most prominent structure for sovereign *ṣukūk* in 2017) was the third preferred structure in 2018 after *murābahah* and *ijārah* contracts.
- Most Islamic equity indexes performed better than conventional benchmarks in 2018, due possibly to high exposure of the Islamic indexes to the health-care sector, one of only two sectors that recorded positive returns in 2018.
- In the Islamic funds market, returns across all asset classes except real estate contracted compared to 2017, recording the subsector's lowest rate in the past five years. In addition, the average size of funds also recorded a contraction, with the biggest decline recorded in the commodities asset class due to, among other reasons, a stronger US Dollar and concerns arising from trade tensions.
- Islamic funds are presently domiciled in 34 jurisdictions, three of which are non-OIC members: Ireland, Luxembourg and the US. No change is noted in the geographical focus of investments made by Islamic funds. Structure-wise, equity, money market and commodities are the main asset classes of global Islamic funds in 2018.
- In a few jurisdictions, liquidity management issue seem prevalent due mainly to lack of Sharī'ah-compliant avenues for liquidity management, as well as liquidity shortages due to macroeconomic pressures, runaway inflation rates and negative economic outlooks triggering increased deposit withdrawals.

RESILIENCE OF THE ISLAMIC FINANCIAL SERVICES INDUSTRY

Key Takeaways:**Takāful**

- Most jurisdictions recorded high retention ratios of above 90% in the family segment in 2017, and of over 80% in the general *takāful* segment, mostly in the personal lines (motor, medical and health, and personal accident), which also accounted for more than 80% of gross contributions in 2017.
- Relative to the six-year average, all the markets covered in the IFSR 2019 recorded improvement in ROA in 2017. Similarly, an upswing of roughly 3% in ROE was observed in 2017 relative to the six-year average of most countries covered in the IFSR 2019, reflecting improvement in underwriting margin and investment.. However, the low ROE recorded in a few jurisdictions was a result of strong capitalisation driven by compliance with regulatory requirements.
- Relative to the six-year average (2012–16), a rise in the loss ratio was reported in a number of countries. The surge in the loss ratio experienced in some of these markets was due mostly to the frequently high claims severity experienced in the motor and medical lines, as well as several incidences of building collapse, petrochemical plant blast and a series of earthquakes in some other jurisdictions.
- Generally, the expense ratio shows a relative improvement during 2017 ranging from 10% to 45% of gross contributions compared to the previous year across the countries in the sample. Plausible reasons for the cost reduction and improvement in operational efficiencies include greater deployment of technology, and other country-specific factors such as business mix and more cost-effective distribution channels for personal lines (car, home and travel insurance products) such as online, mobile or digital platforms,
- Most markets reported a combined ratio below 100% in the general *takāful* segment. Variations observed across jurisdictions in terms of the combined ratio stem from changes in the loss ratio, which is influenced to a great extent by line-specific cycles, economic factors and catastrophe-related losses. Notwithstanding, earnings from other sources, such as commission income from *retakāful*/reinsurers and investment income, have helped to offset losses and keep markets profitable.
- In the family segment, the combined ratio showed a rising trend in a number of markets in 2017. Notwithstanding, the expense ratio in this segment remains relatively stable, reflecting effectiveness of business models, and degrees of efficiency. The overall combined ratio mirrors choices regarding marketing, client segmentation, risk selection, pricing and claims administration.

A decorative background consisting of a tunnel-like structure formed by a series of concentric, slightly offset rings of grey dots. The dots are arranged in a way that creates a strong sense of perspective, drawing the viewer's eye towards the center of the tunnel. The dots are of varying sizes and are set against a white background.

Box 3.1
Developments in the Islamic
Banking Industry in Nigeria
By Central Bank of Nigeria



Background

Following an amendment to the Banks and Other Financial Institutions Act (BOFIA, 1991), which recognised Profit and loss sharing banks, the Central Bank of Nigeria (CBN) granted approval to the defunct Habib Bank Limited to operate a Non-Interest (Islamic) banking service window in 1992. Non-Interest Banking (NIB) is also known as “Islamic Banking” in other jurisdictions.

The CBN in 2010 issued the Regulation on the Scope of Banking Activities and Other Ancillary Matters (No. 3 of 2010) categorising the banks into the following structures:



Commercial Banks



Merchant Banks



Specialised Banks

The Regulation further defined Specialised Banks to include, among others, Non-Interest Financial Institutions (NIFIs).

In order to create a level playing field for promoters desiring to establish NIFIs, the CBN had released two Guidelines – namely, *Guidelines for the Regulation and Supervision of Institutions Offering Non-Interest Financial Services in Nigeria* and *Guidelines on Non-Interest Window and Branch Operations of Conventional Banks and Other Financial Institutions* – in 2010 and 2011, respectively.

The guidelines spelt out the licensing requirements, as well as the Sharī'ah and corporate governance requirements, of NIFIs. The guidelines were well received by the industry, with two non-interest banks (NIBs), one full-fledged (Jaiz Bank Plc) and a window of a conventional bank (Stanbic IBTC Bank) granted approval by the CBN to operate as non-interest (Islamic) banks in 2011. Other NIFIs were subsequently licensed by the CBN.

Development in the Non-Interest Banking Sector

Pursuant to the CBN mandate of promoting a sound financial system in Nigeria, the CBN issued a number of circulars and guidelines for the regulation and supervision of NIFIs in line with International best practices. In this regard, the following significant events took place:

1. Sharī'ah Governance

In line with the implementation of IFSB Standard 10 to effectively regulate and supervise NIFIs in Nigeria, the CBN adopted a two tier Shari'ah governance framework as follows

a) At NIFIs Level

NIFIs are required to establish a Sharī'ah advisory body as part of their governance structure, to be known as “Advisory Committee of Experts” (ACE). The ACE is expected to operate as an independent body, with the principles of competence, confidentiality and consistency properly enshrined in its operations. The CBN issued Guidelines on the Governance of ACE in 2015, which specifies modalities for the appointment of the ACE as well as their qualifications, duties and responsibilities..

b) Regulatory Level

In 2013, the CBN inaugurated the Financial Regulation Advisory Council of Experts (FRACE) comprised eminent individuals who are experts in the field of Islamic commercial jurisprudence. FRACE is the central Sharī'ah board responsible for advising the CBN on issues relating to the operations of NIFIs in Nigeria, as well as for providing assurance that the strategic direction and conduct of financial transactions of NIFIs are in compliance with the rules and principles of Islamic commercial jurisprudence.

2. Guidelines and Regulations for the Operation of NIFIs

The CBN has issued the following guidelines and circulars for the regulation and supervision of NIFIs in Nigeria:

a) Guidelines for the Regulation and Supervision of NIFIs

The guidelines provide minimum standards for the operation of NIFIs in Nigeria. NIFIs under this model are to ensure that their business operations are conducted in accordance with the principles and practices of Islamic commercial jurisprudence. NIFIs are required to execute a technical agreement with an established and reputable Islamic bank or financial institution for a minimum period of three years. A licence is issued by the CBN upon such terms and conditions which authorise the operation of a non-interest financial institution on a regional or national basis for banks, or any other basis for other financial institutions.

NIFIs are further expected to have an Advisory Committee of Experts (ACE) as part of their governance structure. The NIFIs are also to comply with the *Companies and Allied Matters Act (CAMA) 1990* (amended) and the *Banks and Other Financial Institutions Act (BOFIA) 1991* (as amended) and all relevant and extant regulations issued by the CBN.

b) Guidelines on Non-Interest Window and Branch Operations of Conventional Banks and Other Financial Institutions

The Guidelines provide for conventional banks and other financial institutions operating in Nigeria to offer or sell non-interest products and services in line with the principles under this model through subsidiaries, windows or branches only. The banks are expected to execute Service Level Agreements (SLA) in respect of shared services with their subsidiaries, branches or windows. The banks are further required to establish a dedicated unit/division/department to oversee the non-interest operations of the institution which shall ensure compliance with the rules, policies and procedures guiding the operations of the non-interest windows or branches.

The guidelines stipulate that a conventional financial institution shall not co-mingle its funds with those from its non-interest window or branch operations. Consequently, separate accounting books and records shall be maintained. It shall also maintain a separate account with the CBN for its non-interest window or branch operations.

c) Guidelines on the Governance of Advisory Committees of Experts (ACE) for NIFIs

The Guidelines aim to:

- i. Set out the rules, regulations and procedures for the establishment and operations of the Advisory Committee of Experts of an NIFI;
- ii. Define the role, scope of duties and responsibilities of the Committee and its members towards the NIFI;
- iii. Define the role, scope of duties and responsibilities of the NIFI towards the ACE;
- iv. Outline the functions relating to Shari'ah review and audit processes; and
- v. Define the working relationship between the ACE and the CBN's Financial Regulation Advisory Council of Experts (FRACE).

All NIFIs are required to establish an Advisory Committee of Experts (ACE) to be appointed by the Board of Directors subject to the approval of the CBN. The appointment shall be for a renewable term of four years subject to a maximum of three terms. For the effective functioning of the ACE, its composition shall consist of a minimum of three (3) members and no one member shall belong to more than one ACE of financial institutions under the supervisory purview of the CBN.

However, considering the nature and size of Non-Interest Microfinance Banks (NIMFB), a unit NIMFB with the prior approval of the CBN may engage the services of the ACE of an existing NIFI licensed by the CBN.

The ACE has the following duties and responsibilities:

- i. Be accountable for all Shari'ah decisions, opinions and views provided by it.
- ii. Advise the NIFI's board and management on jurisprudence-related matters so as to ensure the institution's compliance with principles of Islamic Commercial Jurisprudence at all times.
- iii. Review and endorse policies and guidelines related to the principles underpinning non-interest (Islamic) finance.
- iv. Endorse and validate relevant documents for new products and services to ensure that they comply with the principles of Islamic Commercial Jurisprudence.
- v. Provide written Shari'ah opinion to the NIFI in respect of new products and other issues referred to it.
- vi. Provide support to the NIFI in respect of questions or queries that may be raised regarding the compliance of its products to the principles of the model.
- vii. Assist the internal audit of the NIFI on Shari'ah Compliance Audit.

d) Guidelines on the Governance of FRACE for NIFIs

The Guidelines aim to:

- i. Set forth the minimum qualifications required for the appointment of FRACE members;
- ii. Define the duties and responsibilities of the Council and its members;
- iii. Define the working relationship between the FRACE and the individual Advisory Committees of Experts (ACE) of NIFIs; and
- iv. Outline a code of conduct for members of the FRACE.

The FRACE was established as an expert advisory organ for CBN on matters of Islamic commercial jurisprudence as they relate to the operations of NIFIs. Members of the FRACE are appointed on a part-time basis. The appointment of members of the FRACE was for a term of two (2) years, renewable subject to satisfactory performance.

The FRACE comprises a minimum of five (5) members. The Special Adviser to the Governor on Non-Interest Banking is a member, while the Director, Financial Policy and Regulation Department serves as the Secretary. The FRACE reports to the Governor through the FRACE Secretariat domiciled in the Financial Policy and Regulation Department.

The FRACE has the following duties and responsibilities:

- i. Give expert opinion and assistance on non-interest (Islamic) banking and finance matters referred to it by the CBN;
 - ii. Give expert opinion and assistance on non-interest (Islamic) banking and finance matters referred to it by other regulatory agencies in the Nigerian financial system;
 - iii. Endorse and validate application documents for new products and services, advertising materials, etc., from NIFIs to ensure that they comply with the provisions of Islamic commercial jurisprudence;
 - iv. Provide written juristic opinion of Islamic jurisprudence in respect of new non-interest (Islamic) financial products and instruments developed by the CBN or referred to it by the CBN or other regulatory bodies in the Nigerian financial system;
 - v. Resolve differences of opinion arising between different Advisory Committee of Experts (ACEs) of NIFIs and between members of the same ACE; and
 - vi. Resolve disputes arising between the Boards of Directors and ACEs of NIFIs, etc.
- e) Circular on the Treatment of *Hāmish al-Jiddiyyah* (Earnest Deposit)

The Central Bank of Nigeria observed inconsistencies in the treatment of *hāmish al-jiddiyyah* (HAJ) in *murābahah* and *ijārah* contracts by NIFIs operating in Nigeria and decided to standardize its treatment in line with international best practices.

f) Guidelines on the regulation and supervision of Non-Interest (Islamic) Microfinance Banks in Nigeria:

The guidelines provide the minimum standards for the operation of Non-interest Microfinance Bank in Nigeria (NIMFB). The target clients for the NIMFB include low-income earners, low-income households, unbanked and under-served people. The guidelines also specify products and services that are permissible and non-permissible for NIMFBs operating in Nigeria.

Any unsecured exposure to an individual of an aggregate amount in excess of fifty thousand Naira (N50,000) is not permitted. The maximum exposure by a NIMFB to any individual customer, director or related parties shall not exceed 1 percent of its shareholders' fund, while aggregate insider-related exposure at any time shall not exceed five (5) percent of its shareholders funds. A NIMFB is required to maintain not less than 5% and not more than 10% of its deposit liabilities in Sharī'ah compliant liquidity management instruments.

3. Liquidity management instruments

The CBN has also developed the following liquidity management instruments for the NIFIs to address observed liquidity challenges in the sub-sector:

CBN Safe Custody Account (CSCA)

This instrument is based on a contract of safe-custody of funds (*wadī'ah*) between a depositing financial institution and the CBN, with the CBN as the custodian. The tenure can be on an overnight, three-day and seven day-basis, subject to a roll-over on maturity. The CBN, having been a custodian of the funds, has no obligation to make or offer a return; neither does the participating institution demand or expect a return. However, the CBN may exercise its discretion to do so, though it shall not be a stipulated condition for the contract.

Funding for Liquidity Facility (FRLF)

The CBN provides a liquidity facility on an overnight basis only which is terminated on the next business day. An authorised NIFI is to provide eligible security as collateral valued at minimum % of the facility.

Intra-Day Facility (IDF)

The CBN provides a liquidity facility on an overnight basis only which is terminated on the next business day. An authorised NIFI is to provide eligible security as collateral valued at a minimum 110% of the facility

CBN Non-Interest Note (CNIN)

This is a financial paper issued by the CBN evidencing an interest-free loan instrument between an authorised financial institution (lender) and the CBN (borrower), which entitles the authorised non-interest financial institution to raise a corresponding interest-free loan from the CBN. The note is not discountable, but transferable at par.

CBN Non-Interest Asset-Backed Securities (CNI-ABS)

This instrument involves the securitisation of CBN's holdings in International Islamic Liquidity Management (IILM) *shukūk* and/or *shukūk* by multilateral organisations in which Nigeria is a member. The tenor is based on the tenor of the underlying assets. Similarly, the return is based on the net returns of the underlying assets and a 10% margin for the CBN. The instruments are tradable in the money market

4. Multinational and Cross-Border Cooperation

The CBN membership of the Islamic Financial Services Board (IFSB) and International Islamic Liquidity Management Corporation (IILM) enables the Bank to benefit from the capacity building and investment opportunities offered by them.

5. Collaboration with Other Sectors of the Nigerian Financial System

The CBN collaborates with various regulatory agencies in the following areas to promote the development of Islamic finance in Nigeria:

a) Takāful Sector

The National Insurance Commission (NAICOM) issued Operational Guidelines for Takāful Insurance in 2013, licensed two standalone takāful operators and three windows of conventional insurance companies. It has equally set up a Sharī'ah Takāful Advisory Council (TAC).

b) Rules on Islamic Fund Management and Shukūk Issuance

The Securities and Exchange Commission (SEC), being the apex regulatory body in the Nigerian capital market, has issued Rules on Islamic Fund Management and Shukūk Issuance.

c) Investment of Pension Assets

The National Pension Commission (PENCOM) had in 2017 issued *Regulation on Investment of Pension Fund Assets*, which recognised *sukūk* as one of the accepted classes of assets for pension funds investment.

d) Non-Interest Deposit Insurance

The Nigeria Deposit Insurance Corporation (NDIC) introduced a Non-Interest Deposit Insurance Scheme for NIFIs based on the *kafālah bi al-ajr* (fee-based guarantee) Sharī'ah contract. The Maximum Deposit Insurance Coverage (MDIC) is N500,000 and N200,000 per depositor per account in NIBs and NIMFB, respectively. The following non-interest deposits are eligible for Deposit Insurance Coverage:

- safe-keeping deposit (*wadī'ah*);
- interest-free deposit for investment (*qard*);
- profit-sharing/loss-bearing deposit (*muḍārabah*);
- profit- and loss-sharing deposit (*mushārah*); and
- any other deposit-type that is non-interest based and approved by the CBN.

e) Sovereign Ṣukūk

The Federal Government of Nigeria (FGN) via Debt Management Office (DMO) successfully issued N100 billion Naira *ijārah* sovereign *ṣukūk* in 2017 and 2018.

f) Non-Interest Banking Tax Regulation

A non-interest banking tax regulation was developed by the Federal Inland Revenue Services (FIRS).

Performance of the Non-interest Banking Sector in Nigeria	
Total Assets	Total Deposits
<p>The total assets of non-interest banks grew from N66.96 billion (USD 218.98 million) in 2015 to N86.29 billion (USD 282.19 million) in 2016 and N122.35 billion (USD 412.47 million) in 2017, indicating an annual growth rate of 65.04% and 51.63% in 2016 and 2017, respectively. Similarly, the share of total assets of non-interest banks against total asset in the banking industry increased to 0.28% and 0.39% as at December 2016 and 2017, from 0.25% recorded at end of December 2015.</p> <p>Please note that Prudential and Structural Islamic Financial Indicators (PSIFIs) only covers full-fledged Islamic banks.</p>	<p>The total deposits of Non-Interest banks grew at a rate of 39.91% and 34.28% in 2016 and 2017, respectively. It is important to note that the growth in the NIB subsector is driven by the increasing number of operators, which is the non-interest windows and microfinance banks in the industry.</p> <p>Total Financing (Credit) The total financing for Non-Interest banks stood at NGN 26.74 billion (USD 87.44 million) in 2015, NGN 44.50 billion (USD 145.52 million) in 2016, and NGN 55.55 billion (USD 181.64 million) in 2017. This showed a strong growth rate of 66.42% and 24.83% in NIBs total financing in 2016 and 2017 respectively.</p>

CONCLUSION

Overall, the total share of non-interest banks in the Nigerian banking sector is quite negligible, The nascent sector, however, witnessed a modest growth relative to the long-established conventional banking Industry. The growth is largely fuelled by the following initiatives of the CBN and other stakeholders:

- Development of Regulatory Framework for the Regulation and Supervision of NIFIs;
- Establishment of a Non-Interest Banking Unit/Secretariat to oversee the non-interest banking subsector;
- Establishment of an advisory body at the CBN on Islamic banking and finance; and
- Updating guidelines for the nine CBN Intervention Schemes to accommodate NIFIs.

These initiatives are expected to further strengthen the regulation of the sector and enhance its contribution to the growth in banking services and promote financial inclusion in Nigeria.



Prudential and Structural Islamic Financial Indicators (PSIFIs)

The Prudential and Structural Islamic Financial Indicators (PSIFIs) are developed by the IFSB with the objective of establishing a global database on Islamic finance in order to facilitate assessment of the strengths and vulnerabilities of Islamic financial systems and support macroprudential oversight of the industry. The PSIFIs database is part of an international effort involving the IFSB, other international organisations and the IFSB member regulatory and supervisory authorities to construct a comprehensive picture of the development of the Islamic financial services industry.

The indicators provide a set of jurisdiction-level, aggregate indicators on the financial soundness, growth, and structure of the Islamic banking system, covering capital adequacy, earnings, liquidity, asset quality, exposures to various types of risks and structural elements such as asset and liability composition, revenues and earnings. Many indicators are parallel to the IMF's Financial Soundness Indicators (FSIs), but are customised to capture information unique to Islamic banks.

Key features of the PSIFIs database

- Publishes aggregated country-level Islamic banking data compiled by banking regulatory and supervisory authorities
- Reports the data separately for stand-alone Islamic banks and Islamic windows of conventional banks
- Provides the data on a quarterly basis, subject to availability
- Comprehensive metadata, providing information / description of the reported data
- Currently comprises data reported by banking regulatory and supervisory authorities from 20 countries: Afghanistan, Bahrain, Bangladesh, Brunei, Egypt, Indonesia, Iran, Jordan, Kuwait, Lebanon, Malaysia, Nigeria, Oman, Pakistan, Palestine, Qatar, Saudi Arabia, Sudan, Turkey and United Arab Emirates
- Comprehensive coverage of the Islamic banking sector (the database reflects more than 90% of global Islamic banking assets)
- Indicators are available starting from December 2013

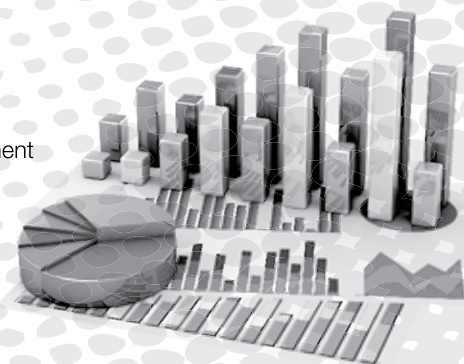


The PSIFIs Database is useful for:

- Financial sector supervisors and policy-makers
- Fund providers and investors
- Academics and researchers
- International agencies and standard-setters in the financial sector
- International financial press and media
- Shari'ah-related stakeholders

Key Benefits:

- Provides a set of reliable and consistent, internationally comparable measures of the soundness, growth and structure of Islamic banking systems
- Strengthens transparency and supports macroprudential analysis and assessment of the structure, state of development and performance of the industry at any given time
- Helps track the progress of the Islamic banking industry in adopting new regulatory standards
- Provides a clear picture of the role and contribution of Islamic banking within national economies and enhances comparability of Islamic finance within and across jurisdictions



Access to the Database:

The full set of PSIFIs data and metadata is available on the PSIFIs portal at the IFSB website: <http://psifi.ifsb.org>

For more information on the PSIFIs database, please see the Frequently Asked Questions (FAQ) page at the above link.



4.0 EMERGING ISSUES IN ISLAMIC FINANCE

4.1 BLOCKCHAIN TECHNOLOGY AND ISLAMIC FINANCE: SUPERVISORY AND REGULATORY CONCERNS

The Bitcoin blockchain is part of a broader FinTech movement that spread rapidly in the years after the Global Financial Crisis. FinTech evangelists propagated the disruption of financial intermediaries while the incumbent financial institutions started to take a closer look at the underlying technology to understand its disruptive potential. Initially, the focus was on: (a) cryptography for the creation of a trust-less decentralised system for the transfer of digital assets; (b) distributed ledgers for a tamper-resistant networked storage system. Another perspective was added after cryptocurrencies had become an instrument for the financing of FinTech start-ups; and (c) crypto-coins as digital representations of financial and real assets. An understanding of the functioning of these components is a precondition for an assessment of their strengths and weaknesses in the financial industry in general and in Islamic finance in particular. The Bitcoin system is taken as a point of reference. The examples have been selected that are relevant for Islamic finance.¹¹⁵

4.1.1 The Bitcoin system

Bitcoin was conceptualised as a peer-to-peer (P2P) electronic cash system based on cryptographic proofs as a replacement of trust in intermediaries such as banks, “allowing any two willing parties to transact directly with each other without the need for a trusted third party” (Nakamoto 2008, 1). The “cash” that is transferred in the Bitcoin system is not fiat money but the cryptocurrency Bitcoin (BTC). The creation of this currency is necessary because a transfer of digital fiat money would require bank accounts and thus contradict the intention to create a P2P electronic cash transfer system without intermediaries.

4.1.1.1 Essentials of the Bitcoin system

The core of Bitcoin as a P2P electronic cash transfer system is a network of approximately 10,000 computers (“nodes”) that run the open-source Bitcoin software and store a copy of the regularly updated database of all confirmed transactions. Everybody can generate one or multiple addresses for Bitcoin transfers. There is no authority to approve addresses, and there is no KYC mechanism in the permissionless Bitcoin system. Everybody can use the network (without being a node) through electronic wallets that facilitate the transfer of Bitcoins.

The nodes receive the requests for transactions and check that they meet the requirements of the Bitcoin protocol – in particular, that the sender has sufficient Bitcoins for a transfer. Validated transactions are placed in a “mempool” from which competing nodes with specialised hardware – so-called “miners” – pick a number of transactions for the creation of a new block which updates the distributed database (which is a chain of all previously added blocks). The miner has to prove that all required validation work has been done and that the new block is cryptographically chained to the last block. The proof of work in Bitcoin requires the finding of an arbitrary number with specific qualities (a “nonce”). The miner who finds it first is rewarded by new Bitcoins (currently 12.5 BTC) and transaction fees of the block.

Like fiat money, Bitcoins do not have an intrinsic value. They are not backed by any other asset and get value only when people are willing to exchange Bitcoins for goods and services in the real economy or for digital assets (including other cryptocurrencies) to pay for services in the crypto world such as multi-player strategy games or the trading of digital collectables.

Outside of the crypto world, Bitcoins were widely accepted by sellers in the “Silk Road” marketplace (2011–13) and other platforms of the darknet where illegal objects such as drugs and weapons were traded. Other than that, only very few shops and online sellers accept payments in BTC, and Bitcoins are rarely used as a unit of account or for the pricing of goods and services. The minimal acceptance of Bitcoins outside the crypto world is primarily due to the extreme volatility of the BTC price in fiat currencies, which makes Bitcoins a poor store of value.

Two technical restrictions which are hardcoded in the Bitcoin system limit its capacity to approximately seven transactions per second. This is far less than the 1,700 transactions per second that VISA processes on average (or 24,000 at peak load) (Sedgwick 2018). The limitation of the throughput can generate massive queues of pending transactions and delays of several hours, or even days, before a transaction is confirmed. Waiting for hours can mean substantial gains or losses because of the high volatility of the BTC exchange rate.

Better scalability and higher performance of blockchain cryptocurrencies is possible, but only with an architecture significantly different from the permissionless (public) Bitcoin system. Since permissionless and decentralised cryptocurrency systems necessitate a time-consuming consensus mechanism, most blockchain systems with much better performance than Bitcoin are permissioned (private) blockchains with some degree of centralisation.

¹¹⁵ For a survey, see Mohamed and Ali 2019.

4.1.1.2 Issues and vulnerabilities

Immutability of Ledger Entries: The Committee on Payments and Market Infrastructures (CPMI) of the Bank for International Settlements (BIS) points out that, although immutability of data is crucial to the safety of a ledger, circumstances such as inadvertent errors and fraud could make it necessary to change data by “correction or reversal of transactional data, including through the creation of new transactions.... As such, governance and operational procedures are needed to address exceptions processing” (CPMI 2017, 18). A special case is potential conflicts between the immutability of data recorded in a distributed ledger and data privacy laws. The *General Data Protection Regulation* of the European Union establishes a right to erasure and a right to be forgotten.

Probabilistic Settlement: In Bitcoin and other systems with proof-of-work verification and consensus mechanisms it can happen that two different blocks – say, A and B – are validated at nearly the same time. Due to network latency some miners see block A before B and continue their work on the basis of A, while others see B before A and continue to work from B. This split in the blockchain will be remedied by the rule of the longer chain: One of the two branches will grow faster by adding more blocks to the chain than the other branch, implying that more cryptographic quests have been solved and more proven work has been done on that longer section of the chain. This longer chain will replace the shorter one, and all transactions of the shorter chain which were not also processed in the blocks of the longer chain will go back to the mempool for inclusion in one of the next blocks. As a consequence, individual transactions get a first confirmation of execution which may be revoked in cases of a split of the chain, and the time for a settlement will be extended by the time required for the formation of a new consensus and for the inclusion of the transaction in a new block. This may take an hour or much more, depending – among other things – on the volume of transactions and possible queues. In this respect, the settlement is probabilistic, and it is not possible to define exactly the moment when the settlement (i.e. the transfer of ownership of a digital asset) is final. The probabilistic nature and uncertainty of the settlement finality causes not only practical problems (especially for high-value transactions) but may also raise conceptual issues regarding Sharī‘ah compliance.

Wasteful Electricity Consumption: Finding the right nonce in Bitcoin necessitates the employment of computing hardware and electricity. The requirement of this proof of work by the miners has led to extremely high energy consumption of Bitcoin mining and massive CO2 emission. The current electricity consumption is comparable to that of Hongkong (44TWh), Singapore (50TWh), or Portugal (59TWh). How dramatic this energy consumption is, becomes apparent with the electricity consumption per transaction which is estimated at a staggering 448KWh for a single transaction in Bitcoin. In contrast, the electricity consumption of 100,000 transactions of the VISA payments system is estimated at only 169KWh.

It is absurd to argue that “the computation power in the form of proof-of-work [i.e. the excessive waste of scarce resources in the past] is exactly what gives Bitcoin its intrinsic value under the laws of Islam” (Buntinx 2018). The same view: “Proof of Work, with electricity and hardware costs, provide the cryptocurrency with intrinsic value. This process makes Bitcoin halal in that it proves that Bitcoin has intrinsic value” (Lielacher 2017). Again: “In many ways, cryptographic-based currencies fit the mold of Sunnah money: they hold intrinsic value from the energy used to produce them” (n.a. 2018, 2).

Hacked Wallets and Exchanges: Most Bitcoin users purchase Bitcoins (and other cryptocurrencies) for fiat money through specialised cryptocurrency trading platforms, usually called “exchanges”. Some exchanges are matchmaking platforms for P2P transactions in fiat money and cryptocurrencies, while other exchanges are brokers where the users transact with the exchange. With the growing number of cryptocurrencies, a “second generation” of exchanges emerged where users can trade cryptocurrencies for other cryptocurrencies. Users communicate with the exchanges through smartphone or laptop wallets that often allow the storage of and access to private keys.

While properly implemented blockchains such as Bitcoin are secure against hacking, wallets and exchanges have been hacked in a worrisome frequency and dimension. Some exchanges have been hacked more than once, and one even three times (Wang 2018). In 2018, cryptocurrencies worth USD 950 million had been stolen from exchanges and trading platforms (CipherTrace 2019). Wallets and exchanges are weak points of cryptocurrency systems. These institutions are centralised structures that require trust. As such they are alien elements in public blockchains that aspire to be decentralised and trust-less exchange systems but need a link to the world of fiat money.

4.1.1.3 Criminal activities and patchy regulation

Regulations that address these points of failure of blockchain systems are desirable and have been issued in some jurisdictions (including security measures, risk management requirements and liability rules). However, the ongoing successful hacking suggests that they are not always successful. This may be due to a patchy global regulatory landscape where regulations differ by types of exchanges (e.g. trading platforms or brokers, spot or derivative trading) and between jurisdictions.

It is also unsatisfactory that anti-money laundering/countering the financing of terrorism (AML/CFT) regulations are in place in most but not in all countries, and that their national enforcement is not always strict or effective. Only global enforcement of AML/CFT laws and regulations will make it sufficiently difficult and costly for hackers to whitewash stolen cryptocurrencies and reduces incentives for hacking. Currently, criminals still find enough unregulated cryptocurrency exchanges in countries with weak AML laws.

The lack of effective enforcement of KYC and AML regulations is also a serious concern given an innovation that is spreading globally, but particularly fast in North America: Bitcoin ATMs (BTMs). Weak KYC/AML technologies and lax law enforcement have seemingly made the use of BTMs a favoured method for money laundering of drug dealers and other criminals even in the United States (Schoenberg and Robinson 2018).

4.1.1.4 The failure of Bitcoin as private money in wide circulation

Within one year, not only Bitcoin but the total cryptocurrency market capitalisation dropped from a maximum of more than USD 800 billion on 7 January 2018 to the post-bubble low of USD 100 billion on 15 December 2018, and it fluctuates now (mid-January 2019) around USD 130 billion. Bitcoin has not been able to establish itself (outside the grey and black economy) as a widely accepted decentralised private alternative to state-managed fiat money.

The often-lamented volatility of the exchange rates of Bitcoin and other cryptocurrencies (mainly caused by widespread speculation and price manipulation) is undoubtedly a severe deficiency. However, there may be a more fundamental reason for the failure of Bitcoin to establish itself as an alternative to state-issued fiat money: the Bitcoin blockchain presents the solution for a problem that the vast majority of “ordinary people” do not have – namely a fundamental distrust in state-issued fiat money. Independent central banks have kept inflation rates at low levels over extended periods and provide a reasonably stable store of value and medium of exchange. People have lost trust in central banks that produce hyperinflation (as in Zimbabwe and Venezuela) or a deflationary shortage of fiat money (as during Great Depression in the early 1930s in the US and Europe), but that is not the situation in most countries today. With this, one central argument for a switch to Bitcoin does not apply.

Another argument was the elimination of middlemen from the payment process. For ordinary people, the problem was not primarily the distrust in the security of their money handled by these intermediaries (especially not in countries with sufficient deposit guarantee schemes) but the high costs of their services (and their misbehaviour during and after the Global Financial Crisis). On the other hand, spectacular hacks, scams, market manipulations, and bankruptcies did not create much trust in wallet providers, trading platforms, brokers, miners, or the blockchain systems in general. Furthermore, initial cost advantages of FinTech payment systems dwindled when the challenged incumbents modernised their legacy systems and brought down the fees for payment services.

Although the Bitcoin blockchain has not delivered what was envisaged by its creators (private money in wide circulation), Bitcoin is the largest cryptocurrency and widely accepted as a “cross-platform currency” for payments in the crypto world. Because of this persistent demand, the BTC exchange rate will not drop close to zero in the foreseeable future. Instead, Bitcoin prices may rise again, and Bitcoins resume their role as an object of widespread speculation.

4.1.2 Distributed ledger systems

Since Bitcoin was conceptualised as private money, the initial focus was on the creation and use of cryptocurrencies. However, some software developers, FinTech entrepreneurs and business consultants were more attracted by another element of the Bitcoin system, the distributed database which is stored in multiple temper-proof identical and simultaneously updated copies. This database is a distributed ledger, and its combination with the technology for consistent and consensual updating is known as “distributed ledger technology” (DLT). The DLT in Bitcoin was structured for a permissionless P2P cash transfer system, but it can also be used to structure permissioned (private) payment systems or (permissionless or permissioned) blockchain systems for other purposes than crypto-cash transfers.

4.1.2.1 Features of distributed ledgers

Permissionless and permissioned DLT systems share common features and the advantages of a distributed database system. Among others, DLT systems: (a) can reduce the time needed for data reconciliations between decentralised units and a central unit; (b) can speed up transfer and settlement procedures in financial institutions and by this reduce the need for liquidity buffers; (c) do not have a single point of failure and are more robust and better protected against technical breakdowns than centralised systems; (d) can create strongly tamper-resistant ledgers with full or regulated transparency of recorded transactions in public or private networks; (e) can provide a high degree of anonymity of users (if required); (f) can record all kinds of digital and digitalised assets (including transferable rights), document ownership of assets and rights, and can facilitate simple, fast and secure transfers of assets and rights; (g) enable an automated decentralised transaction tracking, auditing, and reconciliation; (h) store data redundantly on multiple network nodes which enhances the data security and reduces costs for backups and for the validation of data authenticity; (i) can facilitate the use of smart contracts for the execution of self-enforcing business rules (such as globally accessible automated procurement and payment sequences); and (j) reduce systemwide the volume of errors in manual data entry and reduce the corresponding costs of supervision.

However, DLT systems are not free of disadvantages. A general problem of DLT systems is their need to synchronise ledgers continuously among all full nodes of the network, which is time-consuming, especially when complex routines for consensus building must run in an open network with many nodes. DLT systems, notably public (permissionless) systems that are open for everybody, can grow beyond an optimal network size and suffer from congestion effects. Furthermore, less efficient but coequal nodes can bring down the overall system performance. This is particularly a problem of public systems that cannot restrict nodes from joining the network.

Public DLT systems make transactions irreversible and uncorrectable while private DLT systems may allow the halting of initiated transactions and corrections of the ledger. Whether this is an advantage or disadvantage depends on the use.

4.1.2.2 DLT and competing non-DLT systems for financial services

When the limitations of the original Bitcoin became visible, various proposals for an improvement of the performance, especially for an increase of the throughput, have been discussed and implemented in modified systems of permissionless blockchains. Such improvements require a change in the software run by the nodes. If not all nodes are willing to apply a new version of the software, the switch to new rules is not complete. A split of the blockchain (“hard fork”) happens, and a new currency in addition to the existing one emerges. If over time the vast majority of nodes will work on the same (old or new) currency, the other may die. Alternatively, both currencies (with a shared history up to the fork) can coexist in perpetuity. Bitcoin has seen repeated forks, usually addressing the scalability issues. Examples of failed forks are Bitcoin Classic and Bitcoin Unlimited, while Bitcoin Cash (BCH) and Bitcoin Gold (BTG) have become new cryptocurrencies. However, the transaction volume of even the most successful Bitcoin fork remained so small that its superior performance potential is not utilised.

Furthermore, the performance of Bitcoin forks is superior to the original Bitcoin system, but they fall short of the performance achieved by permissioned blockchain systems with faster consensus mechanisms and synchronisation procedures. “Permissioned” systems restrict the access to the computer network and centralise to some degree the consensus formation. FinTechs, as well as established technology firms, have developed DLT systems for closed user groups of banks and other financial institutions. Such systems for real-time gross settlement, currency exchange, and payments and remittance services are often presented as alternatives to the traditional correspondent banking system as epitomised by SWIFT. The SWIFT system has been criticised as being cumbersome, slow, non-transparent and expensive. Ripple and Stellar are two examples for challengers which are also of relevance for Islamic finance. Three major players in Islamic banking – Al Rajhi Bank (Saudi Arabia), the National Commercial Bank (Saudi Arabia), and CIMB Islamic (Malaysia) – use Ripple’s technology for cross-border payments, and Stellar has received a Sharī’ah compliance certificate from a Sharī’ah advisory in Bahrain. SWIFT – which is also used by a number of Islamic banks – has responded to the challenges by launching “SWIFT global payments innovation (gpi)” for faster transfers of funds, transparency of fees and exchange rates, and an end-to-end tracking of payments in compliance with all current regulations. It is noteworthy that SWIFT explored the potentials of distributed ledger technologies but decided, for the time being, to maintain the basic structure of correspondent banking and to revamp it with a much more powerful and versatile messaging system, using cloud and application programming interface (API) technology.

4.1.2.3 Blockchain systems with non-payment orientation

Ethereum is a public blockchain that is structurally very similar to Bitcoin (Dannen 2017). Its currency is Ether (ETH), the information recorded in the distributed ledger is clustered in blocks, and the distributed validation of blocks is based on a proof-of-work protocol. Ethereum could be used as a payment system, but it was not conceived as such. Instead, the intention was to create a protocol for building decentralised applications (Raval 2016).

4.1.2.4 Decentralised applications

A decentralised application (DApp) is computer software that runs on a network of computers, linked by a public blockchain. The core of a DApp is a smart contract (or a set of smart contracts). The term “smart contract” was not coined by lawyers but by computer engineers. A smart contract is computer code that represents a business logic to be executed on the nodes of the underlying blockchain network. As an integral component of a DApp, a smart contract gets triggering external information from so-called “oracles” that confirm real-world occurrence (e.g. the clearance of imported goods by customs). The computer code then executes single or compound transactions (e.g. the payment of customs duties, the exchange of local to foreign currency, the payment to the exporter in foreign currency). This happens unstoppably in the so-called “Ethereum Virtual Machine” installed on all network nodes.

DApps can run on the Ethereum blockchain or create their own. Tokens are required to get access to DApps, and a transaction fee has to be paid in ETH for the use of the Ethereum blockchain. The structures of the Bitcoin and Ethereum blockchains are the same, but their purposes (and business models) are different. The two major differences relate to the crypto-coins and the contents of blocks. The coins in Bitcoin are financial assets that are transferred between users of the system. The coins in Ethereum are internal “crypto-fuel” (called “gas”) to pay the fees for using the blockchain. The data in Bitcoin blocks are transaction details; the data in Ethereum blocks are code of smart contracts or DApps.

4.1.2.5 Tokenisation

The Ethereum system has made it easy to create token-based applications (DApps) that run on the Ethereum blockchain or their own blockchain within the Ethereum ecosystem. Crypto-coins were initially digital representations of fiat money, but it was soon realised that probably all tangible and intangible real-world objects that can be owned could be digitally represented: “Tokenization is the process of converting some form of asset into a token that can be moved, recorded, or stored on a blockchain system” (Dale 2018). Tokenisation can increase the tradeability and liquidity of real assets, and it can make investing in real-world assets more convenient and efficient. For example, tokens do not have to represent complete ownership of an asset but could represent a fractional part of an asset. Partial ownership makes tangible assets divisible.

More important, tokens are not restricted to ownership rights of existing real-world assets. They can also represent ownership or user rights of future assets which are still in a (sometimes very) early stage of development, such as a new software architecture for smart contracts or a blockchain-based online game. This comes up to a “tokenisation of ideas” and the creation of a new asset class with potentially high risks for investors.

4.1.2.6 Initial coin offerings (ICOs)

The creation of tokens has become the funding method of choice for a large number of FinTech start-ups on a massive scale in 2017, generally known as “initial coin offerings” (ICOs), “token sales” or “token generation events” (TGEs).

In an ICO the public buys tokens from a company – mostly a FinTech start-up – which represent neither ownership rights nor a loan that has to be paid back in the future. The investors get a digital asset (token) which rarely, if ever in an ICO, represents fractional ownership of a real-world asset. Typically, the token is the currency of the issuer’s blockchain or represents a claim to a (future) service provided by the issuer (Lewis 2018, part 5). The issuing company publishes a white paper that outlines the envisaged technology or application and the basics of the business plan. There is nothing like a prospectus liability in an IPO.

However, the legal and regulatory status of ICOs is changing in many jurisdictions where tax authorities and securities commissions have started to examine whether token sales are in substance sales of securities to which regulations apply which in the past have been bypassed.

A massive increase of ICOs happened in 2017 in parallel with the explosion of the US Dollar value of Bitcoins and other cryptocurrencies. This has most probably impacted the motivations of crowd-investors and initiators of ICOs, but it also raised concerns about a very high percentage of ICOs being scams and fraud (Dickson 2017, Roberts 2018, Seth 2018).

The initiators of ICOs have realised the limited business expertise of the crowd, but also a somewhat limited technical understanding of many early adopters who, to a large extent, are retail investors. There is significant information asymmetry between fund providers and fund seekers. Initiators of ICOs have aligned the fundraising targets correspondingly: The targets became less determined by the financial needs of a project than by what the (ill-informed) market was willing to pay. The collection of “generous” amounts is rather risk-free for issuers because tokens “do not represent any underlying asset, they do not give rights to a dividend, and no equity is represented through them” (Vollstädt 2015). Serious consumer protection issues have spawned tougher regulations of ICOs in a growing number of jurisdictions.

4.1.3 Applications of blockchain and DLT from the regulatory perspective

The focus of regulators is not on the blockchain or DLT as such, but on applications based on these technologies. Applications that may impact the stability of the financial system or cause major consumer protection issues are related to (a) payments and private money, and (b) investments in crypto-assets.

4.1.3.1 Cryptocurrencies for payments and as private money

Bitcoins are cryptographic tokens designed to function as a medium of exchange in an electronic payment system with the aim to become an alternative to fiat money provided by the state and commercial banks. Cryptocurrencies have not achieved this goal. International standard setters such as the Financial Stability Board (FSB) and the Basel Committee for Banking Supervision (BCBS) point out that cryptocurrencies have not become a reliable medium of exchange or store of value, which are basic functions of money.

Macroeconomic Stability: In practice, cryptocurrencies are rarely used for payments and settlements, and the size of the crypto-asset market is relatively small. For example, by 4 October 2018, the market capitalisation of crypto-assets was about 1% of the market cap of S&P 500 (FSB 2018b, 10), and even at its peak, the global market value was less than 1% of global GDP (FSB 2018a). The market capitalisation of all cryptocurrencies came down to around USD 130 billion (January 2019). The broad money (M3) in the US is more the 100 times this size (USD 14 trillion).

Noting the limited interconnectedness between crypto-assets and the regulated financial system, the FSB (2018b, 1) concludes that “crypto-assets do not pose a material risk to global financial stability at this time”. As this may change in the future, the FSB will monitor the crypto-asset market.

Money Laundering and Financing of Terrorism: The anonymity (or pseudonymity) of cryptocurrency payments and the ease of cross-border transfers make cryptocurrency systems susceptible to money laundering and the financing of terrorism. The key issue for regulators is to make existing AML/CFT rules and regulations applicable to cryptocurrencies, which factually means to regulate the so far unregulated providers of blockchain-based financial services such as payment service providers, trading platforms (when they are in control of the users’ funds and operate as custodial exchanges) and cryptocurrency brokers. The focus in the past was on points where fiat money enters and exits the cryptocurrencies realm, while service providers that operate exclusively inside the crypto world were often disregarded (CipherTrace 2019, 14–26).

This focus changed when the Financial Action Task Force (FATF) added in October 2018 a paragraph to its recommendation no. 15 on new technologies: “To manage and mitigate the risks emerging from virtual assets, countries should ensure that virtual asset service providers are regulated for AML/CFT purposes, and licensed or registered and subject to effective systems for monitoring and ensuring compliance with the relevant measures called for in the FATF Recommendations” (FATF 2018a, 15). It was clarified that a virtual asset service provider is any natural or legal person who conducts one or more of the following businesses: “i. exchange between virtual assets and fiat currencies; ii. Exchange between one or more forms of virtual assets; iii. Transfer of virtual assets; iv. Safekeeping and/or administration of virtual assets or instruments enabling control over virtual assets; and v. Participation in and provision of financial services related to an issuer’s offer and/or sale of a virtual asset” (FATF 2018a, 125). It captures not only the interfaces between the real and the crypto world, including providers of financial services related to ICOs, but also businesses operating purely in the crypto world, such as crypto-asset transmitters and exchanges for different kinds of virtual assets and cryptocurrencies. It follows that virtual asset service providers should be licensed or registered, apply all AML/CFT measures such as customer due diligence, record keeping, reporting of suspicious transactions, and should be monitored for AML/CFT compliance (see FATF 2018b). Compliance with the stricter AML/CFT rules shall be enforced from 2020 on.

Miners may not be considered “virtual asset service providers”, but as users of the cryptocurrency systems (as under US federal regulations). This leaves a possible gap in the CFT system: terrorists could bring significant hash power under their control and exchange the mined cryptocurrencies for fiat money to finance activities in the real world. It may be very difficult and not rewarding for Bitcoin but much easier for smaller cryptocurrencies. Since mining is legal, cross-chain platforms can be used for uncontrolled conversions, finally into fiat money.

Limitations of Cryptocurrency Transactions for Consumer Protection: During the 2017 hype, a large number (if not the vast majority) of people bought cryptocurrencies not for payment purposes but as (speculative) investments. Many (but not all) regulators – including more than 13 from Muslim jurisdictions – issued warnings that the central bank does not back cryptocurrencies, that their prices are highly volatile, and that the investors could lose their total capital. The CPMI (2015, 12–13) has outlined different approaches and types of regulatory action for systemic risk mitigation and consumer protection which are applied in practice.

The least restrictive approach for regulatory action for consumer and investor protection is moral suasion and information policy by, for example, the publication of information notes for buyers and investors or the issuance of public risk warnings. Most regulatory authorities have taken this type of action, including Muslim countries such as Azerbaijan, Bahrain, Brunei, Egypt, Jordan, Kyrgyzstan, Lebanon, Malaysia, Oman, Qatar, Saudi Arabia, Tajikistan and Uzbekistan.

The most restrictive approach is the prohibition of cryptocurrencies in general or in a specific context. A general ban of cryptocurrencies by declaring their holding or use illegal was imposed by Algeria, Bangladesh, Indonesia, Iraq, Morocco and Bahrain, plus Qatar for local transactions. Other rather general measures (for which no Muslim country examples are available) include a ban on cryptocurrency exchanges or a ban on Bitcoin mining (as in China). Prohibitions in a specific context and restrictions are, for example, amount caps for cryptocurrency transactions of retail clients or the prohibition of ICOs (Pakistan).

4.1.3.2 Investments in crypto-assets

Regulators see cryptocurrencies increasingly not only as means of payment in the real and crypto world but as a new asset class that has become appealing not only to retail investors but also to banks and institutional investors. The regulatory and tax environment for crypto-coins and tokens has changed recently.

4.1.3.2.1 Tokens as securities

Crypto-coins and tokens are digital objects which are in demand and traded. Hence, they have a value and can be considered financial assets. There are three major (not mutually exclusive) motivations for the purchase of these financial assets in an ICO which are relevant for their regulatory classification and tax treatment: (a) They can be bought to pay for goods and services outside the crypto world – i.e. the tokens would be used as an alternative for fiat money. These are “currency tokens”. (b) They can be bought to pay for services inside the crypto world – i.e. the tokens would be entry or usage tickets for blockchain-based services. These are “utility tokens”. (c) They can be bought to profit from increasing prices – i.e. the tokens would be (speculative) investments. These are “security tokens”.

According to US law, “investment contracts” are considered securities, and they are subject to registration and disclosure requirements. The sale of tokens may be qualified as an investment contract. If this happens, issuers of tokens are subject to registration and disclosure requirements. The US Securities and Exchange Commission (SEC) follows the principle “form should be disregarded for substance” and applies the so-called Howey test to determine whether “an investment in a common venture [is] premised on a reasonable expectation of profits to be derived from the entrepreneurial or managerial efforts of others” (SEC 2017, 11). If a start-up sells tokens to fund a project that is an early stage (say, only a concept paper exists), then it does not matter whether the concept paper calls the offered tokens “utility tokens” (= form). The regulator will look at the arrangement and most probably will see that retail investors have funded the project in the expectations of profits (from increasing token prices) but cannot themselves make any significant contribution to the success of the project. Hence, the expected profits are due to the efforts of others (= substance). Consequently, the token sale generates investment contracts, and regulations for the issuance of securities apply.

Other jurisdictions do not have a Howey test to determine whether an ICO generates securities, but the underlying issue nevertheless exists. National laws contain definitions of types of financial instruments with features that can also be found in tokens, and organisers of ICOs have to find out whether their tokens would fall under the definition of such an instrument. In Europe, for example, tokens could fall under the definition of a collective investment scheme or an alternative investment fund. It depends on the structure of the token and the overall context, including the stage of the project development and the prospective users after completion. It is often demanded that the interpretation of existing laws and regulations by an authorised body should clarify whether and how they do apply to the crypto world in order to reduce uncertainties and risks for consumers and investors as well as crypto-businesses. Of particular relevance is the clarification of the legal status of DLT in general and smart contracts in particular. Furthermore, practitioners have requested competent staff in regulatory authorities, efficient processes and fair tax treatment.

4.1.3.2.2 Regulating crypto-assets

Crypto-assets typically come into existence by an ICO. Although particulars of securities regulations differ among jurisdictions, they may apply, among others, the following to ICOs: (a) registration or licensing of the organiser of the ICO, which may include fit-and-proper tests and the presentation of financial data of the issuer, and which can be lengthy, complicated and expensive; (b) presentation of technical and commercial information to the investors, maybe in the format of a product disclosure sheet or even a prospectus; and (c) a risk assessment which may lead to a classification as high-risk security that must not be offered to retail investors but only to institutional investors and high-net-worth individuals with an “accredited investor” status.

The International Organization of Securities Commissions (IOSCO) “has established an ICO Consultation Network to discuss experiences and concerns regarding ICOs, and is developing a Support Framework to provide a resource for members in considering how to address domestic and cross-border issues stemming from ICOs that could impact investor protection” (FSB 2018b, 14). IOSCO has compiled a webpage with links to regulators’ statements on ICOs.

Once crypto-assets are created, financial institutions may get exposed to them unless national authorities ban regulated financial institutions (banks and payment service providers) from trading or investing in cryptocurrencies (such as Iran, Kuwait, Kazakhstan [announced], Pakistan, UAE), or structuring and trading cryptocurrency-based financial instruments. The rationale for such bans is the high risks of this immature and evolving asset class.

In the first quarter of 2018, the FSB (2018a, 2018b) had discussed potential risks that crypto-assets could pose for the stability of the financial system. Four types of potential risks were highlighted: (a) a market liquidity risk due to a relatively small number of active market participants, a high concentration of crypto-asset ownership and susceptibility for price manipulations; (b) a high volatility risk; (c) a leverage risk when crypto-asset purchases are financed by debt; and (d) technical and operational risks, including cybersecurity risks. Due to the relatively small size of the crypto-asset market in general and the very limited exposure of banks to crypto-assets, the FSB concluded that

a material risk did not exist at that time. However, the FSB and the CPMI developed jointly a framework and metrics for monitoring and identification of any emerging financial stability concerns (FSB 2018c).

One year later, the BCBS toughened its stance on crypto-asset risks in view of continued growth of crypto-asset trading platforms and new financial products related to crypto-assets. The BCBS expects from banks that acquire crypto-asset exposures or provide related services the following prudential measures as a minimum (BCBS 2019):

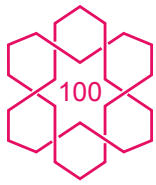
- *Due diligence:* The bank should have the technical capacity to conduct a comprehensive analysis of liquidity risks, credit risks, market risks, operational risks, money laundering and terrorist financing risks, and legal and reputation risks.
- *Governance and risk management:* The risk management framework shall be appropriate for the risks of its crypto-asset exposures and related services. The anonymity of many crypto-assets requires special attention concerning AML/CTF, evasion of sanctions, and heightened fraud monitoring. The board and senior management shall be involved in the risk assessment and management. The results of the risk assessment shall be incorporated into the internal capital and liquidity adequacy assessment of the bank.
- *Disclosure:* Any material crypto-asset exposures or related services and the respective accounting treatment shall be disclosed.
- *Supervisory dialogue:* The supervisory authority shall be informed by the bank promptly about actual and planned crypto-asset exposures and activities, about the assessment of their permissibility and risks, and the bank’s risk mitigation.

The BCBS “will in due course clarify the prudential treatment of such exposures to appropriately reflect the high degree of risk of crypto-assets” (BCBS 2019).

4.1.4 Blockchain-based Islamic financial services

The number of FinTech start-ups in Islamic finance is continuously growing, but most reported projects are not blockchain-based; rather, they are platform applications such as group lending or equity crowdfunding schemes, or are at best loosely related to Islamic finance such as blockchain-based *halāl* certification schemes or blockchain-powered *zakāh* systems. The following list of blockchain-based Sharī’ah-compliant financial services gives an idea of the broad range of blockchain and DLT applications in Islamic finance.

- Stellar is a decentralised payment system built around a permissioned blockchain that has been certified as Sharī’ah compliant. The certifying Sharī’ah advisory considered blockchain as technology and argued that the use of the tool, not the tool itself, needs to be assessed for Sharī’ah compliance.



- Ripple could be added as another DLT-based payment system. It may not have an explicit Sharī'ah-compliance certificate,¹¹⁶ but the fact that three major Islamic banks are using the system suggests that the Sharī'ah bodies of these financial institutions have not found any significant non-compliance.
- Noorcoin advertises itself as the “First Sharī'ah Token in the World”. In substance, Noorcoin tries to build a kind of shopper's club with a tied-in rating system for merchants and buyers.
- Jakarta-based Blossom Finance announced the opening of a publicly available Bitcoin and Ethereum Islamic microfinance fund, as well as the creation of a blockchain-backed Smart *Ṣukūk* platform, in May 2018. *Ṣukūk* ownership shall be represented by standardised digital tokens which shall be allocated and managed by smart contracts and stored on a blockchain. The tokens shall be tradeable globally on many crypto-asset exchanges.
- The “Waqf Chain” is an application that shall run on the Finterra blockchain-based ecosystem. It is in substance a blockchain-backed crowdfunding system for investments in development projects for existing waqfs.
- ADAB Solutions aims to be the First Islamic Crypto Exchange (FICE) that ascertains that all cryptocurrency transactions on its platform will be Sharī'ah compliant.
- The X8Currency token (X8C) is a cryptocurrency that is 100% backed by eight highly liquid international fiat currencies and gold. By this, the token becomes a stablecoin whose value is stabilised with minimal volatility against the basket of backup assets (Durr 2018), and it is redeemable in fiat currency at the issuer.
- Goldmoney (Canada), OneGram (Dubai, UAE), HelloGold (Malaysia) and Emergent (California, USA) apply blockchain technologies for Sharī'ah-compliant gold trading, investing, and/or gold-backed cryptocurrencies.
- Emirates NBD (Dubai, UAE) applies blockchain technology to improve security standards in banking, particularly to combat cheque-related fraud.
- Al Hilal Bank (Abu Dhabi, UAE) has used blockchain technology for the resale and settlement of a *ṣukūk*. The bank applied smart contracts to enhance the transactional efficiency.
- The Islamic Corporation for the Development of the Private Sector (ICD) (Saudi Arabia) signed an agreement with I-FinTech Solutions (IFTS) in Tunisia to develop, among other things, a blockchain-based real-time transactional platform to facilitate commodity *murābahah* transactions to solve interbank issues between conventional and Islamic banks in a Sharī'ah-compliant manner.
- The International Federation of Red Cross and Red Crescent Societies (Switzerland) has partnered with

AIT Tech and INCEIF for the development of an online blockchain application that promotes the traceability and transparency of Islamic social financing. It seemingly builds on a blockchain-based Islamic social finance app for tracking *zakāh* and *ṣadaqāt* contributions that shall be launched in 2019 (Noordin 2018).

4.1.5 Conclusion

Blockchain and DLT found their way into Islamic finance. Smart contracts can automate the execution of Sharī'ah contracts (e.g. *murābahah* contracts in trade financing) and minimise the risk of procedural errors. Although most current blockchain applications still follow conventional peers, some pave the way for genuine innovation in Islamic finance. Smart *ṣukūk* and the use of blockchains for the traceability and transparency of *zakāh* and *ṣadaqah* funds in highly complex humanitarian settings are promising approaches.

Like their conventional counterparts, Islamic blockchain and DLT applications would benefit from clear and supportive AML/CFT, prudential and consumer/investor protection regulations – given that transparency and accountability are highly regarded in Islamic finance.

For Islamic blockchain applications that follow conventional peers, all conventional prudential and consumer/investor protection regulations should apply, and two additional aspects should be considered: (a) Consumer/investor protection should focus not only on financial interests but also on the claim of Sharī'ah compliance. For institutions that are not subject to an explicit and comprehensive Sharī'ah governance system, regulations might prescribe Sharī'ah certification procedures or disclosure requirements. (b) At present, no consensus has emerged on the Sharī'ah qualities of different types of blockchain-based crypto-assets. Islamic banks may recognise certain types of crypto-assets as Sharī'ah compliant that others reject (e.g. due to stricter requirements regarding tolerable elements of *gharar*, *maysir* and *ribā*). Being exposed to contentious assets may imply higher risk and lower liquidity for Islamic banks because conventional banks do not face a Sharī'ah non-compliance risk and can find more trading partners for these crypto-assets. The BCBS recommendation that results of the risk assessment shall be incorporated into the internal capital and liquidity adequacy assessment of a bank would imply a disadvantage for Islamic banks as long as no consensus on Sharī'ah qualities of crypto-assets has emerged. It seems that blockchain and DLT in Islamic finance pose greater challenges to Sharī'ah experts than to regulatory authorities.

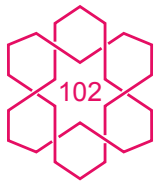
Most of the innovative Islamic blockchain applications (currently dealing with *zakāh*, *ṣadaqah* and *waqf*) fall into the category of Islamic Social Finance (ISF) to which banking and capital market regulations do not fully apply. The IFSB will issue a *Technical Note on Financial Inclusion and Islamic Finance* that explicates the principles of regulatory proportionality which may also be applicable to innovative ISF blockchain realms with only limited linkages to the commercial Islamic finance industry.

¹¹⁶ Given that the full Ripple solution may not be Sharī'ah-compliant, Islamic banks do not use the Crypto-assets component of Ripple (XRP). Rather, they only use the P2P connectivity component (Xcurrent) which is Sharī'ah-compliant for their own specific use cases. The Saudi Authority Monetary Authority (SAMA) is currently working on preparing a comprehensive regulatory framework for Crypto-assets to facilitate its development in the Saudi market.



REFERENCES

- Au, Sean and Power, Thomas (2018): *Tokenomics: The Crypto Shift of Blockchains, ICOs, and Tokens* (Birmingham and Mumbai: Packt).
- BCBS – Basel Committee on Banking Supervision (2019): “Statement on crypto-assets”, *Newsletter*, 13 March 2019, https://www.bis.org/publ/bcbs_n121.htm.
- Buntinx, J.P. (2018): “Bitcoin is halal under the laws of Islam”, *NewsBTC*, 8 February 2018, <https://www.newsbtc.com/2018/02/08/bitcoin-is-halal-under-the-laws-of-islam>.
- CipherTrace (2018): *Cryptocurrency Anti-Money Laundering Report – Q3 2018*, October 2018, <https://ciphertrace.com/crypto-aml-report-2018q3>.
- CipherTrace (2019): *Cryptocurrency Anti-Money Laundering Report – Q4 2018*, January 2019, <https://ciphertrace.com/crypto-aml-report-2018q4>.
- CPMI – Committee on Payments and Market Infrastructures (2015): *Digital Currencies*, November 2015, <https://www.bis.org/cpmi/publ/d174.pdf>.
- Custodio, Maricel (2019): “Blockchain startup EmTech granted Sharia certification for gold supply chain platform”, *BlockTribune*, 27 January 2019, <https://blocktribune.com/blockchain-startup-emtech-granted-sharia-certification-for-gold-supply-chain-platform>.
- Dale, Oliver (2018): “What is tokenization? Real-world assets on the blockchain”, *Blockonomi*, 31 July 2018, <https://blockonomi.com/tokenization-blockchain>.
- Dannen, Chris (2017): *Introducing Ethereum and Solidity* (New York: Apress).
- Dickson, Ben (2017): “Can you trust crypto-token crowdfunding?”, *TechCrunch*, 12 February 2017, <https://techcrunch.com/2017/02/12/can-you-trust-crypto-token-crowdfunding>.
- Durr, Christopher (2018): “Overview of stablecoins”, *Hackernoon*, 6 June 2018, <https://hackernoon.com/overview-of-stablecoins-2e4ffef82a73>.
- EBA – European Banking Authority (2019): *Report with Advice for the European Commission on Crypto-assets*, 9 January 2019, <https://eba.europa.eu/documents/10180/2545547/EBA+Report+on+crypto+assets.pdf>.
- FATF – Financial Action Task Force (2014): *Virtual Currencies – Key Definitions and Potential AML/CFT Risks*, FATF Report, June 2014, <https://www.fatf-gafi.org/media/fatf/documents/reports/Virtual-currency-key-definitions-and-potential-aml-cft-risks.pdf>.
- FATF – Financial Action Task Force (2018a): The FATF Recommendations, Adopted by the FATF Plenary in February 2012, Updated October 2018, www.fatf-gafi.org/media/fatf/documents/recommendations/pdfs/FATF%20Recommendations%202012.pdf.
- FATF – Financial Action Task Force (2018b): Regulation of Virtual Assets, 19 October 2018, www.fatf-gafi.org/publications/fatfrecommendations/documents/regulation-virtual-assets.html.
- FSB – Financial Stability Board (2018a): Chair’s Letter to G20 Finance Ministers and Central Bank Governors, 13 March 2018, www.fsb.org/wp-content/uploads/P180318.pdf.
- FSB – Financial Stability Board (2018b): Crypto-asset Markets – Potential Channels for Future Financial Stability Implications, 10 October 2018, www.fsb.org/wp-content/uploads/P101018.pdf.
- FSB – Financial Stability Board (2018c): Crypto-assets – Report to the G20 on Work by the FSB and Standard-Setting Bodies, 16 July 2018, www.fsb.org/wp-content/uploads/P160718-1.pdf.
- Hurst, Samantha (2017): “Goldmoney’s network accounts & wealth holdings receive compliant endorsement by Shari’ah Supervisory Board of Amanie Advisors”, *Crowdfund Insider*, 24 January 2017, <https://www.crowdfundinsider.com/2017/01/95144-goldmoneys-network-accounts-wealth-holdings-receive-compliant-endorsement-Shari-ah-supervisory-board-amanie-advisors>.
- Lewis, Antony (2018): *The Basics of Bitcoins and Blockchains* (Coral Gables: Mango Publishing).
- Lielacher, Alex (2017): “Bitcoin and Sharia compliance: How FinTech is Bitcoin?”, *BTCManager*, 28 February 2017, <https://btcmanager.com/Bitcoin-and-sharia-compliance-how-halal-is-Bitcoin>.
- Mohamed, Hazik and Ali, Hassnian (2019): *Blockchain, FinTech, and Islamic Finance* (Boston and Berlin: Walter de Gruyter).
- Mora, Camilo et al. (2018): “Bitcoin emissions alone could push global warming above 2°C”, *Nature Climate Change*, 29 October 2018, <https://doi.org/10.1038/s41558-018-0321-8>.
- n.a. (2018): “Is Islamic finance ready for cryptocurrencies?”, *IFN FinTech*, February 2018, www.ifnfin.tech.com/secure/admin/uploadedFiles/2018-q1-1545307645.pdf.
- Nakamoto, Satoshi [2018]: “Bitcoin – A Peer-to-Peer Electronic Cash System”, <https://bitcoin.org/bitcoin.pdf>.



Noordin, Khairani Afifi (2018): "Islamic Finance: Using blockchain to improve transparency of zakat process", *The Edge Markets*, 6 September 2018, <https://www.theedgemarkets.com/article/islamic-finance-using-blockchain-improve-transparency-zakat-process>.

Raval, Siraj (2016): *Decentralized Applications: Harnessing Bitcoin's Blockchain Technology* (Sebastopol, CA: O'Reill).y

Roberts, Jeff John (2018): "Ethereum founder warns of ICO scams", *Fortune*, 4 January 2018, <http://fortune.com/2018/01/04/ico-scam>.

Schoenberg, Tom and Robinson, Matt (2018): "Bitcoin ATMs may be used to launder money", *Bloomberg Businessweek*, 14 December 2018, <https://www.bloomberg.com/features/2018-Bitcoin-atm-money-laundering>.

SEC – Securities and Exchange Commission (2017): Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: The DAO, Release No. 81207, 25 July 2017, <https://www.sec.gov/litigation/investreport/34-81207.pdf>.

Sedgwick, Kai (2018): "No, Visa doesn't handle 24,000 TPS and neither does your pet blockchain", *Bitcoin.com*, 20 April 2018, <https://news.bitcoin.com/no-visa-doesnt-handle-24000-tps-and-neither-does-your-pet-blockchain>.

Seth, Shobit (2018): "80% of ICOs are scams – report", *Investopedia*, 2 April 2018, <https://www.investopedia.com/news/80-icos-are-scams-report>.

The Law Library of Congress (2018): *Regulation of Cryptocurrency Around the World*, June 2018, <https://www.loc.gov/law/help/cryptocurrency/cryptocurrency-world-survey.pdf>.

Vollstädt, Erik (2015): "What are DApps?", *Bitnation*, 16 March 2015, https://blog.bitnation.co/what-are-dapps/?utm_source=dataflog&utm_medium=ref&utm_campaign=dataflog.

Wang, Aries Wanlin (2018): *Crypto Economy* (New York: Racehorse Publishing).

This page is left blank intentionally

This page is left blank intentionally